

Next Ord: 2004-22
Next Res: 1090-22

CITY COUNCIL AGENDA
February 23, 2022
6:00 PM
Sedro-Woolley Municipal Building
Council Chambers
325 Metcalf Street

- a. Call to Order**
- b. Pledge of Allegiance**
- c. Roll Call**
- d. Approval of Agenda**
- e. Consent Agenda**

Note: Items on the Consent Agenda are considered routine in nature and may be adopted by the Council by a single motion, unless any Councilmember wishes an item to be removed. The Council on the Regular Agenda will consider any item so removed after the Consent Agenda.

- 1. Possible Approval - Contamination Reduction and Outreach Plan (CROP) Amendment
- 2. Minutes from Regular City Council Meeting held February 9, 2022
- 3. Finance - Claims Checks and Payroll Checks
- 4. Resolution 1086-22, Terminating the Local Emergency Declared in Response to the COVID-19 Pandemic
- 5. Resolution 1087-22, City Council Governance Handbook Revision

- f. Introduction of Special Guests and Presentations**
- g. Staff Reports**
- h. Councilmember and Mayor's Report**
- i. Proclamation(s)**
- j. Public Comments**

Written comments or questions will be accepted by letter or via email at finance@ci.sedro-woolley.wa.us.

- k. Public Hearing(s)**
- l. Unfinished Business**

- 1. Review proposed amendments to the Skagit County Countywide Planning Polices
- 2. Proposed Preliminary Plat Approval for the Plat of Bucko Estates

- m. New Business**

- 1. Resolution Authorizing Staff to Apply for Grant Funding from the Washington State Recreation & Conservation Office for the Riverfront Park Kiwanis Fields Bleacher Project

- n. Information Only Items**

- 1. Fire Department Data
- 2. A win for the Skagit Watershed and an update on relicensing the Skagit River Hydropower Project
- 3. Building and Planning Permit Review Status

- o. Good of the Order**

p. Executive Session

1. Discussion regarding pending litigation pursuant to RCW 42.30.110(1)(i).

q. Adjournment

Next Meeting(s) March 2nd, 2022 Study Session

The City of Sedro-Woolley assures that no person shall on the grounds of race, color, national origin, sex, age, disability, income, or Limited English Proficiency (LEP) as provided by Title VI of the Civil Right Act of 1964, Title II of the American with Disabilities Act of 1990, and related nondiscrimination authorities, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any City of Sedro-Woolley sponsored program or activity. The City of Sedro-Woolley will make every effort to ensure non-discrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

Topic: Sedro-Woolley City Council Meeting

Join Zoom Meeting

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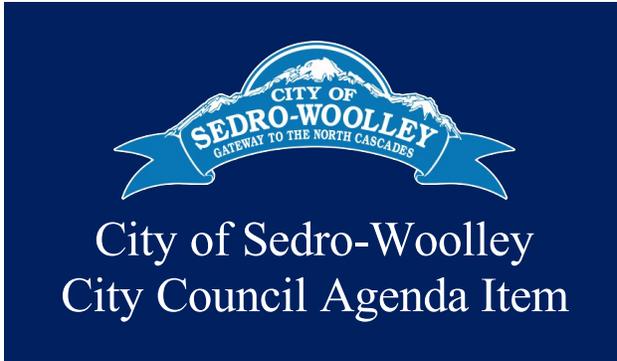
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Agenda
Item No. _____
Date: February 23, 2022
Subject: Possible Approval - Contamination
Reduction and Outreach Plan (CROP)
Amendment _____

FROM:

Leo Jacobs, Solid Waste/Fleet Supervisor

RECOMMENDED ACTION:

Move to approve Amendment 1 to the Recycling Contamination Reduction and Outreach Plan.

ISSUE:

Shall Council adopt Amendment 1 to the Recycling Contamination Reduction and Outreach Plan?

BACKGROUND/SUMMARY INFORMATION:

The state of Washington Dept of Ecology requires that any entity with a Solid Waste Management Plan (SWMP) must add the CROP amendment to its Plan. The city has adopted the Skagit County SWMP as its plan.

Skagit County has received conditional approval from the Department of Ecology for the Contamination Reduction and Outreach Plan (CROP) Amendment to the Skagit County Solid Waste Management Plan. The adoption of the CROP amendment is required by the Department of Ecology. This amendment has also been approved by the Skagit County Solid Waste Advisory Committee and by the Skagit County Solid Waste Governance Board. For final adoption, this plan must be approved by all municipalities in Skagit County.

Ecology encourages each participating municipality to approve the amended plan as quickly as possible.

Attached is Amendment 1 Recycling Contamination Reduction and Outreach Plan (CROP) as prepared by Skagit County in coordination with the Solid Waste Advisory Committee. Also attached is the conditional approval letter from the Department of Ecology.

I was part of a working group on the plan when it was being developed at Ecology so I am familiar with what they are trying to do with it.

The basics: The state wants to try to make sure we are only recycling what can be recycled with the current markets and that it fits with the rest of the programs in the area we are in. Almost a one size fits all approach but flexible.

As for the City of Sedro Woolley. I have been already going down the road. Our programs are managed very well with the staff taking an interest in making sure the recycling that people and companies and putting in their containers, is good recycling and when it's not good we make sure it goes to the landfill.

Another aspect of what this CROP does is there will be a lot of data collected which we have been doing for years, also there will be some various other aspects that will come out of this. Such as strategies for contamination reductions, which we already do very well as I said above with the drivers involvement. And some outreach to the public.

FISCAL IMPACT, IF APPROPRIATE:

No impact. The requirements of the CROP are already included in our Recycling program operations.

ATTACHMENTS:

1. Skagit County SWMP with Amendment 1
2. Ecology CROP Review Letter
3. Amendment 1 to the Recycling Contamination Reduction and Outreach Plan



SKAGIT COUNTY

SOLID WASTE

MANAGEMENT

PLAN

September 2017
Updated July 2021

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SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN

September 2017
Updated July 2021

Prepared for:

**Skagit County Public Works Department
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Prepared by:

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with assistance from:

Terrill Chang, B-Town Consulting

ACKNOWLEDGMENTS

This Skagit County Solid Waste Management Plan (SWMP) incorporates the modifications put into practice since the previous solid waste plan was published in 2008, while looking forward to the future needs of Skagit County. The Skagit County Department of Public Works would like to thank the following organizations, and those individuals who participated, for their assistance in the development of this SWMP:

- The cities and towns of Skagit County.
- The Skagit County Solid Waste Advisory Committee.
- Washington Department of Ecology staff.
- Skagit County Health, Planning and other departments.
- Skagit County's Solid Waste Division staff.

Several Skagit County residents also contributed to this document through comments provided during public meetings and through various other channels. The Board of County Commissioners and the Public Works Department gratefully acknowledge this input by the citizens.

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Contamination Reduction and Outreach Plan

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Skagit County Solid Waste Management Plan

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INTRODUCTION

1.1. ROLE AND PURPOSE

This Solid Waste Management Plan (SWMP) provides a guide for solid waste activities in Skagit County. This document was prepared in response to the Solid Waste Management Act, Chapter 70.95 of the Revised Code of Washington (RCW), which states:

“Each county within the State, in cooperation with the various cities located within such county, shall prepare a coordinated, comprehensive solid waste management plan” (RCW 70.95.080).

The Solid Waste Management Act also specifies that these plans must “be maintained in a current and applicable condition” through periodic review and revisions (RCW 70.95.110), hence the need for this update to the previous plan.

1.2. PARTICIPATING JURISDICTIONS

As indicated above, Chapter 70.95 RCW delegates the authority and responsibility for the development of solid waste management plans to the counties. State law allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

- by preparing their own plan for integration into the county’s plan,
- by participating with the county in preparing a joint plan, or
- by authorizing the county to prepare a plan that includes the city.

The cities have agreed to participate through an interlocal agreement (see Appendix A).

Other governing bodies (such as Tribes and Federal agencies) may participate in the County’s planning process or conduct their own planning process. The various Tribes in Skagit County generally use the County’s waste disposal facilities. Because this SWMP may impact their current and future solid waste management options, careful review of this plan is recommended for the Swinomish Tribal Community, and the Samish, Sauk-Suiattle, and Upper Skagit Tribes. Federal agencies with significant facilities and activities in Skagit County are also encouraged to review this plan because of the potential impacts on their operations.

1.3. REQUIRED MINIMUM CONTENTS OF PLAN

The minimum contents of this SWMP are specified by State law (RCW 70.95.090) and further described in the Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology (Ecology, February 2010). To summarize, solid waste management plans must contain:

- an inventory of existing solid waste handling facilities, including an assessment of any deficiencies in meeting current disposal needs.
- the estimated needs for solid waste handling facilities for a period of twenty years.
- a program for the development of solid waste handling facilities that is consistent with this SWMP and that meets the Minimum Functional Standards. The development program must also take into account land use plans; provide a six-year construction and capital acquisition program; and provide a financing plan for capital and operational costs.
- a program for surveillance and control.
- an inventory of solid waste collection needs and operations, including information on collection certificates (franchises), municipal operations, population densities, and projected solid waste collection needs for a period of six years.
- a comprehensive waste reduction and recycling element that provides for reduction of waste quantities, provides incentives and mechanisms for source separation, and provides opportunities for recycling source-separated materials.
- waste reduction and recycling strategies, including residential collection programs in urban areas, drop-off or buy-back centers at every solid waste handling facility that serves rural areas, monitoring methods for programs that collect source-separated materials from nonresidential sources, yard debris collection programs and education programs.
- an assessment of the impact that implementation of the recommendations will have on solid waste collection costs.
- a review of potential sites for solid waste disposal facilities.
- other details for specific programs and activities.

1.4. RELATIONSHIP TO OTHER PLANS

This SWMP must function within a framework created by other plans and programs, including policy documents and studies that deal with related matters. One of the more important of these documents is the Skagit County Comprehensive Plan (adopted in 1997 and most recently amended in 2016). Other important documents

that must be taken into consideration for solid waste planning include the 1992 Skagit County Moderate Risk Waste Management Plan, the Skagit County 2010 Climate Action Plan, city comprehensive plans, and several other local plans and reports.

1.5. PREVIOUS SOLID WASTE PLANS

Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008. Table 1-1 shows the recommendations from the most recent plan and the status of these recommendations. The current status indicates whether a recommendation has been accomplished or not, or if it is considered to be ongoing. A recommendation is shown as ongoing if it still being conducted (in other words, if it is an ongoing activity instead of a specific milestone or event). A few of the recommendations were determined to be unnecessary and so are shown as “not applicable” in Table 1-1.

1.6. SOLID WASTE ADVISORY COMMITTEE

The formation, membership makeup, and role of the Solid Waste Advisory Committee (SWAC) are specified by the 2008 Interlocal Cooperative Agreement between Skagit County and Cities and Towns in Skagit County for Solid Waste Management (as amended in 2010):

“12.1. Pursuant to Chapter 70.95.165(3) RCW and Chapter 39.34.030(4) RCW and Skagit County Code 12.18, a Solid Waste Advisory Committee shall continue operating for the purpose of rendering advice to Skagit County and the SWSGB regarding solid and moderate risk waste related issues generally, service levels, disposal rates, and short and long term planning, and especially the administration and implementation of the Comprehensive Solid Waste Management Plan.

12.2. Membership of the Solid Waste Advisory Committee shall be as follows:

- (1) Regular members. The Solid Waste Advisory Committee shall consist of:
 - (a) One member from each Party to this Agreement, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.
 - (b) One member from each Municipality in Skagit County which has its own Comprehensive Solid Waste Management Plan, to be nominated by

Table 1-1. Status of Recommendations from the Previous Solid Waste Plan	
Background Chapter	Current Status
B1) Prior to any substantial investments in Skagit County that depend on the composition of the waste stream, a detailed study shall be conducted for the waste to be handled.	Not Applicable
Waste Reduction	
WR1) Existing activities should be continued.	Ongoing
WR2) A measurement method is needed to determine the level of waste reduction and the County should monitor progress on the development of such methods.	Ongoing
WR3) The County should promote the establishment of a reusable building materials store.	Accomplished
Public Education	
PE1) Public education is an essential element of the solid waste management system, and the current level of effort must be maintained.	Ongoing
PE2) The County, contingent on the hiring of a new Recycling Coordinator, should investigate the potential for a local program to promote business waste diversion.	Not Accomplished
PE3) Public education activities discouraging illegal dumping need to be continued.	Ongoing
Recycling	
R1) Skagit County's goal should be to show continued improvement each year, with an eventual goal of 50% waste diversion (waste reduction, recycling and composting).	Ongoing
R2) Urban service areas for solid waste services should be based on the Urban Growth Areas (UGAs) identified by the County's Comprehensive Plan, and rural areas west of Highway 9 should receive the same level of service, including curbside recycling.	Ongoing
R3) The County should hire a Recycling Coordinator to assist with the implementation of the recycling and other recommendations.	Not Accomplished
R4) Any new solid waste handling facilities should be designed to provide the maximum practical level of recycling and diversion.	Accomplished
R5) Any proposals for mixed waste processing should be considered cautiously due to the history of problems and failures that have occurred with this technology.	Accomplished
Composting	
C1) Curbside yard debris collection should be offered in all UGAs and in the rural areas west of Highway 9.	Accomplished
C2) The County Recycling and Waste Reduction Educator should continue offering educational materials about home composting of food waste.	Ongoing
C3) Any proposals for food waste composting should be considered, subject to normal permitting requirements and compatibility with the System Policy.	Ongoing
C4) Any proposals for municipal solid waste composting should be considered cautiously due to the history of problems and failures that have occurred with this technology.	Not Applicable
Waste Collection	
WC1) The cities with municipal collections should consider adding every-other-week collection of one can of garbage as an option for residential customers, and also consider adding the option of one mini-can every-other-week.	Accomplished
WC2) Incentive rates for residential customers should be added in the Recycling Service Area. Additional incentives and rate structures should also be considered.	Not Accomplished
WC3) A summary of the minimum required service levels for garbage collection, recycling, and yard debris is shown in Table 6.2.	Ongoing
System Policy	
SP1) The Health Department shall continue to require ongoing contract compliance as a condition of the annual solid waste facility permit renewal requirements.	Ongoing
SP2) The County-owned transfer station is hereby designated as the only currently-approved municipal solid waste facility in Skagit County, and all municipal solid waste generated in Skagit County must be delivered there.	Ongoing

Note: The above recommendations have been abbreviated in some cases due to space constraints, see previous plan for full text of recommendations.

Table 1-1, continued. Status of Recommendations from the Previous Solid Waste Plan	
System Policy, continued	Current Status
SP3) Other solid waste handling or disposal facilities may be allowed in the future, but only after consultation with SWAC, and approval by Skagit County Solid Waste System Governance Board and in response to a procurement process conducted by Skagit County.	Ongoing
In-County Transfer	
T1) All residuals and other municipal solid wastes from recycling, composting, or other waste processing facilities operating in Skagit County must be delivered to the County-owned transfer station (RTS).	Ongoing
T2) Increased efficiencies and other improvements should continue to be examined for the two rural sites.	Ongoing
Waste Import and Export	
WE1) Any solid waste facility designated by the County to be within the System shall be required to dispose of waste at a county designated disposal facility.	Ongoing
In-County Landfilling	
L1) Old landfills that are known to exist throughout the County, and newly discovered dumps, must be further investigated to develop a better assessment of long-term liability, public and environmental health risks.	Ongoing
Regulation and Administration	
RA1) Penalties for illegal dumping should be increased and should include a requirement for violators to spend time on a litter crew.	Not Accomplished
Special Wastes	
S1) Ongoing efforts by Ecology and the Conservation District should be encouraged and supported as appropriate.	Not Applicable
S2) The local solid waste code should be updated to define where and how biomedical wastes can be handled at Skagit County facilities.	Not Accomplished
S3) The Skagit County Public Works Department, the Health Department and the cities (those that issue building permits) shall work together to determine the feasibility of greater control over disposal of C&D waste.	Not Accomplished
S4) Recognition programs should be considered for contractors with a proven history of proper disposal.	Not Accomplished
S5) Additional education should be conducted on the need for proper disposal and the problems associated with illegal dumping.	Not Applicable
S6) In the event of a disaster, this CSWMP recommends using public properties for temporary storage/staging areas, and further recommends recycling where feasible.	Ongoing
S7) This CSWMP recommends improved communications between the Health Department, other municipal agencies and garbage collectors dealing with improper disposal of grease.	Not Applicable
S8) The Conservation District and Department of Ecology should be encouraged to work with food processors to develop better methods for handling their waste streams.	Not Applicable
S9) Recycling of inert wastes should be encouraged.	Ongoing
S10) This CSWMP recommends in favor of adopting the local MRW code.	Accomplished
S11) A collection program should be developed to handle residential fluorescent bulbs.	Accomplished
S12) The cities, County and private operators should follow the guidelines for management of street sweepings as described in the Stormwater Management Manual for Western Washington: Volume IV.	Accomplished

Note: The above recommendations have been abbreviated in some cases due to space constraints, see previous plan for full text of recommendations.

the legislative authority for that Municipality and appointed by the County Commissioners.

(c) Three members, each representing the unincorporated area of one of the three County Commissioner districts. The three members shall be recommended by the County Commissioners. The County Commissioners shall recommend candidates representing a spectrum of citizens, public interest groups, and businesses. Candidates shall be residents of Skagit County or firms licensed to do business in Skagit County.

(d) Two members shall be selected, one to represent commercial solid waste collection firms; and one to represent commercial recycling firms. These members shall be recommended by the County Commissioners.

(e) One ex officio, non-voting representative from the Skagit County Public Works Solid Waste Section.

(f) One ex officio, non-voting representative from the State of Washington Department of Ecology.

(g) One ex officio, non-voting representative from the Skagit County Health Department.

(2) Auxiliary Members. The regular membership of the Solid Waste Advisory Committee may appoint auxiliary members for a specific time period to serve on the committee in a non-voting capacity, for the purpose of providing specific information, technical advice, and information of a general nature which is pertinent to the committee’s activities or any other form of assistance which will aid the committee in carrying out its purposes.”

Table 1-2. Membership of the Skagit County SWAC	
Members	Area of Representation
Matt Koegel, SWAC Chair	City of Anacortes
Brian Dempsey	City of Burlington
Andy Hanson	City of Mount Vernon
Leo Jacobs, Vice Chair	City of Sedro-Woolley
Torrey Lautenbach	District #1 Citizens
Tamara Thomas	District #2 Citizens
Vacant	District #3 Citizens
Tim Crosby	Haulers
Todd Reynolds	Recyclers
John Doyle	Town of La Conner
Ex-Officio	
Margo Gillaspay	Skagit County Public Works/Solid Waste
Britt Pfaff-Dunton	Skagit County Public Health
Diana Wadley	Department of Ecology

Current as of June 2016.

As required by State law, the Skagit County SWAC includes individuals representing various interests in solid waste issues. The members represent not only the interests of their respective agencies and businesses, but as residents and members of the community they also represent the public's interest. The SWAC functioned in a review and advisory capacity throughout the plan development process. The membership as of June 2016 and affiliations of the SWAC members are shown in Table 1-2.

A change in State law (signed by the Governor on March 31, 2016) now requires a representative of the agricultural community to be included on solid waste advisory committees, but as of early 2016 this new requirement had not yet been incorporated into the Skagit County SWAC's membership and rules.

1.7. PROCESS FOR UPDATING THE SWMP

The process of updating and adopting this SWMP consisted of the following steps:

- initial meetings were held with the SWAC and the Skagit County Governance Board to discuss the planning approach and the overall direction (vision) for the new plan.
- the chapters of the new plan were prepared and reviewed with the SWAC members and County staff.
- once each of the new chapters had been reviewed with the SWAC, the chapters were compiled into a complete draft for review and comment by the SWAC members and County staff.
- with the addition of a SEPA checklist and a Cost Assessment Questionnaire, this plan became the Preliminary Draft SWMP, which was released for public review.
- coincidental with the public review period, this SWMP was submitted to the Governance Board and the Board of County Commissioners for their approval of the plan's submittal for agency review.
- the SWMP was then submitted for agency review (review by Ecology, the UTC and the Department of Agriculture).
- the comments received on the Preliminary Draft will be reviewed with the SWAC and then incorporated into the plan to produce the Final Draft SWMP.
- the Final Draft will be provided to the cities, towns and Skagit County for adoption.
- after adoption, the Final SWMP will be reviewed by the SWAC.
- after SWAC review, the Final SWMP will be submitted to Ecology for final approval.
- after final approval by Ecology, the process of updating the SWMP will be completed and the implementation period for the new SWMP will begin.

1.8. GOALS OF THE SWMP

In addition to meeting the requirements of State law and other mandates, the goals established by the Skagit County SWAC for this update of the Solid Waste Management Plan are to (not listed in order of priority):

- maintain and improve a long-term stable solid waste management system.
- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- reflect a commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.
- assure consistency with the Skagit County Comprehensive Plan and other plans.
- address system needs for projected population growth.
- give particular attention to waste stream reduction, recycling and future disposal needs.
- incorporate flexibility to anticipate future needs.
- fully fund and staff the implementation of the SWMP.
- create a solid waste system that is transparent and encourages public participation.

These goals are intended to express the vision for the planning process and the plan itself, as well as provide a guide for the long-term (20 years) implementation of the plan's recommendations. Additional direction can be obtained from the mission statement for the Skagit County Solid Waste Division, which is "to provide for municipal and household solid waste disposal for the citizens of Skagit County in accordance with applicable laws and permits and as directed by the Board of Skagit County Commissioners."

1.9. ORGANIZATION OF THE SWMP

The SWMP is organized into the following chapters:

- Chapter 2: Background
- Chapter 3: Waste Reduction
- Chapter 4: Recycling
- Chapter 5: Organics
- Chapter 6: Waste Collection
- Chapter 7: Transfer and Disposal System

Chapter 8: Special Wastes

Chapter 9: Administration Regulation and Public Education

Chapter 10: Implementation Plan

Chapter 2 provides important information about demographics, waste quantities and other factors common to the remaining chapters. Chapters 3 through 9 address specific elements of Skagit County's solid waste management system in order to:

- review existing programs, activities and policies in Skagit County and the cities for each element of the solid waste system.
- identify needs, problems, or opportunities not addressed by existing activities and programs.
- identify and evaluate alternatives to meet the identified needs, problems and opportunities. Alternatives were rated low, medium or high for several criteria (including consistency with goals, feasibility, cost-effectiveness and potential additional waste diversion), and a decision made as to whether to pursue an alternative based on their overall rating (alternatives rated low overall were generally not pursued).
- recommend future programs or actions as appropriate to the needs and abilities of the County's and Cities' residents, businesses and service-providers.
- present implementation schedules and costs for the recommended programs and facilities.

The appendices to this plan contain information relevant to the planning process, including the interlocal agreements, a description of siting factors, the UTC Cost Assessment Questionnaire, a SEPA Checklist and resolutions of adoption.

1.10. STANDARD NOMENCLATURE USED IN THE SWMP

This SWMP attempts to provide a standardized approach for the use of capitalized letters when referring to government agencies, including:

- City: When capitalized, this refers to a particular city or cities. When not capitalized, it simply refers to cities or city authority in general.
- County: When not capitalized, this refers to counties or county authority in general. When capitalized, this refers specifically to Skagit County. In the latter case, the term may apply to the County government, to the unincorporated area outside of the City, or to the entire County (including the cities). Examination of the context should clarify the exact meaning of the term.
- Ecology: When capitalized, this refers to the Washington Department of Ecology.
- State, Federal and Tribes: These words are almost always capitalized, on the grounds that these almost always refer to a specific state government

(Washington State), as well as only referring to specific tribes and a specific national government.

This SWMP also uses standard nomenclature to distinguish between different types of solid waste and recycling containers. The term “drop box” is used only for solid waste, while “carts” or “containers” can be used for either recycling or waste. More information about the definitions for words used in this SWMP can be found in the Glossary.

BACKGROUND OF THE PLANNING AREA

2.1. INTRODUCTION

This chapter provides basic information on demographics and on the amount and composition of waste generated in Skagit County. This information is required by Ecology’s guidelines and it is used in several of the following chapters of this Plan. Additional information about the physical and environmental characteristics of the County, including information relevant to siting of solid waste facilities, is provided in Appendix B.

2.2. DEMOGRAPHICS

Current Population and Demographics

According to the Washington State Office of Financial Management, Skagit County had an estimated population of 119,500 people in 2014. The eight cities in Skagit County had 70,780 residents in 2014, or 59.2% of the total population. Table 2-1 shows the County’s population distribution for 2010 and 2014.

Table 2-1. Skagit County Population by Area				
Area	2010 Population	2010 Percentage	2014 Estimated Population	2014 Percentage
Incorporated Areas:				
Anacortes	15,778	13.5%	16,190	13.5%
Burlington	8,388	7.2%	8,445	7.1%
Concrete	710	0.6%	720	0.6%
Hamilton	301	0.3%	305	0.3%
La Conner	891	0.8%	895	0.7%
Lyman	438	0.4%	445	0.4%
Mount Vernon	31,743	27.2%	33,170	27.8%
Sedro-Woolley	10,540	9.0%	10,610	8.9%
Subtotal, Incorporated Areas	68,789	58.8%	70,780	59.2%
Unincorporated Areas	<u>48,112</u>	41.2%	<u>48,720</u>	40.8%
Total Population	116,901		119,500	

Source: Data is from April 1, 2014 Population of Cities, Towns and Counties, by the Washington State Office of Financial Management.

Future Population/Demographics

Evaluating growth trends in an area’s population is useful in determining future trends in solid waste generation. Table 2-2 shows historical and projected population figures for Skagit County. As shown in Table 2-2, the population of Skagit County is expected to increase significantly by 2040. The projected 2040 population of Skagit County (162,740 people) represents a 34% increase over the current (2015) estimated population.

Table 2-2. Skagit County Population Trends		
Year	Total Population	Annual Increase
Historical:		
1960	51,350	---
1970	52,381	0.2%
1980	64,138	2.2%
1990	79,545	2.4%
2000	102,979	2.9%
2010	116,901	1.4%
Projected:		
2015	121,620	0.8%
2020	128,250	1.1%
2025	136,410	1.3%
2030	144,950	1.3%
2035	153,630	1.2%
2040	162,740	1.2%

Sources: Historical data is from Intercensal Estimates of April 1 Population for the State and Counties, 1960-2010, by the Washington State Office of Financial Management. Projected data is from Projections of the Total Resident Population for the Growth Management Act, Medium Series, by the Washington State Office of Financial Management.

2.3. ECONOMY

Skagit County is well-known for agricultural activities, but actually has more jobs in retail, manufacturing and several other categories (see Table 2-3). Many of the jobs in the agricultural sector are seasonal, and in 2013 the number of jobs in this sector went from a high of 3,826 in August to a low of 2,086 in December. The public sector (government) is the single largest employer. The public sector includes police and fire departments, court, public health and several other functions. Skagit County has experienced steady growth in employment in the past few years but has yet to regain all of the jobs lost in the recession.

Table 2-3. Employment by Type of Business in Skagit County (2013)			
Business Type	Number of Employees	Percentage	Statewide Percentage
Agricultural, Forestry and Fishing	2,744	5.8%	3.2%
Mining	29	0.1%	0.1%
Utilities	178	0.4%	0.2%
Construction	2,690	5.7%	4.7%
Manufacturing	5,546	11.7%	9.6%
Wholesale Trade	1,224	2.6%	4.2%
Retail Trade	6,655	14.1%	11.0%
Transportation and Warehousing	1,171	2.5%	2.8%
Information	318	0.7%	3.6%
Finance and Insurance	1,524	3.2%	3.0%
Real Estate	439	0.9%	1.5%
Technical Services	1,309	2.8%	5.8%
Management Services	166	0.4%	1.3%
Administrative, Support, Waste Management	1,161	2.5%	4.9%
Educational Services	329	0.7%	1.3%
Health Care and Social Services	4,368	9.2%	11.4%
Arts, Entertainment and Recreation	600	1.3%	1.5%
Accommodation and Food Services	3,933	8.3%	8.0%
Other Services	2,033	4.3%	4.5%
Government	<u>10,856</u>	23.0%	17.5%
Total	47,272		

Source: Data is from the Employment Security Department and is for 2013. The number of employees shown are the annual averages.

2.4. QUANTITY AND COMPOSITION OF SOLID WASTE

An analysis of the current and future quantities of solid waste in Skagit County is necessary to provide the basis for determining solid waste handling needs for the next twenty years. Composition data is also helpful for this, and for evaluating existing waste diversion programs as well as designing new programs.

The total waste stream for Skagit County consists of many types of wastes. Almost all of the County’s wastes are handled through the Skagit County Transfer Station near Mount Vernon and transported to a large regional landfill in Klickitat County, Washington. Historically a small percentage of waste has “migrated” out of the County for various reasons, but in 2013 Skagit County Code 12.18 was updated to implement flow control and this has reduced this migration.

This SWMP focuses primarily on “municipal solid waste” (MSW), which are those wastes generated by residents and businesses and that are handled through the solid waste disposal system. Wastes generated by industrial and agricultural sources are generally included to the extent that these resemble MSW generated by residents and businesses, but some special wastes generated by industrial and agricultural sources are handled separately from the solid waste disposal system (such as sludges disposed by the refineries in their own landfills). Various other special wastes (such as tires, hazardous wastes, and biomedical wastes), some of which are not actually defined as solid wastes, may be handled through separate collection and disposal systems. Wastes require prior approval by the County to be handled separately.

Past and Present Solid Waste Quantities

The solid wastes disposed at Skagit County’s Transfer Station are brought there by a variety of customers, including a private hauler (Waste Management), three cities (Anacortes, Mount Vernon and Sedro-Woolley) and residential and commercial customers that are hauling their own wastes (“self-haul”). Waste from Burlington, which is collected by Waste Management through a contract with that city, is also tracked separately from the wastes collected by Waste Management in the towns and other unincorporated areas of Skagit County. Table 2-4 shows the amount of wastes from the various sources in Skagit County for 2013.

Table 2-4. Skagit County Waste Tonnages (2013)		
Source	Annual Tons	Percent
Cities	39,750	41.6%
Anacortes	7,137	7.5%
Burlington	9,617	10.1%
Mount Vernon	17,099	17.9%
Sedro-Woolley	5,898	6.2%
Waste Management (uninc. areas)	24,295	25.4%
Self-Haul	29,696	31.1%
Commercial Accounts	10,631	11.1%
Cash Customers (res. and comm.)	19,065	19.9%
Rural Drop Boxes	1,776	1.9%
Sauk	1,610	1.7%
Clear Lake	166	0.2%
Non-Revenue	84	0.1%
Litter and Illegal Dump Cleanup	84	0.1%
Recycling	(1,243)*	NA
Total	95,601	100%

Notes: Data is from Skagit County records. Tonnages are not shown for wastes from outside of Skagit County.
 * Recycling tonnages are not counted in total.

Skagit County’s waste stream has grown significantly in quantity over the past 30 years. Table 2-5 shows the annual waste quantities for this period and the amount of change from the previous year to the next year. These figures do not include the special wastes that are handled separately from the municipal solid waste stream (such as biomedical wastes) or waste amounts that were exported directly to out-of-county facilities.

As can be seen in Table 2-5, there have been significant fluctuations in the amount of wastes in some years. The most recent of these fluctuations occurred due to

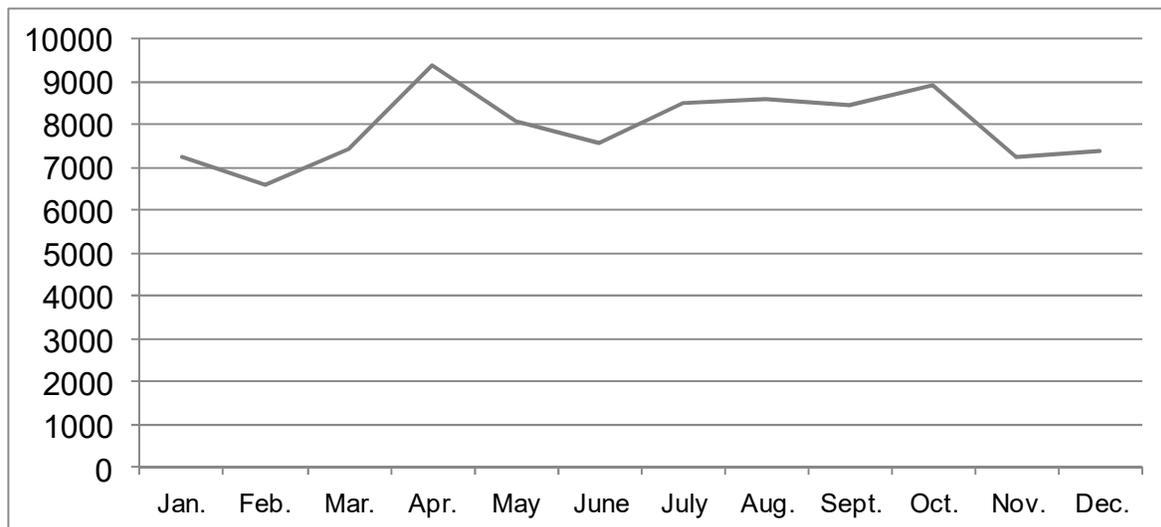
Table 2-5. Annual Disposal Tonnages		
Year	Total Waste, TPY	Percent Change
1984	42,072	--
1985	43,658	4%
1986	47,780	9%
1987	46,399	-3%
1988	57,703	24%
1989	58,943	2%
1990	61,058	4%
1991	52,705	-14%
1992	59,781	13%
1993	63,377	6%
1994	65,786	4%
1995	65,808	0%
1996	65,340	-1%
1997	67,056	3%
1998	70,705	5%
1999	78,901	12%
2000	83,249	6%
2001	86,650	4%
2002	90,037	4%
2003	93,507	4%
2004	98,036	5%
2005	100,452	2%
2006	101,486	1%
2007	106,786	5%
2008	95,859	-10%
2009	90,714	-5%
2010	90,066	-1%
2011	86,932	-3%
2012	87,321	0%
2013	93,189	7%
2014	99,189	6%

Source: Skagit County solid waste records.

the recession that began in 2008. Solid waste tonnages were lower until 2013 as a result of the recession, and have still not recovered to previous levels (although some of the decrease could be due to increased waste reduction and recycling activities).

The rate at which solid waste is generated varies throughout the year due to seasonal differences in residential and commercial activities. Data from Skagit County records shows that the amount of solid waste disposed in any one month in 2013 varied from a low of 6,619 tons in February to a high of 9,403 tons in April (see Figure 2-1). This is a typical pattern for many areas, with the lowest amounts of wastes being disposed in the winter months and the largest amounts being disposed in the spring and fall.

**Figure 2-1
Solid Waste, Tons per Month (2013)**



Current Recycling Levels

The most recent recycling survey conducted by Ecology shows that 76,169 tons of materials were recycled from Skagit County in 2013, which was less than in the previous two years. Table 2-6 shows the tonnages of materials recycled for the past five years (2009-2013), and the average of those five years.

The bottom section of Table 2-6 shows materials that are not defined as “recycling” and so cannot be included in the calculation of a recycling rate. These “diverted” materials, including materials burned for energy recovery and recycled construction materials, are being put to a beneficial use but simply are not included in the definition of recycling.

Table 2-6. Recycled and Composted Quantities by Material for Skagit County						
Material	Annual Tons					Five-Year Average
	2009	2010	2011	2012	2013	
Recycled Materials						
Cardboard	12,746	5,704	12,259	10,110	10,137	10,191
Newspaper	7,156	6,692	6,255	6,528	6,896	6,705
Other Recyclable Paper	6,703	4,307	5,715	5,626	5,446	5,559
PET Bottles	815	123	524	591	462	503
HDPE Bottles	174	122	115	2,984	215	722
Other Plastics	499	473	950	582	429	587
Glass	3,061	2,282	1,913	2,509	1,850	2,323
Aluminum Cans	268	119	272	227	226	222
Tin Cans	214	188	247	252	322	245
Appliances/White Goods	1,329	2,937	2,148	2,120	232	1,753
Ferrous Metals	17,874	22,854	36,873	27,082	21,452	25,227
Non-Ferrous Metals	4,053	744	18,157	2,011	3,098	5,613
Food Waste (Post-Consumer)	3,821	3,302	443	271	156	1,599
Yard Waste	7,221	2,882	4,798	4,593	6,844	5,268
Mixed Food/Yard Waste	0	6,970	7,323	5,810	6,895	5,400
Fats, Oils and Rendering	225	457	484	265	164	319
Textiles	1,155	538	609	1,047	195	709
Tires	723	742	795	883	478	724
Wood	700	1,261	7,778	6,448	6,609	4,559
Batteries, Auto Lead Acid	301	382	466	803	674	525
Electronics	874	53	92	580	440	408
Fluorescents	14	11	18	25	19	17
Used Oil	2,075	2,888	2,668	2,818	2,318	2,553
Other	<u>387</u>	<u>309</u>	<u>533</u>	<u>400</u>	<u>610</u>	<u>448</u>
Total Recycled	72,385	66,340	111,435	84,566	76,169	82,179
Diverted Materials						
Agricultural Organics	1,438	1,352	5,510	1,081	1,262	2,129
Antifreeze	142	203	145	115	149	151
Batteries (All Other)	3	2	3	131	170	62
C&D*	28,317	20,257	75,030	72,723	82,984	55,862
Food Processing Waste	321	1,200	1,084	4,349	2,364	1,864
Glass (for aggregate)	0	0	309	0	52	72
Landclearing Debris	327	47	174	0	0	110
Oil Filters	70	64	80	189	67	94
Reuse (clothing, household)	818	165	199	199	0	276
Tires (baled, burned, reused)	290	285	355	278	142	270
Wood (burned for energy)	9,235	2,410	6,224	53	55	3,596
Miscellaneous/Other	<u>9</u>	<u>0</u>	<u>2</u>	<u>4,628</u>	<u>6,399</u>	<u>2,208</u>
Total Diverted	40,971	25,984	89,114	83,746	93,643	66,692

Notes: All data is from the annual recycling survey conducted by Ecology.
 * "C&D" tonnages include asphalt, asphalt roofing, concrete and mixed C&D.

The data in Table 2-6 can be combined with disposal data to calculate the recycling rate for Skagit County (see Table 2-7). The recycling survey conducted by Ecology shows that 45.1% of Skagit County’s waste stream was recycled or composted in 2013. This figure is generally called a “recycling rate,” although it also includes composting. The figure is based on 76,169 tons reported as being recycled or composted in 2013, versus a total of 168,983 tons of MSW generated (i.e., MSW disposed plus the amount recycled).

Table 2-7. Recycling and Diversion Rates						
Material	Annual Tons					Five-Year Average
	2009	2010	2011	2012	2013	
MSW:						
Recycled Materials	72,385	66,340	111,435	84,566	76,169	82,179
MSW Disposed	<u>91,215</u>	<u>90,067</u>	<u>86,933</u>	<u>86,906</u>	<u>92,814</u>	<u>89,587</u>
Waste Generation (Recycled Amount + MSW Disposed)	163,600	156,407	198,367	171,472	168,983	171,766
Recycling Rate	44.2%	42.4%	56.2%	49.3%	45.1%	47.8%
All Wastes:						
Recycled Materials	72,385	66,340	111,435	84,566	76,169	82,179
Diverted Materials	<u>40,971</u>	<u>25,984</u>	<u>89,114</u>	<u>83,746</u>	<u>93,643</u>	<u>66,692</u>
All Recovered Materials	113,356	92,325	200,549	168,312	169,812	148,871
MSW Disposed	91,215	90,067	86,933	86,906	92,814	89,587
Other Wastes Disposed	<u>8,130</u>	<u>6,157</u>	<u>5,696</u>	<u>6,133</u>	<u>22,918</u>	<u>9,807</u>
Total Wastes Disposed	99,345	96,224	92,628	93,039	115,732	99,393
Diversion Rate	53.3%	49.0%	68.4%	64.4%	59.5%	60.0%
Pounds per Capita (MSW only):						
Population	116,612	116,901	117,400	117,950	118,600	
Recycled, pounds/person/yr	1,241	1,135	1,898	1,434	1,284	1,399
Disposed, pounds/person/yr	<u>1,564</u>	<u>1,541</u>	<u>1,481</u>	<u>1,474</u>	<u>1,565</u>	<u>1,525</u>
Generated, pounds/person/yr	2,806	2,676	3,379	2,908	2,850	2,924

Sources: All data (except the population figures) is from the annual recycling survey conducted by Ecology (see www.ecy.wa.gov/programs/swfa/solidwastedata/ for more information). Population data is from Projections of the Total Resident Population for the Growth Management Act, Medium Series, by the Washington State Office of Financial Management.

The data shown in Table 2-7 can also be used to calculate a “diversion rate,” which includes the diverted materials that are not counted as recycling. In this case, other types of waste that are not defined as MSW (such as industrial wastes) must also be included in the calculation.

There is little data available on the current levels of waste diverted by most forms of waste reduction, although a few categories of reuse are at least partially tracked. If all waste reduction activities and the missing recycling tonnages could be accounted for, the County's current diversion rate could be significantly greater.

Solid Waste Composition

Composition data for Skagit County's waste stream would be useful for designing solid waste handling and disposal programs. The most recent composition study performed in Skagit County was conducted in 1990. Significant changes have occurred since that study was conducted and hence it must be considered too outdated to be useful at this point. The best method for estimating the current Skagit County waste composition is to apply percentages from a waste composition study conducted for Snohomish County in 2008-2009. Table 2-8 shows the estimated waste composition for Skagit County based on this data.

Waste composition can be expected to change in the future due to changes in consumption patterns, packaging methods, disposal habits, tourism, the economy, and other factors. These changes are very difficult to predict in the long term. Furthermore, it is hoped that implementation of this SWMP will affect waste composition in Skagit County by changing purchasing and disposal habits.

Future Solid Waste Quantities

In Table 2-9, waste quantities have been projected using the current (2013) per capita generation rate multiplied by population forecasts for the County. The amounts of diverted materials and non-MSW types of solid waste are not included in these figures because these materials are typically handled outside of the County solid waste system. By using the current per capita rate without adjustments, the projected figures assume no change in the percentage of material recycled and reduced. While it could be assumed that the percentage of recycling will increase and that waste reduction will further decrease the amount of waste that is disposed, the projections shown in Table 2-9 provide a conservative baseline estimate for planning purposes. This approach also assumes no change in the amount of waste migrating to out-of-county facilities and other factors such as tourism remaining proportionate to increases in the general population.

Conclusions

Based on the projections shown in Table 2.9, the capacity of existing facilities and disposal systems (see Figure 2-2) is adequate to handle the needs of Skagit County through the planning period.

As mentioned above, the composition data for Skagit County is outdated by changes that have taken place in recent years. Performing a waste composition study or similar analysis of Skagit County's waste stream would be helpful, especially if

Table 2-8. Estimated Waste Composition in Skagit County					
Material	Entire Waste Stream, % by wt	Tonnages, 2014	Select Waste Streams, % by Wt.		
			Single-Family Homes	Residential Self-Haul	Commercial
Paper	18.4%	18,240	18.3%	12.3%	22.7%
Cardboard	3.7	3,670	1.3	3.8	5.0
Newspaper	1.2	1,210	1.3	1.1	1.0
Other Recy. Paper	6.4	6,310	7.7	4.9	5.6
Compostable Paper	4.9	4,850	5.7	1.1	7.7
Non-Recyclable Paper	2.2	2,200	2.2	1.5	3.2
Plastic	13.4	13,330	12.8	9.2	18.9
PET Bottles	0.8	790	1.0	0.5	0.8
HDPE Bottles	0.6	580	0.6	0.5	0.6
Film and Bags	5.0	5,000	6.0	1.9	7.0
Other Plastics	7.0	6,990	5.2	6.4	10.5
Glass	3.6	3,610	2.4	5.4	2.7
Clear Bottles	1.3	1,270	1.2	1.5	1.1
Green Bottles	0.5	540	0.5	0.6	0.4
Brown Bottles	0.6	570	0.4	0.7	0.5
Other Glass	1.2	1,230	0.4	2.5	0.8
Metals	7.2	7,120	7.0	11.8	6.0
Aluminum Cans	0.4	420	0.4	0.2	0.4
Tin Cans	0.7	730	1.1	0.4	0.6
Other Metals	6.0	5,970	5.5	11.2	5.0
Organics	16.9	16,770	28.4	7.0	15.4
Food Waste	14.6	14,510	26.2	5.5	13.1
Yard Debris	2.3	2,270	2.2	1.5	2.3
Other	21.3	21,100	29.2	20.6	15.4
Disposable Diapers	2.5	2,490	5.7	1.4	0.6
Textiles, Shoes	3.8	3,760	3.8	2.9	5.0
Tires, Rubber Products	0.3	250	0.2	0.3	0.3
Animal Excrement	2.7	2,720	7.2	2.3	0.3
Other Special Wastes	1.3	1,220	0.9	1.9	1.0
Other Materials	10.7	13,380	11.6	11.8	8.1
Wood, Const. Debris	19.2	19,020	1.8	33.8	19.0
Wood Waste	13.8	13,640	1.2	26.0	15.3
Construction Debris	5.4	5,380	0.6	7.8	3.7

Notes: Tonnages are based on Skagit County's 2014 disposed amount of 99,189 tons. Percentage figures are from the Snohomish County Waste Composition Study, April 2009.

Table 2-9. Projected Solid Waste and Recycling Quantities for Skagit County				
	2013	2015	2025	2035
Population	118,600	121,620	136,410	153,630
Recycled Amounts, tons/year	76,169	78,080	87,580	98,630
Disposed Amounts, tons/year	<u>92,184</u>	<u>95,170</u>	<u>106,740</u>	<u>120,200</u>
Total Waste Generated, tons/year	168,983	173,250	194,320	218,930

Source: Based on the per capita figures shown in Table 2-7 and population figures shown in Table 2-2.

programs or facilities are proposed that depend on the composition of the waste stream. A detailed local study would, however, would cost a substantial amount (\$150,000 to \$200,000) and so is not being recommended at this time. Prior to any substantial investments in Skagit County that depend on the composition of the waste stream, a detailed study should be considered.

**Figure 2-2
Location of Skagit County Solid Waste Facilities**



Map data © 2015 Google

WASTE REDUCTION

3.1. PREFACE TO THE WASTE REDUCTION, RECYCLING AND ORGANICS CHAPTERS

Introduction

This chapter and the following two chapters on recycling and organics describe existing programs and future plans for activities that reduce the amount of solid waste being generated or disposed in Skagit County. This chapter discusses waste reduction methods that reduce the amount of waste being generated, while the next two chapters discuss methods that reduce the amounts being disposed. In other words, waste reduction methods prevent wastes from being created, while recycling and composting handle materials after those have been created as a waste. Collectively, these approaches (waste reduction, recycling and composting) are known as “waste diversion” in this plan.

Purpose

Chapters 3, 4 and 5 provide an update of the County’s waste diversion methods and comply with State requirements regarding waste reduction and recycling opportunities and programs. The State requirements are shown in various sections of the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC). Additional guidance is also provided by Ecology’s solid waste planning guidelines and the Beyond Waste Plan. In 2010, RCW 70.95.080 was amended to include:

- “(1) When updating a solid waste management plan developed under this chapter, after June 10, 2010, local comprehensive plans must consider and plan for the following handling methods or services:
 - (a) Source separation of recyclable materials and products, organic materials, and wastes by generators;
 - (b) Collection of source separated materials;
 - (c) Handling and proper preparation of materials for reuse or recycling;
 - (d) Handling and proper preparation of organic materials for composting or anaerobic digestion; and
 - (e) Handling and proper disposal of nonrecyclable wastes.

- (2) When updating a solid waste management plan developed under this chapter, after June 10, 2010, each local comprehensive plan must, at a minimum, consider methods that will be used to address the following:
 - (a) Construction and demolition waste for recycling or reuse;

- (b) Organic material including yard debris, food waste, and food contaminated paper products for composting or anaerobic digestion;
- (c) Recoverable paper products for recycling;
- (d) Metals, glass, and plastics for recycling; and
- (e) Waste reduction strategies.”

The Legislature’s stated intent for making this amendment was "increasing available residential curbside service for solid waste, recyclable, and compostable materials provides enumerable public benefits for all of Washington. Not only will increased service provide better system-wide efficiency, but it will also result in job creation, pollution reduction, and energy conservation, all of which serve to improve the quality of life in Washington communities. It is therefore the intent of the legislature that Washington strives to significantly increase current residential recycling rates by 2020.”

The Beyond Waste Plan

Another relevant source of guidance on policies and goals is the State Solid and Hazardous Waste Plan. Commonly referred to as the “Beyond Waste plan,” this plan has adopted a vision that states:

We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality.

This transition is expected to take 20 to 30 years or more.

The Beyond Waste plan has been recently updated (the “2015 Update”). The plan previously focused on actions that could be taken in five areas (industrial waste, small volume hazardous waste, organic materials, green building, and measuring progress). The updated Beyond Waste plan is divided into five sections:

- Managing Hazardous Waste and Materials
- Managing Solid Waste and Materials
- Reducing Impacts of Materials and Products
- Measuring Progress
- Providing Outreach and Information

Each of these sections presents goals and actions that can be taken over the next five years. The updated plan also incorporates the concept of sustainable materials management, which has been adapted from recent work by the U.S. Environmental Protection Agency (EPA). Sustainable materials management looks at the full life cycle of materials, from the design and manufacturing phase, to the use phase, and then to the end-of-life phase when the material is either disposed or recycled.

Materials management still focuses on recycling and disposal issues, but in looking at production methods and the use of materials, this approach can help identify more sustainable ways to design products that use less energy, water and toxics. This is important because the adverse environmental impacts of extraction, production and use can be far greater than those associated with disposal when the product becomes a waste. According to the EPA, a materials management approach is essential to conserving natural resources to meet today's needs and those of future generations.

The Beyond Waste plan is referenced in later chapters of this SWMP as appropriate to the topics in each chapter. Copies of the Beyond Waste plan and additional information can also be downloaded from the Ecology's web site (www.ecy.wa.gov/beyondwaste/index.html).

3.2. EXISTING CONDITIONS FOR WASTE REDUCTION

Definition of Waste Reduction

Waste reduction is the highest priority for solid waste management according to Chapter 70.95 RCW, and is preferred over recycling and composting because the social, environmental and economic costs are typically lower for waste reduction. All three methods avoid the cost of disposing of the diverted materials as garbage, but recycling and composting frequently require significant additional expenses for collecting and processing the materials. Those additional expenses are avoided in the case of waste reduction, where the waste is not produced. Examples of waste reduction methods include:

- reuse a product.
- reduce consumption of materials and products.
- reduce materials used to manufacture products.
- increase the useful life of a product through durability and reparability.

By definition, waste reduction also includes activities and practices that reduce the toxicity of wastes that are created (per RCW 70.95.030(27)).

Several waste reduction activities and programs are currently conducted in Skagit County. These include a variety of public programs as well as private efforts, with the latter including a broad range of activities that are not well documented. Waste reduction could be shown to be handling significantly more waste if the private efforts could be measured more completely.

Private Reuse Activities

A significant amount of waste reduction is accomplished by second-hand and thrift shops, garage sales, used bookstores, rental shops and through similar activities. A

few charitable organizations provide collection services. Various websites also facilitate a large amount of reuse, most notably Craigslist, eBay and FreeCycle. No estimates are available for the amount of goods handled through these methods in Skagit County, but a recent study for Clark County, Washington, concluded that there were 357 companies involved in waste reduction activities (reuse, rentals and repairs) in that county. These companies employed 1,193 workers and were creating almost \$86 million of sales in Clark County annually. These estimates do not include the value of goods given away or sold on websites, through garage sales and similar activities. All of these activities benefit the economy by creating local jobs and by helping residents and businesses to “stretch” their budgets (by allowing them to purchase used or repaired goods or to rent items needed only for a short time).

Backyard Composting

An effective method of waste reduction is the composting of yard debris and vegetative food scraps on the property where it was generated (typically called “backyard” or “on-site” composting). In Skagit County, backyard composting is encouraged through demonstration gardens, workshops, the County’s website and other efforts. In 2014, five free workshops were conducted for backyard composting and six workshops were conducted for vermicomposting (use of earthworms to break down vegetable matter). Brochures and other information are available on the County’s website for these activities and for natural (non-chemical) lawn care. Home composting talks are also offered on a case-by-case basis to community groups, and volunteer trainings are provided throughout the County, such as the WSU Master Gardener Spring Intern Training and Skagit Conservation District’s Backyard Wildlife Habitat Training.

Other Activities

Many other waste reduction activities are being conducted currently in Skagit County. A few examples of these include:

- The Skagit County Master Composter/Recycler Volunteer Program is offered annually each spring. The program trains up to 30 volunteers per year in waste reduction methods, zero waste lifestyle tips, recycling, hazardous waste reduction, organic gardening and home composting. Volunteers receive 30 hours of free training, including books, tours, and hands-on composting experience. In return, they agree to give 40 hours of volunteer service back to the Skagit County community as recycling and composting educators. Each year, a minimum of 600 volunteer hours are returned to Skagit County residents in the form of Master Composter/Recycler volunteer hours.
- Skagit River Steel & Recycling actively pursues reuse opportunities for the materials they receive for recycling, including a wide range of metal parts and other supplies.

- For building materials, there are three locations in Skagit County that sell salvaged materials, including Skagit Habitat for Humanity, Skagit Building Salvage and Duluth Timber Company.
- There are at least three shipping services in Skagit County that accept styrofoam “peanuts,” “bubble wrap” and other materials for reuse (see the County’s website for current information about these services).
- Waste reduction practices have been implemented in many offices in both the public and private sectors, including reusing blank sides of paper for drafts, increased use of email and digital copies in lieu of paper copies, increased double-sided copying, and avoiding non-recyclable packaging. Recycling in all Skagit County offices has also been upgraded since 2010. All County offices now offer options for compost, recycling, as well as garbage in common areas of buildings. Desk side recycling containers are also offered and made available to all individual work stations.
- The Fidalgo Island community (“Transition Fidalgo & Friends”) has developed a plan ([Vision 2030](#)) and is regularly conducting activities that address waste reduction and other aspects of a sustainable community. Waste reduction activities include “fix-it days,” which is a booth at the Anacortes Farmers Market staffed by volunteers who help repair products, and a gleaning group (the Fidalgo Island Gleaners), who pick surplus fruit and vegetables to prevent it from going to waste.
- The Skagit Gleaners, based in Mount Vernon, gathers surplus, slightly damaged and donated food from stores, farms, restaurants and individuals throughout the Skagit Valley and provides this to 250 local families that are in need of support. This non-profit group has operated since 1984 and currently diverts about 320 tons of food from disposal.
- Community-wide garage sales help promote waste reduction through reuse. The Shelter Bay Community (near La Conner), for example, organizes a community-wide garage sale annually.
- Waste reduction is promoted as part of the Skagit County Zero Waste Event program, which certifies public and private events at either a silver or gold level for addressing waste reduction, recycling and composting at the event. This program provides recycling and organics collection containers, logos and signage, and technical assistance for events.
- The EnviroStars program conducted by the Skagit County Health Department recognizes and promotes businesses that practice waste reduction and use less toxic materials. The Local Source Control Program encourages businesses to use less-toxic alternatives for the products they use, and encourages other waste reduction methods.

Volume-Based Waste Collection Rates

A successful and effective tool for encouraging waste reduction and recycling is the use of “variable rates” or “volume-based rates,” where households are charged more for disposing of more garbage. Businesses are generally already charged according to the amount of garbage disposed and this approach is essentially impossible to implement for individual apartments, so this strategy typically refers only to single-family homes. Volume-based rates are currently in effect throughout the County for single-family homes.

3.3. PLANNING ISSUES FOR WASTE REDUCTION

Waste reduction is the highest priority waste management strategy but can be the most difficult to implement because these programs may require changes in production methods and consumption pattern. Specific waste reduction issues are discussed below.

Food Waste

Food waste is one of the largest components of the waste stream (see Table 2-8) and so its potential for waste reduction deserves attention. At the same time, there is increasing national awareness as to the amount of edible food that is going to waste. According to a recent report by the Natural Resources Defense Council,¹ 40% of edible food is wasted as it travels from farms to kitchen tables. According to the USDA, a family of four could save \$2,275 per year by avoiding food waste through simple changes in the way they handle food purchases and storage. A recent study for Thurston County (the 2014 Thurston County Waste Composition Study) showed that 7.2% of that county’s waste stream was edible food.

Reuse as a Benefit to the Local Economy

Many of the reuse activities currently occurring in Skagit County may seem minor or even trivial in scope, but these activities are actually providing a substantial amount of benefit for the local economy. Promoting these activities and finding ways to facilitate more of these activities would significantly benefit Skagit County residents.

Clothing Reuse

Despite the large number of organizations addressing clothing in Skagit County and other areas, the results of waste composition studies for other areas (see Table 2-8) show that almost 4% of the waste stream consists of clothing and shoes. Not all of this amount would be reusable, but virtually all of this could be either reused or recycled (converted to rags or other products).

¹ From “Wasted: How America is Losing up to 40 Percent of its Food from Farm to Fork to Landfill,” by Dana Gunders, staff scientist with the Natural Resources Defense Council, August 2012.

Yard Debris

Despite the wide range of options for yard debris (backyard composting, mulching of grass clippings, drop-off sites and collection programs), there is likely a significant percentage of this material disposed in Skagit County's waste stream. Based on waste composition data from other areas, the waste stream typically consists of 2-4% of yard debris.

Promotion of Volume-Based Garbage Rates

Existing volume-based garbage rates are being promoted on the websites of Skagit County, Waste Management, and Sedro-Woolley, but could be promoted better on Anacortes and Mount Vernon websites. In general, every possible opportunity should be used to promote the ability to save money on disposal fees by treating certain materials as a resource instead of a waste.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 included goals and activities for waste reduction. One of the goals in that plan is to reduce the amount of garbage to 10% below 2008 levels. This plan also made a number of specific recommendations regarding waste reduction and recycling, including:

- reduce and then eliminate polystyrene (styrofoam) food containers.
- prohibit marine use of expanded polystyrene.
- reduce the use of single-use food containers by County departments and educate the public to avoid these containers.
- eliminate permit fees for deconstruction projects.
- ban disposal of yard debris.
- more promotion of backyard composting in East County.

Measuring and Evaluating Waste Reduction Activities

Measuring waste reduction is difficult because the amount of waste generated in a specific area fluctuates with many variables, including economic conditions, seasonal changes and local weather. Hence, it can be difficult to demonstrate the cost-effectiveness or productivity of specific waste reduction techniques.

3.4. ALTERNATIVE WASTE REDUCTION STRATEGIES

The following alternatives were considered for new or expanded waste reduction activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 3.6 for waste reduction recommendations).

Alternative A – Ban Yard Debris from Garbage Disposal

Of all of the materials in the waste stream, yard debris is possibly the easiest material to handle through other means. Yard debris can be left on the lawn (mulching of grass clippings), applied as a mulch in landscaping and gardens, handled through backyard composting (for leaves, grass clippings and some types of food wastes), chipped on-site (for branches and other woody materials), or recycled through residential and commercial yard waste collection programs.

Some of the cities in Skagit County already ban yard debris from disposal. Hence, there is not much yard debris currently being disposed as garbage, but this approach could eliminate up to 2% of the current waste stream (see Table 2-8). If a ban is implemented, it should be accompanied by additional public education to promote alternatives such as mulching of grass clippings, backyard composting, and even vermicomposting (using worm bins to convert food wastes into a desirable soil amendment).

Alternative B – Focus on Wasted Food

A substantial amount of edible food waste is unnecessarily discarded. A public education campaign could be used to inform residents of the meaning of expiration dates, opportunities to donate food, and other steps that could be taken to reduce food waste. Skagit County could partner with other organizations, such as the Skagit Valley Food Co-Op, to help spread information about this (and for the next option, on smart shopping). Much of the materials for this campaign could be provided by other programs, such as EPA’s “Too Good To Waste” program and the various strategies being used by Thurston County.

Alternative C – Promote Smart Shopping

The Cities and County could conduct more promotion on the subject of smart shopping, such as buying in bulk (at least for non-perishable items). The Cities and County could conduct a campaign that encourages:

- buying in bulk.
- buying concentrates.
- purchasing reusable products.
- buying secondhand items.
- avoiding over-packaged items.
- avoiding products containing hazardous ingredients.
- borrowing or renting when possible.
- purchasing durable and repairable products.
- using reusable shopping bags.
- shared ownership of large items with a neighbor or friend.

These activities could provide benefits to personal finances as well providing benefits to the local economy (to the extent that local businesses can provide repair and rental services).

Alternative D – Fix-It Workshops

An idea that is gaining in popularity is the use of fix-it workshops, where people can bring items in need of repairs and knowledgeable volunteers show them how to fix the item. Organizing this type of workshop is probably better accomplished by a non-profit group, but the County could help promote the workshops, provide space for the events, and possibly assist in other ways.

Alternative E – Promote Volume-Based Collection Fees

Information on volume-based rates could be more easily accessible and this approach could be more widely promoted as a way to save money by recycling and reducing wastes. The success of this approach could be monitored by the number of people who sign up for lower service levels.

Alternative F – Promote More Clothing Reuse and Recycling

Educational materials could encourage people to bring reusable or recyclable clothing to charities and other collection programs for those. Specific educational materials could be designed for clothing, but it would probably be more cost-effective to include this topic in existing materials and websites. Clothing reuse and recycling could also be a special focus of a newspaper ad, fair booth and other educational opportunity. Additional recycling options could be explored or promoted, although this idea should be approached carefully so as not to undermine existing efforts that are collecting reusable clothing for charitable purposes.

Alternative G – Collect Reusable Materials at Skagit County Transfer Station

One option to divert reusable materials from disposal could be a cooperative effort with Goodwill or another charity to collect reusable materials at the main transfer station. Several counties in Washington are working with charities to divert reusable materials through staffed trailers located prior to the entrance of a landfill or transfer station. This could also take the form of a joint effort or cooperative arrangement with one of the reusable building material operations to collect building materials. One consideration for this approach would be the degree of access to the tipping floor that would be allowed by this arrangement. If employees of the charities were reasonably allowed more access to the tipping floor to observe materials being dropped off there, rather than depending on customers to voluntarily stop at a trailer, then much more material could be recovered.

Alternative H – Promote Waste Reduction through Videos

Waste reduction lifestyle tips could be encouraged by creation of educational videos that can be viewed through a high traffic website, such as YouTube. Short, informational videos could be created to show people the basic steps to reducing

waste at home. This educational outreach method is capable of reaching many people, without a tremendous amount of work, and could cover a wide variety of topics. The time and other costs for this approach can be reduced by using videos prepared by others.

3.5. EVALUATION OF WASTE REDUCTION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and then a decision can be made as to whether to pursue it or not based on the overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this SWMP and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives support the goal of emphasizing waste reduction as a fundamental management strategy, and support other planning goals as well.

Feasibility: In judging the alternatives for technical and political feasibility, most of the alternatives can be adopted without controversy or legal issues. Alternative A (the yard waste ban) has potential issues with public acceptance and so is rated low for this criterion. Alternative D (fix-it workshops) may depend on others to implement and could be challenging to arrange, and so this alternative is rated medium. Alternative F, more clothing reuse and recycling, is rated medium for feasibility due to the questions about conflicts with existing operations (if additional reuse and recycling opportunities are established).

Diversion Potential: The alternatives are rated high for diversion potential if the alternative could potentially reduce the waste stream by more than 1%, medium for 0 to 1%, and low for alternatives that would have an impact of 0% or near zero. The alternatives for yard debris, food waste, and clothing are all rated as high because these alternatives address materials present in the waste stream in amounts higher than 1%. Likewise, volume-based fees are rated as high because these could influence the waste stream by at least this much. Alternatives G, collecting reusable materials at the transfer station, and H, producing videos that provide waste reduction tips, were rated medium based on the potential to divert a significant amount of material. Other alternatives, while still valuable, were rated low because the amounts of materials potentially diverted (or avoided) are fairly small.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 3-1. Ratings for the Waste Reduction Alternatives				
Alternative	Consistency with Goals	Feasibility	Diversion Potential	Overall Rating
A, Ban yard debris	H	L	H	M
B, Focus on wasted food	H	H	H	H
C, Promote smart shopping	H	H	L	M
D, Fix-it workshops	H	M	L	M
E, Promote volume-based fees	H	H	H	H
F, Promote more clothing reuse and recycling	H	M	H	H
G, Collect reusables at transfer station	H	H	M	H
H, Waste reduction videos	H	H	M	H

Rating Scores: H – High, M – Medium, L – Low

3.6. WASTE REDUCTION RECOMMENDATIONS

The following recommendations are being made for waste reduction programs.

High-Priority Recommendations

- WR1) A program educating residents and businesses about avoiding food waste will be implemented.
- WR2) The availability of volume-based rates will be publicized by the County, Cities and waste collectors.
- WR3) Options for clothing reuse and recycling will be promoted.
- WR4) Skagit County will explore the possibilities for a charitable organization to collect reusable materials at the Skagit County Transfer Station.
- WR5) Skagit County will distribute videos that provide waste reduction tips.

Medium-Priority Recommendations

- WR6) A county-wide ban on yard debris disposal will be considered.
- WR7) Smart shopping will be promoted.

WR8) Fix-it workshops will be encouraged and promoted.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing these recommendations will be Skagit County, with assistance from the Cities as appropriate. The costs for these activities are minor, and funds are expected to come from available County and City funds, and possibly the CPG grant program administered by Ecology.

The costs for five of these recommendations (WR2, WR3, WR4, WR5, and WR8) consist primarily of staff time. Recommendations WR1 and WR7 could cost up to \$15,000 each, depending on the level of effort expended on promoting smart shopping and food waste issues. The cost for Recommendation WR6 would include a campaign to inform the public of a yard waste ban and possibly also costs for enforcement activities.

The implementation of all of these recommendations should begin next year (2018), but implementation of many of the recommendations will be contingent upon the hiring of an additional staff person (a Recycling Coordinator, see Chapter 9 for more details).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (Chapter 10).

RECYCLING

4.1. DEFINITION AND GOALS FOR RECYCLING

Definition of Recycling

“Recycling” refers to the act of collecting and processing materials to return them to a similar use. Recycling does not include materials burned for energy recovery or destroyed through pyrolysis and other high-temperature processes. The State’s definition of recycling is “recycling means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling does not include collection, compacting, repackaging, and sorting for the purpose of transport” (Chapter 173-350 WAC). As indicated in the definition, “recycling” does not occur when people place materials in a cart or other container to be collected separately from garbage, but occurs when the materials are processed and then used to create new products. On the other hand, keeping recyclable materials separate from garbage at the point of generation is typically a critically-important first step in ensuring that the materials are actually recycled.

Recycling Goal

The State’s goal is to reach 50% recycling and composting, and this goal was achieved in 2011 when the recycling rate rose to 50.7%. More recent data shows the rate slipping a bit, dropping to 48.9% in 2013.

Chapter 70.95 RCW does not mandate that each county or city adopt a 50% goal, since it is recognized that less-populated areas have greater barriers to cost-effective collection and marketing of recyclable materials. Each community is expected to set a goal that suits its situation, provided that the goal is based on justified and sound reasoning. In Skagit County, the 2013 recycling rate was 45.1% (see Table 2.7) and the average recycling rate over the past five years (2009 to 2013) was 47.8%. After discussion by the Skagit County Governance Board and the Skagit County Solid Waste Advisory Committee of the current programs and the desire to continue to show progress, the County’s recycling goal has been set at 65%. The County’s progress towards meeting this goal should be monitored primarily through the annual recycling survey conducted by Ecology, supplemented with local data as available and appropriate.

4.2. EXISTING RECYCLING PROGRAMS

Numerous recycling activities are currently being conducted in Skagit County. These are discussed below according to the type of program. A comprehensive list of

recycling opportunities can also be found on Skagit County's website.

Drop-Off and Buy-Back Programs

The three Skagit County disposal facilities collect a variety of recyclable materials, including newspaper, cardboard, mixed waste paper, magazines, aluminum and tin cans, scrap metal, plastic bottles (pop and milk), glass bottles, appliances, motor oil, antifreeze, and batteries. The Skagit County Transfer and Recycling Station (TRS) also recovers metals from the tipping floor, as time allows.

The City of Sedro-Woolley operates a drop-off facility that accepts the typical recyclables (paper, cans, plastic and glass bottles), and also scrap metal, vehicle and household batteries, motor oil, printing cartridges, e-waste, fluorescent lights, styrofoam peanuts and bubble wrap. A few materials are accepted for recycling for a fee, including appliances, tires and "non-covered electronics" (e-waste not covered by Washington State law).

Lautenbach Industries accepts construction and demolition debris (C&D) at their processing facility on Ball Road (near the Skagit County Transfer Station) and also provides a collection service for it. Materials recycled by Lautenbach Industries include wood, drywall, plastics (plastic film and various types of rigid plastics), carpet and padding, metals, cardboard, asphalt and concrete.

Skagit River Steel and Recycling accepts the traditional recyclable materials (paper, cans, glass, and plastic bottles), and provides drop-off containers for special items such as plastic plant pots and film, electrical wiring, and many types of non-ferrous metal. Skagit River Steel serves as the processing/transfer site for some of the materials collected for recycling in Skagit County, including many of the types of materials collected at the three County sites and the City of Sedro-Woolley's site, and is currently charging a handling fee for some of these materials. Skagit River Steel also purchases metals, and recycles several special and industrial materials.

There are numerous other drop-off opportunities in Skagit County for a wide variety of materials. A few examples include:

- E-waste (electronics) can be dropped off at several locations, including Sedro-Woolley's recycling site, Best Buy (Burlington), Goodwill locations in Anacortes and Mount Vernon, Appliance Connection (Mount Vernon), E-Waste LLC (Mount Vernon), Value Village (Mount Vernon), and Anacortes Aktion Club (Anacortes).
- Ink cartridges can be returned for recycling at several local stores, or sent back to manufacturers through the mail.
- Rechargeable batteries can be dropped off at certain hardware stores and other locations (depending on the type of battery).

- In addition to drop-off sites mentioned above, appliances can also be taken to Skagit Appliance Recycling, Larry's Auto and Truck Repair, and Rita Street Appliance Recycling for recycling purposes. Several charities in the county will also accept functional appliances for reuse purposes.

Curbside Recycling Programs

The Cities of Burlington and Mount Vernon have curbside recycling programs through a contract with Waste Management. These cities pay Waste Management by the ton for materials collected. Until recently, the City of Anacortes contracted with Republic Services for curbside recycling service, but this contract was re-bid and awarded to Waste Management effective July 1, 2015. As of September 1, 2015, the City of Sedro-Woolley began providing curbside recycling and yard waste services with city crews instead of service provided by Waste Management. The cost for the recycling services in these four cities is paid by fees collected by the cities through utility billings. In all four of these cities, all single-family homes must subscribe to both garbage and recycling services. Curbside recycling in Anacortes is conducted weekly and in the other three cities it is every-other-week.

In the towns and unincorporated areas west of Highway 9, residents and businesses have the option of subscribing to every-other-week recycling services provided by Waste Management, whether they are garbage collection customers or not. The cost for this service was \$7.22 per month in early 2016. Residential and commercial customers in this area are not required to subscribe to garbage collection or recycling service. The most recently available data (2011) shows that there were 9,637 residential garbage customers in unincorporated Skagit County (including the towns of Concrete, Hamilton, La Conner and Lyman), and 3,435 recycling customers and 259 yard waste customers. There are an estimated 24,290 housing units in this area, so an estimated 40% of these households are subscribing to garbage collection, 14% are subscribing to curbside recycling and 1% are subscribing to yard waste.

The curbside programs in Skagit County collect newspaper, cardboard, mixed waste paper, paper cups, paper food boxes, milk cartons and juice boxes, aluminum and tin cans, scrap metal (less than 2 feet in any direction and under 35 pounds in weight), glass bottles and jars, and plastic bottles and tubs. The recycling programs in Skagit County use "single-stream" collection, where all materials are placed into one cart and processing facilities perform the separation later. The advantages of single-stream collection are reduced costs and greater participation, but there is also some loss of materials because the new mechanized separation techniques are not as effective as source-separation programs.

Multi-Family Recycling

Recycling services to multi-family units (apartments) are generally available in the cities, where the bulk of the apartment buildings are located. As in other areas, there are several difficulties in providing recycling services to multi-family units

(including tenant turnover, communication problems, and the ability to provide a financial incentive).

In Mount Vernon, only buildings with three to five units are defined as multi-family, while larger buildings (six and more units) are classified as “high density” and must contract directly with Waste Management for services.

Commercial Recycling Programs

Commercial recycling services are provided by several private companies, including Waste Management, Skagit River Steel, Tri-County Recycling and Lautenbach Industries. For commercial collections, Waste Management provides collection services for the same materials as residential collections. Waste Management also provides roll-off containers for cardboard, drywall, wood, metal, asphalt roofing, and other materials on a case-by-case basis.

Skagit River Steel collects from commercial and industrial sources using roll-off containers for new drywall, plastic “shrink wrap”, metals, cardboard and other paper, and essentially all of the other materials that they handle. Skagit River Steel will also pick up appliances.

Tri-County Recycling provides containers and collection services for cardboard, mixed waste paper, cans and other materials.

Lautenbach Industries provides collection services for construction and demolition debris (C&D), which is taken to their facility on Ball Road for processing.

Other private collection activities in Skagit County include one or more paper shredding services for high grade papers; collection of various oils, oil filters and antifreeze; and several companies that collect appliances and other metals.

State law requires a program for monitoring commercial activities, although Federal law prevents any control over these activities. In Skagit County, this monitoring is conducted by the Recycling and Waste Reduction Educator, who periodically collects information on services offered by the private sector and cities in order to help promote those. This monitoring should be continued and any problems detected should be reported to the SWAC.

Other Programs

The Adopt-a-Road groups and litter cleanup crews endeavor to recycle a portion of the materials they pick up, as time and the condition of the materials (bottles, cans and metals) permit.

Other materials recycled in Skagit County by private companies, either as a special collection service or through drop-off centers in and near the County, include

textiles, oils, grease, tires, printer cartridges, and x-ray film. Current information on these services is available from County brochures or at Ecology's website (the 1-800-RECYCLE website).

Recycling Markets

State regulations (RCW 70.95.090(7)(c)) require "a description of markets for recyclables," hence a description of the markets for recyclable materials is provided below. This is intended to be only a brief report of current conditions, and it should be noted that market conditions for recyclables can undergo substantial changes in a short amount of time.

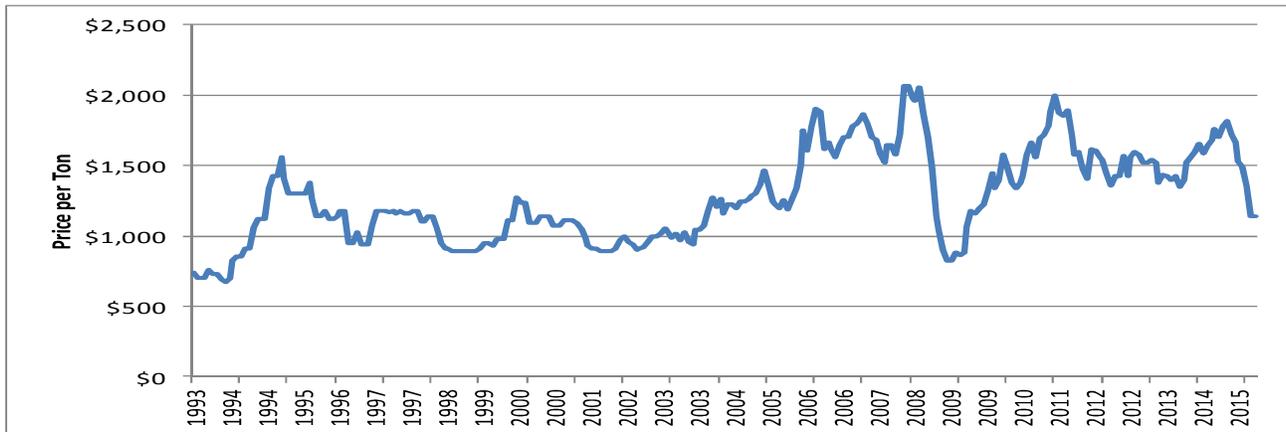
Market demand and prices for recyclables have fluctuated significantly over the past several years, just as prices for all commodities fluctuate with demand and other factors. Some recyclable materials have seasonal cycles in supply and demand, but all materials exhibit long-term trends with the possibility of sudden price spikes or dips. In some cases, long-term contracts with price floors can help moderate the swings in market revenues, but this isn't possible for all materials. Figures 4-1, 4-2, and 4-3 show how the prices for aluminum cans and other materials collected from residential sources in the Pacific Northwest have fluctuated over the past 20 years. As can be seen in the figures, market prices for most materials dipped from 2008 to 2009 due to the slump in demand caused by the recession. Prices for most of the metals recovered after this period and led to better-than-average metal recycling tonnages (see Table 2-6), but both prices and tonnages have dropped off in the past few years, and recently have dropped to 2008-2009 levels.

Urban-Rural Designation

State planning guidelines require that counties develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services. The urban-rural designations are the basis for determining the level of service that should be provided for recycling and other solid waste programs. For example, State law (RCW 70.95.090(7)(b)(i)) requires that recyclables be collected from homes and apartments in urban areas (although exceptions to this requirement can be granted if based on viable alternatives and other criteria), whereas drop-off centers and other methods can be used in rural areas.

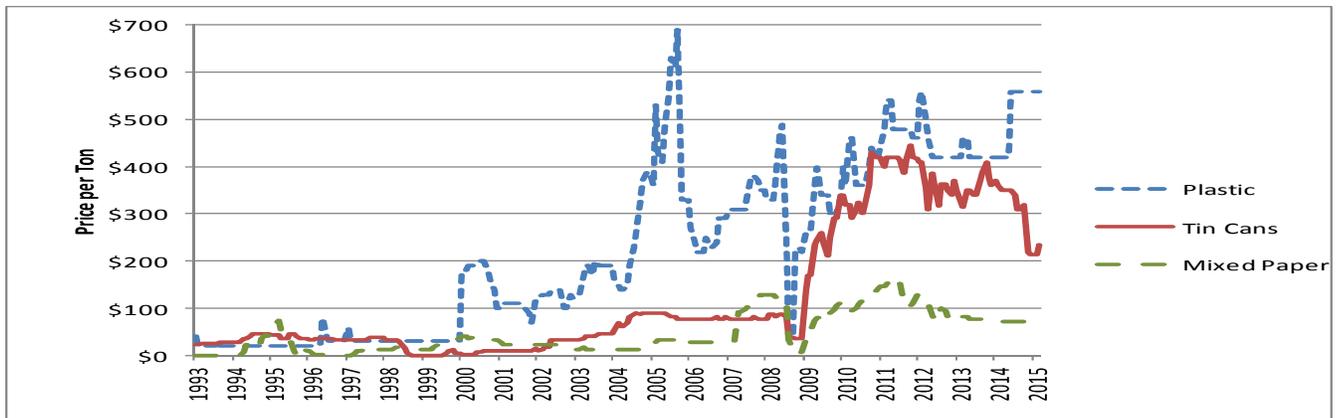
In this case, the Skagit County Comprehensive Plan provides an up-to-date basis for the determination of urban-rural areas (although distance from recycling facilities and other operations is also a factor for recycling programs in the upriver areas), and so any future changes in the Comprehensive Plan are considered to be adopted by reference in this SWMP. Recycling and other services may need to be implemented or adjusted based on these changes and this should be accomplished within 120 days of the adoption of changes to the Comprehensive Plan. The responsible party for implementing changes in recycling or other services will depend on the hauler or city that is responsible for that service in the affected area.

**Figure 4-1
Price Paid for Baled Aluminum Cans**



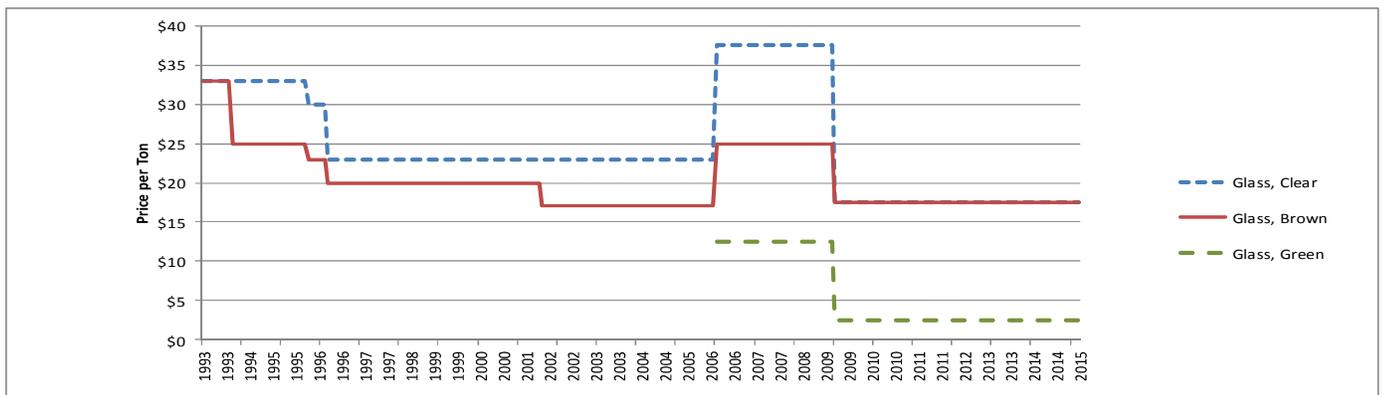
Source: Seattle Public Utilities website (original data source: American Metal Markets).

**Figure 4-2
Prices Paid for Select Recyclable Materials**



Source: Seattle Public Utilities website (original data sources are Mill Trade Journal's Recycling Markets, Pulp and Paper Week, Recycling Times, and Waste News).

**Figure 4-3
Prices Paid for Glass**



Source: Seattle Public Utilities website.

All areas currently identified as urban by Skagit County also have recycling and organics collection services available except for the towns of Concrete, Hamilton and Lyman, and a few small urban growth areas (UGAs) adjacent to (but outside the city limits of) Sedro-Woolley. It is anticipated that the UGA areas will be eventually incorporated by Sedro-Woolley.

4.3. DESIGNATION OF RECYCLABLE MATERIALS

The designation of recyclable materials has taken on more importance with the adoption of Chapter 173-350 WAC, which defines recyclable materials as being those materials “that are identified as recyclable materials pursuant to a local comprehensive solid waste plan.” Since market conditions for recyclables can change drastically in a short amount of time, the list of designated materials is also accompanied by a description of the process for revising that list.

Table 4-1 shows the list of designated recyclable materials. This list is not intended to create a requirement that every recycling program in Skagit County collect every designated material. Instead, the intent is that through a combination of programs, residents and businesses should have an opportunity to recycle all of the designated materials through at least one program. In other words, if plastics are on the designated materials list, then there must be at least one program in Skagit County that collects plastics. The list has been grouped to indicate the degree of access that residents and businesses should have for these materials (in other words, greater access should be available for the higher-priority materials). It should also be noted that this list is considered the minimum set of materials to be recycled, and that it is not intended to discourage the recycling of additional types of materials.

The list of “designated recyclable materials” shown in Table 4-2 should be used for guidance as to the materials to be recycled in the future. This list is based on existing conditions (collection programs and markets), and future markets and technologies may warrant changes in this list. The following conditions are grounds for additions or deletions to the list of designated materials:

- The market price for an existing material becomes so low that it is no longer feasible to collect, process and/or ship it to markets.
- Local markets and/or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand.
- New local or regional processing or demand for a particular material develops.
- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future.
- The potential for increased or decreased amounts of diversion.
- Legislative mandate.
- Other conditions not anticipated at this time.

Table 4-1. List of Designated Recyclable Materials	
Priority Level	Material
<p>Group 1 Materials: Materials that should be collected by curbside, multi-family and commercial recycling programs, or by the mixed organics collection programs, in Skagit County.</p>	<p style="text-align: center;"><u>Recyclables</u></p> <p style="text-align: center;">Clean paper and cardboard Clean glass bottles and jars Aluminum and tin cans, scrap metal, aluminum food containers, and empty/non-hazardous aerosol cans Plastic bottles, jars and tubs</p> <p style="text-align: center;"><u>Mixed Organics</u></p> <p style="text-align: center;">Yard debris Food scraps Food-soiled paper</p>
<p>Group 2 Materials: Materials that should be collected at drop-off and buy-back locations or through other collection services.</p>	<p style="text-align: center;">Edible food (donated) Cell phones Electronics (e-waste) Clothing and textiles Oil and oil filters Antifreeze Asphalt and concrete Batteries (all types) All metals, inc. appliances Plastic bags Rigid plastics Reusable building materials Tires Wood</p>
<p>Group 3 Materials: Materials that should be recycled if markets are available.</p>	<p style="text-align: center;">Carpet Drywall Polystyrene Other plastics Roofing materials Mixed construction and demolition Shrink wrap, building wrap, and other film plastics</p>

Any proposed changes in the list of designated materials should be submitted to the SWAC for their discussion and approval. With the concurrence of the SWAC, followed by approval by the Solid Waste System Governance Board (SWSGB), minor changes in the list could be adopted without formally amending the SWMP. Thus,

minor changes should be able to be addressed in 60 to 75 days at most, depending on the schedule of SWAC meetings at the time of the proposed change. Should the SWAC or the SWSGB conclude that the proposed change is a “major change” (what constitutes a “major change” is expected to be self-evident at the time, although criteria such as the length of the discussion and/or inability to achieve consensus could be used as indicators of what is a “major change”), then an amendment to the SWMP would be required (a process that could take 120 days or longer to complete).

4.4. PLANNING ISSUES FOR RECYCLING

Skagit County is currently well-served by a variety of recycling programs, but several improvements and issues could be addressed by this Plan. The most significant of these are noted below.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 made a number of recommendations regarding waste reduction and recycling, including:

- provide additional incentives for recycling through rates and education.
- conduct a waste characterization study to better inform recycling efforts.
- implement efficient recycling and waste reduction at all County facilities.
- provide additional recycling opportunities in East county.
- support recycling at public events.
- reduce C&D disposal amounts through education and by eliminating permit fees for deconstruction projects.

Collection Frequency

The collection frequency for the residential curbside recycling programs is currently every-other-week in most areas and weekly in Anacortes. Studies have repeatedly shown that more frequent collections will lead to more diversion. Some communities have gone so far as to make garbage collection every-other-week and recycling weekly to encourage more recycling.

Glass in Commingled Mix

Glass is currently included in the curbside recycling program and is mixed with other materials. When mixed with other materials, glass both contaminates the other materials and the glass itself is difficult to recycle.

C&D Recycling

Additional collection and recycling of C&D wastes could have a significant impact in reducing the County’s waste stream. Waste composition data shown in Table 2.8

indicates that 19% of the County's waste stream may be wood and construction debris. It appears that more could be done to promote recycling of this waste.

4.5. ALTERNATIVE RECYCLING STRATEGIES

The following alternatives were considered for new or expanded recycling activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 4.7 for the recommendations).

Alternative A – Increase Curbside Recycling to Weekly Collection

Studies have repeatedly shown that more frequent collection of recyclables leads to increased tonnages collected. Several cities have recently gone so far as to make recycling collections weekly and changed garbage collection to every-other-week (although a recent proposal by Seattle to do this failed due to questions about costs versus service levels). In general, weekly recycling collections are not double the cost of every-other-week collections, but the additional cost is in the range of 30 to 50% more than every-other-week collections. Weekly collection programs can be expected to collect about 30 to 40% additional tonnages over every-other-week collections. It should be noted that the additional tonnages more than make up for the greenhouse gas emissions related to the additional fuel consumed to run the route twice as often, since every additional ton of recyclables carries with it a huge benefit in greenhouse gas reductions.

Alternative B – Switch to Dual Stream Collection to Collect Glass Separately

Glass is a serious problem when mixed with other materials for recycling. Broken glass contaminates the other materials, especially paper and plastic, and makes it more difficult to recycle those materials. The glass that is carried along with the other materials causes problems with the processing equipment for paper and plastic and does not get recycled but ends up in landfills near the processing plants for the other materials. The glass that is recovered from a curbside mixture is also difficult to recycle because it consists of mixed colors and is also highly contaminated by other materials.

Alternative C – Minimum Service Level to Include Curbside Recycling

Through a service level ordinance, the County could require that curbside recycling services be included in the minimum service provided to residential garbage customers. Several counties (including Snohomish, Spokane and Thurston Counties) take this approach. More recycling program subscribers would lead to a lower per-household cost for the recycling service. Although many households would see this as a price increase over the current cost for garbage service alone, most of these households would also likely be able to reduce their garbage service level by choosing a smaller can and actually save money.

A service level ordinance could also require regular reports and other data which would lead to significant improvements in the ability of Skagit County to monitor progress toward recycling goals. A service level ordinance could require quarterly reports on the numbers of residential and commercial recycling and organics customers in the certificated areas and in the City of Burlington, and the same information could be requested from the cities that conduct their own waste collection.

Alternative D - County to Contract for Curbside Recycling in Unincorporated Areas

The County could consider contracting for curbside recycling in the unincorporated areas. Clark County does this currently. Contracting for recycling services in the unincorporated areas is one of the few collection activities allowed by Washington State law for a county (per RCW 36.58.040). Taking this approach would require working out several important details, including financing, processing systems, frequency of collection and other collection methods.

Alternative E - Mandatory Recycling for C&D Wastes

Skagit County could adopt recycling requirements for construction and demolition wastes that are similar to the approach used by Seattle and King County. Seattle rules currently require that construction companies either recycle at construction sites or deliver C&D to facilities that are certified as meeting Seattle's standards for recovering regulated materials. The processing facilities must recover specific materials, so that their residuals do not contain more than 10% of asphalt paving, bricks, concrete, metal, new gypsum board and wood over 6 inches, and cardboard over 8 inches.

Alternative F - Support New Product Stewardship Programs

Product stewardship is a concept designed to alleviate the burden of end-of-life product management on local governments. Product stewardship programs, or "extended producer responsibility" (EPR), typically address a specific type of product and provide an alternative collection or disposal system. One of the principles that this approach is based on is that the manufacturers of a product should bear the cost of collecting and recycling (or disposing of) that product, and that this will create an incentive for them to reduce the weight and/or toxicity of their products. Retailers, if they are involved in a program, would have an incentive to carry products that are easier (and so less expensive) to collect and recycle.

Developing new product stewardship programs is beyond the scope of a county, but Skagit County could participate in such programs developed by others. Any new product stewardship proposals at the state or federal level could be evaluated and supported as appropriate to the County's interests. The cost for implementing this alternative would primarily be a small amount of staff time, unless the County would be actively involved in a new collection program (which may require more

time and expense, although in theory any expenses for an EPR program would be covered by manufacturers).

Alternative G - Disposal Bans for Specific Materials

Disposal bans have proven effective in some cases, although there would need to be an alternative collection or handling system available for the banned material. Hence, a phased-in approach would be best, providing enough advance notice to allow alternative handling systems to be developed.

Alternative H - Mandatory Commercial Recycling

Mandatory requirements for commercial recycling could take a number of different approaches, including requirements to recycle specific materials (such as cardboard), to recycle the primary materials generated by the business, a requirement for all businesses to subscribe to commingled recycling, or other approaches. Businesses often generate significant amounts of relatively clean recyclables, but resist recycling programs for a variety of reasons. Requiring all business to recycle would create a “level playing field” that would not create a competitive advantage or disadvantage. On the other hand, such requirements would not be well received by the businesses and would be politically difficult to implement.

4.6. EVALUATION OF RECYCLING ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and then a decision can be made as to whether to pursue it or not based on the overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this SWMP and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives support the goal of encouraging recycling as a fundamental management strategy, and support the goal for the recycling rate. Alternative D, a county contract for curbside recycling, is not consistent with some of the planning goals, and so is rated low for

this criteria. Alternative G, disposal bans for specific materials, is the least directly associated to increases in recycling and so is only rated as medium for this criteria.

Feasibility: In judging the alternatives for technical and political feasibility, most of the alternatives are technically feasible but some may be controversial. Alternative A, increasing curbside frequency to weekly, would be somewhat controversial due to the increased costs that would result. Alternative B, switching to a dual stream system, would be very difficult to implement due to the difficulty in changing people's existing practices. Alternative C, requiring that recycling be included with garbage service, would likely cause complaints initially, but it is expected that these would diminish quickly as people saw the value in the service. Alternative D, a county contract for curbside recycling, could be more controversial, depending in part on how this was actually implemented, and would also be technically challenging to implement. Alternative E, requiring recycling for C&D wastes, would be controversial for those in the construction industry and for the general public if applied to them. Alternative F, support for future product stewardship programs, could be controversial but the support could be evaluated on a case-by-case basis. Alternative G, disposal bans for specific materials, and Alternative H, mandatory commercial recycling, would be politically challenging.

Cost Effectiveness: Alternative A, increasing curbside to weekly, should be neutral in cost-effectiveness, based on information from other areas that show that this approach would increase both costs and tonnages collected by about 50%. Alternative B, switching to a dual stream system, would likely not be very cost-effective, based on the significant additional expenses for new containers and extensive outreach that would be needed to separately collect a low-value material (glass). Alternative C, requiring that recycling be included with garbage service, would be cost-effective in the sense that an increased customer base for curbside recycling would allow this service to be provided more cost-effectively. Alternative D, a county contract for curbside recycling, may not be as cost-effective if this approach led to more overhead expenses for administering the program. Alternative E, requiring recycling for C&D wastes, should be cost-effective compared to disposal costs. Alternative F, support for future product stewardship programs, should also be cost-effective in that this type of program typically shifts costs away from the public sector and to the manufacturers of specific products. Alternatives G, disposal bans, and H, mandatory commercial recycling, would be cost-effective in the sense that costs would be shifted to the generators of the waste, but the alternatives may not be cost-effective for the generators.

Diversion Potential: Several of the alternatives can be rated high for diversion potential based on the idea that the alternative would lead to a substantially greater amount of materials collected for recycling. Only one alternative (Alternative B, switching to a dual stream system) is rated low based on the idea that no additional

tonnages would be collected for recycling (in theory, the same amount of glass would simply be placed into a separate container).

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 4-2. Ratings for the Recycling Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversion Potential	Overall Rating
A, Weekly curbside recycling	H	M	M	H	M
B, Collect glass separately	H	L	L	L	L
C, Minimum service level	H	M	H	H	H
D, County contract for curbside recycling in uninc. areas	L	L	M	H	L
E, Require C&D recycling	H	M	H	H	H
F, Support product stewardship programs	H	M	H	H	H
G, Disposal bans	M	L	L-M	M-H	M
H, Mandatory commercial recycling	H	L	L-M	H	M

Rating Scores: H – High, M – Medium, L – Low

4.7 RECYCLING RECOMMENDATIONS

The following recommendations are being made for recycling programs.

High-Priority Recommendations

- R1) Skagit County’s goal for recycling and composting is 65%.
- R2) Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- R3) Skagit County will consider adopting requirements for C&D recycling.
- R4) Skagit County will support product stewardship programs as appropriate.

Medium-Priority Recommendations

- R5) Consideration will be given to increasing curbside recycling frequency to weekly in all areas.
- R6) Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- R7) Washington State should enact a bottle bill to divert glass away from curbside recycling programs.

Low-Priority Recommendations

- R8) Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations will be Skagit County, with assistance from the Cities as appropriate. Recommendation R5 will need to be implemented by both the County and the four cities with contracts for curbside recycling. Recommendation R7 will need to be implemented by the State.

The costs to Skagit County for these recommendations will consist primarily of staff time. Some of the recommendations will also create costs for subscribers and waste generators (R2, R3, R5 and R8). The cost for Recommendation R6 would include a campaign to inform the public of any bans and possibly also costs for enforcement activities. The cost for Recommendation R7 may be significant and would be paid by manufacturers and retailers.

The implementation of most of these recommendations should begin next year (2018), but implementation of many of the recommendations will be contingent upon the hiring of an additional staff person (a Recycling Coordinator, see Chapter 9 for more details). Washington State should enact a bottle bill for glass as soon as possible (implementing this by 2020 is likely the soonest possible schedule).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

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ORGANICS

5.1. DEFINITIONS AND GOALS FOR ORGANICS

Definitions for Organic Materials

In this Solid Waste Management Plan (SWMP), the term “organics” is intended to include compostable materials such as yard debris, food waste, and compostable paper. Other compostable materials, such as compostable plastics, shredded paper and clean wood may also be included depending on the collection program and acceptance policies for processing facilities. Some programs in Skagit County collect a mixture of yard debris, food waste, and food-soiled paper, and this is referred to as “mixed organics” in this SWMP.

Yard debris is defined to include materials such as lawn clippings, leaves, weeds, vegetable garden debris, branches (up to seven inches in diameter) and brush. Because branches and brush are included in the definition of yard debris, programs discussed in this chapter and figures for “composting” include chipping and other processing of brush, Christmas trees and similar materials. Backyard composting means a small-scale activity performed by homeowners or others on their own property, using yard debris that they have generated on that property. Some types of food waste, primarily fruit and vegetable scraps, can also be managed through backyard composting or through the use of worm bins (“vermicomposting”). By definition, backyard composting and vermicomposting are considered to be a form of waste reduction and so are addressed in Chapter 3 of this SWMP.

Food waste can be defined in a number of ways. For the purposes of this SWMP, food waste is generally intended to include those materials acceptable in the curbside collection program, which are all types of food waste (including dairy and meat products), food-soiled paper (such as paper towels and pizza boxes), shredded paper, and some types of compostable paper.

Composting can be defined as the controlled biological decomposition of organic materials to produce a beneficial product (compost). Compost has a number of applications, but as a soil amendment it provides organic matter and nutrients, loosens soils, and helps retain moisture.

Goal for Diverting Organics

Organic materials collected for composting are intended to count towards Skagit County’s recycling goal of 65% (see Section 4.1).

The programs in Skagit County are intended to be based on a hierarchy of management methods for organics. Washington State law (RCW 70.95.010 (8)) provides direction on the preferred management methods for yard debris. Recent work by the U.S. EPA provides a hierarchy specifically for food waste. The hierarchy for food waste differs somewhat from other organics due to the fact that a portion of the food waste could be recovered to feed to humans and animals, but otherwise both are similar in that each begins with waste prevention as the most desirable management method and ends with landfilling as the least preferred option. Table 5-1 shows specific options for managing yard waste and other organics and options for food waste, in order of preference from waste prevention methods to disposal.

Table 5-1. Hierarchy of Preferred Management Methods		
Management Method (in order of highest to lowest preference)	Yard Debris, Wood, Compostable Paper, Other Compostables	Food Waste¹
Waste Prevention	Product Substitution ² On-Site Composting GrassCycling	Source Reduction Feed Hungry People Feed Animals
Composting and Recycling	Collection and Processing into Mulch (wood waste) Collection and Processing into Compost	Collection and Processing into Compost and Other Products Rendering
Energy Recovery	Anaerobic Digestion Fuel (wood waste)	Anaerobic Digestion Biodiesel (grease)
Landfilling and Incineration without Energy Recovery	Disposal (waste export)	Disposal (waste export)

- Notes:
1. The hierarchy shown above for food waste is based on EPA's "Food Recovery Hierarchy," but with energy recovery methods downgraded below composting.
 2. Product substitution in this case includes the use of durable products (ceramic plates, cloth napkins, etc.) in place of disposable products (such as paper plates and napkins).

This chapter addresses the second step, collection and processing of organics into compost and for other purposes. Waste prevention methods are addressed in Chapter 3, and the last two steps (energy recovery and landfilling) are addressed in Chapter 7 (to the extent that these are addressed in this SWMP).

5.2. EXISTING ORGANICS PROGRAMS

Numerous activities are currently being conducted in Skagit County for collecting and processing organics. These are discussed below according to the type of program.

Several cities in Skagit County (including Anacortes and Mount Vernon) have banned yard debris disposal, and encourage the use of other options instead. Burning of yard debris has also been banned by State rules, as implemented by the Northwest Clean Air Agency. Burning of residential yard debris and landclearing debris is not allowed in all eight cities and towns (including adjacent urban growth areas), as well as in the areas of Bay View and March Point.

Drop-Off Programs

Four cities and towns operate drop-off programs for yard debris. Three of these are year-round programs that are supported by charges for this service. These three (La Conner, Mount Vernon and Sedro-Woolley) have a system of pre-paid punch cards that are used for this. The Mount Vernon and Sedro-Woolley sites accept pumpkins and Christmas trees at no charge.

The City of Anacortes accepts yard debris for free at their Public Works Operations facility on two Saturdays each year (once in the spring and once in the fall). This is done to accommodate residents who generate larger materials that do not fit into the organics collection carts (tree limbs, branches, shrubs, large amounts of leaves, etc.). In 2014, 160 cubic yards were collected on these two days. Christmas trees are also collected for free each year by volunteers working with the Parks Department.

The City of Mount Vernon's drop-off site for yard debris is at their Public Works shop and is open to city residents only. This site is open five days per week in March through October, and three days per week for November through February. This site accepts yard debris, clean wood, and shredded paper. Organic materials are brought to Skagit Soils for composting, and the wood is brought to Lautenbach Industries. In 2014, the drop-off site collected 1,796 tons of organics and 421 tons of wood. The sales of punch cards generated \$22,159 in revenue in 2014.

The City of Sedro-Woolley accepts yard debris at their recycling center. Customers are encouraged to keep grass clippings separate from brush, as these materials are marketed separately.

The Town of La Conner accepts yard debris at their wastewater treatment plant and uses it in their biosolids composting process. The resulting compost is sold for \$5 to \$13 per cubic yard, depending on the amount sold and whether it is screened or not. Small amounts of compost are provided free to people who can load it themselves.

Skagit County collects yard debris at the Transfer and Recycling Station. Yard debris separated from solid waste loads is directed to a designated area of the tipping floor. This material is currently being delivered to Skagit Soils for composting.

A number of private companies accept yard debris and woody materials for composting and grinding. The two largest private composting operations in Skagit County are Skagit Soils near Mount Vernon and Dykstra Farms near Burlington. Dykstra Farms takes in a variety of organics (such as seafood processing waste and shredded paper) and uses these materials to compost their dairy manure. Skagit Soils is open to the public and charges a tipping fee for people to drop off yard debris. Much of the material composted by Skagit Soils is delivered by Waste Management (mixed organics from curbside and commercial routes) and others such as the City of Mount Vernon.

Several companies in Skagit County accept woody debris for grinding or grind materials they generate to produce mulch and other products.

Lautenbach Industries accepts incidental amounts of yard debris, but they generally refer people with large loads to Skagit Soils (which is located nearby) or other facilities.

Collection Programs

The Cities of Anacortes, Burlington, and Mount Vernon have curbside collection for mixed organics through contracts with Waste Management. Current charges for these services are shown in Table 5-2. As of May 2015, the charge for this service was \$8.95 per month in Burlington (and \$4.00 per extra can or bundle), \$11.24 per month in Mount Vernon (plus \$3.48 for extra 32-gallon cans or bundles). In both of these cities, service is provided using 96-gallon carts that are emptied weekly March through November and every-other-week in December through February. As of July 2015, the charge for this service in Anacortes was \$11.00 per month for a 96-gallon cart (plus \$11.00 for extra 32-gallon cans or bundles) emptied weekly year-round. As of September 1, 2015, city crews began collecting yard waste in Sedro-Woolley.

Table 5-2. Monthly Charges for Organics Collections		
City	Monthly Charge	Extra Cans or Bundles
Anacortes	\$11.00	\$11.00
Burlington	\$8.95	\$4.00
Mount Vernon	\$11.24	\$3.48
Sedro-Woolley	\$8.94	NA

Current as of July 2015.

The organics collection program in Anacortes diverted 2,483 tons in 2014. In Mount Vernon, the collection program diverted 1,606 tons of material from 2,255 residential customers (with a total of 5,933 garbage customers, the organics subscription rate in Mount Vernon was 38% in 2014). In Sedro-Woolley, there were 704 tons of organics collected from 820 residential subscribers in 2014 (with a total of 3,212 residential garbage subscribers, the subscription rate was 26% in Sedro-Woolley).

Waste Management also provides curbside collection of mixed organics in the unincorporated area west of Highway 9, excluding Guemes Island. As of July 2015, the charge for this service was \$9.65 per month for a 96-gallon cart (\$4.30 for extra 32-gallon cans or bundles) emptied weekly March through November and once-monthly for December through February. There were 259 mixed organics customers in the unincorporated area in 2011.

Businesses in Skagit County can sign up for organics collection services. Several businesses are subscribing, but an exact number is unknown.

Lawn maintenance and landscaping services, including land clearing services, also provide collection services for organics in a sense.

Processing and Market Capacity

Processing capacity in Skagit County is sufficient to handle the organics currently being collected. Markets are reported to be adequate as well, as long as the quality of the compost is maintained.

The primary processor of mixed organics in Skagit County, Skagit Soils, uses a static windrow system. Incoming materials are ground up soon after being delivered, and are mixed in the grinder with other materials as needed to create the proper mix of materials for composting purposes. This mixture is placed into windrows (long piles) and then turned five times over the following two weeks. After that, the composted material is moved to a curing pile for a few months, and then screened and sold. As part of the screening process, a vacuum system removes most (but not all) of the plastic contamination and a magnet removes any ferrous metals.

5.3. PLANNING ISSUES FOR ORGANICS

Skagit County is currently served by a variety of organics programs, and a few potential improvements and issues are noted below.

Contamination in Mixed Organics

The primary processing facility in Skagit County, Skagit Soils, reports that excessive amounts of contamination are present in some of the loads of mixed organics and

that this seems to be the result of commercial food waste customers that are not adhering to the rules regarding acceptable materials.

Problematic Materials in Mixed Organics

The primary processing facility in Skagit County, Skagit Soils, reports that some of the materials considered acceptable in the mixed organics stream, specifically compostable plastic bags, plastic serviceware and other types of compostable plastics, are not breaking down in their system and hence are contaminating the end products.

Data for Evaluating and Monitoring Organics Programs

Better data is needed on the quantity and quality of organics collected by various programs in the County. It is impossible to evaluate the performance of these programs without this information.

Promotion for Organics Collection Program

Information about the mixed organics collection program is difficult to find on some of the city's websites. Promotional efforts for the mixed organics programs in the unincorporated areas could also be improved.

Climate Action Plan

The Climate Action Plan adopted in 2010 made a few recommendations regarding organics, including:

- divert food waste to compost or anaerobic digestion.
- ban yard debris from garbage.

5.4. ALTERNATIVE ORGANICS STRATEGIES

The following alternatives were considered for new or expanded organics activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 5.6 for the recommendations). It should also be noted that the possibility of a ban on yard waste disposal is discussed in Chapter 3 as a potential waste reduction method (see Section 3.4), and the possibility of using a service level ordinance to collect better data on organics and recycling programs is addressed in Chapter 4 (see Section 4.5).

Alternative A - Institute Practice of Inspecting and Potentially Rejecting Commercial Mixed Organics Setouts

Waste Management could initiate a practice of inspecting containers of commercial organics, at least for problematic customers, before emptying those into the collection truck. Containers could be not emptied if deemed too contaminated, and instead the container could be tagged and emptied as waste at a higher cost to the customer

(thus providing incentive for the customer to do better in separating the acceptable and unacceptable materials).

Alternative B – Reduce the Types of Acceptable Materials for Mixed Organics

Plastic bags and some other types of “compostable” plastics are not breaking down in the composting process at Skagit Soils. These materials could be removed from the list of acceptable materials for the organics collection program and participants could be discouraged from including compostable plastics in the mixed organics.

Alternative C – More Promotion of the Mixed Organics Collection Program

More promotion could be conducted for the mixed organics to encourage residents and businesses to sign up for this service and to inform them of the materials that are acceptable for it. An increased emphasis of the promotion for this service could be directed at reducing the amount of contamination by non-compostable materials. This information could be distributed to existing customers, placed more prominently on city websites, and promoted in other ways as available.

Alternative D – Encourage Markets for Compost

Skagit County and the cities and towns could take steps to encourage markets for locally-produced compost by encouraging the use of compost by all departments in public projects. Planning departments could be encouraged to recommend compost in landscaping and erosion control projects, using brochures and other information developed by Skagit County. Private companies could also be encouraged to use compost through public outreach and building specifications.

5.5. EVALUATION OF ORGANICS ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue it or not based on the overall rating for each. These criteria include:

- consistency with the hierarchies shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: It could be argued that Alternatives A, rejecting contaminated commercial setouts, and B, reducing the types of acceptable materials for the mixed organics programs, will lead to less material being diverted from the waste stream and thus are not consistent with the idea of achieving a higher recycling rate, but in actuality these alternatives will reduce the amounts of contaminants that should not be counted as being diverted anyways. Alternatives C, more promotion of mixed organics collection services, and D, encouraging markets, are very consistent with the hierarchy and planning goals.

Feasibility: In judging the alternatives for technical and political feasibility, Alternatives A, rejecting contaminated commercial setouts, and C, increasing promotion for the mixed organics program, should be highly feasible. Although Alternative C could lead to additional demands on staff time and other costs, much of this alternative could be accomplished by making use of existing tools (such as websites) and minimal investments in staff time. Alternative B, reducing the list of acceptable materials for the mixed organics programs, would be more challenging to implement, as this would require “re-training” participants that have been told that compostable plastics are acceptable. Alternative D, encouraging markets, may be difficult to implement due to the need to for additional staff (a new Recycling Coordinator) to implement these steps.

Cost Effectiveness: Alternative A, rejecting contaminated commercial setouts, should be highly cost-effective since this activity could eliminate contamination at the source. The cost-effectiveness for Alternative B, reducing the list of acceptable materials for the mixed organics programs, is uncertain because the cost of publicizing a change in the list of acceptable materials would need to be balanced against the cost of removing those contaminants during processing and the potential for higher market revenues. The cost-effectiveness for Alternative C, increasing promotion for the mixed organics program, should be high based on the assumption that the cost of this approach would be low and that it could potentially result in more tons of material being diverted. The cost-effectiveness of Alternative D, encouraging markets, is uncertain, but the use of compost has been demonstrated to be very cost-effective in many applications.

Diversión Potential: Alternatives A, rejecting contaminated commercial setouts, and B, reducing the list of acceptable materials for the mixed organics programs, are rated low with respect to diversion potential since these steps could reduce the amount of materials diverted to composting. Alternatives C, increasing promotion for the mixed organics program, and D, encouraging markets, should result in more tons of mixed organics being diverted.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 5-3. Ratings for the Organics Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effectiveness	Diversion Potential	Overall Rating
A, Reject contaminated commercial setouts	M	H	H	L	M
B, Reduce acceptable materials for mixed organics	M	M	M	L	M
C, More promotion for mixed organics	H	H	H	H	H
D, Encourage markets for compost	H	M	M	M	M

Rating Scores: H – High, M – Medium, L – Low

5.6. ORGANICS RECOMMENDATIONS

The following recommendations are being made for organics programs in Skagit County (see also Chapters 3 and 4).

High-Priority Recommendations

- O1) More promotion must be conducted for the mixed organics collection services.

Medium-Priority Recommendations

- O2) Contaminated commercial setouts should be rejected by the collection companies.
- O3) Compostable plastics should not be collected in the mixed organics collection system.
- O4) The cities, towns and county will promote the use of compost.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for Recommendations O1, O2 and O3 should be the organics collection companies or agencies (Waste Management and Sedro-Woolley). For Recommendation O4, the responsible agencies include Skagit County and the eight cities and towns, as well as associated agencies. Contingent on the hiring of a new Recycling Coordinator, additional steps should be taken to encourage the use of compost and mixed organics collection systems in the public bidding process. The County and Cities should also distribute brochures and other information with

building permits, and the County should take the lead on developing this information (again, contingent on the hiring of a new Recycling Coordinator).

The cost for Recommendation O1 will be up to \$50,000 and this would be primarily funded by Waste Management (but paid through collection service fees). The cost for Recommendations O2 and O3 will be minimal. The cost for Recommendation O4 will be up to \$25,000 for development and printing costs.

The implementation of these recommendations should begin in 2018.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

WASTE COLLECTION

6.1. BACKGROUND FOR WASTE COLLECTION

Introduction

This chapter addresses the solid waste collection system in Skagit County. The primary focus of this chapter is on the non-recycled portion of solid wastes.

Regulations Concerning Waste Collection

The Washington State authorities that govern collection activities are Ecology and the Washington Utilities and Transportation Commission (“UTC”). RCW 70.95.020 also assigns responsibilities to local government for solid waste handling while encouraging the use of private industry. The various laws that apply to solid waste collection companies include:

- **Chapter 81.77 RCW, Solid Waste Collection Companies:** This law establishes the State regulatory authority for solid waste collection companies and the procedures and standards with which they must comply.
- **Chapter 35.21 RCW, Cities and Towns:** This law provides cities and towns with the authority for solid waste and the procedures and standards with which they must comply. Per RCW 35.21.120, “A city or town may by ordinance provide for the establishment of a system or systems of solid waste handling for the entire city or town or for portions thereof. A city or town may provide for solid waste handling by or under the direction of officials and employees of the city or town or may award contracts for any service related to solid waste handling.”
- **Chapter 36.58 RCW, Solid Waste Disposal, and 36.58A RCW, Solid Waste Collection Districts:** Chapter 36.58A RCW authorizes counties to form a collection district that would enable the adoption of mandatory waste collection. Chapter 36.58 RCW primarily addresses disposal activities, including the ability to form a solid waste disposal district, but one section (RCW 36.58.045) authorizes counties to “impose a fee upon ... a solid waste collection company” to fund planning and administrative expenses that may be incurred by the county.
- **Chapter 480-70 WAC, Rules for Solid Waste and/or Refuse Collection Companies:** This chapter establishes standards for solid waste collection companies, including public safety, fair practices, reasonable charges, consumer protection, compliance, and other factors.

There are four forms of collection services that are allowed by State law in cities:

- **Certificated:** With this collection method, cities are not actively involved in the management of garbage collection. Instead, the UTC-certificated hauler provides

service under UTC regulation. There are four towns in Skagit County that use this approach (Concrete, Hamilton, La Conner and Lyman).

- **Municipal:** This approach utilizes municipal employees and equipment to collect waste. There are three cities in Skagit County that use this approach (Anacortes, Mount Vernon and Sedro-Woolley).
- **Contract:** The contract approach provides cities and towns with a great deal of control over the services and rates provided in their jurisdiction. There is one city in Skagit County (Burlington) that uses this approach.
- **Licensed collection:** This method applies to municipalities that require private collectors to have both a city-issued license as well as a UTC certificate. This approach gives the municipality limited control over collection services. No cities in Skagit County currently use this approach.

Cities can also attach a utility tax to the waste collection services in their jurisdiction, and this option is currently exercised by:

- the City of Anacortes assesses a 12% tax on solid waste charges assessed by the city,
- the Town of Hamilton assesses a 6.38% utility tax on solid waste services in the town,
- the Town of La Conner assesses a 3.0% utility tax on solid waste services in the town,
- the City of Sedro-Woolley assesses an 8.1% utility tax on solid waste services in the city, and
- the Swinomish Reservation assesses a 3.0% utility tax on solid waste services provided within their reservation.

Local Regulations

In addition to the utility tax, a number of the cities and towns in Skagit County have local codes addressing the requirements to have garbage service, to keep properties in a clean and orderly fashion, and related concerns. A few of the cities have also adopted disposal bans for yard waste.

County ordinances addressing waste collection include the “flow control ordinance” (Chapter 12.18 of the County Code), which requires that solid wastes generated in Skagit County be delivered to one of the designated disposal facilities (which are defined to include the main transfer station, the Sauk and Clear Lake sites, and the MRW Facility). Exceptions are provided in Chapter 12.18 for source-separated materials delivered to a recycling or composting facility, and for a limited number of other cases. Chapter 12.17 of the County Code addresses the need for vehicles transporting solid wastes to secure their loads so as to prevent any part of the load from falling off of the vehicle while it is in motion. The interlocal agreements

between Skagit County and the cities also require that the cities bring or direct their solid wastes to the County system.

Goals for the Waste Collection System

A number of the goals for this SWMP are applicable to waste collection:

- maintain and improve a long-term stable solid waste management system.
- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.

6.2. EXISTING WASTE COLLECTION PROGRAMS

Three types of waste collection systems exist in Skagit County; municipal programs operated by three cities, a city that contracts for collection services, and waste collection services offered by private haulers throughout the rest of the county. In addition, residents and businesses have the option of hauling their own garbage (i.e., “self-haul”) to the transfer station or the two rural dropbox facilities.

Municipal Collection Services

Three of the cities (Anacortes, Mount Vernon and Sedro-Woolley) provide garbage collection services to their residents and businesses with their own equipment and personnel. These three cities have universal, or mandatory, garbage collection services. Rates charged for various service levels are shown in Table 6.1. Billing is performed by the cities, and includes a mandatory charge for recycling service.

In Mount Vernon and Sedro-Woolley, all solid wastes are required to be collected and transported by the city’s crews and equipment. This is also the case in Anacortes, except that in the past the City of Anacortes has not had the equipment to haul larger containers (roll-off containers). The City of Anacortes has recently purchased additional equipment for this and will be providing more of these services in the future.

In addition to the service levels shown in Table 6.1, the City of Anacortes has a pre-paid bag system for residents who have extra amounts of garbage. The bags are sold for \$4.00 each at local stores and City Hall, with the cost of collection included in the bag price. Commercial customers in Anacortes can also subscribe to a mini-can rate at the same charge as residential customers (\$7.00 per month) or can use up to five 32-gallon cans for service (at \$13.00 per can).

Table 6-1. Collection Rates in Skagit County

Area	Residential Collection Rates ¹				Commercial Collection Rates ²			
	Mini-can (20 gallons)	1 can (32 or 35 gallons)	2 cans or a 64-gallon cart	Recycling	Mixed Organics	1 yard/wk	2 yards/wk	4 yards/wk
Municipal Services								
Anacortes	\$18.50	\$25.43	\$50.86	Included (\$9.00)	\$11.00	\$109.82 (1.5 yd)	\$132.94	\$190.74 (3 yd)
Mount Vernon	\$13.47	\$23.56	\$39.71	Inc. (\$3.40)	\$11.24	\$78.47	\$125.56	\$217.47
Sedro-Woolley	\$11.50	\$19.40	\$26.93	Inc. (\$2.65)	\$8.94	\$83.06	\$109.82	\$215.39
City Contract								
Burlington	\$10.94	\$14.24	\$20.13	Inc. (\$2.80)	\$9.11	\$60.87	\$96.93	\$178.51
Waste Management Service Area								
Certificated Area ³	\$14.80	\$16.60	\$24.50	\$7.22 ⁴	\$9.65	\$76.26	\$117.86	\$202.78

Notes: Rates shown are current as of July 1, 2015 and are subject to change. Rates shown include recycling (where required) and applicable taxes.

- 1) Residential collection rates refer to monthly charges for weekly pickup of the number of cans shown. All city utilities include a basic recycling charge as part of the utility service. In the areas served by Waste Management, recycling services and costs are optional (i.e., at the customer's request).
- 2) Commercial collection rates vary significantly depending on the size of the container and frequency of service. A few rates are shown in the above table to illustrate the range of rates associated with different waste volumes (all of these rates are based on permanent, not temporary, service for one pickup per week at the volume shown). Additional charges may apply for container rental, recycling services, access problems, overflow conditions and other factors.
- 3) Waste Management's certificated service area includes the towns of Concrete, Hamilton, La Conner and Lyman, and the unincorporated areas. Recycling and mixed organics collection services are available only west of Highway 9. Rates shown are for service using containers provided by Waste Management.
- 4) The recycling rate in the certificated area reflects a commodity credit of \$2.18 (effective July 1, 2015 through June 30, 2016).

Population densities (the number of people per acre) for the service areas are based on the 2010 Census results (OFM 2014) and land area figures for the year 2015:

	<u>2014 Population</u>	<u>Land Area, acres</u>	<u>Density</u>
Anacortes	16,190	9,939	1.63
Burlington	8,445	2,829	2.99
Mount Vernon	33,170	8,070	4.11
Sedro-Woolley	10,610	2,438	4.35
Remainder of County	51,085	1,084,690	0.05
Totals	119,500	1,107,970	0.11

The City of Mount Vernon provides a senior discount for the smaller garbage can sizes. For the mini-can (20-gallon can), the discount is 50% of the regular rate (before recycling and taxes), and the discount is 25% for the 35-gallon size.

Sedro-Woolley recently conducted a pilot project for every-other-week (EOW) garbage collection. The pilot project was conducted December 2014 through May 2015. The pilot project was considered a success but the City is not pursuing this approach at this time. Sedro-Woolley also provides low-income rates for residential services that are 20% less than regular rates, and offers “bulk collection” for large items (stoves, refrigerators, etc.) for an extra fee.

City Contracts

The City of Burlington provides waste collection services to their residents and businesses through a contract with Waste Management. The City of Burlington has universal, or mandatory, garbage collection services, and the rates charged are based on the contract between the City and Waste Management (see Table 6-1). The billing for these services is conducted by Waste Management. A discounted garbage service rate is offered for senior citizens and disabled customers in Burlington. In Burlington, recycling is required for residential customers.

Certificated Areas

Waste Management (800-592-9995, 12122 Bay Ridge Drive, Burlington, WA) provides waste collection services in five cities and towns (Burlington, Concrete, Hamilton, La Conner and Lyman) and in the unincorporated areas of Skagit County, as well as providing curbside recycling services to homes in the area west of Highway 9. In the Waste Management service area (except for Burlington), subscription to waste collection services is voluntary for residential and commercial customers. A certificate issued by the State provides Waste Management with the exclusive right to collect solid waste from residences and businesses in the unincorporated areas of the County, although people and companies also have the right to haul their own garbage to the transfer station or one of the two rural facilities. Waste Management also collects solid waste in most of the neighboring counties (Chelan, Island, Okanogan, Snohomish and Whatcom Counties).

Waste Management’s rates are shown in Table 6.1. In addition to the typical service options for residential customers, Waste Management offers once-monthly and every-other-week pickup of one can. The rate for once-monthly collection of garbage (\$5.60) is the lowest monthly rate offered by Waste Management for residential service, and the low rate is based on the actual collection cost savings and lower disposal volumes associated with this level of service. Additional fees are assessed for temporary accounts, container rental, special (unscheduled) pickups, overfull containers and other services. Rates charged by Waste Management in the certificate areas are regulated by the UTC.

One small area of Skagit County, Sinclair Island, may be serviced by another certificated hauler. Sinclair Island is part of the certificated area for Disposal Services, Inc., which is based in Ferndale, Washington (4916 LaBounty Drive, Ferndale, WA 98248, 360-384-8011). Sinclair Island lies off of the western shore of mainland Skagit County and is only 1.6 square miles in size. The most recent annual report provided to the UTC for this area shows that no services were provided on Sinclair Island in 2015.

Collection Services for Other Jurisdictions

Tribal lands and Federal facilities such as military bases can arrange for refuse collection services independently. The Swinomish Tribal Community and the Samish, Sauk-Suiattle, and Upper Skagit Indian Reservations are located within Waste Management's certificate area but have not chosen to make alternative arrangements.

6.3. PLANNING ISSUES FOR WASTE COLLECTION

Current and Future Capacity

The current collection system does a good job of collecting and removing solid wastes generated by the County's and City's residents and businesses. Future waste quantities have been estimated (see Table 2.9), and the existing collection system is anticipated to be able to handle the projected increase.

Waste Diversion Programs

Some service gaps associated with the current collection system have been noted for recycling and organics, and these are discussed in Chapters 4 and 5, respectively.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 made one recommendation regarding waste collection, which is to "provide garbage vouchers for low-income residents" (Policy D-10). This policy was intended to apply to garbage collection and disposal, as well as recycling.

6.4. ALTERNATIVE WASTE COLLECTION STRATEGIES

The following alternatives were considered for new or expanded waste collection activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 6.6 for the recommendations).

Alternative A – Institute Program of Discounts for Low-Income Families

All four of the largest cities (Anacortes, Burlington, Mount Vernon and Sedro-Woolley) already offer low-income or senior citizen and disability discounts. Implementing this approach in the certificated area is allowed by State law (RCW 81.77.195) and would require that Skagit County adopt a service level ordinance for this. Procedures would need to be worked out for determining the households that would qualify for this. Waste Management would need to file a new tariff to adopt rates that are based on an estimate of the number of qualifying households that would use the discount. It should be noted, however, that other provisions of State law (WAC 480-70-336(4)) do not allow other ratepayers to be charged more to make up for the discounted rates, meaning that Waste Management would be forced to absorb the reduction in revenues caused by the discount.

Alternative B – More Promotion of Drop Box Service for Recycling and Organics

Customers who use temporary drop boxes (roll-off containers) could be encouraged to source-separate organics and recyclables, including C&D, so that these materials could be delivered to the appropriate processing facilities instead of being disposed. This promotion is already being done to some extent, but more could be done.

Alternative C – Switch to Every-Other-Week Collection

The Cities (through changes in their own operations or in contracts) and the County (through a service level ordinance) could change garbage collection to every-other-week. This step would reduce the environmental impacts associated with waste collection, promote diversion of recyclables and organics, and reduce costs for waste collection subscribers. Potential drawbacks include concerns about odors and pests, and more missed pickups due to confusion about the collection schedule. Every-other-week service is already offered as an option in Waste Management's service area, but this alternative is not well publicized.

Alternative D – Mandatory Waste Collection

Another alternative to meet collection needs for Skagit County is mandatory garbage collection in the rural areas. Currently about 57% of the County's residents are in areas where collection service is already mandatory (i.e., the four largest cities) and the remainder of the residents are in areas where subscription to collection service is voluntary. Mandatory collection in unincorporated areas could be provided through a solid waste collection district. State law (Chapter 36.58A RCW) enables a county to establish such a district.

Mandatory collection programs throughout the rest of Skagit County would provide some benefits, but not without possible drawbacks. Potential benefits include a reduction in illegal dumping; a reduced need for enforcement of illegal dumping, littering and other laws; and greater ability to provide curbside recycling programs (assuming a combination of recycling and garbage services). Mandatory collection, however, can act as a disincentive for those who are already reducing their wastes.

6.5. EVALUATION OF WASTE COLLECTION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue an alternative or not based on the overall rating for each. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: None of the alternatives are inconsistent with the planning goals, but some agree with the goals better than others. Alternative D, mandatory garbage collection, is rated low for consistency with planning goals due to the lack of flexibility it creates for rural residents.

Feasibility: All of these alternatives would be challenging in various ways to implement. Alternative A, low income vouchers, would require the County to adopt a service level ordinance and additional actions by Waste Management would be needed to implement this in the certificated area. Alternative B, more promotion of drop boxes for organics and recyclables, would be difficult to implement outside of the cities. Both Alternative C, switching to EOW collection, and Alternative D, mandatory garbage collection, would be very politically challenging to implement.

Cost Effectiveness: Alternative A, low-income vouchers, could be cost-effective in the sense that encouraging proper waste disposal is less expensive than cleaning up junk properties and illegal dumping, but is rated low for this criteria due to the high administrative costs involved in setting up this program. The other alternatives are rated better for cost-effectiveness on the basis that the cost of the approach would be low or because the costs would be covered by user fees.

Diversion Potential: Alternative A, low-income collection vouchers, is not expected to lead to increased recycling. Alternative B, more promotion of drop boxes for organics and recyclables, could lead to more diversion. Alternative C, switching to EOW collection, could encourage more waste diversion but this could depend on how recycling and waste collection services are packaged. Alternative D, mandatory garbage collection, could lead to significantly more recycling or have the reverse effect, depending on whether it is combined with curbside recycling services.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 6-2. Ratings for the Waste Collection Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effectiveness	Diversion Potential	Overall Rating
A, Collection vouchers for low-income families	M	L	L	L	L
B, Promote drop boxes for recycling and organics	H	L	M	M	M
C, Switch to EOW service	M	L	H	M-H	M
D, Mandatory garbage collection	L	L	M	L-H	L

Rating Scores: H – High, M – Medium, L – Low

6.6. WASTE COLLECTION RECOMMENDATIONS

The following recommendations are being made for waste collection programs in Skagit County.

Medium-Priority Recommendations

WC1) More promotion should be conducted for drop box customers to source-separate recyclable and compostable materials.

WC2) The cities and Waste Management should consider switching all residential garbage collection services to every-other-week service.

Overview of Implementation Responsibilities, Costs and Schedule

The lead entities responsible for these recommendations are the three cities with municipal collection systems and the primary waste hauler (Waste Management). The City of Burlington will also need to be involved in Recommendation WC2.

The cost for Recommendation WC1 will be up to \$25,000 and this would be primarily funded by the Cities and Waste Management (but paid through collection service fees). The cost for Recommendation WC2 will include public education expenses if every-other-week service is actually implemented.

The implementation of these recommendations should begin in 2018.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

TRANSFER AND DISPOSAL SYSTEM

7.1. BACKGROUND FOR THE TRANSFER AND DISPOSAL SYSTEM

Introduction

This chapter of the Solid Waste Management Plan (SWMP) discusses the various components and options for the transfer and disposal system in Skagit County.

Regulations Concerning Waste Transfer and Disposal

State laws and regulations concerning waste transfer and disposal can be found in the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC). The RCW contains the laws adopted by the State Legislature, while the WAC consists of the regulations adopted by State agencies to implement the laws contained in the RCW. The most relevant State regulations include:

- WAC 173-350-100 defines transfer stations, drop box facilities, and intermediate solid waste handling facilities. These facilities must meet specific design and operating standards, although closure and financial assurance standards are minimal for these types of facilities.
- RCW 36.58.050 states that transfer stations included in a solid waste plan are exempt from regulation by UTC and requirements to use certificated haulers. Furthermore, it states that the county “may enter into contracts for the hauling of trailers of solid wastes from these transfer stations to disposal sites and return either by (1) the normal bidding process, or (2) negotiation with the qualified collection company servicing the area under authority of Chapter 81.77 RCW.”
- Chapter 36.58 RCW, Solid Waste Disposal, authorizes counties to contract for disposal services, designate disposal sites, and to form disposal districts.
- Chapter 173-350 WAC, Solid Waste Handling Standards, provides rules for implementing Chapter 70.95 RCW and sets minimum functional performance standards for the proper handling of solid wastes. Ch. 173-350 contains rules for facilities for recycling, composting, land application, anaerobic digesters, intermediate solid waste handling, piles, MRW and limited purpose landfills, as well as providing rules for beneficial use permits, groundwater monitoring, financial assurance and other important activities.
- Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, provides minimum standards for solid waste landfills (not including inert or limited purpose landfills). Local jurisdictional health departments can enact ordinances equally as or more stringent than this regulation.

The primary local regulations addressing transfer stations and other solid waste facilities are included in the Skagit County Code (SCC), Chapters 12.16 - Solid Waste Handling and Facilities, and 12.18 - Solid Waste Disposal System. Chapter 12.18 contains the flow control ordinance that requires solid wastes generated in Skagit County to be delivered to a designated disposal facility, which effectively prevents a private transfer station from being established in Skagit County unless County code is revised to designate it.

A landfill typically operates under the rules of the county in which it is located, as enforced by the local health district, as well as State and Federal rules. The Roosevelt Regional Landfill (owned by Republic Services), where Skagit County's waste is currently disposed, is governed by the rules of Klickitat County and its health district. Activities at the Roosevelt Regional Landfill are also guided by an agreement between Klickitat County and Republic Services and by the conditional use permit for the landfill.

Goals for the Transfer and Disposal System

While all of the goals adopted by the SWAC (see Section 1.8) apply to the transfer and disposal system, the following goals are the most relevant:

- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- incorporate flexibility to anticipate future needs.
- maintain and improve a long-term stable solid waste management system.

7.2. SYSTEM OVERVIEW AND POLICY

In the early to mid-2000s, the roles of the private sector, the Cities, and the County in solid waste transfer and disposal (collectively called "the System") was a topic of serious debate. In response to these discussions, on March 19, 2007 the Board of Skagit County Commissioners adopted resolution #R20070141 requiring "that the County-owned transfer station be the primary designated site within Skagit County for the purpose of collection, processing and transferring of municipal solid waste."

The System is now a well-integrated combination of facilities, programs, activities and agreements that work together to ensure the proper and effective handling of solid waste. The County, Cities and private companies have made substantial investments in the System to ensure environmentally-sound recycling and disposal of solid waste and to safeguard public health. In addition, the transfer and disposal elements of the System also funds related aspects such as cleanup of illegal dumping, remediation of past disposal sites, and proper management of moderate risk wastes.

A System Policy was developed to preserve the System's ability to fulfill its obligations and mandates for solid wastes. The key points of the System Policy are:

- The County-owned transfer station is designated as the only currently-approved municipal solid waste facility in Skagit County, and all municipal solid waste generated in Skagit County must be delivered there (or to one of the two rural drop box sites) unless specifically exempted in the System Policy.
- Other solid waste facilities may be allowed in the future, but only after consulting with the SWAC and then approval by the Skagit County Solid Waste System Governance Board (per the terms of the interlocal agreement dated April 30, 2008 [Skagit County Contract # C20080306, amended in 2010 by #20100124]), and in response to a procurement process conducted by Skagit County. If successful, this process may result in a contract between Skagit County and another entity.
- The Health Department shall continue to require ongoing contract compliance as a condition of annual solid waste facility permit renewal requirements.

Private facilities handling waste from outside the county must comply with the Skagit County Solid Waste Management Plan, the Moderate Risk Waste Management Plan, the Skagit County Comprehensive Plan, and the solid waste management plan and regulations of the jurisdiction in which the waste is generated. Because Skagit County Code (SCC 12.18.040(3)) states that emptying a waste container in Skagit County is defined as waste that is generated in Skagit County, any recycling or other waste handling facilities in the county must use a Skagit County facility for disposal of non-recycled residuals.

7.3. TRANSFER SYSTEM

Existing Activities for Waste Transfer

The transfer system consists of three facilities owned and operated by Skagit County: two drop box sites that collect waste and recyclables in rural locations, and a transfer station near Mount Vernon that receives waste and recyclables from commercial haulers, self-haulers, and drop boxes from the rural sites.

Skagit County Transfer and Recycling Station (TRS): Completed in 2012, the TRS consists of a vehicle scale, scalehouse, recycling drop-off area, tipping building for commercial and self-haul vehicles, and pre-load compactor. It is located at the site of the closed incinerator, approximately five miles west of Mount Vernon at the intersection of Farm-to-Market and Ovenell Roads. The TRS is open 359 days a year for recycling and waste disposal from 8:30 a.m. to 6:00 p.m.

In 2014, the TRS received a total of 99,189 tons of waste, including the wastes brought from the Sauk (1,550 tons) and Clear Lake (136 tons) sites, waste delivered by Waste

Management (the primary certificated collection company in Skagit County), the cities that conduct municipal collections, and waste brought in by businesses and residents (self-haulers). Excluding contributions from the Sauk and Clear Lake sites, the TRS received 97,465 tons, or 98% of the County's total solid waste. A total of 111,842 loads were disposed at the TRS in 2014.

Sauk Transfer Station: The Sauk Transfer Station is located between Concrete and Rockport and is open Thursday through Sunday from 9:00 a.m. to 5:00 p.m., except for six holidays per year. This facility is operated for the collection of household waste only (i.e., no commercially-collected waste). The site consists of an attendant's trailer, a vehicle scale, six recycling drop boxes of various sizes, and an appliance receiving area. A Z-wall allows customers to drop waste down into the six solid waste drop boxes located on the lower level of the station.

In 2014, 10,660 customers delivered 1,550 tons of solid waste to this facility, or about 1.7% of the County's waste stream. The Sauk Transfer Station also accepts a variety of materials for recycling, including glass, aluminum, cardboard, plastic milk jugs, magazines, and mixed waste paper. Used motor oil, antifreeze and white goods (large appliances) are also accepted. The County hauls full waste containers to the TRS for disposal and recycling containers are brought to Skagit River Steel & Recycling in Burlington for sorting, processing, and marketing. In 2014, 202 tons of recyclables were dropped off at this facility.

Clear Lake Recycling and Compactor Site: The Clear Lake compactor site is located on Howey Road near the intersection of State Highway 9 and South Skagit Highway. As of January 1, 2017, this site is open Friday through Monday from 8:00 a.m. to 6:00 p.m. for the collection of household wastes and recyclables. The site consists of an attendant's building, two stationary compactors, six recycling drop boxes of various sizes, and an appliance receiving area. Because Clear Lake has no scale, customers are charged on the basis of volume. Recyclables accepted include cardboard, mixed waste paper, magazines, newspaper, aluminum cans, plastic containers, glass, scrap metal, used oil and antifreeze.

In 2014, 4,049 customers delivered 136 tons of solid waste to this facility, or about 0.2% of the County's waste stream. Another 238 tons of recyclables were dropped off at this facility in 2014. The County hauls full waste containers to the TRS for disposal and recycling containers are brought to Skagit River Steel.

Planning Issues for Waste Transfer

Cost-Effectiveness of Rural Sites: The Sauk and Clear Lake facilities provide convenience and reduce the driving distance for County residents who do not subscribe to curbside collection service. However, in 2014 Sauk handled only about 1.7% of the County's waste stream, while Clear Lake handled less than 0.2%. At

these levels, the cost of operating these sites is relatively high (especially for Clear Lake, at more than \$883 per ton).

Signage for TRS: It has been reported that self-haul customers occasionally miss the entrance to the TRS and end up at one of the nearby recycling or composting facilities. The signage could be reviewed and upgraded, and additional signs installed as appropriate.

Emphasis on Recycling and Coordination between Facilities: It has been suggested that there may be a better way to handle customers with mixed loads, such as a vehicle carrying both solid waste and yard waste/construction debris. It is desirable to divert material away from landfill disposal and direct it instead to recycling or composting facilities. One method would be to have the scale attendants at the transfer station (TRS) encourage customers to preferentially utilize local recycling facilities.

Alternatives for Waste Transfer

Alternative A - Install Waste Transfer Capacity at Sedro-Woolley Site and Close Clear Lake Site: The County's Clear Lake compactor site is located about two miles from Sedro-Woolley's recycling and yard waste facility at 315 Sterling Street. This proximity makes it worthwhile to consider closing the Clear Lake facility and redirecting County customers to the City's facility, whose permit would need to be modified to become a drop box facility and accept solid waste. If this is done, applicable Skagit County Code (including SCC 12.18) may also need to be revised. The Clear Lake compactors could be relocated to the City's facility, or it may be more cost-effective to have self-haulers unload garbage into small dumpsters which can then be emptied into City compactor trucks.

Potential advantages for this alternative include:

- increases the functionality of the current City site by adding solid waste collection.
- potential overall labor savings by operating one facility instead of two. the close proximity of the Sedro-Woolley facility does not significantly increase the driving distance for County self-haul customers.
- increased quantities of recyclables at the City site may increase prices received.

Potential disadvantages for this alternative include:

- traffic considerations and inconvenience to customers from outlying areas.
- need to negotiate mutually agreeable terms between the County and City.
- need to decide who should haul garbage from the City's site to the TRS and recyclables to processing facilities, and for what compensation.
- potential zoning and environmental issues to permit the City's site to accept garbage.

- possible increase in illegal dumping by existing Clear Lake customers (although likely this would be only a temporary problem).

Alternative B – Increased Emphasis on Recycling: A policy could be adopted by Skagit County that states that scalehouse attendants at TRS could inform customers with potentially-recyclable materials about possible cost savings and environmental benefits of taking recyclable or compostable materials to other local facilities. The County could develop updated brochures or handouts listing locations and rates at these alternative facilities that could be provided to these customers. The brochures could be provided at the scalehouse and at the tipping floor. Changing customers' behavior at either of these points could be difficult due to customers' reluctance to change their practices by hauling their material to two facilities (e.g. TRS and a yard waste or construction debris facility). In addition, it may be difficult for scale attendants to clearly see the contents of loads and identify appropriate customers.

These alternatives are evaluated later in this chapter (see Section 7.6), and the resulting recommendations are shown at the end of this chapter (see Section 7.7).

7.4. WASTE IMPORT

Existing Waste Import Activities

Currently only a small amount of solid waste is imported to disposal facilities in Skagit County, although significant amounts of wastes are transported through the county. In addition, various materials flow back and forth across the county line to composting and recycling facilities. Waste import and trans-shipment activities include:

- Containers of waste from the Orcas Island Transfer Station are hauled by truck directly to Republic Service's intermodal railhead facility near the TRS.
- Solid waste from the Friday Harbor transfer station is hauled through Skagit County to a landfill in Cowlitz County.
- Waste from the Lopez Island transfer station is hauled in 40-yard roll-off containers to the TRS (this arrangement is permitted by an Interlocal agreement, Skagit County Contract #20130187).
- Island County waste is either trucked through Skagit County to Everett or to Republic Service's intermodal railhead facility near the TRS and put on trains there.
- Solid waste from the Diablo and Newhalem area (Whatcom County) is hauled by Waste Management to the TRS.
- Some recyclables and feedstocks are imported to recycling and composting facilities in Skagit County.

Planning Issues and Alternatives for Waste Import

There are no specific waste import issues that need to be addressed at this time and so no waste import alternatives are being considered (although see Chapter 9 for a discussion of an interlocal agreement between Skagit and Whatcom Counties).

7.5. WASTE EXPORT AND DISPOSAL

Existing Waste Export and Disposal Activities

Existing Landfills in Skagit County: There are no solid waste landfills open to the public currently operating in Skagit County. The Sauk and Gibraltar Landfills received solid waste until 1989 and the Inman Landfill operated until 1994.

Two limited purpose landfills are currently operating in Skagit County. Tesoro's limited purpose landfill on West March Point Road in Anacortes accepts only sludge generated from the Tesoro industrial wastewater treatment plant system. Shell Oil also has an active limited purpose landfill on South Texas Road in Anacortes that only receives sludge from Shell's industrial wastewater treatment plant system.

Closed or Abandoned Landfills: There are 37 closed or abandoned landfills located throughout Skagit County. Three sites were closed under Chapter 173-304 WAC provisions and are still undergoing routine groundwater and gas monitoring as part of the post-closure process. The remaining 34 sites vary in age, size, and complexity. The Health Department periodically inspects the sites and when warranted may require occasional groundwater, surface water, and/or gas monitoring related to a particular site. The Health Department reviews any major land use changes and well drilling occurring within the immediate vicinity of a site. All of the sites are included in the Skagit County mapping information accessible to the general public.

Some sites have gone through additional remediation activities since their original closure. Since 2010, four sites have completed additional remediation activities. The Whitmarsh Landfill (March's Point Landfill) is currently involved in formal RI/FS review and remediation activities via the Department of Ecology. The Whitmarsh Landfill remediation is part of Ecology's Puget Sound Initiatives cleanup process.

Existing Waste Export System: The Inman Landfill was used to dispose of incinerator ash and wastes that the incinerator (the Resource Recovery Facility, or RRF) could not handle. When it was determined that it was not economically feasible to bring the Inman Landfill up to new regulatory (Subtitle D) standards, the County requested proposals from private companies for transportation and disposal of these wastes at an out-of-county landfill. In October 1993, a 10-year contract was executed with the Regional Disposal Company (RDC, now part of Republic Services) to transport ash and non-processible wastes from the RRF to RDC's landfill in Klickitat County, Washington. After the RRF closed in 1994, Skagit County's entire

solid waste stream was disposed through this waste export and landfill disposal system. Supplemental Agreement #2 (June 15, 1998) extended the term of the contract through September 30, 2013. The County has since exercised its option for two five-year renewals, extending the contract until late 2023.

When the RRF was closed in 1994, it was converted into a transfer station to serve the waste export system. In 2012, the new Transfer and Recycling Station (TRS) constructed at the RRF site began operations. The County hauls containers of compacted waste about one mile to the Republic Services railhead near the TRS. The RRF was converted to a street waste decant facility in 2014 and began taking street sweepings and material from catch basin cleaning.

Small amounts of contaminated soils and sludges are currently exported to other landfills outside of Skagit County. The only other waste export systems in use in the County are for small quantities of special wastes (such as biomedical waste, see Chapter 8) that are sent to special facilities.

Planning Issues for Waste Export and Disposal

Waste Export and Disposal Contract: In 2021, the County will need to begin preparing a Request for Proposals for export of solid waste in anticipation of the 2023 expiration of the current contract with Republic Services.

Need for In-County Landfills: It is possible that additional special purpose or inert waste landfills may become desirable in the future. These types of landfills can provide a cost-effective disposal option for local industries or special wastes without excessive environmental impacts. There are a variety of reuse options available for some types of wastes, however, and these options currently limit the need for additional special purpose or inert waste landfills. Inert landfills also require continued oversight as they tend to attract wastes other than inert waste.

Potential Future Options for Disposal: Skagit County is well-served by its current waste export and disposal program, but occasionally there may be some interest in additional methods of reducing the amount of waste being landfilled. The term “conversion technologies” refers to methods for converting organics or other materials into energy or useful products. These methods require inputs of waste and energy and may involve mechanical and/or thermal pretreatment. The outputs can include energy (electricity and/or heat), recyclable materials, inert materials, residuals requiring disposal, and flue gas emissions that require treatment. It should be noted that not all of these technologies are considered disposal methods (especially in the case of anaerobic digestion) and all create residues that would need further processing and/or disposal. The major types of waste conversion are:

- **Pyrolysis:** For this process, waste is broken down thermally in the absence of air, producing oil and synthetic gas that can be burned to generate electricity.

- **Gasification:** This process is similar to pyrolysis, but takes place under low-oxygen conditions (less than necessary for ordinary combustion) to produce a synthetic gas that can be used to generate electricity.
- **Plasma gasification:** This process uses an electrical arc to break down organic parts of waste into elemental gas which can then be burned in a gas turbine or engine to generate electricity.
- **Anaerobic digestion:** This process uses microbes to digest organic wastes and produce methane gas, which then powers turbines or generators to produce electricity. Sometimes the waste heat from the engines is reclaimed to heat the digester. There is currently an operating anaerobic digester in Skagit County that treats food processing waste.
- **Chemical production:** Chemical and/or biological processes can be used to break down the organic portion of solid waste to produce useful chemicals such as ethanol.
- **Conventional energy from waste (EfW, formerly called incineration):** The heat from incineration of waste, typically captured in the form of steam, can be used as an energy source. Most of the steam produced is used to generate electricity, although some European cities use a portion of the steam for district heating of nearby buildings. There are about 2,000 EfW plants worldwide, mostly in Europe and Asia. Scrap metals are typically recovered from EfW plants and in some areas the ash is beneficially reused.

In recent years, conversion technology vendors have proposed various projects, but relatively few facilities have been able to successfully apply these technologies to solid waste in the United States. Because solid waste is such a highly variable mix of materials, it is more difficult to process than more homogenous waste streams such as wood chips, agricultural waste, or certain industrial wastes. Conversion technologies still have a sparse track record of successful full-scale projects with demonstrated long-term economic feasibility from the sale of energy and/or useful byproducts. Conversion technologies need to meet regulatory compliance and environmental protection standards to gain public acceptance. In addition, the possible adverse impact on existing diversion/recycling programs must be weighed against the potential benefits of energy production.

Alternatives for Waste Export and Disposal

Alternative C – Waste Export and Disposal: Waste export via rail and disposal in an out-of-county landfill has worked well for Skagit County for over two decades, and there is no strong case for changing that practice. The current export and disposal agreement expires in 2023, and in order to continue with this system the County would need to begin in 2021 to prepare a Request for Proposals for export and disposal of solid waste.

Alternative D – Conversion Technology: As waste conversion technologies improve and if energy and materials markets become more favorable, it may be worthwhile to consider proposals for conversion technology facilities to process a portion of the County’s solid waste. These could be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and with the waste export and disposal agreement, as well as consistency with siting, zoning, environmental and health regulations. Potential adverse impacts on existing recycling and other diversion programs should be weighed against potential benefits of energy production, particularly in light of the cyclical nature of energy prices.

Alternative E – Additional In-County Landfills: While there is currently no need for another inert waste or limited purpose landfill in Skagit County, a public or private entity may propose to develop one in the future. Such proposals could be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and with the waste export and disposal agreement, as well as consistency with siting, zoning, environmental and health regulations.

These alternatives are evaluated in the next section (see Section 7.6), and the resulting recommendations are shown at the end of this chapter (see Section 7.7).

7.6. EVALUATION OF TRANSFER AND DISPOSAL ALTERNATIVES

Review of Rating Criteria

The transfer and disposal alternatives can be evaluated and rated according to several criteria and a decision made as to whether or not to pursue an alternative based on its overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.

Consistency with Solid Waste Planning Goals: Alternatives A, B and C are consistent with the planning goals for transfer and disposal. Alternative A merely relocates solid waste and recycling functions from the Clear Lake site to Sedro-Woolley. Alternative B promotes recycling of mixed loads taken to the transfer station. Alternative C extends the existing disposal system farther into the future. Neither Alternative D (a conversion facility) nor Alternative E (an inert or limited purpose landfill) respond to a pressing current need, but they do provide flexibility

to consider certain proposals in the future. Alternative D is potentially more consistent with other goals of this SWMP, such as increased diversion and recovery of energy and materials.

Feasibility: Both Alternative A and C are rated high for feasibility because the existing Sedro-Woolley site appears to be suitable for adding waste transfer (Alternative A) and Alternative C would allow continuation of the current waste export and disposal system. Alternative B is rated medium for feasibility due to questions about the ability to observe loads and to convince customers to change their disposal and recycling practices. Alternative D is rated low due to the limited successful experience with waste conversion facilities in the U.S. If there were sufficient economic demand, Alternative E (inert or limited purpose landfill) could be technically feasible under existing environmental regulations, but could be politically challenging and so it is rated low for this criteria.

Cost-Effectiveness: Alternative A, adding waste transfer to Sedro-Woolley and closing Clear Lake, could be more cost-effective if operational efficiencies are realized. Alternative B entails a nominal cost for developing and printing new educational brochures but customers could potentially realize a cost savings. Alternative C involves continuing the existing waste export and disposal system, which is currently cost-effective and expected to remain so. Because no proposals for Alternative D (a conversion facility) or Alternative E (an inert or limited purpose landfill) have yet been received, it is not possible to accurately judge their cost-effectiveness at this time.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 7-1. Ratings for the Transfer and Disposal Alternatives				
Alternative	Consistency with Goals	Feasibility	Cost-Effectiveness	Overall Rating
A, Add waste transfer in Sedro-Woolley and close Clear Lake site	H	H	M-H	H
B, Increased emphasis on recycling mixed loads	H	M	H	H
C, RFP for new waste export and disposal contract	H	H	H	H
D, Consider waste conversion proposals	M-H	L	NA	M
E, Consider inert or limited purpose landfill proposals	L	L	NA	L

Rating Scores: H – High, M – Medium, L – Low, NA – Not Applicable (unknown at this time).

7.7. RECOMMENDATIONS FOR TRANSFER AND DISPOSAL

High-Priority Recommendations for the Transfer System

- T1) Skagit County and the City of Sedro-Woolley should evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and possibly moving those operations to the Sedro-Woolley Recycling Facility, and this change may be implemented if mutually agreeable.
- T2) Transfer station customers will be encouraged to bring source-separated materials to other facilities for recycling or composting.

High-Priority Recommendations for Waste Export and Disposal

- D1) Skagit County will begin preparing a Request for Proposals for a new waste export and disposal contract in 2021.

Medium-Priority Recommendations for Waste Export and Disposal

- D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and existing programs; the waste export and disposal agreement then in effect; applicable siting, zoning, environmental and health regulations; and other criteria appropriate to the proposed system.

Low-Priority Recommendations for Waste Export and Disposal

- D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis for demonstrated need and benefit to the citizens of Skagit County; consistency with this Solid Waste Management Plan; and applicable siting, zoning, environmental and health regulations.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations will be Skagit County, with assistance from the Cities as appropriate. Recommendation T1 will be implemented by the County and the City of Sedro-Woolley, with input from the Health Department. The County should implement Recommendation T2 with assistance from private recycling and composting facilities. The County will need to implement Recommendation D1 with approval by the Governance Board. Recommendations D2 and D3 will not need to be acted upon until such time as an applicable proposal is received.

The costs to Skagit County for these recommendations will consist primarily of staff time. Recommendation T2 will require the production of additional education materials, at a cost of \$5,000 to \$10,000 (and staff time). Changes in costs brought about by implementation of any of these recommendations may affect costs for waste generators.

Discussions between Skagit County and the City of Sedro-Woolley regarding Recommendation T1 should begin in 2018. Recommendation T2 should be implemented in 2017 if possible. Implementation of Recommendation D1 should begin in 2021. Recommendations D2 or D3 cannot be implemented until a proposal for either a waste conversion facility or a landfill is actually received by the County.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

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SPECIAL WASTES

8.1. BACKGROUND

Introduction

This chapter of the Solid Waste Management Plan (SWMP) reviews the generation, handling and disposal methods for several special wastes in Skagit County. These wastes require special handling and disposal due to regulatory requirements or for reasons such as toxicity, quantity or other special handling problems.

The following special wastes are discussed in this chapter:

- 8.2 Asbestos
- 8.3 Biomedical Wastes
- 8.4 Disaster Debris
- 8.5 Moderate Risk Wastes

The nature and source(s) for each special waste are described in this chapter, as well as the existing programs and facilities in Skagit County for handling each waste. The wastes are also examined for needs and opportunities (planning issues), and then alternatives and recommendations are proposed based on those needs.

Goals for Special Wastes

While all of the goals adopted by the SWAC (see Section 1.8) apply to special wastes, the following are most relevant:

- meet governmental financial, environmental and public health obligations.
- create efficient service levels with respect to cost and environmental protection.

8.2. ASBESTOS

Existing Management Practices for Asbestos

Asbestos is a naturally occurring fibrous mineral with heat, chemical, and electrical resistant properties. Before it was banned in the 1980s as a cause of respiratory diseases and cancers, asbestos was widely used in a variety of building materials such as siding, insulation, fireproofing, ductwork, and piping. Although asbestos is still used in some products, today it is typically encountered during the demolition of old buildings or removal of old piping, ductwork, boilers and furnaces during building renovations. Airborne asbestos particles are the primary health concern, as

these particles become lodged in the lungs when breathed in and then cause long-term health problems.

The Northwest Clean Air Agency (NWCAA) regulates asbestos removal activities in Skagit County through its Regulation of the Northwest Clean Air Agency. The applicable regulations are found primarily in Section 570 – Asbestos Control Standards, and Section 550 – Preventing Particulate Matter from Becoming Airborne. These regulations provide guidelines for safe asbestos handling and require that NWCAA be notified prior to removal. NWCAA regulations require that they be notified of any demolition project exceeding 120 square feet. The NWCAA regulations are coordinated with the National Emission Standards for Hazardous Air Pollutants (NESHAP), and regulations administered by OSHA, the Washington Department of Labor and Industries, the Washington Department of Ecology, and the solid waste regulations of Island, Skagit and Whatcom Counties.

Asbestos-containing materials (ACM) are not accepted for disposal at any Skagit County-owned solid waste facility. NWCAA publishes a list of firms that accept ACM, as well as landfills that dispose of ACM.

Planning Issues for Asbestos

Skagit County Planning and Development Services does not require an asbestos permit prior to issuing a renovation or demolition permit, nor an asbestos product checklist prior to issuing a building permit, so there is not a link between performing demolition or construction activities and testing for ACM. Without certification by an AHERA-certified inspector, theoretically any load of construction or demolition waste could contain asbestos. This poses a potential health risk for workers at both County-operated waste facilities and private sector construction/demolition debris facilities.

Asbestos Management Alternatives

Improved disposal practices for ACM could be accomplished through:

- **Special Waste Alternative A – Stricter Enforcement of ACM Regulations:** Current ACM regulations, which already require a survey for ACM as part of building or demolition permits for projects greater than a specified minimum size, could be strictly enforced by County and municipal building/planning departments and NWCAA.

This alternative is evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.3. BIOMEDICAL WASTES

Regulation of Biomedical Wastes

State law (Chapter 70.95K RCW) defines biomedical wastes to include:

Animal waste: animal carcasses, body parts and bedding of animals that are known to be infected with, or have been inoculated with, pathogenic microorganisms infectious to humans.

Biosafety level 4 disease waste: waste contaminated with blood, excretions, exudates, or secretions from humans or animals who are isolated to protect others from highly communicable infectious diseases that are identified as pathogenic organisms assigned to biosafety level 4 by the centers for disease control, National Institute of Health, biosafety in microbiological and biomedical laboratories, current edition.

Cultures and stocks: wastes infectious to humans, including specimen cultures, cultures and stocks of etiologic agents, wastes from production of biologicals and serums, discarded live and attenuated vaccines, and laboratory waste that has come into contact with cultures and stocks of etiologic agents or blood specimens. Such waste includes but is not limited to culture dishes, blood specimen tubes, and devices used to transfer, inoculate, and mix cultures.

Human blood and blood products: discarded waste human blood and blood components, and materials containing free flowing blood and blood products.

Pathological waste: human source biopsy materials, tissues, and anatomical parts that emanate from surgery, obstetrical procedures and autopsy. Does not include teeth, human corpses, remains and anatomical parts that are intended for interment or cremation.

Sharps: all hypodermic needles, syringes and IV tubing with needles attached, scalpel blades, and lancets that have been removed from the original sterile package.

Skagit County Code (SCC) 12.16.350 regulates the collection, management, and disposal of biomedical wastes generated within the County. The Washington Utilities and Transportation Commission (UTC) regulates transporters of biomedical wastes and has issued statewide franchises to Waste Management and Stericycle. Non-residential generators of biomedical wastes (e.g. hospitals, clinics, etc.) can contract with the certified haulers to safely dispose of biomedical wastes.

Existing Management Practices for Biomedical Wastes

There are many sources of biomedical waste. SCC 12.16.060 defines “biomedical waste generator” as a commercial or clinical producer of biomedical waste, including general acute care hospitals, skilled nursing facilities, convalescent hospitals, intermediate care facilities, in-patient care facilities for the developmentally disabled,

chronic dialysis clinics, community clinics, health maintenance organizations, surgical clinics, urgent care clinics, acute psychiatric hospitals, laboratories, medical buildings, physicians' offices and clinics, veterinary offices and clinics, dental offices and clinics, funeral homes, home health care facilities or other persons whose act or process produces biomedical waste. These types of generators typically use a licensed biomedical waste hauler to dispose of their wastes properly. Businesses that generate only small amounts of sharps also use licensed mail order options.

Disposal of sharps from clinics, hospitals and agencies is regulated, but not sharps from individual residents. Residents may collect used hypodermic needles in either labeled sharps containers specifically made for that purpose or in opaque plastic bottles (such as liquid laundry soap or cooking oil bottles) that have a special biohazards label on the bottle. Full sharps containers can be disposed of in a household's regular trash or taken to a Skagit County transfer facility. Information jointly distributed by Skagit County Public Works and Skagit County Public Health provides the label and describes how to properly label and dispose of sharps containers. Households can also use a mail order service for proper disposal of residential sharps.

Planning Issues for Biomedical Wastes

In general, most biomedical wastes generated in Skagit County are currently being handled properly. The primary concern is the improper disposal of sharps from residences, illegal drug users, and small medical, dental, and veterinary facilities. Sharps have been found illegally dumped in vacant lots, in the woods, in parks and in alleys. Sometimes sharps are improperly disposed with solid waste. Occasionally containers of sharps are improperly placed in the recycling system (e.g. in aluminum cans), where they pose a safety risk to the staff at the facilities that sort and process recyclables.

Needle exchanges have been shown to be effective in reducing improper disposal of sharps. There is an existing needle exchange program operating in Skagit County (Phoenix Recovery Services, LLC), although it is not widely publicized.

Biomedical Waste Management Alternatives

Improved disposal practices for sharps could be accomplished through:

- **Special Waste Alternative B – Increased Education:** More education could be conducted to promote safe handling and disposal of sharps. Targeted audiences could include small medical, dental, and veterinary practices. Residential sources could be targeted with the assistance of home healthcare agencies and pharmacies. Needle exchanges could be better publicized. One form of education could be site visits to train staff at targeted facilities. More brochures could be made available at public locations and businesses, and as inserts mailed with garbage or other utility bills. Haulers could also inform their commercial

customers (those that are potential generators of sharps) about safe disposal practices.

- **Special Waste Alternative C - Increased Enforcement:** Increased enforcement activities and larger penalties could be implemented for improper disposal of biomedical waste (although in most cases, the source for the sharps cannot easily be determined).
- **Special Waste Alternative D - Continue and Expand the Needle Exchange:** Funding for the needle exchange lapsed for a few years and then was recently reinstated. Anecdotal evidence indicates that the lack of the needle exchange led to more sharps being improperly disposed in ways that created potential exposure for others. The exchange provides a reliably safe method for disposing of sharps and should be continued. Contingent on the availability of funding, the exchange's activities could be expanded, but in any case the existing program could be publicized better.

These alternatives are evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.4. DISASTER DEBRIS

Existing Management Practices for Disaster Debris

Potential disasters could include flooding, earthquakes, tsunamis, droughts, forest fires, wind storms and other types of severe weather, landslides, hazardous material incidents, military ordnance incidents, oil spills, pandemics and terrorism. The impacts of these types of disasters could include serious disruptions to the solid waste system and/or the creation of very large quantities of wastes.

The County's 2013 Comprehensive Emergency Management Plan (CEMP) identifies specific types of disasters and potential responses to these, while also providing a framework to address disasters that cannot easily be anticipated. The CEMP mentions debris removal and solid waste disposal as essential actions to be taken and identifies the Public Works Department as the lead agency for these, but otherwise provides no details as to what actions will be taken. The CEMP is, however, only designed to serve as a "basic plan" or broad framework, with more specific plans serving as supplements to the basic plan.

Emergency Support Function (ESF) #3 of the CEMP provides more detail about the duties and responsibility of Public Works, in particular to "coordinate and provide for the removal and disposal of debris as required." The Health Department should also be involved in the planning, designation and oversight of debris disposal activities.

ESF #3 further states: “Skagit County no longer has a landfill. All waste is currently transported from the County via truck from fixed sites. Debris from a small to moderate event will be handled through existing means. In an event that would necessitate disposal of large amounts of debris and waste, a temporary landfill location will be determined by the Board of Commissioners. There is currently no agreement, MOU or ILA in place with a hauler and we recognize the gap. Until a long-term contract/agreement can be negotiated with a hauler, each event will be treated as incident specific.”

The website for the Skagit County Department of Emergency Management also stresses the need for proper documentation of damages due to disaster incidents. Proper documentation is one of the more important elements that could be addressed in a FEMA-approved disaster debris management plan.

The Federal Emergency Management Agency (FEMA) encourages state and local governments, Tribal authorities and private non-profit organizations to develop disaster debris management plans. Communities with disaster debris management plans are in a better position to receive the full amount of financial assistance from FEMA and other agencies. Disaster debris management plans can identify those activities and wastes that are eligible for FEMA assistance and ensure that proper documentation occurs to allow the maximum amount of reimbursement.

Planning Issues for Disaster Debris

Skagit County is currently not as prepared as they could be to manage disaster debris effectively and in a manner that could maximize cost reimbursement by FEMA. Recommended steps, such as designating debris staging areas and entering into an ILA or MOU with a hauler, have not yet been conducted. A limited area at the TRS has been permitted for emergency storage, but this is the only area in the County that has been designated.

Management Alternatives for Disaster Debris

The following alternatives, which represent different levels of effort, were considered for disaster debris:

- **Special Waste Alternative E – Designate Staging Areas:** Specific properties could be designated for receiving and temporary staging of disaster debris. These could include County-owned sites as well as sites owned by municipalities or private parties. Areas near construction/demolition debris and other recycling facilities could also be considered.
- **Special Waste Alternative F – Develop a Debris Management Strategy:** A debris management strategy could be developed to provide more details on responsible personnel and debris management activities. This strategy could address debris staging and loading, including procurement of needed equipment. The strategy could allow coordination in advance with recycling facilities and the

waste export and disposal contractor regarding handling capacity, the availability of railcars, and other conditions.

- **Special Waste Alternative G - Develop a FEMA-Approved Debris Management Plan:** A separate, stand-alone disaster debris management plan that meets FEMA standards and requirements could be developed, the cost of which could be in the range of \$100,000 to \$150,000.

These alternatives are evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.5. MODERATE RISK WASTES

Existing Management Practices for Moderate Risk Wastes

Many homes, businesses and farms throughout Skagit County produce small amounts of hazardous wastes. For most of these, the amount of any waste produced falls below regulated quantities and so is classified by the State as a “moderate risk waste” (MRW). Moderate risk waste includes:

- household hazardous wastes, which are wastes produced by residential activities that would be classified as hazardous waste except that by definition they are exempt from regulation, and
- wastes from small-quantity generators, which are wastes from businesses that produce less than 220 pounds of dangerous waste per month or less than 2.2 pounds of extremely dangerous waste per month, and that do not accumulate these wastes in excess of 2,200 or 2.2 pounds, respectively. These businesses are also defined by the U.S. Environmental Protection Agency as “conditionally-exempt small quantity generators” (CESQGs) on the premise that improper handling or disposal of such wastes would cause the CESQG to fall under the full body of hazardous waste regulations.

County code SCC 12.16.210 (moderate risk waste, used oil, and hazardous substance handling) and SCC 12.16.220 (CESQG requirements) addresses the handling and disposal of MRW.

Moderate risk wastes that are generated in Skagit County can be brought to the Household Hazardous Waste (HHW) Facility at the TRS. Hazardous wastes are not accepted at the Sauk and Clear Lake sites, although there are separate drop-off containers at those facilities for car batteries, motor oil and antifreeze.

The HHW Facility is located at the TRS and is open Monday through Friday 10:00 a.m. to 4:00 p.m. and during the first Saturday of the month. Hazardous waste from residential sources is accepted free, while business waste (CESQGs) and non-county

residential waste is accepted for a fee that is based on the cost for disposing the waste. A variety of wastes are handled by this facility, including automotive products, oil-based paint and paint-related materials, lawn and garden chemicals, cleaners and many miscellaneous wastes.

Funding for the HHW Facility is provided by a portion of the tipping fee from the Skagit County solid waste disposal system and a portion of the coordinated prevention grant (CPG) from Ecology. Fees charged to some users (CESQGs and out-of-county customers) pay for the disposal costs of those wastes. CESQGs paid \$5,187 to dispose of wastes in 2015, which was 6.5% of the annual amount of MRW disposal expenses. Fees for CESQGs range from \$1.00-3.00 per aerosol can depending on the contents to \$38.00 per gallon of pesticide, poison, reactive, oxidizer, or organic peroxide.

Much of the material collected at the HHW Facility in 2014 was used oil (220,680 pounds or 56% of the total), oil-based paint (20%), and antifreeze (5%). Flammable liquids, liquid poisons, and mercury-containing fluorescent bulbs each contributed about 4%.

Public education and information about the HHW Facility and hazardous wastes in general is accomplished through brochures and other activities conducted by the Skagit County Public Works Department, including information posted on the County's website, staffing of informational booths, and newspaper inserts. The Skagit County Public Health Department provides some technical assistance to CESQGs regarding proper MRW storage and disposal and information on selecting safer chemical alternatives through the Local Source Control program funded by the Department of Ecology. Public Health Department staff are responsible for the regulation of proper MRW disposal. Health Department funding comes from a tip fee surcharge for Health Department solid waste functions and a portion of the CPG funds from Ecology. The amount of funding that the Health Department receives for regulatory activities and that Public Works receives for the operation of the HHW Facility through the CPG program has decreased over the last few years. Others in Skagit County, including the garbage haulers, and recycling companies also provide information on proper handling and disposal of moderate risk wastes.

Planning Issues for Moderate Risk Wastes

There is a continuing need for education about proper handling and disposal of moderate risk wastes, as evidenced by the occasional customer that brings inappropriate materials to one of the County's transfer facilities, as well as the improper disposal of MRW with wastewater and in garbage cans. There is also a need for ongoing education on waste reduction methods for MRW, including non-toxic alternatives to hazardous chemicals.

The decrease in CPG funds from Ecology will lead to the need for more local funds (from a surcharge on the tipping fee or other sources) in order to continue existing activities.

Management Alternatives for Moderate Risk Wastes

Alternatives for moderate risk wastes include increased educational efforts and alternative disposal methods. For the latter, there are few options that could be used that would pose an improvement over current methods, although manufacturer responsibility mechanisms could address specific types of waste. Improved collection capabilities and, if cost-effective, mobile collection events might also help extend opportunities for proper disposal to a larger number of County residents. For this SWMP, the two alternatives currently being considered at this time are:

- **Special Waste Alternative H - Increased Publicity:** Increased publicity for the HHW Facility would be helpful in preventing improper disposal of potentially hazardous materials. This approach does, however, need to be weighed against the potential effectiveness of more publicity and the availability of funds and staff time for conducting additional outreach and disposing of additional MRW.
- **Special Waste Alternative I - Technical Assistance and Enforcement:** Increased outreach and technical assistance to small quantity generators could help reduce the amount of hazardous material disposed of improperly in the solid waste stream. Increased enforcement of CESQG regulations could also help. These activities could be implemented through the local source control program.

These alternative are evaluated in the next section of this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.6. EVALUATION OF SPECIAL WASTE ALTERNATIVES

Review of Rating Criteria

The special waste alternatives can be evaluated and rated according to several criteria and a decision made as to whether or not to pursue an alternative based on its overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.

Consistency with Solid Waste Planning Goals: None of the alternatives are inconsistent with the planning goals for special wastes, but neither can it be said that the alternatives are necessary for meeting the goals. Most of the alternatives propose activities that exceed current levels of governmental obligations, and the alternatives also potentially do not preserve a good balance between lowest costs and best services. Alternatives B (sharps education), D (continuing and possibly expanding the needle exchange), and I (CESQG technical assistance and enforcement) do a better job of maintaining this balance and so are rated high, while the other alternatives are rated medium for this criteria.

Feasibility: This criteria addresses whether an alternative can be adopted without controversy or legal issues, and if the alternative is technically feasible. Alternative E (designating staging areas for disaster debris), and F (developing a disaster debris strategy), are rated high for feasibility because these activities can be conducted by County Public Works and Health Department staff without significant cost or controversy. Alternatives B (sharps education) and I (CESQG technical assistance and enforcement) are rated high because they can be accomplished by Public Health staff, provided adequate funding is available. Alternative D (continuing and possibly expanding the needle exchange) is considered highly feasible because it is currently being conducted and any expansion is contingent on available funding.

Alternative A is rated medium for feasibility due to the large amount of inter-agency cooperation required. Alternative H (increased publicity for the HHW Facility) is rated medium for feasibility due to the uncertain results of this activity. Alternative C is rated low for feasibility due to the difficulties in identifying the source of illegally-disposed sharps. Alternative G is rated low due to the expense and significant amount of effort required to develop a disaster debris plan that would receive FEMA approval.

Cost Effectiveness: This criteria addresses whether an alternative can be implemented in a cost-effective manner and if it can be implemented without creating an excessive impact on the financial stability of the solid waste system. Four alternatives (D, E, F and I) are rated high for this criteria based on the idea that the cost of the alternative would be relatively low and the benefits would be high. The other alternatives are rated low to medium depending on whether the alternative reduces existing costs or solves an existing problem in a cost-effective manner.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 8-1. Ratings for the Special Waste Alternatives

Alternative	Consistency with Goals	Feasibility	Cost-Effectiveness	Overall Rating
A, Increased enforcement of ACM regulations	M	M	M	M
B, Increased education about sharps disposal	H	H	M	H
C, Increased enforcement for sharps	M	L	L	L
D, Continue and possibly expand needle exchange	H	H	H	H
E, Designate staging areas for disaster debris	M	H	H	H
F, Develop disaster debris strategy	M	H	H	H
G, Develop FEMA-approved disaster debris plan	M	L	L	L
H, Increase publicity for the HHW Facility	M	M	M	M
I, Technical assistance and enforcement of CESQG regulations	H	H	H	H

Rating Scores: H – High, M – Medium, L – Low

8.7. SPECIAL WASTE RECOMMENDATIONS

The following recommendations are being made for special wastes.

High-Priority Recommendations for Special Wastes

- SW1) Increased education should be provided for the proper disposal of sharps.
- SW2) The needle exchange should be continued and possibly expanded.
- SW3) Staging areas will be designated for disaster debris.
- SW4) A disaster debris strategy will be developed.
- SW5) Increased education and technical assistance should be provided for CESQGs.

Medium-Priority Recommendations for Special Wastes

- SW6) Increased enforcement of existing regulations for the proper identification and disposal of asbestos-containing materials is needed, beginning with requiring that all demolition permits include an AHERA inspection or other survey for asbestos.

- SW7) Increased publicity will be provided for the HHW Facility.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations is Skagit County, with assistance from the Cities and others as appropriate to the specific activity. Recommendation SW1 should be implemented by the County (Public Works and the Health Department) and the municipal and private waste collectors. The County (primarily through the Health Department) will need to work with the needle exchange to expand their outreach efforts and assisting with expansion of their activities (contingent on funding being available for this). The County Public Works Department will be responsible for Recommendations SW3 and SW4, with assistance from the Cities. The Health Department will need to take the lead on implementation of Recommendation SW5, with assistance provided by the HHW Facility staff. Recommendation SW6 will need to be a joint effort involving County and City planning departments, with coordination with NWCAA and the Washington State Department of Labor and Industries. Public Works will be primarily responsible for Recommendation SW7.

The costs for these recommendations will consist primarily of staff time and additional expenses for education materials. Recommendation SW2 may require substantial additional funds for the expansion of the needle exchange.

These recommendations should be implemented beginning in 2018, although Recommendation SW3 could be conducted in 2018 and SW4 could begin after the staging areas have been identified (2019).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

ADMINISTRATION AND PUBLIC EDUCATION

9.1. BACKGROUND FOR ADMINISTRATION AND PUBLIC EDUCATION

Introduction

This chapter of the Solid Waste Management Plan (SWMP) addresses the administration and public education activities in Skagit County.

Goals for Administration and Public Education

A number of the goals for this SWMP are applicable to administration and public education:

- maintain and improve a long-term stable solid waste management system.
- meet governmental financial, environmental and public health obligations.
- reflect a commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.
- assure consistency with the Skagit County Comprehensive Plan and other plans.
- incorporate flexibility to anticipate future needs.
- fully fund and staff the implementation of the SWMP.

9.2. EXISTING ADMINISTRATION AND PUBLIC EDUCATION PROGRAMS

At the federal and state levels, the primary regulatory authorities for solid waste management are the Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology), respectively. Skagit County is in the jurisdiction of the northwest regional office of Ecology, located in Bellevue, Washington. At the local level, the responsibility for solid waste administration and enforcement is shared among several departments of Skagit County and the cities.

Federal Level

At the federal level, the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Solid Waste Disposal Act Amendments of 1980 (42 U.S.C. 6901-6987), is the primary body of legislation dealing with solid waste. Subtitle D of RCRA deals with non-hazardous solid waste disposal and requires the development of a state solid waste management program that outlines the authorities of local, state

and regional agencies. Subtitle D requires that the state program provides that all solid waste is disposed in an environmentally-sound manner.

A provision of RCRA requires that federal facilities comply with substantive and procedural regulations of state and local governments, and so military installations and federal agencies must operate in a manner consistent with local solid waste management plans and policies. There are no major federal installations in Skagit County that are directly involved in solid waste management, however, and solid wastes generated by the few federal offices in the County are handled through local services and programs.

State Level

The State Solid Waste Management Act, Chapter 70.95 the Revised Code of Washington (RCW), provides for a comprehensive, statewide solid waste management program. Chapter 70.95 RCW assigns primary responsibility for solid waste handling to local governments, giving each county, in cooperation with its cities, the task of developing and maintaining a solid waste management plan that places an emphasis on waste reduction and recycling programs. Enforcement and regulatory responsibilities are assigned to cities, counties, or jurisdictional health departments, depending on the specific activity and local preferences.

Chapter 36.58 RCW, Solid Waste Disposal, delineates the counties' rights and responsibilities regarding solid waste management, including the authority to establish solid waste disposal districts (Sections 36.58.100 through 36.58.150) as well as providing special authorization for contracting procedures for solid waste handling facilities (Section 36.58.090). The authority to establish waste collection districts is provided in Chapter 36.58A.

Other relevant State legislation includes Washington's Model Litter Control and Recycling Act. The Model Litter Control and Recycling Act (Ch. 70.93 RCW) and associated State regulations (Ch. 173-310 WAC) generally prohibit the deposit of garbage on any property not properly designated as a disposal site. There is also a "litter fund" that has been created through a tax levied on wholesale and retail businesses, and the monies from this fund are being used for education, increased litter clean-up efforts by the State, and grants to counties for litter and illegal dump clean-up activities. The State conducts litter cleanups on interstate and state highways, while County efforts are focused on local roads.

Additional State rules that impact solid waste management in Skagit County includes the ban on outdoor burning and provisions that provide penalties for littering and illegal dumping in rural areas (RCW 70.93.060).

Local Level

In Skagit County, local agencies involved in solid waste management include the Skagit County Solid Waste System Governance Board, the Skagit County Public Works Department, the Skagit County Health Department, and various departments of the cities. Each entity has a particular area of operations, providing specific services to the residents within that area and enforcing specific rules and regulations. In addition, the Skagit County Solid Waste Advisory Committee (SWAC) plays an important advisory role for the solid waste management system in Skagit County. Local rules that affect solid waste management include ordinances, land use plans and zoning codes.

Skagit County Solid Waste System Governance Board: The Solid Waste System Governance Board (SWSGB) was created by an interlocal agreement dated April 30, 2008 (Skagit County Contract #C20080306, as amended by A20100124), superseding the terms of a previous interlocal agreement (Skagit County Contract #C20040228). The SWSGB is comprised of representatives from the eight municipalities as well as the Board of Skagit County Commissioners and is tasked with approving “significant solid waste decisions” including but not limited to tipping fee adjustments, facility siting, and the annual Solid Waste Division budget.

Skagit County Department of Public Works: The Public Works Department is the agency primarily responsible for solid waste management activities for Skagit County. The Public Works Department operates three solid waste transfer facilities: the Transfer and Recycling Station, the Sauk Transfer Station and the Clear Lake compactor facility. The Public Works Department also operates the Household Hazardous Waste Facility (see Chapter 8 for more details) and manages the waste export contract (see Chapter 7). Staffing includes dedicated personnel, such as a Solid Waste Division Manager, Recycling and Waste Reduction Educator, HHW Facility operator, part-time transfer station attendants, equipment operators, and assistance as needed from the Public Works Director, financial manager and support coordinator.

Skagit County utilizes an enterprise fund for the solid waste management system. The premise of this approach is that expenditures must be matched by revenues from service fees and other appropriate funding mechanisms. Total expenditures by Skagit County for solid waste activities in 2014 were \$9,388,615. The revenues to pay for these expenses came primarily from tipping fees plus a small amount of grant and other funds. Table 9.1 shows more detail on actual and anticipated revenues and expenditures for 2014, 2015 and 2016.

Grant funds are provided through Ecology’s Coordinated Prevention Grant (CPG) program, and these are used by Skagit County for education and household hazardous waste disposal. Unfortunately, the funding this program was cut in half

Table 9-1. Skagit County Solid Waste Budget			
	2014	2015	2016
Revenues			
Tipping Fees;			
Municipal	3,569,819	3,520,000	3,696,000
Private and Individual	5,208,077	4,600,000	4,806,000
Sauk	154,216	160,000	160,000
Clear Lake	41,025	40,000	40,000
Recyclables	84,225	68,500	70,000
MRW Fees	5,650	6,000	6,000
Grants	222,295	241,450	175,000
Build America Bond	170,380	180,506	174,973
Miscellaneous	<u>23,030</u>	<u>15,167</u>	<u>13,000</u>
Total Revenues	9,478,717	8,831,623	9,140,973
Expenses			
Administration	1,153,781	1,486,694	1,467,953
Environmental	1,010,630	212,357	201,158
Education	96,299	104,290	112,731
Transfer Station	6,382,846	6,391,183	6,582,225
Sauk Site	329,573	300,368	295,897
Clear Lake Site	120,062	128,419	150,534
Training	955	10,922	25,027
Hazardous Waste Facility	186,708	193,591	124,109
Litter Crew	<u>107,760</u>	<u>107,493</u>	<u>108,307</u>
Total Expenses	9,388,614	8,962,317	9,067,941
Balance	90,103	-103,694	73,032

Notes: All figures are in dollars. The 2014 figures are the actual amounts, 2015 figures are projected, and the 2016 figures are the budgeted amounts.

in 2015. For the current two-year period (mid-2015 through mid-2017), \$238,910 will be provided to Skagit County from this program.

The stability of the solid waste system in Skagit County has improved significantly over recent years, and the disposal cost for the county reflects this. Skagit County’s disposal cost (tipping fee) compares favorably to surrounding counties, as can be seen in Table 9-2.

Several public education activities and programs are currently conducted in Skagit County. Many of these activities are conducted or facilitated by the County’s Recycling and Waste Reduction Educator, plus the municipalities and private companies also conduct public education. The Recycling and Waste Reduction

Table 9-2. Tipping Fees for Skagit County and Neighboring Counties	
County	Tipping Fee, \$/ton
Chelan County	\$95
Island County	\$126
San Juan County	\$294
Skagit County	\$92
Snohomish County	\$109
Whatcom County	\$97-\$116

Notes: All figures are in dollars, rates are effective January 2015.

Educator gives presentations at schools and to civic groups. Information (written and verbal) is also distributed at fairs and other events about recycling, alternatives to toxic chemicals and reducing consumption. The Educator conducts composting workshops, administers the Master Composter/Recycler Volunteer Program, and writes a bimonthly column in the Skagit Valley Herald Home and Garden section on topics of recycling, waste reduction, composting, and household hazardous waste.

In 2014 and 2015, the Recycling and Waste Reduction Educator conducted 60 presentations to approximately 5,000 students at 18 different schools. A booth was staffed at 24 fairs and events where over 4,500 contacts with the public were made. A total of twelve composting workshops were conducted in 2015, including the WSU Master Gardener Program and the WSU Cultivating Success Program. Over 200 participants learned how to turn waste into soil amendments at these workshops, the majority of which are advertised in all of the local newspapers.

The Master Composter/Recycler Volunteer program provides an excellent opportunity for citizens to assist with waste diversion projects and help spread the word. Twelve Master Composter/Recyclers volunteered 480 hours in 2015. These hours were spent helping to staff the Master Composter/Recyclers' booth at fairs and festivals, giving workshops, and maintaining compost demonstration sites and worm recycling boxes. Most importantly, the Master Composter/Recyclers network within their communities and set an example for others. The Solid Waste Division offers a training class for new Master Composter/Recyclers each year.

Compost demonstration sites are located at Discovery Garden, Mount Erie School Community Garden, and the Anacortes 29th Street Community Garden. These sites provide an educational opportunity for backyard composting and related topics.

Illegal dumping on public property is addressed through the Community Litter Cleanup Program, which is a three-way partnership between the Sheriff's Office, the Health Department and the Solid Waste Division. The Solid Waste Division provides a crew supervisor, administrative direction, supplies and equipment. The Sheriff's Office provides a workforce of people sentenced to community service by the court system. The Health Department monitors litter complaints and informs Solid Waste about problem spots. The litter crew has been funded by two-year grants (\$62,000 for July 1, 2015 through June 30, 2017) from the Community Litter Cleanup Program (CLCP) administered by Ecology.

The goal of the Litter Cleanup Program is to address the issue of litter and illegal dumping of trash along County roads and public property, such as boat launches, parks and other public access areas. For the 2015-2017 grant cycle, the Litter Crew is projected to utilize 6,800 hours of community service labor per year. The crews are projected to annually clean up litter on 900 miles of roadway shoulders, clean up 750 illegal dumpsites and collect 80 tons of garbage and litter.

The Skagit County Solid Waste Division provides staffing and support for the Solid Waste Advisory Committee (SWAC). The SWAC assists with solid waste administration and regulation by providing a vehicle for public input and by serving in an important advisory capacity (see Section 1.6 and Table 1.2 for more details).

The Public Works Department is responsible for ensuring that the Skagit County Solid Waste Management Plan is periodically updated. They also ensure that the county maintains a viable solid waste disposal system, including adherence to County Code Chapter 12.18, Solid Waste Disposal System, which includes flow control issues throughout the county.

Skagit County Health Department: The Health Department is the local enforcement agency for County and State regulations regarding solid waste activities for both the incorporated and unincorporated areas of Skagit County (except for flow control issues for non-permitted facilities). County regulations pertaining to solid waste activities are primarily contained in Ch. 12.16 and 12.18 of the County Code. The Health Department is the responsible local authority (per RCW 70.95.160) for issuing permits for solid waste facilities and enforcing against illegal solid waste handling or disposal activities. The Health Department also inspects and monitors all permitted solid waste facilities and closed landfills. The Health Department's solid waste activities are funded from several sources, including a surcharge on the solid waste disposal tip fee, state grants, permit fees and fines.

The Health Department conducted contract work with Ecology on their Site Hazard Assessment (SHA) program through mid-2015. SHA funding was \$85,361 during 2013-2015. Approximately 25% of that funding was used for initial investigation of complaints regarding potentially-contaminated sites. The SHA program funding has

been eliminated for mid-2015 through mid-2017. The CPG program funding has been reduced from \$157,740 for the previous two-year period (mid-2013 through mid-2015) to \$97,295 for mid-2015 through mid-2017. CPG funding partially covers solid waste enforcement activities such as permitting and complaint investigation. The Local Source Control Program (LSCP) contract with Ecology provides funding for technical assistance to conditionally exempt small quantity generators (CESQGs) regarding moderate risk waste (MRW) storage and disposal in addition to stormwater issues. As part of the LSCP, businesses can choose to become EnviroStars certified, where businesses are given recognition for following good practices in these areas.

The permit process for solid waste facilities requires an application and approval for new sites, and an annual review and renewal for existing permits. The application form requires information about the types of waste to be processed or disposed, environmental conditions of the area and an operations plan that must be approved by the Health Department.

The Health Department investigates and resolves complaints concerning illegal solid waste handling and disposal throughout the county. This can range from dealing with accumulation issues at individual households to enforcement actions for businesses illegally handling or disposing of large quantities of solid or moderate risk wastes.

Skagit County Planning Department: The Planning Department is involved in solid waste management primarily through permitting and zoning activities. The Planning Department issues land use and building permits, conducts the SEPA and/or EIS process where needed, and reviews critical area checklists. The Planning Department is also the lead agency for maintaining the County's Comprehensive Plan, which guides land use (see below). Interdepartmental cooperation between the various county and city departments dealing with land use and permitting issues helps ensure a cohesive approach to development within the County. This SWMP is considered to be a "functional plan" of the Comprehensive Plan.

The County's Comprehensive Plan, adopted June 1, 1997, and most recently revised in 2016, provides guidance pertaining to land use issues and so can affect decisions such as siting of solid waste facilities. Several of the cities have also adopted land use plans that addresses similar issues within their boundaries.

Solid waste is specifically addressed in the Skagit County Comprehensive Plan in the chapters dealing with utilities (Chapter 9) and capital facilities (Chapter 10). Relevant goals and policies from the County's land use plan are shown in Table 9-3.

Cities: The Public Works or Sanitation Departments for the four larger cities in Skagit County (Anacortes, Burlington, Mount Vernon and Sedro-Woolley) are

Table 9-3. Goals and Policies from Skagit County's Comprehensive Plan	
Relevant Goals and Policies from County's Comprehensive Plan	
Utilities Chapter	
Goal 9A-6	Protect environmental quality and public health in Skagit County through effective practices, education, regulations, and economic incentives.
Policies	
9A-6.1	Waste Reduction – The county shall endeavor to reduce per capita waste production by changing consumer and industrial practices.
9A-6.2	Recycling – The county shall encourage recycling.
Capital Facilities	
GMA Goal	Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.
Policies	
CPP 12.4	Lands shall be identified for public purposes, such as: utility corridors, transportation corridors, landfill, sewage treatment facilities, recreation, schools, and other public areas. The County shall work with the state, cities, communities and utility providers to identify areas of shared need for public facilities.
CPP 12.13	A county-wide recycling program shall be developed.

Source: From the Skagit County Comprehensive Plan.
 GMA = Growth Management Act, CPP = Countywide Planning Policy.

involved in solid waste management in several ways; by managing contracts for garbage collection and recycling (for Burlington), operating collection systems for garbage and recycling (for Sedro-Woolley), or a combination of both (for Anacortes and Mount Vernon). The four smaller cities (Concrete, Hamilton, La Conner, and Lyman) are not extensively involved in solid waste management activities, although La Conner operates a composting site that accepts yard debris.

Public education activities conducted by the cities include a semi-annual mailing by Mount Vernon, monthly tips by Burlington in the utilities newsletter, and quarterly and annual informational mailings by Anacortes. The four largest cities maintain websites with extensive information about recycling and composting programs.

Private Efforts: Waste Management includes recycling information in new customer packets, publishes annual calendars and provides other educational materials. Other companies generally promote their services as appropriate.

Tribal Councils: As mentioned in Chapter 1, there are three Tribes and one Tribal community that are located in Skagit County (Swinomish Tribal Community, and the Samish, Sauk-Suiattle, and Upper Skagit Tribes). Each Tribe is governed by a Tribal

Council or Committee made up of elected members. The Councils hold regular meetings and handle the business affairs of the Tribes. These Tribes are not currently active in administration and enforcement issues for solid waste management, but they have the option of exercising solid waste management authority over tribal lands. In doing so, the Tribes would need to abide by federal regulations and policies outlined in the Resource Conservation and Recovery Act (RCRA).

9.3. PLANNING ISSUES FOR ADMINISTRATION AND PUBLIC EDUCATION

Staffing Needs

Additional staffing (a Recycling Coordinator) is needed to implement several of the recommendations in this SWMP.

Consistency of Messaging

The various public education messages distributed by Skagit County, the cities and towns, and Waste Management are not always consistent or readily available on websites. A coordinated effort to ensure that residents and businesses can easily find consistent information on recycling and other solid waste issues would improve participation in recycling and other programs.

More Public Education and Outreach would be Beneficial

Comments from various sources have indicated that more outreach is needed to inform residents and businesses about available services. This is particularly needed for:

- the mixed organics program operated by Waste Management (see also Chapter 5),
- recycling programs in all areas,
- transfer station customers with loads of construction debris and other materials that could be recycled or composted (see also Chapter 7), and
- information about recycling opportunities that could be provided to people in special circumstances, including people who rent roll-off containers for construction or remodeling projects.

Periodic Rate Adjustments Needed

The current solid waste system has maintained a low tipping fee but has expended reserve funds as a result. A tipping fee increase may be necessary to restore a reserve funds to a prudent level and also to create an equipment replacement fund. Furthermore, periodic rate reviews and adjustments may be needed to keep revenues in line with inflationary increases.

In addition, the Health Department may need to increase the surcharge on the tipping fee in order to continue to address the enforcement and education activities dealing with solid waste handling and illegal dumping as the State grants and contracts continue to decrease.

Illegal Dumping

Illegal dumping is an ongoing problem in Skagit County. Illegal dumping is addressed through enforcement of State laws regarding solid waste disposal and Skagit County ordinances concerning solid waste disposal and/or littering.

County Code

SCC Chapter 12.18 potentially needs to be revised to provide for waste from Sinclair Island to be taken out of county (because it may not be practical to require this waste be brought to the TRS). SCC 12.16 may also need revisions to update applicable references to the Washington Administrative Code.

Flow Control Enforcement

There is evidence that waste is potentially being removed from the County in violation of SCC Chapter 12.18. If needed, applicable city and town codes could be revised concerning enforcement and penalty provisions for flow control. It may also be appropriate for the County and cities and towns to consider better coordination concerning flow control enforcement.

County Procurement Practices

The Skagit County Climate Action Plan, adopted in 2010, addresses procurement practices in depth and made several recommendations that could reduce wastes and provide cost savings for the County (see Policies C-1, C-2, C-3 and C-4 of the Climate Action Plan). These recommendations are not being actively pursued at this time due to the lack of a Sustainability Administrator and Sustainability Coordinator.

Long-Term Funding

The County may face the potential for financial constraints due to the reliance on tipping fees to fund some of the recycling programs. Ultimately, should recycling become "too successful," funding for these programs would diminish due to shrinking waste quantities. Relying on the tipping fee for recycling funds may not be the best long-term strategy.

Regional Opportunities

There may be opportunities for regional efforts involving the neighboring counties (primarily Snohomish, San Juan, Whatcom and Island Counties). Many of these opportunities are in transfer and disposal systems but opportunities may exist for other activities as well. One possibility is an interlocal agreement with Whatcom County for the Diablo and Newhalem area, for Skagit County to take on additional

responsibilities for the waste management system in that area (see Alternative D, Section 9.4, for more details).

Public Education in the Unincorporated Areas

Garbage haulers are required by State law to distribute public education materials annually (WAC 480-70-361(7)). At a minimum, these notices must be distributed to current customers (for garbage and/or recycling) in the certificate (franchise) areas and must describe all of the service and options available for waste collection and recycling (including mini-can rates for residential customers). If a brochure is distributed by a local government directly to the public instead, then the hauler does not need to distribute a brochure as long as the minimum information described above is included. If a local government provides a brochure to the hauler, then the hauler must distribute those, and in this case the brochure may also address commercial recycling and waste reduction options offered by other companies and agencies. Brochures developed and distributed by the hauler are not required to present information on recycling and waste reduction programs offered by others.

9.4. ALTERNATIVE STRATEGIES FOR ADMINISTRATION AND PUBLIC EDUCATION

The following alternatives were considered for new or expanded administration and public education activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 9.6 for the recommendations).

Alternative A - Hire a Recycling Coordinator

Additional staffing is needed to accomplish the recommendations shown in this SWMP. A new Recycling Coordinator could conduct increased efforts in several areas, including conducting commercial and multi-family recycling outreach, working with other departments to implement procurement policies, implementing several of the waste reduction recommendations and assisting with other activities. Hiring a new Recycling Coordinator would allow the existing Recycling and Waste Reduction Educator to continue to focus on general outreach activities and important new topics such as food waste reduction.

The role of a Recycling Coordinator could be filled by a part-time or full-time position. The recommendations made by this plan that are contingent on this person could conceivably be fulfilled by a part-time employee, although a full-time employee could also take on other duties and serve to further improve recycling and other programs in Skagit County. It is also possible that this position could be filled by an intern, AmeriCorps volunteer or similar person, but a permanent full-time or part-time staff person would be more effective in the long term.

Alternative B – Create a Task Force to Address Consistent Messaging

A temporary or permanent task force could be created to address issues with consistent public education messages, and to address methods for improving the ease of accessing that information. The task force could include representatives from Skagit County (from the Solid Waste Division and Public Health Department), the four largest cities, Waste Management and, at their option, the four towns. This group could also be a subcommittee of the SWAC.

Alternative C – Periodic Rate Reviews and Adjustments

Reserve funds are currently exhausted and should be restored to a prudent level (10 to 25% of operating expenses) to ensure continued financial stability. A rate review could be conducted to determine the rate needed to restore the reserve funds to an appropriate level, create an equipment replacement fund, and to provide the funds necessary to implement the recommendations of this SWMP. This rate review could be conducted every three to four years to provide the basis for a periodic rate adjustment. The approximate cost of a rate review such as this would be about \$25,000 to \$35,000.

Alternative D – Interlocal Agreement with Whatcom County

Skagit and Whatcom Counties could enter into an interlocal agreement to allow the Diablo and Newhalem area to be included in the Skagit County solid waste system. This area of Whatcom County is isolated from the rest of Whatcom County and can only be accessed through Skagit County. The solid waste from this area is already being taken to Skagit County solid waste facilities by Waste Management and by self-haulers using the Sauk Transfer Station. Taking on more responsibility for this area would, however, create significant costs for Skagit County. Additional costs would be created by the need to manage MRW from this area, provide public education, and address illegal dumping and solid waste permitting needs.

Alternative E – Enforcement of Flow Control

If needed, the four incorporated cities could revise applicable city codes concerning flow control enforcement. It may also be appropriate for the County and cities and towns to consider better coordination concerning flow control enforcement. For example, flow control provisions could also be noted in public bid documents and in permits.

Alternative F – County Code

Revisions could be considered to the Skagit County Code to recognize the unique situation of Sinclair Island (as it relates to flow control) and to potentially update outdated references.

9.5. EVALUATION OF ADMINISTRATION AND PUBLIC EDUCATION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue an alternative or not based on the overall rating for each. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives are consistent with the planning goals, although Alternative D (the interlocal agreement with Whatcom County) is consistent with only one of the applicable planning goals (common commitment to environmental protection and preservation of quality of life) and Alternative F (updating the County code) is relatively neutral with respect to the goals.

Feasibility: All of these alternatives would be challenging in various ways to implement. Alternative A, hiring a Recycling Coordinator, would require approval for the new position. For Alternative B, a task force on public education, it may be difficult to get representatives involved from the necessary organizations and then implement the ideas that are agreed upon by the task force. The cost of Alternative C, a rate review and adjustment, may be challenging to justify but is necessary. Alternative D, the interlocal agreement with Whatcom County, may be politically challenging, especially if it proves difficult to justify for Skagit County. For Alternative E, enforcement of flow control, it would be challenging to adopt revisions to city codes as well as justify enforcement actions against offenders. Alternative F, updating the County code, wouldn't be that difficult but would require an investment in staff and commission time.

Cost-Effectiveness: Alternative A, hiring a Recycling Coordinator, could be cost-effective in the sense that recycling leads to disposal cost savings for the participants. Alternative B, a task force on public education, would be cost-effective if it led to more effective approaches. For Alternative C, a rate review and adjustment, the concept of cost-effectiveness is difficult to apply. Alternative D, the interlocal agreement with Whatcom County, would lead to additional costs for Skagit County

without an off-setting benefit. Alternative E, enforcement of flow control, would possibly be cost-effective in the sense that expenses for enforcement activities may possibly be offset by increased tipping fees and other revenues. Cost-effectiveness is not a factor for Alternative F.

Diversions Potential: Both Alternatives A, hiring a Recycling Coordinator, and B, a task force on public education, could lead to significant additional amounts of waste diversion. For Alternative C, a rate review and adjustment, the concept of diversion potential is difficult to apply. Alternative D, the interlocal agreement with Whatcom County, would not lead to significant additional waste diversion in the affected area. Alternative E, enforcement of flow control, could lead to significant increased diversion potential by providing a greater financial incentive to waste generators. Diversion potential is not a factor for Alternative F, cleaning up the County code.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 9-4. Ratings for the Administration and Public Education Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversions Potential	Overall Rating
A, Hire a Recycling Coordinator	H	M	H	H	H
B, Task force for public education	H	M	H	M-H	H
C, Rate review and adjustment	H	M	M	M	M
D, Interlocal agreement with Whatcom County	M	L	L	L	L
E, Enforce flow control	H	M	H	H	H
F, County Code	M	M	NA	NA	M

Rating Scores: H – High, M – Medium, L – Low, NA – Not Applicable

9.6. ADMINISTRATION AND PUBLIC EDUCATION RECOMMENDATIONS

The following recommendations are being made for administration and public education programs in Skagit County.

High-Priority Recommendations

- A&PE1) Skagit County and the Cities will create a task force to address consistency and accessibility for public education.
- A&PE2) Skagit County will hire a Recycling Coordinator.
- A&PE3) Skagit County and the cities and towns will continue to implement and enforce flow control provisions of the Skagit County Code and/or the respective municipal codes of the cities and towns.
- A&PE4) Skagit County and the cities and towns will convene a staff workgroup to develop education and implementation strategies for the enforcement of flow control provisions of the respective municipal codes of the County, cities and towns.

Medium-Priority Recommendations

- A&PE5) Rate reviews will be conducted periodically for disposal rates to ensure adequate funds are being collected to support solid waste programs and mandates.
- A&PE6) Consider possible revisions to the Skagit County Code to potentially exempt Sinclair Island from otherwise applicable flow control requirements, and/or to update applicable references.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for most of these recommendations is the Skagit County Public Works Department, with assistance from the Health Department for Recommendations A&PE5 and A&PE6. For Recommendation A&PE3, the Cities will need to take the lead on flow control enforcement within their jurisdictions.

The cost for Recommendation A&PE1 will consist largely of staff time, although the production of new public education materials (including changes to websites) may be necessary. The cost for Recommendation A&PE2 will be up to \$75,000 (including benefits and overhead). The estimated cost of the rate review (Recommendation A&PE5) will be about \$25,000 to \$35,000 for each year it is conducted. The costs for Recommendations A&PE3, A&PE4 and A&PE6 will largely consist of staff time.

The implementation of Recommendation A&PE1 should begin in 2016, and Recommendations A&PE2, A&PE4 and A&PE6 should be implemented in 2018. The rate review (Recommendation A&PE5) should be conducted in 2018 and again after the waste export contract has been re-bid (in 2023).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

IMPLEMENTATION PLAN**10.1. INTRODUCTION**

This chapter lists all of the recommendations from previous chapters and presents a plan to implement the recommendations. These recommendations are intended to guide decision-making activities for Skagit County for the next six years, while also providing direction for the next 20 years. Implementation of individual program elements will be accomplished through annual budgets and contracts.

The recommendations for each element of the solid waste system are grouped according to priority level (high, medium and low), but otherwise are not shown in any particular order within each group. The priority levels are intended to guide future implementation activities and are based on the evaluation of the underlying alternatives (see specific chapters for more details).

10.2. WASTE REDUCTION RECOMMENDATIONS

The following recommendations are being made for waste reduction programs (see Chapter 3 for more details):

High-Priority Recommendations for Waste Reduction

- WR1) A program educating residents and businesses about avoiding food waste will be implemented.
- WR2) The availability of volume-based rates will be publicized by the County, Cities and waste collectors.
- WR3) Options for clothing reuse and recycling will be promoted.
- WR4) Skagit County will explore the possibilities for a charitable organization to collect reusable materials at the Skagit County Transfer Station.
- WR5) Skagit County will distribute videos that provide waste reduction tips.

Medium-Priority Recommendations for Waste Reduction

- WR6) A county-wide ban on yard debris disposal will be considered.
- WR7) Smart shopping will be promoted.
- WR8) Fix-it workshops will be encouraged and promoted.

10.3. RECYCLING RECOMMENDATIONS

The following recommendations are being made for recycling programs (see Chapter 4 for more details):

High-Priority Recommendations for Recycling

- R1) Skagit County's goal for recycling and composting is 65%.
- R2) Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- R3) Skagit County will consider adopting requirements for C&D recycling.
- R4) Skagit County will support product stewardship programs as appropriate.

Medium-Priority Recommendations for Recycling

- R5) Consideration will be given to increasing curbside recycling frequency to weekly in all areas.
- R6) Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- R7) Washington State should enact a bottle bill to divert glass away from curbside recycling programs.

Low-Priority Recommendations for Recycling

- R8) Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.

10.4. ORGANICS RECOMMENDATIONS

The following recommendations are being made for organics collection programs (see Chapter 5 for more details):

High-Priority Recommendations for Organics

- O1) More promotion must be conducted for the mixed organics collection services.

Medium-Priority Recommendations for Organics

- O2) Contaminated commercial setouts should be rejected by the collection companies.
- O3) Compostable plastics should not be collected in the mixed organics collection system.
- O4) The cities, towns and county will promote the use of compost.

10.5. WASTE COLLECTION RECOMMENDATIONS

The following recommendations are being made for waste collection programs (see Chapter 6 for more details):

Medium-Priority Recommendations for Waste Collection

- WC1) More promotion should be conducted for drop box customers to source-separate recyclable and compostable materials.
- WC2) The cities and Waste Management should consider switching all residential garbage collection services to every-other-week service.

10.6. TRANSFER AND DISPOSAL RECOMMENDATIONS

The following recommendations are being made for transfer and disposal programs (see Chapter 7 for more details):

High-Priority Recommendations for the Transfer System

- T1) Skagit County and the City of Sedro-Woolley should evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and possibly moving those operations to the Sedro-Woolley Recycling Facility, and this change may be implemented if mutually agreeable.
- T2) Transfer station customers will be encouraged to bring source-separated materials to other facilities for recycling or composting.

High-Priority Recommendations for Waste Export and Disposal

- D1) Skagit County will begin preparing a Request for Proposals for a new waste export and disposal contract in 2021.

Medium-Priority Recommendations for Waste Export and Disposal

- D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and existing programs; the waste export and disposal agreement then in effect; applicable siting, zoning, environmental and health regulations; and other criteria appropriate to the proposed system.

Low-Priority Recommendations for Waste Export and Disposal

- D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis for demonstrated need and benefit to the citizens of Skagit County; consistency with this Solid Waste Management Plan; and applicable siting, zoning, environmental and health regulations.

10.7. SPECIAL WASTE RECOMMENDATIONS

The following recommendations are being made for special waste programs (see Chapter 8 for more details):

High-Priority Recommendations for Special Wastes

- SW1) Increased education should be provided for the proper disposal of sharps.
- SW2) The needle exchange should be continued and possibly expanded.
- SW3) Staging areas will be designated for disaster debris.
- SW4) A disaster debris strategy will be developed.
- SW5) Increased education and technical assistance should be provided for CESQGs.

Medium-Priority Recommendations for Special Wastes

- SW6) Increased enforcement of existing regulations for the proper identification and disposal of asbestos-containing materials is needed, beginning with requiring that all demolition permits include an AHERA inspection or other survey for asbestos.
- SW7) Increased publicity will be provided for the HHW Facility.

10.8. ADMINISTRATION AND PUBLIC EDUCATION RECOMMENDATIONS

The following recommendations are being made for administration programs (see Chapter 9 for more details):

High-Priority Recommendation for Administration and Public Education

- A&PE1) Skagit County and the Cities will create a task force to address consistency and accessibility for public education.
- A&PE2) Skagit County will hire a Recycling Coordinator.
- A&PE3) Skagit County and the cities and towns will continue to implement and enforce flow control provisions of the Skagit County Code and/or the respective municipal codes of the cities and towns.
- A&PE4) Skagit County and the cities and towns will convene a staff workgroup to develop education and implementation strategies for the enforcement of flow control provisions of the respective municipal codes of the County, cities and towns.

Medium-Priority Recommendations for Administration and Public Education

- A&PE5) Rate reviews will be conducted periodically for disposal rates to ensure adequate funds are being collected to support solid waste programs and mandates.

A&PE6) Consider possible revisions to the Skagit County Code to potentially exempt Sinclair Island from otherwise applicable flow control requirements, and/or to update applicable references.

10.9. SIX-YEAR IMPLEMENTATION SCHEDULE

The proposed implementation schedule is shown in Table 10-1. It should be noted that the recommendations have been abbreviated to fit better into this table.

10.10. IMPLEMENTATION RESPONSIBILITIES

Skagit County and the cities and towns are primarily responsible for most of the recommendations made in this Solid Waste Management Plan (SWMP), but that responsibility is shared with others as appropriate to the nature of the recommended activity. Implementation responsibilities for the recommended activities are summarized in Table 10-2.

10.11. FUNDING STRATEGY

The recommended programs will be funded through garbage rates, tipping fees, other user fees and State grants (CPG funds). A summary of the funding sources for the recommended programs is shown in Table 10-3.

As indicated in Table 10-3, garbage rates will be used to fund solid waste collection, curbside recycling and commercial recycling programs. Tipping fees will be the primary source of funds for waste reduction, transfer, disposal, administration, education and some of the recycling programs. Special user fees will fund some of the recycling and special waste programs. The State coordinated prevention grant funding program (CPG grants) will be used for MRW, enforcement, and recycling and waste reduction education programs, with additional funds contributed from tipping fees. Local source control funds will be used for technical assistance.

Solid waste planning guidelines require that this SWMP include a six-year construction and capital acquisition strategy for recommended activities, but no significant construction or capital acquisition expenses are required for this plan. Recommendation T1, which states that Skagit County and the City of Sedro-Woolley may evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and moving those operations to the Sedro-Woolley Recycling Facility, may eventually lead to construction and capital costs for the Sedro-Woolley site, but the decision to proceed with that approach has not been made yet.

Table 10-1. Implementation Schedule for Recommendations						
Recommendation	2018	2019	2020	2021	2022	2023
Waste Reduction						
WR1) Education program for avoiding food waste.						
WR2) Publicize volume-based rates.						
WR3) Promote clothing reuse and recycling.						
WR4) Explore collection of reusable materials at the Transfer Station.						
WR5) Distribute videos for waste reduction tips.						
WR6) Consider county-wide ban on yard debris disposal.	X					
WR7) Promote smart shopping.						
WR8) Promote fix-it workshops.						
Recycling						
R1) Recycling and composting goal is 65%.						
R2) Adopt ordinance for all waste subscribers to have curbside recycling.			X			
R3) Consider adopting requirements for C&D recycling.			X			
R4) Support product stewardship programs as appropriate.						
R5) Consider increasing curbside recycling frequency to weekly in all areas.			X			
R6) Consider disposal bans for specific materials.						
R7) Washington State should enact a bottle bill to divert glass.			X			
R8) Examine mandatory commercial recycling.						
Organics						
O1) More promotion for mixed organics collection.						
O2) Contaminated commercial setouts should be rejected.						
O3) Do not collect compostable plastics with mixed organics.						
O4) Promote the use of compost.						
Waste Collection						
WC1) More promotion for drop box customers to source-separate recyclable and compostable materials.						
WC2) Consider switching all residential garbage collection to every-other-week.						

X – indicates a deadline or a singular event. Shading indicates ongoing activities. Recommendations have been abbreviated to fit into table.

Table 10-1. Implementation Schedule for Recommendations, continued						
Recommendation	2018	2019	2020	2021	2022	2023
Transfer and Disposal						
T1) Evaluate benefits and impacts of closing Clear Lake and moving the operations to the Sedro-Woolley Facility.	X					
T2) Encourage transfer station customers to bring recyclables elsewhere.						
D1) Prepare an RFP for a new waste export contract.				X		
D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis.						
D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis.						
Special Wastes						
SW1) Increased education should be provided for the proper disposal of sharps.						
SW2) Needle exchange should be continued and possibly expanded.						
SW3) Staging areas will be designated for disaster debris.	X					
SW4) A disaster debris strategy will be developed.		X				
SW5) Increased education and technical assistance for CESQGs.						
SW6) Increased enforcement of existing regulations for asbestos.						
SW7) Increased publicity for HHW Facility.						
Administration						
A&PE1) Create a task force to address consistency and accessibility for public education.						
A&PE2) Hire a Recycling Coordinator.	X					
A&PE3) Skagit County and the cities will continue to enforce flow control.						
A&PE4) Staff workgroup for education and implementation strategies for flow control enforcement.		X				
A&PE5) Conduct disposal rate reviews periodically.	X					X
A&PE6) Potentially update Skagit County Code.	X					

X – indicates a deadline or a singular event. Shading indicates ongoing activities. Recommendations have been abbreviated to fit into table.

Table 10-2. Implementation Responsibilities for Recommendations

Recommendation	Skagit County	Cities, Towns	Health Dept.	Waste Haulers	Others
Waste Reduction					
WR1) Education for avoiding food waste.	1	1			
WR2) Publicize volume-based rates.	1	2		2	
WR3) Promote clothing reuse and recycling.	1	2			
WR4) Explore collection of reusable materials at the Transfer Station.	1				
WR5) Distribute videos for waste reduction tips.	1				
WR6) Consider county-wide ban on yard debris disposal.	1				
WR7) Promote smart shopping.	1	2			
WR8) Promote fix-it workshops.	1	2			
Recycling					
R1) Recycling and composting goal is 65%.	1				
R2) Adopt ordinance for all waste subscribers to receive curbside recycling.	1				
R3) Consider adopting requirements for C&D recycling.	1	1			
R4) Support product stewardship programs as appropriate.	1				
R5) Consider increasing curbside recycling frequency to weekly in all areas.	1	1		1	
R6) Consider disposal bans for specific materials.	1	2			
R7) Washington State should enact a bottle bill to divert glass.					1, WA State
R8) Examine mandatory commercial recycling.	1	1			
Organics					
O1) More promotion for mixed organics collection.	2	2		1	
O2) Contaminated commercial setouts should be rejected.				1	
O3) Do not collect compostable plastics with mixed organics.				1	
O4) Promote the use of compost.	1	1			
Waste Collection					
WC1) More promotion for drop box customers to source-separate recyclable and compostable materials.		1		1	
WC2) Consider switching all residential garbage collection to every-other-week.		1	2	1	

1 – indicates primary responsibility. 2 – indicates secondary responsibility. Recommendations have been abbreviated to fit into table.

Table 10-2. Implementation Responsibilities for Recommendations, continued

Recommendation	Skagit County	Cities, Towns	Health Dept.	Waste Haulers	Others
Transfer and Disposal					
T1) Evaluate benefits and impacts of closing Clear Lake and moving the operations to the Sedro-Woolley Facility.	1	1, Sedro-Woolley	2		
T2) Encourage transfer station customers to bring recyclables elsewhere.	1				2, Recycling facilities
D1) Prepare RFP for waste export contract.	1				
D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis.	1				
D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis.	1				
Special Wastes					
SW1) Increased education should be provided for the proper disposal of sharps.	2		1		
SW2) Needle exchange should be continued and possibly expanded.			1		
SW3) Staging areas will be designated for disaster debris.	1	2	2		
SW4) A disaster debris strategy will be developed.	1		2		
SW5) Increased education and technical assistance for CESQGs.	2		1		
SW6) Increased enforcement of existing regulations for asbestos.	1	1			1 (L&I, NWCAA)
SW7) Increased publicity for the HHW Facility.	1				
Administration					
A&PE1) Create a task force to address consistency and accessibility for public education.	1	1		2	
A&PE2) Hire a Recycling Coordinator.	1				
A&PE3) Skagit County and the cities will continue to enforce flow control.	1	1			
A&PE4) Staff workgroup for education and implementation strategies for flow control.	1	2			
A&PE5) Conduct disposal rate reviews periodically.	1		2		
A&PE6) Potentially update Skagit County Code.	1		2		

1 – indicates primary responsibility. 2 – indicates secondary responsibility. Recommendations have been abbreviated to fit into table.

Table 10-3. Funding Strategies for Recommendations					
Project or Activity	Garbage Rates	Tipping Fees	Special User Fees	Grants	Other Funding as Available
Waste Reduction		X		X	X
Recycling and Organics	X	X	X	X	X
Solid Waste Collection	X				
Transfer and Disposal		X			
Special Wastes		X	X	X	X
Administration and Education		X		X	

10.12. TWENTY-YEAR IMPLEMENTATION SCHEDULE

It is anticipated that programs and facilities in Skagit County will generally be able to stay on the course established by this SWMP for the next twenty years. The waste stream for the County is not expected to increase so much (see Table 2-9) as to create capacity issues for the collection and disposal system. Hence, the twenty-year implementation strategy is much the same as the implementation details shown in this chapter. Changes will likely continue to occur, however, in the local, statewide and national solid waste arena, and should any of these changes require an amendment or revision to this SWMP, then the steps described in the next section can be taken to address those.

10.13. PROCEDURES FOR AMENDING THE SWMP

Ecology’s Planning Guidelines require that solid waste management plans be reviewed at least every five years. At any point in time, however, it may be necessary to update this SWMP due to one or more specific changes, and if this should occur then the changes could be either addressed through an amendment or through a revision to the plan, depending on the magnitude of the change(s).

An amendment is a simpler process that can be used to keep the SWMP current for minor changes. Amendments can be used when there are minor changes in programs, financing or operations, and these changes are still within the original scope and goals of the SWMP. For more significant changes, such as a change in the underlying vision of the plan or other changes that impact all or most of the elements

of the solid waste system, a plan revision would be needed. Other examples of changes that would require a plan revision include unanticipated changes (changes not addressed in this SWMP) such as a change in the disposal method, the development of a new transfer station or disposal facility, and other significant changes in service levels. The process for adopting a revision to the SWMP would be similar to the process for creating the SWMP in the first place, but amendments can be adopted through a simpler process.

The following steps should be undertaken if the SWMP needs to be amended:

1. a proposed amendment to the SWMP should be prepared by the local government agency (or other party in special cases) initiating the change. This should generally be preceded by discussions at the SWAC. The proposed amendment must be presented to the SWAC for review and comment, and submittal to the SWAC should be accompanied by a report providing an analysis of the impacts of the proposed change.
2. the SWAC should provide a recommendation for the proposed amendment in a timely manner. If the SWAC's recommendation is to proceed with the proposal, it should be submitted to Ecology staff for review and comment. If the SWAC recommends against moving forward, Skagit County staff can consider whether the proposal should be modified or to proceed with it as stated.
3. the Solid Waste System Governance Board should be briefed on the proposed amendment. Depending on the timing and the nature of the proposal, this briefing could occur before or after the SWAC's review of it. The Governance Board should be allowed to comment on the proposed amendment and concur with it or suggest modifications prior to submitting it to Ecology for review.
4. after local review, the proposed amendment should be submitted to Ecology for review and comment. It should be noted that Ecology's solid waste planning guidelines do not require this step, and so at their option Ecology could decline to comment on the amendment. As a shorter and simpler document, it is anticipated that Ecology review of the proposed amendment can be conducted within 45 days to 60 days. It is also anticipated that UTC review of the amendment will not be necessary, since by definition an amendment is a relatively simple change without a substantial impact on the costs of the solid waste system.
5. the proposed amendment can then be revised as necessary and presented for adoption by the elected officials of the municipalities and Skagit County. This part of the process will require a meeting of the Solid Waste System Governance Board (as described in the interlocal agreement) or similar activities consistent with agreements and procedures in effect at that time.

6. once the amendment has been adopted, Ecology should be notified and the amendment should be included with any future copies of the SWMP.

GLOSSARY

The following definitions are provided for terms used in this SWMP:

AHERA: Asbestos Hazard Emergency Response Act.

Biomedical waste: infectious and injurious waste originating from a medical, veterinary or intermediate care facility, or from home use.

Biosolids: includes sludge from the treatment of sewage at a wastewater treatment plant and semisolid waste pumped from a septic system that have been treated to meet standards for beneficial use (see Chapter 173-308 WAC).

Buy-back recycling center: a facility that pays people for recyclable materials.

Commercial solid waste: solid waste generated by non-industrial businesses. This includes waste from business activities such as construction; transportation, communications and utilities; wholesale trades; retail trades; finance, insurance and real estate; other services; and government.

Commingled: recyclable materials that have been collected separately from garbage by the generator, but the recyclable materials have been mixed together in the same container (see also single stream).

Composting: the controlled biological decomposition of organic wastes to produce a humus-like final product that can be used as a soil amendment. In this plan, backyard composting means a small-scale activity performed by homeowners on their own property, using yard debris that they generate.

Conditionally-exempt small-quantity generator (CESQG): a non-residential generator of small quantities of hazardous wastes that is exempt from the full regulations for hazardous wastes as long as the wastes are handled properly.

Consistency with planning goals: one of the criteria used to evaluate alternatives discussed in this SWMP, "consistency with planning goals" is a relative measure as to how well an alternative agrees with the goals that are relevant to that aspect of the solid waste system and with the general goal of diverting more materials from the waste stream (if applicable).

Cost-effectiveness: one of the criteria used to evaluate the alternatives discussed in this SWMP, cost-effectiveness is a relative measure as to how costly an alternative is in handling the materials or waste that it is designed to address, generally on a per-ton basis and compared to other potential alternatives and/or to existing practices.

CPG: Coordinated Prevention Grants, a grant program administered by the Washington State Department of Ecology.

Curbside recycling: the act of collecting recyclable materials from residential generators, usually after the materials have been placed in a cart at the curb.

Diversion potential: one of the criteria used to evaluate the alternatives discussed in this SWMP, diversion potential is a relative measure as to how much material an alternative can divert from the waste stream.

E-waste: electronic waste. As defined under Chapter 173-900 WAC, e-waste includes computers, monitors, laptops, tablet computers, televisions, portable DVD players and e-readers (these are sometimes collectively referred to as “covered units”).

EPA: the United States Environmental Protection Agency; the federal agency responsible for promulgation and enforcement of federal environmental regulations.

Feasibility: one of the criteria used to evaluate the alternatives discussed in this SWMP, feasibility is a relative measure intended to address the political and/or technical feasibility of an alternative.

Ferrous metals: materials that are predominantly (over 75% by weight) made of iron. Includes cans and various iron and steel alloys that contain enough iron such that magnets adhere to them, but for recycling this generally does not include paint cans or other containers that may contain hazardous residues.

Flow control: a term that refers to the authority to direct solid wastes to specific facilities.

Groundwater: water present in subsurface geological deposits (aquifers).

HDPE: high-density polyethylene, a type of plastic commonly used in milk, detergent, and bleach bottles and other containers.

Household hazardous waste: wastes that would be classified as hazardous due to their nature or characteristics, except that the amount is generated by households and so is exempt. Includes aerosol cans, solvents, some paints, cleaners, pesticides, herbicides, compressed gases, oil, other petroleum products, car batteries and other materials.

Incentive rates: a rate structure for certificate (franchise) areas that incorporates the cost of recycling into the cost of garbage collection, such that customers who recycle can then be charged a lower monthly fee as an incentive.

Industrial waste: solid waste generated by manufacturing companies. Does not include hazardous wastes generated by these industries.

Inert wastes: includes wastes that are inert in nature, such as glass, concrete, and bricks (see WAC 173-350-990).

Interlocal agreement: a formal agreement between two or more public agencies to work cooperatively (see also RCW 70.95.080 and RCW 39.34.030).

Mixed paper: other types of recyclable paper not including newspaper and cardboard. Includes materials such as “junk mail,” magazines, books, paperboard (non-corrugated cardboard), and colored printing and writing papers.

Moderate risk wastes (MRW): household hazardous waste (see definition, above) and wastes produced by businesses that potentially meet the definition of a hazardous wastes except the amount of waste produced falls below regulatory limits (see CESQG).

MSW: municipal solid waste (see also “solid waste”).

Mulching: 1) leaving grass clippings on the lawn when mowing; 2) placing yard debris, compost, wood chips or other materials on the ground in gardens or around trees and shrubs to discourage weeds and retain moisture.

Non-ferrous metals: materials predominantly made of copper, lead, brass, tin, aluminum, and other metals except iron.

NWCAA: the Northwest Clean Air Agency; an agency with regulatory and enforcement authority for air pollution issues in Skagit, Island, San Juan and Whatcom Counties.

Overall rating: for evaluating the alternatives discussed in this SWMP, “overall rating” is the average of the other criteria used for evaluating the alternatives.

PET: polyethylene terephthalate, a type of plastic. Commonly used to refer to 2-liter beverage bottles, although other containers are also increasingly being made from this material, including containers for liquid and solid materials such as cooking oil, liquor, peanut butter, and many other food and household products.

Public education: a broad effort to present and distribute public information materials.

Public information: the development of educational materials for the public, including brochures, videos, and public service announcements.

RCW: Revised Code of Washington.

Recycling: the act of transforming or remanufacturing wastes into usable or marketable materials for use other than landfilling or incineration.

Self-haul waste: waste that is brought to a landfill or transfer station by the person (residential self-haul) or company (non-residential or commercial self-haul) that generated the waste.

SEPA: State Environmental Policy Act.

Septage: a semi-liquid waste consisting of settled sewage solids combined with varying amounts of water and dissolved materials.

Sewage sludge: the concentrated solids derived from the treatment of sewage at a municipal wastewater treatment plant (see also “biosolids”).

Sharps: in this SWMP, refers to used syringes and similar items.

Single stream: refers to the practice of placing all recyclable materials together in one container for curbside collection. This is similar to “commingled” except that glass

bottles may or may not be included in a commingled mixture whereas glass bottles are definitely mixed with the other materials in single stream collection programs.

Solid waste: all putrescible and nonputrescible solid and semisolid wastes, including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, septage, abandoned vehicles or parts thereof, waste tires, contaminated soils and contaminated dredged material, and recyclable materials.

Solid Waste Advisory Committee (SWAC): a group assisting Skagit County with the development of this solid waste management plan, composed of representatives from the general public, private industry, and the cities.

Source-separated: recyclable materials that have been kept separate from garbage or other forms of solid waste by the waste generator. This may or may not include keeping different types of recyclable materials separate from each other (see also “commingled” and “single stream”).

Special wastes: wastes that have particular characteristics such that they present special handling and/or disposal problems.

Sustainable: meeting the needs of the present without compromising the ability of future generations to meet their needs.

SWAC: see Solid Waste Advisory Committee.

SWMP: Solid Waste Management Plan.

Tipping fee: The rate charged by transfer and disposal facilities, generally on a per-ton basis.

Transfer station: an intermediate solid waste disposal facility at which solid waste is temporarily deposited to await transportation to a final disposal site. Note that the State’s definition for a transfer station requires acceptance of waste from garbage collection trucks, which the Sauk and Clear Lake sites do not.

UGA: Urban Growth Area, see Skagit County Comprehensive Plan for more details.

UTC: Washington Utilities and Transportation Commission.

WAC: Washington Administrative Code.

Waste reduction or waste prevention: reducing the amount or type of solid waste that is generated. Also defined by state rules to include reducing the toxicity of wastes.

Yard debris: includes leaves, grass clippings, brush and branches.

See also Skagit County Code 12.16.060 and WAC 173-350-100 for additional definitions related to solid waste management. In the case of any inconsistencies, Skagit County Code and State law will take precedence over the above definitions.

APPENDIX A

INTERLOCAL AGREEMENTS

INTRODUCTION

The current interlocal agreement between Skagit County and the eight cities and towns is shown in the following pages.

DISCUSSION

This interlocal agreement (the “Agreement”, dated April 30, 2008 [Skagit County Contract #C20080306], as amended in 2010 by A20100124) provides for a number of changes from the previous agreement, including, but not limited to:

- extends the effective date until December 31, 2030,
- replaces the Municipalities Committee with a Solid Waste System Governance Board (SWSGB). The SWSGB has decision-making authority regarding significant Solid Waste System Decisions (as defined in the Agreement), subject to and pursuant to the terms of the Agreement.

These changes are intended to support the existing solid waste system and to provide a timely opportunity in the future for consideration of changes to the system.

**AFTER RECORDING RETURN TO:
SKAGIT COUNTY BOARD OF COMMISSIONERS
1800 CONTINENTAL PLACE, STE. 100
MOUNT VERNON, WA 98273**

DOCUMENT TITLE: INTERLOCAL COOPERATIVE AGREEMENT BETWEEN
SKAGIT COUNTY AND CITIES AND TOWNS IN SKAGIT
COUNTY FOR SOLID WASTE MANAGEMENT

DATE SIGNED: April 30, 2008

GRANTOR: SKAGIT COUNTY, a Political Subdivision of the State of
Washington,

GRANTEE: CITY OF MOUNT VERNON, a Washington Municipal Corporation;
CITY OF ANACORTES, a Washington Municipal Corporation;
CITY BURLINGTON, a Washington Municipal Corporation;
CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation;
TOWN OF LA CONNER, a Washington Municipal Corporation;
TOWN OF CONCRETE, a Washington Municipal Corporation;
TOWN OF LYMAN, a Washington Municipal Corporation;
TOWN OF HAMILTON, a Washington Municipal Corporation

COUNTY CONTRACT NO.: SKAGIT COUNTY
Contract # C20080306

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Page 1 of 21

DOCUMENT TITLE: INTERLOCAL COOPERATIVE AGREEMENT BETWEEN SKAGIT COUNTY AND CITIES AND TOWNS IN SKAGIT COUNTY FOR SOLID WASTE MANAGEMENT.

DATE SIGNED: April 30th, 2008

GRANTOR: SKAGIT COUNTY, a Political Subdivision of the State of Washington,

GRANTEES: CITY OF MOUNT VERNON, a Washington Municipal Corporation;
CITY OF ANACORTES, a Washington Municipal Corporation;
CITY OF BURLINGTON, a Washington Municipal Corporation;
CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation;
TOWN OF LA CONNER, a Washington Municipal Corporation;
TOWN OF CONCRETE, a Washington Municipal Corporation;
TOWN OF LYMAN, a Washington Municipal Corporation; and
TOWN OF HAMILTON, a Washington Municipal Corporation

INTERLOCAL COOPERATIVE AGREEMENT
BETWEEN
SKAGIT COUNTY
AND CITIES AND TOWNS IN SKAGIT COUNTY
FOR
SOLID WASTE MANAGEMENT

THIS INTERLOCAL COOPERATIVE AGREEMENT ("Agreement"), made and entered into on this 30th day of April, 2008, by and between the CITY OF MOUNT VERNON, a Washington Municipal Corporation; the CITY OF ANACORTES, a Washington Municipal Corporation; the CITY OF BURLINGTON, a Washington Municipal Corporation; the CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation; the TOWN OF LA CONNER, a Washington Municipal Corporation; the TOWN OF CONCRETE, a Washington Municipal Corporation; the TOWN OF LYMAN, a Washington Municipal Corporation; and the TOWN OF HAMILTON, a Washington Municipal Corporation hereinafter collectively referred to as the "Municipalities", and SKAGIT COUNTY, a political subdivision of the State of Washington, hereinafter referred to as the "County", pursuant to the authority granted by Chapter 39.34 RCW, INTERLOCAL COOPERATION ACT. The Municipalities and the County may be individually referred to herein as a "Party", and may be collectively referred to herein as the "Parties."

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SKAGIT COUNTY
Contract # C20080306

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WHEREAS, the County and each of the Municipalities executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid Waste Management Plan ("CSWMP") and are further authorized by Chapter 39.34 RCW to enter into an agreement for the administration and implementation of said CSWMP; and

WHEREAS, the County prepared a Comprehensive Solid Waste Management Plan for the County and Municipalities of the County in 1994, and updated the CSWMP with the active involvement of the Municipalities in 2004; and

WHEREAS, the 2004 Comprehensive Solid Waste Management Plan update calls for significant improvements to and replacements for existing waste facilities, and the County has entered into a waste export contract that expires in 2013, and in light of these factors long term financial planning is desirable; and

WHEREAS, providing the most effective and efficient system for managing solid waste generated in Skagit County, including its Municipalities, requires use of the solid waste disposal system established by the County and the Comprehensive Solid Waste Management Plan of the County to the fullest extent possible;

WHEREAS, in or about May of 2004, the County and the Municipalities entered into a previous interlocal agreement (Skagit County Contract # C20040228) regarding the administration and implementation of the CSWMP; and

WHEREAS, the County, in response to recent policy guidance provided by the Skagit County Board of County Commissioners (including, but not limited to, Skagit County Resolution # R20070141) is in the process of amending the CSWMP, and pursuant to these amendments, the Parties desire to mutually effectuate changes between the relationship of the Parties to provide for enhanced cooperation by and between the County and the Municipalities, and also to make additional changes to the terms of the previous interlocal agreement by and between the Parties (Skagit County Contract # C20040228); and

WHEREAS, the terms of this Agreement are intended to wholly replace and supersede the terms of the previous interlocal agreement by and between the Parties (Skagit County Contract # C20040228);

NOW THEREFORE, in consideration of the forgoing, and in consideration of the following terms and conditions, the Parties mutually agree as follows:

1. **NEW AGREEMENT; EFFECTIVENESS.** This Agreement entirely replaces and supersedes the previous interlocal agreement (herein the "previous interlocal agreement") for a Comprehensive Solid Waste Disposal System that the Parties entered into in 2004 (Skagit County Contract # C20040228). This Agreement shall not become effective until all Parties to the previous interlocal agreement have duly executed this Agreement. Unless and until all Parties to the previous interlocal agreement have duly executed this agreement, the previous interlocal agreement shall remain in full force and effect pursuant to the terms therein.

2. **DEFINITIONS.** For the purposes of this Agreement, the following definitions apply:

2.1 "Comprehensive Solid Waste Management Plan," or "CSWMP" means the comprehensive plan for solid waste management as required by Ch. 70.95 RCW.

2.2 "Party" or "Parties" shall mean any signatory or signatories to this Agreement.

2.3 "Solid Waste" means all putrescible and nonputrescible solid and semi-solid wastes including, but limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials, with the exception of wastes excluded by WAC 173-304-015.

2.4 "Solid waste handling" means the management, storage, collection, transportation, utilization, processing, and final disposal of Solid Waste, including the recovery and recycling of materials from Solid Waste, the recovery of energy resources from such wastes or the conversion of energy in such wastes to more useful forms or combinations thereof, and as such term may be modified by amendments to Chapter 70.95.030(23) RCW.

2.5 "System" means all facilities for Solid Waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto, and as further defined and provided within the County's Comprehensive Solid Waste Management Plan, as may be amended and/or updated.

2.6 "System Costs" means all costs arising from System operation, and maintenance, capital costs for new System facilities and equipment, past and future System liabilities, known or unknown, and shall include any municipal liability for disposal clean-up costs anywhere within the jurisdiction of Skagit County or the municipal Parties to this Agreement, provided, however, the System shall have no liability for the clean-up costs or other liabilities of any Party that terminates their participation in the System.

3. RESPONSIBILITIES FOR WASTE DISPOSAL SYSTEM. For the duration of this Agreement, the Parties shall have the following responsibilities:

3.1 The County shall continue to provide for the efficient disposal of all Solid Waste generated within the jurisdictions of each Party to this Agreement to the extent, in the manner, and by facilities as described in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.2 Subject to the governance structure established by other provisions of this Agreement, the County shall continue to provide a comprehensive Solid Waste management system, including educational programs, as defined by the Comprehensive Solid Waste Management Plan.

3.3 The County shall continue to operate the System in a financially prudent manner, minimize fee increases, and use System revenues only for System purposes. The County's operation of the System is subject to governance by the SWSGB, as further set forth in elsewhere in this Agreement.

4. COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN. For the duration of their participation in this Agreement, each Party shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to Chapter 70.95 RCW. For the duration of their participation in this Agreement, each Party authorizes the County to include in the Comprehensive Solid Waste Management Plan (CSWMP) provisions

for the management of solid waste generated in each Party's jurisdiction. Parties executing this Agreement hereby agree to respectively adopt any CSWMP updates properly adopted by the SWSGB within 30 days of approval by the Department of Ecology.. No Party may veto, reject, or fail to adopt any CSWMP Amendments or Revisions as recommended by the SWSGB pursuant to this agreement. Until such time as the CSWMP is updated by the SWSGB consistent with this Agreement, the Parties understand and agree that this Agreement shall control with respect to any inconsistency between the CSWMP and this Agreement. The Parties to this Agreement further understand and agree that the County shall promptly amend the CSWMP after execution of this Agreement solely as necessary to incorporate and reflect the terms of this Agreement in the CSWMP, which amendment shall be applicable to and deemed adopted by all Parties to this Agreement by virtue of their execution of this Agreement.

5. DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL. Each Party shall designate the County System for disposal of all Solid Waste generated within the Party's jurisdictional limits, and within the scope of the Comprehensive Solid Waste Management Plan.

6. DESIGNATION OF DISPOSAL SITES. The SWSGB shall designate County System disposal site or sites for the disposal of such solid waste except for recyclable and other materials removed from solid waste by waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan. Designation by the SWSGB of disposal site(s) pursuant to this Agreement shall not diminish any Party's power to regulate land use and establish land use criteria within the Party's jurisdiction. Furthermore, designation by the SWSGB of disposal site(s) pursuant to this Agreement shall not diminish the County's authority to regulate public health pursuant to Title 70 RCW and other applicable laws and regulations.

7. ENFORCEMENT. The County shall be primarily responsible for enforcement of laws and regulations requiring persons to dispose of solid waste at sites designated by the County. Each Party shall cooperate with the County in its enforcement efforts, and shall provide by ordinance that any person that disposes of Solid Waste generated within its boundaries at a site other than a site designated by the County will be guilty of a misdemeanor, except where such disposal may be otherwise permitted by state law. To the extent legally possible, the County shall be responsible for bringing enforcement actions against persons violating state statutes, or County ordinances relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring an enforcement action and another Party possesses that authority, the County may request that the Party bring such enforcement action. The Party shall comply with this request, or in some other way ensure that Solid Waste generated with the Party is disposed of at those sites designated by the County. All reasonable costs incurred by the Party in taking such enforcement or other actions that are requested in writing by the County shall be paid as System costs.

8. LIABILITY AND INDEMNIFICATION. Each Party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their elected officials, officers, agents, or employees to the fullest extent required by law, and further agrees to save, indemnify, defend, and hold the other Party harmless from any such liability. It is further provided that no liability shall attach to any other Parties by reason of entering into this Agreement except as may be expressly provided herein.

9. SYSTEM COSTS AND RATES. The Parties agree that all System Costs shall be paid by the System through tipping fee rates and rate adjustments established in conformance with the Level of Service ("LOS") envisioned in paragraph 13.1.6 below. Rates set

by the SWSGB shall accommodate long-term System viability and a financially reasonable level of cash reserves.

10. DURATION; TERM OF AGREEMENT. The Parties agree to be bound by this Agreement until September 15, 2013, unless prior modified in accordance with paragraph 9. This Agreement shall not sunset or expire, but shall continue in full force and effect. Individual Parties to this Agreement may, after September 15, 2013, withdraw from this Agreement by giving sixty (60) days' notice to all other Parties to this Agreement.

11. REVISION, AMENDMENT, SUPPLEMENTATION, OR TERMINATION. This Agreement shall be reviewed by the Parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Agreement may be revised, amended, or supplemented, or the Agreement as a whole may be terminated only upon the written agreement of all Parties executed with the same formalities as the original. No revision, amendment, supplementation or termination shall be adopted or put into effect if it impairs any other contractual obligation of the County. Waiver or breach of any term or condition of this Agreement shall not be considered a waiver of any prior or subsequent breach.

12. SOLID WASTE ADVISORY COMMITTEE.

12.1 Pursuant to Chapter 70.95.165(3) RCW and Chapter 39.34.030(4) RCW and Skagit County Code 12.18, a Solid Waste Advisory Committee shall continue operating for the purpose of rendering advice to Skagit County and the SWSGB regarding solid and moderate risk waste related issues generally, service levels, disposal rates, and short and long term planning, and especially the administration and implementation of the Comprehensive Solid Waste Management Plan.

12.2 Membership of the Solid Waste Advisory Committee shall be as follows:

(1) Regular members. The Solid Waste Advisory Committee shall consist of:

(a) One member from each Party to this Agreement, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.

(b) One member from each Municipality in Skagit County which has its own Comprehensive Solid Waste Management Plan, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.

(c) Three members, each representing the unincorporated area of one of the three County Commissioner districts. The three members shall be recommended by the County Commissioners. The County Commissioners shall recommend candidates representing a spectrum of citizens, public interest groups, and businesses. Candidates shall be residents of Skagit County or firms licensed to do business in Skagit County.

(d) Two members shall be selected, one to represent commercial solid waste collection firms; and one to represent commercial recycling firms. These members shall be recommended by the County Commissioners.

(e) One ex officio, non-voting representative from the Skagit County Public Works Solid Waste Section.

(f) One ex officio, non-voting representative from the State of Washington Department of Ecology.

(g) One ex officio, non-voting representative from the Skagit County Health Department.

(2) Auxiliary Members. The regular membership of the Solid Waste Advisory Committee may appoint auxiliary members for a specific time period to serve on the committee in a non-voting capacity, for the purpose of providing specific information, technical advice, and information of a general nature which is pertinent to the committee's activities or any other form of assistance which will aid the committee in carrying out its purposes.

12.3 Meetings. The Solid Waste Advisory Committee shall meet as required to carry-out the purposes of the Committee. Meetings may be held at various locations within the County with written notification to the membership and chairman designating the time and place of such meetings. Meetings shall be held not less than quarterly. A quorum shall consist of a simple majority of the members on the Committee, A majority of the total voting membership of the Committee is required to pass a motion.

12.4 Transfer Station Oversight Sub-Committee. Provides operational and customer-based input on Skagit County Transfer Station operations and serves as an advisory resource to the Solid Waste Advisory Committee.

(1) Regular Members. The Transfer Station Oversight Sub-Committee shall consist of one staff member each from Mount Vernon, Sedro-Woolley, Burlington, Anacortes, Regional Disposal Company, Waste Management, Inc., Skagit River Steel and Recycling, and Skagit County Public Works.

(2) Meetings. The Transfer Station Oversight Sub-Committee shall meet every year, or as needed, to carry out the purposes of the Committee including making recommendations to the Solid Waste Advisory Committee.

13. SOLID WASTE SYSTEM GOVERNANCE BOARD.

13.1 Purpose. Any proposed changes or improvements significantly affecting the operation of the System or which may directly or indirectly impact tipping fees (including, but not limited to, tipping fee adjustments) or the siting of disposal facilities (herein collectively referred to as "Significant Solid Waste Decisions") shall be submitted to the Solid Waste System Governance Board (SWSGB) for final decision. Significant Solid Waste Decisions within the scope of the SWSGB's purview shall include timely review and approval by a 60% supermajority vote of the following matters, as recommended by the SWAC and/or the County in a manner consistent with this Agreement:

13.1.1 Major capital improvements to the System. "Major capital improvements" shall be defined as any capital expenditures in excess of Fifty Thousand Dollars (\$50,000) which modify the method or model of operation of the System.

13.1.2 Designation of site(s) for inclusion within the System, provided that such designation shall be consistent with the other provisions of this Agreement and the Comprehensive Solid Waste Management Plan as approved by the Parties and adopted as set forth in this Agreement;

13.1.3 Long-range plans for System expansion and construction. By December 31, 2011 the SWSGB shall produce a long-range plan for the System that encompasses the ensuing twenty (20) year period (the "Long Range Plan"), in accordance with RCW 70.95.090(2). If the SWSGB fails to produce a Long Range Plan by December 31, 2011, the Skagit County Board of Commissioners may adopt a Long Range Plan.

13.1.4 Requests for Proposals for privatization of all or any part of the System, including approval of any System/Operator Agreement (or similar agreement) for private parties (and/or third parties who are not signatories to this Agreement) seeking to become a part of the System;

13.1.5 Changes to tipping rates, which shall be done in a manner consistent with the other terms and conditions of this Agreement;

13.1.6 The annual operating and capital budget (Annual Budget) for the following year. Provided, however, the SWSGB's approval shall be limited to approval of the overall budget based on the adopted level of service ("LOS"), and shall not include the right to disapprove individual line-item budget expenditures. The LOS shall be initially established as the current LOS and may be amended from time to time by the SWSGB. Changes to the LOS shall be made at least 180 days prior to the scheduled adoption of the Annual Budget. The Annual Budget shall be prepared in conformance with the rate structure and LOS established by the SWSBG.

The SWSGB may direct the County to perform and/or commission studies including, but not limited to, rate studies, capital improvement studies, and comprehensive plan update studies as are necessary toward making reasoned and informed Significant Solid Waste Decisions, all costs of which shall be paid as System costs.

13.2 Powers Not Enumerated. Any powers not enumerated herein and assigned to the SWSGB shall be retained by the Skagit County Department of Public Works.

13.3 Regular Members. The SWSGB shall consist of at least one representative of each Party executing this Agreement.

13.4 Meetings. The SWSGB shall meet a minimum of at twice each calendar year, or as often as otherwise needed to adequately deliberate upon and decide Significant Solid Waste Decisions (as defined in Section 13.1, above), or for other purposes (such other purposes including, but not limited to, review of the status of the solid waste disposal system, and review of any recommendations from the Solid Waste Advisory Committee).

13.5 Decisions of SWSGB Initiated by County. The County shall retain responsibility for day-to-day operations of the System. Without diminishing the power afforded the SWSGB pursuant to ¶13.1, supra, the County may request a decision as to a Significant Solid Waste Decision from the SWSGB. After submitting any Significant Solid Waste Decision to the SWSGB that is within the scope set forth in Section 13.1 (above), the SWSGB shall render a

decision within sixty (60) days. Upon a finding by the SWSGB that additional time is needed in which to render a decision, the SWSGB may extend the decision timeline for an additional 60 days. In addition to the foregoing, upon a finding by the County Public Works Director that any Significant Solid Waste Decision constitutes an emergency that threatens the operation of the System, the SWSGB may be convened on an emergency basis three (3) days after notice to each Party to this Agreement. The County shall submit requests for decisions from the SWSGB regarding Significant Solid Waste Decisions in writing. In the event that the County does not receive a final written decision from the SWSGB within sixty (60) days (or 120 days if properly extended as set forth above), the County may take action consistent with the best interests of the System within the scope of the Significant Solid Waste Decision initially sought.

13.6 SWSGB Voting. All decisions of the SWSGB envisioned herein shall be done by majority vote, and immediately reduced to writing and provided to the County. A quorum shall consist of a simple majority of the Municipal members of the SWSGB. Counting of Municipal members present for the purposes of a quorum shall be based on the presence of one Municipal representative. A transcript shall be made of each SWSGB meeting. Each Party shall have one vote weighted as outlined in Section 13.6.1 below.

13.6.1 Based on the 2000 U.S. Census establishing a total County population of 102,979 (and subject to modification after each new census), each Party's vote shall be determined as follows:

The voting structure shall be based two-thirds on the population of each participating municipality with the County's portion equal to the unincorporated population, and one-third equally distributed to each entity. The following table summarizes the overall allocation of votes expressed as percentages.

Anacortes	14,557	13.1
Burlington	6,757	8.1
Sedro-Woolley	8,658	9.3
Mount Vernon	26,232	20.7
La Conner	761	4.2
Hamilton	309	3.9
Lyman	409	4.0
Concrete	790	4.2
County	44506	32.5

Any decision of the SWSGB under this Agreement must obtain a 60% majority.

13.7 Extraordinary Veto by Board of Commissioners. The Skagit County Board of Commissioners (by action of the Skagit County Board of Commissioners) may veto any final decision of the SWSGB within thirty (30) days of any final decision by the SWSGB on the sole grounds that a final decision of the SWSGB will: (a) jeopardize the long-term viability of the System; (b) impair the ability of the county to meet current solid waste contractual obligations (c) be out of compliance with the adopted CSWMP, and adopted LOS, and/or (d) be contrary to State law governing operation of the System. Any final decision of the SWSGB vetoed by the Skagit County Board of Commissioners pursuant to this paragraph shall be returned to the SWSGB for further deliberation. In the event the SWSGB and the Skagit County Board of County Commissioners cannot agree after veto and remand of any final decision within twenty

(20) days, the matter shall be submitted to final, binding arbitration before a single arbitrator to be selected within thirty (30) days by the Presiding Judge, Skagit County Superior Court. The arbitration shall be held at a mutually convenient time and location with Skagit County, not less than forty-five (45) days after the selection of the arbitrator. Any arbitration shall apply the laws of the State of Washington. Each Party shall bear its own costs and fees in the event of any such arbitration. The Parties must each submit a concise statement setting forth a proposed resolution to the dispute, from which the arbitrator shall choose on the basis of its consistency with this Agreement. The arbitrator's decision shall be final and binding on the Parties. All matters arising under this agreement shall be deemed arbitrable including questions of procedural arbitrability. The arbitrator may award the prevailing Party their reasonable attorney fees and costs, including expert and consultant fees. Any arbitrated dispute shall be maintained by individual Parties to this Agreement and not the System, and attorney fees and costs fixed by the arbitrator shall not be assessed as System costs. The arbitrator's decision may be entered by any Party in Skagit County Superior Court.

14. **NO THIRD PARTY BENEFICIARIES:** This Agreement is not entered into with the intent that it shall benefit any Municipality not signing this Agreement and no other person or entity shall be entitled to be treated as a third party beneficiary of this Agreement. This Agreement is not intended to nor does it create any third party beneficiary or other rights in any third person or party, including, but not limited to, any agent, contractor, subcontractor, consultant, volunteer, or other representative of either party. No agent, employee, contractor, subcontractor, consultant, volunteer, or other representative of the Parties shall be deemed an agent, employee, contractor, subcontractor, consultant, volunteer, or other representative of any other party.

15. **SEVERABILITY:** In the event any term or condition of this Agreement or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications of this Agreement which can be given effect without the invalid term, condition, or application. To this extent and end the terms and conditions of this Agreement are declared severable.

16. **ENTIRE AGREEMENT:** This Agreement contains all the terms and conditions agreed upon by the Parties. All items incorporated herein by reference are attached. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the Parties hereto.

17. **COMPLIANCE WITH LAWS:** The Parties to this Agreement shall comply with all applicable federal, state, and local laws, rules, and regulations in carrying out the terms and conditions of this Agreement. The Parties shall obtain and comply with any and all necessary permits and approvals from all applicable jurisdictions prior to commencing any work related to this Agreement.

18. **VENUE AND CHOICE OF LAW:** In the event that any litigation should arise concerning the construction or interpretation of any of the terms of this Agreement including the enforcement of the arbitrator's judgment, the venue of such action of litigation shall be in the Superior Court of the State of Washington in and for the County of Skagit. This Agreement shall be governed by the laws of the State of Washington.

19. **CAPTIONS & COUNTERPARTS:** The captions in this Agreement are for convenience and reference only and do not define, limit, or describe the scope or intent of this Agreement. This Agreement may be executed in any number of counterparts, and each such

counterpart hereof shall be deemed to be an original instrument, but all such counterparts together shall constitute but one agreement.

20. **TIME OF PERFORMANCE:** Time is specifically declared to be of the essence of this Agreement and of all acts required to be done and performed by the Parties hereto.

21. **NO SEPARATE ENTITY:** It is not the intention that a separate legal entity be established to conduct this cooperative undertaking, and no separate legal entity is established by this Agreement.

22. **NEUTRAL AUTHORSHIP:** Each of the terms and provisions of this Agreement have been reviewed and negotiated, and represents the combined work product of the Parties hereto. No presumption or other rules of construction which would interpret the provisions of this Agreement in favor of or against the Party preparing the same shall be applicable in connection with the construction or interpretation of any of the provisions of this Agreement. The Parties represent that they have had a full and fair opportunity to seek legal advice with respect to the terms of this Agreement and have either done so, or have voluntarily chosen not to do so. The Parties represent and warrant that they have fully read this Agreement, that they understand its meaning and effect, and that they enter into this Agreement with full knowledge of its terms. The Parties have entered into this Agreement without duress or undue influence.

IN WITNESS WHEREOF, the Parties have executed this Agreement this 30th day of April, 2008.



APPROVED:

**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**

Don Munks
DON MUNKS, Chairman

Kenneth A. Dahlstedt
KENNETH A. DAHLSTEDT, Commissioner

Sharon D. Dillon
SHARON D. DILLON, Commissioner

Recommended:

By: [Signature]
Department Head

By: [Signature]
Budget & Finance Administrator

Approved as to Indemnification:

By: [Signature]
Risk Manager

Approved as to Form:

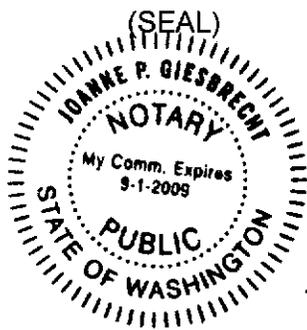
By: [Signature]
Deputy Prosecuting Attorney

Attest: [Signature]
Clerk of the Board

STATE OF WASHINGTON }
COUNTY OF SKAGIT } ss.

I certify that I know or have satisfactory evidence that Sharon Dillon, Don Munks, and ~~or~~ Kenneth A. Dahlstedt is/are the person(s) who appeared before me, and said person(s) acknowledged that she/he/they signed this instrument, on oath stated that she/he/they was/were authorized execute the instrument and acknowledged it as Commissioner(s) of Skagit County, to be the free and voluntary act of such Party for the uses and purposes herein mentioned.

DATED this 30th day of April, 2008.



Joanne P. Giesbrecht
Notary Public
print name JOANNE P. GIESBRECHT
Residing at MOUNT VERNON
My commission expires 09-01-09

TOWN OF HAMILTON:

Timothy Bates
TIMOTHY BATES, Mayor
(Date April 16 2008)

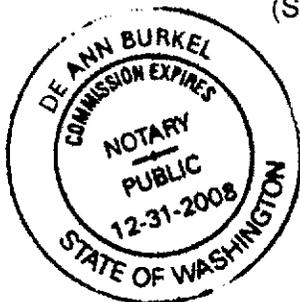
Mailing Address:
Town of Hamilton
584 Maple St.
P.O. Box 528
Hamilton, WA 98255

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Timothy Bates is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the Town of Hamilton, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 16th day of April, 2008.

(SEAL)



De Ann Burkel
Notary Public
print name: De Ann Burkel
Residing at Burlington
My commission expires 12-31-08

Page 21 of 21

SKAGIT COUNTY
Contract # C20080306

Page 21 of 21

After Recording Return to:

Skagit County
Public Works Department
Attn: Kevin Renz,
Solid Waste Division Manager
1800 Continental Place
Mount Vernon, WA 98273

SKAGIT COUNTY
Amendment # A20100124
Page 1 of 12

**AMENDMENT TO
INTERLOCAL COOPERATIVE AGREEMENT BETWEEN SKAGIT COUNTY AND
CITIES AND TOWNS IN SKAGIT COUNTY FOR SOLID WASTE MANAGEMENT
(SKAGIT COUNTY CONTRACT No. 20080306)**

THIS AMENDMENT (herein "Amendment") to that certain interlocal cooperative agreement (herein the "Agreement" [defined herein below]) is made and entered into by and between the CITY OF MOUNT VERNON, a Washington Municipal Corporation; the CITY OF ANACORTES, a Washington Municipal Corporation; the CITY OF BURLINGTON, a Washington Municipal Corporation; the CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation; the TOWN OF LA CONNER, a Washington Municipal Corporation; the TOWN OF CONCRETE, a Washington Municipal Corporation; the TOWN OF LYMAN, a Washington Municipal Corporation; and the TOWN OF HAMILTON, a Washington Municipal Corporation (hereinafter collectively referred to as the "Municipalities"), and Skagit County, a political subdivision of the State of Washington ("County") pursuant to the authority granted by Chapter 39.34 RCW, INTERLOCAL COOPERATION ACT. The Municipalities and the County may be individually referred to herein as a "party", and may be collectively referred to herein as the "parties."

WHEREAS, the parties have entered into an interlocal cooperative agreement (herein the "Agreement") dated April 30, 2008 (Skagit County Contract #: C20080306) establishing the Solid Waste System Governance Board ("SWSGB"), and for purposes of solid waste management pursuant to the terms therein; and

WHEREAS, the SWSGB has authorized the construction of the new Skagit County Transfer and Recycling Station; and

WHEREAS, the construction of the new Skagit County Transfer and Recycling Station will require bond funding; and

WHEREAS, in order to facilitate bond funding for the new Skagit County Transfer and Recycling Station, the parties mutually desire to modify the terms of the Agreement pursuant to the terms of this Amendment herein.

NOW THEREFORE, in consideration of the forgoing, and following terms and conditions, the parties mutually agree as follows:

A. TERMS OF AMENDMENT: The terms of the Agreement are amended as follows:

A.1. The following terms shall be included within Section 10. of the Agreement (DURATION; TERM OF AGREEMENT), and are amended, revised, modified, and/or supplemented to read as follows:

10.1 Subject to the terms of Section 10.2, the Parties agree to be bound by this Agreement until December 31, 2030, or until such time as the bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station have been fully satisfied and retired (whichever is sooner), or unless this Agreement is subsequently modified in accordance with the terms of this Agreement. This Agreement shall not sunset or expire, but shall continue in full force and effect. Individual Parties to this Agreement may, after December 31, 2030, or at such time as the bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station have been fully satisfied and retired (whichever is sooner), withdraw from this Agreement by giving sixty (60) days' notice to all other Parties to this Agreement.

10.2 Any Party to this Agreement may withdraw from this Agreement prior to the term of this Agreement as specified in Section 10.1, upon the full and complete satisfaction of all of the following conditions, and upon the following terms. (a.) The Party proposing early withdrawal from this Agreement must provide all other Parties with at least ninety (90) days written notice of intent to withdraw from this Agreement in accordance with the terms of this Section 10.2.; and (b.) The bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station must be eligible (according to the terms and conditions of the bonding obligations) for early payment (by the Party requesting withdrawal from this Agreement) at the time the request for early payment is made, and any such early payment must be expressly made in full accordance and compliance with the terms, restrictions, and conditions of said bonding obligations (as determined by the County); (c.) Any Party proposing early withdrawal from this Agreement must pay and satisfy in full its proportionate pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station (including, but not limited to, principal and all past and future interest, and any fees, penalties, expenses, and/or charges arising from and/or related to the early payment in any way). The calculation of any Party's individual proportionate pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station shall be made and provided only by the County, and shall be based upon the projected tonnage to be delivered to the System as per the respective Parties' waste deliveries for the preceding five (5) years, and shall be adjusted for future inflation and for projected population growth; and (d.) The SWSGB must approve any Party's request for early withdrawal from this Agreement by a simple majority vote; and (e.) Any Party who withdraws from this Agreement shall only be relieved of its future obligations for such Party's pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station, and such withdrawal from this Agreement does not relieve any Party of such Party's obligation for other System Costs or liabilities.

A.2. Section 4. of the Agreement (COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN) is hereby amended, revised, modified, and/or supplemented to read as follows:

4. **COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN.** For the duration of their participation in this Agreement, each Party shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to Chapter 70.95 RCW. For the duration of their participation in this Agreement, each Party authorizes the County to include in the Comprehensive Solid Waste Management Plan (CSWMP) provisions for the management of solid waste generated in each Party's jurisdiction. Parties executing this Agreement hereby agree to respectively adopt any CSWMP updates properly adopted by the SWSGB within 30 days of approval by the Department of Ecology. No party may veto, reject, or fail to adopt and CSWMP Amendments or Revisions as recommended by the SWSGB pursuant to this agreement. Until such time as the CSWMP is updated by the SWSGB consistent with this Agreement, the Parties understand and agree that this Agreement shall control with respect to any inconsistency between the CSWMP and this Agreement. The parties to this Agreement further understand and agree that the County shall promptly amend the CSWMP after execution of this Agreement solely as necessary to incorporate and reflect the terms of this Agreement in the CSWMP, which amendment shall be applicable to and deemed adopted by all Parties to this Agreement by virtue of their execution of this Agreement. The County shall take steps to explore the potential implementation of mandatory curbside solid waste collection in all unincorporated areas of Skagit County, and also to explore the possible revision of County solid waste regulations (as per the Skagit County Code) to expressly include more detailed flow control terms.

A.3. Section 13.1.1 of the Agreement is hereby amended, revised, modified, and/or supplemented to read as follows:

13.1.1 Major capital improvements to the System and the issuance of major system debt. "Major capital improvements" shall be defined as any capital expenditures in excess of Fifty Thousand Dollars (\$50,000) which modify the method or model of operation of the System. "Major system debt" shall mean debt securities, including bonds, debentures, or promissory notes in excess of Fifty Thousand Dollars (\$50,000) issued to fund capital improvements or operations, and repaid by System revenues or other System financial resources.

B. All other terms and conditions of the Agreement shall remain unchanged, unmodified, and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Agreement this 23rd day of August, 2010.

APPROVED:
**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**

Sharon D. Dillon
Sharon D. Dillon, Chair

Ron Wesen
Ron Wesen, Commissioner

Kenneth A. Dahlstedt
Kenneth A. Dahlstedt, Commissioner

Recommended:

By: [Signature]
Department Head

By: Lusta Lyne
Budget & Finance Director

Approved as to Indemnification:

By: Breeie Kadzmas 8/10/2010
Risk Manager

Approved as to Form:

By: [Signature]
Deputy Prosecuting Attorney

Attest:

Amber Kloepfer, Assistant
Clerk of the Board

CITY OF ANACORTES:

A. Dean Maxwell
DEAN MAXWELL, Mayor
(Date 8/21/10)

Mailing Address:
City of Anacortes
City Hall
P.O. Box 547
Anacortes, WA 98221

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Dean Maxwell is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Anacortes, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 3rd day of August, 2010.
~~2008.~~



Cheri Kahns
Notary Public
print name: Cheri L. Kahns
Residing at Mount Vernon
My commission expires 10-19-10

APPENDIX B

SITING FACTORS

INTRODUCTION

This SWMP is required to contain the following information to provide guidance for siting new solid waste disposal facilities (RCW 70.95.165).

DESCRIPTION OF THE PLANNING AREA

An understanding of the environmental, demographic and land use conditions in Skagit County is important because it provides a frame of reference for discussions of existing solid waste practices and future solid waste handling needs. To address these conditions in Skagit County, this section is divided into two parts: the natural environment and the human environment. The description of the natural environment includes a review of topography, geology, soils and climate. The description of the human environment includes the demographic and land use characteristics of the County.

Overview

Skagit County is situated in the northwestern part of Western Washington and constitutes a land area of 1,735 square miles. The County is characterized by mountains in the central and eastern parts, and by floodplains and rolling hills in the western part. It includes parts of the Mount Baker National Forest, North Cascades National Park, and Glacier Peak Wilderness area, as well as several islands in the San Juan archipelago.

Topography

The topography of Skagit County ranges from sea level along the western shores of the County to 8,966 feet above mean sea level at Mount Logan in the extreme eastern portion of the County. The County can be characterized into four general areas based on its topography: the Skagit Flats, the western islands, the upper Skagit and Sauk River Valleys, and the Cascades.

The Skagit Flats is a broad, fairly level valley extending west from Mount Vernon and Sedro-Woolley out to LaConner, Fir Island, Bow and Edison. The Flats contain the deltas of the Skagit and Samish Rivers and several prominent ridges that rise up from the valley floor. These ridges include Pleasant Ridge near LaConner, Burlington and Sterling Hill near Burlington, and Bay View Ridge near the Skagit County Regional airport. The Skagit Flats are bounded to the east by foothills, to the north by the

beginning of the Chuckanut Mountain Formation, and to the south and west by Samish, Skagit, and Padilla Bays.

The second topographic area of the County is located to the extreme west and includes all the islands of the County. The largest of these is Fidalgo Island, which is 165 square miles. These islands are generally hilly with outcroppings of bedrock that form steep cliffs throughout the area. Many of the islands rise up several hundred feet, including the Vendovi, Hat and Guemes Islands. The greatest elevation in this area is Mount Erie on Fidalgo Island, which is 1,275 feet high.

The upper Skagit River Valley east of Sedro-Woolley and the Sauk River Valley are generally the only non-mountainous areas in the central part of the County. The floodplains of these rivers have created valleys that are one to two miles wide between the mountains.

The most prominent topographic area of the County consists of the Cascade foothills and mountains. These formations dominate the eastern two-thirds of the County.

Geology and Soils

The geology of the County was largely influenced by two factors: periods of volcanic action and mountain building (uplifting and folding), and episodes of glacial activity. The most recent glacial activity occurred during the Pleistocene ice age roughly 11,000 years ago. The Cascade Mountains were formed during the episodes of volcanic activity and uplifting. At that time, the Puget Sound was a wide, deep trough without the present-day lowlands. The advance and retreat of the continental glacier from Canada resulted in vast deposits of sediments by glacial streams onto the lower slopes and valley bottoms, subsequently building up the present lowlands of the Skagit Flats. Local alpine glaciers have continued to carve the Cascades into a series of sharp peaks, ridges and deep valleys.

Sediments deposited from glacial meltwater and the Skagit and Samish Rivers created the delta of the Skagit Flats. As the delta expanded outward from the mountains, it engulfed several low landmasses that were former islands. These include Bay View and Pleasant Ridge, which are composed of unconsolidated deposits similar to those found on the terraces of the Cascade foothills.

One of the main geologic features in the County is that bedrock is at or near the surface throughout the region except in the river valleys and Skagit Flats area that have extensive deposits of alluvial and glacial deposits. Generally, bedrock consists of metamorphic and granitic rocks, although some volcanic and sedimentary rocks also exist.

There are three main types of glacial deposits: outwash, till, and lacustrine deposits. Outwash deposits were formed as the continental glacier advanced and receded. As it

moved forward, the glacier scoured the earth's surface and deposited large quantities of sand and gravel in the meltwater at the head and sides of the glacier. Likewise, when the glacier receded, it formed meltwater streams that deposited sand and gravel. Outwash deposits consist of medium to coarse-grain sand and gravel with some cobbles and boulders. These deposits are moderately permeable and thus are often a source of groundwater. This material may be unstable when found on steep hillsides.

Till is made up of clay, silt, sand, pebbles, and boulders and was deposited as a sheet at the base of the ice. As the glacier overrode this material, it was compressed into a concrete-like mixture. Till generally has low permeability due to the predominance of silt.

Lacustrine deposits are made up of fine-grained sand and silt deposited by glacial meltwater. These fine sediments may be found in lakes or river valleys that were dammed by glaciers. Some of these deposits may be perennially wet and unstable.

Nine categories of soil types have been identified and mapped in Skagit County by the U.S. Department of Agriculture's Soil Conservation Service (SC 1994). These categories provide a generalized sense of soil type, characteristics, and suitability for various land uses. Approximately, 25% of the County is made up of soil types that are characteristic of flood plains and deltas and 75% are characteristic of soils on upland and mountain areas. The nine categories are:

Skagit-Sumas-Field: These soil types are very deep, poor to moderately well-drained with a high water table, and are located mainly on the flood plains and delta of the Skagit Flats. Comprising 16% of the County, these soils are made up of silt loam to 12 inches deep, silty-clay loam to 24 inches deep, and very fine sandy-loam to 60 inches deep.

Larush-Pilchuck: Larush-Pilchuck soils are found in the floodplains of the Skagit and Sauk River Valleys east of Sedro-Woolley. These are very deep soils that are moderately well-drained. Typically the upper layers of these soil types are silt loam and sandy loam with underlying areas of gravel that in some areas is very gravelly. These soil units make up 9% of the County.

Barneston-Dystric-Xerorthents-Indianola: Located along the terraces of the Skagit, Sauk, and Samish Rivers, these soils are very deep and well-drained. Generally underlain by glacial till and making up 9% of the County, this soil is characterized by high to very high gravel content where it is located on or near escarpments.

Tokul-Skipopa-Dystric-Xerochrepts: These soil types are located mainly on glaciated uplands and lakebed terraces in the northwestern and southwestern parts of the County. They make up 6% of the soil types and consist of soils that are

moderately to poorly-drained. Surface layers range from gravelly loam to silt loam. Under this layer, the soil is made up of gravelly, fine sandy-loam and silt loam. Glacial till forms a lower layer at a depth from 20 to 40 inches deep.

Vanzandt-Mountborne-Squires: Approximately 21% of the County contains these soil types. They are characterized by moderately deep and well-drained soils that are found anywhere from level to very steep slopes. They are generally located above the terraces of the Skagit and Sauk Rivers. A dense glacial till layer is located 20 to 40 inches below the surface and the soils over this layer consist of gravelly to very gravelly loam.

Chuckanut-Cathcart: These deep and well-drained soil units are only found in 3% of the County and are located south of Mount Vernon to the Snohomish border. A sandstone layer is located from 40 to 60 inches below the surface. Surface layers are typically made up of loam and gravelly loam.

Bow-Coveland-Swinomish: These soils are located exclusively in the western part of the County, including the area around Mount Vernon, the airport, and all the western islands. Making up 5% of the area, these soil units are somewhat poorly to moderately well-drained and moderately deep to very deep. These soil units are indistinguishable and usually are made up of gravelly loam with a clay content that increases with depth particularly for the Bow soil series and there is low permeability, with a perched water table on a seasonal basis.

Skykomish-Jug-Saxon: Found on terraces and hills in the south-central and north-central part of the County, these soil units are very deep and moderate to excessively well-drained and make up 6% of the area. These soils are associated with glacial outwash deposits. They have a high to very high gravel/cobble content with occasional inclusions of silty, clay loam.

Wollard-Kindy-Diobsud: The central and eastern parts of the County contain these soil units, which make up 25% of the area. These soils are moderately deep and well-drained. They formed from volcanic ash and glacial till. They are comprised of gravelly silty loam underlain by glacial till approximately 35 inches below the surface.

Land uses can be affected by the characteristics and placement of the nine soil categories. For instance, farmland is largely concentrated in the Skagit-Sumas Field and Larush-Pilchuck soils due to their fertility and location in level areas. Wetness is a limiting factor for crop production in the Skagit-Sumas Field soils and flooding occurs in both types of soils. Timber production can accommodate a wider variety of the soil types. In particular, timber production is high for the first six soil types listed above and moderate for the other three types. The main restriction on commercial forest

production areas is not so much the soil unit as the steepness of slopes and use of land for other purposes such as agriculture.

Climate

Skagit County has a marine climate that is affected by air currents originating from the Pacific Ocean. These currents moderate temperatures resulting in mild, wet winters and comfortably warm, drier summers. There are few hot days, and snow and freezing weather are not common except at higher altitudes. Prevailing winds generally blow from the southwest averaging nine miles per hour, but during the summer winds are light and blow out of the north and northwest. Sunshine hits Skagit County approximately 65% of the time in summer and 25% in winter. Precipitation in the County increases as one moves towards the Cascades.

Two major meteorological patterns dominate local weather. In the late spring, a Pacific high-pressure ridge forms off the Washington coast forcing storms north of Washington, creating dry stable weather conditions. During winter, a stationary low-pressure ridge develops in the Aleutian Islands and sends storms throughout the Puget Sound. These storms occasionally produce damaging winds and are accompanied by heavy rains and flooding.

Temperature inversions can form during periods of stable weather, particularly during the winter at night. These inversions often last until late in the day and may sometimes persist for several days. Temperature inversions cause pollutants emitted at ground level to collect in high concentrations and can cause health problems for people with respiratory or heart ailments. Carbon monoxide from cars and particulate matter from wood stoves are the main pollutants of concern during temperature inversions.

Vegetation

Skagit County has a diverse array of vegetation that is greatly influenced by topography, soil conditions, rainfall, and people. Plant communities can be characterized into several major areas based on the conditions listed above including: urban and agricultural, lowland valleys and forest, subalpine zones, and the alpine zone. Native vegetation has largely been altered or disturbed in the urbanized and agricultural lowland areas. Vegetation in farm areas consists of a variety of agricultural and flower crops while ornamental vegetation and grass dominate urban areas.

In well-drained lowlands, coniferous and deciduous trees compete for dominance and include such species as western hemlock, vine maple, western yew and Pacific dogwood. In the understory, sword fern, salal, Oregon grape and salmonberry thrive. Swampy lowland areas find western red cedar, devils club, skunk cabbage, and lady fern while bigleaf maples are found on moist foothill terraces. Mushrooms are also common, particularly along the Skagit River north of Sedro-Woolley.

The subalpine zone is located below the alpine zone and is dominated by conifers. Fir trees are the most common species and include Douglas fir, Pacific silver fir, and noble fir. Understory plants include huckleberry, common beargrass, and rustyleaf.

The alpine zone has the harshest climate and is located above the treeline and beneath the glaciers of the high Cascades. Few plant species survive year-round in the alpine zone because they are covered by snow for 8 to 9 months of the year. However, during the summer, alpine meadows often bloom with lush vegetation. Flower species and shrubby communities coexist with moss and lichen-covered rocks. Plant species include lupine, paintbrush, valerian, lousewort, cassiope, and mountain heath.

Animals

Skagit County contains many different environments including open salt water, rocky and sandy shores, fresh water, wet and dry coniferous forests, riparian woodlands, dry grasslands, wet meadows, shrubby thickets, parks and gardens, and farmland. The diversity of habitats has created environments suitable for a wide variety of birds, fish, reptiles, amphibians, and animals. In some cases, the habitat found in the County is critical for the survival of a species and there are many protected areas such as the North Cascades National Park.

The bird populations in the County include both migratory and non-migratory birds. Migratory birds depend heavily on the Skagit Flats, which are an important component of the Pacific flyway. Many migratory birds use this area to rest and forage as they make their way south in the fall and north in the spring. The tide flats at the mouth of the Skagit River are particularly important. Some of the migratory birds include trumpeter swans, Canadian geese, avocets, songbirds, plovers, terns, and many species of ducks. Other notable birds in the County include eagles, ospreys, blue herons, sparrows, hawks, sea gulls, grouse, quails, doves, pigeons, and owls.

Common animal populations found in the County include smaller species such as the shrew, mole, gopher, bat, marten, skunk, opossum, raccoon, and squirrel and larger species such as black bear, mountain goat, black-tailed deer, coyote, elk, wolf, and fox.

The aquatic environment is equally diverse and includes many species of fish, mammals, crustaceans, and shellfish. Salmon is probably the most well-known fish species in the Puget Sound, however there are many other species that provide commercial as well as recreational opportunities such as starry flounder, ling cod, rockfish, Pacific herring, and hake. Freshwater fish species include rainbow trout, cutthroat, brook trout, Dolly Varden, sculpin, and stickleback, as well as salmon. Other species that live in the marine environment include seals, Orca whales, porpoise, crab, octopus, oysters, clams, scallops, and shrimp.

SOLID WASTE FACILITY SITING FACTORS

This SWMP is required to contain the following information to provide guidance for siting new solid waste disposal facilities. This requirement (RCW 70.95.165) refers specifically to disposal facilities (landfills and incinerators), but these criteria could also be considered in the siting of other solid waste facilities. Furthermore, local code (Skagit County Code, Chapter 12.18) defines disposal sites more broadly, and includes any site “where final treatment, utilization, processing, transfer for long-haul or deposit of Skagit County waste occurs, including but not limited to locations where landfilling, composting or incineration is carried out.”

Soils and Geology

Soils and underlying geology are important considerations for solid waste management facilities. The appropriate type of soil varies somewhat depending on the type of solid waste facility, but any building or other structure must be built upon a stable foundation. With the possible exception of one or two soil types, such as the Skagit-Sumas-Field soils in the flood plains and delta of the Skagit Flats, the soils in Skagit County are generally acceptable for foundations.

Given the complicated nature of the soils in Skagit County, detailed studies will be necessary to evaluate potential sites for any proposed solid waste disposal facilities. Geologic hazards will also need to be evaluated at that time. The major geologic hazards existing in Skagit County include the occurrence of seismic, landslide, and erosion events and processes.

Seismic events are a normal occurrence in the Puget Sound Region and Skagit County has historically experienced many earthquakes. Most earthquakes in the County are shallow, with the quakes being only barely or not all perceptible, but Whatcom and Skagit County have also been the sites of some of the largest earthquakes in the recorded history of the State. The largest known earthquake in the State occurred in 1872 in an area east of Mount Baker. Other earthquakes have occurred in Skagit County with epicenters located just west of Fidalgo Island in the Puget Sound (1896) and in the North Cascades (1915). Earthquakes tend to occur more frequently along the Skagit River Valley below Rockport and in the western third of the County.

The uniform building code classifies areas of the United States into seismic zones for the purposes of developing design criteria for building construction that minimizes the potential for damage from earthquakes. The scale ranges from 1 to 4 with the higher number equated to greater potential damage from earthquakes. For example, a rating of 4 includes those areas likely to have serious damage because of their proximity to major fault systems, such as the San Andreas Fault in California and the Alaska subduction zone. Skagit County and the Puget Sound basin are classified as seismic zone 3 because of the history of earthquakes.

Erosion and landslides are other geologic hazards. Erosion is caused by the actions of wind, rain, and surface water on soils. Landslides can be caused in several ways including earthquakes, erosion, rain-saturated soils, and gravity. Although soil erosion and landslides are naturally occurring processes, they are aggravated when vegetation is removed, topography is modified, and surface water runoff is uncontrolled. These events are more pronounced in areas with steep slopes (over 30%). Landfills and other solid waste facilities could be located in areas that have slopes greater than 30%, however these sites are also more difficult to engineer and more costly to build, in addition to the greater potential for erosion and landslides to occur.

Groundwater

Distance to groundwater, measured in feet or in terms of the time that it takes for water to travel from the surface to the groundwater level, is an important consideration for the siting of solid waste facilities. Shallow bodies of groundwater and/or fast travel times are a problem due to the risks associated with spills and contaminated runoff from waste facilities. Other factors such as the existing and potential beneficial uses of the groundwater are also important factors to consider, especially if the groundwater is or could be used for drinking water. A significant percentage of the population in Skagit County depends on private wells for drinking water. Agricultural uses (irrigation) also depend on a relatively clean source of groundwater and far outweigh the amount used for drinking water.

Groundwater must also be considered when siting or designing solid waste facilities because shallow groundwater can result in higher construction and maintenance costs, interfere with excavation, and require special foundations.

In Skagit County, groundwater can be found in the unconsolidated alluvial and glacial deposits of sand and gravel found in the lowland areas in the major river valleys and Skagit Flats. The igneous and metamorphic rocks that make up the bedrock essentially form the bottom of the groundwater layer, although some fractures and joints in these rocks may yield small localized quantities of water. Aquifers are recharged primarily from local precipitation.

The highest yields of groundwater are found in the Mount Vernon, Burlington, and Sedro-Woolley areas where alluvial deposits of sand and gravel are thickest. These supplies may yield more than 250 gallons of water per minute at depths of 100 feet. Secondary areas of importance include the upper Skagit River valley from Sedro-Woolley to Marblemount, the Baker River Valley, the Sauk River Valley, and areas northwest and southwest of Mount Vernon, but excluding the areas bordering the Puget Sound (which are made up of finer-grained material). Bay View and Pleasant Ridge are composed of older unconsolidated deposits that produce adequate quantities of groundwater from sand and gravel strata at a depth near sea level. The

islands of the County generally have less groundwater supply because of the prominence of bedrock located near the surface.

The County's groundwater is generally suitable for most purposes, although some groundwater contains excessive quantities of minerals such as iron and this water may exhibit extreme hardness. Some water from wells in the delta show small concentrations of chloride and there is the potential for saltwater encroachment in this area. In several of the urban areas, groundwater is relatively near the surface and is overlain with coarse sediments making these aquifers vulnerable to contamination from surface sources.

Flooding

Areas known to have experienced flooding are generally not acceptable sites for solid waste facilities. Solid waste facilities often entail risks not associated with other types of development, such as the potential to create contaminated runoff. Additionally, solid waste facilities must remain operational during and after natural disasters such as floods, in order to handle the large amount of debris that may be created.

Significant flood events in Skagit County have been recorded as early as 1815 and have occurred as recently as October 2003. Because much of the urban development and agricultural land lies in the lowland areas, flooding can cause a significant amount of damage and financial loss.

Floods can occur during most seasons of the year. Winter floods are the result of warm weather and excessive rainfall on a heavy snowpack. These floods cause a rapid increase of the rivers to flood stage and beyond, and may recede just as rapidly. Snowmelt from glaciers can cause summer floods, which have a lower crest but last for a longer duration and have higher volumes. Floods in the fall can be caused by heavy rains, such as the flooding that occurred in October 2003.

Flooding has been somewhat less severe since the 1920's when dams were constructed on the Baker and Skagit Rivers that provide some retention and upstream storage of floodwaters. There has also been an extensive program of levee construction along the Skagit River downstream from Sedro-Woolley. The flood events of 1995 and 2003, however, indicate that flooding is a still a problem, especially for Hamilton, Mount Vernon, Burlington, and low-lying rural areas adjacent to the rivers. The Skagit River has also occasionally overflowed the low divide at Sedro-Woolley and added to flooding in the Samish River basin.

Surface Water

Numerous rivers, creeks and small lakes are present throughout the County. These bodies of water pose a serious constraint for locating solid waste facilities, since the facilities frequently present a possible risk of contamination for surface water.

Regulatory standards (Chapter 173-351-140 WAC) require that new disposal facilities be located more than 200 feet from surface waters, which eliminates a substantial amount of land for a water-rich area such as Skagit County.

The surface waters of the County are made up of two major river systems (the Skagit and Samish), lakes, wetlands, and the Puget Sound. The Skagit watershed basin is the largest drainage system in the Puget Sound and contains a multitude of rivers, streams, and lakes within its boundaries. The main river drainages in the basin include the Skagit and Samish Rivers, Colony Creek, and Indian, Joe Leary, Telegraph and Sullivan Sloughs. In addition, there are approximately 2,990 identified streams associated with the basin that stretch from the Puget Sound to Canada. The Skagit River is the longest river in the Skagit watershed basin and in the Puget Sound region, with 162 miles of mainstem river. The main tributaries to the Skagit River include the Cascade, Sauk and Suiattle Rivers. The Samish River contains 29 miles of mainstem river channel and is the second largest river system in the County.

Other surface waters are made up of numerous lakes and wetland areas, the largest of which include Lake Shannon, Lake Cavanaugh, Lake Campbell, Big Lake, Lake Erie, and Clear Lake. In addition, the western part of the County is surrounded and outlined by the waters of the Puget Sound including the straits of Juan de Fuca and Rosario, and Padilla, Samish, and Skagit Bays.

Slope

Part of Skagit County is mountainous and has steep slopes that pose serious problems for solid waste disposal facilities. Steep slopes pose problems for site development and for future access. The lower valleys and coastal terrace areas have gentler slopes but these areas also have high value for other purposes, such as agriculture and housing.

Cover and Liner Materials

Cover and liner materials are important because their presence on-site at landfills and other disposal facilities will reduce the cost of construction, operation and maintenance. Cover materials are required to ensure that waste materials are securely buried and to prevent gas and odors from being released in an uncontrolled fashion, while liners are needed below the landfill to contain the leachate that is created by landfills. Silt and clay can be used for liners and cover, while coarser materials (sand and gravel) can be used for gas venting, leachate collection and road construction. A variety of materials can be used for intermediate cover. As previously discussed under the “soils and geology” subsection of this chapter, many of these soils are present throughout the County. In the absence of naturally-occurring materials, however, synthetic materials can be used instead.

Capacity

The capacity of a waste disposal facility will obviously affect the number of potential locations that can be used for it. It is generally easier to find an acceptable parcel of land for smaller facilities. Conversely, there are significant economies of scale for all waste disposal facilities, and the base cost per ton for waste brought to a small facility will be much higher than for a larger facility.

Land Use

Skagit County encompasses an area of 1,735 square miles with the western quarter of the County containing almost all of the urban development. In 1970 more than 50% of the people lived in the unincorporated areas of the county. Currently, 41% of the people live in incorporated areas.

Urbanized areas are located generally along two routes: Interstate 5 (I-5) and State Route 20 (SR-20, the North Cascades Highway). Mount Vernon and Burlington are located on I-5 and Anacortes, Concrete, Hamilton, Lyman, and Sedro-Woolley are located on SR-20. LaConner is the only other major urban area and is located on the Swinomish Channel west of I-5 and south of SR-20. There are also urbanized densities (one to five acre lots) in approximately 14 unincorporated communities and residential developments.

Land uses in the unincorporated area of the County are focused on natural resource use and include timber, agriculture and mining. Approximately 877,000 acres of the County are forested lands and parks, with almost half of this acreage owned by the Federal government. Farmland comprises approximately 89,300 acres.

The Skagit County Board of County Commissioners adopted a Comprehensive Plan in 1997 (SC 1997). The Skagit County Comprehensive Plan and subsequent development regulations are the tools for designation of land use. The development regulations ensure that development occurs in a way that protects private property rights and existing land uses while also protecting natural resources, promoting economic growth, and assuring the compatibility of proposed land uses with existing ones. The cities and Tribes also have land use plans, zoning codes and other policies and regulations that may affect land use and development.

Other special considerations may apply to specific sites and/or specific types of facilities. The Federal Aviation Administration has stipulated that landfills cannot be located within 6 miles of an airport unless a waiver is obtained. Because birds that are attracted to landfills pose a hazard to aircraft, the granting of this waiver is dependent upon the magnitude of the anticipated bird population. Areas designated as critical habitat by responsible agencies (i.e., the U.S. Fish and Wildlife Service and Washington State Department of Wildlife) are considered regulatory exclusions for landfill siting. Information concerning such areas is available from the appropriate State and Federal wildlife management agencies.

Air Emissions and Air Quality

Siting and operating a new landfill or other solid waste facility could impact air quality. Dust, gases, odors, particulates and vehicle emissions are all potentially increased by landfills and other disposal operations. In certain cases, however, the centralization of such emissions may be preferable to the impacts caused by other options. Any proposal would need to be examined for the net impact on air quality.

Air quality in the County is considered good and all parts of the County generally meet air quality standards. There are periods when local air quality can deteriorate, however, due to weather patterns and/or large amounts of open burning or wood stove and fireplace usage. These problems usually occur during times of stable weather when there is an absence of wind.

Particulates are occasionally an air pollutant of concern. Particulates are small particles of dust, dirt, smoke, and other debris that are carried up into the atmosphere by air currents, and can be damaging to respiratory systems. This material is generated by many types of sources including combustion sources (wood stoves and forest slash burning), vehicle exhaust, industrial processes, and dust from vehicle traffic and land clearing activities. Particulate matter may be particularly problematic during temperature inversions in urban areas where burning from wood stoves and fireplaces occurs.

Summary of Siting Factors

Based on the above discussion of siting factors, it can be concluded that only limited portions of Skagit County would be available for siting a new solid waste disposal facility such as a landfill or incinerator. A more detailed analysis of siting factors is not being provided at this time due to the unlikely possibility of siting such a disposal facility in the County. The above siting factors and the following brief discussion of the siting process could be used, however, to provide guidance for other types of solid waste handling or treatment facilities, such as transfer stations, composting plants, and recycling facilities.

SOLID WASTE LANDFILL SITING PROCESS

Any new facilities developed in the future will have to meet the State and local standards current at that time. State standards include the Solid Waste Handling Standards (Chapter 173-350 WAC) and the Criteria for Municipal Solid Waste Landfills (Ch. 173-351 WAC). Local standards include the County Code (especially Chapters 12.16 and 12.18), municipal codes, the Skagit County Comprehensive Plan (SC 2016), and zoning codes.

The siting process for disposal facilities could include the following steps:

1. Site Identification: For a public disposal facility, the process of identifying sites may include soliciting nominations from citizens and interested parties, identification of major landholders and City/County properties, and other activities to initially identify as many sites as practical. For a private site, the site selection process may consist primarily of an inventory of sites currently owned or available for purchase.
2. Broad Site Screening: The second step typically involves evaluating potential sites for “fatal flaws”, such as unsuitable neighboring land use, distance from the point of waste generation, site size, steep slopes, floodplain area, wetlands, surface water or shorelines. For a public site, the goal should be to retain up to 12 sites after this step is completed. For a private facility or other cases where there may be only a few sites to begin with, only one or two sites need to survive this evaluation.
3. Detailed Site Ranking: After sites with fatal flaws have been eliminated, the remaining sites should be evaluated against more detailed criteria such as the availability of utilities (water, sewer, and electricity), traffic impacts and road access, and other factors affecting the ability to develop and use the site. For a public effort, no more than four sites should remain after this step is completed.
4. Detailed Site Evaluation: The final step in evaluating potential sites involves a detailed investigation to assess environmental impacts, in accordance with the State Environmental Policy Act (SEPA). This step should result in the recommendation of a preferred site.
5. Siting Decision: Finally, the decision to proceed with a recommended site should be based on environmental, engineering, financial and political factors, and then more detailed plans can be developed and the permitting process can begin.

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APPENDIX C

UTC COST ASSESSMENT QUESTIONNAIRE

INTRODUCTION

By State law (RCW 70.95.090), solid waste management plans are required to include:

“an assessment of the plan’s impact on the costs of solid waste collection. The assessment shall be prepared in conformance with guidelines established by the Utilities and Transportation Commission. The Commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.”

The following cost assessment has been prepared in accordance with the guidelines developed by the Utilities and Transportation Commission (UTC). The purpose of this cost assessment is not only to allow an assessment of the impact of proposed activities on current garbage collection and disposal rates, but to allow projections of future rate impacts as well. The UTC needs this information to review the potential impact of this Solid Waste Management Plan (SWMP) to the certificated waste haulers that it regulates. For these haulers, UTC is responsible for setting collection rates and approving proposed rate changes. Hence, the UTC will review the following cost assessment to determine if it provides adequate information for rate-setting purposes, and will advise Skagit County as to the possible collection rate impacts of proposed programs. Consistent with this purpose, the cost assessment focuses primarily on those programs with potential rate impacts.

SUMMARY

A significant recommendation in this SWMP is to adopt a minimum service level ordinance that would require all waste collection customers in the certificated areas to also receive recycling service. Due to the current poor state of recycling markets, however, implementation of this recommendation is not being proposed until 2019. Several recommendations, such as the need for a new staff person and increased publicity for specific programs, will lead to an increase in the tipping fee if fully implemented (for an increase as high as \$150,000 per year). Re-bidding the waste export contract in 2021 could either increase or decrease the tipping fee. Operating costs for Waste Management will be increased if they implement this SWMP due to more promotion for the organics collection program. Other recommendations made in the SWMP are primarily refinements to existing programs.

COST ASSESSMENT QUESTIONNAIRE

PLAN PREPARED FOR: Skagit County

PREPARED BY: Rick Hlavka, Green Solutions

CONTACT TELEPHONE: 360-897-9533

DATE: July 7, 2016

DEFINITIONS

These definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:

YR.1 shall refer to 2017.

YR.3 shall refer to 2019.

YR.6 shall refer to 2022.

Year refers to (circle one) calendar (Jan 01 - Dec 31)
fiscal (Jul 01 - Jun 30)

1. DEMOGRAPHICS:

1.1 Population

1.1.1 What is the **total** population of your County?

YR.1: 124,270 YR.3: 126,920 YR.6: 131,510

1.1.2 For counties, what is the population of the area **under your jurisdiction?**
(Exclude cities choosing to develop their own solid waste management system.)

YR.1: 124,270 YR.3: 126,920 YR.6: 131,510

1.2 References and Assumptions

Population figures are taken from Table 2-2 of the Skagit County Solid Waste Management Plan, Preliminary Draft, July 2016.

- 2. WASTE STREAM GENERATION:** The following questions ask for total tons recycled and total tons disposed. Total tons disposed are those tons disposed of at a landfill, incinerator, transfer station or any other form of disposal you may be using. If other please identify.

2.1 Tonnage Recycled

- 2.1.1 Please provide the total tonnage **recycled** in the base year, and projections for years three and six.

YR.1: 79,980 YR.3: 81,880 YR.6: 84,730

2.2 Tonnage Disposed

- 2.2.1 Please provide the total tonnage **disposed** in the base year, and projections for years three and six.

YR.1: 97,480 YR.3: 99,800 YR.6: 103,270

2.3 References and Assumptions

All recycling and disposal tonnages are projected, and are from Table 2-9 of the Skagit County Solid Waste Management Plan, Preliminary Draft, July 2016.

- 3. SYSTEM COMPONENT COSTS:** This section asks questions specifically related to the types of programs currently in use and those recommended to be started. For each component (i.e., waste reduction, landfill, composting, etc.) please describe the anticipated costs of the program(s), the assumptions used in estimating the costs and the funding mechanisms to be used to pay for it. The heart of deriving a rate impact is to know what programs will be passed through to the collection rates, as opposed to being paid for through grants, bonds, taxes and the like.

3.1 Waste Reduction Programs

- 3.1.1 Please list the solid waste programs which have been implemented and those programs which are proposed. If these programs are defined in the SWM plan please provide the page number. (Attach additional sheets as necessary.)

IMPLEMENTED

Various existing activities are already being conducted for waste reduction and public education, see Chapters 3 and 9 for details.

PROPOSED

Additional waste reductions activities proposed in the plan include:

- implement a program to educate residents and business about avoiding food waste.
- the availability of volume-based rates will be better publicized.
- options for clothing reuse and recycling will be promoted.
- the County will explore options for a charity to collect reusables at the transfer station.
- the County will distribute videos that provide waste reduction tips.
- a county-wide ban on yard debris disposal will be considered.
- smart shopping will be promoted.
- fix-it workshops will be promoted.
- create a task force to address consistency and accessibility of public education.

3.1.2 What are the costs, capital costs and operating costs for waste reduction programs implemented and proposed?

IMPLEMENTED

YR.1: \$118,400 YR.3: \$130,500 YR.6: \$151,100

PROPOSED

YR.1: \$40,000 YR.3: \$44,000 YR.6: \$51,000+

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

Implemented		
Year 1	Year 3	Year 6
Tipping Fees and CPG Funds	Tipping Fees and CPG Funds	Tipping Fees and CPG Funds
Proposed		
Year 1	Year 3	Year 6
Tipping Fees, CPG Funds, and Other Funds as Available	Tipping Fees, CPG Funds, and Other Funds as Available	Tipping Fees, CPG Funds, and Other Funds as Available

3.2 Recycling and Organics Programs

3.2.1 Proposed or implemented recycling and organics programs:

IMPLEMENTED

Existing recycling and organics programs are extensive and are managed by several different parties, see Chapters 4 and 5 for more details.

PROPOSED (see pages 4-14 to 4-15 and 5-9 to 5-10)

- Skagit County's goal for recycling and composting is 65%.
- Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- Skagit County will consider adopting requirements for C&D recycling.
- Skagit County will support product stewardship programs as appropriate.
- Consider increasing curbside recycling frequency to weekly in all areas.
- Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- Washington State should enact a bottle bill to divert glass away from curbside recycling programs.
- Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.
- More promotion must be conducted for the mixed organics collection services.
- Contaminated commercial setouts for mixed organics should be rejected by the collection companies.
- Compostable plastics should not be collected with the mixed organics.
- The cities, towns and county will promote the use of compost.

3.2.2 Costs for recycling and organics programs implemented and proposed.

IMPLEMENTED

The costs for existing recycling and organics programs are incurred by a variety of parties. The County's expenses are included in the operating costs for the transfer facilities plus administration expenses (staffing), minus revenues from sales of recyclable materials (see Table 9-1). Other costs are incurred by residential and commercial customers. Residential recycling rates varied from \$2.65 to \$9.00 per month in 2015, depending on the service area (see Table 6-1).

PROPOSED

Proposed changes to the recycling and organics programs will lead to an additional expense for the County for a Recycling Coordinator (see Section 9.6).

Proposed changes to residential and commercial services could lead to additional expenses for those rate-payers, although it is expected that increased costs for recycling will be partially or wholly offset by reduced waste collection costs.

3.2.3 Funding mechanism(s) that will pay the cost of the programs in 3.2.2.

Implemented		
Year 1	Year 3	Year 6
Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees
Proposed		
Year 1	Year 3	Year 6
Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees

3.3 Solid Waste Collection Programs

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each UTC regulated solid waste collection entity in your jurisdiction.

UTC Regulated Hauler Name Waste Management of Skagit County
G-permit # G-237

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
RESIDENTIAL			
- # of Customers	12,140	12,400	12,800
- Tonnage Collected	9,660	9,900	10,200
COMMERCIAL			
- # of Customers	350	360	370
- Tonnage Collected	3,210	3,300	3,400
DROPBOX			
- # of Hauls	2,260	2,310	2,380
- Tonnage Collected	6,180	6,300	6,500

3.3.2 Other (non-regulated) Solid Waste Collection Programs

Fill in the table below for other solid waste collection entities in your jurisdiction.

Hauler Name City of Anacortes

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	7,900	8,080	8,350
Tonnage Collected	8,000	8,200	8,400

Hauler Name City of Burlington (Contract with Waste Management)

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	3,790	3,870	4,000
Tonnage Collected	11,740	12,000	12,400

Hauler Name City of Mount Vernon

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	10,020	10,240	10,580
Tonnage Collected	19,100	19,500	20,200

Hauler Name City of Sedro-Woolley

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	4,230	4,320	4,470
Tonnage Collected	5,940	6,100	6,300

3.4 **Energy Recovery & Incineration (ER&I) Programs**

NA, no such facilities.

3.5 **Land Disposal Program**

NA, no such facilities.

3.6 **Administration Program**

3.6.1 What is the budgeted cost for administering the solid waste and recycling programs and what are the major funding sources.

Budgeted Cost

YR.1: \$1,646,350 YR.3: \$1,782,030 YR.6: \$2,092,920

Funding Source

YR.1: tipping fees YR.3: tipping fees YR.6: tipping fees

3.6.2 Which cost components are included in these estimates?

Expenses that are included under administration costs include staffing (including a new position for a Recycling Coordinator), insurance, B&O tax, roads, consultants, health department support, rate reviews in 2017 and 2022, and other support.

3.6.3 Please describe the funding mechanism(s) that will recover the cost of each component.

Tipping fees.

3.7 Other Programs

For each program in effect or planned which does not readily fall into one of the previously described categories please answer the following questions.

NA, no such programs.

3.8 References and Assumptions (attach additional sheets as necessary)

For 3.1.2, the costs for current waste reduction and public education programs in Skagit County are included in several places in the county's budget for solid waste and the Health Department, and part of these costs are borne by cities and the private sector. Much of the County's cost is shown in the line item for education in the county's solid budget (see Table 9-1, p. 9-4, of the plan). These are the figures shown in Section 3.1.2. Both current costs and new costs for recommended activities are escalated at 5% annually.

For 3.2.1, there are numerous activities conducted by a variety of public agencies and private companies. Activities conducted by the County are funded from tipping fees or are self-financing (from market revenues).

For 3.3, the number of customers and tonnages for waste collection systems have been projected using the same rate of increase as the countywide increases in population (1.1% annually, see Table 2-2), beginning with data for the year 2015. In other words, local differences in population growth, waste diversion

programs, annexations and other factors are ignored for the purpose of these projections.

4. **FUNDING MECHANISMS:** This section relates specifically to the funding mechanisms currently in use and the ones which will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process.

4.1 **Funding Mechanisms (Summary by Facility)**

The following tables provide information on funding sources for programs and activities.

Table 4.1.1 Facility Inventory

Facility Name	Type of Facility	Tip Fee per Ton	Transfer Cost	Transfer Station Location	Final Disposal Location	Total Tons Disposed (2014)	Total Revenue Generated (Tip Fee x Tons)
Skagit County Transfer and Recycling Station (TRS)	Transfer Station	\$88.00/ \$89.00	Short haul expense is included in general operating costs	Near intersection of Farm to Market Road and Ovenell Road	Roosevelt Landfill	99,189 (or 97,503 excluding Sauk and Clear Lake sites)	\$8,777,896
Sauk Transfer Station	Drop box	\$89.00	Short haul expense is included in general operating costs	Between Concrete and Rockport	Transferred to Skagit County TRS, then to Roosevelt Landfill	1,550	\$154,216 (includes other revenues such as payments for recyclables)
Clear Lake Site	Drop box	\$6.00 per 32-gallon can	Short haul expense is included in general operating costs	Near intersection of Hwy. 9 and South Skagit Hwy.	Transferred to Skagit County TRS, then to Roosevelt Landfill	136	\$41,025 (includes other revenues such as payments for recyclables)

Table 4.1.2 Tip Fee Components

Tip Fee by Facility	Sur-charge	City Tax	County Tax	Transportation		Operational Cost	Administration Cost	Closure Costs
				see op. cost	Cost			
Skagit County TRS	0	0	0	see op. cost		\$6,382,846	see below	see below
Sauk Transfer Station	0	0	0	see op. cost		\$329,573	see below	see below
Clear Lake Site	0	0	0	see op. cost		\$120,062	see below	see below
All sites together	0	0	0	see op. cost		\$1,153,781		\$1,010,630

Table 4.1.3 Funding Mechanism

Name of Program Funding Mechanism will defray costs	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Tip Fee	Taxes	Other	Surcharge
Skagit County RTS	Build America	\$8,765,000	2.53%	6/1/27	CPG	\$222,295	\$8,777,896		\$112,905	
Sauk Transfer Station							\$154,216			
Clear Lake Site							\$41,025			

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton by Facility	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Skagit County RTS	\$88.00/ 89.00	\$88.00/ 89.00	\$88.00/ 89.00	\$88.00/ 89.00	\$88.00/ 89.00	\$88.00/ 89.00
Sauk Transfer Station	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00	\$89.00
Clear Lake Site	\$6.00 per 32- gallon can	\$6.00 per 32-gallon can	\$6.00 per 32-gallon can	\$6.00 per 32-gallon can	\$6.00 per 32- gallon can	\$6.00 per 32- gallon can

4.2 Funding Mechanisms

The following tables provide information on the anticipated source of funds (by percentage) for various activities for the next six years.

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

4.3 References and Assumptions

In Table 4.1.1, the tip fee is \$88.00 for municipal haulers and \$89.00 for private haulers and self-haul customers. These rates shown are current as of mid-2016. All other figures are for 2014.

Data in Table 4.1.2 is based on the 2014 budget (see Table 9.1 of Skagit County Solid Waste Management Plan). Expenses shown for operational costs include transfer station costs, disposal fees, compactor costs and the hazardous waste facility.

For Table 4.1.3, "other" funds include revenues from the sale of recyclables, MRW fees for SQG's, and miscellaneous revenues (see Table 9-1).

For Table 4.1.4, information on future tipping fees is not available at this time. It is anticipated that the County will establish new tipping fees for the next five years through a rate review to be conducted in 2017.

For Tables 4.2.1 through 4.2.3, the programs included under waste reduction are primarily the activities conducted by Skagit County, including general public education expenses. For recycling, activities include curbside programs and publicly-supported programs. For land disposal expenses, there are no public facilities currently operating in the county but a small amount of expenses are still being incurred for closure and monitoring of old landfills. Expenses for future years are assumed to remain the same as in the current year.

4.4 Surplus Funds

Not applicable.

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APPENDIX D

SEPA CHECKLIST

INTRODUCTION

This appendix contains the environmental checklist required by the State Environmental Policy Act (SEPA). The purpose of the checklist is to provide information on the environmental impacts of the activities proposed by this Solid Waste Management Plan (SWMP). Much of this checklist addresses only the general concerns related to the County's solid waste system, but specific actions proposed by this SWMP are addressed as appropriate. One or more of the activities discussed in the SWMP may require separate SEPA processes when implementation plans are more fully developed.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Skagit County Solid Waste Management Plan (SWMP).

2. Name of applicant:

Skagit County.

3. Address and phone number of applicant and contact person:

**Margo Gillaspy
Manager, Solid Waste Division
Skagit County Public Works Department
1800 Continental Place
Mount Vernon, WA 98273
Phone: 360-416-1400**

**Rick Hlavka
Consultant
Green Solutions
PO Box 680, South Prairie, WA 98385
Phone: 360-897-9533**

4. Date checklist prepared:

July 6, 2016.

5. Agency requesting checklist:

Skagit County Public Works Department.

6. Proposed timing or schedule (including phasing, if applicable):

This checklist is for a non-project proposal intended to update Skagit County's long-range plan for solid waste management and disposal. The proposed Solid Waste Management Plan is undergoing public review and comment. A final copy of the Solid Waste Management Plan is expected to be approved by Ecology in 2017.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Ecology's guidelines require solid waste management plans to be reviewed and, if necessary, updated periodically.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Does not apply.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No, this SEPA Checklist is intended to address only the programs and activities specifically recommended in the SWMP, and it is assumed that any new private or public facilities will need to undergo their own SEPA review as appropriate.

10. List any government approvals or permits that will be needed for your proposal, if known.

State Law (RCW 70.95.094) and guidelines issued by the Department of Ecology (Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions) require the eight cities to adopt the plan (or they must develop their own plans), require a public review period for a minimum of 30 days, require that the plan and a Cost Assessment Questionnaire be reviewed and approved by the Washington Utilities and Transportation Commission, and require Ecology to examine and approve the preliminary draft and final plan. The Board of County Commissioners and all eight cities must also adopt the final draft of the plan. After adoption by the County and cities, Ecology must approve of the plan before it becomes effective.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Skagit County is required by State law to maintain a “coordinated, comprehensive solid waste management plan” in a “current and applicable condition.” The existing plan, developed in 2005 and amended in 2007, is out of date in several areas. In addition to updating the discussion of current facilities and programs, the proposed solid waste management plan contains a number of recommendations. Most of these recommendations represent refinements to existing policies and programs, based on the goal of decreasing reliance on landfills (by increasing waste reduction, recycling and composting) and reducing environmental impacts caused by existing activities. The recommendations proposed in the solid waste management plan can be found in the Executive Summary of the SWMP (see also Chapter 10 of the SWMP for more details).

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The Solid Waste Management Plan addresses activities and programs that occur throughout Skagit County. A few facilities or activities outside of the county are also involved (such as the current use of a landfill in Klickitat County for Skagit County’s waste).

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The facilities and programs addressed by the SWMP's recommendations are the occupied areas in the County, which are generally flat or rolling.

- b. What is the steepest slope on the site (approximate percent slope)?

Does not apply, there is no specific site being addressed by this plan.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Does not apply, there is no specific site being addressed by this plan.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Does not apply, there is no specific site being addressed by this plan.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Does not apply, there is no specific site being addressed by this plan.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Does not apply, there is no specific site being addressed by this plan.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

No significant amounts of emissions are anticipated as a result of the recommendations made by the SWMP.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Does not apply, there is no specific site being addressed by this plan.

3. Water

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Does not apply, there is no specific site being addressed by this plan.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Does not apply, there is no specific site being addressed by this plan.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Does not apply, there is no specific site being addressed by this plan.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Does not apply, there is no specific site being addressed by this plan.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Does not apply, there is no specific site being addressed by this plan.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Does not apply, there is no specific site being addressed by this plan.

- b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Does not apply, there is no specific site being addressed by this plan.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Does not apply, there is no specific site being addressed by this plan.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

4. Plants

a. Check the types of vegetation found on the site:

___deciduous tree: alder, maple, aspen, other

___evergreen tree: fir, cedar, pine, other

___shrubs

___grass

___pasture

___crop or grain

___orchards, vineyards or other permanent crops.

___wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

___water plants: water lily, eelgrass, milfoil, other

___other types of vegetation

All of these types of vegetation can be found in Skagit County.

b. What kind and amount of vegetation will be removed or altered?

Does not apply, there is no specific site being addressed by this plan.

c. List threatened and endangered species known to be on or near the site.

Does not apply, there is no specific site being addressed by this plan.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Does not apply, there is no specific site being addressed by this plan.

e. List all noxious weeds and invasive species known to be on or near the site.

Does not apply, there is no specific site being addressed by this plan.

5. Animals

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

All of these types of animals can be found in Skagit County.

- b. List any threatened and endangered species known to be on or near the site.

Does not apply, there is no specific site being addressed by this plan.

- c. Is the site part of a migration route? If so, explain.

Does not apply, there is no specific site being addressed by this plan.

- d. Proposed measures to preserve or enhance wildlife, if any:

Does not apply, there is no specific site being addressed by this plan.

- e. List any invasive animal species known to be on or near the site.

Does not apply, there is no specific site being addressed by this plan.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Several of the activities recommended in the SWMP will require small additional amounts of electrical power to support normal, everyday activities.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

No, although the SWMP recommends expanded technical assistance to business generators of hazardous wastes and increased publicity for the household

hazardous waste collection facility, which should help prevent these types of problem in the future, see Sections 8.5 and 8.7 for more details.

1) Describe any known or possible contamination at the site from present or past uses.

Does not apply, there is no specific site being addressed by this plan.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Does not apply, there is no specific site being addressed by this plan.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Does not apply, there is no specific site being addressed by this plan.

4) Describe special emergency services that might be required.

Does not apply, there is no specific site being addressed by this plan.

5) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply, there is no specific site being addressed by this plan.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Does not apply, there is no specific site being addressed by this plan.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Does not apply, there is no specific site being addressed by this plan.

3) Proposed measures to reduce or control noise impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not

been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Does not apply, there is no specific site being addressed by this plan.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Does not apply, there is no specific site being addressed by this plan.

c. Describe any structures on the site.

Does not apply, there is no specific site being addressed by this plan.

d. Will any structures be demolished? If so, what?

Does not apply, there is no specific site being addressed by this plan.

e. What is the current zoning classification of the site?

Does not apply, there is no specific site being addressed by this plan.

f. What is the current comprehensive plan designation of the site?

Does not apply, there is no specific site being addressed by this plan.

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply, there is no specific site being addressed by this plan.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Does not apply, there is no specific site being addressed by this plan.

i. Approximately how many people would reside or work in the completed project?

Does not apply, there is no specific site being addressed by this plan.

j. Approximately how many people would the completed project displace?

Does not apply, there is no specific site being addressed by this plan.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply, there is no specific site being addressed by this plan.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Does not apply, there is no specific site being addressed by this plan.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does not apply.

- b. What views in the immediate vicinity would be altered or obstructed?

Does not apply.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Does not apply.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply, there is no specific site being addressed by this plan.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply, there is no specific site being addressed by this plan.

- c. What existing off-site sources of light or glare may affect your proposal?

Does not apply, there is no specific site being addressed by this plan.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Does not apply, there is no specific site being addressed by this plan.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Does not apply, there is no specific site being addressed by this plan.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

Does not apply, there is no specific site being addressed by this plan.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Does not apply, there is no specific site being addressed by this plan.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Does not apply, there is no specific site being addressed by this plan.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Does not apply, there is no specific site being addressed by this plan.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Does not apply, there is no specific site being addressed by this plan.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Does not apply, there is no specific site being addressed by this plan.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Does not apply, there is no specific site being addressed by this plan.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Does not apply, there is no specific site being addressed by this plan.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Does not apply, there is no specific site being addressed by this plan.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- h. Proposed measures to reduce or control transportation impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Does not apply.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply, there is no specific site being addressed by this plan.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Does not apply, there is no specific site being addressed by this plan.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Does not apply, there is no specific site being addressed by this plan.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of Signee _____

Position and Agency/Organization _____

Date Submitted: _____

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

By providing for secure disposal of solid wastes and increased recycling activities, the SWMP is expected to decrease impacts and discharges to water and air, and to provide for more secure handling of toxic or hazardous substances that may be part of the solid waste stream. No substantial increases or decreases in noise levels are expected as a result of the SWMP's recommendations.

Proposed measures to avoid or reduce such increases are:

Does not apply.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

No significant impacts to plant, animal, fish, or marine life are expected.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Does not apply.

3. How would the proposal be likely to deplete energy or natural resources?

A small amount of energy and materials will be needed to implement the recommendations in the SWMP, but this is expected to be more than offset by the energy and resources conserved as the result of increased waste prevention, recycling and composting recommended by the plan.

Proposed measures to protect or conserve energy and natural resources are:

Does not apply.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

No substantial impacts, either positive or negative, to environmentally sensitive or other protected areas are expected to result from the recommendations in the SWMP.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Does not apply.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

No substantial impacts, either positive or negative, to land and shoreline use are expected to result from the recommendations in the SWMP.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does not apply.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Minor changes are proposed for public services and to several aspects of the waste collection system.

Proposed measures to reduce or respond to such demand(s) are:

None.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The SWMP was prepared in response to a State requirement for the proper management of solid waste, and it is intended to comply with all applicable local, state and federal laws and requirements regarding protection of the environment.



Planning & Development Services

1800 Continental Place ▪ Mount Vernon, Washington 98273
office 360-416-1320 ▪ pds@co.skagit.wa.us ▪ www.skagitcounty.net/planning

Memorandum

SEPA Threshold Determination of Non-Significance (DNS): Skagit County Solid Waste Management Plan

To: Margo Gillaspy, LHg / Solid Waste Division Manager (Skagit County Public Works)
From: Stacie Pratschner, AICP / Senior Planner and Team Supervisor (Skagit County PDS)
Re: Public and agency comment concerning the SEPA DNS for updates to the Skagit County Solid Waste Management Plan
Date: May 17, 2016

Skagit County Planning & Development Service issued a SEPA Threshold Determination of Non-Significance (DNS) on August 25, 2016 for the non-project proposal from the Skagit County Public Works Department to update the long-range plan for solid waste management and disposal in Skagit County.¹ The DNS was published in the Skagit Valley Herald with the two week comment period concluding on September 8, 2016. No public or SEPA agency comments were received during the comment period, and the threshold determination was not appealed.

I hope this information meets your needs. Please don't hesitate to contact me at Staciep@co.skagit.wa.us or Extension 1336 if I can provide additional information.

Thank you,

Stacie Pratschner, AICP
Senior Planner / Team Supervisor

¹ <http://sp2010/Planning/Legislative/Projects/Solid%20Waste%20Mgt%20Plan%20-%20PW/SWMP%20Threshold%20Determination.docx>

APPENDIX E

RESOLUTIONS OF ADOPTION

NOTICE:

After the Final Draft of this SWMP has been adopted by the participating jurisdictions (Skagit County and the eight cities and towns), this appendix will document the adoption process by showing the adoption resolutions from the municipalities.

RESOLUTION NO. 2010

REGARDING ADOPTION OF THE 2017 SKAGIT COUNTY COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

WHEREAS, the Solid Waste Management Act (Chapter 70.95 RCW) requires each city and county to prepare a comprehensive solid waste management plan (CSWMP); and

WHEREAS, in April of 2008 the cities and towns in Skagit County joined in signing an interlocal agreement with Skagit County that formed the Solid Waste Governance Board, resulting in the development of a joint city-county plan; and

WHEREAS, the Skagit County Solid Waste Advisory Committee (SWAC), an ongoing committee of balanced interests appointed by the Board of Skagit County Commissioners, is responsible for assisting in the development of the plan; and

WHEREAS, the Skagit County Public Works Department has developed an updated joint city-county CSWMP with active involvement from, and under the guidance of the Solid Waste Advisory Committee (SWAC) and the Solid Waste System Governance Board; and

WHEREAS, the City of Anacortes has had ample opportunity to participate in the development of the CSWMP through the process guided by the Solid Waste System Governance Board; and

WHEREAS, the CSWMP sets forth recommendations for an efficient and integrated solid waste management system; and

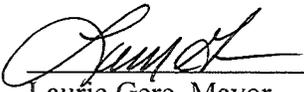
WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the City of Anacortes finds this CSWMP acceptable as the Solid Waste Management Plan for the City of Anacortes;

NOW THEREFOR BE IT RESOLVED AND IT IS HEREBY ORDERED by the City Council of Anacortes Washington that the 2017 Skagit County Comprehensive Solid Waste Management Plan be approved and adopted as the Solid Waste Management Plan for the City of Anacortes.

PASSED AND APPROVED this 16th day of April, 2018.

CITY OF ANACORTES

By: 
Laurie Gere, Mayor

ATTEST:



Steve Hoglund, City Clerk Treasurer

APPROVED AS TO FORM:



Darcy Swetnam, City Attorney

RESOLUTION NO. _

RESOLUTION ADOPTING THE 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to receive comments on the proposed 2017 CSWMP on November 28, 2017, and

WHEREAS, the Skagit County Board of Commissioners wishes to adopt the 2017 CSWMP as presented.

NOW, THEREFORE, BE IT RESOLVED AND IT IS HEREBY ORDERED, by the Skagit County Board of Commissioners that the 2017 Skagit County CSWMP, as attached hereto and incorporated by reference, is hereby approved and adopted as Skagit County's CSWMP for solid waste management.

PASSED this 11 day of December, 2017.

**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**

Ron Wesen

Ron Wesen, Chair

Kenneth A. Dahlstedt

Kenneth A. Dahlstedt, Commissioner

Lisa Janicki

Lisa Janicki, Commissioner



Attest:

Amber Epps
Clerk of the Board

Approved as to form:

[Signature]
Civil Deputy Prosecuting Attorney

Approved as to Content:

[Signature]
Department Head

RESOLUTION NO. 04 - 2018**A RESOLUTION OF THE CITY OF BURLINGTON APPROVING THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, on December 11, 2017, Skagit County Board of Commissioners adopted the 2017 Skagit County Comprehensive Solid Waste Management Plan; and

WHEREAS, on March 13, 2018 the Department of Ecology has granted conditional approval of the final draft of the Skagit County Solid Waste Management Plan (CSWMP); and

WHEREAS, for final adoption, the SCWMP must be approved by all municipalities in Skagit County; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Burlington as follows:

1. Council approves the Skagit County 2017 Comprehensive Solid Waste Management Plan.

INTRODUCED AND PASSED at a regular meeting of the City Council of the City of Burlington on this 10th day of May, 2018.

CITY OF BURLINGTON



Steve Sexton, Mayor

ATTEST:



Renee Sinclair, Director of Budget & Accounting

APPROVED AS TO FORM:



Leif Johnson, City Attorney

RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

- By preparing their own plan for integration into the county’s plan,
- By participating with the county in preparing a joint plan, or
- By authorizing the county to prepare a plan that include the city.

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

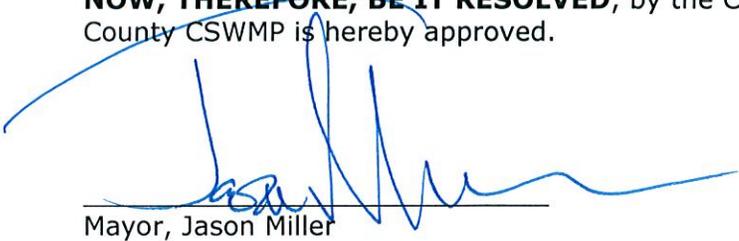
WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Concrete Town Council the 2017 Skagit County CSWMP is hereby approved.



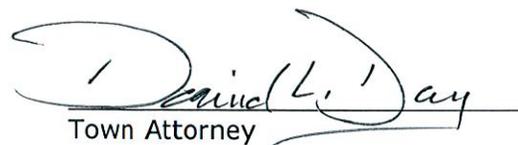
Mayor, Jason Miller

Attest:



Clerk- Treasurer, Andrea Fichter

Approved to Form:



Town Attorney

Resolution #2018-02

**RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

- By preparing their own plan for integration into the county's plan,
- By participating with the county in preparing a joint plan, or
- By authorizing the county to prepare a plan that include the city.

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Hamilton Town Council the 2017 Skagit County CSWMP is hereby approved.



Mayor, Joan Cromley

Attest:



Clerk- Treasurer, Denise Du Varney

Town of La Conner



Resolution No. 551

A RESOLUTION ADOPTING THE SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN.

WHEREAS, Section 70.95.080 RCW directs each county within the State, in cooperation with the various cities located within the county, to prepare a coordinated, comprehensive solid waste management plan (“SWMP”); and

WHEREAS, the minimum contents of a SWMP are described in RCW 70.95.090, and further described in the Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology; and

WHEREAS, Skagit County prepared a solid waste management plan in conjunction with the cities and towns in the County, which plan was adopted and then updated in 2008; and

WHEREAS, RCW 70.95.110 provides that a SWMP must “be maintained in a current and applicable condition” through periodic review and revisions; and

WHEREAS; the Skagit County SWMP has been updated and revised by the County and the various cities and towns of Skagit County, and has been approved by the Skagit County Solid Waste Advisory Committee, the Skagit County Solid Waste System Governance Board, and the State Department of Ecology; and

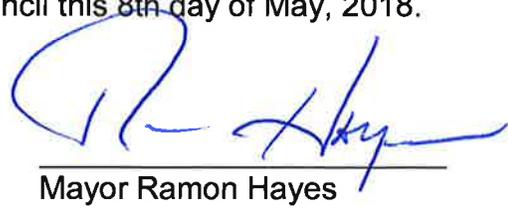
WHEREAS, the Skagit County Board of Commissioners held a public hearing on the proposed plan on November 28, 2017, and adopted the proposed plan on December 11, 2017; and

WHEREAS, The Skagit County SWMP is intended to provide guidance for the solid waste system in Skagit County. The solid waste system includes garbage collection and disposal, and programs for waste reduction, recycling, organics, special wastes and the administration of those programs. The SWMP provides guidance on program development and implementation for these activities for the next five to six years, while also anticipating the needs of the solid waste system up to 20 years from now.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF LA CONNER:

That the Skagit County Solid Waste Management Plan is hereby adopted.

Adopted by vote of the La Conner Town Council this 8th day of May, 2018.



Mayor Ramon Hayes

Attest:



Maria De Goede, Finance Director

Approved as to form:



Scott Thomas, Town Attorney

RESOLUTION #2018-06

**A RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

- By preparing their own plan for integration into the county's plan,
- By participating with the county in preparing a joint plan, or
- By authorizing the county to prepare a plan that include the city.

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

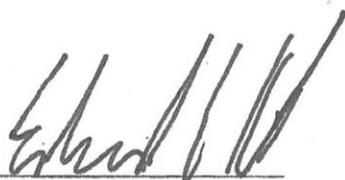
WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan {CSWMP}; and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Lyman Town Council the 2017 Skagit County CSWMP is hereby approved.



Edward E Hills, Mayor

Attest:



Debora Boyd, Clerk

RESOLUTION NO. 955

A RESOLUTION OF THE CITY OF MOUNT VERNON, WASHINGTON, FOR THE ADOPTION OF THE 2017 SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE.

WHEREAS, the Solid Waste Management Act (Chapter 70.95 RCW) requires each city and county to prepare a comprehensive solid waste management plan; and

WHEREAS, the State allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

- Preparing their own plan for integration into the County's plan,
- Participating with the County in preparing a joint plan, or
- Authorizing the County to prepare a plan that includes the City.

The City has agreed to participate through an interlocal agreement with the County; and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing and received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Mount Vernon City Council finds this CSWMP acceptable as the Solid Waste Management Plan for the City of Mount Vernon; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mount Vernon, Washington, that the Skagit County Solid Waste Management Plan Update be approved and adopted as the Solid Waste Management Plan for the City of Mount Vernon.

Dated this 13 day of June, 2018.

By:



Jill Boudreau, Mayor
City of Mount Vernon

Attest:



Doug Volesky, Finance Director

Approved as to form:



Kevin Rogerson, City Attorney

RESOLUTION NO. 987-18

**A RESOLUTION OF THE CITY OF SEDRO-WOOLLEY, WASHINGTON,
APPROVING THE 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, on December 11, 2017, Skagit County Board of Commissioners adopted the 2017 Skagit County Comprehensive Solid Waste Management Plan; and

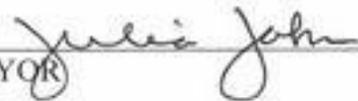
WHEREAS, on March 13, 2018 the Department of Ecology has granted conditional approval of the final draft of the Skagit County Solid Waste Management Plan (CSWMP); and

WHEREAS, for final adoption, the SCWMP must be approved by all municipalities in Skagit County; and

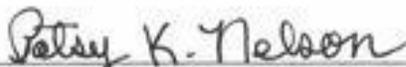
**THE CITY COUNCIL OF THE CITY OF SEDRO-WOOLLEY DOES HEREBY
RESOLVE AS FOLLOWS:**

Section 1: Council approves the Skagit County 2017 Comprehensive Solid Waste Management Plan.

PASSED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR ON THIS
11th day of April, 2018.


MAYOR

ATTEST:


FINANCE DIRECTOR

APPROVED AS TO FORM:


CITY ATTORNEY

RECYCLING CONTAMINATION REDUCTION AND OUTREACH PLAN (CROP)

The goal of the CROP is to reduce contamination of the materials collected in **Skagit County**'s single-family, multi-family, drop box, and commercial recycling programs. This, in turn, helps **Skagit County** more fully realize the economic, environmental, social, and public health benefits of these programs. The CROP does not specifically include strategies to reduce contamination of other material streams such as organics or construction and demolition debris. However, many of the same strategies apply to these streams and may be included in future CROP updates.

The CROP intends to meet the requirement in [RCW 70A.205.045\(10\)](#) that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), include a CROP in their SWMP by July 1, 2021.

This CROP includes ten action steps and is a framework for developing a more detailed and customized implementation plan in the future. In addition, it also identifies the need to align the CROP with the SWMP, and secure and allocate funding for ongoing planning and implementation.

Step 1: Inventory current recycling collection services and programs

Skagit County will inventory single-family, multi-family, drop box, and commercial collection programs to identify what is accepted for recycling, where and how it is collected and by whom, and how it should be prepared for recycling.

This inventory may include, but is not limited to the following:

- Designated recyclables list in the SWMP
- Collection methods (single- or multi-stream, carts or stackable bins, etc.)
- Number of tons collected for recycling and customers for each type of program
- Types of materials accepted for recycling in each type of program
- Cart or container colors
- Minimum service-level or other ordinances, resolutions, or interlocal agreements
- Collection or material processing contracts
- Local government and recycling collector websites and social media sites
- Stickers and signs on containers, in businesses, etc.
- Brochures, newsletters, information shared at community events, etc.
- Recent media coverage

Skagit County will identify differences or inconsistencies across contracts and agreements for recycling programs, and in the information provided to residents and businesses about what to recycle and how it should be prepared for collection. **Skagit County** will use this data to identify opportunities for more consistent and aligned programs. The data will also be used to help determine what specific contamination reduction strategies to implement.

Step 2: Develop scope of work with stakeholders

Skagit County will work with key stakeholders to develop a scope of work for the CROP addressing the specific challenges and opportunities associated with local recycling contamination. To begin this scoping process, the information learned in Step 1 will be shared with the Solid Waste Advisory Committee (SWAC).

These stakeholders may include, but are not limited to:

- SWAC members
- Elected officials and key staff from other local governments, including potential regional partners in the same MRF-shed
- Garbage and recycling collection companies and their front-line staff
- Organizations representing homeowners, tenants, and multi-family and business interests
- Material recovery facilities (MRF) and transfer station operators
- End markets for recovered materials
- **Skagit County**'s Ecology Regional Planner and grant manager
- Non-governmental organizations and community groups
- Regional, statewide, and national organizations that can provide technical assistance and/or financial support.

Step 3: Prioritize the recycling program(s) to focus on first

Together with key stakeholders, **Skagit County** will identify what recycling collection program(s) to focus on first. Driving this decision could be current knowledge of contamination levels and their estimated impact on costs and material quality, the number of customers, total quantity of material collected, etc.

Step 4: Establish acceptable materials lists

Starting with the highest-priority program(s), **Skagit County** will establish lists of acceptable materials. This effort will be coordinated with the SWAC, MRF operators, collectors, end markets, and other key stakeholders. Criteria for determining the acceptable materials lists may include, but are not limited to:

- Alignment with the SWMP mission and goals, and community values
- Degree of uniformity across local programs, regionally, and statewide
- Diversion potential
- Cost to collect and process relative to other management options
- Strength and long-term viability and stability of end markets
- Environmental, social, and other benefits and costs
- Potential to cross-contaminate or lower the value of other materials
- Potential to cause customer confusion

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and the Department of Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. More harmonization across programs reduces customer confusion and contamination. To that end, they identified these four priority materials for statewide recovery:

1. Paper (including office and notebook paper, newspaper, mail, catalogues, magazines, and cereal or cracker boxes)
2. Cardboard
3. Plastic bottles and jugs (clear, colored, and natural)
4. Steel and aluminum cans

The resources and guidelines developed by these organizations to establish their list of priority materials will help guide the development of **Skagit County's** acceptable materials list. [Ecology's Resource Library](#) contains this information and, along with [Ecology's Best Management practices \(BMPs\) and Resources document](#), includes other resources to assist in developing an accepted materials list. This includes information on the specific challenges and opportunities associated with collecting glass and aseptic and polycoat containers, which some recycling programs in Washington accept.

Step 5: Define what data to collect to determine baseline levels of recycling contamination

Starting with the highest priority program(s), and based on the review completed in Step 1, **Skagit County** will identify what the acceptable materials are and what is considered contamination for the purposes of establishing a baseline recycling contamination rate. This data will also inform decisions about what, if any, changes to make to the accepted materials list in the future.

Step 6: Gather baseline recycling contamination data

Starting with the highest-priority program(s), **Skagit County** will establish baseline levels and types of recycling contamination. Recycling contamination rates can vary significantly across different programs and communities. Nationally, The Recycling Partnership (TRP) estimated an average contamination rate of about 17% across 197 programs that participated in their 2019 State of Curbside Survey. In Washington State, TRP's 2019 survey of seven MRFs found inbound levels of contamination from commingled recycling collection programs ranging from 5%-20% by weight. Recent drop-off programs and cart lid-lift audits in Washington showed rates as high as 40%. For this reason, it is important to gather data on local recycling contamination levels.

In discussions with stakeholders, and building on the information in the State CROP and [Ecology's Resource Library](#), and on the work completed in Step 5 **Skagit County** will identify and develop ways to track specific contaminants. For example, tracking the number of carts containing plastic bags may be a more useful metric than an estimated overall percentage of contamination by volume.

Data collection methods may include, but are not limited to:

- Recycling stream composition studies
- Survey of transfer stations and MRF operators
- Tracking contamination using on-board truck or container-mounted cameras
- Drop box composition studies or visual audits
- Container lid-lift audits for residential, multi-family and commercial accounts
 - *Legal questions have been raised about lid-lift audits. The Measurement and Reporting section of [Ecology's BMPs](#) provides more details.*

Step 7: Identify key contaminants and their costs and impacts

Based on the data collected in Step 6 and collaborating with key stakeholders, **Skagit County** will identify the most problematic and costly contaminants starting with the highest-priority program(s). Although the types and impacts of contamination don't vary as much as the levels of contamination across different communities and programs, it is still important to gather locally specific data. This data is critical to designing outreach campaigns and other strategies targeting the most problematic materials. It can also be helpful in calculating the economic and other benefits of removing problematic materials from the recycling stream.

In recent surveys, such as the one conducted by the TRP in 2019, MRFs and cities in Washington identified the following recycling contaminants as the most problematic and costly to manage:

- Plastic bags and film
- Tanglers including rope, cords, chains, and hoses
- Food and liquids
- Shredded paper
- Bagged garbage
- Non-program plastics including clamshells and polystyrene foam
- Hypodermic needles

These contaminants can:

- Slow down the sorting and processing of materials.
- Reduce the quality and value of secondary material feedstocks.
- Result in costly shutdowns.
- Damage collection, processing, and remanufacturing equipment.
- Cause serious injuries to collection and processing facility staff.

According to TRP, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs:

- 40% for disposal of residuals
- 26% in value lost from contaminated recyclables
- 14% in labor to remove contamination from sorting equipment, etc.

Step 8: Develop and implement education and outreach strategies to reduce contamination

Skagit County will develop and implement education and outreach strategies based on best practices. This starts with addressing any inconsistencies in recycling information and messaging identified in Step 1. All new outreach materials and messages will be aligned and consistent across all platforms.

Depending on the type of recycling program, outreach and education strategies may include, but are not limited to:

- Moving toward uniformity in cart and container colors (or at least lids)

- blue for recycling, gray or black for garbage, and green for organics
- Visual, easy-to-understand signage using photos and universal pictures and symbols
- Cart-tagging and cart rejection
- On-route monitoring tools, including apps and cameras
- Pairing right-sized recycling and trash bins
- On-site assistance and outreach at drop-off sites
- Up-to-date, and easy-to-find and access websites with clear, consistent messaging
- Social media posts, campaigns, mailings, brochures, and other communications
- Online apps for residents and businesses to get answers to their recycling questions
- Community presentations, tabling, and activities at community events
- School presentations and activities focused on recycling right
- Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences
- Social marketing campaigns to effectively promote long-term behavior change

Where possible, free and customizable resources will be utilized, including [Ecology's Recycle Right](#) campaign materials and [The Recycling Partnership's Anti-Contamination Kit](#). [Ecology's Contamination Reduction Best Management Practices & Resources document](#) and [Resource Library](#) have examples of successful anti-contamination programs.

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Skagit County will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies, and share the results with key stakeholders and the public. These assessments will use, at least in part, the same methodology used in Step 6 to establish baseline contamination levels.

The assessment results inform what is working and what adjustments to make for better results. This includes reducing contamination in other recycling programs that were not a focus during the initial CROP implementation.

Step 10: Explore contamination reduction strategies beyond education and outreach

As part of a statewide effort, **Skagit County** will work with Ecology and other partners to explore strategies and solutions beyond education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, enhanced data collection, etc. Based on this evaluation, **Skagit County** will identify and pursue the most promising initiatives.

These options may include, but are not limited to:

- Regional planning and aligned or joint contracting for services to harmonize messaging, lower program costs, and improve program performance.
- Evaluating the costs and benefits of operational changes, including collection frequency, level of source-separation at the curb, and innovative drop-off container designs on contamination levels and overall program performance.
- Product bans or restrictions.

- Strengthening contracts with haulers and MRFs to include provisions focused on reducing contamination, collecting and reporting data on program performance and ensuring materials on the accepted materials list are responsibly recycled. Consult [The Recycling Partnership’s BMPs for MRF contracting](#) and their [supporting materials](#) for guidance.

Ensure alignment of the CROP and SWMP and secure and allocate funding to implement the

CROP: This work will occur throughout the process as needed. Updates to the CROP can occur during SWMP revisions, including the required five-year revision process.

This work includes involving key stakeholders in reviewing, and if necessary, updating related elements in the SWMP to ensure they are aligned and consistent with the contents of the CROP and implementation work.

This information may include, but is not limited to:

- Designated recyclables list
- Recycling facilities including transfer stations, drop-off sites, and MRFs
- Recycling collection services and providers, and collection systems and fees
- Waste reduction and recycling education and outreach strategies
- Funding sources and mechanisms for recycling programs and services

During this process, **Skagit County** will also work with Ecology and other key stakeholders to identify and secure new and/or allocate existing funding, and forge partnerships with agencies and organizations to provide technical and financial assistance.

The State CROP and [Ecology’s Resource Library](#) are tools to get started on implementing the CROP. The library includes contamination reduction best management practices, contracting guides, MRF-shed maps, materials from successful programs in Washington State and across the country, and more.

An initial 3-year implementation schedule for all ten steps in the CROP is included below. As **Skagit County** clarifies and defines the scope of work, and identifies the resources to complete the work, a more detailed and refined implementation plan, schedule and budget will be developed.

CROP Implementation Schedule

Year 1 2021

- Step 1: Inventory current recycling collection services and programs
- Step 2: Develop scope of work with stakeholders
- Step 3: Prioritize the recycling program(s) to focus on first
- Step 4: Establish acceptable materials list

Year 2 2022

- Step 5: Define what data to collect to determine baseline levels of recycling contamination
- Step 6: Gather baseline recycling contamination data
- Step 7: Identify key contaminants and their costs and impacts

Year 3 2023

Step 8: Develop and implement education and outreach strategies to reduce contamination

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Step 10: Explore contamination reduction strategies beyond education and outreach

Ensure alignment of the CROP and SWMP and identify and secure or allocate funding to implement the CROP – These are steps that will be addressed throughout the process as needed.



DEPARTMENT OF ECOLOGY

Northwest Regional Office • 15700 Dayton Ave North • Shoreline, Washington 98133-9716
(206) 594-0000

711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

July 8, 2021

Margo Gillaspy, LHg
Solid Waste Division Manager
Skagit County Public Works

RE: Skagit County Contamination Reduction and Outreach Plan (CROP)/Amendment 1

Dear Margo,

I hope this note finds you well. I am writing to inform you that Ecology has completed its review of the following materials you submitted to us on June 18, 2021.

- A copy of your amended Solid Waste Management Plan (Plan) that includes your CROP
- Documentation of your amendment process including a timeline

Based on our review of these materials, we have determined that your CROP includes all of the elements listed below that are required under [RCW 70A.205.045\(10\)](#).

1. A list of actions to reduce contamination in existing recycling programs for single-family and multi-family residences, commercial locations, and drop boxes.
2. A list of key contaminants identified by the jurisdiction or Ecology.
3. A discussion of problem contaminants and their impact on the collection system.
4. An analysis of the costs and other impacts on the recycling system from contamination.
5. An implementation schedule and details on conducting outreach. Contamination reduction outreach may include sharing community-wide messaging through newsletters, articles, mailers, social media, websites, community events, educating drop box customers about contamination, and improving signage.

Ecology grants formal conditional approval, pending documentation that you have amended your SWMP to include a CROP following your SWMP's amendment process.

The results of our review are attached to this letter in a table. As noted in our review, the requirements above were met by using the template included in the State CROP. The template is intended to serve as a springboard to support the development of more customized and local contamination reduction strategies. With that in mind, we encourage the County, as we also note in our comments, to refine the CROP to more directly address local needs and opportunities as it begins work on its next Plan revision.

We look forward to partnering with you in this important work. Please don't hesitate to contact me if you have any questions.

Sincerely,

Carolyn Bowie

Carolyn Bowie

Regional Planner and Grant Manager
Solid Waste Management Program
Northwest Regional Office
Department of Ecology

cc:

Peter Guttchen, Department of Ecology

Skagit County Recycling Contamination Reduction Plan

Ecology review – 6/25/2021

Required element	Met or not met	Comments
<p>Required Element #1</p> <p>List of Action Steps to Reduce Contamination</p>	<p align="center">Met</p>	<ul style="list-style-type: none"> • Met using template
<p>Required Element #2</p> <p>List of Key Contaminants</p>	<p align="center">Met</p>	<ul style="list-style-type: none"> • Met using template.
<p>Required Element #3</p> <p>Discussion of problem contaminants & impacts on the collection system</p>	<p align="center">Met</p>	<ul style="list-style-type: none"> • Met using template.

Skagit County Recycling Contamination Reduction Plan
Ecology review – 6/25/2021

Required element	Met or not met	Comments
<p>Required Element #4</p> <p>Analysis of costs and other impacts on the recycling system</p>	<p>Met</p>	<ul style="list-style-type: none"> • Met using template.
<p>Required Element #5 (a)</p> <p>Details on conducting outreach</p>	<p>Met</p>	<ul style="list-style-type: none"> • Met using template.
<p>Required Element #5 (b)</p> <p>An implementation schedule</p>	<p>Met</p>	<ul style="list-style-type: none"> • Met using template.
<p>Additional Comments</p>		<p>As it begins work on its next full Plan revision, we strongly encourage the County to refine and customize the CROP to more specifically address local needs and opportunities and to integrate the elements of the CROP into the waste reduction and recycling chapters of its Plan.</p>

RECYCLING CONTAMINATION REDUCTION AND OUTREACH PLAN (CROP)

The goal of the CROP is to reduce contamination of the materials collected in **Skagit County**'s single-family, multi-family, drop box, and commercial recycling programs. This, in turn, helps **Skagit County** more fully realize the economic, environmental, social, and public health benefits of these programs. The CROP does not specifically include strategies to reduce contamination of other material streams such as organics or construction and demolition debris. However, many of the same strategies apply to these streams and may be included in future CROP updates.

The CROP intends to meet the requirement in [RCW 70A.205.045\(10\)](#) that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), include a CROP in their SWMP by July 1, 2021.

This CROP includes ten action steps and is a framework for developing a more detailed and customized implementation plan in the future. In addition, it also identifies the need to align the CROP with the SWMP, and secure and allocate funding for ongoing planning and implementation.

Step 1: Inventory current recycling collection services and programs

Skagit County will inventory single-family, multi-family, drop box, and commercial collection programs to identify what is accepted for recycling, where and how it is collected and by whom, and how it should be prepared for recycling.

This inventory may include, but is not limited to the following:

- Designated recyclables list in the SWMP
- Collection methods (single- or multi-stream, carts or stackable bins, etc.)
- Number of tons collected for recycling and customers for each type of program
- Types of materials accepted for recycling in each type of program
- Cart or container colors
- Minimum service-level or other ordinances, resolutions, or interlocal agreements
- Collection or material processing contracts
- Local government and recycling collector websites and social media sites
- Stickers and signs on containers, in businesses, etc.
- Brochures, newsletters, information shared at community events, etc.
- Recent media coverage

Skagit County will identify differences or inconsistencies across contracts and agreements for recycling programs, and in the information provided to residents and businesses about what to recycle and how it should be prepared for collection. **Skagit County** will use this data to identify opportunities for more consistent and aligned programs. The data will also be used to help determine what specific contamination reduction strategies to implement.

Step 2: Develop scope of work with stakeholders

Skagit County will work with key stakeholders to develop a scope of work for the CROP addressing the specific challenges and opportunities associated with local recycling contamination. To begin this scoping process, the information learned in Step 1 will be shared with the Solid Waste Advisory Committee (SWAC).

These stakeholders may include, but are not limited to:

- SWAC members
- Elected officials and key staff from other local governments, including potential regional partners in the same MRF-shed
- Garbage and recycling collection companies and their front-line staff
- Organizations representing homeowners, tenants, and multi-family and business interests
- Material recovery facilities (MRF) and transfer station operators
- End markets for recovered materials
- **Skagit County**'s Ecology Regional Planner and grant manager
- Non-governmental organizations and community groups
- Regional, statewide, and national organizations that can provide technical assistance and/or financial support.

Step 3: Prioritize the recycling program(s) to focus on first

Together with key stakeholders, **Skagit County** will identify what recycling collection program(s) to focus on first. Driving this decision could be current knowledge of contamination levels and their estimated impact on costs and material quality, the number of customers, total quantity of material collected, etc.

Step 4: Establish acceptable materials lists

Starting with the highest-priority program(s), **Skagit County** will establish lists of acceptable materials. This effort will be coordinated with the SWAC, MRF operators, collectors, end markets, and other key stakeholders. Criteria for determining the acceptable materials lists may include, but are not limited to:

- Alignment with the SWMP mission and goals, and community values
- Degree of uniformity across local programs, regionally, and statewide
- Diversion potential
- Cost to collect and process relative to other management options
- Strength and long-term viability and stability of end markets
- Environmental, social, and other benefits and costs
- Potential to cross-contaminate or lower the value of other materials
- Potential to cause customer confusion

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and the Department of Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. More harmonization across programs reduces customer confusion and contamination. To that end, they identified these four priority materials for statewide recovery:

1. Paper (including office and notebook paper, newspaper, mail, catalogues, magazines, and cereal or cracker boxes)
2. Cardboard
3. Plastic bottles and jugs (clear, colored, and natural)
4. Steel and aluminum cans

The resources and guidelines developed by these organizations to establish their list of priority materials will help guide the development of **Skagit County's** acceptable materials list. [Ecology's Resource Library](#) contains this information and, along with [Ecology's Best Management practices \(BMPs\) and Resources document](#), includes other resources to assist in developing an accepted materials list. This includes information on the specific challenges and opportunities associated with collecting glass and aseptic and polycoat containers, which some recycling programs in Washington accept.

Step 5: Define what data to collect to determine baseline levels of recycling contamination

Starting with the highest priority program(s), and based on the review completed in Step 1, **Skagit County** will identify what the acceptable materials are and what is considered contamination for the purposes of establishing a baseline recycling contamination rate. This data will also inform decisions about what, if any, changes to make to the accepted materials list in the future.

Step 6: Gather baseline recycling contamination data

Starting with the highest-priority program(s), **Skagit County** will establish baseline levels and types of recycling contamination. Recycling contamination rates can vary significantly across different programs and communities. Nationally, The Recycling Partnership (TRP) estimated an average contamination rate of about 17% across 197 programs that participated in their 2019 State of Curbside Survey. In Washington State, TRP's 2019 survey of seven MRFs found inbound levels of contamination from commingled recycling collection programs ranging from 5%-20% by weight. Recent drop-off programs and cart lid-lift audits in Washington showed rates as high as 40%. For this reason, it is important to gather data on local recycling contamination levels.

In discussions with stakeholders, and building on the information in the State CROP and [Ecology's Resource Library](#), and on the work completed in Step 5 **Skagit County** will identify and develop ways to track specific contaminants. For example, tracking the number of carts containing plastic bags may be a more useful metric than an estimated overall percentage of contamination by volume.

Data collection methods may include, but are not limited to:

- Recycling stream composition studies
- Survey of transfer stations and MRF operators
- Tracking contamination using on-board truck or container-mounted cameras
- Drop box composition studies or visual audits
- Container lid-lift audits for residential, multi-family and commercial accounts
 - *Legal questions have been raised about lid-lift audits. The Measurement and Reporting section of [Ecology's BMPs](#) provides more details.*

Step 7: Identify key contaminants and their costs and impacts

Based on the data collected in Step 6 and collaborating with key stakeholders, **Skagit County** will identify the most problematic and costly contaminants starting with the highest-priority program(s). Although the types and impacts of contamination don't vary as much as the levels of contamination across different communities and programs, it is still important to gather locally specific data. This data is critical to designing outreach campaigns and other strategies targeting the most problematic materials. It can also be helpful in calculating the economic and other benefits of removing problematic materials from the recycling stream.

In recent surveys, such as the one conducted by the TRP in 2019, MRFs and cities in Washington identified the following recycling contaminants as the most problematic and costly to manage:

- Plastic bags and film
- Tanglers including rope, cords, chains, and hoses
- Food and liquids
- Shredded paper
- Bagged garbage
- Non-program plastics including clamshells and polystyrene foam
- Hypodermic needles

These contaminants can:

- Slow down the sorting and processing of materials.
- Reduce the quality and value of secondary material feedstocks.
- Result in costly shutdowns.
- Damage collection, processing, and remanufacturing equipment.
- Cause serious injuries to collection and processing facility staff.

According to TRP, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs:

- 40% for disposal of residuals
- 26% in value lost from contaminated recyclables
- 14% in labor to remove contamination from sorting equipment, etc.

Step 8: Develop and implement education and outreach strategies to reduce contamination

Skagit County will develop and implement education and outreach strategies based on best practices. This starts with addressing any inconsistencies in recycling information and messaging identified in Step 1. All new outreach materials and messages will be aligned and consistent across all platforms.

Depending on the type of recycling program, outreach and education strategies may include, but are not limited to:

- Moving toward uniformity in cart and container colors (or at least lids)

- blue for recycling, gray or black for garbage, and green for organics
- Visual, easy-to-understand signage using photos and universal pictures and symbols
- Cart-tagging and cart rejection
- On-route monitoring tools, including apps and cameras
- Pairing right-sized recycling and trash bins
- On-site assistance and outreach at drop-off sites
- Up-to-date, and easy-to-find and access websites with clear, consistent messaging
- Social media posts, campaigns, mailings, brochures, and other communications
- Online apps for residents and businesses to get answers to their recycling questions
- Community presentations, tabling, and activities at community events
- School presentations and activities focused on recycling right
- Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences
- Social marketing campaigns to effectively promote long-term behavior change

Where possible, free and customizable resources will be utilized, including [Ecology's Recycle Right](#) campaign materials and [The Recycling Partnership's Anti-Contamination Kit](#). [Ecology's Contamination Reduction Best Management Practices & Resources document](#) and [Resource Library](#) have examples of successful anti-contamination programs.

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Skagit County will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies, and share the results with key stakeholders and the public. These assessments will use, at least in part, the same methodology used in Step 6 to establish baseline contamination levels.

The assessment results inform what is working and what adjustments to make for better results. This includes reducing contamination in other recycling programs that were not a focus during the initial CROP implementation.

Step 10: Explore contamination reduction strategies beyond education and outreach

As part of a statewide effort, **Skagit County** will work with Ecology and other partners to explore strategies and solutions beyond education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, enhanced data collection, etc. Based on this evaluation, **Skagit County** will identify and pursue the most promising initiatives.

These options may include, but are not limited to:

- Regional planning and aligned or joint contracting for services to harmonize messaging, lower program costs, and improve program performance.
- Evaluating the costs and benefits of operational changes, including collection frequency, level of source-separation at the curb, and innovative drop-off container designs on contamination levels and overall program performance.
- Product bans or restrictions.

- Strengthening contracts with haulers and MRFs to include provisions focused on reducing contamination, collecting and reporting data on program performance and ensuring materials on the accepted materials list are responsibly recycled. Consult [The Recycling Partnership’s BMPs for MRF contracting](#) and their [supporting materials](#) for guidance.

Ensure alignment of the CROP and SWMP and secure and allocate funding to implement the

CROP: This work will occur throughout the process as needed. Updates to the CROP can occur during SWMP revisions, including the required five-year revision process.

This work includes involving key stakeholders in reviewing, and if necessary, updating related elements in the SWMP to ensure they are aligned and consistent with the contents of the CROP and implementation work.

This information may include, but is not limited to:

- Designated recyclables list
- Recycling facilities including transfer stations, drop-off sites, and MRFs
- Recycling collection services and providers, and collection systems and fees
- Waste reduction and recycling education and outreach strategies
- Funding sources and mechanisms for recycling programs and services

During this process, **Skagit County** will also work with Ecology and other key stakeholders to identify and secure new and/or allocate existing funding, and forge partnerships with agencies and organizations to provide technical and financial assistance.

The State CROP and [Ecology’s Resource Library](#) are tools to get started on implementing the CROP. The library includes contamination reduction best management practices, contracting guides, MRF-shed maps, materials from successful programs in Washington State and across the country, and more.

An initial 3-year implementation schedule for all ten steps in the CROP is included below. As **Skagit County** clarifies and defines the scope of work, and identifies the resources to complete the work, a more detailed and refined implementation plan, schedule and budget will be developed.

CROP Implementation Schedule

Year 1 2021

- Step 1: Inventory current recycling collection services and programs
- Step 2: Develop scope of work with stakeholders
- Step 3: Prioritize the recycling program(s) to focus on first
- Step 4: Establish acceptable materials list

Year 2 2022

- Step 5: Define what data to collect to determine baseline levels of recycling contamination
- Step 6: Gather baseline recycling contamination data
- Step 7: Identify key contaminants and their costs and impacts

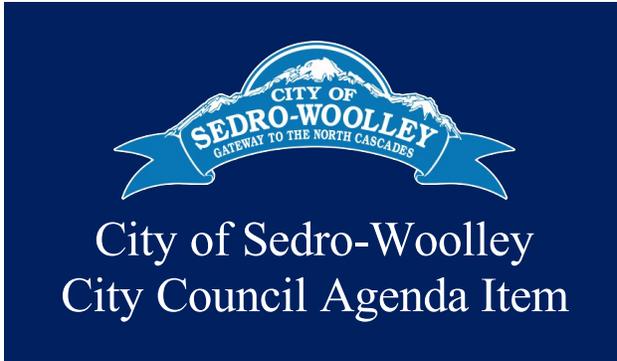
Year 3 2023

Step 8: Develop and implement education and outreach strategies to reduce contamination

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Step 10: Explore contamination reduction strategies beyond education and outreach

Ensure alignment of the CROP and SWMP and identify and secure or allocate funding to implement the CROP – These are steps that will be addressed throughout the process as needed.



Agenda
Item No. _____
Date: February 23, 2022
Subject: Minutes from Regular City Council Meeting held February 9, 2022

FROM:

Debbie Burton, Finance Director

RECOMMENDED ACTION:

Review only

ISSUE:

BACKGROUND/SUMMARY INFORMATION:

FISCAL IMPACT, IF APPROPRIATE:

None

ATTACHMENTS:

1. City Council Minutes 02-09-22

CITY OF SEDRO-WOOLLEY

Regular Meeting of the City Council
February 9, 2022– 6:00 P.M. Via Zoom

Call to Order

Mayor Julia Johnson called the meeting to order at 6:00 P.M.

Pledge of Allegiance and Roll Call: Present: Mayor Julia Johnson, Councilmember Brendan McGoffin, Councilmember JoEllen Kesti, Councilmember Sarah Diamond, Councilmember Glenn Allen, Councilmember Chuck Owen, Councilmember Joe Burns and Councilmember Nick Lavacca.

Approval of Agenda

Motion made by Councilmember Lavacca, seconded by Councilmember Kesti to approve the agenda. Motion carried (7-0).

Consent Agenda

1. Finance - Claims Checks issued prior to City Council approval
2. Final Acceptance Contract 2021-PW-04, 2021 Pavement and Pedestrian Improvements Project
3. Finance - Claims Checks and Payroll Checks
4. Minutes from Regular City Council Meeting held January 26, 2022
5. Final Acceptance - Contract 2021-PW-29, Fire Station 2 Storage Building Project, Bishop Contracting LLC
6. Final Acceptance-Contract 2021-PW-32, Vehicle Storage Building Re-Roofing, Siding, & Gutter Project.
7. 2022 Solid Waste Carts & Lids Purchase Order 2022-PO-01 for Approval

Motion made by Councilmember Burns, seconded by Councilmember Allen to approve the consent agenda. Motion carried (7-0).

Introduction of Special Guests and Presentations

1. SBA Disaster Assistance and Disaster/Business Recovery Centers – Barbara Nitis spoke to the City Council about the Disaster Relief and Low Interest loans available through The Small Business Administration for damages caused by the recent flooding in November 5, 2021 through December 2, 2021. Process is to register through FEMA and then get referred to the SBA. Deadline is March 7, 2022. Sedro-Woolley Outreach Center is located at 802 Ball Street. Citizens can also call 1-800-659-2955 to obtain information or to apply.

Staff Reports

Fire Chief Frank Wagner, Police Lt Dan McIlraith, Planning Director John Coleman, IT Director Bill Chambers, Finance Director Debbie Burton, City Attorney Nikki Thompson, and City Administrator Charlie Bush, City Supervisor Doug Merriman gave updates for each of their respective departments.

Councilmember and Mayor's Reports

Councilmembers spoke of the Sedro-Woolley Lions Club presenting the City with a Certificate of Appreciation for helping to collect over 500 pound of plastic to recycle and create a bench to dedicate for the city to use in a public space. Councilmembers also spoke of recent vandalism in the City Cemetery that has included used drug needles, people bringing dogs to the cemetery and headstones being knocked over. Councilmember Kesti reminded the public that dogs are never allowed in the cemetery out of respect to it being the final resting place and not an appropriate place for a dog to relieve itself. Additional night patrols of the cemetery by the Sedro-Woolley police department were requested in an effort to deter the increased vandalism. The Mayor announced that the next City Council meeting on February 23, 2022 will be a hybrid of in-person and Zoom to accommodate everyone's comfort levels. City Council's working retreat for 2022 will be Friday, April 29, 2022.

Public Comments

6:29 P.M.— Mayor Johnson opened the meeting for Public Comments

- Joe Kunzler of Warner St, spoke to thank the First Responders of Sedro-Woolley for the work they do to keep our city safe. Mr.Kunzler also spoke of the need for housing near transit locations to meet the needs of citizen who rely on public transit.
- City Administrator Charlie Bush read into the record a letter from Sharon McDaniel in regards to Ordinance #1088-22 which was discussed and tabled at the City Council Worksession on February 2nd, 2022.

6:33 P.M.— Public comments closed by Mayor Johnson.

Unfinished Business

1. 2nd Read - Ordinance No. 2003-22 An amendment to SWMC Chapter 2.02 Mayor Councilmember Burns made a motion to adopt Ordinance #2003-22 and seconded by Councilmember Owen. Motion carried (7-0).
2. 2nd Read - Appoint Members to the Salary Commission Motion made by Councilmember Kesti and seconded by Councilmember Diamond to adopt the Mayor's appointees to the Salary Commission. Motion carried (7-0).

Information Only Items

1. For Information Only - Public Works Director Signing Authority Record Prior submittal (for information only) was September 22, 2021
2. Building and Planning Permit Review Status

Adjournment

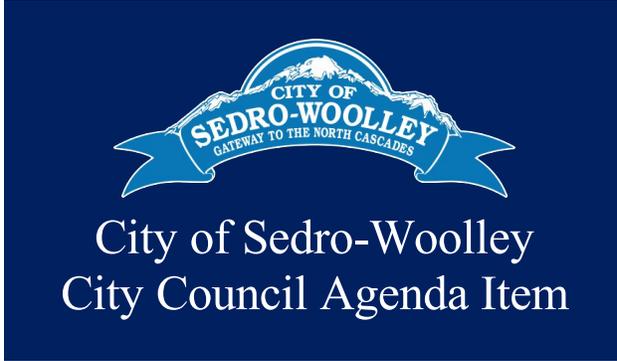
The meeting adjourned at 6:44 P.M.

ATTEST:

APPROVED:

Debbie Burton, Finance Director

Julia Johnson, Mayor



Agenda
Item No. _____
Date: February 23, 2022
Subject: Finance - Claims Checks and Payroll
Checks _____

FROM:

Debbie Burton, Finance Director

RECOMMENDED ACTION:

Review only.

ISSUE:

BACKGROUND/SUMMARY INFORMATION:

Claims Checks #197126 through #197210, plus EFTs, and Payroll Checks #60614-60622, plus EFT;s.

FISCAL IMPACT, IF APPROPRIATE:

Claims Checks, plus EFTs totaling \$258,136.64 and Payroll Checks, plus EFTs totaling \$393,281.29.

ATTACHMENTS:

1. Check Register

CHECK REGISTER

City Of Sedro-Woolley

Time: 14:42:07 Date: 02/15/2022

02/23/2022 To: 02/23/2022

Page: 1

Trans	Date	Type	Acct #	Chk #	Claimant	Amount	Memo
1360	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	87.98	
					101 - 576 80 47 052 - Bingham Caretaker	87.98	
1361	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	362.77	
					001 - 522 50 47 000 - Utility Services	362.77	
1362	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	511.04	
					412 - 537 80 47 000 - Public Utilities	511.04	
1363	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	19.29	
					401 - 535 80 47 000 - Public Utilities	19.29	
1364	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	158.84	
					103 - 542 63 47 000 - Public Utilities	158.84	
1365	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	29.09	
					101 - 576 80 47 050 - Hammer Square	29.09	
1366	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	503.40	
					101 - 576 80 47 020 - Senior Center	503.40	
1367	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	1,709.39	
					101 - 576 80 47 070 - City Hall	1,709.39	
1368	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	314.79	
					101 - 576 80 47 053 - Other Utilities	314.79	
1369	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	80.33	
					001 - 521 20 47 000 - Public Utilities	80.33	
1370	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	16.03	
					401 - 535 80 47 000 - Public Utilities	16.03	
1371	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	326.77	
					101 - 576 80 47 010 - Community Center	326.77	
1372	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	667.66	
					101 - 576 80 47 070 - City Hall	667.66	
1373	02/23/2022	Claims	2	EFT	Cascade Natural Gas Corp	362.77	
					401 - 535 80 47 000 - Public Utilities	362.77	
1374	02/23/2022	Claims	2	EFT	City of Sedro-Woolley	13.57	
					101 - 576 80 47 053 - Other Utilities	13.57	
1375	02/23/2022	Claims	2	EFT	City of Sedro-Woolley	89.32	
					305 - 572 20 47 305 - Libraries - Utility Services	89.32	
1376	02/23/2022	Claims	2	EFT	Comcast	71.95	
					101 - 576 80 47 020 - Senior Center	71.95	
1377	02/23/2022	Claims	2	EFT	Pitney Bowes	73.51	
					001 - 514 23 42 010 - Postage	73.51	
1378	02/23/2022	Claims	2	EFT	US Bank -- Purchase Cards	30,646.66	
					631 - 389 90 01 631 - Unapplied Cash - Suspense	1,408.33	
					631 - 389 90 01 631 - Unapplied Cash - Suspense	-30.00	
					001 - 513 10 41 001 - Professional Services	1,710.45	
					001 - 513 10 41 001 - Professional Services	347.52	
					001 - 513 10 49 000 - Tuition/Registration	25.00	
					001 - 513 10 49 000 - Tuition/Registration	325.00	
					001 - 513 10 49 010 - Dues & Subscriptions	315.00	
					001 - 514 23 31 000 - Supplies	42.89	
					001 - 514 23 31 000 - Supplies	114.98	
					001 - 514 23 31 000 - Supplies	32.21	
					001 - 514 23 31 000 - Supplies	549.15	
					001 - 514 23 31 000 - Supplies	188.41	

CHECK REGISTER

City Of Sedro-Woolley

Time: 14:42:07 Date: 02/15/2022

02/23/2022 To: 02/23/2022

Page: 2

Trans	Date	Type	Acct #	Chk #	Claimant	Amount	Memo
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			001 - 514 23 31 000 - Supplies			33.65	
			001 - 514 23 41 011 - Professional Services			25.00	
			001 - 514 23 41 013 - Licensing Fees			23.84	
			001 - 514 23 49 010 - Misc-Dues/Subscriptions			75.00	
			001 - 514 23 49 010 - Misc-Dues/Subscriptions			100.00	
			001 - 514 23 49 030 - Misc-Tuition/Registration			75.00	
			001 - 518 80 41 000 - Professional Services			162.79	
			001 - 518 80 41 000 - Professional Services			903.92	
			001 - 518 80 41 000 - Professional Services			2.03	
			001 - 518 80 49 000 - Software Maint & Support			27.11	
			001 - 521 20 31 002 - Office/Operating Supplies			62.29	
			001 - 521 20 31 002 - Office/Operating Supplies			155.45	
			001 - 521 20 31 002 - Office/Operating Supplies			15.19	
			001 - 521 20 31 002 - Office/Operating Supplies			62.96	
			001 - 521 20 31 002 - Office/Operating Supplies			330.14	
			001 - 521 20 31 002 - Office/Operating Supplies			32.34	
			001 - 521 20 31 002 - Office/Operating Supplies			44.50	
			001 - 521 20 31 002 - Office/Operating Supplies			117.18	
			001 - 521 20 31 002 - Office/Operating Supplies			11.39	
			001 - 521 20 31 002 - Office/Operating Supplies			9.52	
			001 - 521 20 31 002 - Office/Operating Supplies			234.54	
			001 - 521 20 31 002 - Office/Operating Supplies			25.00	
			001 - 521 20 31 002 - Office/Operating Supplies			157.66	
			001 - 521 20 32 000 - Auto Fuel			27.01	
			001 - 521 20 32 000 - Auto Fuel			29.00	
			001 - 521 20 49 010 - Dues/Subscriptions			150.00	
			001 - 521 20 49 010 - Dues/Subscriptions			50.00	
			001 - 521 40 43 000 - Travel			643.12	
			001 - 521 40 43 000 - Travel			20.00	
			001 - 521 40 43 000 - Travel			28.00	
			001 - 521 40 43 000 - Travel			14.00	
			001 - 521 40 43 000 - Travel			28.00	
			001 - 522 20 26 000 - Uniforms			215.00	
			001 - 522 20 41 030 - Investigation			44.00	
			001 - 522 21 31 010 - Office Supplies			23.32	
			001 - 522 21 31 010 - Office Supplies			16.30	
			001 - 522 21 35 011 - EMS Minor Equipment			130.25	
			001 - 522 21 35 011 - EMS Minor Equipment			369.22	
			001 - 522 21 35 011 - EMS Minor Equipment			1,072.96	
			001 - 522 21 35 011 - EMS Minor Equipment			162.85	
			001 - 522 21 49 000 - Miscellaneous			5,420.00	
			001 - 522 45 43 000 - Travel & Meals			85.47	
			425 - 531 50 31 000 - Operating Supplies			202.80	
			401 - 535 80 31 000 - Office Supplies			23.87	
			401 - 535 80 31 010 - Operating Supplies			172.00	
			401 - 535 80 35 000 - Small Tools & Minor Equip			892.65	
			401 - 535 80 35 000 - Small Tools & Minor Equip			258.45	
			401 - 535 80 35 000 - Small Tools & Minor Equip			65.14	
			412 - 537 80 49 010 - Misc-Dues/Subs & Tuitn/Reg			98.00	
			103 - 542 30 31 000 - Operating Supplies			724.94	
			103 - 542 30 35 010 - Safety Equipment			49.00	
			103 - 542 30 49 030 - Misc-Tuition/Registration			600.00	
			001 - 558 70 30 001 - ARPA - Supplies			9,773.00	
			101 - 576 80 31 003 - Operating Sup - Parks Shop			5.42	
			101 - 576 80 31 005 - Operating Sup - Senior Ctr			64.71	
			101 - 576 80 31 006 - Operating Sup - City Hall			110.77	
			101 - 576 80 35 010 - Safety Equipment			45.65	
			101 - 576 80 48 004 - Community Center			130.15	
			101 - 576 80 48 007 - Bingham Park			159.61	
			101 - 576 80 48 010 - Office Equip			139.71	
			101 - 576 80 48 016 - City Hall			52.31	
			101 - 576 80 48 019 - Skatepark			168.18	
			001 - 594 18 64 001 - Network Hardware			13.89	

CHECK REGISTER

City Of Sedro-Woolley

Time: 14:42:07 Date: 02/15/2022

02/23/2022 To: 02/23/2022

Page: 3

Trans	Date	Type	Acct #	Chk #	Claimant	Amount	Memo
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			001 - 594 18 64 001		Network Hardware	29.37	
			001 - 594 18 64 001		Network Hardware	48.86	
			001 - 594 21 64 000		Machinery & Equipment	669.12	
			501 - 594 22 64 501		Vehicles - Fire	2,390.30	
			501 - 594 22 64 501		Vehicles - Fire	217.20	
1379	02/23/2022	Claims	2	EFT	NW Fiber LLC, dba Ziplly Fiber	850.92	
			001 - 512 50 42 020		Telephone	51.06	
			001 - 513 10 42 020		Telephone	76.58	
			001 - 514 23 42 020		Telephone	76.58	
			001 - 515 31 42 001		Telephone	34.04	
			001 - 518 80 42 020		Telephone	25.53	
			001 - 521 20 42 020		Telephone	255.28	
			001 - 522 20 42 020		Telephone	93.60	
			001 - 524 20 42 020		Telephone	25.53	
			401 - 535 80 42 020		Telephone	68.06	
			412 - 537 80 42 020		Telephone	34.04	
			103 - 542 30 42 020		Telephone	8.51	
			001 - 558 60 42 020		Telephone	25.53	
			101 - 576 80 42 020		Telephone	17.02	
			001 - 595 10 42 020		Telephone	59.56	
1380	02/23/2022	Claims	2	197126	A Clean Carpet Company	300.00	
			101 - 576 80 48 500		Contracted Heavy Duty Cleanir	300.00	
1381	02/23/2022	Claims	2	197127	A-1 Mobile Lock & Key	173.76	
			001 - 594 22 61 000		Fire Station 2.75	173.76	
1382	02/23/2022	Claims	2	197128	Aramark Uniform & Career Apparel Group	28.00	
			401 - 535 80 49 000		Laundry	14.20	
			102 - 536 20 49 030		Misc-laundry	1.04	
			412 - 537 80 49 000		Misc-Laundry	3.97	
			103 - 542 30 49 000		Misc-Laundry	8.79	
1383	02/23/2022	Claims	2	197129	Baker Septic Tank Pumping Inc.	115.00	
			101 - 576 80 47 090		Portable Toilets	115.00	
1384	02/23/2022	Claims	2	197130	Beaver Lake Quarry	9,276.43	
			425 - 531 50 31 000		Operating Supplies	1,168.62	
			103 - 542 30 48 002		Crushed Aggregate	8,107.81	
1385	02/23/2022	Claims	2	197131	Bio Bug Northwest, Inc	70.59	
			101 - 576 80 48 001		Riverfront	70.59	
1386	02/23/2022	Claims	2	197132	Bonner Electrical Contracting LLC	27,462.49	
			401 - 535 50 48 000		Maintenance Contracts	4,906.37	
			001 - 594 22 61 000		Fire Station 2.75	20,127.84	
			001 - 594 22 61 000		Fire Station 2.75	2,428.28	
1387	02/23/2022	Claims	2	197133	Carl's Towing	225.89	
			001 - 521 20 41 001		Professional Services	225.89	
1388	02/23/2022	Claims	2	197134	Carletti Architects Ps	24,201.38	
			505 - 594 35 60 010		Const - WWTP Lab/Ops Bldg	3,201.55	
			505 - 594 48 60 010		Const - PW Building	20,999.83	
1389	02/23/2022	Claims	2	197135	Central Welding Supply	162.50	
			001 - 522 21 31 000		Operating Supplies - Medical	162.50	
1390	02/23/2022	Claims	2	197136	Code Publishing LLC	893.07	
			001 - 511 30 34 000		Code Book	893.07	

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1391	02/23/2022	Claims	2	197137	Consolidated Electrical Dist., Inc.	27.02	
					103 - 542 30 31 000 - Operating Supplies	27.02	
1392	02/23/2022	Claims	2	197138	Cowling & Co. LLC	6,294.00	
					101 - 594 76 63 025 - Olmsted Park	6,294.00	
1393	02/23/2022	Claims	2	197139	Dahlstedt Family Properties, LLC	3,900.00	
					412 - 537 80 34 000 - Containers - Garbage	3,900.00	
1394	02/23/2022	Claims	2	197140	Dalco Inc	144.04	
					412 - 537 80 31 000 - Operating Supplies	144.04	
1395	02/23/2022	Claims	2	197141	E & E Lumber, Inc.	3,494.39	
					001 - 521 20 31 002 - Office/Operating Supplies	255.25	
					412 - 537 80 31 000 - Operating Supplies	79.86	
					412 - 537 80 31 000 - Operating Supplies	25.00	
					103 - 542 30 31 000 - Operating Supplies	4.78	
					103 - 542 30 31 000 - Operating Supplies	53.15	
					101 - 576 80 35 000 - Small Tools & Minor Equip	37.67	
					001 - 594 22 61 000 - Fire Station 2.75	1,794.63	
					001 - 594 22 61 000 - Fire Station 2.75	893.55	
					101 - 594 76 61 000 - Riverfront Park	350.50	
1396	02/23/2022	Claims	2	197142	Enterprise Office Systems, Inc.	23.06	
					001 - 514 23 31 000 - Supplies	23.06	
1397	02/23/2022	Claims	2	197143	Fastenal Company	769.54	
					412 - 537 80 31 000 - Operating Supplies	470.63	
					103 - 542 30 35 010 - Safety Equipment	298.91	
1398	02/23/2022	Claims	2	197144	Ferguson US Holdings, Inc	301.42	
					101 - 576 80 35 000 - Small Tools & Minor Equip	217.94	
					101 - 576 80 48 013 - Tesarik Park	83.48	
1399	02/23/2022	Claims	2	197145	Galls Parent Holdings, LLC	94.28	
					001 - 522 20 26 000 - Uniforms	94.28	
1400	02/23/2022	Claims	2	197146	Gear Guy, LLC	115.37	
					001 - 522 20 48 000 - Repairs/Maint-Equip	115.37	
1401	02/23/2022	Claims	2	197147	Generator Services NW, LLC	3,822.61	
					001 - 521 20 48 000 - Repairs & Maintenance	153.38	
					001 - 522 50 48 030 - Repair/Maint-Station	153.37	
					425 - 531 50 48 000 - Repairs/Maintenance	153.37	
					401 - 535 50 48 000 - Maintenance Contracts	2,359.16	
					101 - 576 80 48 016 - City Hall	153.37	
					101 - 576 80 48 026 - CS Library	849.96	
1402	02/23/2022	Claims	2	197148	Geo-Test Services, Inc.	2,805.80	
					505 - 594 35 60 010 - Const - WWTP Lab/Ops Bldg	1,402.90	
					505 - 594 48 60 010 - Const - PW Building	1,402.90	
1403	02/23/2022	Claims	2	197149	Gordon Truck Centers, Inc	10.66	
					103 - 542 30 48 010 - Repair/Maintenance-Equip	9.97	Unit 310
					103 - 542 30 48 010 - Repair/Maintenance-Equip	10.66	Unit 310
					103 - 542 30 48 010 - Repair/Maintenance-Equip	-9.97	Unit 310
1404	02/23/2022	Claims	2	197150	HD Fowler Co, Inc.	3,188.61	
					401 - 535 50 48 010 - Maintenance Of Lines	3,188.61	State St PS
1405	02/23/2022	Claims	2	197151	Home Depot Credit Services	1,245.26	
					103 - 542 30 35 000 - Small Tools/Minor Equip	486.84	
					103 - 542 30 35 000 - Small Tools/Minor Equip	758.42	

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1406	02/23/2022	Claims	2	197152	Ideal Rent All	671.98	
					401 - 535 50 48 010 - Maintenance Of Lines	671.98	State St PS
1407	02/23/2022	Claims	2	197153	Intoximeters Inc	250.32	
					001 - 594 21 64 000 - Machinery & Equipment	250.32	
1408	02/23/2022	Claims	2	197154	Ronald John	1,782.00	
					001 - 521 20 27 000 - Retired Medical	1,782.00	
1409	02/23/2022	Claims	2	197155	Kua, Mina	100.00	
					101 - 582 10 01 101 - Community Center Deposit Re	100.00	2-5-22 comm ctr
1410	02/23/2022	Claims	2	197156	The Language Exchange, Inc	1,007.00	
					001 - 512 50 41 040 - Language Interpreter	980.75	
					001 - 521 20 41 001 - Professional Services	26.25	
1411	02/23/2022	Claims	2	197157	Lenz Enterprises, Inc	531.31	
					412 - 537 60 47 021 - Curbside Yard Waste Disposal	531.31	Curbside yard waste
1412	02/23/2022	Claims	2	197158	Life Assist Inc.	80.82	
					001 - 522 21 31 000 - Operating Supplies - Medical	80.82	
1413	02/23/2022	Claims	2	197159	Loggers And Contractors	32.42	
					103 - 542 30 35 000 - Small Tools/Minor Equip	32.42	
1414	02/23/2022	Claims	2	197160	McLoughlin & Eardley Corp	5,613.02	
					501 - 594 21 64 501 - Vehicles - Police	4,704.53	
					501 - 594 22 64 501 - Vehicles - Fire	908.49	
1415	02/23/2022	Claims	2	197161	Municipal Emergency Services Inc	1,224.29	
					001 - 522 20 35 000 - Small Tools & Minor Equip	1,224.29	
1416	02/23/2022	Claims	2	197162	Walter E Nelson Co. of N. WA	1,125.25	
					101 - 576 80 31 006 - Operating Sup - City Hall	881.61	
					101 - 576 80 48 013 - Tesarik Park	243.64	
1417	02/23/2022	Claims	2	197163	NCL of WI, dba North Central Labs	1,437.28	
					401 - 535 80 31 010 - Operating Supplies	1,437.28	
1418	02/23/2022	Claims	2	197164	North Hill Resources Inc	255.21	
					102 - 536 20 48 030 - Repair/Maintenance-Land	255.21	
1419	02/23/2022	Claims	2	197165	Northwind Fence Company	3,790.50	
					102 - 594 36 61 050 - Northern State Cemetery Capit	3,790.50	
1420	02/23/2022	Claims	2	197166	Oliver-Hammer, Inc	282.06	
					102 - 536 20 35 010 - Safety Equipment	216.96	
					102 - 536 20 35 010 - Safety Equipment	65.10	
1421	02/23/2022	Claims	2	197167	Pacific Trade Sys, Inc,	78.35	
					103 - 542 64 31 002 - Traffic Control Devices	78.35	
1422	02/23/2022	Claims	2	197168	Peters Towing LLC	135.63	
					001 - 521 20 41 001 - Professional Services	135.63	
1423	02/23/2022	Claims	2	197169	Harold Pittman	891.00	
					001 - 521 20 27 000 - Retired Medical	891.00	
1424	02/23/2022	Claims	2	197170	Reichhardt & Ebe	461.29	
					104 - 595 10 63 080 - Eng-Jones/John Liner/Trail	461.29	
1425	02/23/2022	Claims	2	197171	Return Solutions, Inc.	110.00	
					001 - 522 21 31 000 - Operating Supplies - Medical	110.00	
1426	02/23/2022	Claims	2	197172	Rick's Refrigeration Inc	288.00	

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			412 - 537 60 47 011		- Site Recycling Disposal	288.00	Site Recycle - Refrigerators
1427	02/23/2022	Claims	2	197173	Ricoh USA, Inc	1,046.90	
			001 - 518 80 49 000		- Software Maint & Support	1,046.90	
1428	02/23/2022	Claims	2	197174	Ricoh USA, Inc	231.30	
			001 - 514 23 45 000		- Operating Rentals/Leases	231.30	
1429	02/23/2022	Claims	2	197175	Ronk Brothers Inc	823.32	
			101 - 576 80 48 005		- Senior Center	274.98	
			101 - 576 80 48 016		- City Hall	548.34	
1430	02/23/2022	Claims	2	197176	San Diego Police Equip Co. Inc.	4,295.28	
			001 - 521 20 31 015		- Ammunition	4,295.28	
1431	02/23/2022	Claims	2	197177	Sedgwick Claims	2,508.41	
			001 - 511 60 21 001		- Industrial Insurance	3.88	
			001 - 512 50 21 001		- Industrial Insurance	6.25	
			001 - 513 10 21 001		- Industrial Insurance	5.13	
			001 - 514 23 21 001		- Industrial Insurance	8.76	
			001 - 518 80 21 001		- Industrial Insurance	10.63	
			001 - 521 10 21 001		- Industrial Insurance	58.16	
			001 - 521 20 21 001		- Industrial Insurance	500.32	
			001 - 522 20 21 001		- Industrial Insurance	534.72	
			001 - 522 21 21 001		- Industrial Insurance	312.70	
			001 - 523 20 21 001		- Industrial Insurance	18.76	
			001 - 524 20 21 001		- Industrial Insurance	37.52	
			425 - 531 50 21 001		- Industrial Insurance	143.84	
			401 - 535 80 21 001		- Industrial Insurance	308.95	
			102 - 536 20 21 001		- Industrial Insurance	41.28	
			412 - 537 80 21 001		- Industrial Insurance	210.13	
			103 - 542 30 21 001		- Industrial Insurance	115.07	
			103 - 543 30 21 001		- Industrial Insurance	1.06	
			501 - 548 30 21 001		- Industrial Insurance	22.01	
			001 - 558 60 21 001		- Industrial Insurance	6.63	
			101 - 576 80 21 001		- Industrial Insurance	137.59	
			001 - 595 10 21 001		- Industrial Insurance	25.02	
1432	02/23/2022	Claims	2	197178	Sedro-Woolley Auto Parts Inc	680.62	
			001 - 518 20 48 000		- Repair & Maintenance	22.35	
			001 - 521 20 48 010		- Repair & Maint - Auto	7.91	
			401 - 535 50 48 040		- Maintenance Of Vehicles	97.21	
			401 - 535 50 48 040		- Maintenance Of Vehicles	26.63	Unit 416
			401 - 535 50 48 040		- Maintenance Of Vehicles	104.21	Unit 416
			401 - 535 50 48 040		- Maintenance Of Vehicles	50.29	Unit 410
			412 - 537 80 31 000		- Operating Supplies	4.33	Op supply
			412 - 537 80 31 000		- Operating Supplies	17.57	Op supply
			412 - 537 80 35 000		- Small Tools & Minor Equip	17.47	Small tools
			103 - 542 30 48 010		- Repair/Maintenance-Equip	72.43	Unit 325
			103 - 542 30 48 010		- Repair/Maintenance-Equip	71.75	Unit 325
			501 - 548 30 31 000		- Operating Supplies	91.16	Fleet fuel treatment
			101 - 576 80 48 021		- Equipment	60.78	
			101 - 576 80 48 025		- Olmsted Park	36.53	Unit 133
1433	02/23/2022	Claims	2	197179	Sedro-Woolley Volunteer	14,872.50	
			001 - 522 20 11 010		- Salaries-Volunteers	14,872.50	
1434	02/23/2022	Claims	2	197180	Semrau Engineering & Surveying	4,614.50	
			104 - 595 10 63 077		- Eng-SR20 Cascade Trail Phase	4,614.50	
1435	02/23/2022	Claims	2	197181	Skagit 911	986.41	
			001 - 522 20 41 020		- Central Dispatch-911	986.41	

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1436	02/23/2022	Claims	2	197182	Skagit Cnty Information Svcs	5,487.25	
					001 - 521 20 41 050 - Spillman System	5,487.25	
1437	02/23/2022	Claims	2	197183	Skagit Cnty Public Health	954.71	
					001 - 566 00 41 000 - Skagit Co Public Health-2% Lic	884.71	
					101 - 576 80 49 030 - Misc-Permits & Licenses	70.00	
1438	02/23/2022	Claims	2	197184	Skagit Cnty Treasurer	81.13	
					635 - 589 30 05 635 - County Crime Victim Witness F	81.13	
1439	02/23/2022	Claims	2	197185	Skagit Conservation District	650.21	
					425 - 531 50 41 000 - Professional Services	650.21	
1440	02/23/2022	Claims	2	197186	Skagit Farmers Supply	28.23	
					101 - 576 80 35 000 - Small Tools & Minor Equip	28.23	
1441	02/23/2022	Claims	2	197187	PNG Media LLC, dba Skagit Publishing	435.78	
					001 - 558 60 41 011 - Advertising Reimbuseable	102.22	
					001 - 558 60 41 011 - Advertising Reimbuseable	134.50	
					001 - 558 60 41 011 - Advertising Reimbuseable	199.06	
1442	02/23/2022	Claims	2	197188	Springbrook Holding Company LLC	27,971.71	
					001 - 512 50 41 000 - Professional Services	199.82	
					001 - 513 10 41 000 - Negotiations	399.64	
					001 - 514 23 41 011 - Professional Services	1,298.84	
					001 - 514 23 41 011 - Professional Services	10,187.64	
					001 - 518 80 41 000 - Professional Services	399.64	
					001 - 521 20 41 001 - Professional Services	3,796.60	
					001 - 521 20 41 001 - Professional Services	999.11	
					001 - 522 20 41 000 - Professional Services	1,099.02	
					001 - 522 21 41 000 - EMS Professional Services-Sys	1,798.39	
					001 - 524 20 41 000 - Professional Services	383.00	
					425 - 531 50 41 000 - Professional Services	641.43	
					401 - 535 80 41 000 - Professional Services	1,986.22	
					102 - 536 20 41 000 - Professional Services	143.87	
					412 - 537 80 41 000 - Professional Services	1,640.53	
					103 - 542 30 41 000 - Professional Services	593.47	
					501 - 548 30 41 000 - Professional Services	249.77	
					001 - 558 60 41 000 - Professional Services	378.24	
					101 - 576 80 41 000 - Professional Services	1,234.89	
					001 - 595 10 41 000 - Professional Services	541.59	
1443	02/23/2022	Claims	2	197189	Springbrook Nat'l User Group	650.00	
					001 - 514 23 49 030 - Misc-Tuition/Registration	650.00	
1444	02/23/2022	Claims	2	197190	State Auditor's Office	1,381.59	
					001 - 514 23 41 000 - State Auditing	1,381.59	
1445	02/23/2022	Claims	2	197191	Stericycle	31.08	
					001 - 521 20 41 001 - Professional Services	10.36	
					001 - 521 20 41 001 - Professional Services	20.72	
1446	02/23/2022	Claims	2	197192	Streuli Public Affairs LLC	2,000.00	
					001 - 513 10 41 005 - Professional Services-Lobbyist	2,000.00	
1447	02/23/2022	Claims	2	197193	Suburban Propane, LP	48.87	
					102 - 536 20 32 001 - Propane	48.87	
1448	02/23/2022	Claims	2	197194	Systems Design West, LLC	3,441.40	
					001 - 522 21 41 000 - EMS Professional Services-Sys	3,441.40	
1449	02/23/2022	Claims	2	197195	Teleflex LLC	677.50	
					001 - 522 21 31 000 - Operating Supplies, Medical	677.50	

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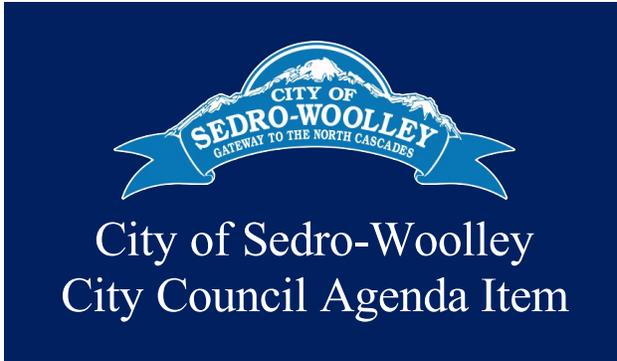
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1450	02/23/2022	Claims	2	197196	Truck Toys Inc	345.94	
					103 - 542 30 48 010 - Repair/Maintenance-Equip	345.94	Unit 322
1451	02/23/2022	Claims	2	197197	HD Supp Facil. Maint, dba USA Blue Book	342.85	
					401 - 535 50 48 050 - Maint Of General Equip	526.32	
					401 - 594 35 64 001 - Portable Equipment	-910.56	
					401 - 594 35 64 001 - Portable Equipment	727.09	
1452	02/23/2022	Claims	2	197198	UniFirst Corp.	301.62	
					001 - 522 20 26 000 - Uniforms	301.62	
1453	02/23/2022	Claims	2	197199	United Parcel Service, Inc.	15.36	
					001 - 522 20 42 010 - Postage	15.36	
1454	02/23/2022	Claims	2	197200	Universal Field Services, Inc.	90.96	
					104 - 595 20 63 082 - RW Trail Road Extension	90.96	
1455	02/23/2022	Claims	2	197201	Util Underground Loc Ctr	280.28	
					401 - 535 80 41 000 - Professional Services	280.28	
1456	02/23/2022	Claims	2	197202	WA Assoc Of Sheriffs &	245.00	
					001 - 521 20 49 010 - Dues/Subscriptions	245.00	
1457	02/23/2022	Claims	2	197203	WA Cities Insurance Authority	140.00	
					001 - 558 60 49 030 - Tuition/Registration	70.00	
					001 - 558 60 49 030 - Tuition/Registration	70.00	
1458	02/23/2022	Claims	2	197204	WA St Dept of Ecology	2,920.28	
					401 - 535 80 41 060 - DOE Discharge Permit	2,920.28	
1459	02/23/2022	Claims	2	197205	WA St Off of Treasurer	4,616.41	
					635 - 389 30 04 635 - State Surcharge/Building Code	-26.00	
					635 - 586 30 00 635 - State Court Fees Remittance	4,590.41	
1460	02/23/2022	Claims	2	197206	WA St Patrol	103.75	
					001 - 521 20 41 040 - Intergov Svc-Gun Permits	92.75	
					001 - 521 20 41 040 - Intergov Svc-Gun Permits	11.00	
1461	02/23/2022	Claims	2	197207	Weed, Graafstra & Assoc. Inc. PS	15,795.42	
					001 - 515 41 41 000 - Ext Legal-City Attorney	4,100.00	
					001 - 515 41 41 000 - Ext Legal-City Attorney	8,700.00	
					001 - 515 45 41 000 - Ext Legal-Litigation	2,995.42	
1462	02/23/2022	Claims	2	197208	Wesmar Company, Inc	5,991.37	
					401 - 535 80 35 020 - Solids Handling	5,991.37	
1463	02/23/2022	Claims	2	197209	Woods Acquisition Corp	60.32	
					401 - 535 80 31 010 - Operating Supplies	60.32	
1464	02/23/2022	Claims	2	197210	World Kinect Energy Services, dba	6,799.40	
					001 - 518 20 32 000 - Auto Fuel	43.57	
					001 - 518 20 32 000 - Auto Fuel	83.09	
					001 - 521 20 32 000 - Auto Fuel	2,991.61	
					001 - 522 20 32 000 - Auto Fuel/Diesel	1,739.01	
					425 - 531 50 32 000 - Vehicle Fuel	135.86	
					425 - 531 50 32 000 - Vehicle Fuel	106.86	
					401 - 535 80 32 000 - Auto Fuel/Diesel	141.33	
					412 - 537 80 32 000 - Auto Fuel/Diesel	691.68	
					412 - 537 80 32 000 - Auto Fuel/Diesel	46.23	Unit 525 during snow
					103 - 542 30 32 000 - Auto Fuel/Diesel	57.35	
					103 - 542 30 32 000 - Auto Fuel/Diesel	262.97	
					101 - 576 80 32 000 - Auto Fuel/Diesel	499.84	



Agenda
Item No. _____
Date: February 23, 2022
Subject: Resolution 1086-22, Terminating the
Local Emergency Declared in Response
to the COVID-19 Pandemic

FROM:

Charlie Bush, City Administrator

RECOMMENDED ACTION:

Approval of Resolution 1086-22.

ISSUE:

Should the City Council support the recommendation of the administration to terminate the local emergency declared in response to the COVID-19 pandemic?

BACKGROUND/SUMMARY INFORMATION:

On March 16, 2020, the Office of the Mayor issued an Emergency Proclamation for the City of Sedro-Woolley which declared a State of Emergency arising from the COVID-19 outbreak and authorized the utilization of emergency powers granted under Sedro-Woolley Municipal Code (SWMC) Chapter 2.40 and Revised Code of Washington (RCW) Chapter 38.52, and other relevant provisions of state and federal law. Since that date, significant state and federal measures were put in place to further manage the pandemic, and subsequently many were relaxed.

At this time, a local emergency declaration and emergency response posture in Sedro-Woolley is no longer needed, and is in fact duplicative of the state and federal response measures and structures, which are more than adequate to respond to the crisis at this stage, which is and rightly should be focused on the economic, social, and cultural recovery of the Sedro-Woolley region.

FISCAL IMPACT, IF APPROPRIATE:

N/A

ATTACHMENTS:

1. Resolution 1086-22

RESOLUTION NO. 1086-22

A RESOLUTION OF THE CITY OF SEDRO-WOOLLEY, WASHINGTON, TERMINATING THE LOCAL EMERGENCY DECLARED IN RESPONSE TO THE COVID-19 PANDEMIC BY RESCINDING RESOLUTION 1048-20 DATED MARCH 25, 2020 AND TERMINATING THE OFFICE OF THE MAYOR EMERGENCY PROCLAMATION DATED MARCH 16, 2020

WHEREAS, on February 29, 2020, Governor Jay Inslee declared a state of emergency in response to the new cases of COVID-19 in Washington State; and,

WHEREAS, on March 16, 2020, the Office of the Mayor issued an Emergency Proclamation for the City of Sedro-Woolley which declared a State of Emergency arising from the COVID-19 outbreak and authorized the utilization of emergency powers granted under Sedro-Woolley Municipal Code (SWMC) Chapter 2.40 and Revised Code of Washington (RCW) Chapter 38.52, and other relevant provisions of state and federal law; and,

WHEREAS, Governor Inslee issued Proclamation 20-28 on March 24, 2020, which prohibited in-person gatherings for public meetings, which has since been amended multiple times, and as a result of which the City of Sedro-Woolley City Council and all City of Sedro-Woolley appointed boards, commissions and committees have accommodated virtual meeting technology, which has allowed greater citizen participation in the meetings; and,

WHEREAS, on March 25, 2020, at a Special Meeting of the City Council, the City Council adopted Resolution No. 1048-20 which ratified the Proclamation of Emergency issued by the Mayor and temporarily amended the City Council procedures to facilitate social distancing standards; and,

WHEREAS, Section 2.40.030 (D) of the SWMC states that “The council or officer issuing a declaration of civil emergency shall terminate the declaration of civil emergency when order has been restored or the circumstances of the emergency have passed”; and,

WHEREAS, on June 30, 2021, Governor Inslee removed all restrictions on capacity and physical distancing for public meetings, while retaining the face covering requirements as outlined in Proclamation 20-25, et seq., Secretary of Health Order 20-03.2, and LNI Publication F414-179; and,

WHEREAS, on July 1, 2021, Governor Inslee issued Proclamation No. 20-25.14, “Washington Ready,” which, in part, recognizes that “data reflect that the number and percent of vaccinated Washington residents continue to increase, while the number of new COVID-19 cases, hospitalizations, and deaths are decreasing,” and the Governor thereby ordered that movement, occupancy, and face-covering restrictions be modified as set forth in Proclamation No. 20-25.14; and,

WHEREAS, a local emergency declaration and emergency response posture in Sedro-Woolley is no longer needed, and is in fact duplicative of the state and federal response measures and

structures, which are more than adequate to respond to the crisis at this stage, which is and rightly should be focused on the economic, social, and cultural recovery of the Sedro-Woolley region;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Sedro-Woolley, Washington, as follows:

Section 1. The Emergency Previously Proclaimed No Longer Exists. Based on changing circumstances and improving conditions in Sedro-Woolley, Skagit County, and more broadly related to the COVID-19 pandemic, the emergency, as defined in Chapter 38.52 RCW, RCW 43.06.010 (12), RCW 39.04.280 (3), and Chapter 2.40 SWMC, or imminent threat of such an emergency, that existed as described in Resolution No. 1048-20, no longer exists within the City of Sedro-Woolley, and therefore Resolution No. 1048-20 to ratify the Emergency Declaration by Mayor Julia Johnson on March 16, 2020, and to temporarily amend City Council procedures to facilitate social distancing standards, is hereby rescinded, except for those provisions which allow for virtual meeting participation, as below described.

Section 2. Termination of the Proclamation of Emergency. The Proclamation of Emergency issued by the Mayor on March 16, 2020, which was ratified and confirmed on March 25, 2020 by the City Council through Resolution No. 1048-20, is hereby terminated by the rescinding of Resolution No. 1048-20 as above described.

Section 3. Continued implementation of virtual meeting technology. Subject to any state law restrictions or conditions, all City of Sedro-Woolley boards, commissions, and committees, in addition to holding in-person meetings open to the public, will also offer members of the public the option of virtually attending the meetings by no later than _____, 2022. Board, commission and committee members may also attend virtually.

Section 4. No impact to the use of American Rescue Plan Act funds. The rescinding of Resolution No. 1048-20 and the ending of the local state of emergency declarations is not intended to have any impact on the use of the funds awarded to the City of Sedro-Woolley by the American Rescue Plan Act. The use of the funds is governed by federal and state laws which are not impacted by the lack of a state of local emergency.

PASSED AND ADOPTED by the City Council of the City of Sedro-Woolley, State of Washington, on this ___ day of ____, 2022.

Julia Johnson, Mayor

ATTEST:

Debbie Burton, Finance Director

APPROVED AS TO FORM:

Nikki Thompson, City Attorney

RESOLUTION NO. 1087-22

**A RESOLUTION AFFECTING CITY COUNCIL GOVERNANCE HANDBOOK
REVISION**

WHEREAS, the City Council adopted Resolution 546 on May 23, 1994 which established City Council meeting procedures; and

WHEREAS, the City Council repealed and replaced its original meeting procedures with the City Council Governance Handbook through action on September 13, 2017; and

WHEREAS, the City Council made further revisions through resolutions 978-18 and 1023-19; and

WHEREAS, the City Council approved a motion at its January 5, 2022 City Council Study Session to appoint a Mayor Pro Temp annually;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Sedro-Woolley further updates the City Council Governance Handbook to reflect the impact of its January 5, 2022 action in its City Council Governance Handbook.

PASSED by majority vote of the members of the Sedro-Woolley City Council this 22nd day of February, 2022 and signed in authentication of its passage this 24th day of February, 2022.

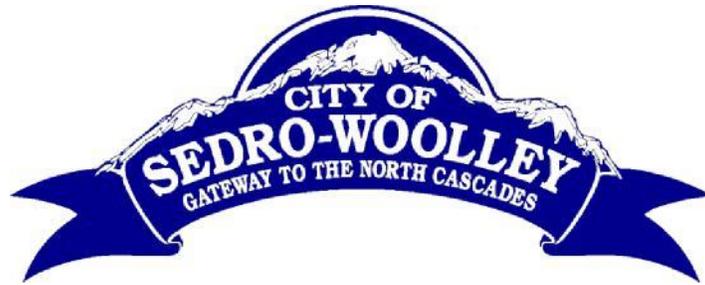
Julia Johnson, Mayor

Attest:

Debbie Burton, Finance Director

Approved as to form:

Nikki Thompson, City Attorney



City Council Governance Handbook

**Adopted by Resolution 972-17
A Comprehensive Collection of
Rules and Procedures for
the City Council**

**Adopted September 13th, 2017
Updated February 23, 2022**

Resolution 546 adopted 5-23-1994, repealed and replaced by
Resolution 972-17 adopted 9-13-2017, amended by Resolutions 978-18, 980-18, 1023-19, and
1087-22

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CHAPTER 1 Council Meetings



A. General

1. Council Meetings - Time and Location

Unless otherwise specified in a meeting notice, regular meetings of the City Council shall be held at the Sedro-Woolley Municipal Building, Council Chambers on the second and fourth Wednesdays beginning at 7:00 p.m. The City Council also meets on the first Wednesday at the Sedro-Woolley Fire Department Training Room beginning at 7:00 p.m. for a study session meeting. There are no regularly scheduled study session meetings in the months of June, July and August. Pursuant to RCW 42.30.070, Open Public Meetings Act, “if at any time any regular meeting falls on a holiday, such regular meeting shall be held on the next business day.” SWMC 2.04.010 provides more detail on meetings in Novembers and Decembers as follows, “The city council shall hold regular meetings at seven p.m. on the first, second and fourth Wednesday of each month throughout the year, but whenever a regular meeting falls on a legal holiday now or hereafter designated as such by the laws of the state of Washington, such meeting shall be held at seven p.m. of the first day following which is not itself a legal holiday; and provided, that the meeting immediately before the Thanksgiving holiday each year shall be held on the Tuesday before Thanksgiving rather than the fourth Wednesday; and provided further, that no meeting is scheduled for the fourth Wednesday in December.”

2. Council Meetings - Open to the Public

All meetings of the City Council shall be open to the public, except as provided for in RCW 42.30.110¹ (Executive Sessions), or RCW 42.30.140² (Open Public Meetings Act). Councilmembers will notify appropriate staff of Councilmember’s plans to attend any of the various outside public meetings hosted by other organizations or agencies, or City meetings hosted by various City Departments, so that notice may be published concerning such attendance in order not to risk any real or perceived violation of the Open Public Meetings Act.

3. Presiding Officer

The Mayor shall preside at meetings of the Council. In case of the Mayor’s absence or temporary disability, the Mayor Pro Tempore shall act as Mayor during the continuance of the absence. In case of the absence or temporary inability of the Mayor and Mayor Pro Tempore, an acting Mayor Pro Tempore selected by majority vote of the remaining members of the Council, shall act as Mayor during the continuance of the absences [RCW 35A.13.035³]. The Mayor, Mayor Pro Tempore (in the Mayor’s absence) or acting Mayor Pro Tem are referred to as “Presiding Officer” from time to time in these Rules of Procedure.

B. Types of Meetings

1. Regular Meeting

The city council shall hold regular meetings at seven p.m. on the first, second and fourth Wednesday of each month throughout the year, but whenever a regular meeting falls on a legal holiday now or hereafter designated as such by the laws of the state of Washington, such meeting shall be held at seven p.m. of the first day following which is not itself a legal holiday; and provided, that the meeting immediately before the Thanksgiving holiday each year shall be held on the fourth Tuesday of November rather than the fourth Wednesday; and provided further, that fourth Wednesday meeting in December is cancelled as detailed in SWMC 2.04.010.

a. Formal Format

1. Normally held 2nd and 4th Wednesdays. The City Supervisor in consultation with the Mayor, shall arrange a list of proposed matters according to the order of business and prepare an agenda for the Council. On or before close of business on a Friday preceding a Wednesday Council meeting, or at the close of business at least 24 hours preceding a special Council meeting, a copy of the agenda and supporting materials shall be prepared for Councilmembers, appropriate staff, and the media who have filed a notification request. Agendas may be amended as required, and expeditiously distributed to Council and appropriate staff.

2. Requests from outside entities or individuals for presentations to be scheduled on any Council agenda imply that the presentation is the official business of the City, and such requests should be submitted to the City Supervisor at least ten days prior to the appropriate Council meeting. The City Supervisor and the Mayor will make a determination of whether the matter is an administrative issue, and whether it should be placed on an upcoming Council agenda. Playing of video tapes, DVD's, PowerPoints, or other electronic presentations shall be pre-screened and pre-approved by the Mayor or City Supervisor who shall determine the appropriateness of the material. In the event the presenter has no PowerPoint or other material to submit prior to the meeting, the presenter shall be requested to provide a brief written summary of the topic and items to be discussed. All written materials, including the written summary, must be submitted to the City Clerk at least ten days prior to the appropriate Council meeting.

3. Forms of Address. Everyone in attendance at a formal format meeting, including all members of Council, are to address the Mayor as "Mayor (surname)." The Mayor Pro Tempore, when acting in that capacity, shall be addressed as "Mayor Pro Tempore (surname)." Everyone in attendance at a formal format meeting, including Members of the Council as they address each other, shall be addressed as "Councilmember (surname)."

4. Order of Business. The business of all regular formal meetings of the Council shall be transacted as follows, provided, however, that the Presiding Officer may, during a Council meeting, rearrange items on the agenda to conduct Council business more expeditiously, without the necessity of a formal action or motion. However, adding or removing items from the agenda once a meeting has been called to order requires Council to make a motion and vote on approving the "amended agenda."

a. Call to Order by the Presiding Officer.

b. Pledge of Allegiance.

c. Roll Call. (See Chapter 1, C3 [page 13] for procedure to excuse an absence)

d. Approval of Agenda. In case of an emergency or an extremely time-sensitive issue which neither the administration nor the entire Council was aware of prior to the distribution of the agenda and accompanying materials, a new item may be introduced by the Presiding Officer, by a concurrence of at least three Councilmembers, or by the City Supervisor and suggested as an amended agenda item for the present meeting. If a new item(s) is added, Council will then consider a motion to approve the amended agenda. ("Three-Touch Principle" should be followed whenever possible.)

e. Consent Agenda.

1. Items which may be placed on the Consent Agenda are those which: (1) have been previously discussed by the Council; (2) based on the information delivered to members of the Council by administration can be reviewed by a Councilmember without further explanation; (3) are so routine, technical or nonsubstantive in nature that passage without discussion is likely; or (4) otherwise deemed in the best interest of the City.

2. The proper Council motion on the Consent Agenda is: "I move approval of the Consent Agenda." This motion will have the effect of moving to approve all items on the Consent Agenda. Since approval of any item on the Consent Agenda implies unanimous consent, any member of the Council shall have the right to remove any item from the Consent Agenda. Therefore, prior to the vote on the motion to approve the Consent Agenda, the Presiding Officer shall inquire if any Councilmember wishes an item to be withdrawn from the Consent Agenda. If any matter is withdrawn, the Presiding Officer shall place the item at an appropriate place on the agenda for the current or a future meeting, including addressing the issue immediately after passage of the remaining items on the Consent Agenda.

f. Introduction of Special Guests and Presentations.

g. Staff Reports.

. *Councilmember and Mayor's Reports.* Council or government-related activities (e.g. synopsis of committee, commission, task force or other board meetings). These verbal reports are intended to be brief, city work-related reports of significance in keeping the Council informed of pertinent policy issues or events stemming from their representation of the City on a regional board, committee, task force or commission, whether as a formal member or as a liaison. Extended reports shall be placed as future agenda items for presentation or submitted in writing as an informational memo.

h. Proclamation(s).

i. Public Comments.

1. An opportunity for public comments on subjects not on the agenda for action (as well as comments connected with action items) are limited to three minutes each unless modified by the Presiding Officer. Although the City Council desires to allow the opportunity for public comment, the business of the City must proceed in an orderly, timely manner. At any time the Presiding Officer, in the Presiding Officer's sole discretion, may set such reasonable limits as are necessary to prevent disruption or undue delay of other necessary business.

a. *Subjects Not on the Current Agenda.* Although it is not necessary for members of the public to sign in to speak, the Presiding Officer may invoke a sign-in procedure for speakers. Any member of the public may request time to address the Council. Speakers shall state their name and address, and the subject of their comments, and spell their last name for the record. The Presiding Officer may allow the verbal comments subject to such time limitations as the Presiding Officer deems necessary. Following such verbal comments, the Presiding Officer may place the matter on a future agenda, or refer the matter to administration for investigation and/or report. The Presiding Officer may ask Council or Staff to address factual issues raised by public comments, if appropriate.

b. *Subjects on the Current Agenda, "1st Reading".* Any member of the public who wishes to verbally address the Council on an item on the current agenda listed as a "1st reading", shall proceed to the podium at the time when comments from the public are invited during the agenda item discussion. The Council may hear such comments before or after initial Council discussion. The Presiding Officer may also invoke a sign-in procedure. If necessary the Presiding Officer in consultation with the City Attorney shall rule on the appropriateness of verbal public comments as the agenda item is reached. The Presiding Officer may change the order of speakers so that comment is heard in the most logical groupings.

c. *Comments shall only be made from the podium microphone, first giving name, city of residence and subject. No comments shall be made from any other location, and anyone making "out of order" comments shall be subject to removal from the meeting. The public shall be reminded that a Council meeting is a business meeting of the city and is not intended as a public forum and this is not an opportunity for dialogue or questions and answers, but public comment. When appropriate, staff will research issues and report back to those making*

the comment as well as to Council. Verbal public comments are opportunities for speakers to briefly address Council, and those speaking are to address members of Council and not the audience. Since this is an opportunity for verbal public comment, in the interest of time and keeping in mind all documents submitted during Council meetings become the property of the City, graphs, charts, posterboards, PowerPoint presentations, or other display materials will not be allowed, although written comments and written materials including photographs and petitions, may be submitted to Council via the City Clerk.

d. Demonstration, applause or other audience participation before, during or at the conclusion of anyone's presentation is prohibited. Any disruptive behavior, as determined by the Presiding Officer, shall be cause for removal from the meeting room.

e. Any ruling by the Presiding Officer relative to the subsections 1 and 2 above may be overruled by a vote of a majority of Councilmembers present.

f. Council shall not permit public comments if they relate to any matter upon which a quasi-judicial hearing has been required, scheduled, or held. (See Chapter 4 for procedure for taking public comment on legislative matters.) Unless solicited and scheduled, comments shall not be permitted relative to any future or possible/probable future ballot issue. (See Chapter 2, E Ballot Measures for further direction concerning ballot measures.)

g. Public comments will not typically be allowed for items on the consent agenda and items on the agenda for a "2nd reading".

h. Consistent with RCW 42.17A.555, no public comments will be allowed regarding support for or opposition to political campaigns, candidates or elections other than for Ballot Measures as addressed in Chapter 2.

2. Written Public Comments. Citizens have the option of submitting written views, opinions, comments, data and arguments to Council on any topic and at any time, not just prior to or during public Council meetings. Unless the citizen reads their own prepared written comments, such comments will not be read aloud during regular or special Council meetings although they will be included as part of the public record on the topic and if appropriate, may be publicly acknowledged. Any written comments submitted to Council via the City Clerk will be distributed to Council by placing copies at each Councilmember's seat at the dais; or in the case of e-mailed or other electronic comments, will be forwarded to Council via e-mail. If individual Councilmembers receive written (including electronic) public comments or materials for the purpose of reading/sharing those materials during Council meetings, those materials should be submitted to the City Clerk prior to the Council meeting so the Clerk can make copies for later distribution to members of Council. (See No. 6 above and Chapter 2, Ballot Measures; see also Public Hearings section regarding public comments.) Written comments should clearly state that they are intended for the full council to ensure inclusion in a council packet.

Councilmembers will avoid accessing any electronic message during Council meetings. Accessing such communication could be construed as receiving public comment without the benefit of having the citizen in person to address their concerns.

k. Public Hearings. (See Chapter 4 for procedural details)

l. Unfinished Business [includes matters that were pending when a previous meeting adjourned, or matters specifically postponed to the present meeting.]

m. New Business. [Action items are designated as New Business]

n. Information Only Items. These items will generally not be discussed or reported.

o. Good of the Order. Last call from Council and Staff for items to be discussed.

p. Executive Session (as required). (See Chapter 1, section B1c below)

q. Adjournment. No Council meeting should be permitted to continue beyond approximately 9:00 p.m. without approval of a majority of the Councilmembers present. A new time limit shall be established before taking a Council vote to extend the meeting.

When a motion is made to adjourn into Executive Session for a specified period of time, no additional motion is needed to extend the meeting beyond 9:00 p.m. since that is implied as part of the motion to adjourn into Executive Session.

In the event that a meeting has not been closed or continued by Council as herein specified, the items not acted on shall be deferred to the next regular formal Council meeting, unless the Council by a majority vote of members present determines otherwise.

b. Study Session Format

1. Normally held the 1st Wednesday. The purpose of the study session format is to allow Councilmembers to be made aware of impending business and allow informal discussion of issues that might be acted on at a future meeting. Council preference is that action items should not be included on a study session agenda, but there may be times when, due to deadlines or other pertinent issues, action items must be included. Study sessions shall be in a less formal setting than regular formal meetings. Council may be seated other than at the dais, but shall not discourage public observation. Unless there are designated action items which permit public comment, there will be no public comment at study sessions although the Council may request staff or other participation in the same manner as a regular formal Council meeting. The City Supervisor, under the direction of the Mayor, shall arrange a Council study session agenda for the meeting. For each item, the agenda shall contain the discussion subject, the discussion leader, the activity and the discussion goal. A copy of the agenda and accompanying background materials shall be prepared for Councilmembers, appropriate staff and the press, on or before 4:30 p.m., one day before the meeting. Councilmembers have the option of accessing their Council packet via the City's website. During a Council meeting, the Presiding Officer may rearrange items on the agenda to conduct Council business more expeditiously without the necessity of a formal action or motion. However, adding or removing items from the agenda once a meeting has been called to order requires Council to make a motion and vote on approving the "amended agenda."

a. *Voting.*

1. Action Items on the Agenda. Although action items may occasionally be included on a study session agenda, it is the practice of Council to keep those instances to a minimum. Because a study session is a recognized meeting according to the "Open Public Meetings Act," it is permissible for Council to take final action during these meetings.

2. Non-action Items on the Agenda. Because study sessions are usually understood by the public and media as referring to meetings at which Council will only consider and discuss items and not take final action or vote, voting or making a motion when neither is included on an agenda does not violate state law, but for consistency sake and to avoid any surprises to the public and media, the practice is discouraged.

2. Discussion Leader's Role. During the Council study session, the discussion leader should introduce the subject and give background information, identify the discussion goal, act as facilitator to keep the discussion focused toward the goal, and alert the Presiding Officer when it is appropriate, to schedule the topic for a motion or official direction of the Council.

3. The role of the Presiding Officer is to facilitate Councilmembers engaged in free flowing discussion without the necessity of each Councilmember being recognized by the Presiding Officer. The Presiding Officer retains the option of assuming the function of the discussion leader at any time in order to maintain decorum and ensure all Councilmembers have the opportunity to be heard, and to keep the discussion properly focused.

4. Requests from outside entities or individuals for presentations to be scheduled on any Council agenda imply that the presentation is the official business of the City, and such requests should be submitted to the City Clerk at least ten days prior to the appropriate Council meeting. The City Clerk will consult with the City Supervisor and the Mayor for a determination of whether the matter is an administrative issue, and whether it should be placed on an upcoming Council agenda. Playing of video tapes, DVD's, PowerPoints, or

other electronic presentations shall be pre-screened and pre-approved by the City Supervisor who shall determine the appropriateness of the material. In the event the presenter has no PowerPoint or other material to submit prior to the meeting, the presenter shall be requested to provide a brief written summary of the topic and items to be discussed. All written materials, including the written summary, must be submitted to the City Clerk at least ten days prior to the appropriate Council meeting.

5. Council Comments. The purpose of this agenda item is to allow Councilmembers an opportunity to report on an activity or key issue which either just arose, needs immediate or imminent action, or to simply report on something in connection with their role as a Councilmember that transpired since the last Council meeting. It is also an opportunity for Councilmembers to bring up topics for clarification, or to address other upcoming concerns. Pre-scheduled materials Council wishes to share as part of the Council packet, could also be included on study session agendas under “Council Comments.”

6. City Supervisor Comments. The purpose of this agenda item is to allow the City Supervisor the opportunity to brief Council on an activity or issue which either just arose, needs immediate or imminent action, or to simply inform Council of items that transpired since the last Council meeting.

7. Forms of Address. Councilmembers and staff have the option of addressing each other on a first name basis during the study session format meetings.

c. Executive Sessions

1. If Council holds an executive session, it will be held in accordance with the Open Public Meetings Act, RCW Chapter 42.30. The Council may hold an executive session during a regular or special meeting. Before convening in executive session, the Presiding Officer shall publicly announce the purpose for adjourning into executive session; the approximate length of time for the executive session; and the likelihood of Council taking action at the close of the executive session and return to open session.

a. At the close of the executive session and upon Council’s return to chambers, the Presiding Officer will declare Council out of executive session, and will ask for the appropriate motion (i.e. an action motion or a motion to adjourn).

b. To protect the best interests of the City, Councilmembers shall keep confidential all verbal and written information provided during executive sessions. Confidentiality also includes information provided to Councilmembers outside of executive sessions when the information is considered exempt from disclosure under the Code of Ethics for Municipal Officers (RCW 42.52⁴) and/or the Public Records Act (RCW 42.56⁵). See also, Washington AGO 2017-5 (councilmembers have an affirmative duty to maintain the confidentiality of topics discussed in executive session).

2. RCW 42.30.110 explains the purpose for holding an executive session, some of which include:

a. RCW 42.30.110(1)(b). To consider the selection of a site or the acquisition of real estate by lease or purchase when public knowledge regarding such consideration would cause a likelihood of increased price (*pending land acquisition*);

b. RCW 42.30.110(1)(g). To evaluate the qualifications of an applicant for public employment or to review the performance of a public employee. However, subject to RCW 42.30.140(4) (*labor negotiations*), discussion by a governing body of salaries, wages, and other conditions of employment to be generally applied within the agency shall occur in a meeting open to the public, and when a governing body elects to take final action hiring, setting the salary of an individual employee or class of employees, or discharging or disciplining an employee, that action shall be taken in a meeting open to the public; [note that stating that an executive session is to discuss a “personnel matter” is not

sufficient because only certain types of personnel matters are appropriate for discussion in an executive session.] (*review qualifications of a public employee*)

c. RCW 42.30.110(1)(h). To evaluate the qualifications of a candidate for appointment to elective office. However, any interview of such candidate and final action appointing a candidate to elective office shall be in a meeting open to the public (*review qualifications of an elected official*)

d. RCW 42.30.110(1)(i). To discuss with legal counsel representing the agency matters relating to agency enforcement actions, or to discuss with legal counsel representing the agency *litigation or potential litigation* to which the agency, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency.

For purposes of this subsection (1)(i), "potential/pending litigation" means matters protected by Rules of Professional Conduct (RPC) 1.6 or RCW 5.60.060(2)(a) concerning:

(i) Litigation that has been specifically threatened to which the agency, the governing body, or a member acting in an official capacity is, or is likely to become, a party;

() Litigation that the agency reasonably believes may be commenced by or against the agency, the governing body, or a member acting in an official capacity; or

(i) Litigation or legal risks of a proposed action or current practice that the agency has identified when public discussion of the litigation or legal risks is likely to result in an adverse legal or financial consequence to the agency.

3. Council may adjourn into executive session even if it is not listed on the meeting agenda. There is a requirement in RCW 35A.12.160⁶ that the public be made aware of the preliminary agendas of meetings in advance of the meeting, but that does not mean that an item that arises after the agenda has been posted cannot be discussed at the meeting, even in executive session. Since final action on the matter would not be taken at the executive session, it would not violate any provision in state law to hold an executive session at a regular Council meeting even if the executive session was not listed on the agenda. [per MRSC Index-General Government-Executive sessions.] Although amending the agenda is not required in order to adjourn into executive session, it is a good practice for the Mayor to announce at the beginning of the meeting, that Council will be adjourning into an executive session at the end of the regular meeting.

4. Attendance at Executive Sessions. The City Attorney will be present at executive sessions and is required to attend executive sessions which address litigation or potential litigation. The question of who may attend an executive session other than the Council is determined by the Mayor and City Supervisor in consultation with the City Attorney.

2. Special Meetings

Meetings set at days, times, and places other than Wednesdays at 7:00 p.m. in the Sedro-Woolley City Council Chambers or Fire Training Room shall be deemed "special meetings," such as joint meetings with other jurisdictions or entities (Board of County Commissioners, Planning Commissioners), and Council workshops or retreats.

A special meeting may be called by the Mayor or any three members of the Council. (RCW 35A.13.170⁷, 35A.12.110⁸). The notice shall contain information about the meeting, including date, time, place, and business to be transacted and shall be posted on the City's website and displayed at the main entrance of the meeting location (RCW 42.30.080). The notice shall be delivered to each member of Council at least 24 hours before the time specified for the proposed meeting (RCW 35A.12.110⁹).

The notices provided in this section may be dispensed within the circumstances provided by RCW 42.30.080¹⁰, that is: (a) As to any member who, at or prior to the time the meeting convenes, files with the City Clerk a written waiver of notice, (b) As to any member who was actually present at the meeting at the time it convenes, and (c) In the event a special meeting is called to deal with an emergency involving injury or damage to persons

or property or the likelihood of such injury or damage, when time requirements of such notice would make notice impractical and increase the likelihood of such injury or damage; or as otherwise provided by law.

The processes and rules for agenda content apply to regular formal, study session format, as well as special meetings.

3. Placing Items on an Agenda:

a. Routine Council Business: Through the normal course of business, Council may move items forward to a future agenda by consensus.

b. New Item Council Business: At the appropriate time during a Council meeting (such as Council Comments), Councilmembers may request to have items placed on a future agenda. Each request shall be treated separately. The City Supervisor is most familiar with staff's workload and will advise when the item can be prepared and brought forward to Council.

c. Staff: except for routine items such as those found on most Consent Agendas, requests for items to come before Council shall be routed through the Mayor or City Supervisor or come directly from the Mayor or City Supervisor as part of the normal course of business.

C. Meeting Rules and Procedures

1. Council Rules of Order

The City Attorney shall serve as the official parliamentarian for all Council meetings, and will keep a copy of the most current “*Robert’s Rules of Order*” (RONR) in Council Chambers during Council meetings. The Council will generally follow RONR, however, the Mayor is the chairperson of the meeting and may depart from strict adherence to RONR as he or she deems appropriate. The Council, by a majority vote, can require strict adherence to RONR.

2. Quorum

At all regular and special meetings of the Council, a majority of the Councilmembers who hold office shall constitute a quorum for the transaction of business.

3. Attendance, Excused Absences

RCW 35A.12.060¹¹ provides that a Councilmember shall forfeit his/her office by failing to attend three consecutive regular meetings of the Council without being excused by the Council. Members of the Council may be so excused by complying with this section. The member shall contact the Mayor, City Clerk, or City Supervisor prior to the meeting and state the reason for his/her inability to attend the meeting. Following roll call, the Presiding Officer shall inform the Council of the member’s absence, and inquire if there is a motion to excuse the member. This motion shall be nondebatable. Upon passage of such motion by a majority of members present, the absent member shall be considered excused and the City Clerk will make an appropriate notation in the minutes.

4. Respect and Decorum

It is the duty of the Mayor and each Councilmember to maintain dignity and respect for their offices, City staff and the public. While the Council is in session, Councilmembers shall preserve order and decorum and a Councilmember shall neither by conversation or otherwise, delay or interrupt the proceedings of the Council, nor disrupt or disparage any Councilmember while speaking. Councilmembers and the public shall comply with the directives of the Presiding Officer. Any person making disruptive, disparaging or impertinent remarks or unreasonably disturbing the business of the Council, either while addressing the Council or attending its proceedings, shall be asked to cease such disruption, or may be asked to leave, or be removed from the meeting. At any time during any Council meeting, any Councilmember may object to personal affront or other inappropriate comments, by calling for a “point of order.” After the Councilmember is recognized by the Presiding Officer and the Councilmember explains their point concerning respect and decorum, or lack thereof, the Presiding Officer shall rule on the remark and may ask the person making the disturbance to cease or leave the room. Continued disruptions may result in a recess or adjournment as set forth in #8 below.

5. Seating Arrangement

Councilmembers shall occupy the respective seats in the Council Chamber assigned to them by the Mayor.

6. Dissents and Protests

Any Councilmember shall have the right to express dissent from or protest verbally or in writing, against any motion, ordinance or resolution of the Council and have the reason therefore entered or retained in the minutes.

7. Councilmember Meeting Participation by Telephone/Video Conference

Telephone/video conference participation by Councilmembers may be allowed on a case-by-case basis, as approved by the Council, for special circumstances, and provided further that a quorum of Councilmembers will be physically present for the Council meeting in question, and provided technical availability and compatibility of electronic equipment enables the conferencing Councilmember(s) to hear the proceedings, be heard by those present, and participate in Council discussion.

- a. Requests to use telephone/video conference participation shall be approved by the Council by motion. Such participating Councilmember(s) should be present and counted. So as not to disrupt the

Council meeting, adequate notice must be given to allow appropriate setup in time for the beginning of the meeting.

b. Telephone/video conference participation for voting purposes shall be allowed for public hearings or any quasi-judicial proceedings, and the requesting Councilmember(s) shall declare that (s)he has reviewed the associated material (if any) provided for those hearings and/or proceedings prior to the time the vote will be taken by Council.

8. Internet Use

Use of the City's network systems implies Council is aware of and understands that the system is provided to assist in the performance of their roles as Councilmembers, and as such, Councilmembers are obligated to use, conserve and protect electronic information and information technology resources and to preserve and enhance the integrity of those resources which belong to the citizens of Sedro-Woolley.

a. As noted on page 8, Councilmembers will avoid accessing any electronic message during Council meetings. Accessing such communication could be construed as receiving public comment without the benefit of having the citizen in person to address their concerns. Likewise, Councilmembers will avoid doing any browsing of the Internet of non-City business during Council meetings in order that Council's full attention can be given to the topic at hand.

b. Information technology resources are provided for the purpose of conducting official City business. The use of any of the City's information technology resources for campaign or political use, unless such use has been determined not a violation of RCW 42.17A.555 by the City Attorney, Washington State Attorney General, or Washington Public Disclosure Commission, or as otherwise authorized by law, is absolutely prohibited.

c. Confidential material shall not be sent via e-mail.

a. All letters, memoranda, and interactive computer communication (e-mail) involving Councilmembers, the subject of which relates to the conduct of government or the performance of any governmental function, with specific exceptions stated in the Public Records Act (RCW 42.56) are public records. Copies of such letters, memoranda and interactive computer communication shall not be provided to the public or news media without filing of a public disclosure request with the City Clerk.

d. E-mail communications that are intended to be distributed among all Councilmembers, whether concurrently or serially, shall be considered in light of the Open Public Meetings Act. If the intended purpose of an e-mail is to have a discussion that should be held at an open meeting, the electronic discussion should not occur, and Council discussion should wait until everyone has had ample opportunity to view the message before including such topic(s) on an upcoming agenda.

9. Adjournment Due to Emergency or Disruption

In the event of an emergency such as a fire or other natural or catastrophic disaster, threatened violence, or inability to regain good order, the Presiding Officer shall forthwith declare a recess, adjourn, or continue the meeting, and the City Council as well as everyone in the room shall immediately leave the meeting room. The Presiding Officer may reconvene the meeting when it has been determined by the appropriate safety officials that it is safe to do so.

10. Permission Required to Address the Council

Persons other than Councilmembers and staff shall be permitted to address the Council upon recognition and/or introduction by the Presiding Officer or City Supervisor.

11. Approaching the Dais

Once a Council meeting has been called to order, stepping between the podium and the dais will not be allowed, and stepping behind any part of the dais, including those parts occupied by staff is also not permitted. This includes, but is not limited to, video recording, still photography, tape recording, and distributing written handouts. Council reserves the right to invite anyone forward to the podium to be addressed by Council.

12. Out of Order Requests

Occasionally a member of the public may wish to speak on an agenda item but cannot remain until the item is reached on the agenda. During “Open Comments From the Public,” such person may request permission to speak by explaining the circumstances. The Presiding Officer in his/her sole discretion shall rule on allowing or disallowing the out of order request.

13. Photographs, Motion Pictures or Video Tape Requiring Artificial Illumination – Prior Permission Required

No overhead projection, photographs, motion pictures, or video tapes that require the use of floodlights, or similar artificial illumination shall be used by the public at City Council meetings without the prior consent of the Presiding Officer.

14. Voting

The votes during all meetings of the Council shall be transacted as follows:

- a. The Presiding Officer shall first call for a vote from those in favor of the motion, followed by a call for those opposed to the motion, and afterwards shall state whether the motion passed or failed. Unless otherwise provided by statute, ordinance, or resolution, all votes shall be taken by voice. At the request of any Councilmember or the City Clerk, a roll call vote shall be taken by the City Clerk. The order of the roll call vote shall be determined by the City Clerk.
- b. In case of a tie vote on any proposal, the motion shall be considered lost (Note that in some instances the Mayor is authorized to break a tie vote, see RCW 35A.12.100 which allows the Mayor to cast a tie-breaking vote with respect to matters other than the passage of any ordinance, grant, or revocation of franchise or license, or any resolution for the payment of money).
- c. Every member who was present when the question was called, shall give his/her vote. If any Councilmember refuses to vote “aye” or “nay,” their vote shall be counted as an “aye” vote unless the Councilmember has abstained or recused themselves due to actual or perceived appearance of a conflict of interest, which shall be so stated prior to the vote at hand.
- d. The passage of any ordinance, grant or revocation of franchise or license, and any resolution for the payment of money and any approval of warrants, shall require the affirmative vote of at least a majority of the whole membership of the Council¹. Except as provided in “e” below, all other motions or resolutions shall require an affirmative vote of at least a majority of the quorum present.
- e. Majority Plus One: The passage of any public emergency ordinance (an ordinance that takes effect immediately), expenditures for any calamity, violence of nature, riot, insurrection, or war; and provisions for a lesser emergency, such as a budget amendment (RCW 35A.33.090), shall require the affirmative vote of at least a majority plus one of the whole membership of the Council. (RCW 35A.13.190¹²).

¹ RCW 35A.12.120 Council-Quorum-Rules-Voting

15. Motions and Discussion

a. Order of Procedure:

1. Staff makes their presentation.

Mayor asks Council if there are any questions for staff.

Member of Council makes a motion by stating: “**I move . . .**”

The motion is seconded.

5. If public comments are allowed on the item, the Mayor invites public comments. Public comments should be limited to one comment per person per topic and limited to three minutes. Mayor reminds the public this is time for comments and not discussion; and if the public has questions, those questions will be addressed by staff at another time outside the meeting.

2. Mayor opens the floor to Council for discussion.

The maker of the motion normally begins the discussion.

The discussion must have bearing on whether the pending motion should be adopted (RONR §43); and can be prefaced by a few words of explanation, but must not become a speech (RONR §4). All Council remarks should be addressed through the Mayor.

3. When discussion has ended, the Mayor re-states the motion or asks the Clerk to re-state the motion. Once the motion is re-stated, the Mayor calls for the vote, which is normally taken by voice. The Mayor then states whether the motion passed or failed.

b. In General:

1. Except in rare circumstances, Council motions shall be in the form of an affirmative motion. Affirmative motions are preferred to prevent “approval by default” of a failed negative motion.

2. Agenda items scheduled for Council action shall require a motion by a Councilmember before discussion unless the Council suspends the requirement by majority vote. Upon failure of either a prior motion or rule suspension, the agenda item shall be passed over and may not be reintroduced until the next regular meeting. (Mayoral appointments excepted. See Committees for further discussion.)

4. Councilmembers should direct questions to the City Supervisor or the designated presenter.

5. Main motions are made when no other motion is pending (see chart below). They are debatable and subject to amendment. Since seconding a motion means “let’s discuss it,” if there is no second but discussion ensues, the matter of having a second to proceed is moot and the motion can proceed. However, if there is no second and no discussion, the motion does not progress. Note that the motion does not “die for a lack of a second” but it merely does not progress.

6. The maker of a motion can withdraw their motion without the consent of the seconder, and if the mover modifies the motion, the seconder can withdraw the second. The person making the motion is entitled to speak first to the motion. A maker of the motion can vote against the motion but cannot speak against their own motion.

7. No one should be permitted to speak twice to the same issue until everyone else wishing to speak has spoken. All remarks must be directed to the Presiding Officer and must be courteous in language and deportment (*Robert’s Rules of Order Newly Revised*, Article VII, Section 43, Decorum in Debate), keeping in mind it is not the Councilmember, but the measure that is the subject of debate.

8. When an amended motion is on the floor, the vote is taken on whether to adopt the amendment. If adopted, the next vote is on the fully amended motion.

9. Motions should be reserved for items marked on the agenda for action, so as to avoid any surprises for Council, staff and the public.

Parliamentary Procedure at a Glance

Roberts Rules of Order §	IF YOU WANT TO	YOU SAY	INTERRUPT ?	NEED 2 ND ?	Can be Debated ?	Can be Amended?	VOTE
11	Postpone indefinitely (the purpose is to prevent action or kill an issue.)	I move to postpone . . . (an affirmative vote can be reconsidered; a negative vote cannot.) indefinitely	No	Yes	Yes	No	Majority
12	Modify wording of motion	I move to amend the motion by . . .	No	Yes	Yes	Yes**	Majority
14	Postpone to a certain time	Ex: I move to postpone the motion to the next Council meeting.	No	Yes	Yes	Yes	Majority
16	Close debate	I move the previous question, or I call for the question	No	Yes	No	No	Majority*
17	To Table a motion	I move to lay on the table, the motion to	No	Yes	No	No	Majority
19	Complain about noise, room temperatures, etc.	Point of Privilege	Yes	Yes	Yes	Yes	Chair decision
20	Take break	I move to recess for . . .	No	Yes	No	Yes	Majority
21	Adjourn meeting	I move to adjourn	No	Yes	No	No	Majority
23	Object to procedure or personal affront	Point of Order	Yes	No	No	No	Chair decision
25	Suspend rules	I move to suspend the rules and . . .	No	Yes	No	No	Majority*
34	Take matter from table	I move to take from the table the motion to . . .	No	Yes	No	No	Majority
35	Reconsider something already disposed of	I move we reconsider action on . . .	No	Yes	Yes	Yes	Majority

It should be noted that the purpose of tabling a motion is not to simply postpone an issue or a vote. If the intended purpose is to postpone, then the motion to postpone should be used. If more information is needed or desired in order to make the most informed vote possible, then an option would be for the maker of the motion to simply withdraw the motion. The consent of the seconder is not needed to withdraw a motion. While a motion is still on the table, no other motion on the same subject is in order. **The motion to table enables the assembly to lay the pending question aside temporarily when something else of immediate urgency has arisen. The motion to “Lay on the Table” is out of order if the evident intent is to kill or avoid dealing with a measure. (Robert’s Rules of Order Newly Revised, 10th Edition)** *(Robert’s Rules of Order Newly Revised states 2/3 vote required. Council direction is to base vote on majority except on matters where 2/3 (or majority plus one) is required by state statute.

** If the main motion to amend can be amended.

Call for the Question: if it is felt that debate on a motion on the floor has dragged on longer than warranted, a member of Council may "call the question." The "call for the question" is a motion to end debate

and vote immediately. If this "call for the question" motion is passed by a majority vote, then the vote must be taken on the original debated motion on the floor.

16. Ordinances

Except for unusual circumstances or emergencies, ordinances and resolutions will customarily be prepared, introduced and proceed in accordance with the "Three Touch Principle." Prior to final passage of all ordinances or resolutions, such documents shall be designated as drafts.

- a. A Councilmember may, in open session, request of the Mayor that the Council consider enacting an ordinance for a specific purpose. The Mayor then may assign the proposed ordinance to the administration, a committee, or the Council for consideration. The committee or administration shall report its findings to the Council. Citizens, Boards and Commissions may also propose consideration of ordinances and resolutions.
- e. Sponsorship. When a Councilmember wishes to assume sponsorship of an ordinance or resolution, once on the agenda, he or she should so announce, make the initial motion and provide an introduction of the measure.
- f. Ordinances shall normally have two separate readings at separate Council meetings.
- g. The provision requiring two separate readings of an ordinance may be waived at any meeting of the Council by a majority vote of all members present. (This would require a successful motion to suspend the rules and pass the ordinance on a first reading.)
- h. If a motion to pass an ordinance to a second reading fails, the ordinance shall be considered lost, unless a subsequent motion directs its revision and resubmission to first reading.
- i. Any ordinance repealing any portion of the Sedro-Woolley Municipal Code shall also repeal the respective portions of the underlying ordinance(s). Ordinances repealing earlier ordinances shall not apply to acts, incidents, transactions or decisions occurring before such repeal.

17. Resolutions

A resolution may be approved on the same day it is introduced. Council may invoke the two reading procedures described above to facilitate public understanding and/or comment on the resolution.

18. Reconsideration

The purpose of reconsidering a vote is to permit correction of hasty, ill-advised, or erroneous action, or to take into account added information or a changed situation that has developed since the taking of the vote. Any action of the Council, including final action on applications for legislative changes in land use status, shall be subject to a motion to reconsider except:

1. any action previously reconsidered;
2. motions to adjourn or motions to suspend the rules;
3. an affirmative vote to lay an item on, or take an item from, the table;
4. a previously passed motion to suspend the rules; or
5. a vote electing to office one who is present and does not decline.

Such motion for reconsideration:

1. must be reconsidered during the same Council meeting;
2. must be called up when no business is pending (no action is pending);
0. if action is pending, the Mayor asks the Clerk to note that the motion to reconsider has been made and is to be taken up when a member calls the motion to reconsider the vote when no other business (action) is pending;
3. must be made by a member who voted on the prevailing side on the original motion. This means a reconsideration can be moved only by one who voted aye if the motion involved was adopted, or no if the motion was lost. It is permissible for a Councilmember who cannot make such a motion, but believes there are valid reasons for one, to try to persuade someone who voted on the prevailing side, to make such a motion.
4. a member who makes this motion should state that he or she voted on the prevailing side;
5. needs a second, and can be seconded by any member;
6. is debatable if the type of motion it reconsiders is debatable; and

8. is not amendable and requires a majority vote to adopt.

Step 1: A Councilmember who voted on the prevailing side makes the motion, such as "I move to reconsider the vote on the resolution relating to holidays. I vote for [or against] the resolution." This motion needs a second and can be seconded by any Councilmember. If the motion for reconsideration is adopted, the original motion is then placed before Council as if that motion had not been voted on previously; and **Council again takes that motion under discussion, followed by a new vote.**

Any motion for reconsideration of a matter which was the subject of a required public hearing or which is a quasi-judicial matter, may not be discussed or acted upon unless and until the parties or their attorneys and the persons testifying have been given at least five days advance notice of such discussion and/or action.

19. Council Materials

a. Council Material

Councilmembers and staff should read the agenda material and ask clarifying questions of the City Supervisor or other appropriate staff prior to the Council meeting when possible. Council recognizes there are times when Councilmembers may wish to bring additional documentation to a meeting on a specific subject, whether that subject is on the agenda or not, in order to share with Council and staff. When possible, the materials should be distributed to Councilmembers and staff prior to the Council meeting, or if distributed during a meeting, Councilmembers should indicate the materials are for future reading, since except in an emergency, Councilmembers would normally not take time at the dais to read material just received. Pre-scheduled materials Council wishes to share as part of the Council packet could also be included on study session agendas under "Council Comments." [See also page 10]

b. Council Packets

Councilmembers shall personally download their Council packet via the City's website on their City provided tablet device.

c. Packet Materials

Council memos: This is a cover memo used by staff to introduce an agenda item. It includes the background on the topic and options for Council consideration as well as a staff recommended action or motion. The options and recommended action or motion should be viewed as aids to Council in making a motion or taking action, but should not be thought of as obligatory, as Council always has the option of making a motion different from what is included on the memo. Generally, by the time an item is ready for a motion, Council has already read, heard, and/or discussed the item at least three times (as an informational item, an administrative report, and lastly as an action item), and the wording of a motion would not normally be controversial, although it is important to state the motion as a motion, such as "I move to" or "I move that" or other similar language.

20. "Three Touch Principle"

Decision makers and citizens at all levels of the City should have adequate time to thoroughly consider the issues prior to final decisions. It is the intent of the Council that the Council and administration shall abide by the "Three Touch Principle" whenever possible. These procedural guidelines are designed to avoid "surprises" to the City Council, citizens and administrative personnel.

Any request or proposal for adopting or changing public policy, ordinances, resolutions or City Council directives which will require a decision of the City Council, or administration, should "touch" the decision makers three separate times. This includes verbal or written reports, "information only" agenda items, or any combination thereof. To facilitate the Council's strategic use of legislative time at its meeting, staff may satisfy the first touch by issuing an informational memorandum, unless the subject matter is complex in nature. Quasi-judicial matters and any subject discussed in executive sessions are excluded from application of the "Three Touch Principle."

It is recognized that unexpected circumstances may arise wherein observance of the “Three Touch Principle” is impractical. However, when unusual circumstances arise which justify a “first discussion” decision, the persons requesting the expedited decision should also explain the timing circumstances. This principle excludes staff reports and other general communications not requiring a Council decision.

The City Supervisor is most familiar with staff’s workload and will determine when the item can be prepared and brought forward to Council.

CHAPTER 2
Legislative Process



A. Election of Officers and Selection/Operation of Council Committees

I. Election of Officers

Procedures for electing officers are as follows: annually, at the first meeting of the new Council, the members thereof shall appoint a Mayor-pro-tempore. In addition to the powers conferred upon him/her as Mayor-pro-tem, he/she shall continue to have all the rights, privileges and immunities of a member of the Council.

II. Council Committees

A. Annually, at the first meeting of the year, the Mayor shall appoint two councilmembers and a council chairperson to each standing committee of the Council, subject to confirmation by the city council. In making the appointments, the Mayor shall consider councilmembers' expressed interests and shall attempt to match councilmembers to their committees of choice.

B. Standing Committees

1. Public Safety: To consider issues and make recommendations to the full Council related to the police department, fire department, municipal court and public policies relevant to those departments.

2. Utilities: To consider issues and make recommendations to the full Council related to the City's sewer, storm water and solid waste utilities including operational policies, rates and related policies.

3. Finance & Personnel: To consider issues and make recommendations to the full Council related to financial management policies, financial reports and personnel issues including personnel policies.

4. Parks & Recreation: To consider issues and make recommendations to the full Council related to the parks department and the provisioning of parks and recreation programming in the City.

5. Business Development: To consider issues and make recommendations to the full Council related to the attraction of new businesses and the retention of existing businesses within the City.

6. Planning: To consider issues and make recommendations to the full Council related to long-term planning and growth in the City.

C. The Role of City Council Committees

1. City Council Committees are intended to enhance communication between the Legislative Branch and the Executive Branch at the early phase of the development of significant items affecting public policy questions.

2. These Committees will enable City administration to obtain early feedback from representative members of the City Council on issues affecting public policy prior to their presentation, as necessary, to the full City Council.

3. City Council Committee members develop and maintain a deeper level of knowledge on matters of a technical nature which might affect public policy in order to increase the positive exchange of information and discussions between City Council members, City staff, and the public.

15. When appropriate, items may be considered by a City Council Committee before a final recommendation from the appropriate City Board or Commission (i.e., Planning Commission, Parks Board).

4. City Council Committees do not replace the City Council as final decision makers on behalf of the full City Council. Council Committees make no staff direction on administrative matters, specific assignments, or work tasks. If Committee members seek additional information from an outside party

or consultant resulting in additional cost to the City, approval to incur such cost must be approved by the full City Council.

6. Any discussion or feedback expressed or received at a Committee meeting should not be construed or understood to be a decision by or for the City Council. Further, any recommendation the Committee may make to the City Council is based on information possessed by the Committee at the time the recommendation is made and may be revised or amended upon receipt by the Committee of additional or newer information.

D. Operational Guidelines and Functional Structure

1. City Council Committees consist of three Council members one of whom is the committee chair. The Mayor may attend and participate in all Committee meetings.

2. No member of the City Council may serve on more than three Committees.

3. Council Committees will meet at least quarterly.

4. Council Committees have no delegated authority from the City Council and shall not take testimony from the public.

5. The Staff Liaison will coordinate with the Mayor and City Supervisor on the preparation of the agenda to determine whether items will be presented to a Committee or placed on the Council's regular agenda to be considered by the full City Council. Any item may be referred to the full Council by the Committee considering that item.

6. The full City Council by majority vote may refer any item on its agenda to an appropriate Committee for further review and recommendation.

7. Committee meetings are intended to allow regular attendance by City Council Committee members, as well as the Staff Liaison, staff, the Mayor and the City Supervisor, as necessary. In order to prevent inadvertent violations of the Open Public Meetings Act, attendance by non-member Council members that will result in a quorum of the full City Council is prohibited.

8. The regular Council meeting agenda shall include an opportunity for Committee reports at which time any appointed Committee member may report to the Mayor and City Council on pertinent and timely issues before a Committee.

E. City Liaison Role

1. The City Supervisor serves as an advisor to each City Council Committee; however, each Committee has an identified staff liaison at the Director-level. The responsibilities of the Staff Liaison are as follows:

- a. Attend all meetings of the City Council Committee.
 - . Research information and prepare reports and correspondence as required for the Committee.
- b. Provide administrative support to the Committee, including distribution of documents to the Committee as required.
- c. Coordinate with the Committee chair to prepare agendas.
- d. Schedule meetings.
- e. Prepare Committee minutes within one week of the meeting and submit to the City Clerk for posting and distribution to the full City Council.

g. Serve as the communication link between the Committee and City administration, City departments, and Council as appropriate.

B. Filling Council Vacancies or Extended Absences

I. Filling a Vacancy

If a vacancy occurs on the City Council, the Council shall follow the procedures outlined in RCW 35A.12.050¹³ and Council's adopted procedure in compliance with RCW 35A.12.050¹⁴, as well as RCW 42.12.070. The timeline may vary depending on when the process begins. The City Council has within 90 days of the vacancy to appoint a qualified person to the vacant position. If this timeframe is not met, the City's authority in this matter would cease and the Skagit County Board of Commissioners would appoint a qualified person to fill the vacancy. Public comment will not be taken during this entire process.

PROCEDURE FOR FILLING A COUNCIL VACANCY

A. Timeline/Procedure (any of the meetings, dates and times, may be adjusted and/or combined as determined by the Council):

1. Publication

The City Clerk will publish the vacancy announcement inviting citizens of the City who are interested and qualified to sit as a Councilmember, to apply by submitting a letter of interest. Qualifications to sit as a Councilmember are set forth in RCW 35A.12.030. If possible, the vacancy announcement will be published for two consecutive weeks.

1. Deadline for the City Clerk to receive applications shall be no later than 4:00 p.m.

2. Special Meeting, Executive Session, set for _____ . [RCW 42.30.110(1)(h)]

6:00 p.m. Council will meet and adjourn to executive session to review and discuss all of the applications. After the review and discussion, Council will return to Council Chambers and the Special Meeting will be adjourned.

Regular Meeting, same evening as above Special Meeting. [RCW 42.30.110(1)(h)]

7:00 p.m. Council will meet in open session and part of this agenda will include selection of applicants to interview. Selection will be by nomination and second. A vote will be taken and candidates receiving three or more votes will be interviewed. Immediately after this Council meeting or as soon as practicable, the Clerk will send a list of potential questions to all those to be interviewed.

3. Regular or Special Meeting, _____ . [RCW 42.30.110(1)(h)]

The interviews will be conducted during an open Council meeting. Each interview will be a maximum of 30 minutes.

4. Executive Session set for [RCW 42.30.110(1)(h)]

Council will meet and adjourn to executive session (closed session) to discuss applicants. After the discussion.

Regular or Special Meeting, same evening as above [RCW 42.30.110(1)(h)]

Council will meet in open session and the agenda will include a vote to fill the vacancy. Upon selection of the new Councilmember, that person will be sworn in by the City Clerk, and take their seat at the dais.

B. Interview Questions/Process:

1. During the interview, each Councilmember and the Mayor may ask each candidate up to three questions. Follow-up questions are to be counted as one of the three questions.

2. Candidates will be interviewed in alphabetical order of last name.

C. Nomination and Voting Process:

1. **NOMINATION PROCESS.**

Councilmembers may nominate an applicant to fill the vacancy. A second is required. If no second is received, that applicant shall not be considered further unless no applicant receives a second, in which case all applicants who were nominated may be considered again. Once the nominations are given, **the Mayor will close the nominations and Council will proceed to vote.**

2. **VOTING PROCESS.** RCW 42.12.070 states that where one position is vacant, **the remaining members** of the governing body shall **appoint** a qualified person to fill the vacant position. By adoption of this policy, Council has chosen the following process for making such appointment:

a. A vote for an applicant shall be by voice or raised hand.

b. The vacancy can only be filled when **a majority of the whole City Council affirmatively votes** for the applicant or in the case of a 3-3 tie, the mayor breaks the tie (See RCW 35A.12.100), i.e. if five City Councilmembers are present, this would require at least four City Councilmembers voting for an applicant. If subsequent rounds of voting are needed, each round of voting follows the same process. The Mayor may ask for Council discussion between voting rounds.

Round One Vote:

The applicant receiving the majority of votes will be the new Councilmember.

If no applicant receives a majority of votes from the City Council, then the three applicants receiving the most affirmative votes would be considered in a second round.

Round Two Vote:

Round Two shall proceed the same as Round One. If one of the three applicants still fails to receive a majority of affirmative votes, then the two applicants of the three who received the most affirmative votes would then be considered in a third round; or if there are only two applicants and they receive tie votes, a third round will be taken. Councilmembers may change their vote between rounds.

Round Three Vote:

Round Three shall proceed the same as Rounds One and Two. If after this round, the vote of the two applicants results in a tie, then the City Supervisor, with concurrence of Council, shall flip a coin to determine who shall fill the vacancy, with the applicant whose last name is closest to the letter "A" being assigned "heads" and the other person assigned "tails." In the rare circumstance where both applicants have the same last name, the applicant whose entire last name is closest to the letter "A" will be assigned "heads" and the other person assigned "tails."

D. Seating of New City Councilmember:

1. Once an applicant either has received a majority of votes or wins the coin flip, if the appointed applicant is at the meeting, the Mayor shall administer the oath of office, and the new Councilmember will be officially seated as a City Councilmember.

II. Temporary Councilmember

A. Process for Appointment of a Temporary Councilmember

Any member of Council may request that the Council discuss the extended excused absence of a Councilmember. This could either be an impromptu discussion, or one scheduled for an upcoming Council meeting. Once the issue has been discussed, a motion may be made to begin the process of temporarily filling the Council position. Public comment shall not be taken during this entire appointment process on this item. If such motion is approved:

1. Publication. The City Clerk shall publish the vacancy announcement inviting citizens of the City who are interested and qualified to sit as a Temporary Councilmember (maximum of one year), to apply on an

application form provided by the City. Qualifications to sit as a Councilmember are set forth in RCW 35A.12.030. If possible, the vacancy announcement will be published for three consecutive weeks.

2. Deadline for the City Clerk to receive applications shall be no later than 4:00 p.m. on the date set by Council.

16. Once applications are received and the due date has passed, the City Clerk shall send each Councilmember copies of all the applications for Council's review.

3. Council has the option of holding an executive session to discuss applicants [RCW 42.30.110(1)(h)].

B. NOMINATION AND VOTING PROCESS:

1. Qualifications:

- a. registered voter of the City at the time of appointment
- b. by the time of appointment, continuously resided within the City limits of Sedro-Woolley for at least one year
- c. never been convicted of a felony
- d. no member of appointee's family may be currently employed by the City
- e. appointment shall not create a conflict of interest or an appearance of a conflict of interest
- f. Councilmembers shall not hold any other office or employment within the City government [RCW 35A.12.030].

2. Considerations and Process:

Appointments shall be for a maximum of one year and shall terminate upon the return of the absent Councilmember or the permanent vacation of the position, whichever of those three instances occurs first. Appointments shall not be made for a Councilmember's absence whose term is set to expire within six months or less.

If the disability or absence of the Councilmember becomes permanent (through resignation or other reason), Council shall follow the procedures set forth in RCA 35A.12.050 and Council's adopted procedure for filling Council vacancies. The pro tempore individual may apply for the Council position if it is permanently vacated, if so desired. If the pro tempore individual's appointment is set to expire prior to the selected timeframe for filling a Council vacancy, Council may, by majority vote of the whole Council (including the pro tempore Councilmember), move to permit the pro tempore individual to remain in that capacity until such Council vacancy has been filled.

3. Nomination Process for Conducting Interviews.

A. After holding an executive session to review applications, during a subsequent open session, any Councilmembers may:

1. nominate an applicant to be interviewed;
2. the nomination must be seconded;
3. the Mayor will ask if there are further nominations;
4. if no further nominations, the Mayor will close the nominations;
5. votes will be taken on each applicant in the order of nomination;
6. votes shall be by voice or raised hand;
7. Applicants receiving three or more votes will be interviewed;
- 8.

Once all voting has taken place, the City Clerk will summarize which applicants will be interviewed based on the voting outcome; and

9. As soon as possible after the Council meeting, the City Clerk shall:
 - a. notify each applicant to inform them if they will or will not be interviewed;
 - b. notify those to be interviewed, of the date and time for their interview; and
 - c. send each person to be interviewed, the list of possible interview questions.

4. Nomination and voting Process for Temporarily Filling the Position

A. Council again has the option of holding an Executive Session to discuss applicants [RCW 42.30.110(1)(h)].

B. Voting Process: must be done in open session

1. Any Councilmember may nominate an applicant to fill the position. A second is required. If no second is received, the applicant shall not be considered further.
10. Additional nominations shall continue in the same manner.
11. The Mayor shall ask if there are any further nominations. If there are no further nominations, the Mayor will close the nominations and either make a motion, or ask for a motion from Council to appoint a nominee.
12. Any vote for appointment shall be by voice or raised hand in the affirmative or negative.
13. The position shall only be filled if a majority of the remaining (six, assuming there is one Council position to consider) City Council affirmatively votes for the applicant and/or a majority is reached by the mayor casting a tie-breaking vote. If there are only five members present at the time the vote is taken, this would require at least four out of those five Councilmembers voting for an applicant.
14. Votes shall be taken on the applicants in the order of nomination.
15. If the vote to appoint the first nominated individual fails, voting shall continue on the remaining nominated individuals until a majority of affirmative votes is received.
16. If no one applicant receives a majority vote, City staff shall re-advertise for the position, and the appointment will be scheduled for a future Council meeting.
17. Once either the first vote or a subsequent vote passes, if the approved applicant is at the meeting, the Mayor shall immediately administer the oath of office and the temporary Councilmember shall be officially seated at the Council dais. If the approved applicant is not at the meeting, such action is not official until the applicant takes the oath of office.

C. INTERVIEW QUESTION PROCESS:

1. During the interview, each Councilmember and the Mayor may ask each candidate up to three questions. Follow-up questions are to be counted as one of the three questions.
2. Candidates will be interviewed in alphabetical order of last name.

B-1. Filling a Vacancy in the office of Mayor

I. Filling a Vacancy

If a vacancy occurs in the office of Mayor, the Council shall follow the procedures outlined in RCW 35A.12.050 and Council’s adopted procedure in compliance with RCW 35A.12.050, as well as RCW 42.12.070. The timeline may vary depending on when the process begins. Pursuant to RCW 35A.12.050, City Council has within 90 days of the vacancy to appoint a qualified person to the vacant position. If this timeframe is not met, the City’s authority in this matter would cease and the Skagit County Board of Commissioners would appoint a qualified person to fill the vacancy. Public comment will not be taken during this entire process.

PROCEDURE FOR FILLING A MAYORAL VACANCY

A. Timeline/Procedure (any of the meetings, dates and times, may be adjusted and/or combined as determined by the Council):

1. Candidates

The City Council will appoint a new mayor from among the members of the City Council.

2. Special Meeting, Executive Session, set for _____ . [RCW 42.30.110(1)(h)]

At 6:00 p.m. prior to the next regularly scheduled Council meeting, the Council will meet to solicit interest from councilmembers and adjourn to executive session to review and discuss all of the councilmembers interested in serving as mayor. After the review and discussion, Council will return to Council Chambers and the Special Meeting will be adjourned.

Regular Meeting, same evening as above Special Meeting. [RCW 42.30.110(1)(h)]

7:00 p.m. Council will meet in open session and part of this agenda will include the appointment of a new mayor. The nomination and voting process is detailed at Section A, below.

A. Nomination and Voting Process:

1. NOMINATION PROCESS.

Councilmembers may nominate any councilmember to fill the vacancy. A second is required. If no second is received, that applicant shall not be considered further unless no applicant receives a second, in which case all applicants who were nominated may be considered again. Once the nominations are given, **the Mayor-Pro-Tem will close the nominations and Council will proceed to vote.**

2. VOTING PROCESS. By adoption of this policy, Council has chosen the following process for making such appointment:

a. A vote for an applicant shall be by voice or raised hand.

b. The vacancy can only be filled when **a majority of the whole City Council affirmatively votes** for the applicant, i.e. if five City Councilmembers are present, this would require at least four City Councilmembers voting for an applicant. If subsequent rounds of voting are needed, each round of voting follows the same process. The Mayor-Pro-Tem may ask for Council discussion between voting rounds.

Round One Vote:

The applicant receiving the majority of votes will be the new Mayor.

If no applicant receives a majority of votes from the City Council, then the three applicants receiving the most affirmative votes would be considered in a second round.

Round Two Vote:

Round Two shall proceed the same as Round One. If one of the three applicants still fails to receive a majority of affirmative votes, then the two applicants of the three who received the most affirmative votes would then be considered in a third round; or if there are only two applicants and they receive tie votes, a third round will be taken. Councilmembers may change their vote between rounds.

Round Three Vote:

Round Three shall proceed the same as Rounds One and Two. If after this round, the vote of the two applicants results in a tie, then the City Supervisor, with concurrence of Council, shall flip a coin to determine who shall fill the vacancy, with the applicant whose last name is closest to the letter "A" being assigned "heads" and the other person assigned "tails." In the rare circumstance where both applicants have the same last name, the applicant whose entire last name is closest to the letter "A" will be assigned "heads" and the other person assigned "tails."

D. Seating of the New Mayor:

1. Once an applicant either has received a majority of votes or wins the coin flip, the City Clerk shall administer the oath of office, and the new Mayor will be officially seated as Mayor.

C. Legislative Agenda

Councilmembers work each year (or sometimes every two years) to draft a "legislative agenda" to address Council ideas, suggestions and specific legislative programs in terms of upcoming or pending legislative activity in Olympia that would or could have an effect on our City. Additionally, Councilmembers have the option of creating a similar legislative agenda to address concerns on a national level.

D. Ballot Measures:

1. State Law

RCW 42.17A 555. State law has enacted statutory prohibitions (with limited exceptions) against the use of public facilities to support or oppose ballot propositions:

“No elective official nor any employee of his or her office nor any person appointed to or employed by any public office or agency may use or authorize the use of any of the facilities of a public office or agency, directly or indirectly, for the purpose of assisting a campaign for election of any person to any office or for the promotion of or opposition to any ballot proposition. Facilities of a public office or agency include, but are not limited to, use of stationery, postage, machines, and equipment, use of employees of the office or agency during working hours, vehicles, office space, publications of the office or agency, and clientele lists of persons served by the office or agency. However, this does not apply to the following activities:

- (1) Action taken at an open public meeting by members of an elected legislative body or by an elected board, council, or commission of a special purpose district including, but not limited to, fire districts, public hospital districts, library districts, park districts, port districts, public utility districts, school districts, sewer districts, and water districts, to express a collective decision, or to actually vote upon a motion, proposal, resolution, order, or ordinance, or to support or oppose a ballot proposition so long as (a) any required notice of the meeting includes the title and number of the ballot proposition, and (b) members of the legislative body, members of the board, council, or commission of the special purpose district, or members of the public are afforded an approximately equal opportunity for the expression of an opposing view.*
- (2) A statement by an elected official in support of or in opposition to any ballot proposition at an open press conference or in response to a specific inquiry;*
- (3) Activities which are part of the normal and regular conduct of the office or agency.” [emphasis added]*

2. City’s Implementation of RCW 42.17A.555:

In the City’s implementation of RCW 42.17A.555, the City Council shall not, during any part of any Council meeting, consider requests from outside agencies for Council to support or oppose ballot measures; nor will Council permit any public comment on any proposed or pending ballot issue, whether or not such comments seek endorsement or are just to inform Council of upcoming or proposed ballot issues; nor shall Councilmembers disseminate ballot-related information.

3. Providing Informative Materials to Council

The requestor has the option of mailing materials to individual Councilmembers via the United States Postal Office. Because even the use of e-mail for ballot purposes could be construed as use of public facilities and could be interpreted as being in violation of RCW 42.17A.555, materials should be sent via regular mail through the United States Postal Office. Information shall be objective only and not soliciting a pro or con position.

4. Public Comment.

Council has chosen not to support or oppose ballot issues as those are left to the will of the people voting. The use of any of the City’s facilities including the use of the Council chambers and/or broadcast system would likely be construed as being in violation of RCW 42.17A.555 and therefore, general public comment on ballot issues, or proposed ballot issues will not be permitted.

CHAPTER 3
Council Contacts



A. Citizen Contact/Interactions Outside of a Council Meeting

1. Concerns, Complaints and Suggestions to Council

When citizen concerns, complaints or suggestions are brought to any, some, or all Councilmembers, the Mayor shall, in consultation with the City Supervisor, first determine whether the issue is legislative or administrative in nature and then:

a. If legislative, and a concern or complaint is about the language or intent of legislative acts or suggestions for changes to such acts, and if such complaint suggests a change to an ordinance or resolution of the City, the Mayor and City Supervisor may refer the matter to a future Council agenda for Council's recommendation in forwarding the matter to a committee, administration, or to the Council for study and recommendation.

d. If administrative, and a concern or complaint regards administrative staff performance, execution of legislative policy or administrative policy within the authority of the Executive Branch, the complaint is referred directly to the Mayor and/or City Supervisor for review, if said complaint has not been so reviewed. The City Council may direct that the Mayor/City Supervisor brief the Council when the response is made.

2. Administrative Complaints Made Directly to Individual Councilmembers

When administrative policy or administrative performance complaints are made directly to individual Councilmembers, the Councilmember shall then refer the matter directly to the Mayor or City Supervisor for review and/or action. The individual Councilmember may request to be informed of the action or response made to the complaint.

Although citizens' direct access to elected officials is to be encouraged to help develop public policy, City Councilmembers should not develop a "personal intervention" pattern in minor calls for service or administrative appeals which may actually delay a timely customer service response. The best policy is to get the citizen into direct contact with customer service unless an unsatisfactory result has occurred in the past. In that case, refer to the paragraph above.

3. Social Media

Councilmembers shall not use social media as a mechanism for conducting official City business, although it is permissible to use social media to informally communicate with the public. Examples of what may not be communicated through the use of social media include making policy decisions, official public noticing, and discussing items of legal or fiscal significance that have not been released to the public. As with telephone and e-mails, communication between and among Councilmembers via social media could constitute a "meeting" under the Open Public Meetings Act, and for this reason, Councilmembers are strongly discouraged from "friending" other Councilmembers.

B. Staff Contacts and Interactions

1. Role of the City Supervisor

The City Supervisor is the chief appointed officer of the City of Sedro-Woolley. The City Supervisor reports to the Mayor and is directly accountable to the Mayor and City Council for the execution of the City Council's policy directives, and for the administration and management of all City departments.

2. City Staff Attendance at Meetings

The City Supervisor or his/her designee shall attend all meetings of the City Council, unless excused by the Mayor or Council.

3. City Clerk - Minutes

The City Clerk, or in the Clerk's absence the Deputy City Clerk, shall keep minutes as required by law, and shall perform such other duties in the meeting as may be required by the Council or Mayor. In the absence of the City Clerk and the Deputy City Clerk, the City Clerk shall appoint a replacement to act as Clerk during the Council meeting. The Clerk shall keep minutes which identifies the general discussion of the issue and complete detail of the official action or agreement reached, if any. As a rule and when possible and practical, regular meetings, or those Council meetings held at 7 p.m. on Wednesdays, (includes only formal format meetings) shall be both audio and video-recorded. Executive Sessions shall not be video or audio recorded.

Original, signed and approved minutes shall be kept on file in the City Clerk's office and archived according to State Record Retention Schedules. Copies of the approved minutes shall also be posted on the City's website as soon as practical after such minutes are approved and signed. Whenever possible, video recordings of Council meetings shall be posted on the City's website.

4. Administrative Interference by Councilmembers

Neither the Council nor any of its committees or members shall direct or request the appointment of any person to, or his/her removal from, any office by the Mayor or any of his/her subordinates. Except for the purpose of inquiry, the Council and its members shall deal with the administrative branch solely through the Mayor and/or City Supervisor and neither the Council nor any committee or member thereof shall give any directives, tasks, or orders to any subordinate of the Mayor, either publicly or privately; provided, however, that nothing herein shall be construed to prohibit the Council, while in open session, from fully and freely discussing with the Mayor and/or City Supervisor anything pertaining to appointments and removals of City officers and employees and City affairs.

5. Informal Communications Encouraged

Members of the Council are encouraged to interact informally and casually with City staff for the purpose of gathering information, obtaining explanations of policies and programs or providing incidental information to staff relevant to their assignment. Such informal contacts can serve to promote better understanding of specific City functions and problems. However, Councilmembers must be careful in such interaction to avoid giving direction or advice to members of City staff. While maintaining open lines of communication, City staff responding to information requests from Councilmembers will inform their supervisor of such contact and provide the supervisor with the same information shared with the Councilmember.



A. General Public Hearings

1. Purpose

Legislative public hearings are hearings held to obtain public input on legislative decisions on matters of policy. Legislative public hearings are required by state law when a city or county addresses matters such as comprehensive land use plans, or the annual budget. They are generally less formal than quasi-judicial public hearings. They do not involve the legal rights of specific, private parties in a contested setting, but rather affect a wider range of citizens or perhaps the entire jurisdiction. The wisdom of legislative decisions reached as a result of such hearings is not second-guessed by the courts; if challenged, they are reviewed only to determine if they are constitutional or violate state law. For example, a court will not review whether the basic budgetary decisions made by a city were correctly made.

2. Legislative Public Hearings

a. State statutes do not specify how public hearings should be conducted. Because legislative hearings are generally informal, the main concern is to provide an opportunity for all attending members of the public to speak if they so desire. Time limits should be placed on individual comments if many people are intending to speak, and the public should be advised that comments must relate to the matter at hand. The “ground rules” for the conduct of the hearing may be stated by the Presiding Officer at the beginning of the hearing:

1. All public comments shall be made from the speaker’s podium, shall be directed to the Mayor and Council, and any individual making comments shall first give their name and city of residence. This is required because an official recorded transcript of the public hearing is being made.
2. No comments shall be made from any other location, and anyone making “out of order” comments shall be subject to removal from the meeting.
3. Unless otherwise determined by the Presiding Officer, all comments by the public shall be limited to three minutes per speaker.
4. There will be no demonstrations, applause or other audience participation, before, during or at the conclusion of anyone’s presentation. Such expressions are disruptive and take time away from the speakers.
5. Unless read and/or handed in by the individual speaker during the public hearing, previously received written public comments will be read by the City Clerk at the pleasure of the Mayor. In the interest of time, the Mayor may limit the reading of such comments, to the Clerk reading whom the letter or written material is from, and if easily discernible, whether that person is for or against the issue at hand. All written comments become an official part of the record.
6. These rules are intended to promote an orderly system of holding a public hearing, to give persons an opportunity to be heard, and to ensure that individuals are not embarrassed by exercising their right of free speech.

b. The Presiding officer declares the public hearing on _____ (topic) open, notes the time for such opening, and asks staff to make their presentation.

c. After staff presentations, the Presiding Officer calls for public comments.

d. The Presiding Officer asks if any members of Council have questions of any of the speakers or staff. If any Councilmember has questions, the appropriate individual will be recalled to the podium.

e. The Presiding Officer declares the public hearing closed and notes the time for such closing.

B. Quasi-Judicial Hearings

1. Purpose

Quasi-judicial public hearings involve the legal rights of specific parties, and the decisions made as a result of such hearings must be based upon and supported by the “record” developed at the hearing. Quasi-judicial hearings are subject to stricter procedural requirements than legislative hearings. Most quasi-judicial hearings held by local government bodies involve land use matters, including site specific rezones, preliminary plats, variances, and conditional uses. (*MRSC Public Hearings When and How to Hold Them by Bob Meinig, MRSC Legal Consultant August 1998*)

2. Specific Statutory Provisions

a. Candidates for the City Council may express their opinions about pending or proposed quasi-judicial actions while campaigning, per RCW 42.36.040¹⁵, except that sitting Councilmembers shall not express their opinions on any such matter which is or may come before the Council.

b. *Ex-parte* communications should be avoided whenever possible. During the pendency of any quasi-judicial proceeding, no Councilmember may engage in *ex parte* communications with proponents or opponents about a proposal involved in the pending proceeding unless the Councilmember: (1) places on the record the substance of such verbal or written communications; and (2) provides that a public announcement of the content of the communication and of the parties’ rights to rebut the substance of the communication shall be made at each hearing where action is taken or considered on the subject. This does not prohibit correspondence between a citizen and his or her elected official if the correspondence is made a part of the record, when it pertains to the subject matter of a quasi-judicial proceeding. (RCW 42.36.060¹⁶)

c. Procedure On Application. Any person making application for any action leading to a quasi-judicial hearing before the Planning Commission and/or City Council shall be provided with a document containing the following information: (1) the names and address of all members of the City Council, and the Planning Commission, (2) a statement that public disclosure information is available for public inspection regarding all such Councilmembers, and (3) a statement that if the applicant intends to raise any appearance of fairness issue, the applicant should do so at least two weeks prior to any public hearing, if the grounds for such issue are then known and in all cases, no later than before the opening of the public hearing. The applicant shall sign a receipt for such document.

3. Appearance of Fairness Doctrine

a. “The test of whether the Appearance of Fairness Doctrine has been violated is ... as follows: Would a disinterested person, having been apprised of the totality of a board member's personal interest in a matter being acted upon, be reasonably justified in thinking that partiality may exist? If answered in the affirmative, such deliberations, and any course of conduct reached thereon, should be voided.” Swift vs. Island County, 87 Wn.2d 348 (1976); Smith vs. Skagit County, 75 Wn.2d 715 (1969).

b. Types of Hearings to Which the Doctrine Applies. The Appearance of Fairness Doctrine shall apply only to those actions of the Council which are quasi-judicial in nature. Quasi-judicial actions are defined as actions of the City Council which determine the legal rights, duties, or privileges of specific parties in a hearing or other contested proceeding. Quasi-judicial actions do not include the legislative actions adopting, amending, or revising comprehensive, community, or neighborhood plans or other land use planning documents or the adoption of area-wide zoning ordinances or the adoption of a zoning amendment that is of area-wide (versus site-specific) significance (RCW 42.36.010¹⁷). Street vacations are typically legislative actions, unless clearly tied to, and integrated into, a site-specific development proposal which is quasi-judicial in nature.

c. Obligations of Councilmembers - Procedure.

1. Immediate self-disclosure of interests that may appear to constitute a conflict of interest is hereby encouraged. Councilmembers should recognize that the Appearance of Fairness Doctrine does not require establishment of a conflict of interest, but whether there is an appearance of conflict of interest to the

average person. This may involve the Councilmember or a Councilmember's business associate, or a member of the Councilmember's immediate family. It could involve *ex parte* (outside the hearing) communications, ownership of property in the vicinity, business dealings with the proponents or opponents before or after the hearing, business dealings of the Councilmember's employer with the proponents or opponents, announced predisposition, and the like. Prior to any quasi-judicial hearing, each Councilmember should give consideration to whether a potential violation of the Appearance of Fairness Doctrine exists. If the answer is in the affirmative, no matter how remote, the Councilmember should disclose such facts to the Mayor who will seek the opinion of the City Attorney as to whether a potential violation of the Appearance of Fairness Doctrine exists. The Mayor and/or City Attorney shall communicate such opinion to the Councilmember.

2. Anyone seeking to disqualify a Councilmember from participating in a decision on the basis of a violation of the Appearance of Fairness Doctrine must raise the challenge as soon as the basis for disqualification is made known, or reasonably should have been made known, prior to the issuance of the decision. Upon failure to do so, the doctrine may not be relied upon to invalidate the decision consistent with state law. The party seeking to disqualify the Councilmember shall state with specificity the basis for disqualification; for example: demonstrated bias or prejudice for or against a party to the proceedings, a monetary interest in outcome of the proceedings, prejudgment of the issue prior to hearing the facts on the record, or *ex parte* contact. Should such challenge be made prior to the hearing, the City Attorney shall interview the Councilmember and render an opinion as to the likelihood that an Appearance of Fairness Doctrine violation would be sustained in Superior Court. Should such challenge be made in the course of a quasi-judicial hearing, the Councilmember shall either recuse him/herself or the Mayor shall call a recess to permit the City Attorney to make such interview and render such opinion.

3. The Mayor shall have authority to request a Councilmember to excuse him/herself on the basis of an Appearance of Fairness Doctrine violation. Further, if two or more Councilmembers believe that an Appearance of Fairness Doctrine violation exists, such individuals may move to request a Councilmember to excuse him/herself on the basis of an Appearance of Fairness Doctrine violation. In arriving at this decision, the Mayor or other Councilmembers shall give due regard to the opinion of the City Attorney.

d. When Council conducts a hearing to which the Appearance of Fairness Doctrine applies, the Mayor (or in the case of a potential violation by that individual, the Mayor Pro Tem) will ask if any Councilmember knows of any reason which would require such member to excuse themselves pursuant to the Appearance of Fairness Doctrine. The form of the announcement is as follows:

All Councilmembers should now give consideration as to whether they have:

1. A demonstrated bias or prejudice for or against any party to the proceedings;
2. A direct or indirect monetary interest in the outcome of the proceedings;
3. A prejudgment of the issue prior to hearing the facts on the record; or
4. Had *ex parte* contact with any individual, excluding administrative staff, with regard to an issue prior to the hearing. If any Councilmember should answer in the affirmative, then the Councilmembers should state the reason for his/her answer at this time, so that the Chair may inquire of administration as to whether a violation of the Appearance of Fairness Doctrine exists.

CHAPTER 5 Disclaimer



A. Purpose

These City Council Rules of Procedure are designed to provide guidance for the City Council. They are not to be considered restrictions or expansions of City Council authority. These rules have been prepared from review of many statutes, ordinances, court cases and other sources but they are not intended to be an amendment or substitute for those statutes, ordinances, court decisions or other authority.

B. Use

No action taken by a Councilmember or by the Council which is not in compliance with these rules, but which is otherwise lawful, shall invalidate such Councilmember's or Council action or be deemed a violation of oath of office, misfeasance or malfeasance. No authority other than the City Council may enforce these rules or rely on these rules. Failure of the City Council to follow any of these rules shall be considered a Council decision to waive such rule. No notice of such waiver need be given.

C. Reliance

Public Use or Reliance Not Intended. Because these rules are designed to assist the City Council and not to provide substantive rules affecting constituents, it is expressly stated that these rules do not constitute land use regulations, official controls, "appearance of fairness rules," public hearing rules, or other substantive rules binding upon or to be used by or relied upon by members of the public. These rules do not amend statutory or other regulatory (such as ordinance) requirements.

Appendix A: Definitions

Action: All transactions of a governing body's business, including receipt of public testimony, deliberations, discussions, considerations, reviews, and evaluations, as well as "final" action. [RCW 42.30.010¹⁸, 42.30.020(3)¹⁹].

Codified: The process of forming a legal code (i.e., a codex or book of laws) by collecting and including the laws of a jurisdiction or municipality.

Consensus: A collective judgment or belief; solidarity of opinion: "*The consensus of the group was that they should meet twice a month.* General agreement or harmony. [*Random House Webster's College Dictionary*, April 2001] [Wikipedia: explains it as a group decision making process; not necessarily the agreement. In other words, the question to the group is: "Is this something you can live with?" or, Does anyone object?] It is not unanimity, but more a process for deciding what is best overall. Members of the group reach a decision to which they **consent** because they know it is the best one overall. It differs from voting which is a procedure for tallying preferences. Sometimes knowing there will be an up-down vote at the end often polarizes the discussion. It does not require each member of the group to justify their feelings. [Taken from: *Consensus Is Not Unanimity: Making Decisions Cooperatively*, by Randy Schutt."] Similar to a type of verbal "show of hands" on who feels particularly strong on this?" Sometimes thought of as preliminary approval without taking final "action." A show of hands is not an action that has any legal effect. ["Voting and Taking Action in Closed Sessions" by Frayda Bulestein.]

Ex-parte: from a one-sided or partisan point of view; on the application of one party alone. An ex-parte judicial proceeding is conducted for the benefit of only one party. Ex-parte may also describe contact with a person represented by an attorney, outside the presence of the attorney.

Motion: An enacted motion is a form of action taken by the Council to direct that a specific action be taken on behalf of the municipality. A motion, once approved and entered into the record, is the equivalent of a resolution in those instances where a resolution is not required by law, and where such motion is not in conflict with existing state or federal statutes, City ordinances or resolutions.

Ordinance: An enacted ordinance is a law passed [enacted] by a municipal organization legislatively prescribing specific rules of organization or conduct relating to the corporate affairs of the municipality and those citizens and businesses therein. Council action shall be taken by ordinance when required by law, or where prescribed conduct may be enforced by penalty. Special ordinances such as adopting the budget, vacating a street, amending the Comprehensive Plan and/or Map, and placing a matter on an election ballot, including general obligation bonds, are not codified into the City's municipal code.

Resolution: An enacted resolution is an administrative act which is a formal statement of policy concerning matters of special or temporary character. Council action shall be taken by resolution when required by law and in those instances where an expression of policy more formal than a motion is desired.

Regular Meeting: Any Council meeting that meets in the Sedro-Woolley City Council Chambers or the Fire Department Training Room on the First, Second and Fourth Wednesdays at 7:00 p.m. shall be deemed a "regular meeting."

Social Media: A term used to define the various activities that integrate technology, social interaction and content creation. Through social media, individuals or collaborations of individuals create on-line web content, organize content, edit or comment on content, combine content, and share content. Social media uses many technologies and forms including syndicated web feeds, weblogs (blogs), wiki, photo-sharing, video-sharing, podcasts, and social networking. (From MRSC, and Social Media and Web2.0 in Government, [WebContent.gov](#))

Appendix B: Frequently Used Acronyms

ADA - Americans with Disabilities Act
ADT - Average Daily Traffic
ATF - Bureau of Alcohol, Tobacco & Firearms
AWC - Association of Washington Cities
BOCC - Board of County Commissioners
CAFR - Comprehensive Annual Financial Report
CDBG - Community Development Block Grant
CIAW - Cities Insurance Authority of Washington
CIP - Capital Improvement Plan
CTED - Community, Trade, & Economic Development (now Department of Commerce)
CUP - Conditional Use Permit
DEIS - Draft Environmental Impact Statement
DEM - Department of Emergency Management
DNR - Department of Natural Resources
DNS - Declaration of Non-Significance
DOE - Department of Ecology; Department of Energy
DOT - Department of Transportation
E911 - Enhanced 911
EA - Environment Assessment
EDASC - Economic Development Alliance of Skagit County
EEO/AA - Equal Employment Opportunity/Affirmative Action
EEOC - Equal Employment Opportunity Commission
EIS - Environmental Impact Statement
EOE - Equal Opportunity Employer
EPA - Environmental Protection Agency
ERU - Equivalent Residential Unit (for measuring sewer capacity and demand)
F & WS - Federal Fish & Wildlife Service
FAA - Federal Aviation Administration
FCC - Federal Communications Commission
FEIS - Final Environmental Impact Statement
FEMA - Federal Emergency Management Agency
FICA - Federal Insurance Contribution Act
FIRM - Flood Insurance Rate Maps
FLSA - Fair Labor Standards Act

FMLA - Family Medical Leave Act
GAAP - Generally Accepted Accounting Principles
GASB - Governmental Accounting Standards Board
GIS - Geographic Information System
GMA - Growth Management Act
GPM - Gallons Per Minute
HOV - High-Occupancy Vehicle
HR - Human Resources
HUD - Housing & Urban Development (Department of)
ICMA - International City/County Management Association
L & I - Labor & Industries (Department of)
LID - Local Improvement District
MGD - Million Gallons per Day
MOA - Memorandum of Agreement
MOU - Memorandum of Understanding
MPO - Metropolitan Planning Organization
MRSC - Municipal Research Services Center
NEPA - National Environment Policy Act
NIMBY - Not In My Backyard
NPDES - National Pollutant Discharge Elimination System
PE - Preliminary Engineering; Professional Engineer
PERC - Public Employment Relations Commission
PMS - Pavement Management System
PPE - Personal Protective Equipment
PPM - Parts Per Million; Policy & Procedure Manual
PUD - Public Utility District
PW - Public Works
QA - Quality Assurance
RCW - Revised Code of Washington
REET - Real Estate Excise Tax
RONR - *Robert's Rules of Order Newly Revised*
ROW - Right of Way
SAO - State Auditor's Office
SBA - Small Business Administration
SEPA - State Environmental Policy Act
SMA - Shorelines Management Act

SWAC - Solid Waste Advisory Committee
TIB - Transportation Improvement Board
TIP - Transportation Improvement Program
TMDL - Total Maximum Daily Load
UBC - Uniform Building Code
UFC - Uniform Fire Code
UGA - Urban Growth Area
WAC - Washington Administrative Code
WACO - Washington Association of County Officials
WCMA - Washington City/County Management Association
WSDOT - Washington State Department of Transportation
WSP - Washington State Patrol
WUTC - Washington Utilities & Transportation Commission
WWTP - Wastewater Treatment Plant

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Endnotes:

¹ RCW 42.30.110 – Open Public Meeting Act, Executive Sessions

² RCW 42.30.140- Open Public Meeting Act,

³ RCW 35A.13.035- Optional Municipal Code (35A) – Council-manager plan of government

⁴ RCW 42.52 – Ethics in Public Service

⁵ RCW 42.56 – Public Records Act

⁶ RCW 35A.12.160 Optional Municipal Code (35A) – Council manager plan of government; public notice of hearings and meeting agendas

⁷ RCW 35A.13.170 – Optional Municipal Code (35A) – Council manager plan of government; council meetings – quorum, rules - voting

⁸ RCW 35A.12.110 – Council meetings, shall meet regularly, at least once a month.

⁹ RCW 35A.12.110 – *ibid.*

¹⁰ RCW 42.30.080 - Open Public Meetings Act, Special Meetings, procedures for calling Special Meetings

¹¹ RCW 35A.12.060 – A council position shall become vacant if the councilmember fails to attend three consecutive regular meetings of the council without being excused by the council.

¹² RCW 35A.13.190 – Ordinances, emergencies, may be effective upon adoption if passed by a majority plus one of the whole membership of the council and have the ordinance designated as a public emergency; but such ordinance may not levy taxes, grant, renew or extend a franchise, or authorize the borrowing of money.

¹³ RCW 35A.12.050 – Vacancies

¹⁴ RCW 35A.12.050 – *ibid.*

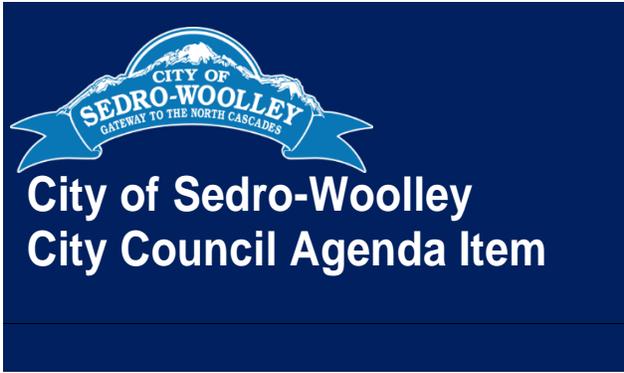
¹⁵ RCW 42.36.040 – Appearance of Fairness – public discussion by candidate for public office

¹⁶ RCW 42.36.060 – Quasi-judicial proceedings, ex-parte communications prohibited, exceptions.

¹⁷ RCW 42.36.010 Appearance of fairness doctrine – local land use decisions.

¹⁸ RCW 42.30.010 - Open Public Meetings Act; legislative declaration. It is the intent of this chapter that their actions be taken openly and that their deliberations be conducted openly.

¹⁹ RCW 42.30.020(3) – Definitions – defines “action”



Agenda Item No. _____

Date: February 23, 2022

Subject: Countywide Planning Policies Update
– *Action Requested*

FROM: John Coleman, AICP, Planning Director

RECOMMENDED ACTION:

Review the proposed amendments to the Skagit County Countywide Planning Policies as presented by the SCOG GMA Technical Advisory Committee and provide feedback (if any) to the Mayor who represents the city on the SCOG GMA Steering Committee.

ISSUE:

The City Council has the opportunity to review and provide feedback on proposed amendments to the Skagit County Countywide Planning Policies. The amendments are proposed by the Skagit Council of Governments (SCOG) Growth Management Act Technical Advisory Committee (GMATAC).

BACKGROUND / SUMMARY INFORMATION:

The Skagit County Countywide Planning Policies (CPPs) establish a countywide framework for developing county, city and town comprehensive plans, thus guiding the county’s regional planning actions. The Skagit County Board of Commissioners ultimately approves all amendments to the CPPs, however, the SCOG Growth Management Act Steering Committee (GMASC) must make a recommendation on all CPP amendments. The GMASC is made up of the executive from each participating city and the three County Commissioners. The GMATAC is comprised of the Planning Director from each participating city and three County Planners. At the direction of the GMASC, the GMATAC reviews regional planning issues and makes recommendations to the GMASC.

At the request of the GMATAC, the County is considering amendments to the CPPs that will allow the County Commissioners to eliminate the Skagit County Boundary Review Board (BRB). The city planners made this recommendation because the purpose of the BRB is an outdated under the Growth Management Act (GMA). The BRB was enabled many years before the GMA was passed. Now, under GMA regulations, cities and counties must follow strict planning procedures – such as designating urban growth areas, protecting critical areas, and requiring transportation, public safety and infrastructure concurrency. These GMA requirements achieve the goals that the BRB was originally intended to achieve. In every way, the GMA regulations are far more comprehensive than the BRB review. Therefore, the BRB review of annexations is duplicative, time consuming and unnecessary.

Before the County Commissioners review the amendments that would enable the elimination of the BRB, the Framework Agreement allows the cities the opportunity to review the proposed amendments and provide feedback.

The next step after city review is for the GMASC to review the requested amendments and make a recommendation to the County Commissioners. See the attached memo (Attachment A) from the Skagit Council of Governments staff; that memo provides more detail on the CPP approval process as well as the proposed amendments the CPPs.

ATTACHMENTS:

1. Attachment A – GMA SUPPORT WORK PROGRAM: BOUNDARY REVIEW BOARD provided by the Skagit Council of Governments staff.

GMA SUPPORT WORK PROGRAM: BOUNDARY REVIEW BOARD

Recommendation

The Growth Management Act Technical Advisory Committee (GMATAC) recommends adoption of the following Countywide Planning Policy (CPP) 12.17 language:

12.17 Cities and towns are the appropriate purveyors of urban services. In the interest of facilitating the cost effective and orderly provision of urban services, the annexation of urban growth areas shall be encouraged and facilitated. The following policies are intended to promote municipal annexation, discourage urban growth in advance of annexation, and ensure that urban services can be provided in a logical cost-effective manner:

1. On or before June 30, 2025 the Board of County Commissioners shall, as authorized by RCW 36.93.230, take action to disband the Washington State Boundary Review Board for Skagit County. Subsequent to the disbandment of the boundary review board, municipal annexations shall be subject to the following:
 - a. Annexations of land recently included in an urban growth area shall not be final until any appeal periods, or any proceedings associated with the urban growth area change, have lapsed or concluded;
 - b. With the exception of existing non-municipal urban growth areas, Skagit County shall ensure that urban growth does not occur in advance of municipal annexation;
 - c. The area(s) to be annexed shall be contiguous with existing municipal boundaries and shall avoid irregular boundaries by following existing features such as parcel lines or roadways, provided that such boundaries remain consistent with Chapter 36.70A RCW;
 - d. Consistent with Washington state law, the annexation should include consideration of services and applicable infrastructure, as well as providing for the assumption of assets and obligations affected by the transfer of governance within the annexation area(s);
 - e. If a public hearing is required by Washington state law on the proposed annexation, it shall be held at least 60 days prior to the effective date of the annexation. Notice of the hearing shall be provided to Skagit County and any affected special purpose districts; and
 - f. Annexations shall be consistent with the Skagit County Countywide Planning Policies.

Background

The 2021 GMA Support Work Program and Budget includes the following task:

“GMA Task 3.1 – Boundary Review Board:

Continue discussions started in 2020 regarding the dissolution of the Boundary Review Board (BRB) with County and City/Town staff in context with CPP 12.17. This work will be led by the GMA TAC. The GMA TAC anticipates gathering information from various special purpose districts to inform analysis and options for consideration by the GMASC or other agencies. SCOG staff would assist in the information gathering.”

Next Steps

The [2002 Framework Agreement](#) includes Section 6: Role with Legislative Bodies (Page 8), which highlights the importance of referring draft CPPs to member jurisdictions at the earliest possible time, to provide meaningful opportunity for public comment and solicit input from city-town councils and the County Commissioners. The Framework Agreement explicitly states that the GMA Committee, which is composed of the GMASC and GMATAC, shall not substitute for or replace duties and responsibilities of member jurisdiction legislative bodies.

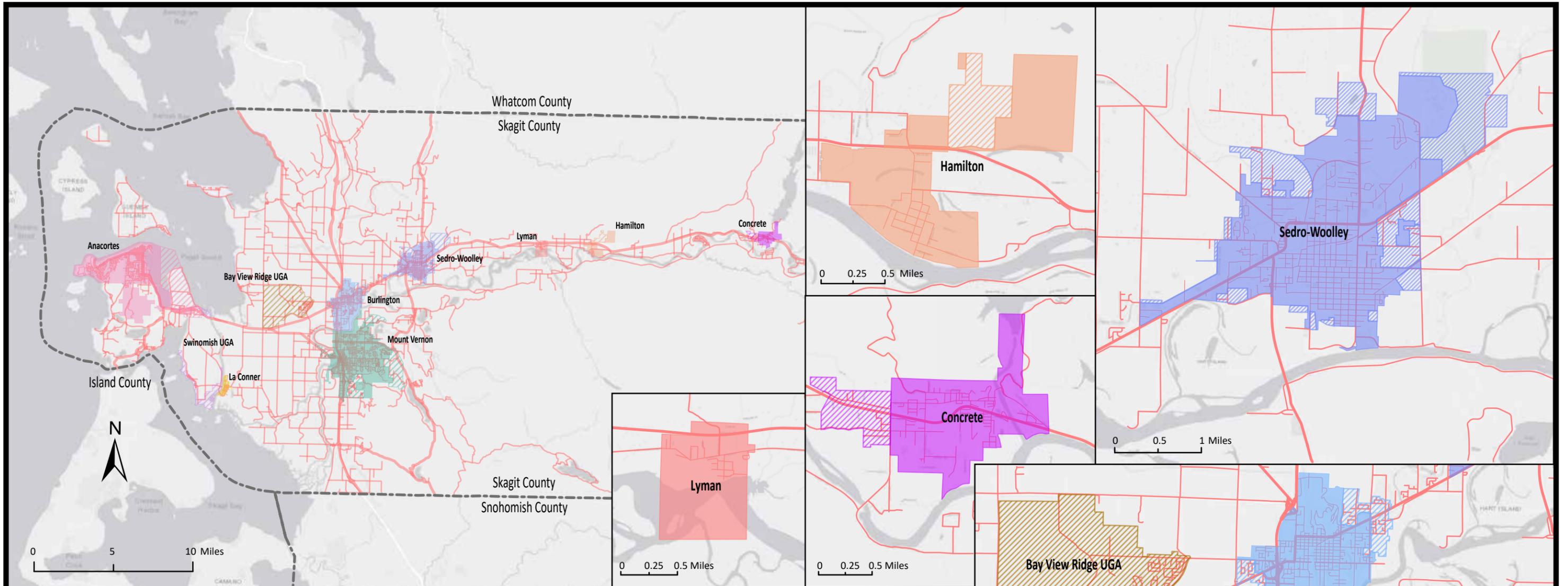
To meet the intent of the Framework Agreement, SCOG staff recommends that Framework Agreement members shepherd a GMA Support Work Program: Boundary Review Board recommendation through local processes to gather feedback from legislative bodies and the public. At their October 20, 2021 meeting, the Growth Management Act Steering Committee referred the recommended CPP 12.17 to member jurisdiction legislative bodies to provide for a meaningful opportunity for public comment, as well as solicit input from legislative bodies. Any feedback received should be provided in writing to SCOG staff by February 28, 2022 so that it may be compiled and presented to the GMASC prior to the March 2022 meeting.

The referral of recommended CPP 12.17 to member jurisdiction legislative bodies included a GMASC stipulation that a countywide map showing city-town limits and unincorporated urban growth areas be prepared and distributed. Such a map has been created by SCOG staff and is enclosed as Attachment A.

As the recommending authority to County Commissioners, the GMASC may choose to make a recommendation on CPPs in March 2022, or at a future meeting. County Commissioners may take one of two actions on any CPP recommendation from the GMASC:

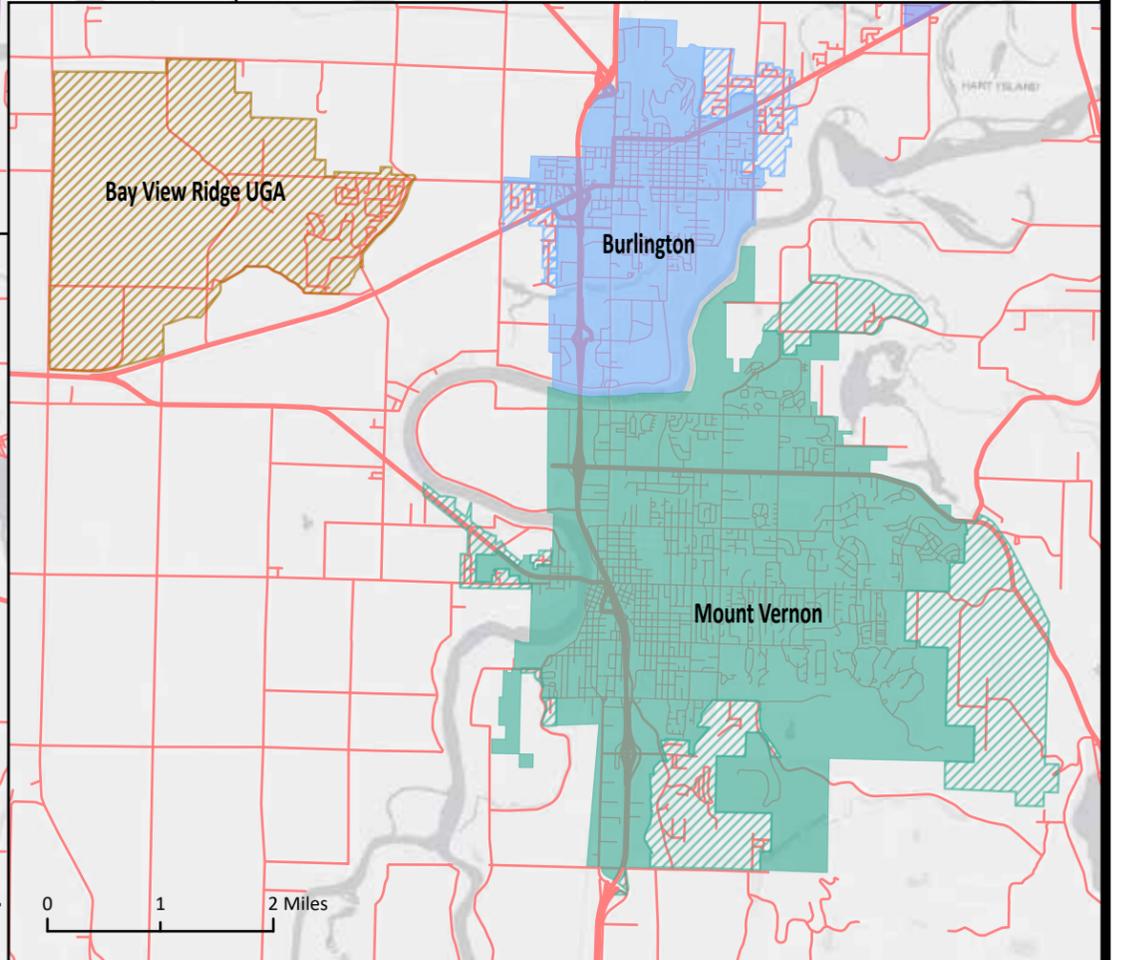
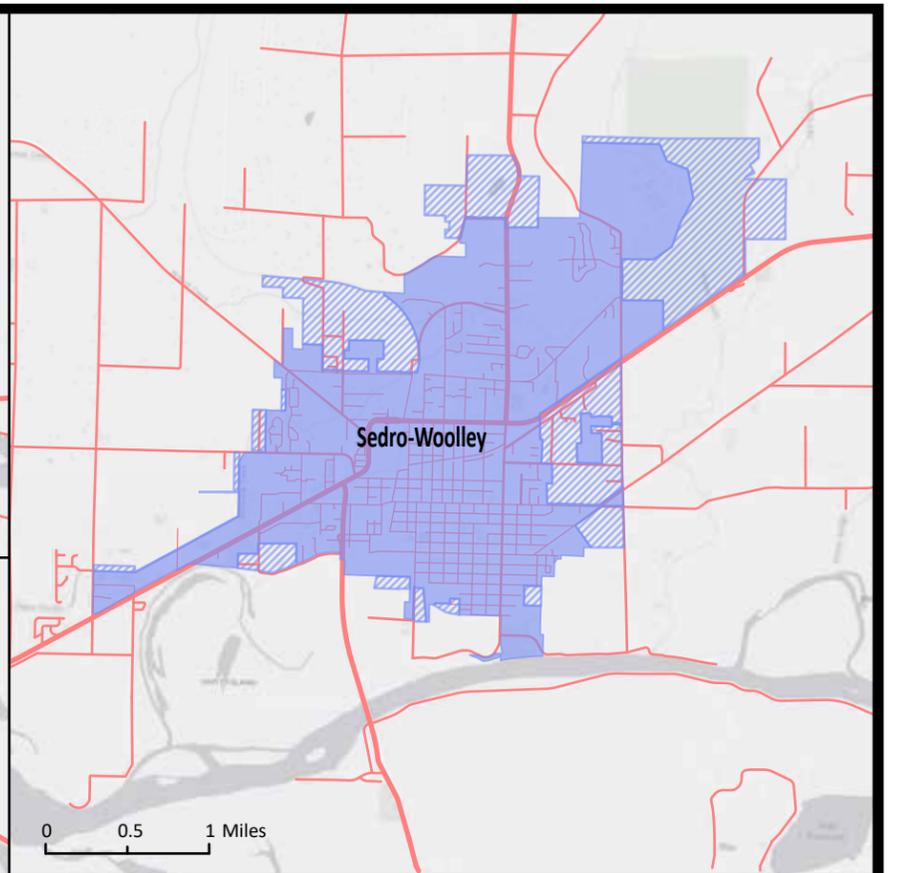
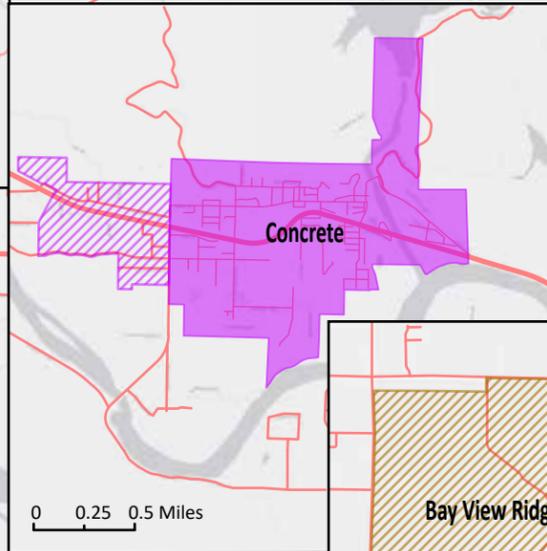
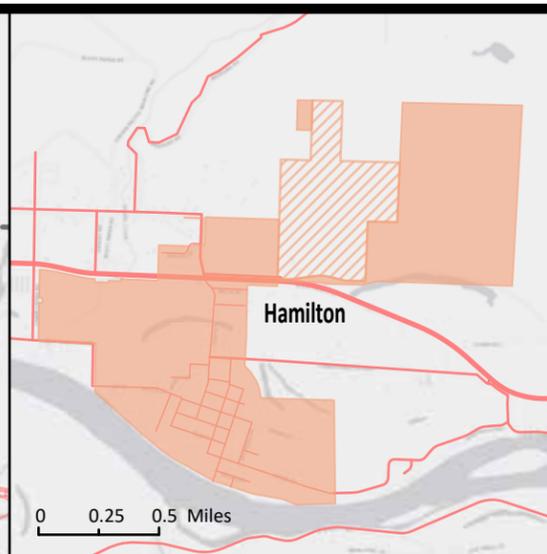
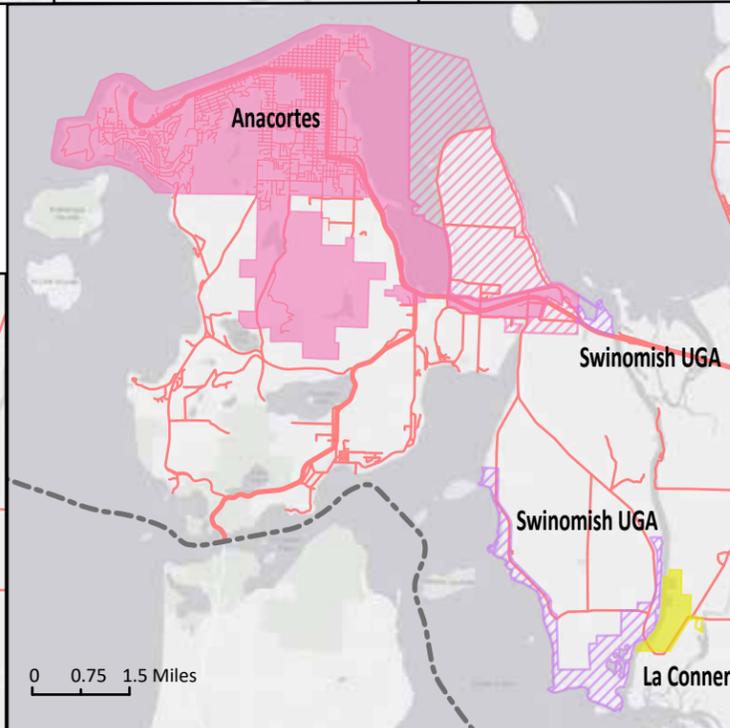
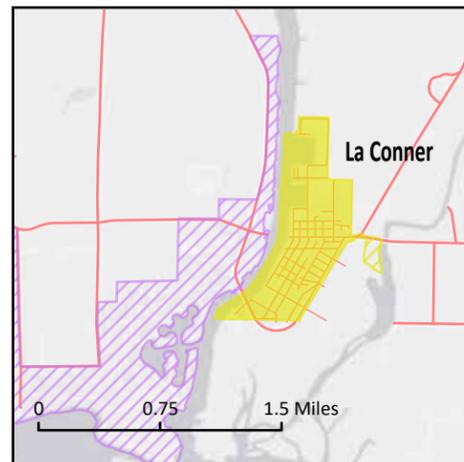
1. Adopt any new CPP or CPP amendment proposed by the GMASC, but not change the proposed CPP or CPP amendment in any manner whatsoever; or
2. Decline to adopt any new CPP or CPP amendment proposed by the GMASC.

There is also a CPP dispute resolution process that any GMASC member may invoke, which is included in Section 9: Dispute Resolution (Page 9–11) of the Framework Agreement and illustrated on a [PowerPoint presentation slide](#) prepared in 2018 by SCOG staff. A notice of dispute can occur after any GMASC CPP recommendation to the County Commissioners.



Cities, Towns and Unincorporated Urban Growth Areas of Skagit County

Urban Growth Area	City/Town
Anacortes UGA	Anacortes
Bay View Ridge UGA	Burlington
Burlington UGA	Concrete
Concrete UGA	Hamilton
Hamilton UGA	La Conner
La Conner UGA	Lyman
Mount Vernon UGA	Mount Vernon
Sedro-Woolley UGA	Sedro-Woolley
Swinomish UGA	County Boundary



Credits: ESRI, OpenStreetMap, Skagit County GIS, SCOG Skagit Council of Governments, November 8, 2021



Agenda Item No. _____

Date: February 23, 2022

Subject: Preliminary Plat approval of the Plat of Bucko Estates (file #LP-2021-067) – *Action Requested*

FROM: John Coleman, AICP, Planning Director

RECOMMENDED ACTION:

Make a motion to adopt Resolution 1089-22 to approve the preliminary Plat of Bucko Estates subject to the conditions contained in the Hearing Examiner's Findings of Fact, Conclusions & Recommendation.

ISSUE:

Should the Council grant preliminary plat approval for the Plat of Bucko Estates?

BACKGROUND / SUMMARY INFORMATION:

Preliminary plat approval for a 64-lot, 68 unit residential subdivision is requested. The subdivision includes 60 single-family lots and four duplex lots. The property is located at 503 & 505 F&S Grade Road and is located in the Residential 7 zone. The *Hearing Examiner's Findings of Fact, Conclusions & Recommendation* – attached as Attachment A to the Resolution – contains the complete history of the application and review process. The map of the proposed subdivision is Exhibit H to the *Hearing Examiner's Findings of Fact, Conclusions & Recommendation*.

ATTACHMENTS:

1. Resolution 1089-22 to approve the preliminary Plat of Bucko Estates subject to the conditions contained in the *Hearing Examiner's Findings of Fact, Conclusions & Recommendation*.

Attachment 1 to Council memo

Resolution No. 1089-21, a resolution granting preliminary plat approval of the Plat of Bucko Estates.

RESOLUTION NO. 1089-22

A RESOLUTION GRANTING PRELIMINARY APPROVAL OF THE “PLAT OF BUCKO ESTATES,” A 64-LOT, 68 UNIT SUBDIVISION AND AUTHORIZING THE MAYOR AND HER DESIGNEE(S) TO SIGN ALL PRELIMINARY PLAT APPROVAL DOCUMENTS

WHEREAS, Sarah and Laura Bucko, owners of approximately 19.6 acres at 503 & 505 F&S Grade Road, have applied for preliminary plat approval for the proposed Plat of Bucko Estates, a proposed a 64-lot, 68-unit subdivision; and

WHEREAS, the City of Sedro-Woolley Planning and Public Works staff reviewed the preliminary plat and determined the proposed preliminary Plat of Bucko Estates has met the requirements of Chapters 13, 15, 16 and 17 SWMC; and

WHEREAS, the Sedro-Woolley Hearing Examiner held an open record public hearing for the preliminary plat application on January 12, 2022 and public testimony was received and considered; and

WHEREAS, the Hearing Examiner determined that the application was technically compliant with Ch. 16.08 SWMC and recommended to the City Council that the proposed Preliminary Plat of Bucko Estates be approved subject to conditions. The Hearing Examiner’s *Findings, Conclusions and Recommendation* (and exhibits) is attached hereto as Attachment A.

NOW, THEREFORE BE IT RESOLVED that the City Council of the City of Sedro-Woolley, Washington adopts the attached *Findings, Conclusions and Recommendation* of the Hearing Examiner; and

BE IT FURTHER RESOLVED that the City Council finds that preliminary plat application #LP-2021-067, the Preliminary Plat of Bucko Estates, meets the requirements of Ch. 16.08 SWMC and shall be given preliminary plat approval, subject to conditions stated in the *Findings, Conclusions and Recommendation* of the Hearing Examiner.

PASSED by majority vote of the members of the Sedro-Woolley City Council this _____ day of February, 2022,

Julia Johnson, Mayor

ATTEST:

APPROVED AS TO FORM:

Debbie Burton, Finance Director

Nikki Thompson, City Attorney

Resolution 1089-22

Attachment A

Findings, Conclusions and Recommendation of the Hearing Examiner for the Preliminary Plat of Bucko Estates

**BEFORE THE HEARING EXAMINER
FOR THE CITY OF SEDRO-WOOLLEY**

In the Matter of the Application of)	No. LP-2021-067
)	
Heike Nelson, Ravnik and Associates,)	Bucko Estates Preliminary Plat
Inc., on behalf of Laura and Sarah Bucko)	
)	FINDINGS, CONCLUSIONS,
<u>For Approval of a Preliminary Plat</u>)	AND RECOMMENDATION

SUMMARY OF RECOMMENDATION

The Hearing Examiner recommends that the request for a preliminary plat to subdivide three contiguous parcels, totaling approximately 19.6 acres, into 60 single-family residential lots and 4 duplex lots, with associated improvements, at 503 and 505 F & S Grade Road, be **APPROVED**. Conditions are necessary to address specific impacts of the proposal.

SUMMARY OF RECORD

Hearing Date:

The Hearing Examiner held an open record hearing on the request on January 12, 2022, using remote access technology. The record was left open until January 20, 2022, to allow for the submission of additional information on the proposal.

Testimony:

The following individuals provided testimony under oath at the open record hearing:

John Coleman, City Planning Director
Patrik Dylan, Applicant Landscape Architect
Mary Harenda, Applicant Critical Areas Consultant
Patrick Hayden
James Ray
Heike Nelson, Applicant Representative

Attorney Reuben Schutz represented the Applicant at the hearing.

Exhibits:

The following exhibits were admitted into the record:

- A. Transmittal & Report Memorandum (Staff Report)
- B. Preliminary Plat Application, dated February 1, 2021
- C. SEPA Environmental Checklist, dated February 3, 2021
- D. Notice of Application and SEPA Comment Period, published February 26, 2021
- E. Public and Agency Comments:

*Findings, Conclusions, and Recommendation
City of Sedro-Woolley Hearing Examiner
Bucko Estates Preliminary Plat
No. LP-2021-067*

1. Comment from Michele Batchelor, undated
 2. Comment from Ann Cowan, dated March 12, 2021
 3. Comment from Patrick Hayden, undated
 4. Comment from Mary and Kevin McGoffin, undated
 5. Comment from EvYonne and GlenGlen Michael, undated
 6. Comment from Gayleen and Shawn Ronk, undated
 7. Comment from Nora Kammer, Skagit River System Cooperative, undated
 8. Comment from Brett Greenwood, Sedro-Woolley School District, dated June 29, 2021
 9. Comment from Washington State Department of Ecology, dated March 12, 2021
- F. Comment from Nora Kammer, Skagit River System Cooperative, undated; Email from Nora Kammer to City Planning Director John Coleman, dated September 20, 2021, with email string
- G. Bucko Plat Development Agreement, undated
- H. Preliminary Plat Plan Set (4 Sheets), dated December 21, 2021
- I. Site Plan, dated December 14, 2021
- J. Phasing Exhibit, dated December 14, 2021
- K. Critical Areas Assessment Report and Mitigation Plan, Essency Environmental, LLC, revised July 8, 2021
- L. Addendum to SEPA Environmental Checklist, prepared June 30, 2021
- M. Landscape Plans (6 Sheets), revised September 8, 2021
- N. Mitigated Determination of Nonsignificance, issued August 25, 2021
- O. Notice of Public Hearing, published December 30, 2021
- P. Figure 1 – Study Area of the Transportation Element
- Q. Additional Public Comments Received at the Hearing:
1. Comment from Patrick Hayden, dated January 7, 2022
 2. Comment from Gayleen and Shawn Ronk, dated January 11, 2022
- R. Traffic Impact Analysis, Gibson Traffic Consultants, Inc., dated November 22, 2019
- S. Preliminary Drainage Report, Ravnik and Associates, Inc., dated January 30, 2021
- T. Memorandum from Attorney Reuben Schutz, dated January 20, 2022
- U. Letter from John Coleman, dated January 20, 2022

The Hearing Examiner enters the following findings and conclusions based upon the admitted testimony and exhibits:

FINDINGS

Application and Notice

1. Heike Nelson, of Ravnik and Associates, Inc., on behalf of Laura and Sarah Bucko (Applicant), requests approval of a preliminary plat to subdivide three contiguous parcels, totaling approximately 19.6 acres, into 60 single-family residential lots and 4 duplex lots, with associated improvements that would include new public roadways, utility extensions, open space amenities, and landscaping. The proposed development would

occur in three phases and would be subject to a Development Agreement (DA)¹ between the Applicant and the City of Sedro-Woolley (City) that was ratified by the City Council on December 8, 2021.² The property is located at 503 and 505 F & S Grade Road.³ *Exhibit A, Staff Report, pages 1 and 2; Exhibit B; Exhibits G through J; Exhibit M.*

2. On September 30, 2020, City staff held a pre-application meeting with the Applicant to discuss an earlier iteration of the project that had proposed to subdivide the property into 60 single-family and 5 duplex lots. This earlier version of the proposal included a roadway dedication across the western portion of the site to accommodate a portion of a future arterial (North Trail Road) that would connect Cook Road to the south of the property with the already constructed portion of North Trail Road at F & S Grade Road to the north of the property. The City advised the Applicant that the proposed roadway would have to be relocated, and the parties began the process of negotiating a DA to address the road location, impacts of changing the proposed road alignment, and other project details. Through these extensive negotiations, the Applicant reconfigured the site layout to accommodate the City's requested location for the North Trail Road arterial and reduced the number of proposed duplex lots from five to four. The Applicant and the City ultimately agreed to a DA setting forth certain development standards that would apply to the proposed development, including standards related to the construction of the North Trail Road arterial, traffic impact fees, utilities, and open space requirements, as well as detailing the site improvements that would be completed during each phase of the development. The specific provisions of the DA governing the proposal are discussed, where relevant, throughout this decision. *Exhibit A, Staff Report, pages 2, 4, 5, and 9 through 12; Exhibit G.*
3. The City of Sedro-Woolley (City) determined that the application was complete on February 6, 2021. On February 26, 2021, the City provided notice of the application by mailing notice to property owners and residents within 500 feet of the property, posting notice at the project site, and publishing notice in the *Skagit Valley Herald*, with a

¹ RCW 36.70B.170 authorizes local governments to enter into development agreements with a person having ownership or control of real property within its jurisdiction. Such development agreements must set forth the development standards and other provisions that shall apply to, and govern and vest, the development, use, and mitigation of the development of the real property for the duration specified in the agreement. *RCW 36.70B.170(1).*

² City Planning Director John Coleman clarified at the hearing that, although the DA was ratified by the City Council on December 8, 2021, it remains unsigned and is not yet final due to a technical issue regarding the Applicant changing the name of the legal entity having ownership of the property. *Testimony of Mr. Coleman.*

³ The property is identified by Tax Assessor Parcel Nos. P37250, P37251, and P37253. *Exhibit A, Staff Report, page 1.* Legal descriptions of the subject parcels are included with the preliminary plat plan set. *Exhibit H.*

comment deadline of March 12, 2021. On December 30, 2021, the City provided notice of the open record hearing associated with the application by mailing notice to property owners and residents within 500 feet of the property, posting notice at the project site, and publishing notice in the *Skagit Valley Herald*. *Exhibit A, Staff Report, page 5; Exhibit D; Exhibit O.*

4. The City received comments specific to the environmental review of the proposal from the Washington State Department of Ecology (DOE) and from a member of the public, which are discussed in detail below. The City also received the following comments on the proposal from members of the public and reviewing agencies in response to its notice materials:
 - Michele Batchelor raised concerns about drainage from the proposed development potentially impacting existing septic drain fields in the area and inquired about whether the City had plans to extend public sanitary sewer service to the neighborhood.
 - Ann Cowan raised concerns about the City allowing construction activity during the evening hours and on the weekends, noting the general noise and dust impacts associated with construction activity.
 - Mary and Kevin McGoffin stated that they support new residential development generally but raised concerns about the proposed reduced buffer along Brickyard Creek and about the traffic impacts of the proposal.
 - EvYonne and Glen Michael inquired about whether the project would include measures, such as fencing, to ensure privacy for existing residences along Hawthorn Street to the east of the site. They also raised concerns about a proposed trail through the development being used by motorcycles or ATVs.
 - Gayleen and Shawn Ronk raised concerns about the proposal providing sufficient recreational open space for children residing in the subdivision. They also raised concerns about the noise impacts from the proposed new arterial road, which would be located next to their property, and requested that the proposed roadway be located further from their property and that sound barriers be installed to address the noise impacts.
 - Patrick Hayden requested that the Applicant be required to dedicate an easement to the City along the length of Brickyard Creek running through the development to accommodate the potential future location of a nonmotorized public trail between Cook Road and F & S Grade Road.
 - The Sedro-Woolley School District noted that it would serve students residing the subdivision and that it operates a transportation facility located near the subject property, which generates noise from bus operations that could impact future residents of the subdivision.
 - Environmental Protection Ecologist Nora Kammer of the Skagit River System Cooperative (SRSC) submitted a comment noting that SRSC represents the off-reservation fisheries and natural resource interests of the Swinomish Indian Tribal

Community and the Sauk-Suiattle Indian Tribe. She noted SRSC's concerns about impacts to Brickyard Creek from the proposed location of a trail within the Brickyard Creek riparian buffer. In response to Ms. Kammer's concerns, the City recommended that the proposed location of the trail be relocated to the outer eight feet of the buffer on the north side of Brickyard Creek. Ms. Kammer submitted a later comment expressing her support for the proposed the trail at the new location, noting that it would address SRSC's concerns about the project's impacts to Brickyard Creek.

Exhibit A, Staff Report, pages 4 through 6; Exhibit E; Exhibit F; Exhibit Q.

State Environmental Policy Act

5. The City acted as lead agency and analyzed the environmental impacts of the proposal under the State Environmental Policy Act (SEPA), Chapter 43.21C Revised Code of Washington RCW (RCW). The City consolidated notice of the SEPA review and application comment periods under the optional process provided for by Washington Administrative Code (WAC) 197-11-355, with a comment deadline of March 12, 2021. The notice materials stated that the City expected to issue a Mitigated Determination of Nonsignificance (MDNS) for the proposal. As noted above, the City received two comments specific to the environmental review of the proposal during the SEPA comment period. Patrick Hayden requested that any MDNS issued for the proposal require the Applicant to dedicate a nonmotorized trail along Brickyard Creek to provide for a potential future City trail system between Cook Road and F & S Grade Road. The Washington State Department of Ecology (DOE) provided general comments that provided guidance on construction activities that would require coverage under a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit. The City reviewed the Applicant's environmental checklist and other information on file and determined that, with mitigation measures, the proposal would not have a probable significant adverse impact on the environment. Accordingly, the City issued an MDNS on August 25, 2021, with an appeal deadline of September 8, 2021. The same day, the City provided notice of the MDNS by sending the MDNS to all property owners and residents within 500 feet of the property, posting the MDNS at the project site, and publishing the MDNS in the *Skagit Valley Herald*. The MDNS was not appealed. *Exhibit A, Staff Report, page 5; Exhibit C; Exhibit E.3; Exhibit E.9; Exhibit L; Exhibit N.*
6. The MDNS includes the following mitigation measures:
 - Hours of construction shall be limited to 7:00 AM to 9:00 PM on weekdays and 8:00 AM to 9:00 PM on weekends as required under SWMC 9.46.020;
 - Comply with Northwest Clean Air Agency Regulations during construction activities;
 - Provide mitigation for project related impacts to critical areas and buffers in accordance with Chapter 17.65 SWMC;

- All construction traffic shall use temporary construction access as approved by Public Works Department;
- Contribute police mitigation fees of \$505.76 per unit as per the residential unit fee calculation in the Capital Facilities Element of the City of Sedro-Woolley Comprehensive Plan; and
- Lighting from the site shall be directed and/or shielded so as to not shine at the neighboring residential properties.

Exhibit N.

Comprehensive Plan and Zoning

7. The property is designated Residential 7 under the City Comprehensive Plan. The purpose of the designation is to allow “single lot developments to a maximum density of seven units per acre, with a minimum lot size of six thousand (6,000) square feet” and to allow “duplexes on appropriately sized lots (minimum duplex lot size of nine thousand (9,000) square feet.” *City Comprehensive Plan, pages 31 and 32.* City staff identified the following comprehensive plan goals and policies as relevant to the proposal:
- Goal LU1: Safely accommodate population growth without causing urban sprawl.
 - Policy LU1.2: Prevent urban development outside the urban growth area (UGA).
 - Policy LU3.1: Coordinate land use decisions with the transportation and capital facilities elements of the comprehensive plan.
 - Policy LU4.4: Provide effective and timely application of sensitive and critical area land use policies, including SEPA review for all developments involving potentially significant environmental issues.
 - Policy LU5.7: Recognize the rights of property owners to freely use and develop private property consistent with city regulations.
 - Policy LU5.8: Encourage high standards of appearance in all residential areas and in other high visibility areas.
 - Goal LU16: Protect, sustain, and maintain Sedro-Woolley’s critical areas, sensitive areas, and natural resource lands for present and future generations.
 - Policy LU16.3: Require, as appropriate, site-specific delineation of sensitive and critical areas by owners/developers of property as part of the development review process.
 - Policy LU17.7: Maintain or enhance water quality within the Skagit River and its tributaries.
 - Policy LU17.10: Water-courses, wetlands, bodies of water, and their shores should be kept in a natural condition where possible and protected from development impacts through the use of buffers and green spaces.
 - Policy T6.2: Ensure that growth mitigates its impacts through transportation impact fees, SEPA mitigation, concurrency, and development regulations.
 - Goal T7: Provide an adequate transportation system current with the traffic-related impacts of new development.

- Policy T7.1: Maintain the adopted Level of Service (LOS) standard for all roadways classified as arterials or state highways.
- Goal H1: Provide sound, adequate housing for all current and future Sedro-Woolley residents.
- Policy H3.1: Require usable outdoor recreation space as part of all residential developments.
- Policy H4.1: Develop a mix of multi-family residential units and single-family units throughout the community.
- Policy H4.3: Encourage the development of residential structures that respect existing view of the natural features, and the right of everyone to enjoy them.
- Policy H4.5: Require that developed and designed residential structures comply with the critical areas ordinances such as wetlands, frequently flooded areas, drainage, steep slopes, aquifer recharge areas, migratory routes and natural wildlife habitat.

City staff determined that, with conditions, the proposed subdivision would be consistent with the City Comprehensive Plan. *Exhibit A, Staff Report, pages 7 through 9.*

8. The property is located in the Residential 7 (R-7) zoning district. The R-7 zone “includes the portion of Sedro-Woolley platted over a hundred years ago” and is “characterized by a grid street system and small lots.” *Sedro-Woolley Municipal Code (SWMC) 17.12.005.* The intent of the R-7 zone is to “encourage the continuation of this traditional pattern.” *SWMC 17.12.005.* Single-family residences are permitted outright in the R-7 zoning district. *SWMC 17.12.010.A.1.* Duplex residences on lots measuring no less than 9,000 square feet are also permitted outright in the R-7 zoning district, subject to the following requirements: duplex lots must be have a minimum width of 80 feet at the building line, a minimum depth of 100 feet, and a minimum lot frontage on a public street of 20 feet; duplex lots must provide off-street parking for four vehicles; duplexes must be designed to resemble a single-family residence to blend in with the design and appearance of surrounding residences in the neighborhood; and no more than one duplex shall be allowed per any three successive lots adjoined by side property lines. *SWMC 17.12.010.A.4.* City staff reviewed the Applicant’s site plans and determined that the four proposed duplex lots would meet the applicable dimensional requirements and, therefore, would be allowed in the R-7 zoning district. *Exhibit A, Staff Report, pages 1, 2, 4, 9, and 10; Exhibit H; Exhibit I.*
9. Chapter 17.12 SWMC provides specific requirements related to bulk restrictions, minimum lot size, and maximum density in the R-7 zone. As discussed above, the four proposed duplex lots would meet the applicable dimensional standards. Single-family residential lots within the R-7 zoning district are required to be no less than 6,000 square feet, have a minimum lot width of 40 feet at the building line, and have a minimum lot frontage of 20 feet on a public street, approved private street, or approved easement. *SWMC 17.12.030.* City staff reviewed the Applicant’s site plans and determined that the

proposed single-family residential lots would meet these dimensional standards. SWMC 17.12.050 provides a maximum lot coverage of fifty percent for all structures within a lot in the R-7 zone. This requirement would be reviewed at the building permitting stage. *Exhibit A, Staff Report, pages 4, 9, and 10; Exhibit H; Exhibit I.*

Existing Site and Critical Areas

10. The approximately 19.6-acre property currently contains two single-family residences and associated accessory buildings at the northeast portion of the site, which would be removed as part of the project. The northeast corner of the site is landscaped in the vicinity of the residences, with the remaining area of the site primarily consisting of mown hayfields and thickets of Himalayan blackberry. A fish-bearing stream, Brickyard Creek, flows from northeast corner of the site to the southwest corner of the site. Brickyard Creek occupies the topographically lowest area on the site and is surrounded by a narrow floodplain. The site topography steepens abruptly immediately adjacent to the creek and then flattens, with a majority of slopes at a one to two percent gradient and the steepest slopes along the creek at an approximate 20 percent gradient. The creek contains a drainage right-of-way that was originally dedicated to Skagit County Drainage District 14 and later dedicated to the City, which provides the City with rights to conduct drainage maintenance activities in the creek. Properties to the north, east, and west of the subject property are zoned R-7 and are developed with single-family residences. Properties to the south are zoned Mixed Commercial and Public and consist of farm/agricultural land and a Sedro-Woolley School District transportation facility. *Exhibit A, Staff Report, pages 2 and 3; Exhibit H; Exhibit I; Exhibit K; Testimony of John Coleman.*

11. Essency Environmental, LLC, prepared a Critical Areas Assessment Report and Mitigation Plan for the proposed development, revised July 8, 2021. The report identified Brickyard Creek as a Type 3 fish-bearing stream with a standard 110-foot riparian buffer. *SWMC 17.65.530.B.* The report noted that the portion of Brickyard Creek flowing through the site provides salmonid migration habitat and poor-quality rearing habitat. The stream substrate is dominated by sand, the channel is of uniform depth, and there are virtually no large wood or other complex habitat features. The existing buffer associated with Brickyard Creek is dominated by reed canarygrass, pasture grasses, and non-native blackberries, with no trees or shrubs present along the stream apart from some mature trees located near the existing residences on the property. The lack of shading along the stream has allowed reed canarygrass to dominate the vegetation of the stream banks and to encroach into the channel.

To facilitate the proposed development, the Applicant proposes to reduce the 110-foot buffer associated Brickyard Creek to a minimum of 55 feet in some locations, as allowed under *SWMC 17.65.530.B.2.* The Applicant would mitigate for the buffer reduction by enhancing the remaining 3.43 acres of buffer area with native tree and shrub plantings.

The Applicant would also restore areas of the creek disturbed by the installation of new water and sewer lines and by the installation of new culvert required for the construction of the proposed new arterial roadway (North Trail Road) along the western boundary of the property. The enhanced riparian buffer areas would be identified on the recorded plat as a Protected Critical Area (PCA) and would be fenced and signed as required under SWMC 17.65.170.D, and a homeowner's association would be created to own and maintain the PCA tract. The critical areas report determined that the proposed mitigation plantings would increase buffer functions despite the buffer reduction and that no net loss to stream and buffer resource function would result from the proposed development. The report also determined that the property is not within the shoreline jurisdiction, that there are no aquifer recharge areas on or within 200 feet of the site, and that there are no potential landslide or erosion hazard areas or steep slopes mapped by Skagit County on the property. The City's third-party biologist reviewed the Critical Areas Assessment Report and Mitigation Plan, agreed with its analysis, and determined that the proposed mitigation would comply with the City's critical areas regulations. *Exhibit A, Staff Report, pages 6 and 7; Exhibit K; Exhibit M.*

12. As noted above, the project originally proposed to include a trail within the reduced Brickyard Creek buffer. A trail is a low-impact use generally allowed within a riparian buffer provided that it would not decrease riparian functional values and would not inhibit buffer recovery. *SWMC 17.65.530.C.3.* Following concerns raised by SRSC about the proposed location of the trail impacting Brickyard Creek, the City recommended, and the City's third-party biologist agreed, that the Applicant construct an eight-foot-wide crushed rock trail at the outer edge of the buffer area on the south side of Brickyard Creek. As discussed above, Brickyard Creek contains a drainage right-of-way, and the City has indicated that the recommended trail would be necessary to provide the Public Works Department access to the creek for drainage maintenance activities. *Exhibit A, Staff Report, pages 6 and 7; Exhibit K; Testimony of John Coleman.*

Landscaping and Open Spaces

13. SWMC 17.38.010 requires new developments consisting of over seven dwelling units to provide a minimum of 8,000 square feet of unpaved, usable recreational open space plus an additional 100 square feet of such open space for each unit beyond 25 units. The Applicant's proposed 68-unit subdivision would require 11,900 square feet of recreational open space. The Applicant proposes to exceed this requirement by providing four open space tracts within the subdivision that would total 29,480 square feet. The DA addresses the phased provision of recreational open space within the subdivision. City staff reviewed the DA and the Applicant's landscape plan, which details the proposed open space tracts, for compliance with Sedro-Woolley Design Standards and Guidelines as required under SWMC 17.38.020 and determined that, with conditions, the plan would comply with these design standards. City staff has recommended conditions requiring the landscape plan to include landscaping improvements in the area between an

existing culvert and F & S Grade Road and to remove an existing gravel trail across the culvert and restore the area with amended soils and plantings. *Exhibit A, Staff Report, pages 11 through 13; Exhibit M.*

Access and Traffic

14. The proposed development would include the construction of a new public arterial road (North Trail Road) that would extend from Cook Road to the south of the property through the western portion of the property and terminate at the property's northwest corner. The arterial would eventually extend north to connect with the already constructed portion of North Trail Road at F & S Grade Road, consistent with the transportation goals of the Comprehensive Plan and the City's Transportation Improvement Plan. The arterial would include street trees, sidewalks, and planter strips in accordance with city street design standards and the DA. To limit the number of access points along the arterial through the subdivision, the proposed lots abutting the arterial would be oriented with their backyards along the arterial. Because no vehicle access to the lots would be allowed from the arterial, the City would waive certain building setback requirements that would be typically required for these adjacent lots.

Access to the proposed lots north of Brickyard Creek would be provided by a new internal public road (Y Avenue) connecting to the new North Trail Road arterial at the northwest corner of the site and F & S Grade Road at the northeast corner of the site, as well as by a second public roadway (Z Place) extending south from Y Avenue and terminating in a cul-de-sac. Access to the proposed lots south of Brickyard Creek would be provided by a new internal public road (Bucko Avenue) connecting to the new North Trail Road arterial at the south-central portion of the site and extending northeast through a portion of the site and then south until terminating near the property's southeast corner. The proposed Bucko Avenue would be designed to provide a potential future connection to property to the south of the subdivision. The new roadways providing lot access would be constructed to local street standards and would include sidewalks to ensure safe conditions for students walking to area schools or school bus stops. The new roadways have been intentionally designed to not connect to the existing Thurmond Avenue to the west to prevent traffic from bypassing the new North Trail Road arterial. *Exhibit A, Staff Report, pages 2, 4, 5, and 7 through 12; Exhibit G; Exhibit H; Exhibit I; Exhibit M; Exhibit P; Exhibit R; Testimony of John Coleman.*

15. Gibson Traffic Consultants, Inc., prepared a Traffic Impact Analysis (TIA), dated November 6, 2020, which analyzed the anticipated traffic impacts of the original proposal to develop 60 single-family units and 5 duplex units. The TIA determined that the original proposal would generate approximately 642 new average daily trips, with 50 new AM peak-hour trips and 67 new PM peak-hour trips. The TIA also determined that all studied intersections would continue to operate at acceptable levels of service following a full buildout of the proposed development. The DA governing the proposal provides that

the Applicant would be provided credit for the dedication of the new North Trail Road arterial that would offset the \$189,108 in transportation impacts fees that would otherwise be required for the development. The DA further provides that the City would provide the Applicant with monetary compensation for any value of the dedication exceeding this \$189,108 offset. *Exhibit G; Exhibit R.*

Stormwater

16. Ravnik & Associates, Inc., prepared a Preliminary Drainage Report for the proposed development, dated January 30, 2021. Runoff from the new public roadways would be collected and conveyed to pretreatment vaults for water quality treatment before being routed to an underground infiltration system below sidewalks that would fully infiltrate stormwater on-site. Runoff from rooftop areas on lots abutting Brickyard Creek would be dispersed to the creek buffer. Runoff from rooftop areas on the other lots would be routed to infiltration trenches that would infiltrate a majority of the runoff, with a small amount of runoff discharged from the site via overflow control structures at rates permitted under applicable stormwater regulations. The report concluded that the proposed stormwater system would meet the requirements of City code and the 2012 DOE Stormwater Management Manual for Western Washington, as amended in 2014. *Exhibit S.*

Utilities and Services.

17. The City would provide sewer, garbage, stormwater, police, and fire services to the property. The Applicant would construct necessary utility connections in accordance with construction plans approved under the DA. Skagit County PUD would provide water service, Cascade Natural Gas would provide natural gas service, and Puget Sound Energy would provide electricity service. The property would be served by the Sedro-Woolley school district. Cascade Middle School, Evergreen Elementary School, and Sedro-Woolley High School are all located within two miles of the subject site. As noted above, all of the new roadways that would serve the subdivision would be constructed to applicable city street design standards and would include sidewalks that would ensure safe conditions for students walking to schools or school bus stops. *Exhibit A, Staff Report, page 4; Exhibit E.8; Exhibit H; Exhibit I.*

Phased Development

18. As noted above, the proposed development would occur in three phases. Pursuant to the DA governing the proposal, Phase I would include the portion of the project located north of Brickyard Creek, apart from the portion of the North Trail Road arterial between Y Avenue and Brickyard Creek, which would be constructed in Phase II. Phase II would include the full construction of the North Trail Road arterial extending to Cook Road, as well as development of a portion of the proposed lots, tracts, and infrastructure south of Brickyard Creek, with the remaining development south of Brick Creek to occur during Phase III. Right-of-way dedication for the entire project would occur upon preliminary plat approval. *Exhibit G; Exhibit J.*

Testimony

19. City Planning Director John Coleman testified generally about the proposal and how, with conditions, it would comply with the City's Comprehensive Plan, zoning ordinances, and critical areas ordinances and would meet the specific criteria for preliminary plat approval. He noted that the City and the Applicant have engaged in a thorough and iterative process addressing the details of the proposal, culminating in a Development Agreement (DA) governing the current project design. Mr. Coleman explained that the DA governs certain aspects of the proposed development, has been ratified by the City Council, and does not entail any review or approval by the Hearing Examiner. He noted that the proposal would include the construction of an arterial road identified as a planned route in the transportation element of the Comprehensive Plan. Mr. Coleman stressed that details for the planned arterial, including compensation to the Applicant for the provision of the arterial road through the property, were worked out during extensive negotiations between the Applicant and the City and have been memorialized in the DA. He stated that the project had originally proposed to include a trail that would meander through the reduced buffer associated with Brickyard Creek but that the City recommended that the Applicant construct an eight-foot-wide crushed rock trail at the outer edge of the buffer on the south side of Brickyard Creek in response to concerns about the original trail location by the Skagit River System Cooperative. Mr. Coleman explained that a trail providing access to Brickyard Creek would be necessary to allow the City to perform drainage maintenance activities, as well as to allow the future homeowner's association (HOA) to perform buffer maintenance activities. He also noted that a recreational trail would be allowed in the buffer under the City's critical areas regulations and could potentially be incorporated into a public trail system in the future. *Testimony of Mr. Coleman.*

20. Attorney Reuben Schutz appeared at hearing and elicited witness testimony on behalf of the Applicant. He stated that the Applicant and the City have worked well together to finalize several of the project details and to enter into a DA governing certain aspects of the proposal. Attorney Schutz also stated that the Applicant agrees with the general description of the project as provided in the staff report and Mr. Coleman's testimony but that the Applicant has issues with City staff's recommendation for an eight-foot-wide crushed rock trail at the outer edge of the buffer on the south side of Brickyard Creek. He explained that the Applicant requests to eliminate any requirement for the provision of a trail at the outer edge of the buffer or, in the alternative, be allowed to restrict public access to the trail, unless and until such time that the trail is incorporated into a regional public trail system, arguing that it would create privacy and potential safety issues for the owners of lots abutting the trail. *Statements of Attorney Schutz.*

21. In response to questioning by Attorney Schutz, Mr. Coleman testified that the recommended trail would be necessary to allow the City and the HOA to perform

maintenance activities. He noted that the City does not currently have plans to incorporate a trail along Brickyard Creek into a public trail system but that City staff received public comments on the proposal suggesting that a trail along the creek could be used for this purpose in the future. Mr. Coleman also noted that the proposed development would meet all applicable open space recreation requirements without the recommended provision of the trail. *Testimony of Mr. Coleman.*

22. The Applicant's landscape architect, Patrik Dylan, testified in response to questioning by Attorney Schutz. Mr. Dylan testified that the project had originally proposed a trail within the Brickyard Creek buffer, as opposed to at the outer edge, because the required mitigation plantings would provide a measure of privacy and safety for the owners of lots abutting the buffer area. *Testimony of Mr. Dylan.*
23. The Applicant's critical areas consultant, Mary Harenda of Essency Environmental, LLC, also testified in response to questioning by Attorney Schutz. Ms. Harenda stated that she prepared the Critical Areas Assessment Report and Mitigation Plan for the proposal and noted that the recommended trail at the outer edge of the buffer would not be necessary for the HOA to maintain the mitigation plantings. She explained that the maintenance required for the mitigation planting would require only hand equipment and that the area could be accessed by foot from the new proposed roadways within the plat. Ms. Harenda also noted that installing the trail would effectively reduce the buffer width by eight feet. She acknowledged, however, that her original analysis of the project had included a proposed trail within the buffer and that locating the trail at the outer edge of the buffer would be preferable to locating a trail within the buffer. She also raised concerns about the HOA being held responsible for damage to the required mitigation planting area caused by the City. *Testimony of Ms. Harenda.*
24. Patrick Hayden testified that he previously served as the City Attorney and currently serves on the City Park Committee, which he explained is a purely advisory committee. He stated that he is intimately familiar with Brickyard Creek and noted that the creek is the primary conveyance for city stormwater to the Skagit River and is protected as a fish-bearing stream. Mr. Hayden explained that the Comprehensive Plan promotes nonmotorized trails as a public recreational amenity and encourages new residential developments to include passive recreational trails within critical areas. He noted that buffer areas along creeks provide an ideal location for pedestrian trails because of the span of the creeks and because other development activities are generally prohibited within the protective buffer. Mr. Hayden did not request that the Applicant develop a public trail at this time but requested that an easement be conveyed over the entire length of the Brickyard Creek protection area to facilitate the potential future location of a public trail. *Testimony of Mr. Hayden.*

25. James Ray testified that he owns and resides on property located directly north of the proposed development site. He stated that he supports the proposed development and inquired about whether public sewer would be extended to the site in a manner that would allow him to connect to the sewer system. In response to Mr. Ray's inquiry, Mr. Coleman explained that a future public sewer extension would likely be stubbed out at the northwest corner of the property, at the terminus of the proposed North Trail Road arterial (which would later be extended to connect to the already constructed portion of North Trail Road at F & S Grade Road), and should provide for future service connections to properties to the north, including Mr. Ray's property. *Testimony of Mr. Ray; Testimony of Mr. Coleman.*
26. Applicant Representative Heike Nelson, of Ravnik and Associates, Inc., testified about how stormwater would be managed on-site. She stated that the Applicant proposes to utilize a range of micro-stormwater management systems complying with low-impact development standards mandated by the 2012 DOE Stormwater Management Manual for Western Washington, as amended in 2014. Ms. Nelson explained that areas of the site contain reasonably high ground water levels that would prevent the use of a traditional drainage pond and that the micro-systems would allow for stormwater to be infiltrated in appropriate locations throughout the site. She stated that stormwater from impervious surfaces would be collected and conveyed to an infiltration system located beneath sidewalks, with water quality treatment provided by pretreatment vaults before fully infiltrating on-site. Ms. Nelson noted that some overflow would occur during large storm events that would be discharged to the buffer associated with Brickyard Creek at predevelopment rates in accordance with the requirements of the 2012 DOE Stormwater Management Manual, as amended in 2014. She stated that runoff from roof areas on lots adjoining Brickyard Creek would be conveyed to trenches to disperse the runoff within the Brickyard Creek buffer and that roof runoff from remaining lots would be conveyed to individual backyard infiltration systems. Ms. Nelson noted that, although the proposed stormwater management system would be reviewed for compliance with the requirements of 2012 DOE Stormwater Management Manual, as amended in 2014, the proposed system would likely meet the requirements of the more current 2019 manual. *Testimony of Ms. Nelson.*

Additional Materials

27. The Hearing Examiner left the record open until January 20, 2022, to allow for the submission of additional materials and to allow the Applicant and City to try to come to an agreement about the recommended trail at the outer edge of the reduced buffer associated with Brickyard Creek. Attorney Schutz submitted a memorandum on January 20, 2022, which detailed the Applicant's and the City's efforts to come to an agreement about the recommended trail. The memorandum noted that the parties could not reach an agreement about the final language of a recommended condition addressing the trail and therefore agreed to submit two versions of a proposed condition for consideration by the

Hearing Examiner. The Applicant's recommended condition language would require the developer to dedicate an eight-foot-wide easement to the City that would be at least three feet from the outer edge of the buffer, would not require the developer to construct the trail, and would limit the access to the easement to the City and HOA until such time that the City incorporates the trail into a public trail system. In contrast, the City's recommended condition language would require the developer to dedicate an eight-foot-wide easement to the City at the outer most eight feet of the buffer, would require the developer to construct the trail to City specifications, and would allow the HOA to restrict public access only until such time that the City adopts amendments to the Comprehensive Plan allowing for a public trail system along Brickyard Creek. Planning Director John Coleman submitted a letter, dated January 20, 2022, detailing the same information. *Oral Ruling of Hearing Examiner; Exhibit T; Exhibit U.*

Staff Recommendation

28. City staff reviewed the proposal and determined that, with conditions, it would be consistent with the City Comprehensive Plan and would comply with applicable City code requirements. City staff also determined that the proposal, with conditions, would serve the public interest and would meet the preliminary subdivision criteria of SWMC 16.08.028 and RCW 58.17.110. City staff recommends approval of the project with conditions. *Exhibit A, Staff Report, pages 9 through 14.*

CONCLUSIONS

Jurisdiction

The Hearing Examiner is granted jurisdiction to hear and recommend applications for preliminary plats pursuant to SWMC 16.08.024. This review entails the Hearing Examiner ensuring that the proposed plat, or revisions to it, would satisfy the criteria of Chapter 58.17 RCW. *SWMC 16.08.024. See also SWMC 2.34.080.C; SWMC 2.90.060.F.2.d.*

Criteria for Review

Under SWMC 16.08.028, the effect of preliminary plat approval is as follows:

- A. Approval of the preliminary plat shall constitute authorization for the subdivider to develop the subdivision facilities and improvements as required in the approved preliminary plat upon issuance of the final plat. Development shall be in strict accordance with the plans and specifications as prepared or approved by the city engineer and subject to any conditions imposed by the hearing body.
- B. No subdivision requirements which become effective after the approval of a preliminary plat for a subdivision shall apply to such subdivision unless the hearing body determines that a change in conditions created a serious threat to the public health or safety.
- C. Preliminary plat approval is valid for five years unless extended pursuant to SWMC 16.08.064.

The state subdivision criteria are as follows:

A proposed subdivision and dedication shall not be approved unless the city, town, or county legislature body makes written findings that: (a) appropriate provisions are made for the public health, safety, and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and schoolgrounds and all other relevant facts, including sidewalks and other planning features that [ensure] safe walking conditions for students who only walk to and from school; and (b) the public use and interest will be served by the platting of such subdivision and dedication.

RCW 58.17.110(2).

The criteria for review adopted by the City Council are designed to implement the requirement of Chapter 36.70B RCW to enact the Growth Management Act. In particular, RCW 36.70B.040 mandates that local jurisdictions review proposed development to ensure consistency with City development regulations, considering the type of land use, the level of development, infrastructure, and the characteristics of development. *RCW 36.70B.040.*

Conclusions Based on Findings

- 1. With conditions, the preliminary plat would comply with RCW 58.17.110(2).** The Applicant submitted plans that ensure that, as proposed, the subdivision would meet all requirements for plat approval under the municipal code. City staff analyzed the proposal and determined that appropriate provisions would be made for: the public health, safety, and general welfare; and for such open spaces, drainage ways, streets or roads, alleys, other public ways; transit stops; potable water supplies; sanitary wastes; parks and recreation; and playgrounds, schools, and schoolgrounds, including sidewalks and other planning features that ensure safe walking conditions for students who walk to and from school. Staff also determined that the public use and interest would be served by the platting of such subdivision and dedication. The Hearing Examiner concurs with staff's assessment.

The proposed development would include the construction of a new public arterial road, North Trail Road, which would extend from Cook Road to the south of the property though the western portion of the property and terminate at the property's northwest corner. The proposed arterial has been identified in the Comprehensive Plan and the City's Transportation Improvement Plan as a planned improvement to the City's transportation network and would eventually be extended north to connect with the already constructed portion of North Trail Road at F & S Grade Road. The Applicant and the City engaged in a thorough and deliberate process to negotiate a Development Agreement setting forth the standards related to the construction of the new arterial road, as well as other standards that would govern certain aspects of the proposed development.

The Development Agreement has not yet been finalized due to purely technical issues not affecting its substance and has been ratified by the City Council. The proposal's traffic impacts have been analyzed and are not expected to result in any studied intersection operating at a deficient level of service following a full buildout of the project. Traffic impact fees are addressed in the Development Agreement.

The proposed division would be adequately served by public utilities and infrastructure. All proposed new roadways within the subdivision would include sidewalks ensuring safe conditions for students walking to area schools or school bus stops. Stormwater would be managed in accordance with applicable stormwater regulations, including the requirements of the 2012 Department of Ecology Stormwater Management Manual for Western Washington, as amended in 2014. The proposed development would provide four recreational open space tracts within the subdivision that would total 29,480 square feet, exceeding the 11,900 square feet of recreational open space required for the development. The City would review the Applicant's final landscape plans to ensure compliance with Sedro-Woolley Design Standards and Guidelines. Conditions, as detailed below, are necessary to ensure that the proposal satisfies all local and state requirements for preliminary plat approval. *Findings 1, 2, 8 – 28.*

2. **With conditions, the proposed subdivision would be consistent with City development regulations, considering land use type, development level, infrastructure, and development characteristics, such as development standards, as required by RCW 36.70B.040.** The proposed development would be consistent with several goals and policies of the Comprehensive Plan promoting residential development in appropriate areas of the city, while providing usable outdoor recreation space, protecting critical areas, and appropriately mitigating for impact to the City's transportation network. The City acted as lead agency, analyzed the environmental impacts of the proposed plat as required by SEPA, and issued a Mitigated Determination of Nonsignificance (MDNS). The MDNS was not appealed, and the Applicant would be required to comply with the mitigation measures of the MDNS as a condition of preliminary plat approval.

The City provided adequate notice and opportunity to comment on the proposed preliminary plat. The City received several comments from members of the public that generally raised concerns about the proposal's drainage impacts, construction noise, impacts to Brickyard Creek, and provision of recreational open space. Concerns about the project's drainage impacts would be addressed by the extension of public utilities to serve the site and by the project's compliance with applicable stormwater regulations. Construction activity at the site would be required to comply with the City's noise ordinance and, as discussed above in Conclusion 1, the proposed development would provide recreational open space exceeding the requirements of the municipal code. The Applicant proposes to reduce the standard 110-buffer associated with Brickyard Creek, a

Type 3 fish-bearing stream, to a minimum of 55 feet in some areas as allowed by the City's critical areas code. To mitigate for the buffer reduction, the Applicant would enhance the remaining buffer area with native tree and shrub plantings and would restore areas of the buffer temporarily disturbed by construction activity. The enhanced buffer area would be fenced and protected in a Protected Critical Area tract that would be owned and maintained by a homeowner's association. The critical areas report submitted with the application determined that the proposed mitigation plantings would increase buffer functions despite the buffer reduction and that no net loss to stream and buffer resource function would result from the proposed development. The City's third-party biologist reviewed the critical areas report and mitigation plan, agreed with its analysis, and determined that the proposed mitigation would comply with the City's critical areas regulations.

In response to concerns from the Skagit River System Cooperative regarding an originally proposed trail within the reduced buffer area, the City recommended that the Applicant construct an eight-foot-wide crushed rock trail at the outer edge of the buffer on the south side of Brickyard Creek. The City indicated that the trail would be necessary to provide it access to the creek for drainage maintenance activities. In addition, a member of the public, Patrick Hayden, submitted comments and testified at the hearing that the Applicant should be required to convey an easement over the entire length of the Brickyard Creek protection area to facilitate the potential future location of a public trail. The City's recommendation for the Applicant to construct the trail has been a major point of contention between the City and the Applicant. Although the City and the Applicant have attempted to come to an agreement about the trail, they have been unable to agree about certain details about the trail, including where the trail should be located, who would be responsible for construction of the trail, and at what point the trail would be accessible to the public. The Hearing Examiner determines that the trail is necessary to provide the City with access to the creek for drainage maintenance activities and should be located within the Brickyard Creek buffer but as far from Brickyard Creek as feasible. The Hearing Examiner further determines that conveying an easement over the trail to provide for a potential future connection with a public trail system would ensure that the public interest would be served by the subdivision. Until such time that the City actually connects the trail to a public trail system, the homeowner's association would be allowed to take reasonable measures to restrict public access. Because the trail would serve as an amenity to subdivision residents until such time that it is incorporated into a public trail system, the Applicant would be responsible for its construction.

The preliminary plat would provide single-family residential development consistent with City development regulations, including the R-7 zoning district, and the proposed use would be compatible with surrounding properties. Conditions are necessary to ensure that the access trail within the Brickyard Creek buffer is constructed in accordance with the Hearing Examiner's determinations as detailed in this conclusion and to ensure that

the proposal satisfies all local and state requirements for preliminary plat approval.
Findings 1 – 28.

RECOMMENDATION

Based on the preceding findings and conclusions, the Hearing Examiner recommends that the request for a preliminary plat to subdivide approximately 19.6 acres into 60 single-family residential lots and 4 duplex lots, with associated improvements, at 503 and 505 F & S Grade Road, be **APPROVED**, with the following conditions:⁴

1. All development shall generally conform to the plat map as shown in **Exhibit H**.
2. The Applicant shall comply with the mitigation measures included in the SEPA MDNS issued August 25, 2021.
3. The Developer shall dedicate an 8-foot-wide easement to the City and construct a crushed rock trail to the City's specifications to allow the City to maintain Brickyard Creek. The easement shall be located within the outer-most eight feet of the 55-foot buffer tract on the south side of Brickyard Creek. The easement shall include mutual indemnification provisions for the restoration of damage caused by either party's actions within the easement. The easement shall also allow for future public pedestrian access to allow the City to incorporate the trail into a public trail system (and, further, for the City to assume all maintenance responsibility for the trail and the remaining buffer abutting the south side of Brickyard Creek, at that time). Until such time as the City connects the trail to a City trail system, the easement shall be limited to maintenance purposes, and access to the trail shall be limited to the HOA, those residing within the development, and the City.
4. The area between the west side of the culvert and F&S Grade Road shall be improved from the existing condition to meet the requirements of Chapters 17.50 and 17.65 SWMC. The Applicant shall provide landscaping plans for that area either in the critical area planting plan or the landscaping plan as appropriate. Areas of existing gravel driveway outside of trail area shall be landscaped per Chapter 17.50 SWMC. The Critical Areas Assessment Report and Mitigation Plan shall be amended as necessary to show the requested 12-foot gravel access road that leads from Thurmond Avenue across the culvert to the 8-foot-wide PCA trail along the south side of the buffer.
5. Thurmond Avenue will not be connected to the new road system as part of this plat. To deter vehicles from attempting to make the connection, the Developer shall continue the street trees and salal groundcover through this area (as shown in the landscape plan) in addition to the Pacific Wax Myrtles already shown in the landscape plan.

⁴ Conditions include legal requirements applicable to all developments, as well as those designed to mitigate the specific impacts of this development.

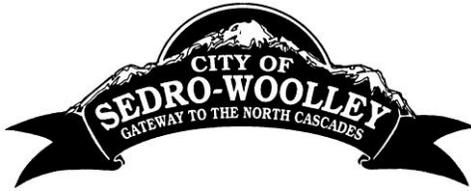
6. Construction of all required infrastructure improvements, including, but not limited to, streets, curbs, sidewalks, sewer, landscaping and street lighting shall be completed prior to final plat application or bonding in an amount approved by the City Engineer shall be filed with the City.
7. The required recreation area amenities shall be of commercial quality.
8. A homeowner's association shall be created to own and maintain the open space tracts and PCA tracts. The HOA will own the common tracts and PCA tracts. The landscaping of the common areas and PCAs throughout the plat shall be maintained by the HOA. The Applicant shall provide a detailed plan for how those areas will be maintained. Tract L shall be owned jointly by the owners of Lots 56, 57, 59 and 60 or the HOA. The homeowner's association documents shall be approved by the Planning Department prior to recording.
9. The Applicant shall reference the Developer Agreement and the Auditor's File recording number of that Agreement on the plat map document.
10. The Applicant shall reference the Auditor's File recording number of the homeowner's association documents on the plat map.

RECOMMENDED this 4th day of February 2022.



ANDREW M. REEVES
Hearing Examiner
Sound Law Center

Exhibit A



CITY OF SEDRO-WOOLLEY
PLANNING DEPARTMENT
325 Metcalf Street
Sedro-Woolley, WA 98284
Phone (360) 855-0771
Fax (360) 855-0733

TRANSMITTAL & REPORT MEMORANDUM

HEARING DATE: January 12, 2022 at 3:00 pm

TO: Sedro-Woolley Hearing Examiner

RE: LP-2021-067 – Preliminary Plat Approval for the Proposed Plat of
Bucko Estates

FROM: _____
Nicole McGowan, Assistant Planner

GENERAL INFORMATION

APPLICATION DATE: February 1, 2021

APPLICATION COMPLETE: February 22, 2021

RECOMMENDATION: Staff Recommends **Approval with Conditions**

PROJECT NAME: Plat of Bucko Estates

SITE LOCATION: 503 & 505 F&S Grade Road

PARCEL ID NOS. P37250, P37251, & P37253

ZONING DISTRICT: Residential 7

SITE AREA: 19.6 Acres

PROPERTY OWNER: Laura and Sarah Bucko
13315 Overton Street
Portland, OR 97229

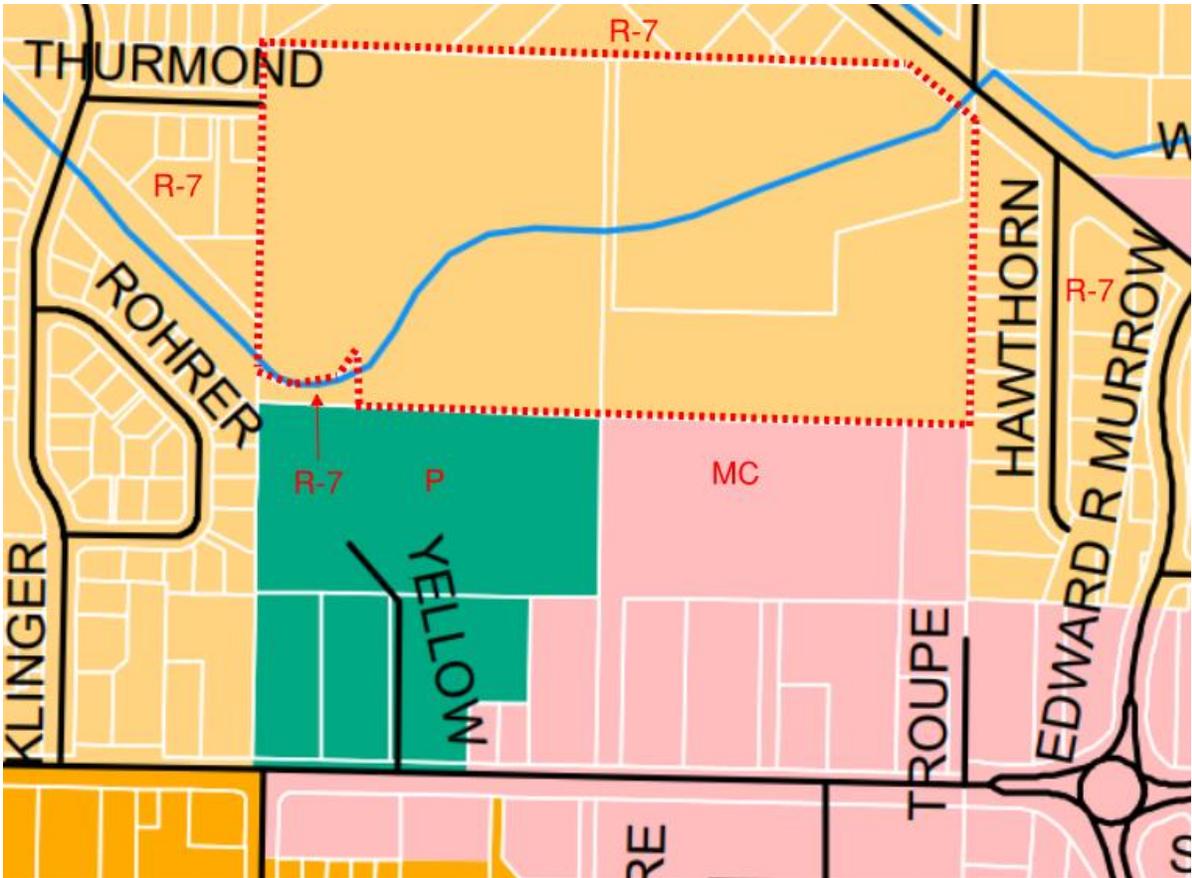
PROJECT PROPONENT: Ravnik & Associates, Inc., ATTN: Heike Nelson
PO Box 361
Burlington, WA 98233

DESCRIPTION OF PROPOSAL:

The Bucko Estates subdivision (long plat) proposal is for the construction of 64 residential lots (60 single-family and 4 duplex lots) on 19.6 acres spanning Assessor’s Parcels P37250, P37251, and P37253. The preliminary plat is proposed in three phases. The project includes streets, utilities and open space amenities to serve the proposed lots. The proposed subdivision is generally located southerly of F&S Grade Road, westerly of Hawthorne Street and easterly of Klinger Street. There is a fish-bearing stream on the property; a critical area report and mitigation plan has been submitted to address the stream buffer. The project also includes an arterial roadway extension from the west side of the subdivision southerly to Cook Road across the westerly side of Assessor’s Parcel P37256. No units are proposed on P37256, thus parcel P37256 is not listed as one of the parcels in the subdivision. However, P37256 is necessary to provide a road connecting the subdivision to Cook Road. The Sedro-Woolley City Council has an approved a Developer Agreement (DA) to address the details surrounding the provision of the arterial road to Cook Road.

COMPREHENSIVE PLAN LAND USE DESIGNATIONS, ZONING DESIGNATIONS AND EXISTING LAND USES OF THE SITE AND SURROUNDING AREAS:

Area	Land Use Designation	Zoning	Existing Use
Project Site	Residential 7	Residential 7	Two SFR on 19.6 acre site
North	Residential 7	Residential 7	Single-Family Residential
South	Mixed Commercial and Public	Mixed Commercial and Public	Farm/Agriculture and School
East	Residential 7	Residential 7	Single-Family Residential
West	Residential 7	Residential 7	Single-Family Residential



Residential 7 (R-7) Zoning Regulations:			
Minimum lot size:	6,000 square feet	Lot width at building line:	40 feet
Front Setback:	20 feet	Lot width at road frontage:	20 feet
Rear Setback:	10 feet	Maximum building height:	35 feet
Side Setback:	5 feet for 1-story buildings, 8 feet for 2-story	Maximum building coverage:	50%

PUBLIC UTILITIES AND SERVICES PROVIDED BY:

Water:	Skagit County PUD #1	Cable TV:	Comcast
Sewer:	City of Sedro-Woolley	Police:	City of Sedro-Woolley
Garbage:	City of Sedro-Woolley	Fire:	City of Sedro-Woolley
Storm Water:	City of Sedro-Woolley	School:	Sedro-Woolley School District
Telephone:	Ziply Fiber	Hospital:	Peace Health United
Electricity:	Puget Sound Energy	Gas:	Cascade Natural Gas

ANALYSIS

1. Application Process and Public Notice:

- a. On September 30, 2020 city staff held a Pre-Application meeting with the project proponent for a 65 residential lots (60 single-family and 5 duplex) long plat proposal on 19.6 acres spanning Assessor’s Parcels 37250, 37251, and 37253 with a roadway dedication across the western portion of P37253 (the westernmost parcel) to accommodate a portion of a future arterial that will ultimately connect North Trail Road (to the north) and Cook Road (to the south). The property owner also owns Parcel P37256 to the south of the proposed subdivision.
- b. In January 2021 the City advised the applicant of the need to relocate the location of the arterial through the footprint of the Development Project due to infeasibility of the previously discussed location. The new arterial alignment was required to curve eastward to parcel P37256 – a parcel also owned by the applicant – then south to Cook Road. The revised alignment would necessitate amendments to the lot layout.
- c. On February 1, 2021 the City received the preliminary long plat application materials for Bucko Estates. The plat layout that was submitted did not include the arterial extension southerly to Cook Road across the westerly side of Assessor’s Parcel P37256. The project application did include a road across parcel P37256, but it was a local street, not an arterial road that provided north-south arterial connection. The long plat application (**Exhibit B**), a preliminary plat map, a critical areas assessment report, a SEPA Checklist (**Exhibit C**) and a landscape plan were originally submitted for a 65 lot, 70 unit subdivision. The application materials included a pedestrian trail in the critical areas buffer. The application was determined to be incomplete for reasons unrelated to the arterial.

- d. The applicant submitted revised application information and the application was determined complete on February 22, 2021.
- e. On February 26, 2021 the City issued the Notice of Application and SEPA Comment Period (**Exhibit D**). The notice was mailed to all property owners and residents within 500 feet of the property, posted on site, and published in the legal notices section of the Skagit Valley Herald on the same day.
- f. The SEPA comment period ended on March 12, 2021. Six comment letters from the public were received as well as one letter from Sedro-Woolley School District No. 101, one letter from the Skagit River System Cooperative, and one letter from the Department of Ecology. The collection of comment letters are included in **Exhibit E**.
- g. Because the application materials did not include the arterial as the city required, the city and the applicant began a process to negotiate a Developer Agreement to work out the road location, impacts of changing the road alignment and many other details that arose as a result of the need to change the arterial alignment. The Developer Agreement stipulates what roads and amenities shall be provided in each of the three phases of the project, addresses road design standards and several more details that are relevant to the subdivision. The Developer Agreement was ratified by the city council on December 8, 2021. An unsigned copy of that Developer Agreement is in **Exhibit G**.
- h. The resulting road location and lot layout are shown in the preliminary plat map (**Exhibit H**), Overall Site Plan Exhibit (**Exhibit I**) and Phasing Exhibit (**Exhibit J**). The revised application is for 60 single family lots and four duplex lots – for a total of 68 units. A revised Critical Areas Assessment Report and Mitigation Plan (**Exhibit K**) was submitted to reflect the amendments to the plat layout. The revised report did not include a trail in the buffer. An addendum to the SEPA Checklist (**Exhibit L**) and a revised landscape plan (**Exhibit M**) were submitted as well.
- i. On August 25, 2021 the City issued a SEPA Mitigated Determination of Non-Significance (MDNS) (**Exhibit N**). The SEPA MDNS was sent to all property owners and residents within 500 feet of the property, posted on site and published in the legal notices section of the the Skagit Valley Herald on the same day.
- j. The MDNS appeal period ended on September 8, 2021. The City received no appeals.
- k. A public hearing was scheduled for January 12, 2022. A Notice of Public Hearing (**Exhibit O**) was sent to all property owners and residents within 500 feet of the property, all parties of record, posted on the subject site and published in the legal notices section of the December 30, 2021 Skagit Valley Herald.

CONCLUSION: The application meets the procedural and public notice requirements in Chapter 58.7 RCW and for a Type IV application established in Chapter 2.90 SWMC.

2. Public Comment:

- a. During the comment period, the City received nine comment letters (**Exhibit E**).
- b. The city received six comment letters from the public expressing concerns about construction hours, air and noise pollution, lack of recreational trail systems, tree loss, lack of green space, drainage, the need for indigenous animal relocation, potentially inadequate buffers from Brickyard Creek, traffic flow issues, poor access to existing roadways, privacy, an existing unwanted ATV trail, infractions on property rights, and lack of public involvement.
- c. The city received one comment letter from the Skagit River System Cooperative (SRSC) expressing concern about the effects that the location of the proposed trail may have on habitat (**Exhibit E**). The trail was proposed to meander through the center of the buffer; SRSC was concerned that the location could cause habitat fracturing and allow weed growth. Upon clarification with SRSC (**Exhibit F**), relocating the trail to the outer portion of the buffer area would address those concerns.
- d. The city received one comment letter from the Sedro-Woolley School District No. 101 expressing concern about potential noise complaints with regard to the 49 buses currently operated by the School District on the adjacent property.
- e. The city received one comment letter from the Department of Ecology (**Exhibit E**) regarding potential water pollution of Brickyard Creek from stormwater runoff and the possible need for a Construction Stormwater General Permit (CSGP).

CONCLUSION: The application meets the procedural and public notice requirements in Chapter 58.7 RCW and for a Type IV application established in Chapter 2.90 SWMC

3. Environmental and Critical Areas Review:

- a. The applicant submitted a SEPA Checklist (**Exhibit C**), an addendum to the SEPA Checklist (**Exhibit L**) and a Critical Areas Assessment Report for the city to review. The Critical Areas Assessment Report indicates that there is a riparian corridor on the site and that creek buffers and buffer mitigation will be required.
- b. The Critical Areas Assessment Report and Mitigation Plan was reviewed for the city by a third party biologist. The third party review confirmed the findings and proposed mitigation as adequate per the city's critical areas regulations in Chapter 17.65 SWMC but concurred with SRSC that the trail should not be located through

the center of the protected critical area (PCA) buffer area to avoid the issues mentioned in the SRSC comment letter.

- c. The applicant submitted a revised Critical Areas Assessment Report and Mitigation Plan (**Exhibit K**). The revised Report does not include a trail in the creek corridor.
- d. A public comment requested, and SRSC supports (**Exhibit F**), a trail on the outer edge of one side of the creek buffer. Staff finds that an 8' wide crushed rock trail will be necessary on at least one side of the creek to accommodate maintenance of the drainage course and the plantings. The Public Works Department needs access to the creek to maintain the drainage course and the trail will benefit to the HOA in its capacity as the maintenance provider to the plantings in the PCA.
- e. On August 25, 2021 the City issued a SEPA Mitigated Determination of Non-Significance for the proposal (**Exhibit N**). The appeal period for the MDNS ended on September 8, 2021 and the city did not receive any appeals.

CONCLUSION: The application as conditioned meets State Environmental Policy Act (SEPA) requirements, the city's environmental policy requirements in Chapter 2.88 SWMC and the city's critical areas requirements in Chapter 17.65 SWMC.

4. Comprehensive Plan, Zoning and Permissible Uses:

- a. The City of Sedro-Woolley Comprehensive Plan identifies this area as medium density residential. Specifically, this area (excluding parcel P37256) is zoned Residential 7 (R-7). Parcel P37257 is the property to the south of the subdivision. That parcel is zoned Mixed Commercial and is not a part of the subdivision, but does accommodate the proposed roadway (North Rail Road) to Cook Road that is necessary to accommodate the subdivision.
- b. Chapter 17.12 SWMC contains the zoning and permitted uses for areas in the R-7 zone. The proposal is for single family lots and duplex lots, which are allowed per SWMC 17.12.010(A).
- c. Specific goals and policies from the Land Use Element of the Sedro-Woolley Comprehensive Plan that are relevant and applicable to this proposal include the following:
 - i. Goal LU1: To safely accommodate population growth without causing urban sprawl.
 - ii. Policy LU1.2: Prevent urban development outside the urban growth area (UGA).
 - iii. Policy LU3.1: Coordinate land use decisions with the transportation and capital facilities elements of the comprehensive plan.
 - iv. Policy LU4.4: Provide effective and timely application of sensitive and critical area land use policies, including SEPA review for all developments involving potentially significant environmental issues.

- v. Policy LU5.7: Recognize the rights of property owners to freely use and develop private property consistent with city regulations.
 - vi. Policy LU5.8: Encourage high standards of appearance in all residential areas and in other high visibility areas.
 - vii. Goal LU16: To protect, sustain and maintain Sedro-Woolley's critical areas, sensitive areas, and natural resource lands for present and future generations.
 - viii. Policy LU16.3: Require, as appropriate, site-specific delineation of sensitive and critical areas by owners/developers of property as part of the development review process.
 - ix. Policy LU17.7: Maintain or enhance water quality within the Skagit River and its tributaries.
 - x. Policy LU17.10: Water-courses, wetlands, bodies of water and their shores should be kept in a natural condition where possible, and protected from development impacts through the use of buffers and green spaces.
- d. Specific goals and policies from the Transportation Element of the Sedro-Woolley Comprehensive Plan that are relevant and applicable to this proposal include the following:
- i. The proposed north-south arterial roadway (called North Trail Road) to Cook Road across the westerly side of the subdivision and Assessor's Parcel P37256 is included as a planned Urban Major Collector Arterial as identified in the Figure 1 - Study Area of the Transportation Element (**Exhibit P**).
 - ii. Policy T6.2: Ensure that growth mitigates its impacts through transportation impact fees, SEPA mitigation, concurrency, and development regulations.
 - iii. Goal T7: To provide an adequate transportation system current with the traffic-related impacts of new development.
 - iv. Policy T7.1: Maintain the adopted Level of Service (LOS) standard for all roadways classified as arterials or state highways.
- e. Specific goals and policies from the Housing Element of the Sedro-Woolley Comprehensive Plan that are relevant and applicable to this proposal include the following:
- i. Goal H1: To provide sound, adequate housing for all current and future Sedro-Woolley residents.
 - ii. Policy H3.1: Require usable outdoor recreation space as part of all residential developments.
 - iii. Policy H4.1: Develop a mix of multi-family residential units and single-family units throughout the community.
 - iv. Policy H4.3: Encourage the development of residential structures that respect existing view of the natural features, and the right of everyone to enjoy them.
 - v. Policy H4.5: Require that developed and designed residential structures comply with the critical areas ordinances such as wetlands, frequently flooded areas, drainage, steep slopes, aquifer recharge areas, migratory routes and natural wildlife habitat.

CONCLUSION: The application as conditioned is consistent with the Sedro-Woolley Comprehensive Plan and permitted uses identified in Chapter 17.12 SWMC.

5. Application Type and Specific Criteria: Chapters 16.04 and 16.08 SWMC establish the requirements and criteria for approving a preliminary subdivision. A preliminary plat shall be approved if it meets the approval criteria in Chapter 58.17 RCW and the requirements of Chapter 16.04 and 16.12 SWMC.
- a. Preliminary subdivisions are approved subject to the criteria of Chapter 58.17 of the Revised Code of Washington (RCW), which requires provisions for public health, safety, and general welfare; open spaces; drainage; streets; transit stops; potable water supplies; sanitary wastes; parks and recreation and playgrounds; schools, sidewalks, and whether the public interest will be served by the subdivision and dedication. An analysis of each additional criterion will follow in subsequent sections.

The Developer Agreement (**Exhibit G**) addresses most of the provisions for public health, safety, and general welfare; open spaces; drainage; streets recreation areas and sidewalks.

The city and the applicant went to great lengths to provide an arterial connector road (called North Trail Road) from Cook Road to the northern boundary of the subdivision. The arterial connection will eventually connect to the already-constructed portion of North Trail Road at F&S Grade Road at a later time as part of a different project. The proposed road matches the Sedro-Woolley Traffic Improvement Plan and will include street trees, sidewalks and planter strips. In Phase 1 of the Bucko Estates project, the proposed subdivision will also provide an east-west local street that connects to F&S Grade Road at the southern terminus of Garden of Eden Road. The plans also provide provisions for drainage, water supplies and sewage. The proposed development is within close proximity to local schools; Cascade Middle School, Evergreen Elementary School and Sedro-Woolley High School are all located within 2 miles of the subject site. The proposal includes plans for a total of 29,480 square feet of usable open space as well as three protected critical area tracts that function as habitat buffer and open space.

- b. Per Ch. 16.08 SWMC, a preliminary plat shall follow the procedures for a Type IV permit review set forth in Chapter 2.90 SWMC. As concluded in Section 1 of this report, the application has followed the procedures for a Type IV permit review.

CONCLUSION: The proposed subdivision as conditioned is consistent with the criteria described in Chapters 16.04 and 16.08 SWMC as well as RCW 58.17.110 for preliminary subdivision approval.

6. Dimensional Standards:

- a. The dimensional standards of Chapter 17.12 SWMC apply to this proposed subdivision. The proposal is not using the optional subdivision process in Chapter

17.43 SWMC – Planned Residential Developments. Therefore only the standard lot dimensions in Chapter 17.12 SWMC apply.

- b. Single-family residential (SFR) lots in the R-7 are required to be no less than 6,000 square feet. The proposal is for 60 SFR lots that are each at least 6,000 square feet in size.
- c. SFR lots in the R-7 are required to be no less than 40 feet at the building line. The proposed plat layout includes SFR lots that are no less than 40 feet at the building line.
- d. The required minimum lot frontage on a public street, approved private street, or approved easement for standard lots in the R-7 zone is twenty feet. The proposed plat layout includes SFR lots with at least twenty feet of frontage on a public street or approved an easement.
- e. The standard minimum lot size for duplex lots in the R-7 is 9,000 square feet. Duplex lots are also required to be at least 80 feet at the building line and 100 feet deep. The proponent is proposing four duplex lots. Each of these lots are at least 9,000 square feet in size, are at least 80 feet wide at the building line and are 100 feet deep.
- f. The required minimum lot frontage on a public street, approved private street, or approved easement for standard duplex lots in the R-7 zone is twenty feet. The proposed plat layout includes duplex lots with at least twenty feet of frontage on a public street or approved an easement.
- g. The maximum coverage in the R-7 zone is 50% of the lot, including all structures – main and accessory. This standard is enforced at the time of building permit application.

CONCLUSION: The proposal meets the dimensional standards identified in Chapter 17.12 SWMC.

7. Streets, Sidewalks and Driveways:

- a. Streets and sidewalks in new subdivisions are required to meet the public works constructions standards described in 15.40 SWMC.
- b. The subdivision proposal plans a new public road that includes construction of curb, gutter, sidewalks and a planter strip with street trees along with any required pavement overlay and striping. The Developer Agreement stipulates the road dedication requirement timing, road length requirements and the provision of turn-arounds at the end of roads (the Developer Agreement requires temporary turn-arounds as part of the proposed phasing and long term turn-arounds where the project abuts neighboring property).

- c. The project includes constructing an arterial road per the Sedro-Woolley Comprehensive Plan. The Developer Agreement guides the timing of the construction of this arterial, which is an important piece of the city’s long-term transportation plans.
- d. To accommodate the arterial, some lots are designed with their backyards on the arterial to limit the number of access points onto the new arterial. Staff finds that it is in the best interest of the community to treat those back yards as rear setbacks for building purposes. Because no vehicle access is allowed on the arterial, there is no need to have a 20’ front setback enforced on the back yards of those lots. Staff finds that setback waivers for the following lots shall apply: Lots 64, 63, 31, 17, 18, 19, 20, 21 and 1 all have frontage along the arterial road but are accessed from local streets. All portions of these lots shall be allowed a 10’ setback where adjacent to the arterial. In addition, Lot 64 may have a 5’ setback along the property line with Lot 63 (for a 1 or 2 story building only). Also in addition, Lot 21 may have a 10’ setback on the Y Avenue frontage.
- e. SWMC 17.36.040(A) requires that ingress and egress be designed with respect to intersections, crosswalks and traffic in general so as not to create safety hazards or impedances. All of the lots will have access to local streets; none shall have access to an arterial. Proposed lots 56, 57, 59, and 60 will have access to Tract “L” – a 20’ wide non-exclusive, mutually beneficial cross use easement. Tract L accesses a local street.

CONCLUSION: The application as conditioned meets the streets and sidewalk standards identified in Chapter 15.40 SWMC and in the current Sedro-Woolley Public Works Department Standards Manual.

8. Landscaping and Residential Recreation Area:

- a. Per SWMC 17.38.010, all new developments of more than seven dwelling units shall be required as a condition of approval, to provide a minimum of 8,000 square feet of unpaved, usable open space with lawn or other soft surface for an outdoor recreation area, plus an additional 100 square feet of usable open space for each additional unit beyond the initial 25 units. A 64 unit subdivision is required to provide 11,900 square feet of recreation area per Ch.17.38 SWMC. The applicant has proposed to include four tracts of open space, totaling 29,480 square feet of shared open space for this subdivision.
- b. In accordance with Ch. 17.50 SWMC, the applicant was required to submit a landscape plan (**Exhibit M**) with the application materials. The applicant included designs for open space/recreation tracts in their landscape plan design details and the Developer Agreement addresses the phased provision of recreation areas.
- c. Neither the critical area mitigation plan nor the landscaping plan show any landscaping in the area between the west side of the culvert and F&S Grade Road. This area shall be improved from the existing condition to meet the requirements of

Chapter 17.50 SWMC. The project will be conditioned to require that the applicant provide landscaping plans for that area either in the critical area planting plan or the landscaping plan.

- d. The Critical Areas Assessment Report and Mitigation Plan indicates that the gravel driveway across the culvert will remain. That driveway currently leads to F&S Grade Road and its presence will encourage vehicles to drive into the critical area. The project is required to remove the gravel road and replace with amended soils and plantings as mentioned in the above note. As requested, a 12' gravel trail may be established across the culvert as part of the trail system in the PCA but shall terminate the trail at Thurmond instead of F&S Grade Road.
- e. Residential recreational areas are subject to the design standards outlined in the City of Sedro-Woolley Design Standards and Guidelines. The landscape plan and the Developer Agreement demonstrate that the required recreation areas will be provided in compliance with the design standards.

CONCLUSION: The proposal as conditioned meets the requirements for landscaping and recreational area as described in Chapters 17.38 and 17.50 SWMC.

9. Design and Construction Standards:

- a. The preliminary plat map (**Exhibit H**) and Developer Agreement (**Exhibit G**) demonstrate that the proposed road layout and lot access meet the standards in Chapters 16.08 and 15.40 SWMC.
- b. The roads through the subdivision are intentionally not connected to Thurmond Road to the west to prevent traffic from bypassing the new north Trail Road arterial. There is concern that easy sight between North Trail Road and the existing Thurmond Road will encourage drivers to “short-cut” over the landscape area to reach the nearby road. The road construction and landscaping in the area between the two roads should be robust and prevent vehicles from making the off-road connection. Pedestrian access between the streets is required.
- c. Per Ch. 16.08 SWMC, subdivisions must provide sewer and water from a public supply to each lot.
- d. The applicant submitted evidence of sewer availability from the city. The applicant will be required to extend the sanitary sewer services, in conformance with the Sedro-Woolley standards, to the site in a capacity suitable to serve the proposed new lots. Utility easements shall be granted to Sedro-Woolley for sewer infrastructure operation, maintenance, and replacement purposes. Utility easements shall be granted to Skagit PUD for waterline operation, maintenance, and replacement purposes.

CONCLUSION: The proposal as conditioned will meet the standards for design and construction in Chapters 16.08 and 15.40 SWMC.

STAFF RECOMMENDATIONS

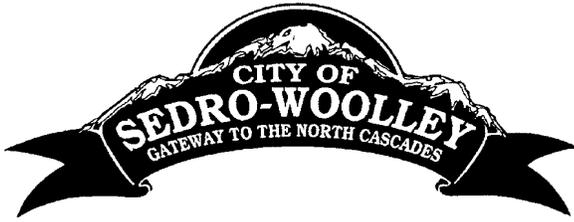
Permit No. LP 2021-067 is hereby **recommended for APPROVAL subject to the following conditions:**

1. All development shall generally conform to the preliminary plat map as shown in **Exhibit H.**
2. Comply with the mitigation measures included in the SEPA MDNS issued August 25, 2021.
3. Provide an 8' wide crushed rock trail on the outer edge of the buffer area on the south side of Brickyard Creek.
4. The area between the west side of the culvert and F&S Grade Road shall be improved from the existing condition to meet the requirements of Chapters 17.50 and 17.65 SWMC. Provide landscaping plans for that area either in the critical area planting plan or the landscaping plan as appropriate. Areas of existing gravel driveway outside of trail area shall be landscaped per Chapter 17.50 SWMC. Amend the Critical Areas Assessment Report and Mitigation Plan as necessary to show the requested 12' gravel access road that leads from Thurmond Street across the culvert to the 8' wide PCA trail along the south side of the buffer.
5. Thurmond Avenue will not be connected to the new road system as part of this plat. In order to deter vehicles from attempting to make the connection, continue the street trees and salal groundcover through this area (as shown in the landscape plan) in addition to the Pacific Wax Myrtles already shown in the landscape plan.
6. Construction of all required infrastructure improvements, including, but not limited to, streets, curbs, sidewalks, sewer, landscaping and street lighting shall be completed prior to final plat application or bonding in an amount approved by the City Engineer shall be filed with the City.
7. The required recreation area amenities shall be commercial quality.
8. A homeowners association shall be created to own and maintain the open space tracts and PCA tracts. The HOA will own the common tracts and PCA tracts. The landscaping of the common areas and PCAs throughout the plat shall be maintained by the HOA. The applicant shall provide a detailed plan for how those areas will be maintained. Tract L shall be owned jointly by the owners of Lots 56, 57, 59 and 60 or the HOA. The homeowner's association documents shall be approved by the Planning Department prior to recording.
9. Reference the Developer Agreement and the Auditor's File recording number of that Agreement on the plat map document.

10. Reference the Auditor's File recording number of the home owners association documents on the plat map.

EXHIBITS

- A. Staff Report;
- B. Long Plat Application;
- C. SEPA Checklist;
- D. Notice of Application and SEPA Comment Period;
- E. Comments;
- F. Skagit River System Co-op letter;
- G. Developer Agreement;
- H. Preliminary Plat Map;
- I. Overall Site Plan Exhibit;
- J. Phasing Exhibit;
- K. Critical Areas Assessment Report and Mitigation Plan;
- L. Addendum to the SEPA Checklist;
- M. Revised Landscape Plan;
- N. SEPA Mitigated Determination of Non-Significance;
- O. Notice of Public Hearing; and
- P. Figure 1 - Study Area of the Transportation Element



Building, Planning and Engineering
Sedro-Woolley Municipal Building
325 Metcalf Street
Sedro-Woolley, WA 98284
Phone (360)855-0771
Fax (360) 855-0733

PRELIMINARY PLAT APPLICATION

Exhibit B

APPLICATION NUMBER: _____

Proposed name of Subdivision: Bucko Estates

Location (cross street names and addresses, if they exist): Located southerly of F & S

Grade Rd. - 503 & 505 F & S Grade Rd, easterly of Klinger Estates & Thurmond Ave.

Assessor's Parcel number(s): P37250, P37251, P37253, P37256

Applicant Name: John Ravnik & Heike Nelson c/o Ravnik & Associates, Inc.

Applicant Address: PO Box 361, Burlington, WA 98233

Applicant Phone: (360)707-2048 email: hnelson@ravnik.net/jravnik@ravnik.net

Owner: Bucko Survivors Trust c/o Sarah Bucko

Owner Address: 13315 Overton Street, Portland, OR 97229

Owner Phone: (360)840-2609 email: sarahbucko12@gmail.com

I am applying for the following variances or other permits at the same time: _____

Zoning Designation: R-7 Flood zone: C

Total site size in acres: 19.6 AC Critical Areas by type and acres: Brickyard Creek Type 3 (0.6 acres)

Number of lots proposed: 65 lots Number of housing units proposed: 60 Single Family Duplexes

Describe existing conditions on and adjacent to site: The existing site currently supports 2 single family house sites in the Northeast corner, with pasture area and blackberries on

the remainder. Brickyard Creek a type 3 watercourse bisects the property.

Application Checklist:

- A. Pre-application file #: 2020-267 Pre-application date: 9/30/2020
- B. State Environment Policy Act (SEPA). The applicant shall submit a SEPA Checklist or environmental impact statement (EIS), including a site plan and associated fees, with an application for a subdivision. The SEPA Checklist or EIS shall be reviewed by the SEPA official. Upon determination by the Planning Department that the SEPA Checklist is complete and accurate, thirteen (13) copies of the checklist will be required. No public hearing on a subdivision proposal shall be scheduled prior to the issuance of a determination of nonsignificance or mitigated determination of nonsignificance by the SEPA official.
- C. Fees. See current fee schedule. The applicant will also be billed for mailing and publication costs.
- D. Complete Application Required. The planning director notifies applicant when the application is complete.
- E. Project narrative including: a detailed description of the proposal; any other applications being submitted concurrently (such as planned residential development application or a variance); size of properties to be subdivided; number of lots proposed; critical areas, open space and recreation area calculations or any other information that will be pertinent to the review the application.
- F. Application Map. Ten copies of an accurately scaled and dimensioned map of the plat prepared by a land surveyor licensed by the state of Washington and showing the following:

**Every preliminary plat shall consist of one or more maps, on both mylar and in digital format approved by the City Engineer, together with written and digital data including the following:

- The name of the proposed subdivision;
- North point and scale; the location of existing property lines: streets, building, if any; watercourses and all general features;
- The legal description of the land contained within the subdivision;
- The names and addresses of all persons, firms and corporations holding interest in the lands, including easement rights and interest;
- The proposed names, locations, widths and other dimensions of proposed streets, alleys, easements, parks, lots, building lines, if any, and all other information necessary to interpret the plat, including the location of existing utility and access easements which are to remain;
- The location of streets in adjoining plats and the approximate location of adjoining utilities and proposed extensions into the plat;
- The names of adjoining plats;
- The name, address and telephone number and seal of the registered land surveyor who made the survey or under whose supervision it was made;
- The date of the survey;
- All existing monuments and markers located by the survey;
- The zoning classification applicable to the land within the subdivision;
- The conditions of or the limitations on dedications, if any, including slope rights;
- Contour intervals as required, based upon city datum with intervals of five feet or less utilizing U.S.G.S, or better datum.
- Location of significant physical features such as buildings, bodies of water, power lines, slopes, trees, and section lines within or adjacent to the proposed plat;
- Location and description of existing and proposed drainage, sewer, and water facilities within or adjacent to the proposed plat;

- Location and outline of any sensitive areas, as defined under Section 17.65.040, using the delineation and classification methods and definitions provided for the specific sensitive area under the provisions of Chapter 17.65;
- If a replat, the layout for the original plat in dotted lines, with replat status reflected in the plat name;
- Vicinity map at a smaller scale, to include the location of any natural resource lands within three hundred feet of the edge of the proposed plat.

- G. Mailing labels: See separate form for instructions.
- H. Posting: See attached form for instructions.
- I. Copies of covenants, restrictions and collective maintenance agreements, if applicable.
- J. Environmental checklist or EIS.
- K. Survey information of all features within 100 feet of the boundary of the proposed subdivision.
- L. Evidence of water availability. PUD letter date: November 13th, 2020.
- M. Evidence of sewer availability.
- N. Required materials identified in the pre-application meeting, such as additional information required for PRDs.
- O. Other information deemed necessary by the planning director, planning commission or city council.
- P. Landscaping Plan
- Q. Street Profiles

Special Studies:

- R. Traffic
- S. Stormwater
- T. Critical areas
- U. Geotechnical Report

Criteria: The proponent bears the burden of proving that the application should be granted. The project permit must be supported by convincing proof that it conforms to the applicable elements of the city's development regulations and comprehensive plan. The proponent must also prove that any significant adverse environmental impacts have been adequately mitigated.

Describe how the following provisions will be met with the proposed subdivision:

Public health, safety and general welfare: This project will be designed to meet applicable City and state codes to assure this project will not impact public health, safety and general welfare

Open spaces: Open space tracts have been identified within the project as required by the City. Outdoor recreation and amenities have been provided as noted on the Landscape Plan submitted with this project.

Drainage ways: Brickyard Creek bisects the project area as noted on the attached plans. This creek flows downhill from east to west. A Critical Areas Report has been prepared and submitted with this application.

Streets, alleys, other public ways: New public streets with curb, gutter, and sidewalks have been noted on the attached Preliminary Site Plan to serve the new lots within this project. Refer to submitted maps.

Water supplies: New 8-inch watermain will be extended into the site from both the west (Thurmond Avenue) and from the east (F & S Grade Road) serve the newly proposed lots within this project area.

Sanitary waste: New gravity sanitary sewer will be extended into the site from the west side (Thurmond Avenue) to serve the project. Refer to the the Preliminary Site Plan submitted with this Preliminary Plat Application.

Fire protection facilities: New fire hydrants will be installed along the proposed public roadways as required by the City to provide fire service to the new lots.

Parks, playgrounds: Various open space areas, including park areas and amenities have been included within this preliminary plat design. Refer to the Landscape Plan provided by Eccos Systems for this project.

Purpose: The purpose of the Subdivision (Long Plat) regulations:
To regulate the division of land and to promote the public health, safety and general welfare in accordance with standards established by the city and state to:

- A. Prevent the overcrowding of land;
- B. Lessen congestion in the streets and highways;
- C. Promote effective use of land;
- D. Promote safe and convenient travel by the public on streets and highways;
- E. Provide for adequate light and air;
- F. Provide for open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, fire protection, sanitary wastes, parks and recreation, playgrounds, schools and school grounds, sidewalks or other facilities to assure safe walking conditions for students who walk to and from school; and other public requirements;
- G. Provide for proper ingress and egress;
- H. Provide for expeditious review and approval of proposed divisions which conform to zoning standards and local plans and policies, including the purposes stated herein;
- I. Adequately provide for the housing and commercial needs of the citizens of the city; and
- J. Require uniform monumenting of land divisions and conveyance by accurate legal description.

Process: Preliminary plat applications shall be processed simultaneously with applications for rezones, variances, planned residential developments (PRDs), site plan approvals, and similar quasi-judicial or administrative actions to the extent that procedural requirements applicable to these actions permit simultaneous processing.

No public hearing on a subdivision proposal shall be scheduled prior to the issuance of a declaration of non-significance or mitigated declaration of non-significance by the SEPA official.

Applicable local and state rules which will be used in the review of all subdivision applications:

Applications shall be processed according to the procedures set forth in Chapter 2.90 SWMC, and the additional procedures established in Chapter 16.08 SWMC and state law (Chapter 43.21C RCW, and Chapter 36.70B RCW).

Chapter 16.04 SWMC – General Provisions, Chapter 16.08 SWMC – Subdivisions; Chapter 2.88 SWMC – State Environmental Policy Act; Chapter 15.40 SWMC – Public Works Construction Standards; Chapter 2.90 SWMC – Consolidated Planning Procedures; and Title 17 SWMC – Zoning.

Also applicable to subdivisions are the Public Works Department Standards manual and the Sedro-Woolley Design Standards and Guidelines manual. These documents are adopted by reference in the Sedro-Woolley Municipal Code.

Signature:

I request preliminary approval in accordance with the Sedro-Woolley subdivision ordinance and other applicable city codes. Application is hereby made for a **PRELIMINARY PLAT** and to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the officials of the City of Sedro-Woolley the right to enter the above-described location to inspect the proposed or completed work.



2/1/2021

SIGNATURE

DATE RECEIVED

Owner's certification: I certify that I am the legal owner of the property listed above and that the applicant listed above has my permission to represent me in this application for development.



2/1/2021

OWNER'S SIGNATURE

DATE

City of Sedro-Woolley Mailing Procedure

1. Obtain a list of names and addresses of **residents and property owners** within 500 feet of the exterior edges of the subject property. In determining the outside edge, include all other adjacent property owned by the applicant. The source of the names and addresses must be the Skagit County Assessor's records.
2. Obtain a map showing the subject property, the 500 foot radius, and all properties on the mailing list. This is available at the Assessor's office.
3. Prepare 3 sets of postage-paid envelopes using these lists.
4. Prepare additional envelopes for residents of the property if the owner does not live on site. If the name of the resident is unknown, address the envelope to "resident".
Example: Resident, 123 State St., Sedro-Woolley, WA. 98284.
5. Fill out the affidavit below and have it notarized.
6. Bring the list, postage-paid addressed envelopes, map, and notarized affidavit to the city Planning Department.

AFFIDAVIT OF CORRECT NAMES AND ADDRESSES

I, Stephanie Rude, do hereby certify
Affiant

That the attached list of property owners, addresses and parcel numbers for the proposed project, Bucko Estates,
Name of proposed project

Is a true and correct copy provided for me by the Skagit County Assessor's Office for land within 500 feet of the property lines of P 37253, 37250, 37251, 37256, 37151.
Site parcel number

Signed: Stephanie Rude

Date: 02 / 01 / 2021

Subscribed and sworn to before me on this 01 day of FEBRUARY, 20 21.

Print Name: DINA REMSEN

Notary for the State of Washington,

Residing at MOUNT VERNON, WA 98213

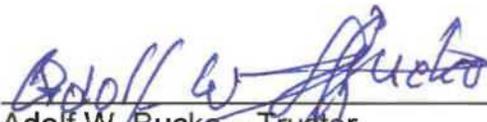
My Commission expires: 03-16-24



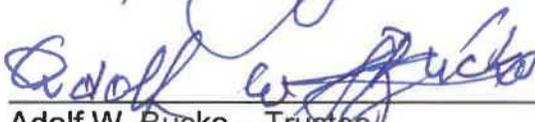
**RESIGNATION OF TRUSTEE
TO
THE ADOLF AND MARIA BUCKO FAMILY TRUST
Dated July 17, 2018**

I, ADOLF W. BUCKO, as Trustee, do hereby resign effective immediately as Trustee of THE ADOLF AND MARIA BUCKO FAMILY TRUST, and shall stop performing all duties and responsibilities undertaken as trustee. I, ADOLF W. BUCKO, as Trustor, do hereby appoint SARAH BUCKO to serve as successor trustee in accordance with the terms of THE ADOLF AND MARIA BUCKO FAMILY TRUST dated July 17, 2018, and as thereafter amended.

Dated this 20 day of July, 2020.



Adolf W. Bucko – Trustor



Adolf W. Bucko – Trustee

**ACCEPTANCE OF APPOINTMENT
AS SUCCESSOR TRUSTEE**

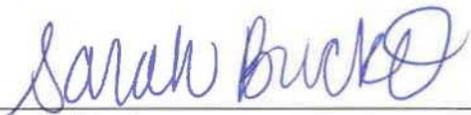
of the

Adolf & Maria Bucko Family Trust

I, Sarah Bucko, hereby accepts appointment as Successor Trustee of The Adolf & Maria Bucko Family Trust established under the direction of the Adolph and Maria Family Trust dated July 17, 2018. She agrees to be bound by the terms of such Trust and to exercise its duties thereunder in accordance with the laws of the State of Washington and the applicable provisions of the Internal Revenue Code.

DATED this 20 day of July, 2020.

Successor Trustee:

By: 
Sarah Bucko

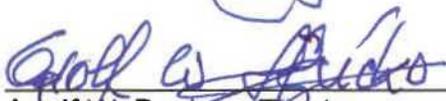
**RESIGNATION OF TRUSTEE
TO
THE ADOLF BUCKO SURVIVOR'S TRUST**

I, ADOLF W. BUCKO, as Trustee, do hereby resign effective immediately as Trustee of THE ADOLF BUCKO SURVIVOR'S TRUST, and shall stop performing all duties and responsibilities undertaken as trustee. I, ADOLF W. BUCKO, as Trustor, do hereby appoint SARAH BUCKO to serve as successor trustee in accordance with the terms of THE ADOLF BUCKO SURVIVOR'S TRUST as set forth in THE ADOLF AND MARIA BUCKO FAMILY TRUST dated July 17, 2018, and as thereafter amended.

Dated this 20 day of July, 2020.



Adolf W. Bucko – Trustor



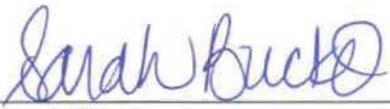
Adolf W. Bucko – Trustee

**ACCEPTANCE OF APPOINTMENT
AS SUCCESSOR TRUSTEE**
of the
Adolf Bucko Survivor's Trust

I, Sarah Bucko, hereby accepts appointment as Successor Trustee of The Adolf Bucko Survivor's Trust established under the direction of the Adolph and Maria Family Trust dated July 17, 2018. She agrees to be bound by the terms of such Trust and to exercise its duties thereunder in accordance with the laws of the State of Washington and the applicable provisions of the Internal Revenue Code.

DATED this 20 day of July, 2020.

Successor Trustee:

By: 
Sarah Bucko

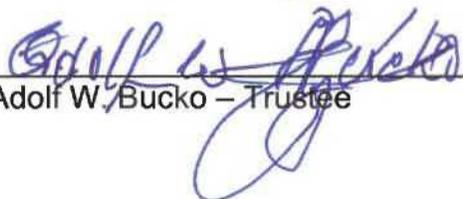
**RESIGNATION OF TRUSTEE
TO
THE MARIA BUCKO CREDIT SHELTER TRUST**

I, ADOLF W. BUCKO, as Trustee, do hereby resign effective immediately as Trustee of THE MARIA BUCKO CREDIT SHELTER TRUST, and shall stop performing all duties and responsibilities undertaken as trustee. I, ADOLF W. BUCKO, as Trustor, do hereby appoint SARAH BUCKO to serve as successor trustee in accordance with the terms of THE MARIA BUCKO CREDIT SHELTER TRUST as set forth in THE ADOLF AND MARIA BUCKO FAMILY TRUST dated July 17, 2018, and as thereafter amended.

Dated this 20 day of July, 2020.



Adolf W. Bucko – Trustor



Adolf W. Bucko – Trustee

**ACCEPTANCE OF APPOINTMENT
AS SUCCESSOR TRUSTEE**

of the

Maria Bucko Credit Shelter Trust

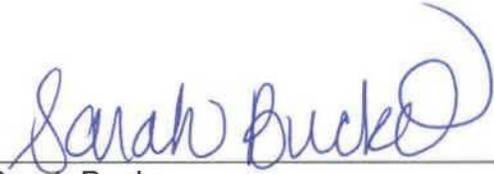
I, Sarah Bucko, hereby accepts appointment as Successor Trustee of The Maria Bucko Credit Shelter Trust established under the direction of the Adolph and Maria Family Trust dated July 17, 2018. She agrees to be bound by the terms of such Trust and to exercise its duties thereunder in accordance with the laws of the State of Washington and the applicable provisions of the Internal Revenue Code.

DATED this 20 day of July, 2020.

Successor Trustee:

By: _____

Sarah Bucko



 First American Title™	Subdivision Guarantee
	ISSUED BY First American Title Insurance Company
Guarantee	GUARANTEE NUMBER 5003353-0002799e

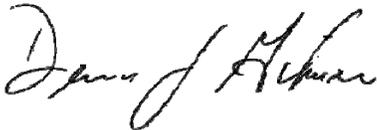
SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE LIMITS OF LIABILITY AND THE CONDITIONS AND STIPULATIONS OF THIS GUARANTEE,

FIRST AMERICAN TITLE INSURANCE COMPANY
a Nebraska corporation, herein called the Company

GUARANTEES

the Assured named in Schedule A against actual monetary loss or damage not exceeding the liability stated in Schedule A, which the Assured shall sustain by reason of any incorrectness in the assurances set forth in Schedule A.

First American Title Insurance Company



Dennis J. Gilmore, President



Greg L. Smith, Secretary

For Reference:

File #: 20-5836-TO

Loan #: N/A

Issued By:

Guardian Northwest Title & Escrow Company

1301-B Riverside Drive, P.O. Box 1667

Mount Vernon, WA 98273

This jacket was created electronically and constitutes an original document

SCHEDULE OF EXCLUSIONS FROM COVERAGE OF THIS GUARANTEE

1. Except to the extent that specific assurances are provided in Schedule A of this Guarantee, the Company assumes no liability for loss or damage by reason of the following:
 - (a) Defects, liens, encumbrances, adverse claims or other matters against the title, whether or not shown by the public records.
 - (b) (1) Taxes or assessments of any taxing authority that levies taxes or assessments on real property; or, (2) Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not the matters excluded under (1) or (2) are shown by the records of the taxing authority or by the public records.
 - (c) (1) Unpatented mining claims; (2) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (3) water rights, claims or title to water, whether or not the matters excluded under (1), (2) or (3) are shown by the public records.
2. Notwithstanding any specific assurances which are provided in Schedule A of this Guarantee, the Company assumes no liability for loss or damage by reason of the following:
 - (a) Defects, liens, encumbrances, adverse claims or other matters affecting the title to any property beyond the lines of the land expressly described in the description set forth in Schedule (A), (C) or in Part 2 of this Guarantee, or title to streets, roads, avenues, lanes, ways or waterways to which such land abuts, or the right to maintain therein vaults, tunnels, ramps or any structure or improvements; or any rights or easements therein, unless such property, rights or easements are expressly and specifically set forth in said description.
 - (b) Defects, liens, encumbrances, adverse claims or other matters, whether or not shown by the public records; (1) which are created, suffered, assumed or agreed to by one or more of the Assureds; (2) which result in no loss to the Assured; or (3) which do not result in the invalidity or potential invalidity of any judicial or non-judicial proceeding which is within the scope and purpose of the assurances provided.
 - (c) The identity of any party shown or referred to in Schedule A.
 - (d) The validity, legal effect or priority of any matter shown or referred to in this Guarantee.

GUARANTEE CONDITIONS AND STIPULATIONS**1. Definition of Terms.**

The following terms when used in the Guarantee mean:

- (a) the "Assured": the party or parties named as the Assured in this Guarantee, or on a supplemental writing executed by the Company.
- (b) "land": the land described or referred to in Schedule (A)(C) or in Part 2, and improvements affixed thereto which by law constitute real property. The term "land" does not include any property beyond the lines of the area described or referred to in Schedule (A)(C) or in Part 2, nor any right, title, interest, estate or easement in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
- (c) "mortgage": mortgage, deed of trust, trust deed, or other security instrument.
- (d) "public records": records established under state statutes at Date of Guarantee for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without knowledge.
- (e) "date": the effective date.

2. Notice of Claim to be Given by Assured Claimant.

An Assured shall notify the Company promptly in writing in case knowledge shall come to an Assured hereunder of any claim of title or interest which is adverse to the title to the estate or interest, as stated herein, and which might cause loss or damage for which the Company may be liable by virtue of this Guarantee. If prompt notice shall not be given to the Company, then all liability of the Company shall terminate with regard to the matter or matters for which prompt notice is required; provided, however, that failure to notify the Company shall in no case prejudice the rights of any Assured unless the Company shall be prejudiced by the failure and then only to the extent of the prejudice.

3. No Duty to Defend or Prosecute.

The Company shall have no duty to defend or prosecute any action or proceeding to which the Assured is a party,

notwithstanding the nature of any allegation in such action or proceeding.

4. Company's Option to Defend or Prosecute Actions; Duty of Assured Claimant to Cooperate.

Even though the Company has no duty to defend or prosecute as set forth in Paragraph 3 above:

- (a) The Company shall have the right, at its sole option and cost, to institute and prosecute any action or proceeding, interpose a defense, as limited in (b), or to do any other act which in its opinion may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured, or to prevent or reduce loss or damage to the Assured. The Company may take any appropriate action under the terms of this Guarantee, whether or not it shall be liable hereunder, and shall not thereby concede liability or waive any provision of this Guarantee. If the Company shall exercise its rights under this paragraph, it shall do so diligently.
- (b) If the Company elects to exercise its options as stated in Paragraph 4(a) the Company shall have the right to select counsel of its choice (subject to the right of such Assured to object for reasonable cause) to represent the Assured and shall not be liable for and will not pay the fees of any other counsel, nor will the Company pay any fees, costs or expenses incurred by an Assured in the defense of those causes of action which allege matters not covered by this Guarantee.
- (c) Whenever the Company shall have brought an action or interposed a defense as permitted by the provisions of this Guarantee, the Company may pursue any litigation to final determination by a court of competent jurisdiction and expressly reserves the right, in its sole discretion, to appeal from an adverse judgment or order.

(d) In all cases where this Guarantee permits the Company to prosecute or provide for the defense of any action or proceeding, an Assured shall secure to the Company the right to so prosecute or provide for the defense of any action or proceeding, and all appeals therein, and permit the Company to use, at its option, the name of such Assured for this purpose. Whenever requested by the Company, an Assured, at the Company's expense, shall give the Company all reasonable aid in any action or proceeding, securing evidence, obtaining witnesses, prosecuting or defending the action or lawful act which in the opinion of the Company may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured. If the Company is prejudiced by the failure of the Assured to furnish the required cooperation, the Company's obligations to the Assured under the Guarantee shall terminate.

5. Proof of Loss or Damage.

In addition to and after the notices required under Section 2 of these Conditions and Stipulations have been provided to the Company, a proof of loss or damage signed and sworn to by the Assured shall be furnished to the Company within ninety (90) days after the Assured shall ascertain the facts giving rise to the loss or damage. The proof of loss or damage shall describe the matters covered by this Guarantee which constitute the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage. If the Company is prejudiced by the failure of the Assured to provide the required proof of loss or damage, the Company's obligation to such assured under the Guarantee shall terminate. In addition, the Assured may reasonably be required to submit to examination under oath by any authorized representative of the Company and shall produce for examination, inspection and copying, at such reasonable times and places as may be designated by any authorized representative of the Company, all records, books, ledgers, checks, correspondence and memoranda, whether bearing a date before or after Date of Guarantee, which reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Assured shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect and copy all records, books, ledgers, checks, correspondence and memoranda in the custody or control of a third party, which reasonably pertain to the loss or damage. All information designated as confidential by the Assured provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Assured to submit for examination under oath, produce other reasonably requested information or grant permission to secure reasonably necessary information from third parties as required in the above paragraph, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this Guarantee to the Assured for that claim.

6. Options to Pay or Otherwise Settle Claims: Termination of Liability.

In case of a claim under this Guarantee, the Company shall have the following additional options:

(a) To Pay or Tender Payment of the Amount of Liability or to Purchase the Indebtedness.

The Company shall have the option to pay or settle or compromise for or in the name of the Assured any claim which could result in loss to the Assured within the coverage of this Guarantee, or to pay the full amount of this Guarantee or, if this Guarantee is issued for the benefit of a holder of a mortgage or a lienholder, the Company shall have the option to purchase the indebtedness secured by said mortgage or said lien for the amount owing thereon, together with any costs, reasonable attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of purchase.

Such purchase, payment or tender of payment of the full amount of the Guarantee shall terminate all liability of the Company hereunder. In the event after notice of claim has been given to the Company by the Assured the Company offers to purchase said indebtedness, the owner of such indebtedness shall transfer and assign said indebtedness, together with any collateral security, to the Company upon payment of the purchase price.

Upon the exercise by the Company of the option provided for in Paragraph (a) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 4, and the Guarantee shall be surrendered to the Company for cancellation.

(b) To Pay or Otherwise Settle With Parties Other Than the Assured or With the Assured Claimant.

To pay or otherwise settle with other parties for or in the name of an Assured claimant any claim assured against under this Guarantee, together with any costs, attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay.

Upon the exercise by the Company of the option provided for in Paragraph (b) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 4.

7. Determination and Extent of Liability.

This Guarantee is a contract of Indemnity against actual monetary loss or damage sustained or incurred by the Assured claimant who has suffered loss or damage by reason of reliance upon the assurances set forth in this Guarantee and only to the extent herein described, and subject to the Exclusions From Coverage of This Guarantee.

The liability of the Company under this Guarantee to the Assured shall not exceed the least of:

- (a) the amount of liability stated in Schedule A or in Part 2;
- (b) the amount of the unpaid principal indebtedness secured by the mortgage of an Assured mortgagee, as limited or provided under Section 6 of these Conditions and Stipulations or as reduced under Section 9 of these Conditions and

Stipulations, at the time the loss or damage assured against by this Guarantee occurs, together with interest thereon; or

- (c) the difference between the value of the estate or interest covered hereby as stated herein and the value of the estate or interest subject to any defect, lien or encumbrance assured against by this Guarantee.

8. Limitation of Liability.

- (a) If the Company establishes the title, or removes the alleged defect, lien or encumbrance, or cures any other matter assured against by this Guarantee in a reasonably diligent manner by any method, including litigation and the completion of any appeals therefrom, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused thereby.
- (b) In the event of any litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals therefrom, adverse to the title, as stated herein.
- (c) The Company shall not be liable for loss or damage to any Assured for liability voluntarily assumed by the Assured in settling any claim or suit without the prior written consent of the Company.

9. Reduction of Liability or Termination of Liability.

All payments under this Guarantee, except payments made for costs, attorneys' fees and expenses pursuant to Paragraph 4 shall reduce the amount of liability pro tanto.

10. Payment of Loss.

- (a) No payment shall be made without producing this Guarantee for endorsement of the payment unless the Guarantee has been lost or destroyed, in which case proof of loss or destruction shall be furnished to the satisfaction of the Company.
- (b) When liability and the extent of loss or damage has been definitely fixed in accordance with these Conditions and Stipulations, the loss or damage shall be payable within thirty (30) days thereafter.

11. Subrogation Upon Payment or Settlement.

Whenever the Company shall have settled and paid a claim under this Guarantee, all right of subrogation shall vest in the Company unaffected by any act of the Assured claimant.

The Company shall be subrogated to and be entitled to all rights and remedies which the Assured would have had against any person or property in respect to the claim had this Guarantee not been issued. If requested by the Company, the Assured shall transfer to the Company all rights and remedies against any person or property necessary in order to perfect this right of subrogation. The Assured shall permit the Company to sue, compromise or settle in the name of the Assured and to use the name of the Assured in any transaction or litigation involving these rights or remedies.

If a payment on account of a claim does not fully cover the loss of the Assured the Company shall be subrogated to all rights and remedies of the Assured after the Assured shall have recovered its principal, interest, and costs of collection.

12. Arbitration.

Unless prohibited by applicable law, either the Company or the Assured may demand arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Assured arising out of or relating to this Guarantee, any service of the Company in connection with its issuance or the breach of a Guarantee provision or other obligation. All arbitrable matters when the Amount of Liability is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Assured. All arbitrable matters when the amount of liability is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Assured. The Rules in effect at Date of Guarantee shall be binding upon the parties. The award may include attorneys' fees only if the laws of the state in which the land is located permits a court to award attorneys' fees to a prevailing party. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

The law of the situs of the land shall apply to an arbitration under the Title Insurance Arbitration Rules.

A copy of the Rules may be obtained from the Company upon request.

13. Liability Limited to This Guarantee; Guarantee Entire Contract.

- (a) This Guarantee together with all endorsements, if any, attached hereto by the Company is the entire Guarantee and contract between the Assured and the Company. In interpreting any provision of this Guarantee, this Guarantee shall be construed as a whole.
- (b) Any claim of loss or damage, whether or not based on negligence, or any action asserting such claim, shall be restricted to this Guarantee.
- (c) No amendment of or endorsement to this Guarantee can be made except by a writing endorsed hereon or attached hereto signed by either the President, a Vice President, the Secretary, an Assistant Secretary, or validating officer or authorized signatory of the Company.

14. Notices, Where Sent.

All notices required to be given the Company and any statement in writing required to be furnished the Company shall include the number of this Guarantee and shall be addressed to the Company at **First American Title Insurance Company, Attn: Claims National Intake Center, 1 First American Way, Santa Ana, California 92707** Claims.NIC@firstam.com Phone: 888-632-1642 Fax: 877-804-7606

 First American Title™	Subdivision Guarantee
	ISSUED BY First American Title Insurance Company
Schedule A	GUARANTEE NUMBER 5003353-0002799e

Order No.: 20-5836-TO

Liability: \$2,000.00

Fee: \$750.00

Tax: \$65.25

Name of Assured: Metron and Associates, Inc.

Date of Guarantee: January 26, 2021

The assurances referred to on the face page hereof are:

1. Title is vested in: Adolf W. Bucko, Trustee of the Adolf Bucko Survivor's Trust
2. That, according to the Public Records relative to the land described in Schedule C attached hereto (including those records maintained and indexed by name), there are no other documents affecting title to said land or any portion thereof, other than those shown under Record Matters in Schedule B.
3. The following matters are excluded from the coverage of this Guarantee:
 - A. Unpatented Mining Claims, reservations or exceptions in patents or in acts authorizing the issuance thereof.
 - B. Water rights, claims or title to water.
 - C. Tax Deeds to the State of Washington.
 - D. Documents pertaining to mineral estates.
4. No guarantee is given nor liability assumed with respect to the validity, legal effect or priority of any matter shown herein.
5. This Guarantee is restricted to the use of the Assured for the purpose of providing title evidence as may be required when subdividing land pursuant to the provisions of Chapter 58.17, R.C.W., and the local regulations and ordinances adopted pursuant to said statute. It is not to be used as a basis for closing any transaction affecting title to said property.
6. Any sketch attached hereto is done so as a courtesy only and is not part of any title commitment, guarantee or policy. It is furnished solely for the purpose of assisting in locating the premises and First American expressly disclaims any liability which may result from reliance made upon it.



By: _____
 John Milnor
 Guardian Northwest Title & Escrow Company, 60-0021028
 1301 Riverside Drive
 Suite B
 Mount Vernon, WA 98273
 Authorized Countersignature

 First American Title™	Subdivision Guarantee
	ISSUED BY First American Title Insurance Company
Schedule B	GUARANTEE NUMBER 5003353-0002799e

File No.: 20-5836-TO

RECORD MATTERS

1. Reservations, provisions and/or exceptions contained in instrument executed by W.M. Lindsey, et ux., recorded 10/12/1903 as Auditor's File No. 45724. Regarding mineral reservations.
2. Easement, affecting a portion of subject property for the purpose of drainage ditch including terms and provisions thereof granted to Drainage District No. 14 recorded 02/26/1935 as Auditor's File No. 267764
3. Easement, affecting a portion of subject property for the purpose of Drainage including terms and provisions thereof granted to Skagit County Diking District recorded 07/20/1965 as Auditor's File No. 669179
4. Any and all offers of dedications, conditions, restrictions, easements, fence line/boundary discrepancies and encroachments, notes, provisions and/or any other matters as disclosed and/or delineated on the face of the following plat/short plat/survey named Sedro-Woolley Short Plat No. SW-05080 recorded 07/23/1980 as Auditor's File No. 8009230029.
5. Any and all offers of dedications, conditions, restrictions, easements, fence line/boundary discrepancies and encroachments, notes, provisions and/or any other matters as disclosed and/or delineated on the face of the following plat/short plat/survey named Survey recorded 06/19/1991 as Auditor's File No. 9106190097. Shows Southeast corner of Parcel D.
6. Any adverse claim by reason of any change in the location of the boundaries of said premises which may have resulted from any change in the location of the Brickyard Creek aka Drainage District No. 14 right-of-way, or its banks, or which may result from such change in the future.
7. General Taxes for the year 2020 in the amount of \$3,882.42, have been paid in full for Tax Account No. P37251 (350423-1-008-0206).
8. General Taxes for the year 2020 in the amount of \$906.43, have been paid in full for Tax Account No. P37250 (350423-1-008-0107).
9. General Taxes for the year 2020 in the amount of \$36.79, have been paid in full for Tax Account No. P37253 (350423-1-010-0004).
10. General Taxes for the year 2020 in the amount of \$21.01, have been paid in full for Tax Account No. P37256 (350423-1-012-0002).

11. General Taxes for the year 2020 in the amount of \$5.23, have been paid in full for Tax Account No. P37151 (350423-0-011-0005).
12. Municipal assessments, if any, levied by the City of Sedro Woolley. This Company suggests that inquiry be made to the City of Sedro Woolley for current assessment status.

As a courtesy we believe that the fax number for this City is:

Sedro Woolley (360) 855-0707
13. Assessment for Sanitary Sewer, Including the Terms and Provision, thereof assessed by the City of Sedro-Woolley by Ordinance No. 1481-06 recorded 10/13/2004 as Auditor's File No. 200410130026.
14. Agreement, affecting subject property, regarding Agreement.. for Variance deferring connection to sanitary swere and the terms and provisions thereof between City of Sedro-Woolley and Adolf W. Bucho, et ux,, recorded 03/13/2009 as Auditor's File No. 200903130113.

15. Said lands have been reclassified as Farm and agricultural by Notice of Approval, recorded 03/14/2000 as Auditor's File No. 200003140007 for tax purposes, notice of which is given by instrument as herein set forth. They will be subject to further taxation and interest thereupon as provided by chapter 84.34 and 84 R.C.W. upon withdrawal from such classification or change in use.
16. Due to tax classification shown hereinabove, the Skagit/Island County Assessor requires that a separate "Notice of Continuance" accompany ALL Real Estate Excise Tax Affidavits requesting a continuance, AND that a separate "Check List" accompany ALL affidavits for either continuances or violations.

An "Open Space Farm and Agriculture Verification of Income Form" must accompany ALL Real Estate Excise Tax Affidavits for transfers of "Farm and Agricultural Land" that is less than 20 acres.

A Timber Management Plan may be required to accompany Real Estate Tax Affidavits for transfers of "Timber Land."

If the separate "Notice of Continuance" is not signed, all compensating or additional tax shall be due and payable at the time of sale. The County Assessor must be consulted at least 15 days prior to sale to determine the applicability and amount of any compensating or additional taxes.

17. The right, title and interest of Opal Sweeten to the North 460.96 feet of Parcels "F" and "G" as acquired by deed recorded 11/30/1981 as Auditor's File No. 8111300027 (a rerecording of Auditor's File No. 8102170016).

Note: Though Opal Sweeten gave later deeds to the Buckos those deeds did not include this strip of land.

18. Reservations, provisions and/or exceptions contained in instrument executed by C. E. Bingham, et ux,, recorded 04/29/1912 as Auditor's File No. 91099. Said reservation affects that portion of Parcel "F" lying within the North 1/2 of the Southwest 1/4 of the Southeast 1/4 of the Northeast 1/4. Said reservation was for road purposes.

 First American Title™	Subdivision Guarantee
	ISSUED BY First American Title Insurance Company
Schedule C	GUARANTEE NUMBER 5003353-0002799e

File No.: 20-5836-TO

The land in the County of Skagit, State of Washington, described as follows:

Parcel "A":

Tract 1, Short Plat No. SW 05-80 approved July 22, 1980 and recorded

July 23, 1980 in Book 4 of Short Plats, at page 150, under Auditor's File No. 8007230029.

(Being a portion of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.)

Parcel "B":

Tract 2, Short Plat No. SW 05-80 approved July 22, 1980 and recorded

July 23, 1980 in Book 4 of Short Plats, at page 150, under Auditor's File No. 8007230029.

(Being a portion of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.)

TOGETHER WITH an easement 60 feet in width for ingress, egress and utilities over, under and across Tract 1 and Tract 2 of said Short Plat as delineated on the face of said Short Plat.

Parcel "C"

The Northwest Quarter of the Southeast Quarter of the Northeast Quarter,

EXCEPT THE East 20 feet thereof in Section 23, Township 35 North, Range 4 East of the Willamette Meridian.

ALSO EXCEPT THAT portion conveyed to Sedro Woolley School District #101 by Deed recorded under Auditor's File No. 8403120001 described as follows:

Beginning at the Northwest corner of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M., which is the True Point of Beginning, thence Easterly 184 feet along the North line of said Southwest Quarter, thence North to the Centerline of an existent County Drainage Ditch, thence Westerly along Centerline of said County Drainage Ditch to a point on the West line of said Southeast Quarter North of the Point of Beginning, thence South to the Actual Point of Beginning.

Parcel "D":

The North Half of the Southeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.,

EXCEPT THE West 20 feet thereof, and

ALSO EXCEPTING THE East 127 feet 5 inches thereof

ALSO EXCEPT that portion, if any, lying within the South 340 feet of said Southeast ¼ of the Southeast ¼ of the Northeast ¼.

Parcel "E":

That portion of the Southeast 1/4 of the Southeast 1/4 of the Northeast 1/4 of Section 23, Township 35 North, Range 4 East, W.M., described as follows: of

Beginning at the Northeast corner of said subdivision; thence North 89 degrees 49' 55" West along the North line of said subdivision, a distance of 127.54 feet to the Northeast corner of that parcel described in Statutory Warranty Deed to Adolf W. Bucko and Maria T. Bucko, under Auditor's File No. 863875; thence South 00 degrees 31' 28" East along the East line of said Bucko parcel, a distance of 317.82 feet to the Northeast corner of that parcel described in Warranty Deed to Fred R. King and Lizzie M. King under Auditor's File No. 366139; thence North 89 degrees 48' 49" East along the prolongation of the North line of said King parcel, a distance of 127.57 feet to the East line of said subdivision; thence North 00 degrees 31' 54" West along the East line of said subdivision a distance of 317.03 feet to the point of beginning.

Parcel "F":

The East 20 feet of the West 1/2 of the Southeast 1/4 of the Northeast 1/4 of Section 23, Township 35 North, Range 4 East, W.M. EXCEPT that portion thereof lying within the Cook Road along the South line thereof; and ALSO EXCEPT that portion, if any, lying within those premises conveyed to Raymond W. Nelson, by deed recorded March 9, 1988 as Auditor's File No. 8803090038.

Parcel "G":

The West 20 feet of the East 1/2 of the Southeast 1/4 of the Northeast 1/4 of Section 23, Township 35 North, Range 4 East, W.M. EXCEPT that portion thereof lying within the Cook Road along the South line thereof; and ALSO EXCEPT that portion, if any, lying within those premises conveyed to Bruce P. Savage by deed recorded December 14, 1990 as Auditor's File NO. 9012140073.

 First American Title™	Subdivision Guarantee
	ISSUED BY First American Title Insurance Company
Informational Notes	GUARANTEE NUMBER 5003353-0002799e

File No.: 20-5836-TO

1. The vesting deed to the Bucko Family Trust recorded 3/26/2019 as Auditor's File No. 201903260078 did not include Parcels "F" and "G" herein.
2. Local Contact information:

John Milnor
Guardian NW Title & Escrow
1301B Riverside Drive
PO Box 1667
Mount Vernon, WA 98273
PH 360-424-0115
john.milnor@gnwttitle.com
3. The date of the Trust should be added to the vesting herein.

202008110194

08/11/2020 03:20 PM Pages: 1 of 4 Fees: \$106.50
Skagit County Auditor

Filed for Record at request of
and return to:

Stiles Law Inc., P.S.
P.O. Box 228 / 925 Metcalf Street
Sedro-Woolley, WA 98284

SKAGIT COUNTY WASHINGTON
REAL ESTATE EXCISE TAX

2020-2025
AUG 11 2020

Amount Paid \$0
Skagit Co. Treasurer
By *MA* Deputy

Grantor(s): Adolf W. Bucko, Trustee of The Adolf and Maria Bucko Family Trust
 Grantee(s): Adolf W. Bucko, Trustee of the Adolf Bucko Survivor's Trust
 Legals & Parcel #s: 1) P77211 / 4172-000-004-0000 – THE WEST ½ OF LOT 3 AND ALL OF LOT 4, SEDRO-WOOLLEY HEIGHTS, SE 13-35-04
 2) P37256 / 350423-1-012-0002 – N1/2 SE1/4 SE1/4 NE1/4, NW 23-35-04
 3) P37253 / 350423-1-010-0004 – NW1/4 SE1/4 NE1/4, NE 23-35-04
 4) P37251 / 350423-1-008-0206 – PTN NE1/4 SE1/4 NE1/4, NE 23-35-04
 5) P37250 / 350423-1-008-0107 – NE1/4 SE1/4 NE1/4, NE 23-35-04
 6) P37151 / 350423-0-011-0005 – PTN OF SE1/4 SE1/4 NE1/4, NE 23-35-04
 7) P69723 / 4019-000-007-0004 – SPARR'S REPLAT IN TRACTS 13 AND 15, BURLINGTON ACREAGE PROPERTY, NW 33-35-04

QUIT CLAIM DEED

THE GRANTOR, Adolf W. Bucko, Trustee of THE ADOLF AND MARIA BUCKO FAMILY TRUST, conveys and quit claims unto Adolf W. Bucko, Trustee of the ADOLF BUCKO SURVIVOR'S TRUST, in the following described real estate, situated in the County of Skagit, State of Washington, together with all after acquired title of the Grantor therein:

PROPERTY #1

ADDRESS: 820 McLean Drive, Sedro-Woolley, WA 98284

The West ½ of Lot 3 and all of Lot 4, "SEDRO-WOOLLEY HEIGHTS", as per Plat recorded in Volume 6 of Plats, page 35, records of Skagit County, Washington, less the following described portion of said Lot 4:

Commencing at the Southwest corner of said Lot 4; thence North along the West edge thereof to the Northwest corner; thence East 9 feet; thence Southwesterly to the point of beginning.

PARCEL #: P77211 / 4172-000-004-0000

PROPERTY #2

ADDRESS: Vacant Lot, Sedro-Woolley, WA 98284

The North Half of the Southeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M., EXCEPT THE West 20 feet thereof, and ALSO EXCEPTING THE East 127 feet 5 inches thereof.

PARCEL #: P37256 / 350423-1-012-0002

PROPERTY #3

ADDRESS: Vacant Lot, Sedro-Woolley, WA 98284

The Northwest Quarter of the Southeast Quarter of the Northeast Quarter, EXCEPT THE East 20 feet thereof in Section 23, Township 35 North, Range 4 East of the Willamette Meridian.

ALSO EXCEPT THAT portion conveyed to Sedro Woolley School District #101 by Deed recorded under Auditor's File No. 8403120001 described as follows:

Beginning at the Northwest corner of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M., which is the True Point of Beginning, thence Easterly 184 feet along the North line of said Southwest Quarter, thence North to the Centerline of an existent County Drainage Ditch, thence Westerly along Centerline of said County Drainage Ditch to a point on the West line of said Southeast Quarter North of the Point of Beginning, thence South to the Actual Point of Beginning.

All situate in the County of Skagit, State of Washington.

PARCEL #: P37253 / 350423-1-010-0004

PROPERTY #4

ADDRESS: 503 F&S Grade Road, Sedro-Woolley, WA 98284

Tract 2, Short Plat No. SW 05-80 approved July 22, 1980 and recorded July 23, 1980 in Book 4 of Short Plats, at page 150, under Auditor's File No. 8007230039.

(Being a portion of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.)

TOGETHER WITH an easement 60 feet in width for ingress, egress and utilities over, under and across Tract 1 and Tract 2 of said Short Plat as delineated on the face of said Short Plat.

PARCEL #: P37251 / 350423-1-008-0206

PROPERTY #5

ADDRESS: 505 F&S Grade Road, Sedro-Woolley, WA 98284

Tract 1, Short Plat No. SW 05-80 approved July 22, 1980 and recorded July 23, 1980 in Book 4 of Short Plats, at page 150, under Auditor's File No. 8007230029.

(Being a portion of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.)

EXCEPT THAT portion thereof, described as follows:

Beginning at a point on the North line of the North Half of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M., at a point which intersects the Southwesterly Right of Way Boundary of F & S Grade County Road as more fully provided for under Sedro Woolley Short Plat No. SW-05-80, under Auditor's File No. 8007230029; thence Southeasterly along said Boundary of said F & S Grade Road 77.92 feet to the True Point of Beginning; thence continue Southeasterly along said Road Boundary a distance of 76.35 feet to the East Boundary of said North Half of Southeast Quarter of Northeast Quarter; thence South 2°31'31" East along said East Boundary of said subdivision a distance of 138.86 feet; thence South 71°25'30" West a distance of 166.49 feet; thence on a straight line in a Northeasterly direction to the True Point of Beginning.

PARCEL #: P37250 / 350423-1-008-0107

PROPERTY #6

ADDRESS: Vacant Lot, Sedro-Woolley, WA 98284

That portion of the Southeast ¼ of the Southeast ¼ of the Northeast ¼ of Section 23, Township 35 North, Range 4 East, W.M., described as follows:

Beginning at the Northeast corner of said subdivision; thence North 89 degrees 49' 55" West along the North line of said subdivision, a distance of 127.54 feet to the Northeast corner of that parcel described in Statutory Warranty Deed to Adolf W. Bucko and Maria T. Bucko, under Auditor's

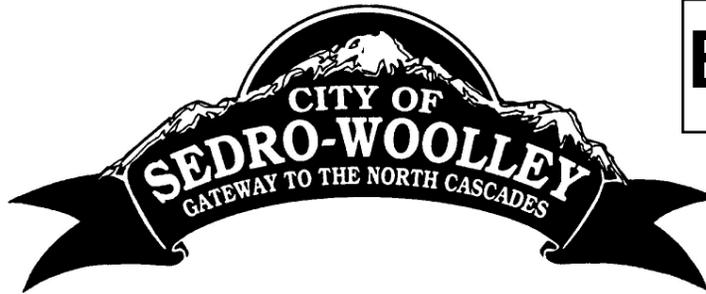


Exhibit C

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for non-project proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the supplemental sheet for nonproject actions (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. BACKGROUND

1. Name

Bucko Estates (Residential Long Plat)

2. Address and phone number of applicant and contact person:

Applicant: Bucko Survivors Trust
Contact: Sarah Bucko
13315 Overton Street
Portland, OR 98229
Phone: (360)840-2609
Email: sarahbucko12@gmail.co

Contact Person: Heike Nelson, PE or John Ravnik, PE
Ravnik & Associates
P.O. Box 361/1633 Lindamood Lane
Burlington, WA 98233
Phone: (360) 707-2048
Email: hnelson@ravnik.net or jravnik@ravnik.net

3. Date checklist prepared:

January 26, 2021

4. Agency requesting checklist:

City of Sedro-Woolley Planning Department
DOE for land disturbance greater than 1 ac
WDFW for HPA

5. Proposed timing or schedule (including phasing, if applicable):

All work for this residential plat is anticipated to be performed in three phases. The first phase will construct the roadway to serve the lots along the north side of the site, north of Brickyard Creek. Phase 2 will contain the creek crossing along with the westerly side of the proposed project area located southerly of the creek. The last phase, Phase 3, will contain the remaining lots proposed along the south side of Brickyard Creek, along the [easterly](#) side of the site. These phases may be constructed at the same time, or the order and configuration may change depending on project strategy and economics. Site development is anticipated to begin Summer of 2021 with the first phase of the project anticipated to be complete by Winter 2021 depending on economics, etc. Refer to the attached Phasing Plan Exhibit attached in Appendix B at the end of this SEPA checklist.

6. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Yes. In addition to the applicant's ownership of 19.6 acres zoned R-7, they also own two adjoining parcels, P37256 and P37151, encompassing approximately 4.48 acres east of the right of way dedication. These two parcels are zoned mixed commercial, MC. The applicant has recently submitted a Comprehensive Plan Amendment to the City of Sedro-Woolley to change the zoning of these two parcels to R-15. Once approved by the City, this requested zoning change will allow the applicant to extend the roads and infrastructure for additional residential platting as permitted by the applicable zoning code.

7. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

For the proposed residential development a geotechnical investigation has been performed by Geotest Services, a Critical Area Investigation has been performed by Essency Environmental, and a Traffic Report has been prepared by Gibson Traffic. A copy of these reports are included within the appendices at the end of this SEPA.

8. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known of

9. List any government approvals or permits that will be needed for your proposal, if known.

- NPDES/NOI Permit – Department of Ecology
- Preliminary and Final Plat approval – City of Sedro-Woolley
- Fill and Grade Permit approval – City of Sedro-Woolley
- Access Permit/ROW Permit – City of Sedro-Woolley
- Building Permit approval for future houses– City of Sedro-Woolley
- JARPA/HPA – Department of Fish and Wildlife

10. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The residential plat project located within the City of Sedro Woolley, Washington will encompass a total of three parcels (P37250, P37251, and 37253 encompassing 19.6 acres,) and a new roadway extension southerly from the south side of the residential project area to Cook Road through a fourth parcel, P37256, owned by the applicant. The project is located southwesterly of F & S Grade Road, east of the Klinger Estates development, and approximately 650 feet northerly of Cook Road. This project proposes to create a total of 65 residential lots; comprising 60 new single-family building parcels and five duplex parcels along with three open space tracts (0.5-acres) to be used as a recreational area as required by the City of Sedro Woolley. Lot areas will be a minimum of 6,000 square feet for single-family lots and a minimum of 9,000 square feet for the proposed duplex lots.

There are two residences located within the northeast corner of the project site, having an address of 503 and 505 F & S Grade Road. The two residences and associated out buildings were constructed in 1947 and 1920 per Skagit County records. A residential driveway comprised of gravel proceeds southerly and westerly from F & S Grade Road to serve the two existing residences. With exception of the residentially developed area in the northeasterly portion of the subject property, the site is generally covered in unmaintained pasture/field condition with a few trees and blackberry bushes. The site topography is generally low in the property's center where Brickyard Creek exists, and gently slopes downhill to the south. Brickyard Creek is designated a Type 3 stream and per the Forest Practices Water Typing maps has an "F" designation, denoting fish bearing. Developed runoff waters from this project will be detained and a majority of the flows will be infiltrated or dispersed to the underlying soils within the project area. During larger storm events, a small amount of runoff waters will overflow from the onsite infiltration facilities and be discharged into Brickyard Creek as allowed by DOE regulations. Refer to the accompanying Existing Conditions Plan for the terrain conditions located in Appendix B.

The proposed access for this plat will be via a new two-directional public roadway to be constructed from the southerly side of F & S Grade Road and will extend westerly where it will connect to the easterly end of existing Thurmond Avenue. This section of roadway will serve the lots along the northerly side of the creek. A roadway

will be extended southerly from this new access, over the existing creek, then southerly and westerly to serve the south side of the site. A new road access is also proposed to be constructed extending from the site, southerly to the north side of Cook Road. Within the site the new roadways will be constructed within the proposed 60-foot wide right of way. This onsite public road will have a 32-foot wide roadway surface, curb, gutter, landscaping, and a 5-foot wide sidewalk will be constructed along each side. An exhibit noting the proposed public road cross-section is included in Appendix B. The roadway extension to Cook Road will provide access from the south end of the applicant's overall ownership within an existing 40-foot wide panhandle. The roadway cross-section north from Cook Road will be limited due to the 40-foot wide ownership, and will be comprised of two 13-foot wide lanes with curb, gutter, and 6-foot-wide sidewalk on each side.

Along the west side of the proposed residential plat, a 65-foot wide strip of land will be dedicated with this project to the City of Sedro Woolley for the City's future construction of Trail Road as planned by the City's transportation plan. The value of the land dedication will be credited to the project in the form of traffic impact fee credits.

In addition to the public roadway improvements, all other utilities necessary to serve this residential plat will be installed including sanitary sewer, storm drainage, water, along with conduits for power, cable, telephone natural gas, and fiber optic as needed. Sanitary sewer will be provided from the City's existing sewer system located in F & S Grade Road to the east, Thurmond Avenue to the west, and/or Cook Road to the south. Sewer mains will be extended from existing City owned sewer main systems to provide sanitary sewer service to each of the new lots. The new sanitary sewer extension will generally be 8-inch diameter however 12-inch diameter sewer may be used if needed. Sewer may be installed below Brickyard Creek to serve properties on the south side of the creek, and/or sewer will be installed within the panhandle portion of the project from Cook Road to the south. Water will be provided by the provision of an 8-inch diameter waterline loop from the existing 8-inch waterline in F and S Grade Road, Thurmond Road, and potentially from Cook Road. For fire protection 5 or 6 new fire hydrants are proposed to serve the new lots within the residential plat. Conduits for power, cable, telephone, and likely fiber optic will be installed, along with both public and private stormwater facilities to be provided. Public stormwater facilities will include various catch basins installed throughout the proposed right of way to collect surface stormwater and convey it to an underground storm drainage piping system that will route developed runoff waters to various infiltration systems. Stormwater mitigation for each lot and future home sites will be provided by private stormwater systems located outside of the proposed right of way and potentially consisting of (1) sheet flow dispersion, (2) wet/dry wells and/or infiltration trenches, (3) pervious driveway sections with underlying reservoir rock, and/or (4) impervious sections with underlying reservoir rock. Stormwater treatment will be achieved by use of the onsite soils via infiltration or water quality treatment vaults as required and approved by the City and DOE.

The plat applications and map identify a total of 65 residential lots. As further described herein, there is the potential of having four or five additional lots. Within the referenced 60-foot wide right of way dedications, the road section measures 32-feet between the face of curbs adjoined on each side by a 5-foot wide landscape strip and a 5-foot wide sidewalk. The distance in between the backs of walks is 53 feet. This paving width provides for two 12-foot-wide travel lanes and an 8-foot wide on-street parking strip. Within the referenced 65-foot wide land dedication for the City to construct a future Trail Road, the road section measures 26-feet between curbs faces, an adjoining 5-foot wide landscape strip on each side, and adjoining sidewalks that are 5-feet on one side and 10-feet on the other. Between the backs of walks is a distance of 52-feet. As noted, each right of way dedication is considerably wider than the physical width of street cross-section. Ongoing discussion with the City will continue regarding a reduced right of way dedication width. Applying a more efficient dedication width generates additional land for up to three additional single family residential lots. This would be a very minor amendment to incorporate these additional lots into the plat. In as much as the City desires three perimeter points of road access (Cook, Thurmond, and F & S Grade) discussions with the City have entertained the potential of no road connection to Thurmond Avenue. If the westerly 200-feet of this new plat road is omitted from this project, there is the potential to gain one to two additional single-family residential lots in this project.

11. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The subject properties contain two existing houses having an address of 503 and 505 F & S Grade Road, Sedro Woolley, Washington. The site is located southwesterly of F & S Grade Road, generally near the intersection of F & S Grade Road and Garden of Eden Road, extends south to approximately 320-feet north of Cook Road, and easterly of Thurmond Avenue (Klinger Estates) located along the west side of the property. Subdivisionally, the property is located within the southeast quarter of the northeast quarter of Section 23, Township 35 N, Range 4 E.

Accompanying this SEPA within the Preliminary Plat Application is a title report which contains the property's legal description and a copy of all easements and encumbrances upon the subject property

Refer to the Vicinity Map, Aerial Exhibit, and "Existing Conditions" exhibits attached in Appendices A and B at the end of this SEPA for a visual representation of the project area.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The subject property is generally flat with the exception of the slopes adjoining Brickyard Creek bisecting the project area.

b. What is the steepest slope on the site (approximate percent slope)?

The only slopes that appear to be of any significance are small areas adjoining Brickyard Creek bisecting the project area, which are estimated to be approximately 17-19%. The vast majority of the site is generally flat with slopes of approximately 1-2%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The onsite soils are identified by the NRCS Web Soil Survey as Minkler silt loam (#92). The SCS Soils Survey for Skagit County notes this soil as being a very deep moderately well drained soils on river terraces. Per the geotechnical information provided by Geotest Engineers, the site soils generally consist of 0.5-to 1-foot of grassed surfaced topsoil overlying a variable thickness of stiff light brown to gray, sandy silt to silty sand upper alluvial deposits. Below the siltier deposits, there exist a commonly restrictive fine graded silt horizon, typically 1-foot thick. Below these siltier deposits subsurface soils transitions to a lower coarser-grained alluvial unit ranging from poorly graded sand with a trace silt to slightly silty sand. The geotechnical investigation notes the availability of an initial underlying infiltration rate of 1.0 inch per hour at depths of approximately 4 to 5-feet BGS in the project area. The higher infiltration rate is available in the northerly portion of the area investigated, generally where this current residential project is proposed. High ground water was observed ranging from 2.5-feet deep to 8.5-feet deep, with the higher groundwater elevations being located within the southerly side of the area investigated, generally where residential plat developed is not proposed at this time. Refer to the soil test locations noted within the Geotest Report prepared for this project for more specific soil information and ground water elevations.

There is no known classification of agricultural soils or any soils onsite that are of long-term commercial significance.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Within this project, north of the 40-foot wide panhandle, approximately 3,250 lineal feet of new public roadway construction with sidewalks on each side will be constructed within the proposed right of way area. Within the narrower 40-foot wide panhandle right of way to the south, approximately 320 lineal feet of a narrower road with two 13-foot lanes, curb/gutter and 6-foot walk on each side will be constructed. Topsoil materials will be removed prior to the placement of the structural fill as applicable for the road and sidewalk base, and landscape areas. For the purposes of public right of way construction, based on an 18-inch depth of excavation, approximately 8,800 cubic yards of organic topsoil and native materials will be excavated. In addition, approximately 7,100 cubic yards will be excavated for utility installations.

An average 18 inch depth of gravel fill materials will be needed for development of the roads, together with gravel as utility trench backfill. Respectively for the road construction, approximately 8,200 cubic yards will be used, with an additional 5,800 cubic yards as utility trench backfill.

Within the 65 new lot areas, it is anticipated that up to 12-inches of organic topsoil and underlying soils will be stripped from the residential lots for the construction of new homes ranging in size from 3,200 square feet for single family residences up to 6,000 square feet on duplex lots and new driveway areas. This constitutes approximately 8,300 cubic yards of material that potentially will be stockpiled onsite for use as common lot fill within landscape/lawn areas and adjacent to buildings. For private driveways on the lots, an estimated 12-inch depth of structural fill will be imported, totaling approximately 1,000 cubic yards.

For construction of the approximate 3,100 LF of storm runoff infiltration trench, construction of the proposed detention/infiltration systems will involve excavating through organic top soil materials and underlying soil materials. Unused volumes of this soil will be hauled offsite to a legally approved disposal site. Approximately 1,400 cubic yards of additional excavation of underlying soil materials will be removed for the construction of the public and private stormwater detention/infiltration systems. These areas will be back-filled with approximately 1,400 cubic yards of imported clean reservoir rock/drainrock.

Structural fill is anticipated to consist of Gravel Borrow, obtained from a Skagit County gravel source for the public improvements, and a structural reservoir rock beneath the driveway areas. All excavated topsoil materials will be saved and used as common lot grading as needed. Unneeded or unacceptable soils will be hauled off to a legally approved disposal site. The use of the excavated topsoil materials for common grading will not be recognized as any form of a structural fill. Common lot fills will have to be excavated through for the construction of residential foundations.

All quantities as noted are assumed to be "in place" volumes.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, as soils are exposed to rainfall impacts, erosion can occur, however erosion control measures will be implemented during construction to assure site erosion impacts are mitigated.

g. About what percent of the site will be covered with Impervious surfaces after project construction (for example, asphalt or buildings)?

Within this project area encompassing a total of 19.6 acres, impervious improvements are recognized as roadways, walking paths, and onsite residential improvements. Combined, the proposed roads and walking paths in the public rights of way equate to approximately 3.6-acres and the existing stream and associated buffer will be put into a NGPA Tract which will encompass approximately 3.8-acres. Based on each single-family residential lot having approximately 4,200 square feet of impervious (building and driveway), each duplex lot having 8,400

square feet of effective impervious surfaces (building and driveway), a total residential impervious lot cover is anticipated to be approximately 6.5 acres. Along the west side of the site 0.9-acres of land is proposed to be dedicated to the City of Sedro Woolley for a future Trail Road construction. In summary, the combined impervious areas could equate to approximately 50-60% of the project area, depending on individual site development.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

During the site development activities, rainfall runoff from disturbed areas will likely be directed towards a temporary open ditch, which will provide a facility for rainfall waters to collect, sediment to settle out, and water to soak into the ground. Provisions will be incorporated into the site's erosion control plan to assure any waters leaving the site will be filtered before they are discharged into any receiving facilities. Silt fences, temporary scratch ditches, temporary ponds, and other measures will also be implemented where effective.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

During the plat's construction activities, there will be equipment operating such as bulldozers, excavators, and dump trucks. This equipment will be maintained during construction for its optimum performance. There will not be any burning performed during any of the construction activities. Upon the project's completion, the only emissions generated will be from vehicles entering and exiting the residential plat and from the residential grade heating systems. The design of residential heating systems will conform to City of Sedro Woolley regulations.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

During construction, construction equipment will be maintained. The design of residential heating systems will conform to City of Sedro Woolley regulations.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There is one surface waterbody that has been identified on the subject property which is noted as Brickyard Creek. Other than this creek, there are no streams, saltwater, lakes, ponds or wetlands known to be within the subject property. Brickyard Creek is classified as a type "F" stream, for fish bearing. Per Essency Environmental this stream is a type III stream with a standard buffer of 110-feet on each side. This project proposes buffer enhancement to allow a reduction of the buffer by 50%, which is 55-feet on each side as noted on the attached exhibits. No onsite and offsite existing wetland areas have been identified which would impact this site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No work will be performed within any stream, saltwater, lake, pond or wetland other than the work for the culvert installation for a proposed two lane road crossing over Brickyard Creek and the proposed utility crossing within the westerly side of the site. During a meeting and onsite inspection with the Washington State Department of Fish and Wildlife (WDFW) biologist and engineer, WDFW noted the width of Ordinary High Water Mark, OHWM, is narrower than what was noted within the attached Critical Areas Report. WDFW felt the average width of OHWM, in this area, is 7.5 feet, thus the required culvert width is therefore $(7.5 \times 1.2) + 2 = 11$ feet. This can be round, arch, or bridge deck. A culvert height of 3 – 4 feet will be sufficient for high-flow capacity. The utility crossings will either be bored below the creek, or per WDFW, can be installed by traditional excavation during drier months when the Creek has no flowing water.

With Brickyard Creek bisecting the project area and the buffer enhancement to reduce the creek buffer down to 55-feet each side of the creek, new lots will be created adjoining the 55-foot buffer area which will be within 200-feet of the creek. Additionally, new roadways to provide access to the new lots as noted on the attached developed conditions exhibits will also be within 200-feet of the creek. Infiltration and dispersion trenches will also likely be installed within 200-feet of the creek to promote runoff water infiltration. A 5-foot wide pedestrian trail will be incorporated into the buffer design along the creek with the possibility of a foot bridge to cross from the north to the south side of the project. Neither the foot bridge, nor the trail are anticipated to disturb the critical area itself.

Refer to the buffer mitigation plan and landscape plans submitted with the Preliminary Plat application for further details and necessary mitigation within these areas of the site.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

The only fill and or dredge material anticipated would be for the new culvert at the road crossing Brickyard Creek, and potentially at a utility crossing if construction is done when the creek is dry in the summer months. No dredging will be performed.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The only diversion that may be necessary is if the new road crossing and/or new culvert needs to be installed during wetter months when water is flowing in Brickyard Creek. If this is necessary, the temporary flow diversion will be done to conform to WDFW requirements.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No. This proposal is not located within a 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No. The proposed residential plat will be served by a public sanitary sewer system and runoff waters will be treated as necessary before being discharged via infiltration or into any drainage course.

Ground Water:

7) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No ground water will be withdrawn as part of this project. Storm water runoff from this residential development will be collected and routed to infiltration or dispersion trenches, or mitigated by use of a pervious pavement section where infiltration will occur. As noted in the accompanying Geotechnical Investigation, the underlying soils have also been examined for their ability to sufficiently provide treatment during the course of infiltration to include proper cation exchange capacity and organic content. If the existing soils below infiltration or pervious pavement facilities are found to not have suitable properties for water treatment, the onsite soils will be blended to achieve the required criteria. Water quality will be provided as required by the 2014 DOE Stormwater Manual and the City of Sedro Wooley.

Depending on timing and depths of groundwater at the time of construction, the project may require dewatering, however this is not anticipated.

8) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste materials will be discharged into the ground.

b. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Please refer to the accompanying Preliminary Drainage Analysis Report in Appendix D.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No. The only "waste material" associated with this project is residential grade sewage waste which will be managed by a new sanitary sewer system connected to the City's sewer system. Storm water runoff will be purposely conveyed to the proposed detention/infiltration facilities where a majority of runoff will be infiltrated into the underlying soils. The underlying soils have been examined by a geotechnical engineer to assure there are suitable soils at depths to provide treatment. Pretreatment and treatment will be provided as required by the 2014 DOE Manual and the City of Sedro Woolley.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No changes to the existing drainage facilities other than the collection of onsite stormwater and its controlled release which will meet requirements of the 2014 DOE Stormwater Manual as required by the City of Sedro Woolley. This project proposes to infiltrate a majority of the stormwater runoff into the underlying soils, with only a small amount of controlled release, as allowed by DOE, being allowed to overflow to the existing Brickyard Creek bisecting the project area. Refer to the attached Preliminary Drainage Analysis in Appendix D for a more detailed description of the stormwater facilities for this project.

c. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Storm water retention/detention and treatment facilities will be designed and constructed as required by the 2014 DOE Stormwater manual standards. The design and function of these facilities will be reviewed and approved by the City of Sedro Woolley.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other**
- evergreen tree: fir, cedar, pine, other**
- shrubs**
- grass**
- pasture**
- crop or grain**
- orchards, vineyards or other permanent crops.**
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
- water plants: water lily, eelgrass, milfoil, other**
- other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

During the proposed plat construction, the trees, blackberry shrubs, and other miscellaneous vegetation within the site that are within the areas where construction will occur will be removed. Other trees onsite will likely be removed for home sites and based on health, size and how they fit into the final landscape of the project. Construction of all roads, sidewalks, driveways, utility corridors, and the detention/infiltration facilities will involve the removal of surface vegetation. It is assumed that a majority of the 19.6-acres of the site will be cleared eventually to allow for new residential development. The vast majority of the vegetation being removed will be either long grass, blackberries, or pasture. The buffer area encompassing Brickyard Creek will be prepared and planted as denoted by the mitigation plan to be prepared by Essency Environmental and approved by the City of Sedro Woolley prior to the disturbance occurring.

c. List threatened and endangered species known to be on or near the site.

There are no known endangered species on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None other than typical street front landscaping and landscaping in the open space recreation areas as required by the City and future residential landscaping as each home is constructed. A landscape exhibit has been included within the attached preliminary plat documents, with a final more detailed landscape plan to be provided with construction plans as necessary. Landscape plans will be prepared by a landscape architect, which will be submitted and approved with the project by the City of Sedro Woolley. This project's Critical Areas investigation will include a 55-foot-wide buffer enhancement plan which encompasses approximately 4.16 acres. (21% of the 19.6-acre project area)

e. List all noxious weeds and invasive species known to be on or near the site.

There are no known noxious weeds nor invasive plant species on or near the site.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: **hawk**, heron, eagle, **songbirds**, other: mammals: deer, bear, elk, beaver, other:
fish: bass, **salmon**, **trout**, herring, shellfish, other: **Rodents**

b. List any threatened and endangered species known to be on or near the site.

Fall Chinook Salmon – threatened and Coho Salmon - concern

c. Is the site part of a migration route? If so, explain.

Many parts of Skagit County are located within the Pacific Flyway. It is very likely that the subject property and the surrounding lands are located within a migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

The proposed drainage facilities associated with this project will promote stormwater infiltration for groundwater recharge. New trees and landscaping will also be planted as noted on the project's Landscape Exhibit, prepared by Ecco's Design, together with additional plantings within the enhanced stream buffer as noted on the attached Buffer Enhancement Plan prepared by the project's wetland biologist, Essency Environmental.

e. List any invasive animal species known to be on or near the site.

None are known to exist.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Both electricity and natural gas are anticipated to be used for heating and cooling purposes within the single family and duplex homes associated with this project.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

There are no aspects of this proposed residential development that will have a negative impact on the potential use of solar energy by adjacent properties because of the surrounding terrain.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

All residential development will have to conform with the International Building Code and Energy Code provisions there in.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

There are no known environmental health hazards anticipated to occur as a result of this residential development proposal.

1) Describe any known or possible contamination at the site from present or past uses.

Per Skagit County's iMap, the majority of the site has been in a pasture condition with residential development in the northeast corner, various trees and blackberry bushes since before 1937, with a majority of the site being generally used for agricultural purposes. The existing onsite residences were constructed in approximately 1920 and 1947. There is no evidence of any contamination onsite from the past uses.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

There are no known hazardous chemicals or conditions that may affect this proposed residential development.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

There will not be any, nor will there be any need for any toxic or hazardous chemicals to be used during the construction of this residential plat beyond what is commonly used for the operation and maintenance of construction equipment. At such time as residences are constructed on this property, the only anticipated chemicals would be common household cleaning and yard maintenance solutions.

4) Describe special emergency services that might be required.

No special emergency services beyond what are anticipated for typical residential uses.

5) Proposed measures to reduce or control environmental health hazards, if any:

None.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

There are no existing noises in the area that will negatively impact the functionality of this proposed residential plat.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

The construction activities are anticipated to occur in up to three phases as noted. Each phase is anticipated to take approximately 4-6 months for residential plat infrastructure, which will consist of noises from common construction equipment such as dump trucks, excavators, vibratory rollers, and other equipment. Following plat infrastructure construction, houses will be constructed on new lots. During the period when individual residential homes are constructed, there will be common noises generated by backhoes, saws, and hammering. During the residential plat infrastructure construction, work will likely occur from approximately 7:00 am to 6:00 pm Monday – Friday. These are also common work hours for the individual residential home construction period. Upon complete build-out of this residential plat, typical noises will be vehicles entering and exiting the residential plat and children playing outdoors.

3) Proposed measures to reduce or control noise impacts, if any:

None

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The subject properties contain approximately 19.6 acres with two existing single-family residences and associated out buildings located in the northeast corner of the property. Outside of the small residentially developed area in the northeast corner of the site, the remainder of the property is generally in a long grass/pasture condition with various areas of blackberries and a few trees, and has likely historically been used for agricultural activities. For the purposes of this residential platting, at completion the total 19.6-acre project area is estimated to comprise the following approximate areas: 9.9 acres to encompass proposed 65 new residential lots, 4.86 acres to be dedicated to the City of Sedro Woolley as public right of way for proposed roadway and sidewalk improvements, 0.92 acres of property dedication to the City of Sedro Wooley for future Trail Road improvements along the project's westerly side, 0.50 acres to be assigned to open space lots for recreation, and 3.83 acres to be put in a NGPA tract to protect Brickyard Creek and its associated 55-foot wide buffer area. A southerly road extension to Cook Road, across P37256 to the south of this project, will encompass an additional approximate 0.74 acres. The two existing onsite houses will be removed for construction of the plat infrastructure. Any historical and/or present agricultural activities will no longer be conducted on the property. Refer to the project lot layout in Appendix B at the end of this document.

Adjoining uses to the north, east, and west of this project area are residential in nature. To the south is undeveloped land currently zoned Mixed Commercial and a parcel owned by the school district used as a bus yard. None of these development activities nor the long term residential occupancy is anticipated to negatively impact any surrounding properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The 19.6-acres of the project area outside of the currently residentially developed property area in the project's northeast corner has likely historically supported agricultural and farm type activities. There has never been any known working forest land on the subject property. This subject property will support a total of up to 65 residential lots, with 0.5-acres set aside as open space tracts for recreation, a public right of way to be dedicated to the City for the roadway, and sidewalk improvements, and a NGPA tract which will protect Brickyard Creek and its associated buffer. The project area proposed for residential development is zoned R-7 Residential and the proposed use herein is consistent with the permitted uses within the zoning code. The roadway extension southerly from the new residential area to Cook road is located along the westerly side of a property which is currently zoned Mixed Commercial. None of the project area is designated as a natural resource land.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Abutting the project area, there are no working farms nor any working forest land areas. The development and occupancy of this residential plat is not anticipated to negatively affect nor will it have a negative effect on any surrounding agricultural farm activities.

c. Describe any structures on the site.

There are currently two single family residences within the proposed project area, located within the northeasterly area. Per Skagit County records, these residences were constructed in 1920 and 1947. The proposed lot layout will require removal of these two existing house sites for the construction of the proposed plat improvements.

d. Will any structures be demolished? If so, what?

Both the existing residences will be removed for the construction of the plat. Refer to the attached Existing Conditions plan for the location of the existing structures within the project area.

e. What is the current zoning classification of the site?

The site where new residential lots are proposed is currently zoned R-7, Residential. The new roadway extension southerly from the project area to Cook Road will encompass approximately 0.74-acres along the westerly side of a parcel zoned Mixed Commercial.

f. What is the current comprehensive plan designation of the site?

The project site where new residential lots are proposed is currently zoned R7 (Residential 7). The roadway encompassing approximately 0.74-acres for the extension southerly of a new road to connect to Cook Road located within the westerly side of a parcel which is zoned MC (Mixed Commercial).

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes. Brickyard Creek, which bisects the project area, is classified as a Type III Stream per the Critical Areas Report prepared by Essency Environmental. A 110-foot buffer area of each side of the stream is standard, however with buffer enhancement the stream buffer can be reduced by 50% to a 55-foot wide buffer on each side of the stream.

i. Approximately how many people would reside or work in the completed project?

The full build-out of the subject property will not employ any individuals however, based on the total of 60 single family residential lots and five duplex lots and 4 people per home, there will be approximately 280 people residing in this residential plat.

j. Approximately how many people would the completed project displace?

The only people that will be displaced are the occupants of the one inhabited residence located in the project's northeast corner.

k. Proposed measures to avoid or reduce displacement impacts, if any:

One of the existing houses is currently vacant, and the other is renter occupied. Current renters will be notified early on in the process to minimize impacts. No other measures are necessary.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Development of the subject property for a residential plat is an outright permitted use within the City of Sedro Wooley R-7 Residential zoning code. This project will be publicly advertised and notices sent to all surrounding property owners within 500-feet. The public hearing process conducted for this project will allow surrounding property owners to participate and comment upon this residential plat.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

There are no known forest land activities or agricultural activities located in the immediate vicinity of this project.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

There are currently two middle income residences on the project area, both are to be removed in the future. This project is estimated to create an additional 70 middle income housing units (including five duplex units) on a total of 65 lots.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

The two single family residences will be removed for the construction of this plat. These houses are middle income housing and are noted on the attached Existing Conditions exhibit. Only one residence is habitable.

c. Proposed measures to reduce or control housing impacts, if any:

None, other than the payment of impact fees and the construction of new infrastructure to serve the new housing units.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The proposed residences herein will be 1 and 2 story. For a 2-story single family residence, a structure height of approximately 24 to 26-feet is anticipated. All residences will have some form of siding.

b. What views in the immediate vicinity would be altered or obstructed?

With the reasonably flat land topography, views will change from a pasture view to a neighborhood.

c. Proposed measures to reduce or control aesthetic impacts, if any:

The intended middle income level of residential homes will be designed with paint colors and landscape features incorporated into future lot development and that will complement each lot's residential development as decided upon by the future lot owner and City.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Street lights will be installed along the public right of way as dictated by Puget Sound Energy and Into Light. Each residence will also have some lights attached to the outside of their home for safety and access purposes. The street lights and exterior residential lighting will likely be on only during the evening hours when it is dark.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

In between the right of way lighting in the front of new homes, the structure of the new home will block much of the light that would otherwise cast upon existing residentially developed areas to the east and west. All street lighting will be hooded to direct the light down upon the driving surfaces. No lighting will be directed upwards.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

Street lights, which are the brightest light within this project, will be hooded and directed to cast their light down upon the underlying drive surface and sidewalks. Individual house-mounted lighting will be significantly less bright than street lights, and will not create any impact on surrounding properties.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

None other than the provision of the open space tracts for residential recreation areas and their associated amenities and a potential trail along Brickyard Creek. Per City standards, open space recreation areas shall be provided based on 8,000 square feet plus 100 square feet per lot for each lot in excess of 25. For the 65 residential lot proposed, the City standards thereby require at least 12,000 square feet of open space tracts. For this project, approximately 21,000 SF of recreation tract will be provided.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None as no impact is anticipated

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

The two onsite residential structures located within the northeast corner of the subject property were constructed in 1920 and 1947 per Skagit County records. These structures are not listed on nor eligible for listing in any national, state, or local preservation registers. Based upon a review of Skagit County records for homes that were constructed on the adjacent offsite properties, the oldest home constructed was in 1910 with other surrounding residences as new as 2008. None of the surrounding or nearby structures are classified as Registered Properties per the attached Department of Archaeology and Historic Preservation Map included in Appendix E of this SEPA.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

There are no known landmarks, features or other evidence of Indian or historic use occupation on this site. Additionally, there is no known material evidence, artifacts, or areas of cultural importance on or near the site. It is not known whether any professional studies have been performed on this or nearby sites regarding this issue.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Department of Archaeology and Historic Preservation Map was reviewed and per the attached historic GLO Map and DAHP map the only noted Historic structure noted as "Determined Eligible" is approximately one mile southeasterly of the project site. Refer to DAHP maps attached in Appendix E.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

The extent of investigation with the DAHP has not resulted in any archeological evidence on the property. None the less, if any potential evidence is encountered during site development, work will be halted at the location and local authorities will be contacted.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

This project will provide for a 60-foot wide right of way to encompass the extension of new public roadways and sidewalks to serve the new residential development. This project will also dedicate a 65-foot wide strip of land along the westerly side of the site for the future Trail Road extension. The new public right of way will provide a pathway of land for the City's future Trail Road Corridor construction project as noted on the City's Capitol Facilities Plan. Dedication of this land will be eligible for traffic impact fee credits which will be applied at the time of building permit issuance. This project does not propose to construct any portion of the new Trail Road, as this project does not need it for access. The new public road within the new residential plat area will be 32-feet wide containing an 8-foot wide on-street parking and two 12-foot wide driveways, with adjoining landscape strip, curb, gutter and sidewalk on each side. The right of way and road section crossing Brickyard Creek may be reduced as allowed by the City to minimize the impact to the critical area. The southerly extension of roadway from the residential plat area to Cook Road will be 60-foot wide northerly of the existing panhandle portion of the property to the south. The panhandle portion itself is only 40-feet wide, thus, the right of way will only be 40-feet wide in this area, and the roadway will be comprised of two 13-foot wide driveways with curb/gutter and a 6-foot sidewalk on each side. This project's road sections have been coordinated with the City and will be constructed to current City of Sedro Woolley standards.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No, the site is currently not directly served by public transit. There is a Skagit Transit Park and Ride approximately 1/4 of a mile to the southeast of this site.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

This residential plat project does not create any specific parking spaces nor will it eliminate any. Within the proposed two lane road contained within the proposed right of way within the plat area, on-street parking is proposed along one side. Private driveways are proposed to serve each lot. As required by City standards, parking will be provided upon each individual residential lot as it is developed.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

The road proposed within this residential plat area will be contained within a right of way dedicated to the

City of Sedro Woolley. The proposed road will be bordered by a 5-foot wide sidewalk on each side, segregated from the driveway by a landscape strip as represented on the accompanying Preliminary Developed Conditions Plan. In addition, a road extension southerly to Cook Road will be constructed on property to the south that will have two 13-foot lanes, curb/gutter, and a 6-foot sidewalk on each side. To date, through coordination with the City of Sedro Woolley, no improvements to offsite roads have been required as the City has large scope projects proposed at each of this project's connecting intersection in the form of new roundabouts, road widening, etc. Refer to the attached preliminary overall site plan attached in Appendix B of this SEPA and the proposed roadway cross-sections located within Section Q.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

This residential plat will not benefit nor occur in the immediate vicinity of water, rail or air transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Based on a total of 60 single family residential lots and five duplex lots, by utilizing the Institute of Transportation Engineers Trip Generation manual, seventh addition, each single family detached house will generate approximately 9.5 trips per day and each duplex lot is assumed to generate 19 trips per day, for an estimated total of approximately 665 vehicle trips per day for all lots herein. With the development herein proposing middle income housing, most individuals will work. As such, the peak hour traffic will generally be in the afternoon between approximately 5:30 pm and 6:30 pm. Based upon the ITE manual, each unit will generate approximately 1 peak hour trip. For this residential plat, a total of approximately 75 peak hour trips will be generated each weekday afternoon sometime between 4:00 pm and 6:00 pm (one of these trips is existing due to the one residence currently onsite). Due to the residential nature of this project, generally vehicles will be cars and pickups. Other than having occasional services provided to any of the residences, the peak hour traffic will not contain any significant quantity of commercial vehicles. Please refer to the accompanying traffic impact analysis in Appendix R, as prepared by Gibson Traffic Consultants.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Agricultural activities are not believed to generate any significant quantity of vehicle and equipment movement on the public road system in this area of Sedro Woolley. There are no forest-related activities conducted in the area of this project. This project is not anticipated to have a negative effect nor be negatively affected by the movement of agricultural equipment on the surrounding road network.

h. Proposed measures to reduce or control transportation impacts, if any:

This project's proposed new future Trial Road connection is anticipated to improve the City's overall road network and enhance the City's overall road network.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

As with the addition of new residences to any community, there will be an increased need for fire protection, police protection, healthcare, and schools. On the basis that each residence provides 1.5 children to the Sedro Woolley School District, full build-out of this project could generate approximately 113 new children to the school district.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Impact fees regulated by the City of Sedro Woolley for public services and schools will be paid at the time of residential building permit issuance to mitigate impacts on schools.

NOTICE OF APPLICATION AND SEPA COMMENT PERIOD CITY OF SEDRO-WOOLLEY PLANNING DEPARTMENT

Description of proposal/application: The City has received an application for a proposed 65 lot, 70 unit development on F&S Grade Road that access through to Cook Road. The parcel has two existing homes that will be replaced. Five of the lots are proposed to be duplex lots, and the remaining lots will be single family residential. The approximately 19.6 acre property is zoned Residential 7 and is bisected by Brickyard Creek. The project includes construction of new public roads with sidewalks, open space tracts, and stormwater infrastructure as well as an arterial road that will connect F&S Grade Road through to Cook Road. The through road proposed between F&S Grade Road and Cook Road is a part of the City's transportation plan and the layout is subject to change. Changes in the road location through the application process may result in slight changes in the layout and number of lots for the proposed subdivision but no change to the cumulative impacts of the proposal. The project is proposed to be carried out over three phases. File #LP-2021-067.

Proponent: Bucko Survivors Trust
ATTNT: Sarah Bucko
13315 Overton Street
Portland, OR 97229

Location of project, including street address if any: Between Cook Road and F&S Grade Rd, Parcels # P37250, P37251, P37253 and P37256.

Environmental Review: The optional DNS process in WAC 197-11-355 is being used. Agencies, tribes, and the public are encouraged to review and comment on the proposed project and its probable environmental impacts. The City of Sedro-Woolley has reviewed the proposed project for probable adverse environmental impacts and expects to issue a mitigated determination of non-significance (MDNS) for this project. The MDNS will likely include the following conditions and any other conditions that may be necessary to address concerns raised during this comment period:

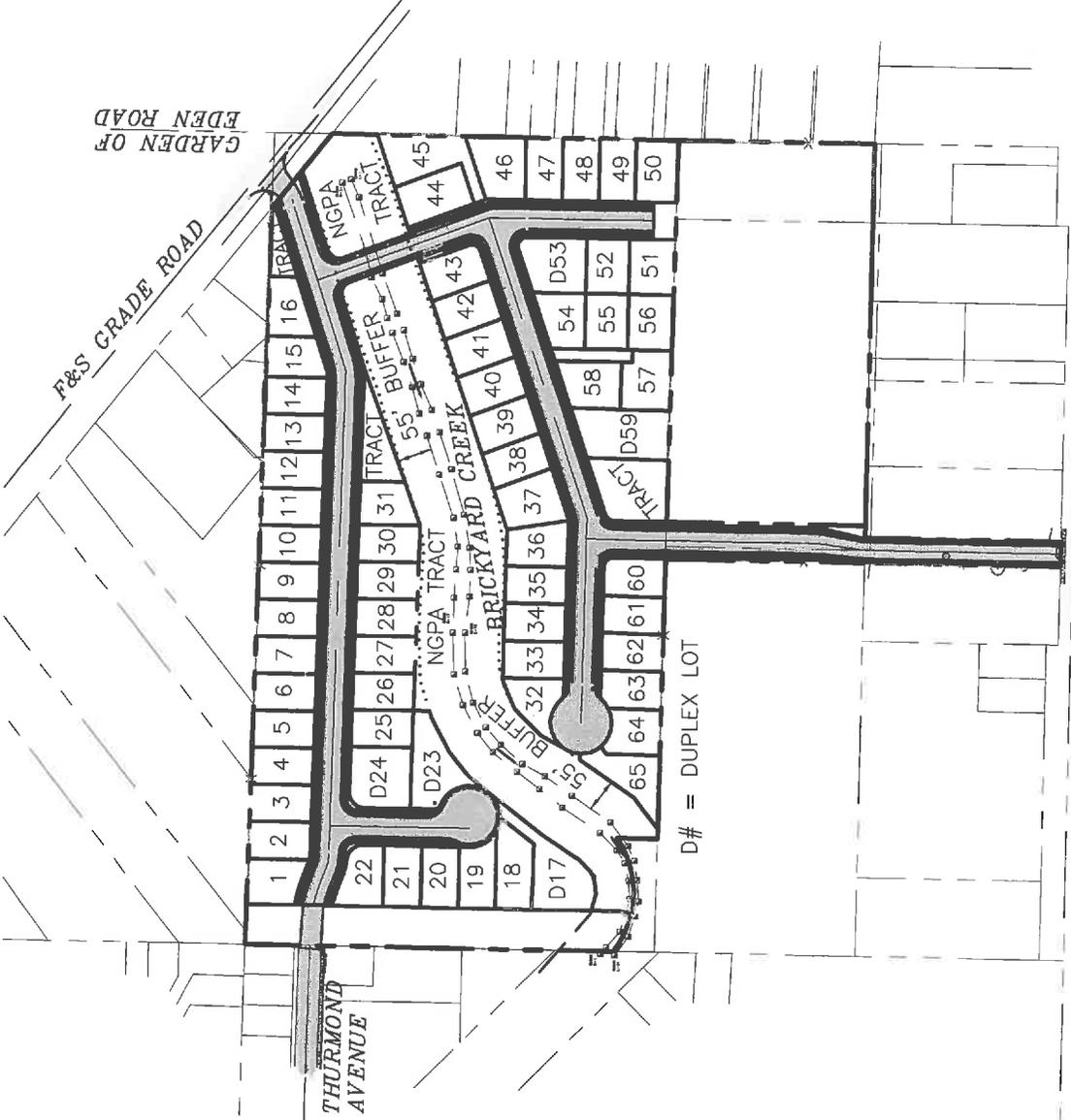
1. Hours of construction shall be limited to 7:00 a.m. to 9:00 p.m. weekdays and 8:00 a.m. to 9:00 p.m. weekends as required in SWMC 9.46.020;
2. Comply with Northwest Clean Air Agency Regulations during construction activities;
3. Provide mitigation for project related impacts to critical areas and buffers in accordance with Chapter 17.65 SWMC;
4. All construction traffic shall use temporary construction access as approved by the Public Works Department;
5. Contribute police mitigation fees of \$505.76 per unit as per the residential unit fee calculation in the Capital Facilities Element of the City of Sedro-Woolley Comprehensive Plan; and
6. Lighting from the site shall be directed and/or shielded so as to not shine at the neighboring residential properties.

Documents are available for review at: The City of Sedro-Woolley Planning Department, 325 Metcalf Street, Sedro-Woolley, WA 98284, Monday through Friday, 8:00 AM to 5:00 PM. Environmental documents available include a SEPA checklist, preliminary drainage report, traffic impact report and a critical areas assessment report and mitigation plan. City hall is currently closed to the public. For more information, contact Katherine Weir at the Sedro-Woolley Planning Department at (360) 855-3206 or by email: kweir@ci.sedro-woolley.wa.us.

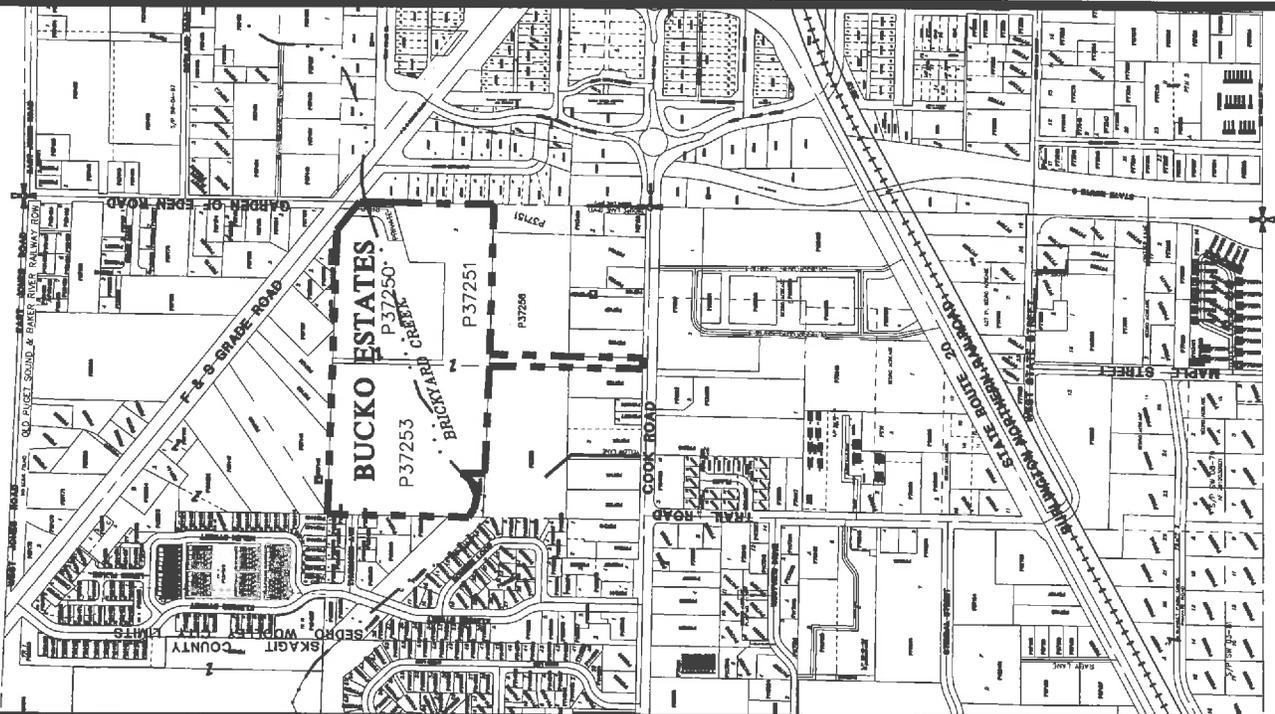
Public Comment Period: The lead agency for this proposal has NOT yet made a threshold determination of whether or not the proposed project has a probable significant adverse impact on the environment. Interested persons may comment on the application and/or the anticipated SEPA determination, receive notice, participate in any hearings and request a copy of the decision. **Public comments must be received by 4:30 p.m. March 12, 2021** and should be submitted to the City of Sedro-Woolley Planning Department, 325 Metcalf Street, Sedro-Woolley, WA 98284. Comments may be mailed or emailed and should be as specific as possible. **This may be your only opportunity to comment on the environmental impacts of the proposed project.**

Katherine Weir, Assistant Planner
City of Sedro-Woolley Planning Department

Published in Skagit Valley Herald on February 26, 2021



BUCKO ESTATES
65 LOT LONG PLAT



VICINITY MAP

Exhibit E

To whom it may concert,

Hello I live on Hawthorn street in Sedro Woolley, I have lived there for 13 years. I received notice of the plans for the up coming project taking place in my back yard. My concern is what these 70 new home will do the water table around our homes. My entire street is on septic systems and as it is already we do not have proper drainage in our area. With more and more construction going on in the area it seems the water table is getting higher and higher. This is making our drain fields on our street struggle. What is going to be done to ensure that our properties will get proper drainage to prevent our drain fields from being flooded, preventing us from flushing toilets. Are there any plans to hook our street up to the city's sewer system? And if so, who's going to pay for it?

Thank you for your time.

Michele Batchelor

March 12, 2021

To: City of Sedro-Woolley Planning Department
325 Metcalf Street
Sedro-Woolley, WA 98284
jcoleman@ci.sedro-woolley.wa.us
kweir@ci.sedro-woolley.wa.us

Doug Merriman
325 Metcalf Street
Sedro-Woolley, WA 98284
dmerriman@ci.sedro-woolley.wa.us

Re: Public Comment on Bucko Survivors Trust Application, Project Locations P37250, P37251, P37253, P37256

Dear City Officials,

My first comment is to strenuously object to a seven-day work schedule and the late hours of construction, meaning between 6 p.m. and 9 p.m. That is unreasonably late and zero days without the activity will create a nuisance that can have adverse health effects on me and the surrounding residents.

One example: I often go to sleep at 7 or 8 p.m. and in the warmer months need to be able to leave windows open for air flow as well as the quiet time. When it is overly warm I need to be able to utilize my deck and leave doors open that can provide a breeze without having the air and noise pollution of construction, trucks, dust, etc. Many in the community are trying to enjoy time outside in cooler temperatures after working all day. The late hours and seven day work week will severely interfere with that.

We all have the right to use and enjoy our property without unreasonable interference by others. We would have to endure thirteen or fourteen hours of disturbance per day if you allow work to continue after 6 p.m. and that is a stressful and harmful environment. Regarding seven day work week, that is equally unreasonable as it would be a thirteen or fourteen-hour daily disturbance with *no relief*. We need to have at the least a partial workday on Saturday and no work done on Sunday.

I have been so disappointed in recent years to see the trees basically eliminated from Cook Road down to Highway 20. Those trees kept our air so fresh and gave some buffer from the winds and noise. The quality of rural life in this area is nearly gone now.

Finally, I would like the city (all departments) to provide the citizens with more detailed information and seek input BEFORE you continue planning and making changes. Like this recent notice, most are very general, minimal, and are basically a done deal when sent to us. Who among the citizens that pay the taxes and city salaries had any say in what is happening in city development? We finance this city to do what the people want done and the overall feeling I have and hear from the community is that we are never invited to join in that process.

Thank you for your time.

Ann Cowan
439 Rohrer Loop
Sedro- Woolley, WA 98284
206-459-9993

Cc: City Council via csalseina@ci.sedro-woolley.wa.us
Julia Johnson – Mayor, City of Sedro-Woolley via swmayor@ci.sedro-woolley.wa.us

This email is comment on the Bucko development between Cook Road and F and S Grade Road. The file number is LP2021-067. It concerns the recreation/non-motorized transportation element of review.

I would ask that one condition of the MDNS be that the developer dedicate a specific (non-motorized) recreational trail along or within the setback zone for Brickyard Creek. It could be a necessary link in a future city trail system between Cook Rd and F&S Grade Road. It would have very low impact on the development if it is within the setback area for Brickyard Creek. But by reserving a specific recreational trail easement in an area, and not just a flood control or drainage easement, the City will forestall homeowner objections if such a trail is developed at a later date.

Although it is not clear how the Trail system would be connected in the future, Brickyard Creek provides a future pathway for trails because it is already covered by setback zones and drainage easements. Ultimately, the trail system could connect US #10 bike route, the Cascade Trail, and the SWIFT Center park. This may already be on the agenda, but it is important to plant seeds for future recreation trails.

Patrick Hayden
360.855.1811

To the city of Sedro Woolley Planning Department:

We received notice of the proposal yesterday off of F & S Grade Road. We live on the corner of F & S Grade Road and have the following concerns:

1. When we applied for a building permit, we were told we had to observe a 110' set back from Brickyard Creek. The proposal shows 55" setbacks. It does not show where this is mitigated.
2. Because F & S Grade Road was a former railroad track it does not contribute to a grid pattern for the city roads. This makes every intersection at odd angles and less than ideal driving conditions. We are concerned about the site plan because it connects to F & S Grade Road at a very awkward angle. It will add traffic to an already difficult intersection. Will there be sidewalks here?
3. The proposal does not add circulation within itself or within the neighborhood. It has three dead-ends within the site.
4. P37256 provides access to the Cook Road. I'm just wondering why the developers did not include this land for lots which would have created more circulation options within the site plan and given Brickyard creek more buffer. That parcel is more suitable for houses!
5. We support the addition of houses to Sedro Woolley and your efforts to reduce the housing shortage.
6. Its unfortunate that the roads could not have lined up with Trail Road which would have contributed to the city's grid system. Is there no funding to be found to help the school district move it's buildings?

Thank you.

Mary and Kevin McGoffin
268 Burrows Lane
Sedro Woolley

Sedro-Woolley Planning Department

Please record my questions and concerns in the official Public Comment of the Bucko Property Development Between Cook Road and F & S Grade Road, Parcels #P37250, P37251, P7253, and P37256 submitted today March 12, 2021.

1. Are the Buckos planning any privacy fence/privacy barriers on their property abutting Hawthorn Street?
2. What is the designation of "EX. ATV Trail" between Lot 310 and 312 Hawthorn Street onto Bucko's commercial zoned property? Why is the designation there? We have been told repeatedly by Sedro-Woolley Police Dept. Officers, Major Julie Johnson, and others in City Hall that it is illegal to run/race ATVs/Motorcycles in the City Limits.
3. Due to noise, disruption of peace, sanity, and safety of small children/young girls used as "starter girls" flags and all! WE DO NOT WANT an ATV Trail anywhere near Hawthorn Street. It should not be allowed in City Limits and we beg the Police Department to uphold City Laws.
4. We are requesting that NO DUPLEX APARTMENTS/BUILDINGS be built abutting Hawthorn Street. We are zoned ONE FAMILY RESIDENCE. Please respect our property rights, peace, and quiet.
5. Are ATVs/motorcycles to be allowed on the proposed Trail through the Property Development? We pray they will NOT BE ALLOWED!

EvYonne and Glen Michael
PO Box 253 Sedro-Woolley, WA 98284
212 Hawthorn Street, Sedro-Woolley, WA

Hello,

We'd like to submit the following comments for the Public Comment Period on Bucko Estates (between Cook Rd and F&S Grade Rd):

-There doesn't appear to be any green space for play area(s) for children in the proposal; as there will potentially be 70 residences in this area, and obviously many will have families, where will these children play safely?

-Is there a plan to relocate the indigenous animals that live in this area, the coyote family, deer, and other animals?

Thank-you!

Gayleen and Shawn Ronk
801 Thurmond

Hi Katherine,

The Skagit River System Cooperative (SRSC) represents the off-reservation fisheries and natural resource interests of the Swinomish Indian Tribal Community and the Sauk-Suiattle Indian Tribe. The Swinomish Tribe and the Sauk-Suiattle Tribe are federally recognized Tribes and Signatories to the Treaty of Point Elliott of 1855. As such we take a keen interest in developments that have potential effects on fish and shellfish that utilize the Skagit basin. This email is intended to convey our concerns regarding a proposed development and its impacts on fisheries and fish habitat.

I understand that the proposed development intends to acquire a buffer reduction along Brickyard Creek, from 110 feet on the left and right banks, to 55 feet. This buffer will be recorded on the plat as a PCA, fenced and signed, and replanted with a selection of native trees and shrubs. Considering the existing condition of the riparian buffer in this reach of Brickyard Creek, a successful buffer implemented at 55 feet is an improvement over the existing condition.

I have some concerns about the trail proposed within the buffer. While in general I find the public access offered in our natural areas to be a good thing for the community and their understanding and appreciation of our natural systems, I have a few concerns about the trail detracting from the function of the buffer. SWMC 17.65.530.C.3 allows for pedestrian trails through buffers as long as the trail does not decrease riparian functional values and prevent or inhibit the buffer's recovery to at least pre-altered condition or function.

One concern I have is that the trail will introduce edges where weeds are able to thrive. The trail as designed will be a bisection of the buffer the length of the riparian area, creating two long edges on either side of the trail and aggravating edge effects. I am most concerned that the explosive growth of nonnative weeds often depend on these "edge" areas where there is no shading to reduce competitive growth. If a trail is to bisect the riparian area, I encourage the planting plan to reduce the tolerable/acceptable level of weeds allowed in the enhancement area. Page 94 of the Critical Areas Assessment indicates that "In enhancement areas, there will be less than 10% cover of blackberry, scotch broom, bindweed/morning glory and other non-native aggressive tree, shrub, or viny species combined at the end of the first through third growing seasons (Years 1-3) and less than 20% combined cover at the end of the fifth growing season (year 5)." In the enhancement area where there are trails, I would like to see the acceptable cover reduced from what is proposed, such that less than 10% weeds included as a performance standard after 5 years.

Additionally, I would like to see the proponent consider weed control along the trail beyond the 5 years proposed. If there are other landscaped areas within the development that will have contracted landscapers, I think it would make sense to have landscapers maintain the trail corridor from weeds. Away from the trail, shading can be expected to keep weeds in check. However, the trail offers a continual sunny and disturbed foothold for weedy species to encroach on the buffer plantings and/or the trail.

I am concerned that between the buffer reduction (110' to 55') and the trail (removing 8' + 2' + 2' from one side of the buffer), that the remaining enhancement area is insufficient protection for Brickyard Creek, a salmon-bearing stream with an incredible amount of development pressure in the last few years. I would like to see additional enhancement considered elsewhere in the development. Additionally, I am curious how the new road crossing (with 600 SF impact) and the ongoing impacts of a

road crossing the stream, with the limits in habitat development and introduction of water pollutants are being mitigated? The proposed buffer is simply mitigation for the buffer reduction.

A suggestion to mitigate for these additional impacts would be to remove the existing culvert on the property just south of the intersection of Garden of Eden Road and F&S Grade Road. The area could be naturalized, noxious weeds controlled, and would go a long way to mitigating for the outstanding impacts of this substantial development along a Type F stream.

I have a concern about the utility lines proposed for beneath Brickyard Creek. I would like to see those utilities buried or bored sufficiently deep that there is no risk of exposure due to erosion or changes in the streambed. Brickyard Creek is a rapidly developing watershed, and it is hard to predict what this development will do to streamflows in the future. Without a separate engineering analysis by a project engineer, I suggest a depth similar to what Skagit PUD is utilizing for pipelines in some low velocity tributary streams in the Nookachamps basin (Beaver Lake outlet stream and a small tributary to Clear Lake). That is, pipes are to be buried with 3.5-4 feet of cover over the top of pipe. Sufficient cover will protect fish habitat and water quality, and prevent a future emergency project should a too-shallow pipe become exposed (as on a natural gas pipeline in Colony Creek recently).

I greatly appreciate the opportunity to review and comment on this proposal. I look forward to seeing how the City and proponent can work together to ensure no net loss to the Brickyard Creek habitats, and maintain the stream as a valuable asset for the community. Please get in touch for any questions or clarifications.

Nora Kammer

Environmental Protection Ecologist

Skagit River System Cooperative

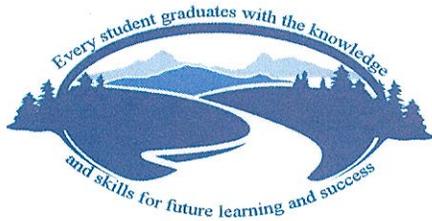
MAILING: PO Box 368, LaConner, WA 98257

PHYSICAL: 11426 Moorage Way, La Conner, WA 98257

Phone: 360.391.8472

Fax: 360.466.4047

SRSC's offices are open Monday through Thursday.



Sedro-Woolley School District No. 101

801 Trail Road, Sedro-Woolley, WA 98284 • (360) 855-3500 • FAX (360) 855-3574

June 29, 2021

Katherine Weir
Assistant Planner
City of Sedro-Woolley Planning Department
325 Metcalf Street
Sedro-Woolley, WA 98284
(360) 855-3206

Re: Bucko Estates, File #LP-2021-067, between Cook Road and F&S Grade Rd, Parcels #P37250, P37251, P37253 and P37256

Dear Ms. Weir,

Thank you for the opportunity to provide post-SEPA comments. The Sedro-Woolley School District serves approximately 4,500 students. The Bucko Estates is located within the boundaries of the District and the District will serve the students generated from this development. The District operates a Transportation Department located at 317 Yellow Lane, Sedro-Woolley, WA 98284. Buses that transport students to and from school, and to various athletic and other extracurricular activities operate from this location.

We note that the SEPA checklist asserts "There are no existing noises in the area that will negatively impact the functionality of this proposed residential plat." SEPA checklist, Environmental Health, Noise, page 13. Since the proposed Bucko Estates is located in the vicinity of the Transportation Department, we wanted the City, the developer, and the consultants to be aware of the current conditions in the vicinity of the proposal.

As of the 2020-21 school year, the District operates 49 buses. As enrollment continues to grow, the District is likely to add more buses to the fleet. On a typical school day, the District starts to prepare the buses at 5:15 a.m. for a 5:30 a.m. departure. Based on weather conditions, the start time could be even earlier. In addition to the afternoon return trips to the Transportation Department, the District also provides bus services to various athletic and extracurricular activities including field trips. In some cases, those buses return as late as 11:30 p.m.

The Transportation Department has been located at this address since the early 1960's. Other developers have built homes in the vicinity of this facility. Even though the Transportation Department was sited first (long before the homes were built), some homeowners have expressed concerns about the noise made by the buses. It is possible that they have other concerns. At this point, whether the bus operations "negatively impact the functionality of this proposed residential plat" is not a question that the District can answer. However, it would be reasonable for the developer to assume that bus services will continue to operate out of the existing location.

Phil Brockman, Superintendent • **Michael S. Olson**, Assistant Superintendent

Darrell R. Heisler, Executive Director of Human Resources & Technology • **Brett Greenwood**, Executive Director of Business & Operations
An Equal Opportunity Employer

If you have any questions, please call. Thank you.

Sincerely,



Brett Greenwood
Executive Director of Business, Operations, & Technology
Sedro-Woolley School District

cc: Bucko Survivors Trust
ATTN: Sarah Bucko
13315 Overton Street
Portland, OR 97229
(360)840-2609
sarahbucko12@gmail.com

Heike Nelson, PE and John Ravnik, PE
Ravnik & Associates
P.O. Box 361/1633 Lindamood Lane
Burlington, WA 98233
(360) 707-2048
hnelson@ravnik.net
jravnik@ravnik.net



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000
711 for Washington Relay Service • Persons with a speech disability can call (877) 833-6341*

March 12, 2021

Katherine Weir, Assistant Planner
Planning Department
City of Sedro-Woolley
325 Metcalf St
Sedro-Woolley, WA 98284

Re: Bucko Estates
File# LP-2021-067, Ecology SEPA# 2020100959

Dear Katherine Weir:

Thank you for the opportunity to provide comments on the State Environmental Policy Act (SEPA) notice of application utilizing the optional determination of nonsignificance (DNS) process for the Bucko Estates Project. Based on review of the checklist associated with this project, the Department of Ecology (Ecology) has the following comments:

Stormwater runoff can have a significant impact on water quality, introducing sediment and other pollutants into waters of the state. Such pollutants can impair or eliminate aquatic habitat and prevent such waters from having multiple beneficial uses (e.g., fishing, swimming and drinking).

Based on the documents provided to the SEPA Register, it appears this project may be subject to Ecology's National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSGP).

CSGP permit coverage is necessary if construction activity meets the following criteria:

- Clearing, grading, and/or excavation results in a disturbance of one or more acres and discharges stormwater to surface waters of the State.
- Clearing, grading, and/or excavation on sites smaller than one acre that are a part of a larger common plan of development or sale also require coverage if the common plan of development will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.

Katherine Weir
March 12, 2021
Page 2

- Forest practices, (including but not limited to class IV conversions) that are a part of a construction activity that will result in a disturbance of one or more acres, and discharge to surface waters of the State.

Information regarding the NPDES Construction Stormwater General Permit can be found at:
<http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

Thank you for considering these comments from the Ecology. If you have questions about determining the need for CSGP coverage or you need information regarding applying for and implementing the CSGP, please contact Stephanie Barney from our Bellingham Field Office at (360) 255-4390 or by email at stephanie.barney@ecy.wa.gov.

Sincerely,



Katelynn Piazza
SEPA Coordinator

Sent by email: Katherine Weir, kweir@ci.sedro-woolley.wa.us

ecc: Heike Nelson, Ravnik & Associates
John Ravnik, Ravnik & Associates
Stephanie Barney, Ecology

John Coleman

From: Nora Kammer <nkammer@skagitcoop.org>
Sent: Monday, September 20, 2021 8:08 AM
To: John Coleman
Subject: RE: Bucko Subdivision comments

Exhibit F

CAUTION: This email originated from outside of the City of Sedro-Woolley mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

John,

I appreciate you providing the updated project information for Bucko Estates along Brickyard Creek. I feel that the project designers have identified an excellent compromise addressing my concerns by moving the trail to the outer extent of the buffer area. I feel that this design change goes a long way to addressing my concerns, and will result in both reduced maintenance and the introduction of edge effects on weeds. Thank you for updating the design, I fully support the trail as now proposed.

Please feel free to get in touch if you have any questions.

Nora Kammer

Environmental Protection Ecologist
Skagit River System Cooperative
MAILING: PO Box 368, La Conner, WA 98257
PHYSICAL: 11426 Moorage Way, La Conner, WA 98257
Phone: 360.391.8472
Fax: 360.466.4047

SRSC's offices are open Monday through Thursday.

From: John Coleman <jcoleman@Sedro-Woolley.gov>
Sent: Thursday, September 16, 2021 2:16 PM
To: Nora Kammer <nkammer@skagitcoop.org>
Subject: Bucko Subdivision comments

Ms. Kammer,

Thank you for your comments on the proposed Bucko subdivision in Sedro-Woolley. Reading your comments, I understand that Skagit River Systems Cooperative does not object to the trail in the mitigation area, but only objects to the trail being located through the middle of the mitigation area. The applicant is concerned the SRSC does not support a trail in any location of the mitigation area. For numerous reasons, the city has an interest in the trail being constructed. Please see the below exhibit that shows the revised road alignment and lot layout. The blue line shows the possible trail location (it could also be located on the outer 8' of the buffer on the north side of the creek).

Does SRSC support an 8' wide crushed rock trail located on the outer 8 feet of the 55' wide mitigation area?

Exhibit G

After Recording Return to:

CITY OF SEDRO-WOOLLEY
325 METCALF STREET
SEDRO-WOOLLEY, WA 98284

DEVELOPMENT AGREEMENT BUCKO PLAT

Grantor: BUCKO SURVIVORS TRUST
Grantee: CITY OF SEDRO-WOOLLEY
Legal Description: See attached Exs. A & B
Tax Parcel ID#: P37256 / 350423-1-012-0002 and P37251 / 350423-1-008-0206

THIS DEVELOPMENT AGREEMENT ("Development Agreement" or "Agreement") is entered into this ___day of _____, 2021 by and between the City of Sedro-Woolley, Washington, a Washington municipal corporation (the "City"), and Bucko Survivors Trust, a Washington limited liability company ("Developer").

WHEREAS, the Legislature, through RCW Sections 36.70B.170 through .210 has authorized the City to enter into development agreements; and

WHEREAS, the City of Sedro-Woolley adopted provisions for processing Development Agreements in Sedro-Woolley Municipal Code Chapter 2.90; and

WHEREAS, Developer owns that certain parcel of real property commonly known as Bucko Estates, Sedro-Woolley, Washington legally described on **EXHIBIT A** attached hereto (the "Development Parcel"), as well as an adjacent parcel of real property legally described on **EXHIBIT B** (the "Future Development Parcel"); and

WHEREAS, the Development Parcel and Future Development Parcel are within the City limits; and

WHEREAS, the Development Parcel lies between Cook Road to the south and F&S Grade Road to the north; and

WHEREAS, to the north of F&S Grade Road lies Jones Road; and

WHEREAS, the City has long identified the need for an arterial street connecting Cook Road to Jones Road; and

WHEREAS, Developer intends to develop property in the location identified by the City as best suited for the connecting arterial; and

WHEREAS, the City originally sited the arterial road on property owned by the Developer but outside the footprint of the Development Project, as shown on City of Sedro-Woolley Jones/John Liner/Trail Road Scoping Study Report; and

WHEREAS, in January 2021 the City advised the Developer of the need to relocate the location of the arterial through the footprint of the Development Project due to infeasibility of previous location; and

WHEREAS, the City has requested that the Developer modify the property dedication requirements to accommodate the arterial and revise the originally submitted plans for the Development Project; and

WHEREAS, the City has requested that the Developer construct the City's arterial both in lieu of certain neighborhood streets and as the connecting street between Cook Road and F & S Grade Road; and

WHEREAS, the Developer has incurred additional costs associated with the revised plans as a result of accommodating the arterial; and

WHEREAS, it is in the best interest of the Parties and the public to collaborate on the construction of the transportation infrastructure; and

WHEREAS, in authorizing development agreements pursuant to Sections 36.70B.170-210 RCW, the Legislature found that the lack of certainty in the approval of development projects can result in a waste of public and private resources, escalate housing costs for consumers, and discourage the commitment to comprehensive planning which would make maximum efficient use of resources at the least economic cost to the public; and

WHEREAS, the execution of a development agreement is a proper exercise of the City police power and contractual authority, in order to ensure development that is consistent with the Comprehensive Plan and with applicable development regulations adopted by the City as part of its authority to plan under Chapter 36.70A RCW, and to mitigate the impacts of such development; and

WHEREAS, on August 25, 2021, the City issued a State Environmental Policy Act Mitigated Determination of Nonsignificance, which addresses the Development Agreement; and

WHEREAS, the City Council held a public hearing on December 8, 2021 to consider this Development Agreement, and the City Council adopted Resolution No. _____, approving this Development Agreement, consistent with RCW 36.70B.200; and

WHEREAS, after due consideration of the terms of this agreement and public hearing, the City and Developer have agreed to enter into this Development Agreement, which shall be used to establish the preliminary development plan for the Development Project;

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein, and other good and valuable consideration, the sufficiency of which is hereby mutually acknowledged, the City and Developer agree as follows:

1. DEFINITIONS.

As used in this Development Agreement, the following terms, phrases and words shall have the meanings and be interpreted as set forth in this Section.

- a. “Adopting Resolution” means the Resolution which approves this Development Agreement, as required by RCW 36.70B.200.
- b. “Council” means the duly elected legislative body governing the City of Sedro Woolley.
- c. “Director” means the City’s Community Development Director or Director of Planning and Building.
- d. “Effective Date” means the effective date of the Adopting Resolution.
- e. “Existing Land Use Regulations” means the ordinances adopted by the City Council of Sedro Woolley in effect on the Effective Date, including the Adopting Resolutions that govern the permitted uses of land, the density and intensity of use, and the design, improvement, construction standards and specifications applicable to the development of the Subject Property, including, but not limited to the Comprehensive Plan, the City’s Official Zoning Map and development standards, the Design Manual, the Public Works Standards, SEPA, Concurrency Ordinance, and all other ordinances, codes, rules and regulations of the City establishing subdivision standards, park regulations,

building standards. “Existing Land Use Regulation” does not include non-land use regulations, regulation which are not “land use control ordinances” under state law, nor does it include taxes, impact fees, other development or regulatory fees, or storm water control regulations.

f. “Development Project” means the anticipated development of the Development Property, as specified in Section 3 below and as provided for in all associated permits/approvals, and all incorporated exhibits.

2. **EXHIBITS.**

Exhibits to this Agreement are as follows:

EXHIBIT A – Legal description of the Development Parcel

EXHIBIT B – Legal description of the Future Development Parcel

EXHIBIT C – Original Site Plan Submittal (Unapproved - Reference Only)

EXHIBIT D – Footprint of Development Project

EXHIBIT E – North Trail Road Arterial alignment

EXHIBIT F – Estimated quantity of materials and cost of street and associated improvements under Developer’s originally submitted plans

EXHIBIT G – Estimated quantity of materials and cost of street and associated improvements under revised plans to accommodate the North Trail Road Arterial

EXHIBIT H – Additional initial redesign costs as a direct result of accommodating the North Trail Road Arterial

3. **DEVELOPMENT PROJECT; PERMITS; VESTING.**

a. The Developer shall be permitted to design and construct a plat for single-family and multi-family residential lots on the Development Parcel that meets the City land use regulations and subject to the Developer obtaining all necessary permits and approvals for the plat and its construction (the “Development Project”). The Development Project shall be designed and constructed with an approximate footprint as depicted on the site plan attached as **EXHIBIT D**. The final site plan and number of lots will be determined through the permitting process in accordance with the City’s land use regulations.

b. Full improvements shall be constructed by Developer for the North Trail

Road Arterial within the proposed right of way noted on **EXHIBIT E** consistent with the requirements for a minor arterial under the City's code.

c. The Developer shall be responsible for applying for and obtaining all necessary approvals and permits unless otherwise specified in this Development Agreement. The City will review and process all of Developer's applications for approvals and permits in a timely manner in accordance with all applicable statutes, ordinances, codes and this Agreement. Notwithstanding the foregoing, the City will make reasonable efforts to expedite any remaining review of the project.

d. The Development Project shall meet all federal, state and local regulations for development of the Property. Subject to the terms of this Agreement, the Development Project shall be designed and constructed in accordance with the Existing Land Use Regulations. The Development Project, except as hereinafter provided, shall vest in the regulations for the development and use and mitigation requirements at the time of a complete development application and for the entire term of this Agreement. During the term of this Agreement, the City shall not modify or impose new or additional regulations or development standards on the Development Project beyond those set forth in this Development Agreement. During the term of this Agreement, the City shall not impose new mitigation requirements or additional mitigation or impact fees on the Development Project. To the extent this Development Agreement does not establish standards for certain elements of the Development Project, such elements shall be governed by the Regulations as of the date hereof.

4. CREDITS.

For purposes of computing traffic or other impact fees with respect to the Development Project credits will be given as follows:

- i. Per EXHIBIT D, the plat creates 60 single family lots and 4 duplex lots, total 68 dwelling units (DU). The Transportation Impact Fee (TIF) would be 68 DUs at \$2,781 per DU = \$189,108. The Developer is eligible to receive TIF credits for the value of the dedicated right of way as a result of the City's initial request to realign the arterial up to this amount.
- ii. Should there be additional value in excess of \$189,108 for the dedication of the right of way crossing Parcel 37253 Bucko Estates, the City shall provide Developer monetary compensation upon dedication for this additional amount.
- iii. To determine if there is additional value for the dedicated right of way crossing Parcel 37253, the Developer will provide an appraisal of the right of way in its pre-developed state from an appraiser chosen from a City-

provided approved list of appraisers. In the event that the City or the Developer disagrees with the appraisal, either may secure a second appraisal from the approved list of appraisers. The Parties will then negotiate in good faith to reach an agreed upon value. If there is additional value, compensation by the City for this amount will be made in the form of monetary compensation.

5. ROADWAY IMPROVEMENTS.

a. The Developer will provide a record of survey and CAD files (AutoCAD DWG format) of their site to the City for the City's use to establish the final right-of-way alignment.

b. The Developer shall design and construct to City's Engineering and Design and Development Standards street improvements for North Trail Road Arterial, a minor arterial, at the Developer's expense in the newly dedicated right-of-way subject to the cost sharing provisions under Section 6 below. The arterial roadway will be designed, constructed and installed in accordance with the City's road design standard as determined through the permitting process. The street improvements will be constructed from Cook Road to the north property line of the plat, as depicted in **Exhibit E**.

6. COST SHARING.

a. Developers Responsibility.

a. The Developer is constructing the North Trail Road Arterial at the request of the City. The Developer's responsibility, in the absence of this Agreement, would be limited to the construction of neighborhood streets and appurtenances necessary to serve the Plat envisioned under the originally submitted, but unapproved, plans for the Development Project, as submitted to the City on February 4, 2021. (As shown on **Exhibit C**.)

b. Exhibit F (the "Original Costs") outlines the material cost estimates of the work items necessary to construct the street system that would have been required of the Developer under the original plans. **These material cost estimates shall be termed the "Developer's Road Construction Responsibility."**

b. City's Responsibility.

a. **Exhibit G** (the "Revised Costs") outlines the material cost estimates of the work items necessary to construct the street system and appurtenances under the revised plans that accommodate the City's North Trail Road

Arterial.

- b. The City recognizes that the Developer would not be responsible for the costs of constructing the North Trail Road Arterial under the original plans for the Development Project and that the difference between the Original Costs and the Revised Costs are not the Developer's responsibility or obligation. The City shall therefore compensate the Developer for the difference between the Original Costs and the Revised Costs. **This difference shall be the "City's Road Construction Responsibility."**
- c. The Parties recognize that the costs of materials may change between the Effective Date and when the Developer constructs the North Trail Road Arterial and neighborhood streets. An adjustment of the estimates shown on Exhibits F and G may be necessary to reflect actual material costs at the time of construction. The Parties will cooperate in good faith to agree on an adjustment if necessary.
- d. In addition to the City's Responsibility for its share of constructing the North Trail Road Arterial, the City agrees to pay its share of the design, engineering, and permitting costs associated with the North Trail Road Arterial ("City's Design/Engineering/Permitting Responsibility"). The City's share shall be 14.2% of the total road design, engineering, and permitting costs for the Development Project. Developer shall submit invoices with corresponding back-up documentation in a timely fashion.
- e. The City shall provide the Developer with the City's Road Construction and Design/Engineering/Permitting Responsibility amounts at the time the Developer completes construction of the North Trail Road Arterial. Compensation payment will be made in the form of monetary compensation.

7. PHASING.

The Development Project will occur in three phases. The first phase (Phase I) will consist of the portions of the Development Project that are located north of the Brickyard Creek, with the exception of that portion of the North Trail Road Arterial between "Y" Avenue and Brickyard Creek, which will be constructed as part of Phase II. The second phase (Phase II) will consist of the portion of the North Trail Road Arterial between "Y" Avenue and Brickyard Creek and the portions of the Development Project that are located south of Brickyard Creek, including the portion of the North Trail Road Arterial that crosses Brickyard Creek and the portion that extends to Cook Road, except that Lots 40 through 60, and the roads, infrastructure, and tracts that serve those lots will constitute the third phase (Phase III). The phases are shown on Exhibit D. Right-of-way dedication for the entire Project shall occur upon preliminary plat approval.

8. CONDEMNATION AND BOUNDARY LINE ADJUSTMENT.

a. The City shall take steps necessary to purchase and secure property to the west of the Development currently titled in the name of Raymond Nelson. (Parcel No. 37159) (the “Nelsen Property”). The Nelson Property will be utilized as right-of-way to allow the arterial to shift to the west and be constructed at a width that meets engineering standards. The City will exchange portions of the Nelson Property with the Sedro-Woolley School District by boundary line adjustment for District property necessary to complete the arterial.

b. Once obtained, the City will allow the Developer to incorporate and utilize a portion of the Nelson Property sufficient for the stormwater management of runoff created by the North Trail Road arterial, subject to approval of the plans by the City and applicable stormwater requirements under the code.

c. The Developer’s obligations under this Development Agreement are contingent on the City obtaining the Nelson Property. If the City does not or cannot obtain the Nelson property by the time the Developer has obtained all necessary permits to begin construction of Phase I of the Development Project, the terms of this Development Agreement shall terminate and the City agrees that the Developer may reinstate the original submittal and proceed with the review of the Development Project under the original plans submitted to the City on February 4, 2021, under an expedited review process. Developer acknowledges the City’s original comments regarding right-of-way acquisition as they relate to the original submittal and the need to secure additional property to meet the intersection requirements of the City.

d. The City will also complete a boundary line adjustment (BLA) between property owned by the Sedro Woolley School District (Parcel P-37255) and the property being donated as right-of-way by the Developer to allow for the North Trail Road Arterial alignment as shown on Exhibit D. This BLA will occur after the right-of-way is donated to the City and before the Developer has completed Phase I of the Development Project.

e. The Developer will dedicate sufficient right-of-way from Parcel 37256 to allow for future construction of a roundabout intersection at Cook Road and North Trail Road.

9. ADDITIONAL AGREEMENTS.

a. The Parties acknowledge that the Developer’s accommodation of the North Trail Road Arterial at the request of the City resulted in additional redesign costs. The City agrees to provide Developer with monetary compensation for the value of these costs as shown on **Exhibit H**. These costs only include the costs of redesign attributable to the initial redesign and resubmittal required as a direct result of accommodating the

North Trail Road Arterial.

b. The Parties acknowledge that the Developer's accommodation of the North Trail Road Arterial at the request of the City resulted in configuration of certain lots that creates challenges for the Developer, in that compliance with setback requirements will result in lots that will be difficult to develop. The condition that caused the hardship – i.e., the accommodation of the City's arterial road – was not created by the Developer. These conditions are unique to the Developer's property as a result of the arterial. Given the above, the City agrees that setback variances for the following lots shall apply: Lots 64, 63, 31, 17, 18, 19, 20, 21 and 1 all front on the arterial road. All portions of these lots shall be allowed a 10 setback where adjacent to the arterial. In addition, Lot 64 may have a 5 foot setback along the property line with Lot 63 (for a 1 or 2 story building only). Also in addition, Lot 21 may have a 10-foot setback on the Y Avenue frontage. These variances do not shift the impact or burden of development to the City or other property owners.

c. The Parties acknowledge that constructing the Development Project in phases will result in locations where the roadway will terminate at a hammerhead turnaround during Phase I. The first location is at the westerly end of the new plat road noted as "Y" Avenue on Exhibit D. This roadway will end with a hammerhead turnaround a "Y" Avenue and "X" Street until the Developer builds the Trail Road section through to Cook Road as part of Phase 2. The second location is the southeast corner of the plat where Bucko Avenue ends at a hammerhead runaround onto the Commercial Parcel subject to an easement. The City, through the authority granted its Public Works Director, hereby approves these dead-end locations under City of Sedro Woolley Public Works Department Standards 3.2.10.

d. The Parties acknowledge that the Development Project as shown on Exhibit D complies with the requirements for open space under the City's code if the Development was built as one phase. However, full compliance with open space requirements will not be achieved until completion of Phase II. To provide sufficient open space during Phase I, the Parties agree that Lot 16 on Exhibit D may be approved under the preliminary plat as a buildable lot but will remain as open space until the completion of Phase II. Once Phase II is completed, the open space designation on Lot 16 will be lifted and the lot will be an approved buildable lot. During the time that Lot 16 is designated as open space, the lot shall not be required to meet the recreation area requirements in Chapter 6 of the Sedro-Woolley design standards and Chapter 17.38 SWMC. During Phase I the lot will be developed as an open space/grass play field. If construction of Phase II has not begun by March 31, 2024, the Developer shall install recreation improvements on Lot 16 consistent with the requirements of Chapter 17.38 SWMC. Notwithstanding the foregoing, during Phase I the Developer may install infrastructure improvements on Lot 16.

10. UTILITIES.

a. The Developer is responsible to coordinate with all utility service providers. This includes water, sewer, power, communications, and gas. Developer shall be responsible for all costs associated with the location, or relocation of utilities for the Development Project and the work described in this Agreement that is the responsibility of Developer.

b. The Developer shall build all utilities in accordance with the construction plans in Exhibit E.

11. DEVELOPMENT AND LAND USE PROVISIONS.

a. The Developer will design the site in accordance with the Sedro-Woolley Municipal Code Titles 16 and 17.

b. The North Trail Road Arterial roadway section shall be as per the City of Sedro-Woolley Jones/John Liner/Trail Road Scoping Study Report, Figure 4.5.1 Trail Road Typical Section as modified in Exhibit F.

12. GENERAL COMPLIANCE.

Except as specifically provided in this Agreement, the Developer shall comply with all City ordinances, regulations, development standards and policies in effect at the time of a complete plat application is submitted to the City, provided that if relevant ordinances, regulations, development standards and policies are modified prior to approval of the related permits, the Developer may, at its option, elect to comply with the newer requirements without changing their vesting date for the remainder of the applicable Regulations. Developer shall be subject to all pertinent impact fee requirements, including parks, transportation and school impact fees, subject to vesting as provided herein at the time of complete building permit applications as specified in Section 1.d. of this agreement. Pursuant to RCW 36.70B.170(4), this Development Agreement shall reserve authority for the City to impose new or different regulations to the extent required by a serious threat to the public health and safety. The Developer is responsible for all other utility facility and connection fees as applicable.

13. TERM.

This Development Agreement shall be effective for a term of ten (10) years from the date of the final recording with the Skagit County Auditor following approval of Resolution 21-XX Upon expiration of such period, this Development Agreement shall automatically terminate unless otherwise renewed by the City Council following the applicable processes for Development Agreements.

14. ENFORCEABILITY.

Unless terminated in accordance with the provisions hereof, or amended in writing by a document signed by all parties hereto, this Development Agreement is enforceable during its term by any party to the Development Agreement. Thereafter, this Development Agreement is enforceable with respect to any continuing obligation of the parties that survive termination, as set forth herein.

15. GENERAL.

a. This Development Agreement shall be recorded at the Skagit County Auditor's Office within 30 days of approval by the City Council.

b. Any permit or approval issued by the City must be consistent with this Development Agreement.

c. This Development Agreement is a covenant running with the land and is binding on the heirs, personal representatives, successors and assigns of the parties herein.

d. Nothing in this Development Agreement shall be construed to restrict the authority of the City to exercise its power and discretion to rezone the Real Property following expiration of the term of this Development Agreement.

e. In the event of breach of this Agreement by either party, the non-breaching party shall be entitled to bring an action for specific performance and/or injunctive relief. In addition, in the event of breach by one or more Developers, the City shall be entitled to stop work on any pending development approval or permit by the breaching Developer and shall be entitled to withhold approval of pending permit applications submitted by the breaching Developer. City shall be entitled to pursue any security for performance set out in this Agreement. In the event either party commences an action to enforce this agreement or for other relief pursuant to this agreement, the prevailing party in such litigation shall be entitled to an award of reasonable costs and attorney's fees, including costs and fees on appeal.

f. In the event of any dispute as to interpretation or application of the terms or conditions of this Agreement, the Developer and the City shall meet within ten (10) business days after request from any party for the purpose of attempting, in good faith, to resolve the dispute. The meeting may, by mutual agreement, be continued to a date certain in order to include other parties or persons, or to obtain additional information. In the event that a dispute is not resolved through party consultation, the matter shall be scheduled for mediation before a mutually agreed upon neutral party. If the matter is not settled through mediation, any aggrieved party may file an action in the Skagit County Superior Court, as may be allowed by law and court rules.

g. This Agreement shall be governed by and be interpreted in accordance with the laws of the State of Washington.

h. If any provision of this Agreement is determined to be unenforceable or invalid by a court of law, then this Agreement shall thereafter be modified to implement the intent of the parties to the maximum extent allowable under law.

i. This Agreement shall not be modified or amended except in writing signed by the City and Developer or their respective successors in interest.

j. This Agreement represents the entire agreement of the parties with respect to the subject matter hereof. There are no other agreements, oral or written, except as expressly set forth herein.

k. The Developer agrees that in the event of a proposed sale, gift, transfer, segregation, assignment or devise of the Property, the Developer shall disclose the existence of this Agreement to the interested party.

l. This Agreement has been reviewed and revised by legal counsel for all parties and no presumption or rule that ambiguity shall be construed against the party drafting the document shall apply to the interpretation or enforcement of this Agreement.

m. This Agreement shall not be construed as a waiver of any and all other development regulations of the City or other governmental agencies applicable to the development of Developer's property.

n. Except as set forth herein and applicable city code, this Agreement shall not be construed or deemed as a waiver by either City or Developer of any other legal rights, privileges or protections applicable to the property arising under: 1) the Federal or State Constitution; 2) Federal, State or local legislation; 3) Federal or State judicial authority; or 4) any other recognized body of law or equity.

EXECUTED THIS _____ DAY OF _____, 2021.

DEVELOPER:

BUCKO SURVIVORS TRUST, a
Washington Limited Liability Company

CITY OF SEDRO-WOOLLEY:

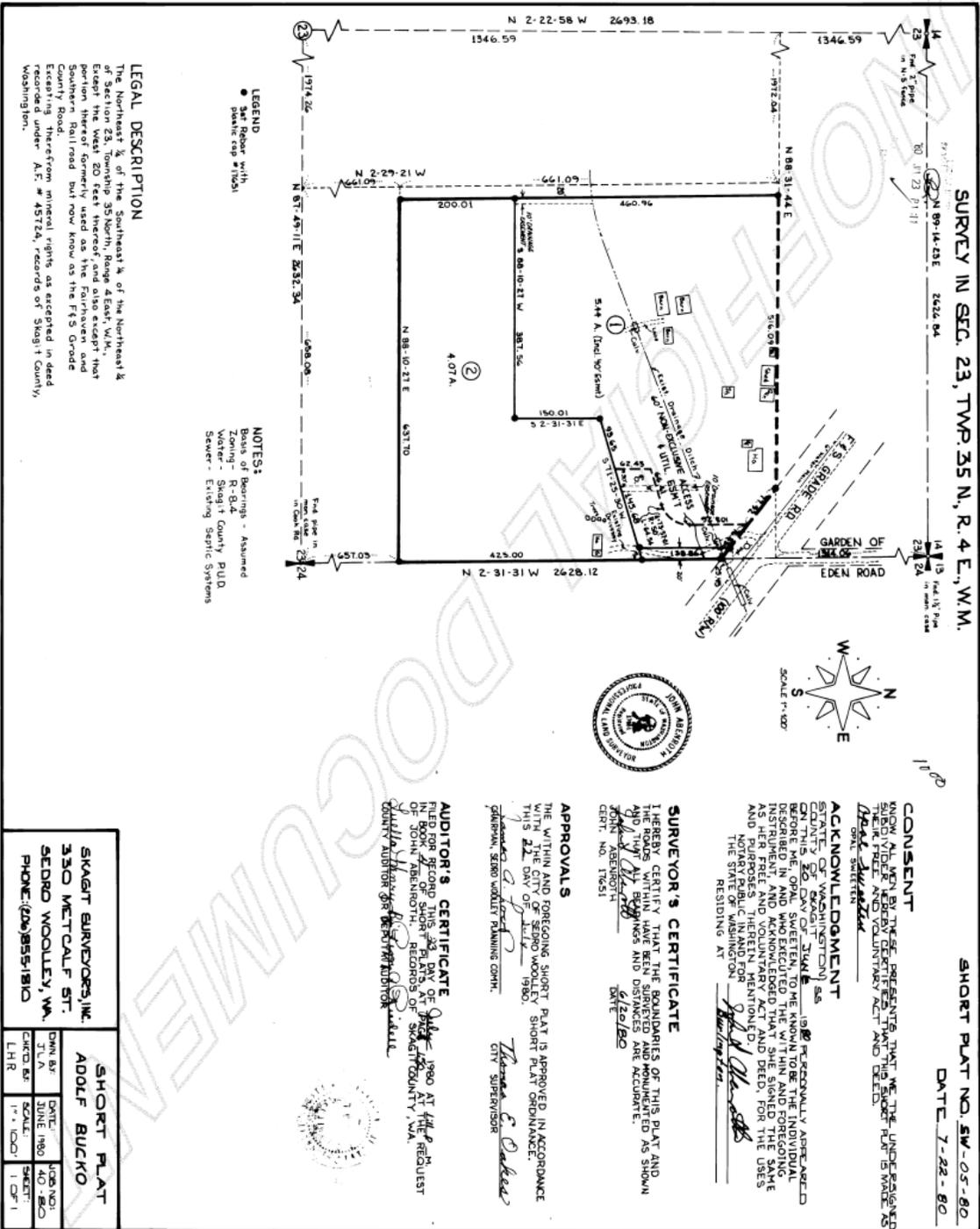
By: _____

By: _____
Julia Johnson, Mayor

EXHIBIT A

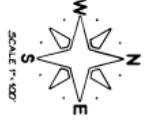
Legal description of the Development Parcel

EXHIBIT A



LEGAL DESCRIPTION
 The Northeast 1/4 of the Southeast 1/4 of the Northeast 1/4 of Section 23, Township 35 North, Range 4 East, W.M., Except the West 20 feet thereof, and also except that portion thereof formerly used as the Fairhaven and Southern Railroad but now known as the F&S Grade County Road, and except the mineral rights as excepted in deed recorded under A.S. # 45724, records of Skagit County, Washington.

- LEGEND**
- Meter with public cap #104
- NOTES:**
- Bearings - Assumed
 - Zoning - R-8.4
 - Water - Skagit County PUD
 - Sewer - Existing Septic Systems



SURVEY IN SEC. 23, TWP. 35 N., R. 4 E., W.M.
 2622.04
 14 1/2 Feet 1/2 Inch
 24 2/3 Feet 1/2 Inch

SHORT PLAT NO. SW-05-80
 DATE 7-22-80

CONSENT
 I HEREBY CERTIFY THAT THE BOUNDARIES OF THIS PLAT AND THE HOUSES WITHIN HAVE BEEN SURVEYED AND MONUMENTED AS SHOWN BY THE ORIGINAL RECORDS AND DEEDS OF THE COUNTY OF SKAGIT, WASHINGTON.
 JOHN V. ADELWORTH
 DATE 6/20/80
 CERT. NO. 17651

ACKNOWLEDGMENT
 STATE OF WASHINGTON) ss. I, JOHN V. ADELWORTH, a Notary Public in and for the County of Skagit, State of Washington, do hereby certify that the foregoing described plat was signed and acknowledged by the parties named therein in and before me on the 22nd day of July, 1980, for the purposes therein mentioned and that the said parties are duly qualified to execute the same.
 JOHN V. ADELWORTH
 Notary Public
 My Comm. Expires 7/22/82

SURVEYOR'S CERTIFICATE
 I HEREBY CERTIFY THAT THE BOUNDARIES OF THIS PLAT AND THE HOUSES WITHIN HAVE BEEN SURVEYED AND MONUMENTED AS SHOWN BY THE ORIGINAL RECORDS AND DEEDS OF THE COUNTY OF SKAGIT, WASHINGTON.
 JOHN V. ADELWORTH
 DATE 6/20/80
 CERT. NO. 17651

APPROVALS
 THE WITHIN AND FOREGOING SHORT PLAT IS APPROVED IN ACCORDANCE WITH THE CITY OF SEBRO WOOLLEY SHORT PLAT ORDINANCE, THIS 22nd DAY OF JULY, 1980.
 [Signature]
 GLENNA, SEBRO WOOLLEY PLANNING COM. CITY SUPERVISOR

AUDITOR'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS SHORT PLAT WAS FILED FOR RECORD THIS 23rd DAY OF JULY, 1980 AT THE REQUEST OF SKAGIT SURVEYORS, INC. AND SKAGIT COUNTY, WASHINGTON.
 [Signature]
 COUNTY AUDITOR OR DEPUTY AUDITOR

SKAGIT SURVEYORS, INC. 330 METCALF ST. SEBRO WOOLLEY, WA. PHONE: (206) 855-1810		SHORT PLAT ADOLF BUCKO	
DRAWN BY T.V.A.	DATE JUNE 1980	JOB NO. 40-80	SHEET 1 OF 1
CHECKED BY L.H.R.	SCALE 1" = 100'		

vol 4 Sp pg 150

EXHIBIT B

Legal description of the Future Development Parcel

EXHIBIT B

ADDRESS: Vacant Lot, Sedro-Woolley, WA 98284

The North Half of the Southeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M., EXCEPT THE West 20 feet thereof, and ALSO EXCEPTING THE East 127 feet 5 inches thereof.

PARCEL #: P37256 / 350423-1-012-0002

ADDRESS: 503 F&S Grade Road, Sedro-Woolley, WA 98284

Tract 2, Short Plat No. SW 05-80 approved July 22, 1980 and recorded July 23, 1980 in Book 4 of Short Plats, at page 150, under Auditor's File No. 8007230039.

(Being a portion of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter of Section 23, Township 35 North, Range 4 East, W.M.)

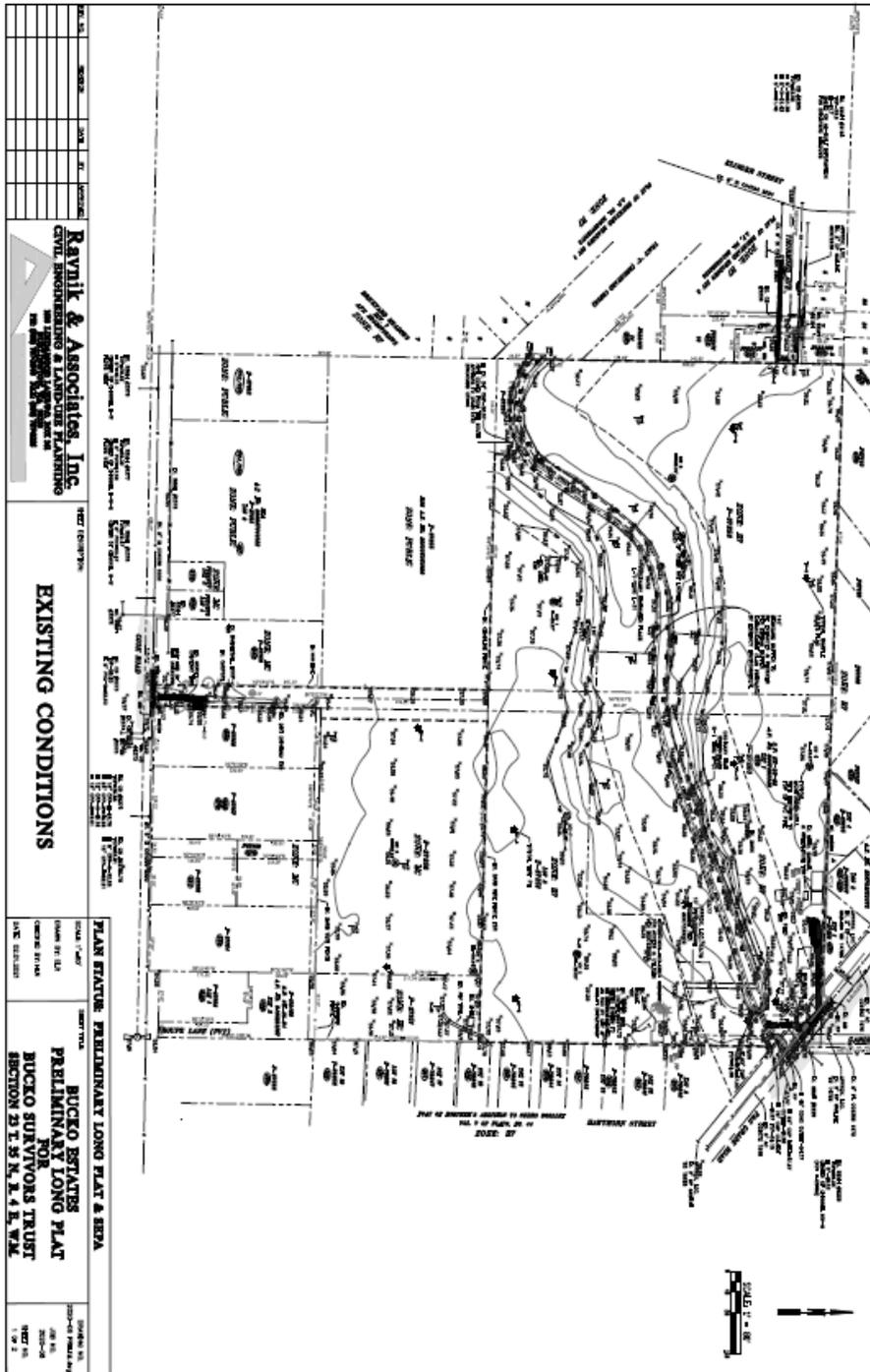
TOGETHER WITH an easement 60 feet in width for ingress, egress and utilities over, under and across Tract 1 and Tract 2 of said Short Plat as delineated on the face of said Short Plat.

PARCEL #: P37251 / 350423-1-008-0206

EXHIBIT C

Original Site Plan Submittal (Unapproved)

EXHIBIT C



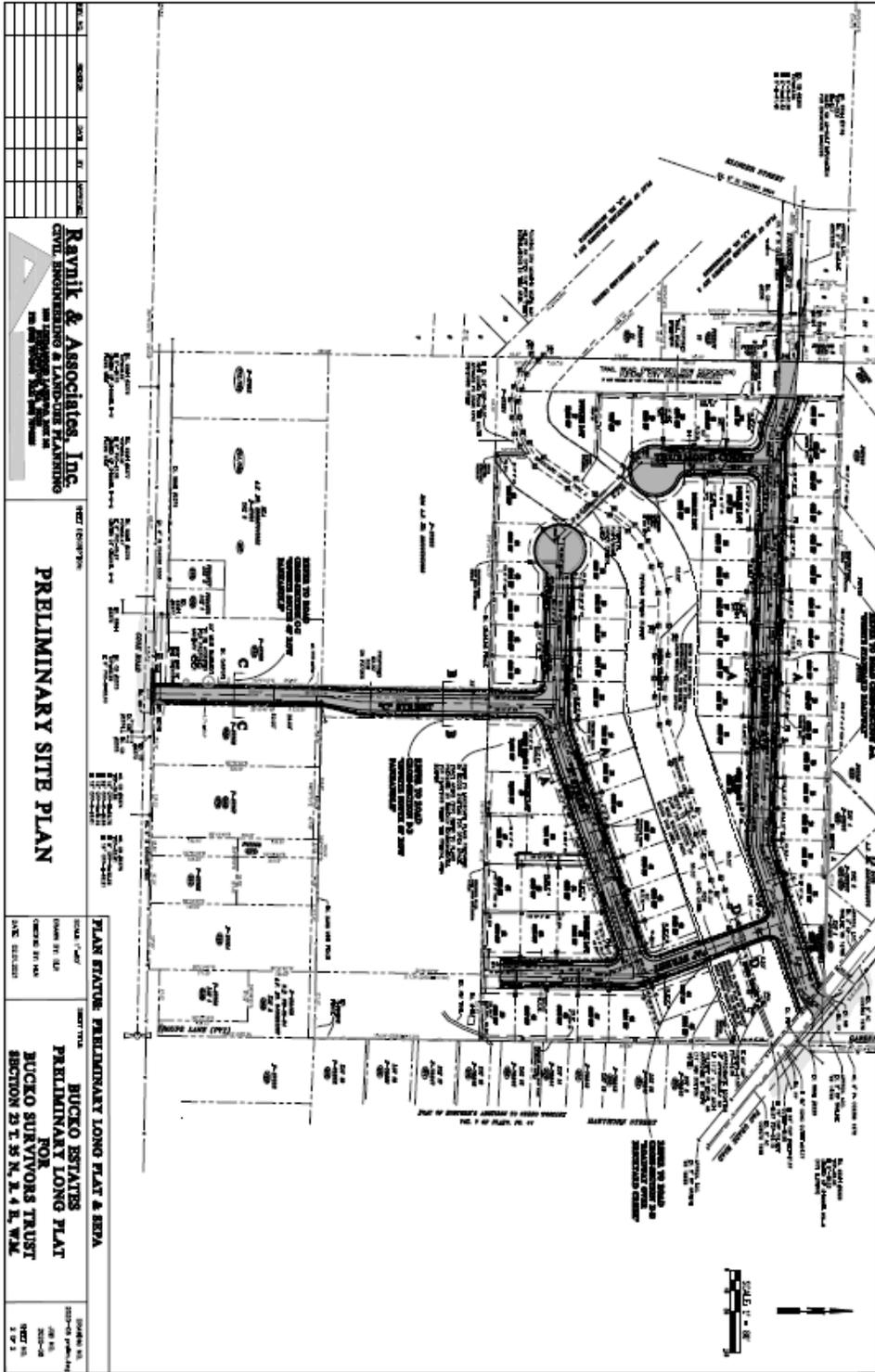
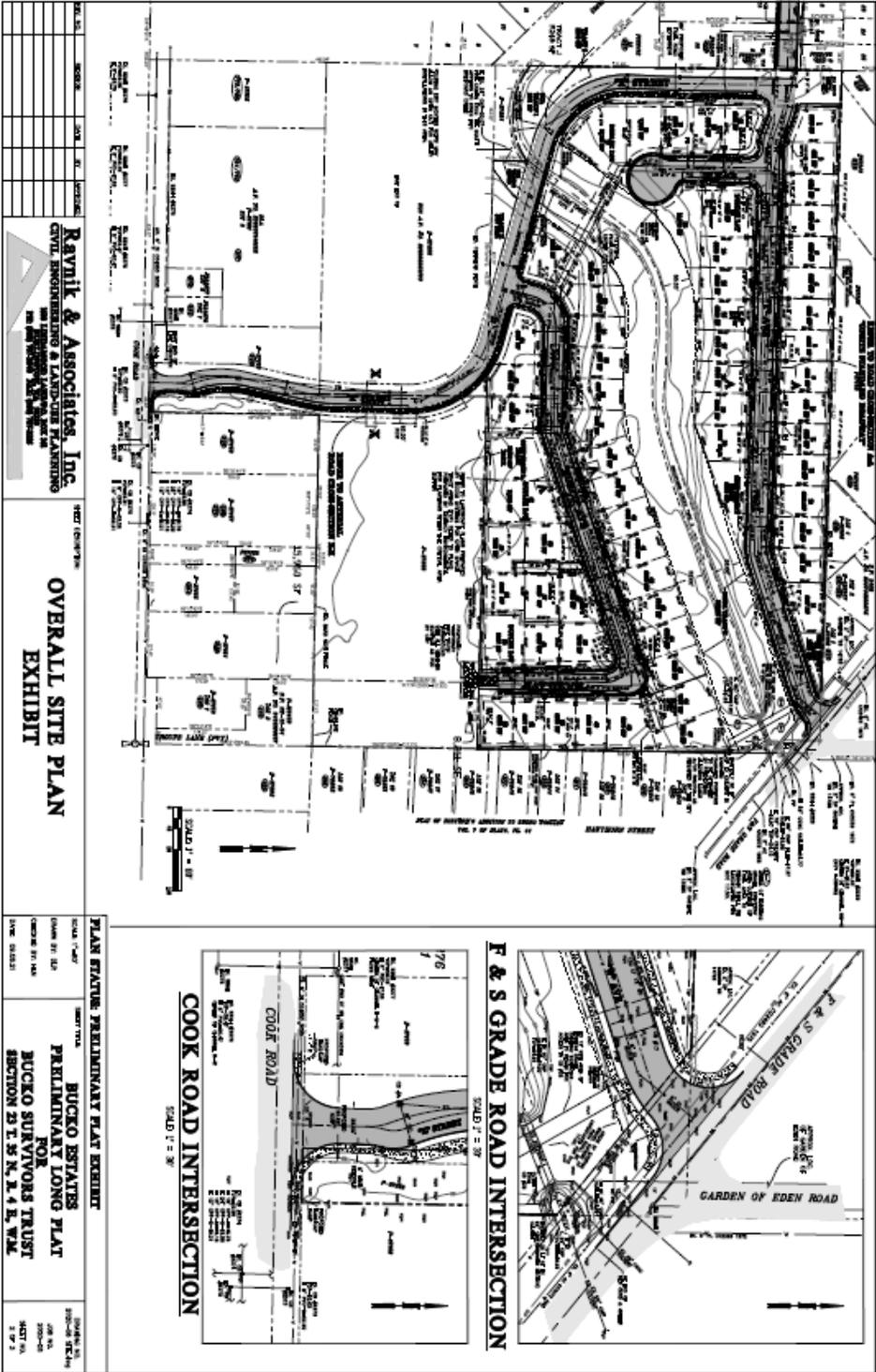


EXHIBIT D

Footprint of Development Project



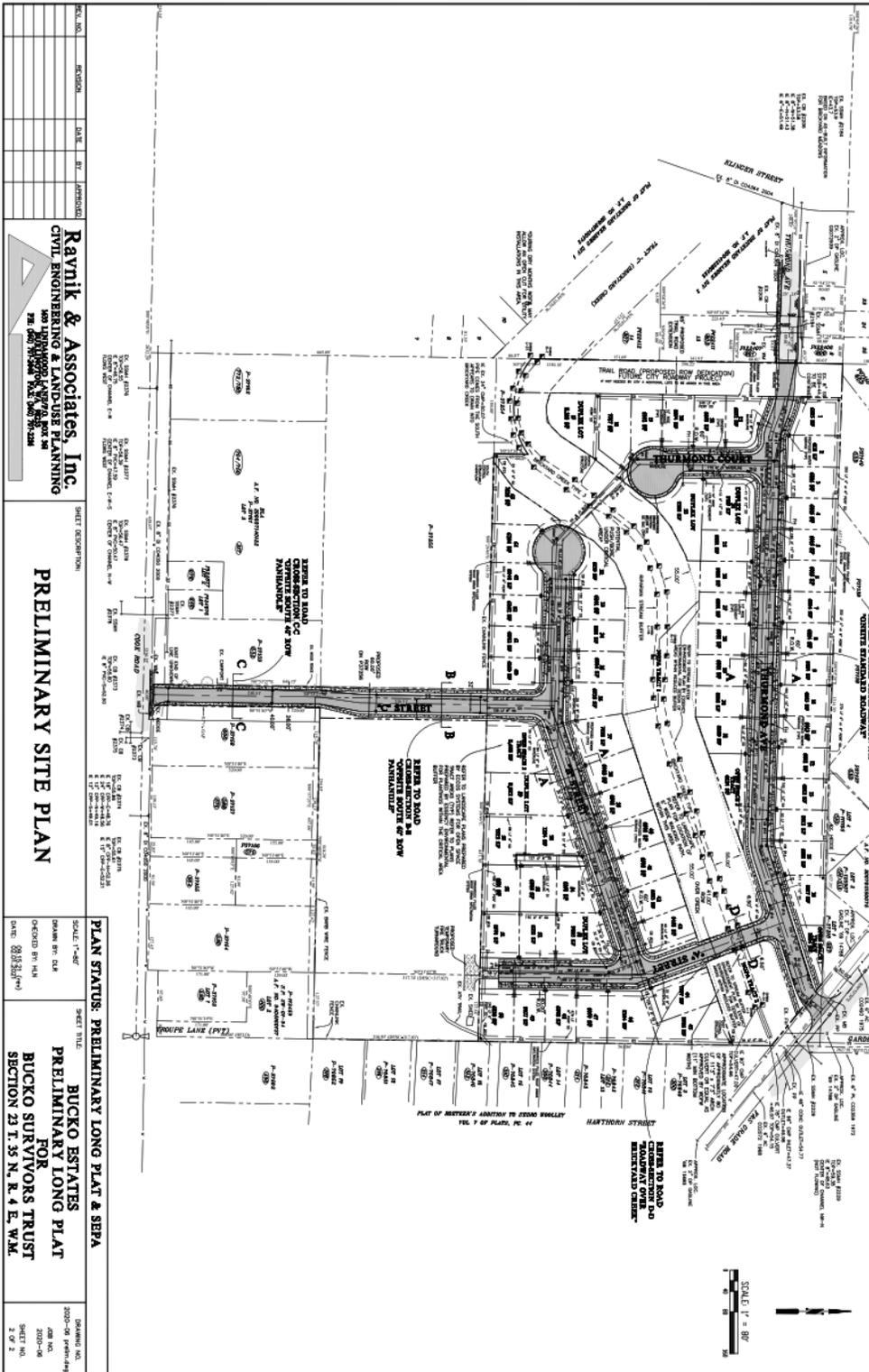
Ravnik & Associates, Inc. CIVIL ENGINEERING & LAND-USE PLANNING 2000 W. 10th Street, Suite 100 Lincoln, NE 68502 Phone: (402) 441-1111 Fax: (402) 441-1112 Email: info@ravnik.com		SHEET NO. 778 OVERALL SITE PLAN EXHIBIT		PLAN STATUS: PRELIMINARY PLAT EXHIBIT SCALE: 1" = 50' DRAWN BY: JLD CHECKED BY: JLD DATE: 08/11/10 SHEET NO. 778	
BUCKO ESTATES PRELIMINARY LONG PLAT FOR BUCKO SURVIVORS TRUST SECTION 23 T 5 N, R 4 E, W 4E		SHEET NO. 778 OF 778 SHEET NO. 778 OF 778		SHEET NO. 778 OF 778 SHEET NO. 778 OF 778	

EXHIBIT E
North Trail Road Arterial alignment

EXHIBIT F

Estimated quantity of materials and cost of street and associated improvements under Developer's originally submitted plans

EXHIBIT F



<p>Ravnik & Associates, Inc. CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE 100 HERRING AVENUE, SUITE 200 WILMINGTON, DE 19801 TEL: 302.436.1234 FAX: 302.436.1235</p>	<p>PRELIMINARY SITE PLAN</p>	<p>PLAN STATUS: PRELIMINARY LONG PLAT & SEPA SHEET TITLE: BUCKO ESTATES PRELIMINARY LONG PLAT FOR BUCKO SURVIVORS TRUST SECTION 23 T. 35 N. R. 4 E. W.M. SCALE: 1" = 80' DRAWN BY: N/A CHECKED BY: N/A DATE: 08/28/2014</p>	<p>DRAWING NO.: 2003-08 (preliminary) JOB NO.: 2003-06 SHEET NO.: 2 OF 2</p>
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PRELIMINARY COST ESTIMATE
 1 of 3
 for Bucko Estates - (85-Lots)
 (Section #1-"Private Construction")

03.23.21 Revised per City comments 09.15.21

231

Description		Unit Price	Total Price
<i>Quantities based on Plan Set dated 02.01.21 (For estimating purposes)</i>			
Mobilization <i>Private 72% of project area</i>	1	\$ 72,000.00	\$ 72,000.00
		Lump Sum	
Erosion Controls (Including hydroseeding) <i>Private 72% of project area</i>	1	\$ 21,600.00	\$ 21,600.00
		Lump Sum	
Unclassified Excavation (Utility-Clean native soils-onsite disposal)	1,125 CY	\$ 10.00	\$ 11,250.00
		Cubic Yard	
RESIDENTIAL LOT DRAINAGE SYSTEM			
4-inch Storm Drain (incl fittings)	600 LF	\$ 22.00	\$ 13,200.00
		Linear Foot	
6-inch Storm Drain (incl fittings)	1,075 LF	\$ 19.00	\$ 20,425.00
		Linear Foot	
6-inch Perf RD Infiltration System (w/ 2-ft wide x 2-ft deep drainrock filled trench, incl fabric)	2,865 LF	\$ 25.00	\$ 71,625.00
		Linear Foot	
6-inch Storm Drain Clean Out	11 Each	\$ 75.00	\$ 825.00
		Each	
Type 1 Catch Basin	9 Each	\$ 1,500.00	\$ 13,500.00
		Each	
Type II - 60" / Control Structure (including internal components)	3 Each	\$ 6,000.00	\$ 18,000.00
		Each	
12" Thick Quarry Spall Armoring (estimate)	25 SY	\$ 55.00	\$ 1,375.00
		Square Yards	
WATERLINE SYSTEM			
Gravel Structural Fill - Waterline Trench (Import - Ticketed)	450 Ton	\$ 17.00	\$ 7,650.00
		Ton	
1" REHAU or Poly Waterline (Domestic water service pipe)	1,150 LF	\$ 22.00	\$ 25,300.00
		Linear Foot	
6-inch Ductile Iron Waterline	104 LF	\$ 45.00	\$ 4,680.00
		Linear Foot	
8-inch Ductile Iron Waterline	2,971 LF	\$ 55.00	\$ 163,405.00
		Linear Foot	
24-inch Steel Casing-SS pipe under creek	40 LF	\$ 150.00	\$ 6,000.00
		Linear Foot	
6-inch Gate Valve	5 Each	\$ 900.00	\$ 4,500.00
		Each	
8-inch Gate Valve	8 Each	\$ 1,500.00	\$ 12,000.00
		Each	

PRELIMINARY COST ESTIMATE
 2 of 3
 for Bucko Estates - (65-Lots)
 (Section #1-"Private Construction")

8" x 6" Waterline Tee	5	Each	\$ 400.00	\$ 2,000.00
			Each	
8" x 8" Waterline Tee	4	Each	\$ 700.00	\$ 2,800.00
			Each	
8" Waterline Bends (22.5 & 45 degrees)	8	Each	\$ 500.00	\$ 4,000.00
			Each	
New water service taps	36	Each	\$ 400.00	\$ 14,400.00
			Each	
Fire Hydrant Assembly	5	Each	\$ 4,500.00	\$ 22,500.00
			Each	
Connection to Ex. Waterline Hot Tap (or cut in new tee)	1	Each	\$ 4,000.00	\$ 4,000.00
			Each	
5/8" Domestic Water Meter Assembly (Not including meter)	65	Each	\$ 500.00	\$ 32,500.00
			Each	
Final Testing, Flushing, and Chlorination of Watermains and Domestic Waterlines	1		\$ 7,000.00	\$ 7,000.00
			Lump Sum	
SANITARY SEWER SYSTEM				
Sewer Trench Gravel	5,928	Ton	17.00	\$ 100,776.00
			Ton	
6" PVC Sanitary Sewer Pipe	2,595	LF	\$ 30.00	\$ 77,850.00
			Linear Foot	
8" PVC Sanitary Sewer Pipe	2,830	LF	\$ 35.00	\$ 99,050.00
			Linear Foot	
24-inch Steel Casing-SS pipe under creek	40	LF	\$ 150.00	\$ 6,000.00
			Linear Foot	
8" x 6" Sanitary Sewer Tee	63	Each	\$ 85.00	\$ 5,355.00
			Each	
6" Sanitary Sewer Clean Out	63	Each	\$ 300.00	\$ 18,900.00
			Each	
8" Sanitary Sewer Clean Out	5	Each	\$ 600.00	\$ 3,000.00
			Each	
6" Sanitary Sewer Cap	63	Each	\$ 30.00	\$ 1,890.00
			Each	
8" Sanitary Sewer Cap	5	Each	\$ 45.00	\$ 225.00
			Each	
SSMH-Type I- 48"	12	Each	\$ 4,000.00	\$ 48,000.00
			Each	

PRELIMINARY COST ESTIMATE
 3 of 3
 for Bucko Estates - (65-Lots)
 (Section #1-"Private Construction")

Connection to Ex. SS	1	Each	\$ 1,000.00	<u>\$ 1,000.00</u>
			Each	
Air-Pressure Testing and Video Inspection	1	LS	\$ 12,000.00	<u>\$ 12,000.00</u>
			Lump Sum	
MISC				
Final Project Grading and Clean Up	1		\$ 15,000.00	<u>\$ 15,000.00</u>
			Lump Sum	
				<u>Sub-Total-Section #1-(Private)</u> \$ 945,581.00
<i>Rate to be confirmed</i>				Sales Tax 8.5% <u>\$ 80,374.39</u>
				Section #1-Private Total \$ 1,025,955.39

PRELIMINARY COST ESTIMATE

1 of 2

For Bucko Estates - (65-Lots)

(Section #2-"Public" Roadway Construction)

03.23.21 Revised per City comments 09.15.21

Item #	Description	Quantity	Unit Price	Total Price
<i>Quantities based on Plan Set dated 02.01.21 (For estimating purposes)</i>				
	Mobilization 28% of project area		\$ 28,000.00 Lump Sum	\$ 28,000.00
	Traffic Control		\$ 8,000.00 Lump Sum	\$ 8,000.00
	Erosion Controls (Including hydroseeding) 28% of project area		\$ 8,400.00 Lump Sum	\$ 8,400.00
	Asphalt Sawcutting	135 LF	\$ 3.00 Linear Foot	\$ 405.00
	Stripping- (Road/Utility-Offsite Disposal, 12-inch depth)	7,001 CY	\$ 17.00 Cubic Yard	\$ 119,017.00
	Unclassified Excavation (Utility-Clean native soils-onsite disposal)	267 CY	\$ 10.00 Cubic Yard	\$ 2,670.00
	Geotextile Fabric (Road)	15,368 SY	\$ 2.50 Square Yard	\$ 38,420.00
	Gravel Structural Fill (Road, Walk, D/W,FT turr (Import - Ticketed)	11,091 Ton	\$ 17.00 Ton	\$ 188,547.00
	Crushed Surfacing Top Course (Assumes 3-in depth) (Import - Ticketed)	2,439 Ton	\$ 35.00 Ton	\$ 85,365.00
	HMA Class 1/2" Asphalt (3-in depth) (Import - Ticketed) 124,634 sf	2,430 Ton	\$ 110.00 Ton	\$ 267,300.00
	Curb & Gutter	7,125 LF	\$ 20.00 Linear Foot	\$ 142,500.00
	4"-Thick Concrete Sidewalk (30,916 sf)	3,435 SY	57.00 Square Yard	\$ 195,795.00
	6"-Thick Concrete Sidewalk/Driveway (including driveways) 12,375 sf	1,375 SY	62.00 Square Yard	\$ 85,250.00
DRAINAGE SYSTEM				
	Gravel Structural Fill - Storm Drain Trench	333 Ton	17.00 Ton	\$ 5,661.00
	8-inch Storm Drain Pipe	535 LF	\$ 26.00 Linear Foot	\$ 13,910.00
	12-inch Storm Drain Pipe	2,592 LF	\$ 36.00 Linear Foot	\$ 93,312.00

PRELIMINARY COST ESTIMATE
 2 of 2
 For Bucko Estates - (65-Lots)
 (Section #2-"Public" Roadway Construction)

11'3" x 7'3" Arch Culvert	80	LF	\$ 620.00	\$ 49,600.00
			Linear Foot	
6-inch Perf Storm Drain Pipe (ROW infil system)	3,904	LF	\$ 20.00	\$ 78,080.00
			Linear Foot	
North ROW Infiltraton System - below SW (Clean reservoir rock, 1.25-ft depth) 20,137 cubic feet	1,491	Tons	\$ 25.00	\$ 37,275.00
			Tons	
South ROW Infiltraton System - below SW (Clean reservoir rock, 2-ft depth) 34,480 cubic feet	2,554	Tons	\$ 25.00	\$ 63,850.00
			Tons	
Offsite South ROW Infiltraton System - below s (Clean reservoir rock, 0.5-ft depth) 2,845 cubic feet	210	Tons	\$ 25.00	\$ 5,250.00
			Tons	
Type 1 Catch Basin	39	Each	\$ 1,500.00	\$ 58,500.00
			Each	
Basic SD WQ treatment vault (UpFlow Filter?) (estimation-will be based on Plan and Profile)	9	Each	\$ 11,500.00	\$ 103,500.00
			Each	
MISC				
Signage (estimate only)	1	LS	\$ 5,000.00	\$ 5,000.00
			Each	
Paint Striping, Crosswalks, Stop Bars, Misc		LS	\$ 10,000.00	\$ 10,000.00
			Lump Sum	

Exclusions

Landscaping, Irrigation (permanent & temporary)
 Paths/Fencing designed by others
 Buildings (incl all lot grading/building development by others)
 Power, Street Lights, Relocation of Utility Poles
 Utility Fees & Expenses (incl natural gas)
 Permits and Inspections
 Mailboxes
 Residential dispersion trench-as applicable
 Borepush for SS & W under creek (assumed dry weather constr)
 All units noted are assumed to be "in place"
 P,C,T,FO Conduit trenching and conduits
 Gas service

"Private" Section #1 Total (incl tax)	\$ 1,025,955.39
"Public" Section #2 Total	\$ 1,693,607.00
PROJECT TOTAL	\$ 2,719,562.39

EXHIBIT G

Estimated cost of street and associated improvements under revised plans to accommodate the North Trail Road Arterial.

REVISED PRELIMINARY COST ESTIMATE

1 of 3

for Bucko Estates - (64-Lots)

(Section #1-"Private Construction")

09.15.21 Revised

2/18

Description		Unit Price	Total Price
<i>Quantities based on Preliminary Plan Set dated 09.08.21</i>			
Mobilization <i>Private 70.5% of project area</i>	1	\$ 73,345.00	\$ 73,345.00
		Lump Sum	
Erosion Controls (including hydroseeding) <i>Private 70.5% of project area</i>	1	\$ 21,150.00	\$ 21,150.00
		Lump Sum	
Unclassified Excavation (Utility-Clean native soils-onsite disposal)	1,125 CY	\$ 10.00	\$ 11,250.00
		Cubic Yard	
RESIDENTIAL LOT DRAINAGE SYSTEM			
4-inch Storm Drain (incl fittings)	600 LF	\$ 22.00	\$ 13,200.00
		Linear Foot	
6-inch Storm Drain (incl fittings)	1,075 LF	\$ 19.00	\$ 20,425.00
		Linear Foot	
6-inch Perf RD Infiltration System (w/ 2-ft wide x 2-ft deep drainrock filled trench, incl fabric)	2,673 LF	\$ 25.00	\$ 66,825.00
		Linear Foot	
6-inch Storm Drain Clean Out	11 Each	\$ 75.00	\$ 825.00
		Each	
Type 1 Catch Basin	12 Each	\$ 1,500.00	\$ 18,000.00
		Each	
Type II - 60" / Control Structure (including internal components)	2 Each	\$ 6,000.00	\$ 12,000.00
		Each	
12" Thick Quarry Spall Armoring (estimate)	25 SY	\$ 55.00	\$ 1,375.00
		Square Yards	
WATERLINE SYSTEM			
Gravel Structural Fill - Waterline Trench (Import - Ticketed)	504 Ton	\$ 17.00	\$ 8,568.00
		Ton	
1" REHAU or Poly Waterline (Domestic water service pipe)	1,150 LF	\$ 22.00	\$ 25,300.00
		Linear Foot	
6-inch Ductile Iron Waterline	104 LF	\$ 45.00	\$ 4,680.00
		Linear Foot	
8-inch Ductile Iron Waterline	3,333 LF	\$ 55.00	\$ 183,315.00
		Linear Foot	
24-inch Steel Casing-Water under creek	40 LF	\$ 150.00	\$ 6,000.00
		Linear Foot	
6-inch Gate Valve	5 Each	\$ 900.00	\$ 4,500.00
		Each	
8-inch Gate Valve	10 Each	\$ 1,500.00	\$ 15,000.00
		Each	

REVISED PRELIMINARY COST ESTIMATE

2 of 3

for Bucko Estates - (64-Lots)
(Section #1-"Private Construction")

8" x 6" Waterline Tee	5	Each	\$ 400.00	\$ 2,000.00
			Each	
8" x 8" Waterline Tee	3	Each	\$ 700.00	\$ 2,100.00
			Each	
8" Waterline Bends (11.25, 22.5 & 45 deg)	14	Each	\$ 500.00	\$ 7,000.00
			Each	
New water service taps	34	Each	\$ 400.00	\$ 13,600.00
			Each	
Fire Hydrant Assembly <i>(none accounted for in new arterial)</i>	5	Each	\$ 4,500.00	\$ 22,500.00
			Each	
Connection to Ex. Waterline Hot Tap (or cut in new tee)	1	Each	\$ 4,000.00	\$ 4,000.00
			Each	
5/8" Domestic Water Meter Assembly (Not Including meter)	64	Each	\$ 500.00	\$ 32,000.00
			Each	
Final Testing, Flushing, and Chlorination of Watermains and Domestic Waterlines	1		\$ 7,000.00	\$ 7,000.00
			Lump Sum	
SANITARY SEWER SYSTEM				
Sewer Trench Gravel	5,928	Ton	17.00	\$ 100,776.00
			Ton	
6" PVC Sanitary Sewer Pipe	2,395	LF	\$ 30.00	\$ 71,850.00
			Linear Foot	
8" PVC Sanitary Sewer Pipe	2,954	LF	\$ 35.00	\$ 103,740.00
			Linear Foot	
24-inch Steel Casing-SS under creek	40	LF	\$ 150.00	\$ 6,000.00
			Linear Foot	
8" x 6" Sanitary Sewer Tee	59	Each	\$ 85.00	\$ 5,015.00
			Each	
6" Sanitary Sewer Clean Out	59	Each	\$ 300.00	\$ 17,700.00
			Each	
8" Sanitary Sewer Clean Out	5	Each	\$ 600.00	\$ 3,000.00
			Each	
6" Sanitary Sewer Cap	59	Each	\$ 30.00	\$ 1,770.00
			Each	
8" Sanitary Sewer Cap	6	Each	\$ 45.00	\$ 270.00
			Each	
SSMH-Type I- 48"	13	Each	\$ 4,000.00	\$ 52,000.00
			Each	

REVISED PRELIMINARY COST ESTIMATE
 3 of 3
 for Bucko Estates - (64-Lots)
 (Section #1-"Private Construction")

Connection to Ex. SS	1	Each	<u>\$ 1,000.00</u>	<u>\$ 1,000.00</u>
			Each	
Air-Pressure Testing and Video Inspection	1	LS	<u>\$ 12,000.00</u>	<u>\$ 12,000.00</u>
			Lump Sum	
MISC				
Final Project Grading and Clean Up	1		<u>\$ 30,000.00</u>	<u>\$ 30,000.00</u>
			Lump Sum	
				<u>Sub-Total-Section #1-(Private) \$ 981,079.00</u>
<i>Sales tax rate to be confirmed</i>				<u>Sales Tax 8.5% \$ 83,391.72</u>
				Section #1-Private Total \$ 1,064,470.72

REVISED PRELIMINARY COST ESTIMATE

1 of 2

For Bucko Estates - (64-Lots)

(Section #2-"Public" Roadway Construction)

09.15.21 Revised

Item #	Description	Quantity	Unit Price	Total Price
<i>Quantities based on Preliminary Plan Set dated 09.08.21</i>				
	Mobilization - 5.96 ac 29.5% of project area		\$ 31,527.00 Lump Sum	\$ 31,527.00
	Traffic Control		\$ 9,000.00 Lump Sum	\$ 9,000.00
	Erosion Controls (Including hydroseeding) 29.5% of project area		\$ 8,850.00 Lump Sum	\$ 8,850.00
	Asphalt Sawcutting	135 LF	\$ 3.00 Linear Foot	\$ 405.00
	Stripping- (Road/Utility-Offsite Disposal, 12-inch depth)	8,079 CY	\$ 17.00 Cubic Yard	\$ 137,343.00
	Unclassified Excavation (Utility-Clean native soils-onsite disposal)	267 CY	\$ 10.00 Cubic Yard	\$ 2,670.00
	Geotextile Fabric (Road)	16,049 SY	\$ 2.50 Square Yard	\$ 40,122.50
	Gravel Structural Fill-Road, Walk, D/W,FT turn (Import - Ticketed)	12,211 Ton	\$ 17.00 Ton	\$ 207,587.00
	Crushed Surfacing Top Course (Assumes 3-in depth) (Import - Ticketed)	2,438 Ton	\$ 35.00 Ton	\$ 85,330.00
	HMA Class 1/2" Asphalt (Import - Ticketed) 133,323 sl	2,887 Ton	\$ 110.00 Ton	\$ 317,570.00
	Curb & Gutter	8,272 LF	\$ 20.00 Linear Foot	\$ 165,440.00
	4"-Thick Concrete Sidewalk (30,626 sf)	3,403 SY	57.00 Square Yard	\$ 193,971.00
	6"-Thick Concrete Sidewalk/Driveway (including driveways) 13,315 sf	1,479 SY	62.00 Square Yard	\$ 91,698.00
DRAINAGE SYSTEM				
	Gravel Structural Fill - Storm Drain Trench	332 Ton	17.00 Ton	\$ 5,644.00
	8-inch Storm Drain Pipe (assumes 210 lf in arterial)	684 LF	\$ 26.00 Linear Foot	\$ 17,784.00
	12-inch Storm Drain Pipe (assumes 1,000 lf in arterial)	3,062 LF	\$ 36.00 Linear Foot	\$ 110,232.00

REVISED PRELIMINARY COST ESTIMATE
 2 of 2
 For Bucko Estates - (64-Lots)
 (Section #2-"Public" Roadway Construction)

11'3" x 7'3" Arch Culvert (assuming vertical conc wall face on west side)	70	LF	\$ 620.00 <u>Linear Foot</u>	\$ 43,400.00
Vert Conc Face- west end Arch Culvert	1	Each	\$ 15,000.00 <u>Each</u>	\$ 15,000.00
6-inch Perf Storm Drain Pipe (ROW infil system)	5,071	LF	\$ 20.00 <u>Linear Foot</u>	\$ 101,420.00
North ROW Infiltraton System - below SW (Clean reservoir rock, 1.25-ft depth) 17,920 cubic feet	1,327	Tons	\$ 25.00 <u>Tons</u>	\$ 33,175.00
South ROW Infiltraton System - below SW (Clean reservoir rock, 2-ft depth) 21,196 cubic feet	1,570	Tons	\$ 25.00 <u>Tons</u>	\$ 39,250.00
Arterial Road ROW Infil System - below SW (Clean reservoir rock, Avg 1.0 ft depth) 14,009 cubic feet	1,038	Tons	\$ 25.00 <u>Tons</u>	\$ 25,950.00
Type 1 Catch Basin	50	Each	\$ 1,500.00 <u>Each</u>	\$ 75,000.00
Basic SD WQ treatment vault (UpFlow Filter?) (Estimation only-will be based on Plan and Profile)	14	Each	\$ 11,500.00 <u>Each</u>	\$ 161,000.00
Type II - 60" / Control Structure (including internal componants)	2	Each	\$ 6,000.00 <u>Each</u>	\$ 12,000.00
MISC				
Signage (estimate only)	1	LS	\$ 12,500.00 <u>Each</u>	\$ 12,500.00
Paint Striping, Crosswalks, Stop Bars, Misc		LS	\$ 15,000.00 <u>Lump Sum</u>	\$ 15,000.00

Exclusions

Landscaping, Irrigation (permanent & temporary)
Paths/Fencing designed by others
Buildings (incl all lot grading/building development by others)
Power, Street Lights, Relocation of Utility Poles
Utility Fees & Expenses (incl natural gas)
Permits and Inspections
Mailboxes
Residential dispersion trenche-as applicable
Bore/push for SS & W under creek (assumed dry weather costr)
All units noted are assumed to be "in place"
P,C,T,FO Conduit trenching and conduits
Gas service

"Private" Section #1 Total (incl tax)	\$ 1,064,470.72
"Public" Section #2 Total	<u>\$ 1,958,868.50</u>
PROJECT TOTAL	\$ 3,023,339.22

EXHIBIT H

Additional initial redesign costs as a direct result of
accommodating the North Trail Road Arterial

EXHIBIT H

BUCKO ESTATES LONG PLAT - REDESIGN COSTS

*Additional redesign costs as a direct result of accommodating the North Trail Road Arterial
11/11/2021*

Civil Engineering-Ravnik & Assoc.		
Date	Invoice #	Amount
February-21	8230	\$ 1,904.00
March-21	8262	\$ 2,971.50
April-21	8291	\$ 1,850.00
May-21	8321	\$ 1,194.00
June-21	8351	\$ 11,203.00
July-21	8377	\$ 1,861.00
August-21	8406*	\$ 2,784.00
September-21	8436*	\$ 756.00
Total		\$ 24,523.50
Survey-Lisser & Associates		
Date	Invoice #	Amount
July-21	10038	\$ 3,350.00
Total		\$ 3,350.00
Landscape Architect - Eccos Design		
Date	Invoice #	Amount
July-21	2173	\$ 902.50
Total		\$ 902.50
Wetland/Critical Areas - Essency Environmental		
Date	Invoice #	Amount
July-21	1539	\$ 3,406.65
Total		\$ 3,406.65
Total		\$ 32,182.65

*City requested quantities
City requested quantities*

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
3/1/2021	8230

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	3/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
2/1/2021	John Ravnik	1101	Application	1.5	176.00	264.00
2/1/2021	John Ravnik	1127	Report	1.25	176.00	220.00
2/1/2021	John Ravnik	1410	Plan Review	1.25	176.00	220.00
2/1/2021	Stephanie Ru...	3211	Photocopying	0.75	78.00	58.50
2/1/2021	Stephanie Ru...	3461	Administrative Tasks	0.75	78.00	58.50
2/1/2021	Stephanie Ru...	3200	Scan Documents	0.5	78.00	39.00
2/1/2021	Dina Remsen	4302	CAD Drafting	2	107.00	214.00
2/2/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
2/2/2021	John Ravnik	1213	Coordinate with Geotech/Wetland	0.5	176.00	88.00
2/2/2021	John Ravnik	1101	Application	0.5	176.00	88.00
2/2/2021	Dina Remsen	4302	CAD Drafting	2	107.00	214.00
2/3/2021	Stephanie Ru...	3461	Administrative Tasks	0.25	78.00	19.50
2/3/2021	Stephanie Ru...	3200	Scan Documents	0.25	78.00	19.50
2/3/2021	Stephanie Ru...	3211	Photocopying	0.5	78.00	39.00
2/4/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
2/4/2021	John Ravnik	1105	Coordinate with City Staff	0.75	176.00	132.00
2/4/2021	John Ravnik	1213	Coordinate with Geotech/Wetland	0.75	176.00	132.00
2/4/2021	John Ravnik	1101	Application	0.75	176.00	132.00
2/4/2021	Stephanie Ru...	3211	Photocopying	0.5	78.00	39.00
2/4/2021	Dina Remsen	4302	CAD Drafting	1	107.00	107.00
2/8/2021	Stephanie Ru...	3211	Photocopying	0.75	78.00	58.50
2/8/2021	Stephanie Ru...	3200	Scan Documents	0.75	78.00	58.50
2/8/2021	Stephanie Ru...	3461	Administrative Tasks	0.5	78.00	39.00
2/18/2021	Dina Remsen	4302	CAD Drafting	2	107.00	214.00
2/18/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
2/18/2021	John Ravnik	1105	Coordinate with City Staff	0.75	176.00	132.00
2/18/2021	John Ravnik	1101	Application	0.5	176.00	88.00
2/19/2021	Dina Remsen	4302	CAD Drafting	0.5	107.00	53.50
2/22/2021	John Ravnik	1105	Coordinate with City Staff	0.5	176.00	88.00
2/22/2021	John Ravnik	1106	Coordinate with Client	0.25	176.00	44.00

Total

Payments/Credits

Balance Due

Ravnik & Associates, Inc.
 PO Box 361
 1633 Lindamood Lane
 Burlington, WA 98233

Invoice

Date	Invoice #
3/1/2021	8230

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	3/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
2/22/2021	John Ravnik	1101	Application	0.25	176.00	44.00
2/24/2021	Stephanie Ru...	3461	Administrative Tasks	0.75	78.00	58.50
2/24/2021	John Ravnik	1123	Project Signage	1.25	176.00	220.00

Total					\$3,578.00
Payments/Credits					-\$3,578.00
Balance Due					\$0.00

Ravnik & Associates, Inc.

**PO Box 361
1633 Lindamood Lane
Burlington, WA 98233**

Invoice

Date	Invoice #
4/1/2021	8262

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	4/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
3/1/2021	Stephanie Ru...	3125	Printing	0.25	78.00	19.50
3/1/2021	Heike Nelson	2437	Preliminary Layout Options	1.5	168.00	252.00
3/2/2021	Heike Nelson	2437	Preliminary Layout Options	2	168.00	336.00
3/3/2021	Heike Nelson	2437	Preliminary Layout Options	1	168.00	168.00
3/5/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
3/5/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
3/9/2021	Heike Nelson	2437	Preliminary Layout Options	1	168.00	168.00
3/12/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
3/12/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
3/16/2021	Heike Nelson	2210	Engineers - Cost Estimates	0.75	168.00	126.00
3/16/2021	Heike Nelson	2417	Quantity Calculations	0.75	168.00	126.00
3/17/2021	Heike Nelson	2210	Engineers - Cost Estimates	1.75	168.00	294.00
3/17/2021	Heike Nelson	2417	Quantity Calculations	1.75	168.00	294.00
3/18/2021	Heike Nelson	2210	Engineers - Cost Estimates	1.5	168.00	252.00
3/18/2021	Heike Nelson	2417	Quantity Calculations	1.5	168.00	252.00
3/19/2021	Heike Nelson	2210	Engineers - Cost Estimates	0.25	168.00	42.00
3/19/2021	Heike Nelson	2402	Construction Estimate	0.25	168.00	42.00
3/22/2021	John Ravnik	1402	Construction Estimate	1.5	176.00	264.00
3/23/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
3/23/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
3/31/2021	Heike Nelson	2104	Compile Data	0.5	168.00	84.00
Total						\$2,971.50
Payments/Credits						-\$2,971.50
Balance Due						\$0.00

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
5/3/2021	8291

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	5/18/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
4/20/2021	John Ravnik	1120	Meeting	3.5	176.00	616.00
4/20/2021	Heike Nelson	2120	Meeting	1	168.00	168.00
4/20/2021	Heike Nelson	2304	Meeting Preparation	1	168.00	168.00
4/21/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
4/21/2021	Heike Nelson	2309	Project Exhibit	0.5	168.00	84.00
4/22/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
4/22/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
4/27/2021	John Ravnik	1304	Meeting Preparation	0.75	176.00	132.00
4/27/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
4/27/2021	John Ravnik	1103	Consult with Owner's Representative	0.5	176.00	88.00
4/27/2021	Heike Nelson	2120	Meeting	0.75	168.00	126.00
4/27/2021	Heike Nelson	2304	Meeting Preparation	0.75	168.00	126.00
Total						\$1,850.00
Payments/Credits						-\$1,850.00
Balance Due						\$0.00

Ravnik & Associates, Inc.
 PO Box 361
 1633 Lindamood Lane
 Burlington, WA 98233

Invoice

Date	Invoice #
6/1/2021	8321

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	6/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
5/4/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
5/4/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
5/5/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
5/5/2021	Heike Nelson	2110	Correspondence	0.5	168.00	84.00
5/6/2021	John Ravnik	1410	Plan Review	0.75	176.00	132.00
5/6/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
5/6/2021	Heike Nelson	2105	Coordinate with City Staff	0.5	168.00	84.00
5/6/2021	Heike Nelson	2307	Prepare Info Package - City/County/State	0.5	168.00	84.00
5/10/2021	Heike Nelson	2309	Project Exhibit	1	168.00	168.00
5/10/2021	Heike Nelson	2104	Compile Data	1	168.00	168.00
5/12/2021	John Ravnik	1105	Coordinate with City Staff	0.5	176.00	88.00
5/12/2021	John Ravnik	1106	Coordinate with Client	0.25	176.00	44.00
5/26/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
Total						\$1,194.00
Payments/Credits						-\$1,194.00
Balance Due						\$0.00

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
7/1/2021	8351

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	7/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
6/3/2021	Dina Remsen	4302	CAD Drafting	7	107.00	749.00
6/3/2021	Heike Nelson	2304	Meeting Preparation	0.5	168.00	84.00
6/4/2021	Dina Remsen	4302	CAD Drafting	1.5	107.00	160.50
6/4/2021	Heike Nelson	2120	Meeting	1.25	168.00	210.00
6/7/2021	Dina Remsen	4302	CAD Drafting	2	107.00	214.00
6/7/2021	John Ravnik	1415	Project Coordination	0.75	176.00	132.00
6/7/2021	John Ravnik	1410	Plan Review	0.75	176.00	132.00
6/7/2021	Heike Nelson	2129	Review	1	168.00	168.00
6/7/2021	Heike Nelson	2104	Compile Data	1	141.00	141.00
6/8/2021	Heike Nelson	2104	Compile Data	2	168.00	336.00
6/9/2021	John Ravnik	1120	Meeting	2	176.00	352.00
6/9/2021	Heike Nelson	2415	Project Coordination	2	168.00	336.00
6/10/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
6/10/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
6/11/2021	John Ravnik	1410	Plan Review	1	176.00	176.00
6/11/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
6/11/2021	John Ravnik	1105	Coordinate with City Staff	0.75	176.00	132.00
6/11/2021	Heike Nelson	2120	Meeting	2.5	168.00	420.00
6/14/2021	Heike Nelson	2130	Revisions	2	168.00	336.00
6/14/2021	Heike Nelson	2130	Revisions	2	168.00	336.00
6/15/2021	Heike Nelson	2130	Revisions	4.25	168.00	714.00
6/16/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
6/16/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
6/17/2021	Heike Nelson	2130	Revisions	3.5	168.00	588.00
6/18/2021	Heike Nelson	2130	Revisions	4	168.00	672.00
6/21/2021	Heike Nelson	2130	Revisions	3.5	168.00	588.00
6/22/2021	Heike Nelson	2130	Revisions	2	168.00	336.00
6/23/2021	John Ravnik	1213	Coordinate with Geotech/Wetland	1	176.00	176.00
6/23/2021	Heike Nelson	2130	Revisions	7.25	168.00	1,218.00
6/23/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
				Total		
				Payments/Credits		
				Balance Due		

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
7/1/2021	8351

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	7/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
6/23/2021	Heike Nelson	2110	Correspondence	0.5	168.00	84.00
6/24/2021	Heike Nelson	2130	Revisions	4.5	168.00	756.00
6/24/2021	Dina Remsen	4417	Quantity Calculations	5.5	107.00	588.50
6/28/2021	Dina Remsen	4302	CAD Drafting	4	107.00	428.00
6/29/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
6/29/2021	Heike Nelson	2110	Correspondence	0.5	168.00	84.00
6/29/2021	John Ravnik	1103	Consult with Owner's Representative	0.5	176.00	88.00
Total						\$11,203.00
Payments/Credits						-\$11,203.00
Balance Due						\$0.00

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
8/2/2021	8377

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	8/17/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
7/3/2021	John Ravnik	1137	SEPA	2	176.00	352.00
7/6/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
7/6/2021	Heike Nelson	2309	Project Exhibit	2.5	168.00	420.00
7/7/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
7/9/2021	Heike Nelson	2415	Project Coordination	0.75	168.00	126.00
7/12/2021	Dina Remsen	4302	CAD Drafting	1	107.00	107.00
7/12/2021	Heike Nelson	2104	Compile Data	1	168.00	168.00
7/12/2021	Heike Nelson	2129	Review	1	168.00	168.00
7/12/2021	Stephanie Ru...	3125	Printing	0.25	78.00	19.50
7/13/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
7/13/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
7/13/2021	Stephanie Ru...	3125	Printing	0.5	78.00	39.00
7/15/2021	Heike Nelson	2104	Compile Data	0.25	168.00	42.00
7/15/2021	Heike Nelson	2129	Review	0.25	168.00	42.00
7/16/2021	Heike Nelson	2439	Plan Submittal Package	1	168.00	168.00
7/19/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
7/28/2021	Dina Remsen	4302	CAD Drafting	3	107.00	321.00
7/30/2021	Dina Remsen	4302	CAD Drafting	6	107.00	642.00
Total						\$2,824.50
Payments/Credits						-\$2,824.50
Balance Due						\$0.00

Bucko Estates Long Plat

Job# 2020-06

Additional costs Aug-Sept as a direct result of accommodating the North Trail Road Arterial

Date	Item Code	Description	Amount
8/3/2021	2417	Quantity Calculations	\$ 504.00
8/3/2021	2402	Construction Estimate	\$ 462.00
8/4/2021	2210	Engineers-Cost Estimate	\$ 132.00
8/4/2021	2417	Quantity Calculations	\$ 252.00
8/4/2021	2402	Construction Estimate	\$ 252.00
8/4/2021	1210	Engineers-Cost Estimate	\$ 132.00
8/6/2021	2417	Quantity Calculations	\$ 168.00
8/6/2021	2402	Construction Estimate	\$ 168.00
8/25/2021	2402	Construction Estimate	\$ 252.00
8/25/2021	2417	Quantity Calculations	\$ 252.00
8/31/2021	2417	Quantity Calculations	\$ 210.00
		Aug Total	\$ 2,784.00
9/13/2021	2210	Engineers-Cost Estimate	\$ 168.00
9/14/2021	2210	Engineers-Cost Estimate	\$ 420.00
9/15/2021	2210	Engineers-Cost Estimate	\$ 168.00
		Sept Total	\$ 756.00

Total

\$ 3,540.00

Ravnik & Associates, Inc.
 PO Box 361
 1633 Lindamood Lane
 Burlington, WA 98233

Invoice

Date	Invoice #
9/1/2021	8406

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	9/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
8/3/2021	John Ravnik	1105	Coordinate with City Staff	1	176.00	176.00
8/3/2021	Heike Nelson	2417	Quantity Calculations	3	168.00	504.00
8/3/2021	Heike Nelson	2402	Construction Estimate	2.75	168.00	462.00
8/4/2021	John Ravnik	1410	Plan Review	1	176.00	176.00
8/4/2021	John Ravnik	1210	Engineers - Cost Estimates	0.75	176.00	132.00
8/4/2021	John Ravnik	1106	Coordinate with Client	1	176.00	176.00
8/4/2021	Heike Nelson	2417	Quantity Calculations	1.5	168.00	252.00
8/4/2021	Heike Nelson	2402	Construction Estimate	1.5	168.00	252.00
8/4/2021	Heike Nelson	2120	Meeting	1	168.00	168.00
8/6/2021	John Ravnik	1209	Review Reports by Others	1	176.00	176.00
8/6/2021	Heike Nelson	2417	Quantity Calculations	1	168.00	168.00
8/6/2021	Heike Nelson	2402	Construction Estimate	1	168.00	168.00
8/9/2021	John Ravnik	1209	Review Reports by Others	1	176.00	176.00
8/9/2021	John Ravnik	1432	Review Material Submitted	0.75	176.00	132.00
8/9/2021	Heike Nelson	2106	Coordinate with Client	0.5	168.00	84.00
8/10/2021	John Ravnik	1106	Coordinate with Client	0.5	176.00	88.00
8/10/2021	John Ravnik	1103	Consult with Owner's Representative	0.5	176.00	88.00
8/11/2021	Heike Nelson	2309	Project Exhibit	0.5	168.00	84.00
8/12/2021	Heike Nelson	2309	Project Exhibit	0.5	168.00	84.00
8/12/2021	Heike Nelson	2130	Revisions	0.5	168.00	84.00
8/14/2021	Heike Nelson	2130	Revisions	1	168.00	168.00
8/16/2021	John Ravnik	1209	Review Reports by Others	0.75	176.00	132.00
8/16/2021	Heike Nelson	2130	Revisions	2.5	168.00	420.00
8/16/2021	Heike Nelson	2449	Response to City/County/State	2.5	168.00	420.00
8/17/2021	Heike Nelson	2130	Revisions	3.5	168.00	588.00
8/17/2021	Heike Nelson	2449	Response to City/County/State	3.5	168.00	588.00
8/18/2021	John Ravnik	1209	Review Reports by Others	1.25	176.00	220.00
8/18/2021	Heike Nelson	2130	Revisions	2.5	168.00	420.00
8/18/2021	Heike Nelson	2449	Response to City/County/State	2.5	168.00	420.00
8/19/2021	John Ravnik	1106	Coordinate with Client	1	176.00	176.00
				Total		
				Payments/Credits		
				Balance Due		

Ravnik & Associates, Inc.
PO Box 361
1633 Lindamood Lane
Burlington, WA 98233

Invoice

Date	Invoice #
9/1/2021	8406

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	9/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
8/19/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
8/19/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
8/20/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
8/20/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
8/23/2021	Dina Remsen	4427	Site Inspection Visit	1	107.00	107.00
8/23/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
8/23/2021	Heike Nelson	2110	Correspondence	0.25	168.00	42.00
8/23/2021	Heike Nelson	2123	Project Signage	0.75	168.00	126.00
8/23/2021	Heike Nelson	2105	Coordinate with City Staff	0.75	168.00	126.00
8/24/2021	John Ravnik	1106	Coordinate with Client	0.75	176.00	132.00
8/24/2021	John Ravnik	1301	Coordinate with Design Team Member	0.75	176.00	132.00
8/24/2021	John Ravnik	1105	Coordinate with City Staff	0.5	176.00	88.00
8/24/2021	Heike Nelson	2123	Project Signage	1	168.00	168.00
8/24/2021	Heike Nelson	2110	Correspondence	0.5	168.00	84.00
8/24/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
8/24/2021	Heike Nelson	2120	Meeting	1	168.00	168.00
8/24/2021	Heike Nelson	2449	Response to City/County/State	0.5	168.00	84.00
8/24/2021	Heike Nelson	2130	Revisions	0.5	168.00	84.00
8/25/2021	Heike Nelson	2402	Construction Estimate	1.5	168.00	252.00
8/25/2021	Heike Nelson	2417	Quantity Calculations	1.5	168.00	252.00
8/25/2021	Heike Nelson	2130	Revisions	1.25	168.00	210.00
8/25/2021	Heike Nelson	2439	Plan Submittal Package	1.25	168.00	210.00
8/26/2021	Heike Nelson	2307	Prepare Info Package - City/County/State	0.5	168.00	84.00
8/26/2021	Heike Nelson	2104	Compile Data	0.5	168.00	84.00
8/27/2021	John Ravnik	1105	Coordinate with City Staff	0.5	176.00	88.00
8/27/2021	John Ravnik	1106	Coordinate with Client	0.25	176.00	44.00
8/30/2021	Heike Nelson	2131	Variance/Deviation Application	1	168.00	168.00
8/30/2021	Heike Nelson	2104	Compile Data	1	168.00	168.00
8/30/2021	Stephanie Ru...	3461	Administrative Tasks	0.75	78.00	58.50
8/31/2021	Heike Nelson	2417	Quantity Calculations	1.25	168.00	210.00
				Total		
				Payments/Credits		
				Balance Due		

Ravnik & Associates, Inc.
 PO Box 361
 1633 Lindamood Lane
 Burlington, WA 98233

Invoice

Date	Invoice #
9/1/2021	8406

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	9/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
8/31/2021	Heike Nelson	2449	Response to City/County/State	1.25	168.00	210.00
8/31/2021	Heike Nelson	2439	Plan Submittal Package	1	168.00	168.00

Total					\$11,023.50
Payments/Credits					-\$11,023.50
Balance Due					\$0.00

Ravnik & Associates, Inc.
 PO Box 361
 1633 Lindamood Lane
 Burlington, WA 98233

Invoice

Date	Invoice #
10/1/2021	8436

Phone: (360) 707-2048 Fax: (360) 707-2216

Bill To
Sarah Bucko 13315 NW Overton St Portland, OR 97229

Project Description
26 AC Residential Plat Sedro-Woolley

Terms	Due Date	Account #
Net 15	10/16/2021	2020-06

Date	Employee	Item	Description	Hours	Rate	Amount
9/7/2021	John Ravnik	1106	Coordinate with Client	1.25	176.00	220.00
9/7/2021	John Ravnik	1105	Coordinate with City Staff	1.25	176.00	220.00
9/7/2021	Heike Nelson	2415	Project Coordination	1.25	168.00	210.00
9/7/2021	Heike Nelson	2120	Meeting	1	168.00	168.00
9/7/2021	Heike Nelson	2304	Meeting Preparation	0.5	168.00	84.00
9/8/2021	Stephanie Ru...	3125	Printing	0.25	78.00	19.50
9/8/2021	Stephanie Ru...	3200	Scan Documents	0.25	78.00	19.50
9/8/2021	Heike Nelson	2130	Revisions	1.25	168.00	210.00
9/8/2021	Heike Nelson	2449	Response to City/County/State	0.75	168.00	126.00
9/8/2021	Heike Nelson	2448	Coordinate with Surveyor	0.25	168.00	42.00
9/9/2021	Heike Nelson	2110	Correspondence	0.5	168.00	84.00
9/9/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
9/13/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
9/13/2021	Heike Nelson	2120	Meeting	0.25	168.00	42.00
9/13/2021	Heike Nelson	2210	Engineers - Cost Estimates	1	168.00	168.00
9/14/2021	Heike Nelson	2210	Engineers - Cost Estimates	2.5	168.00	420.00
9/15/2021	Heike Nelson	2130	Revisions	1	168.00	168.00
9/16/2021	Heike Nelson	2130	Revisions	1	168.00	168.00
9/16/2021	Heike Nelson	2105	Coordinate with City Staff	1	168.00	168.00
9/20/2021	Heike Nelson	2427	Site Inspection Visit	0.5	168.00	84.00
9/22/2021	Heike Nelson	2415	Project Coordination	0.25	168.00	42.00
9/23/2021	Heike Nelson	2415	Project Coordination	0.5	168.00	84.00
9/23/2021	Heike Nelson	2105	Coordinate with City Staff	0.25	168.00	42.00
9/27/2021	Heike Nelson	2449	Response to City/County/State	1	168.00	168.00
9/27/2021	Heike Nelson	2440	Permit Application Package	0.75	168.00	126.00
9/28/2021	Heike Nelson	2440	Permit Application Package	0.5	168.00	84.00
Total						\$3,335.00
Payments/Credits						-\$3,335.00
Balance Due						\$0.00

LISSER & ASSOCIATES, PLLC
 PO Box 1109
 MOUNT VERNON, WA 98273
 Phone: (360) 419-7442

Invoice

DATE	INVOICE #
7/23/21	10038

PAID
 08/13/21

BILL TO #20-165 Topog/Plat P-37251 Bucko Family Trust Sarah Bucko 13315 NW Overton Street Portland OR 97229	CONTRACT INFORMATION Topographic/Sedro-Woolley Plat Site address: 503 F & S Grade Road
---	--

SERVICE...	DESCRIPTION	ITEM	NOTES	HOURS	RATE	AMOUNT
7/12/21	Prepare Preliminary Plat	22P		9.25	200.00	1,850.00
7/13/21	Prepare Preliminary Plat	22P		6.75	200.00	1,350.00
7/13/21	Correspondence	81P		0.25	200.00	50.00
7/13/21	Represent Client	44P		0.5	200.00	100.00

Total	\$3,350.00
--------------	-------------------

Payments are past due 30 days from date of invoice. Past due accounts are subject to a carrying charge of 1% per month.

Heike Nelson

From: Patrik Dylan <eccosdesign@gmail.com>
Sent: Thursday, November 11, 2021 12:13 PM
To: Heike Nelson
Subject: Re: FW: Bucko Costs from Feb 4th - July 16th

Here you go.

\$ 902.50

Invoice Date	Item	Description	Amount
09/25/2021	Landscape Design	Update to landscape and park plan based on new road alignment	9.5

Patrik Dylan, PLA
eccosDesign LLC
Landscape Architecture and Planning
p. 360.419.7400 (forwards to cell)
txt. 360.421.4894
www.eccosdesign.com

On Thu, Nov 11, 2021 at 11:26 AM Heike Nelson <hnelson@ravnik.net> wrote:

Hello Patrik-



Essency Environmental, LLC
 11104 320th Avenue Northeast
 Carnation, WA 98014
 425-761-5903
mharenda@cablespeed.com

INVOICE

INVOICE #: 1539
Date: 7/10/2011

TO: **FOR:**

Sarah Bucko Sarahbucko12@gmail.com (360) 840-2609	Environmental Consulting Services: Bucko -2020-01- Addendum 1 Critical Areas Study and Mitigation Plan for 500 block of F & S Grade Road, Sedro-Woolley, WA 98284
---	--

DESCRIPTION:	Hours	Rate	Amount
Revise Critical Areas Report and Mitigation Plan for Bucko Estates	27.25	\$ 125.00	\$ 3,406.25
SUBTOTAL			\$ 3,406.25
		TOTAL BALANCE DUE	\$ 3,406.25

Make all checks payable to Essency Environmental, LLC
 Total due upon receipt. Accounts 30 days past due subject to a service charge of 1% per month.
Thank you for your business!

Exhibit H

LEGAL DESCRIPTION OF PRELIMINARY PLAT

PARCEL "A"

TRACT 1, SHORT PLAT NO. SW 05-80 APPROVED JULY 22, 1980 AND RECORDED JULY 23, 1980 IN BOOK 4 OF SHORT PLATS, AT PAGE 150, UNDER AUDITOR'S FILE NO. 8001230029.

(BEING A PORTION OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.)

SUBJECT TO AND TOGETHER WITH AN EASEMENT 60 FEET IN WIDTH FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS TRACT 1 AND TRACT 2 OF SAID SHORT PLAT AS DELINEATED ON THE FACE OF SAID SHORT PLAT.

PARCEL "B"

TRACT 2, SHORT PLAT NO. SW 05-80 APPROVED JULY 22, 1980 AND RECORDED JULY 23, 1980 IN BOOK 4 OF SHORT PLATS, AT PAGE 150, UNDER AUDITOR'S FILE NO. 8001230029.

(BEING A PORTION OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.)

TOGETHER WITH AN EASEMENT 60 FEET IN WIDTH FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS TRACT 1 AND TRACT 2 OF SAID SHORT PLAT AS DELINEATED ON THE FACE OF SAID SHORT PLAT.

PARCEL "C"

THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4,

EXCEPT THE EAST 20 FEET THEREOF IN SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.

ALSO EXCEPT THAT PORTION CONVEYED TO SEDRO-WOOLLEY SCHOOL DISTRICT #101 BY DEED RECORDED UNDER AUDITOR'S FILE NO. 8403120001 DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M., WHICH IS THE TRUE POINT OF BEGINNING;
THENCE EASTERLY 184 FEET ALONG THE NORTH LINE OF SAID SOUTHWEST 1/4;
THENCE NORTH TO THE CENTERLINE OF AN EXISTENT COUNTY DRAINAGE DITCH;
THENCE WESTERLY ALONG CENTERLINE OF SAID COUNTY DRAINAGE DITCH TO A POINT ON THE WEST LINE OF SAID SOUTHEAST 1/4 NORTH OF THE POINT OF BEGINNING;
THENCE SOUTH TO THE ACTUAL POINT OF BEGINNING.

PARCEL "D"

THE EAST 20 FEET OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.

EXCEPT THAT PORTION THEREOF LYING WITHIN THE COOK ROAD ALONG THE SOUTH LINE THEREOF;

AND ALSO EXCEPT THAT PORTION, IF ANY, LYING WITHIN THOSE PREMISES CONVEYED TO RAYMOND H. NELSON, BY DEED RECORDED MARCH 9, 1988 AS AUDITOR'S FILE NO. 8803090038.

PARCEL "E"

THE WEST 20 FEET OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.

EXCEPT THAT PORTION THEREOF LYING WITHIN THE COOK ROAD ALONG THE SOUTH LINE THEREOF;

AND ALSO EXCEPT THAT PORTION, IF ANY, LYING WITHIN THOSE PREMISES CONVEYED TO BRUCE P. SAVAGE BY DEED RECORDED DECEMBER 14, 1990 AS AUDITOR'S FILE NO. 9012140013.

ALL OF THE ABOVE BEING SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES, COURT CAUSES AND OTHER INSTRUMENTS OF RECORD.

ALL OF THE ABOVE SITUATED IN THE CITY OF SEDRO-WOOLLEY, COUNTY OF SKAGIT, STATE OF WASHINGTON.

TOTAL PROJECT AREA: 880,826 SQ FT, 20.22 ACRES

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE PRELIMINARY PLAT OF BUCKO ESTATES, IS BASED UPON AN ACTUAL SURVEY AND SUBDIVISION OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M. AND THAT I HAVE COMPLIED WITH THE APPLICATION REQUIREMENTS FOR A PRELIMINARY PLAT IN THE CITY OF SEDRO-WOOLLEY.

Bruce G. Lisser
BRUCE G. LISSER, PLS CERTIFICATE NO. 22960
LISSER & ASSOCIATES, PLLC
320 MILWAUKEE PO BOX 1109
MOUNT VERNON WA 98273
PHONE: (360) 419-7442
FAX: (360) 419-0581
E-MAIL: BRUCE@LISSER.COM



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LISSER & ASSOCIATES, PLLC
SURVEYING & LAND USE CONSULTATION
320 MILWAUKEE STREET
MOUNT VERNON, WA 98273
360-419-7442

NOTES

1. NO CORNERS HAVE BEEN SET FOR THIS PRELIMINARY PLAT MAPPING.

2. DESCRIPTION AND EXCEPTION INFORMATION IS FROM FIRST AMERICAN TITLE, ORDER NO. 20-5836-TO, DATED JANUARY 26, 2021.

3. FOR ADDITIONAL SUBDIVISION AND MERIDIAN INFORMATION SEE PLAT OF BRICKYARD MEADOWS, DIVISION NO. 1, RECORDED UNDER AUDITOR'S FILE NO. 200207150112, PLAT OF BRICKYARD MEADOWS, DIVISION NO. 2, RECORDED UNDER AUDITOR'S FILE NO. 200412280123, PLAT OF KLINGER ESTATES RECORDED UNDER AUDITOR'S FILE NO. 200605080213, PLAT OF ROETKER'S ADDITION TO SEDRO-WOOLLEY, RECORDED IN VOLUME 7 OF PLATS, PAGE 44, SHORT PLAT NO. SW-05-80 RECORDED UNDER AUDITOR'S FILE NO. 8001230029, SHORT PLAT NO. SW-01-44 RECORDED UNDER AUDITOR'S FILE NO. 9405160137, SEDRO-WOOLLEY SHORT PLAT NO. 3406 RECORDED UNDER AUDITOR'S FILE NO. 200702150075, AND RECORD OF SURVEY MAPS RECORDED UNDER AUDITOR'S FILE NUMBERS 200607140122, 201005050100, 201502040107, 202012100076, ALL IN RECORDS OF SKAGIT COUNTY, WASHINGTON.

4. ZONING CLASSIFICATION: R-7, RESIDENTIAL ZONE

5. SEWAGE DISPOSAL: CITY OF SEDRO-WOOLLEY

6. STORM DRAINAGE: CITY OF SEDRO-WOOLLEY

7. STREET STANDARD: CITY OF SEDRO-WOOLLEY

8. WATER: SKAGIT COUNTY P.U.D. NO. 1

9. POWER: PUGET SOUND ENERGY

10. TELEPHONE: ZIFLY FIBER

11. GAS: CASCADE NATURAL GAS

12. TELEVISION CABLE: COMCAST CORPORATION
FIBER OPTIC: WAVE BROADBAND

13. GARBAGE COLLECTION: CITY OF SEDRO-WOOLLEY, SOLID WASTE COLLECTION FOR LOTS SHALL BE AT THE EDGE OF THE PUBLIC RIGHT OF WAY.

14. MERIDIAN: WASHINGTON STATE PLANE NORTH ZONE NAD 83/11

15. BASIS OF BEARING: MONUMENTED NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.
BEARING = SOUTH 87°22'48" EAST

16. INSTRUMENTATION: SPECTRA FOCUS 35 THEODOLITE DISTANCE METER AND TRIMBLE R-10 GPS

17. SURVEY PROCEDURE: FIELD TRAVERSE AND GPS

18. ALL LOTS WITHIN THIS SUBDIVISION MAY BE SUBJECT TO IMPACT FEES FOR SCHOOLS, FIRE, PARKS AND ANY OTHER CITY IMPACT FEES, PAYABLE UPON ISSUANCE OF A BUILDING PERMIT.

19. THIS PROPERTY IS SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES OR OTHER INSTRUMENTS OF RECORD REFERRED TO IN LAND TITLE COMPANY REPORT REFERENCED UNDER NOTE 2 ABOVE. SAID REPORT LISTS DOCUMENTS RECORDED UNDER AUDITOR'S FILE NUMBERS: 45724, 26764, 669174, 8004230029, 9106190097, 200410130026, 200903130113, 200003140007, 8111300027, 8102170016, 91094.

20. OWNER: SARAH BUCKO, TRUSTEE OF THE ADOLF BUCKO SURVIVOR'S TRUST
C/O SARAH BUCKO
13315 NW OVERTON STREET
PORTLAND OR 97224
PHONE: 360-840-2609

21. SKAGIT COUNTY ASSESSOR'S PARCEL NUMBERS P-37250, P-37251 AND P-37256

22. TRACT "L" IS A 20' WIDE NON-EXCLUSIVE, MUTUALLY BENEFICIAL CROSS USE EASEMENT FOR INGRESS, EGRESS, AND UTILITIES FOR THE BENEFIT OF LOTS 56, 57, 59 AND 60 TOGETHER WITH THE SHARED MAINTENANCE THEREOF, WHICH WILL BE ADDRESSED IN THE FINAL HOME OWNERS ASSOCIATION DOCUMENT PREPARED FOR THE FINAL PLAT.

LOT 58 WILL ACCESS DIRECTLY ONTO BUCKO AVENUE.

CITY OF SEDRO-WOOLLEY REFERENCE INFORMATION

EXCERPTS FROM SEDRO-WOOLLEY MUNICIPAL CODE SECTION 17.14 RESIDENTIAL 7 (R-7) ZONE:

DUPLEX LOTS.
BE SITUATED ON A LOT OF NOT LESS THAN 9,000 SQ FT MINIMUM SIZE, WITH A MINIMUM WIDTH OF 80 FEET AT THE BUILDING LINE, A MINIMUM DEPTH OF 100 FEET, AND A MINIMUM LOT FRONTAGE ON A PUBLIC STREET OF 20 FEET.

PROVIDE OFF-STREET PARKING FOR FOUR VEHICLES.

BE DESIGNED TO RESEMBLE A SINGLE-FAMILY RESIDENCE SO AS TO BLEND IN WITH THE DESIGN AND APPEARANCE OF THE SURROUNDING RESIDENCES IN THE NEIGHBORHOOD.

NO MORE THAN ONE DUPLEX SHALL BE ALLOWED PER ANY THREE SUCCESSIVE LOTS ADJOINED BY SIDE PROPERTY LINES AS DEFINED IN SEDRO-WOOLLEY MUNICIPAL CODE SECTION 17.04.030.

EXCEPTION: LOTS WHICH HAVE 20 FEET OR LESS FRONTAGE ON THE PUBLIC STREET SHALL NOT BE REQUIRED TO BE COUNTED ON A SUCCESSIVE LOT. THIS EXCEPTION IS INTENDED TO ALLOW SUCCESSIVE DUPLEXES IF LOCATED BEHIND SINGLE-FAMILY LOTS.

MINIMUM SETBACKS.
FRONT: 20 FEET
SIDE: ONE STORY DWELLINGS AND ACCESSORY STRUCTURES SHALL HAVE A MINIMUM OF 5 FEET, A TWO STORY DWELLINGS SHALL HAVE A MINIMUM OF 8 FEET AND EACH ADDITIONAL STORY OVER TWO SHALL HAVE AN ADDITIONAL 4 FEET, FOR EACH STORY.
REAR: 10 FEET FOR RESIDENCES, 5 FEET FOR ACCESSORY STRUCTURES.
GARAGE SETBACKS: PRIVATE GARAGES ATTACHED TO OR WITHIN THE RESIDENCE SHALL ADHERE TO THE SETBACK REQUIREMENT OF THE RESIDENCE. IN ALL CASES, THERE SHALL BE A MINIMUM OFF-STREET PARKING APRON OF 25 FEET IN LENGTH DIRECTLY IN FRONT OF ALL GARAGE DOOR ENTRANCES WHEN ACCESSING A STREET EITHER TO THE FRONT OR SIDE OF A RESIDENCE. WHERE GARAGE DOORS ACCESS AN ALLEY, THE OFF-STREET PARKING APRON SHALL BE AT LEAST 10 FEET.

MAXIMUM BUILDING HEIGHT: 35 FEET EXCEPT 20 FEET FOR ACCESSORY BUILDINGS, AND NO HEIGHT LIMIT FOR CHURCH STEEPLES OR BELL TOWERS.

MINIMUM LOT SIZE REQUIREMENTS.
LOT AREA: 6,000 SQ FT
LOT WIDTH AT BUILDING LINE: 40 FEET
LOT FRONTAGE ON A PUBLIC STREET, APPROVED PRIVATE STREET, OR APPROVED EASEMENT: 20 FEET.

MAXIMUM DENSITY REQUIREMENTS.
THE MAXIMUM GROSS DENSITY REQUIREMENTS IN THE R-7 ZONE IS SEVEN UNITS PER ACRE.

MAXIMUM LOT COVERAGE.
LOT COVERAGE IS THE PERCENT OF THE LOT COVERED BY STRUCTURES INCLUDING THE MAIN AND ALL ACCESSORY BUILDINGS. MAXIMUM LOT COVERAGE REQUIREMENTS IN THE RESIDENTIAL R-7 ZONE SHALL BE AS FOLLOWS:

50 PERCENT.
VARIANCES FROM THE MAXIMUM LOT COVERAGE REQUIREMENT ARE PERMITTED, IF THE APPLICANT CAN DEMONSTRATE THAT THE PROPOSED COVERAGE DOES NOT EXCEED THE AVERAGE LOT COVERAGE OF LOTS WITHIN 100 FEET OF THE PARCEL. LOT COVERAGE CAN BE EQUAL TO THE AVERAGE LOT COVERAGE BUT CANNOT EXCEED IT.

TOTAL PROJECT AREA

TOTAL PROJECT AREA: 880,826 SQ FT, 20.22 ACRES

ROAD RIGHT OF WAY AREAS

NORTH TRAIL ROAD DEDICATION WITHIN P-37256, 16,564 SQ. FT.

NORTH TRAIL ROAD DEED TO CITY WITHIN P-37159, 15,384 SQ. FT.

NORTH TRAIL ROAD DEDICATION WITHIN P-37155, 11,828 SQ. FT.

INTERIOR ROADS DEDICATED WITHIN P-37253, P-37250 AND P-37251, 214,266 SQ. FT.

PROPOSED TRACT OWNERSHIP AND MAINTENANCE INFORMATION

PCA TRACTS 1, 2 AND 3 BUCKO ESTATES HOMEOWNERS ASSOCIATION
OPEN SPACE 1, 2 AND 3 BUCKO ESTATES HOMEOWNERS ASSOCIATION

TRACT J BUCKO ESTATES HOMEOWNERS ASSOCIATION
TRACT K PROPOSED AREA TO BE BOUNDARY LINE ADJUSTED TO SEDRO-WOOLLEY SCHOOL DISTRICT
TRACT L BUCKO ESTATES HOMEOWNER ASSOCIATION (SEE NOTE 22)

THE ABOVE-REFERENCED TRACTS MAY BE MODIFIED AND ADDITIONAL TRACTS AND EASEMENTS MAY BE REQUIRED WITH THE FINAL DESIGN, ALL OF WHICH WILL BE SHOWN ON THE FINAL PLAT MAP WITH SPECIFIC INFORMATION CONTAINED WITHIN THE FINAL HOMEOWNERS ASSOCIATION DOCUMENTS.



VICINITY MAP (SKAGIT COUNTY ASSESSOR'S MAP)
SCALE 1"=400'

NO.	DATE	REVISION	BY	REV.

BUCKO ESTATES PRELIMINARY PLAT NOTES PAGE

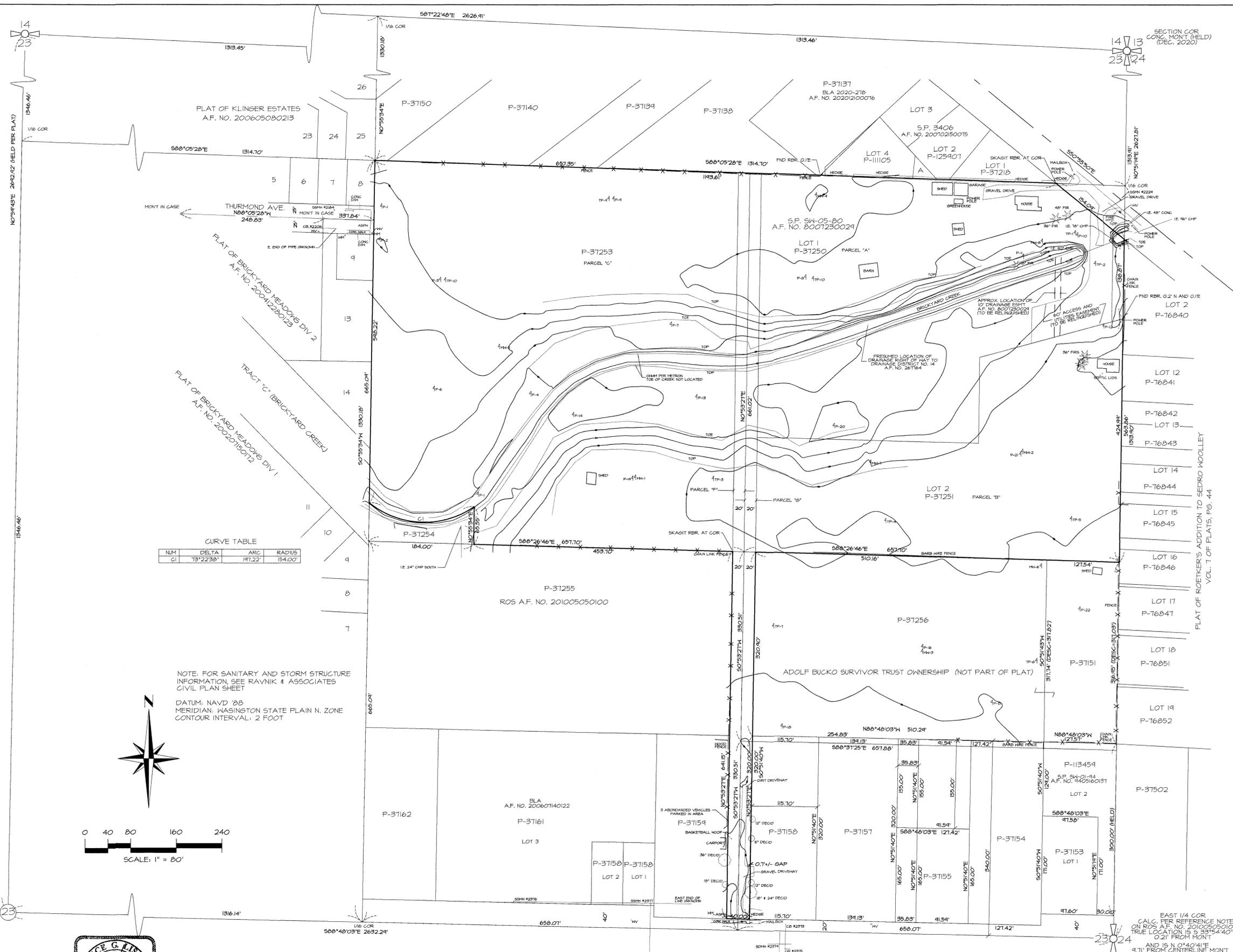
SCALES
HORIZONTAL:
VERTICAL: N/A
DESIGNED:
DRAWN: BGL
CHECKED: BGL

SURVEY IN A PORTION OF THE NE 1/4 OF SECTION 23, T. 35 N., R. 4 E., W.M. CITY OF SEDRO-WOOLLEY, WASHINGTON ADOLF BUCKO SURVIVOR'S TRUST

FB. PG.
DATE: DEC. 21, 2021
DWG: 20-165 REV B. EST
JOB NO.: 20-165
SHEET: 1 OF 4

1/4 COR
CONC. MONT (HELD)
(DEC. 2020)

SECTION COR
CONC. MONT (HELD)
(DEC. 2020)

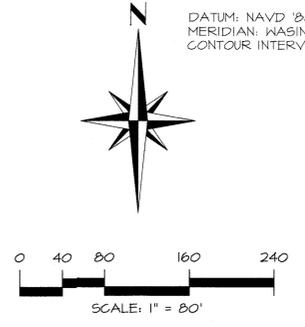


CURVE TABLE

N.M.	DELTA	ARC	RADIUS
C1	73°22'38"	191.22'	154.00'

NOTE: FOR SANITARY AND STORM STRUCTURE INFORMATION, SEE RAVNIK & ASSOCIATES CIVIL PLAN SHEET

DATUM: NAVD 88
MERIDIAN: WASHINGTON STATE PLAIN N. ZONE
CONTOUR INTERVAL: 2 FOOT



CENTER SECTION
CALC. PER PREVIOUS SURVEYS
SEE NOTE NO. 3

EAST 1/4 COR
CALC. PER REFERENCE NOTE
ON ROS A.F. NO. 201005050100
TRUE LOCATION IS 5' 33" 1/4 40' E
0.21' FROM MONT
AND 15' N 0° 40' 41" E
9.71' FROM CENTERLINE MONT
(DEC. 2020)



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MOUNT VERNON, WA 98273
360-419-7442

NO.	DATE	REVISION	BY	REV.

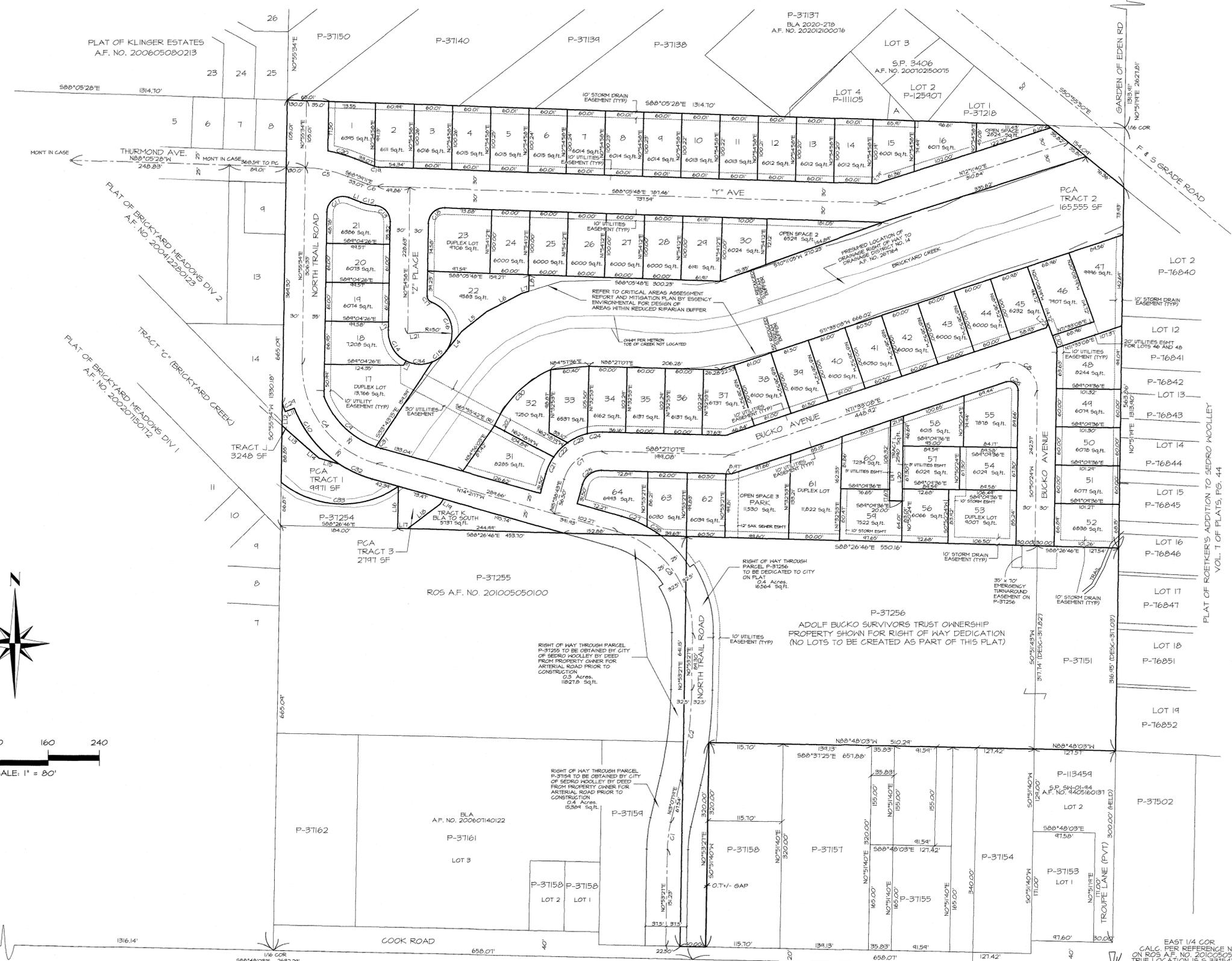
BUCKO ESTATES PRELIMINARY PLAT
BOUNDARY AND EXISTING CONDITIONS

SCALES
HORIZONTAL: N/A
VERTICAL: N/A
DESIGNED:
DRAWN: BGL
CHECKED: BGL

SURVEY IN A PORTION OF THE NE 1/4 OF
SECTION 23, T. 35 N.R. 4 E.W.M.
CITY OF SEDRO-WOOLLEY, WASHINGTON
ADOLF BUCKO SURVIVOR'S TRUST

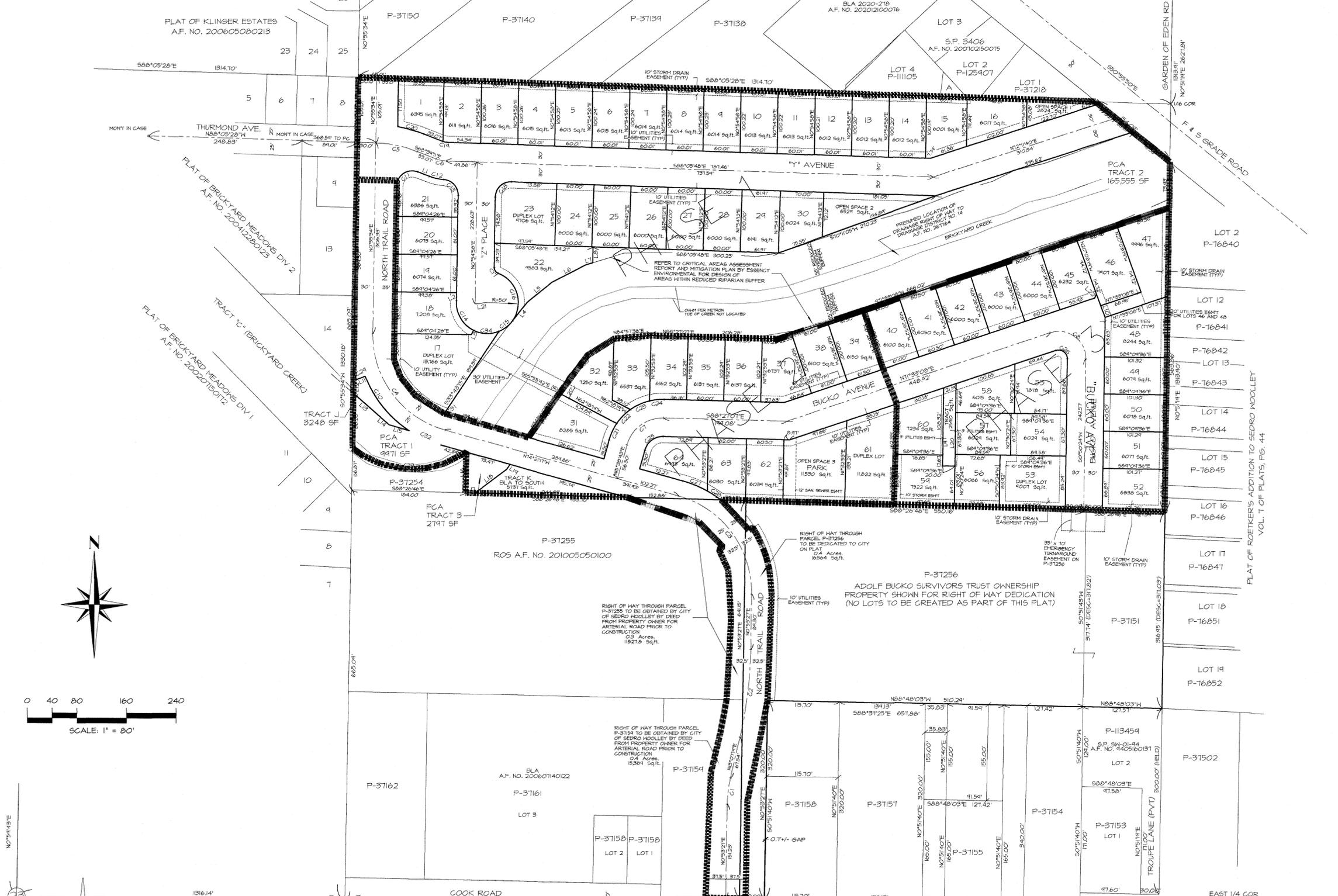
FB. 459 PG. 21
DATE: DEC. 21, 2021
DRAWING: 20-165 TOPO
JOB NO.: 20-165
SHEET: 2 OF 4

SECTION COR
CORNER (FIELD)
(DEC. 2020)





SECTION COR
CONC. MONT. (HELD)
(DEC. 2020)

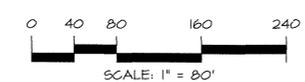


LINE TABLE

NUM	BEARING	DISTANCE
L1	S68°31'11"E	20.17'
L2	N0°54'58"E	12.58'
L3	N26°46'55"E	7.73'
L4	N88°53'57"E	38.04'
L5	N51°21'58"E	51.14'
L6	N62°34'08"E	61.44'
L7	N73°08'43"E	111.7'
L8	N0°54'58"E	25.63'
L9	N0°50'24"E	126.00'
L10	S20°08'18"E	20.00'
L11	S68°44'04"E	15.00'
L12	N0°55'34"E	35.00'
L13	S48°41'08"E	55.16'
L14	S48°41'04"E	21.80'
L15	N73°08'43"E	35.13'
L16	N0°55'34"E	65.55'
L17	S68°26'46"E	15.41'
L18	N53°13'28"E	63.46'
L19	N84°23'10"E	4.88'
L20	N0°50'24"E	132.44'
L21	N84°16'04"E	9.88'
L22	N23°50'23"E	7.20'

CURVE TABLE

N.M.	DELTA	ARC	RADIUS
C1	12°19'52"	42.64'	200.00'
C2	12°19'52"	142.44'	661.30'
C3	15°14'44"	212.15'	162.00'
C4	15°16'51"	210.22'	160.00'
C5	18°26'11"	67.85'	200.00'
C6	18°26'31"	16.41'	50.00'
C7	15°54'01"	74.44'	60.00'
C8	10°41'16"	83.43'	44.00'
C9	44°28'28"	116.51'	135.00'
C10	35°30'11"	114.64'	185.00'
C11	110°25'15"	48.18'	25.00'
C12	11°04'01"	28.15'	90.00'
C13	66°43'14"	37.84'	25.00'
C14	66°55'42"	58.41'	50.00'
C15	33°04'18"	28.86'	50.00'
C16	10°43'33"	41.32'	50.00'
C17	30°28'01"	12.30'	10.00'
C18	40°54'14"	34.10'	25.00'
C19	18°26'31"	6.74'	20.00'
C20	10°54'30"	44.12'	230.00'
C21	18°52'14"	24.64'	40.00'
C22	20°03'28"	31.51'	40.00'
C23	21°36'41"	33.45'	40.00'
C24	15°21'36"	24.13'	40.00'
C25	15°54'10"	34.74'	30.00'
C26	08°11'16"	26.70'	14.00'
C27	13°41'05"	43.41'	187.00'
C28	1°54'22"	26.08'	187.00'
C29	3°54'48"	13.45'	200.00'
C30	42°07'52"	127.32'	173.15'
C31	3°36'53"	8.52'	135.00'
C32	11°35'04"	56.18'	185.00'
C33	13°22'38"	147.22'	154.00'
C34	48°31'12"	42.43'	50.00'



CENTER SECTION
CALC. PER PREVIOUS SURVEYS
SEE NOTE NO. 3

EAST 1/4 COR
CALC. PER REFERENCE NOTE
ON ROS A.F. NO. 201005050100
TRUE LOCATION IS S 33°54'40"E
0.21' FROM MONT
AND N 0°40'41"E
9.71' FROM CENTERLINE MONT
(DEC. 2020)



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NO.	DATE	REVISION	BY	REV.

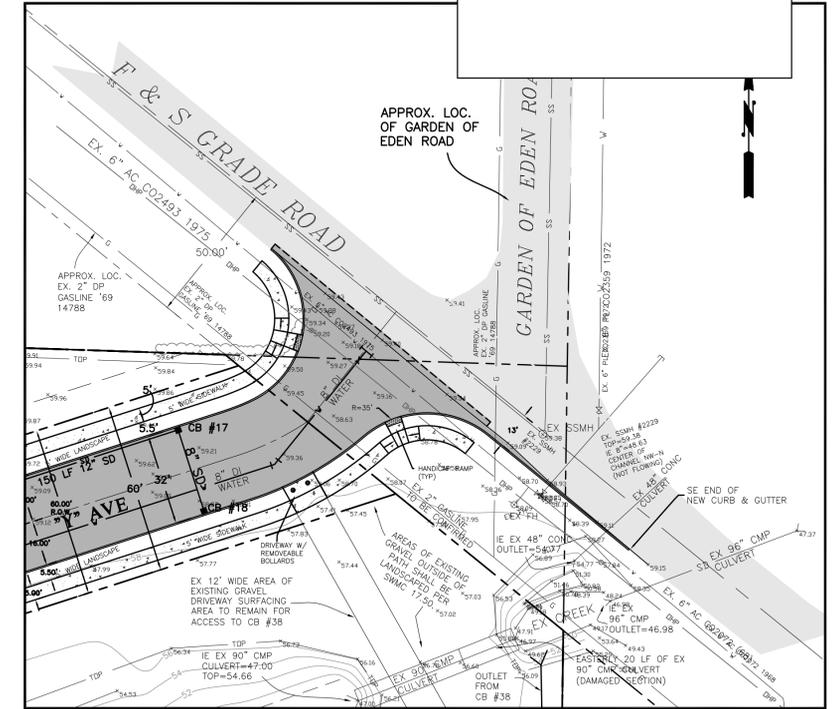
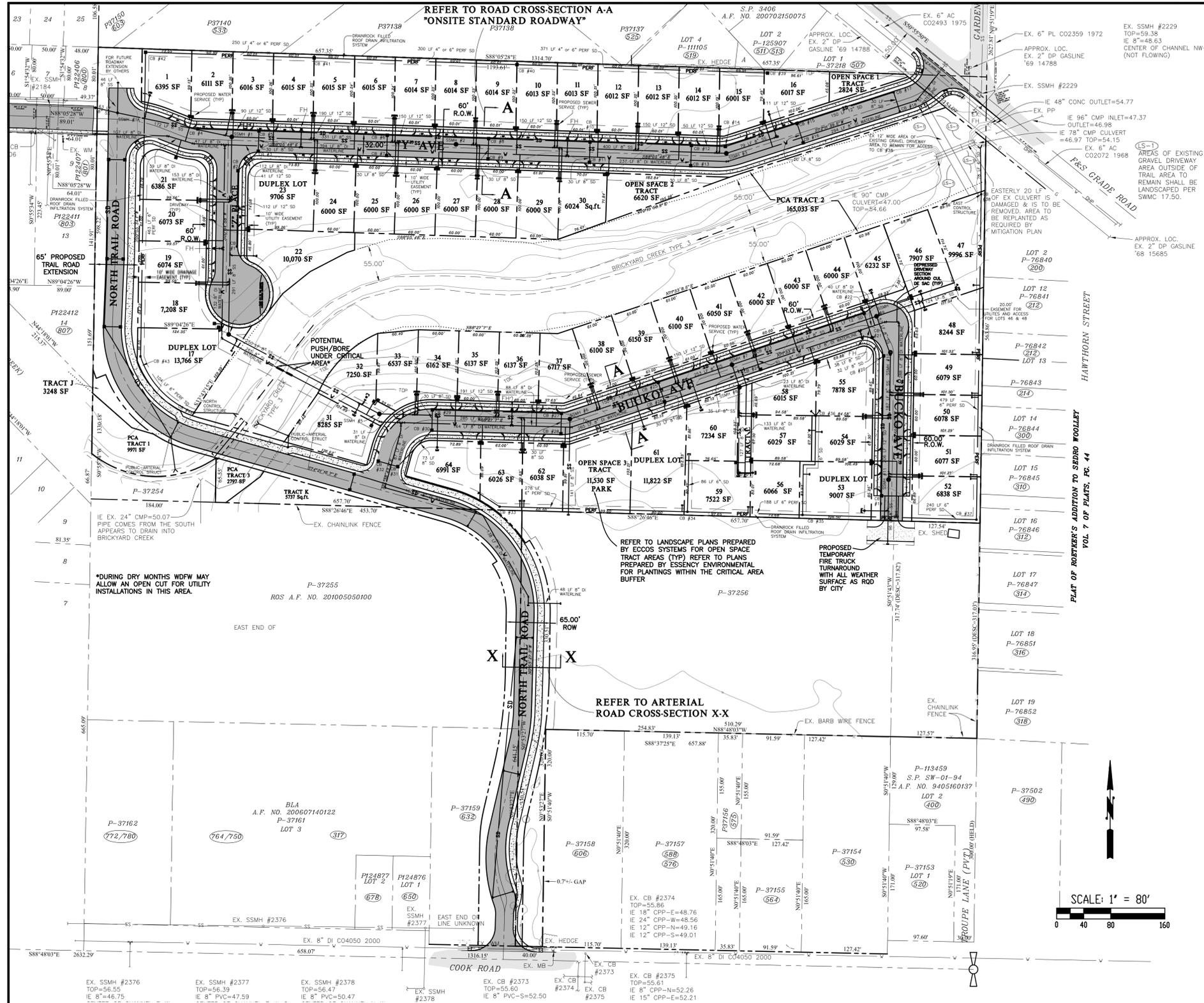
BUCKO ESTATES PRELIMINARY PLAT
PROPOSED PHASING LAYOUT

SCALES
HORIZONTAL: 1"=80'
VERTICAL: N/A
DESIGNED:
DRAWN: BGL
CHECKED: BGL

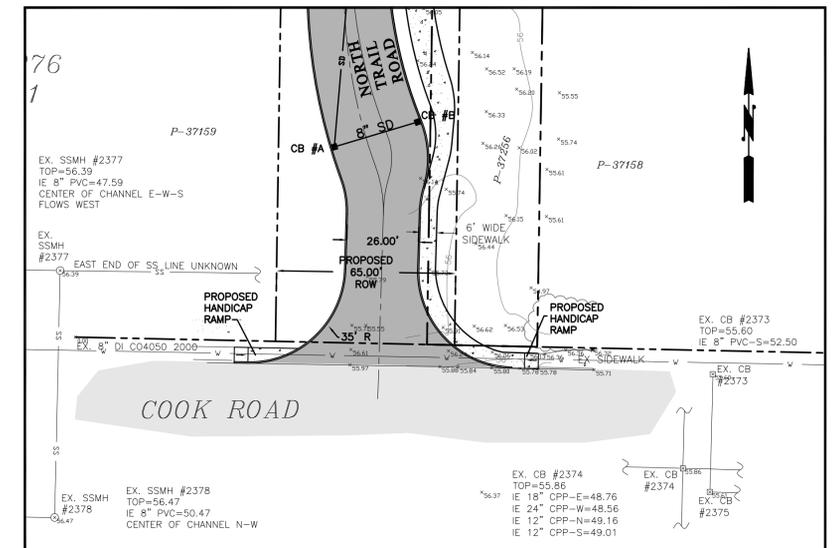
SURVEY IN A PORTION OF THE NE 1/4 OF
SECTION 23, T. 35 N.R. 4 E., W.M.
CITY OF SEDRO-WOOLLEY, WASHINGTON
ADOLF BUCKO SURVIVOR'S TRUST

FB. PG.
DATE: DEC. 21, 2021
DWG: REV PREL PLAT
JOB NO.: 20-165
SHEET: 4 OF 4

Exhibit I



F & S GRADE ROAD INTERSECTION



COOK ROAD INTERSECTION

PLAN STATUS: PRELIMINARY PLAT EXHIBIT

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
 CIVIL ENGINEERING & LAND-USE PLANNING
 1633 LINDAMOOD LANE/P.O. BOX 361
 BURLINGTON, WA 98233
 PH: (360) 707-2048 FAX: (360) 707-2216

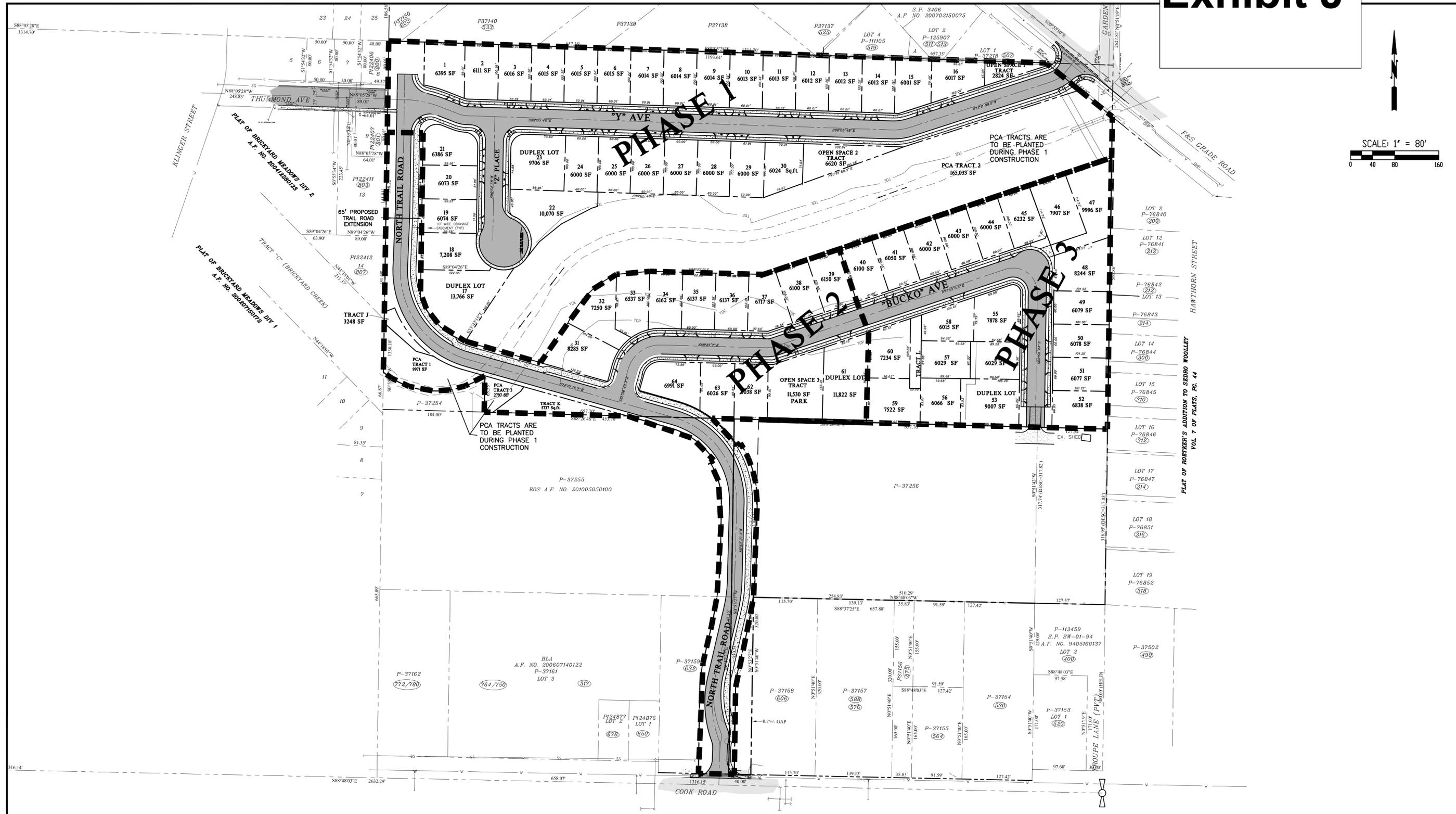
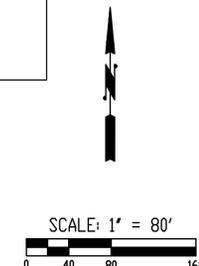
SHEET DESCRIPTION:
OVERALL SITE PLAN EXHIBIT

SCALE: AS NOTED
 DRAWN BY: DLR
 CHECKED BY: HLN
 DATE: 12.14.21

SHEET TITLE:
**BUCKO ESTATES
 PRELIMINARY LONG PLAT
 FOR
 BUCKO SURVIVORS TRUST
 SECTION 23 T. 35 N., R. 4 E., W.M.**

DRAWING NO.
 2020-06 SITE.dwg
 JOB NO.
 2020-06
 SHEET NO.
 2 OF 3

Exhibit J



PLAN STATUS:		DRAWING NO. 2020-06 site.dwg	
SCALE: 1"=160'	SHEET TITLE:	JOB NO. 2020-06	
DRAWN BY:	BUCKO ESTATES PRELIMINARY LONG PLAT FOR BUCKO SURVIVORS TRUST SECTION 23 T. 35 N., R. 4 E., W.M.	SHEET NO. 3 OF 3	
CHECKED BY:			
DATE: 12.14.21			

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
 CIVIL ENGINEERING & LAND-USE PLANNING
 1633 LINDAMOOD LANE/P.O. BOX 361
 BURLINGTON, WA 98233
 PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:
PHASING EXHIBIT

Exhibit K

CRITICAL AREAS ASSESSMENT REPORT AND MITIGATION PLAN FOR BUCKO ESTATES IN SEDRO-WOOLLEY, WASHINGTON 98284

PREPARED FOR:

SARAH BUCKO
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(360) 840-2609

PREPARED BY:

ESSENCY ENVIRONMENTAL, LLC
11104 320TH AVENUE NORTHEAST
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February 4, 2021
Revised July 8, 2021

This report should be cited as:

Essency Environmental, LLC. 2021. Critical Areas Assessment Report and Mitigation Plan for Bucko Estates in Sedro-Woolley, Washington. Prepared for Sarah Bucko. February 4, Revised July 8.

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	Figure 3 – National Wetlands Inventory Map
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Appendix C.	Soils Report
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Appendix E.	Critical Areas Impacts and Mitigation Sheets M1-M4.

Background

Essency Environmental, LLC prepared this Critical Areas Assessment and Mitigation Plan in support of a proposed residential plat, Bucko Estates, located in Section 23, Township 35N, Range 4E within the city limits of Sedro-Woolley, Washington, 98284 (Figure 1 in Appendix A). The Critical Areas Assessment included parcels P37253, P37250, P37251, P37256, and P37151 (Figure 2 in Appendix A). Parcel P37151 and all of parcel P37256, except the area of a new roadway along the western parcel boundary, are excluded from the proposed plat boundaries (see plat drawings prepared by Ravnik and Associates).

Project contacts are shown in Table 1.

Table 1. Project Contacts

Organization	Role	Representative	Title	Email\Phone
Essency Environmental, LLC	Critical Areas Assessment and Mitigation Plan	Mary Harenda	Professional Wetland Scientist, Fisheries Biologist	mharenda@cablespeed.com (425) 761-5903
Ravnik and Associates, Inc.	Civil Engineering/Planning	John Ravnik	Professional Engineer	jravnik@ravnik.net (360) 707-2048
Metron and Associates, Inc.	Survey	Chuck Troost	Survey Technician	cjt@metrongis.com (360) 435-3777
Sarah Bucko Laura Bucko	Owner/Applicant	Sarah Bucko	Owner	sarahbucko@gmail.com (360) 201-4775

This report revision addresses review comments from the City of Sedro-Woolley (City) and provides a revised plat design and mitigation plan based on those comments.

Qualifications

This critical areas assessment and mitigation plan was completed by Andrew Wones and Mary Harenda of Essency Environmental, LLC. Essency Environmental, LLC provides environmental consulting services and has conducted many critical areas studies in Washington State.

Andrew Wones has over 30 years of experience in marine and freshwater ecology research and environmental consulting. He has extensive experience with aquatic resources permitting, natural resource inventories, impact assessment, endangered species, mitigation planning and monitoring, and construction monitoring for environmental compliance. Mr. Wones has

contributed to numerous environmental impact statements, natural resource studies, provided compliance monitoring services, and written biological assessments for several ports, marinas, and utility agencies. He has authored natural resources technical reports and chapters for NEPA/SEPA documents evaluating a variety of projects including transportation, mining, residential, and recreational developments. Andrew is also a Certified Erosion and Sedimentation Control Lead (CESCL).

Mary Harenda is a Professional Wetland Scientist with over 30 years of diverse experience in biological sciences, project planning and design. She possesses a thorough working knowledge of local, state, and federal permitting and plan requirements, including the Washington SEPA and federal NEPA processes (BAs/BEs/EISs). Mary's extensive technical experience includes wetland inventories, delineations and functional assessments, stream assessments and evaluations, and assessments for wildlife and threatened and endangered species. Her expertise also includes construction oversight on wetland and stream mitigation projects and follow-up monitoring to meet permit requirements. She has completed long-term, multiparameter monitoring on numerous mitigation banks in Washington State. She has worked in both the public and private sectors and has experience across a broad client base including small and large development firms, private home and property owners, small and large businesses, local, state and federal governments and agencies, and public and private utilities.

Methods

This Critical Areas Assessment and Mitigation Plan was completed following guidelines in Sedro-Woolley Municipal Code (SWMC 17.65 Regulations for Critical Areas). Background research included review of the following sources:

- Skagit County iMap (Skagit County 2020)
- Skagit County Flood Map (Skagit County 2020)
- City of Sedro-Woolley online documents and maps (available at: <https://www.ci.sedro-woolley.wa.us/>)
- Washington State Department of Ecology 303d list, interactive map (Ecology 2020)
- Washington State Department of Fish and Wildlife (WDFW) Priority Habitats and Species database (WDFW 2020a)
- Washington State Department of Fish and Wildlife Salmonscape (WDFW 2020b)
- USFWS National Wetlands Inventory Mapper (USFWS 2020)
- USDA NRCS Web Soil Survey (NRCS 2020)
- Aerial photography of the site from Google Earth and Skagit County iMap.

Essency Environmental staff completed critical areas delineation field work on May 15, 22, 26, and 27, 2020. We walked the project parcels to assess the presence of streams or wetlands and sampled locations that appeared most likely to support wetland conditions. In addition, we evaluated areas within 200 feet of the parcel boundaries for the potential presence of critical areas using published information sources including maps and aerial images, and from what could be seen from the project parcel, public roads, and other publicly accessible areas. Wetland determinations followed US Army Corps of Engineers wetland delineation guidelines (USACE 2010). Stream ordinary high water mark delineations were completed using Washington State Department of Ecology approved methods (Ecology 2016). Wetland determination sample plots and stream ordinary high water mark locations were located using a mapping grade Juniper Systems Geode GPS and Effigis data collection and post-processing software. Sample plot and flag locations were subsequently surveyed by Metron and Associates.

Sedro-Woolley Municipal Code 17.65.020 states the following shall constitute critical areas regulated by code: Wetland and Riparian Corridors, Areas with a Critical Recharging Effect on Aquifers Used for Potable Water, Fish and Wildlife Habitat Conservation Areas, Frequently Flooded Areas, and Geologically Hazardous Areas. Critical area buffers are also regulated as described in SWMC 17.65. This report describes whether any critical areas or buffers regulated by the SWMC are present on or near the subject property. Other regulatory and resource categories of interest are also discussed.

General Site and Proposed Project Description

The Critical Areas Assessment included parcels P37253, P37250, P37251, P37256, and P37151 (Figure 2 in Appendix A). Parcels P37253, P37250, and P37251 are currently zoned Residential 7, and parcels P37256 and P37151 are zoned mixed use commercial (City of Sedro-Woolley 2019). A public school bus barn facility and residential properties border the project area.

Two residences are present in the northeast portion of the proposed plat. One house is in the northeast portion of Parcel P32750 and one is in the northeast portion of P37251. Three accessory buildings are also present on the site. The northeast corner of the site is landscaped in the vicinity of the residence. The remainder of the site is primarily mown hayfields and thickets of Himalayan blackberry (*Rubus armeniacus*). One fish-bearing stream, Brickyard Creek, crosses the site, flowing from northeast to southwest. Brickyard Creek occupies the topographically lowest area on the site and is surrounded by a narrow floodplain (see Sheet 1 – Topographic Survey in Appendix A). Site topography steepens abruptly immediately adjacent to the creek, then flattens. The steepest slopes adjacent to the creek are about 20%. Over 80% of site has slopes between 1-2%. Photos of the project site are in Appendix B.

The proposed project is development of a residential plat and associated infrastructure and amenities. All of existing parcels P37253, P37250, and P37251 are included in the proposed plat boundaries. All of parcel P37151 and all of parcel P37256, except the area of a new roadway along the western parcel boundary, are excluded from the proposed plat boundaries (see plat drawings prepared by Ravnik and Associates). As allowed under City of Sedro-Woolley code, the standard riparian buffer of Brickyard Creek will be reduced on both sides of the creek from 110 feet to a minimum of 55 feet in places, and the remaining buffer outside of already developed areas will be enhanced by planting native trees and shrubs. The City is requiring a new road to be constructed along the western boundary of the plat connecting to Cook Road. A new culvert will be installed in Brickyard Creek for the new road crossing and approximately 731 sf of stream channel will be impacted. The culvert is required to meet WDFW standards. A pedestrian trail that was initially proposed through the reduced buffer area has been eliminated due to concerns about reduced buffer function and weed management in the buffer.

Shoreline Jurisdiction

The project parcels are not within Shoreline jurisdiction (City of Sedro-Woolley 2016).

Streams

Brickyard Creek flows east to west across the site (Figure 2 and Sheet 1 in Appendix A). Brickyard Creek is classified as a Type 3 stream by the City of Sedro-Wooley, and as Type F under the Washington State stream typing system (WAC 222-16-031). Under Sedro-Wooley Code, Brickyard Creek has a 110-foot standard riparian buffer (SWMC 17.65.530.B). The existing buffer is dominated by reed canarygrass (*Phalaris arundinacea*), pasture grasses and non-native blackberries. There are no trees or shrubs present within the stream buffer adjacent to the creek. There are several mature Douglas fir (*Pseudotsuga menziesii*) trees present within the buffer associated with the existing residences. Brickyard Creek has been dredged in the past to maintain flow capacity. According to information provided by Lisser and Associates, Skagit County Drainage District 14 has rights to conduct drainage maintenance in Brickyard Creek, and drainage right-of-way under Skagit County Auditor File # 267764. Channel banks are also currently mowed in concert with hay cropping on the site.

On the project site, Brickyard Creek provides salmonid migration habitat and poor quality rearing habitat. Stream substrate is dominated by sand. There is virtually no large wood or other complex habitat features, and most of the channel is of uniform depth. The lack of shading trees and shrubs on streambanks has allowed reed canarygrass to dominate the vegetation of the banks and to encroach into the channel itself. Reportedly, the section of Brickyard Creek through the project site goes dry at times.

Priority Habitats and Species (PHS)

Brickyard Creek is the only PHS feature mapped on the site (WDFW 2020a). PHS species in Brickyard Creek include rainbow trout (*Oncorhynchus mykiss*), resident cutthroat trout (*Oncorhynchus clarkii*), and coho salmon (*Oncorhynchus kisutch*). The WDFW Salmonscape interactive map shows documented occurrence of coho salmon and accessible gradient for fall Chinook salmon (*Oncorhynchus tshawytscha*), fall chum salmon (*Oncorhynchus keta*), and odd-year pink salmon (*Oncorhynchus gorbuscha*) (WDFW 2020b). Fall Chinook salmon are federally listed as threatened (64 FR 14308, 79 FR 20802) and a Candidate species for State listing (WDFW 2020a). Coho salmon area a federal “species of concern”(WDFW 2020a).

Wetlands

The National Wetland Inventory (NWI) maps Brickyard Creek as a freshwater emergent wetland, and the ditch along the south side of F&S Grade Road that discharges to Brickyard Creek as riverine wetland (USFWS 2020) (Figure 3). This ditch is also shown as an intermittent stream on Salmonscape (WDFW 2020b). Neither WDNR (2020) or USGS (2020) show this ditch as a stream. Our visual observations indicate a stream channel is not present on the south side of F&S Grade Road between Jones Road and Brickyard Creek; existing conditions are either vegetated roadside ditches or culverted sections of ditch.

The Natural Resource Conservation Service (2020) maps most of the project area Minkler silt loam. A small area along the southern edge of the site in the vicinity of sample plot P18 is shown as Field Silt Loam soil (Figure 2 and Appendix C). Neither soil series is classified as hydric.

We sampled 22 locations on the parcels that appeared most likely to support wetland conditions (Figure 2 and Appendix D). There were no indicators of wetland hydrology in any of the sample plots. Several plots exhibited relict hydric soil indicators. None of the locations sampled met criteria to be considered wetland. In addition, we evaluated areas within 200 feet of the project parcel and determined that no wetland buffers are present on the project parcels.

Areas with a Critical Recharging Effect on Aquifers Used for Potable Water

The Skagit County Aquifer Recharge Area Category 1 Areas Map (Skagit County 2010) does not show any aquifer recharge areas on or within 200 feet of the project parcels.

Fish and Wildlife Habitat Conservation Areas

Brickyard Creek and its associated riparian buffer (i.e., within 110 feet of the stream ordinary high water mark) are defined as a Fish and Wildlife Conservation Areas (HCAs) in SWMC 17.65.500. There are no other Fish and Wildlife Conservation Areas or habitats for species of local importance as defined in SWMC 17.65.500 on the project parcels.

Frequently Flooded Areas

The project is mapped as outside the 500-year floodplain (Zone X) by the Federal Emergency Management Agency (Skagit County 2017). Zone X is not regulated.

Geologically Hazardous Areas

There are no potential landslide or erosion hazard areas or steep slopes mapped by Skagit County on the project parcels (2016). A geotechnical study may be required to assess the presence of Geologically Hazardous Areas (SWMC 17.65.420) as part of the development review process. Essency Environmental is not qualified to assess Geologically Hazardous Areas.

Other

Section 17.65.070.A.4 of the SWMC states that a survey showing locations, descriptions, and species of all trees over 6 inches in diameter, as measured five feet above the base of the trunk, and shrubs over eight feet tall or six feet wide, may be required to be submitted with any development application. There are several trees present on the site that meet these minimum size criteria.

Critical Areas Impacts and Mitigation

Brickyard Creek and its associated buffer are present on the project site. Impacts to critical areas from the project and associated mitigation are described below and shown on Sheets M1-M4 in Appendix E. Proposed mitigation follows provisions outlined in SWMC 17.165.160 – *Critical area and buffer mitigation requirements – General Provisions*, including mitigation sequencing guidelines, designation of Protected Critical Areas (PCAs), and proposed mitigation maintenance and monitoring. Project components related to critical areas impacts and mitigation are described below.

- The standard riparian buffer of Brickyard Creek will be reduced on both sides of the creek from 110 feet to a minimum of 55 feet in places, and the remaining buffer will be enhanced by planting native trees and shrubs. The total riparian buffer to be decreased is 3.44 acres. The remaining total riparian buffer to be enhanced is 3.43 acres (See Appendix E).

SWMC 17.65.530.B.2 allows for reduction of the 110-foot standard stream buffer to a maximum of 50 percent or 55 feet if all listed code provisions are met, including adequate enhancement of all remaining buffer area:

2. *Decreasing Buffer Widths. Decreasing standard buffers will be allowed pursuant to Section 17.65.150 only if the applicant demonstrates that all of the following criteria are met:*
 - a. *A decrease is necessary to accomplish the purposes of the proposal and no reasonable alternative is available;*
 - b. *Decreasing width will not adversely affect the fish and wildlife habitat functions and values;*
 - c. *If a portion of a buffer is to be reduced, the remaining buffer area will be enhanced, using native vegetation, artificial habitat features, vegetative screening and/or barrier fencing as appropriate to improve the functional attributes of the buffer and to provide equivalent or better protection for fish and wildlife habitat functions and values;*
 - d. *The buffer width shall not be reduced below fifty percent of the standard buffer width unless the director determines that no other reasonable alternative exists and that no net loss of HCA riparian functional values will result, based on a functional assessment provided by the applicant utilizing a methodology approved by the director.*

The entirety of the 110-foot riparian buffer is currently dominated by pasture grasses and thickets of non-native blackberry. Consequently, the overall degree of buffer function is expected to increase post-enhancement plantings despite the reduction in buffer width. No net loss to stream and buffer resource function is anticipated from the proposed project. Table 2 summarizes the anticipated changes to buffer function from the proposed mitigation.

Table 2. Summary of Riparian Buffer Function

Function	Existing Buffers	Proposed Buffers	Functional Change
Vegetation Structure	Low	High	Current buffer is dominated by mown grass or blackberry. Native trees and shrubs will be planted and invasive shrubs will be controlled.
Vegetation Species Diversity	Low	Moderate	Proposed plantings will substantially increase species diversity.
Habitat Interspersion	Low	Moderate	Proposed plantings include trees and shrubs and an interspersed planting design.
Presence of Native Vegetation	Low	High	Non-native species dominate the current buffer.
Fish Habitat Protection/Sustainability	Low	Moderate	Native plantings will provide source of woody debris, increase stream shading, create instream habitat structure along the stream banks, and improve bank integrity.
Amphibian Utilization	Low	Moderate	Native trees and shrubs provide habitat for native tree frogs and salamanders.
Bird Utilization	Low	Moderate	Current buffer is dominated by mown grass or blackberry. Native trees and shrubs will increase bird habitat.
Mammalian Utilization	Low	Moderate	Native plantings will provide a vegetated corridor connecting with PCA tract along Brickyard Creek to the west.
Habitat Connectivity	Low	Moderate	Native plantings will provide a vegetated corridor connecting with PCA tract along Brickyard Creek to the west.
Water Quality Potential	Low	Moderate	Native plantings will enhance runoff filtration, provide shade to creek, and reduce streambank erosion.
Visual and Noise Buffering	Low	Moderate	Mitigation areas will provide localized visual and noise buffering.

- New water and sewer lines will be installed under Brickyard Creek either by trenching if the creek bed is dry at the time of construction or by boring/pushing under the creek. WDFW has indicated trenching is allowed as long as the creek bed is dry at the time of construction. Any disturbed areas will be restored to existing grade with a minimum of 3 feet of cover. Surface soils will be stabilized as needed and disturbed areas will be seeded with an erosion control mix.
- The City is requiring a new road to be constructed along the western boundary of the plat connecting to Cook Road. A new arch culvert, 11.25 ft wide x 65 ft long, will be installed in Brickyard Creek and approximately 731 sf of stream will be impacted. The culvert is required to meet WDFW standards. Any disturbed areas in the riparian buffer will be stabilized, seeded with an erosion control mix, and planted as shown on the mitigation plan sheets.

An existing culvert in Brickyard Creek and gravel drive in the eastern portion of the site will remain to provide vehicle access to the south side of the creek for utility maintenance. In 2016, a culvert was removed from the creek that had washed out and was causing stream bank erosion. This culvert was located approximately 350 feet downstream of the existing culvert. Skagit County Drainage District 14 has rights to conduct drainage maintenance in Brickyard Creek, and drainage right-of-way under Skagit County Auditor File # 267764. The City also conducts routine drainage maintenance in this reach of the creek, and vegetation maintenance in the creek and along the banks and manages this section of creek to convey storm water from developed up stream portions of the watershed (Technical Memorandum dated April 14, 2021, from Lyndon Lee to John Coleman, Sedro-Woolley Planning Director). The City has indicated they would not support addition of any instream features, such as large wood, in this reach of the creek due to concerns regarding flow conveyance and drainage capacity (Personal Communication with Heike Nelson, Ravnik and Associates, per David Lee, Sedro-Woolley City Engineer).

- Section 17.65.070.A.4 of the SWMC states that a survey showing locations, descriptions, and species of all trees over 6 inches in diameter, as measured five feet above the base of the trunk, and shrubs over eight feet tall or six feet wide, may be required to be submitted with any development application. There are several trees present on the site that meet these minimum size criteria. If required, a vegetation survey will be submitted with the development application which shows surveyed locations, descriptions, and species of all trees over 6 inches in diameter and shrubs over eight feet tall or six feet wide per SWMC 17.65.070.A.4.

Mitigation Goals and Objectives

The goal of the proposed mitigation is to compensate for decreased riparian buffer width by enhancing riparian buffer function.

Objectives: Compensate for decreasing the standard riparian buffer of Brickyard Creek, a Type 3/Type F Water, by 3.43 acres, through enhancing the remaining 3.44 acres with plantings of native trees and shrubs. The mitigation plan sheets M1-M4 in Appendix E show planting areas,

and planting schedules and notes for enhancement areas. Table 2, above, summarizes the anticipated changes to buffer function from the proposed mitigation.

Protected Critical Areas Tracts, Fencing and Signage: Enhanced riparian buffer areas will be identified on the recorded plat as Protected Critical Areas (PCAs) and fenced and signed as required by SWMC 17.165.160.

Performance Standards

Mitigation Performance Standards are as follows:

1. PCA tracts were recorded on the approved plat.
2. Enhancement mitigation areas were planted as approved.
3. There will be 90% survival of installed plantings at the end of the first growing season (Year 1). Any replacement plantings shall be installed before the beginning of the second growing season (February 23rd per the Sedro-Woolley WETS tables).
4. There will be a minimum of 80% cover of native woody species (shrub and tree canopy layers considered together) at the end of the fifth growing season (Year 5) in enhancement areas. Volunteer native woody species can be included in the Year 5 cover value. At least three native tree species and three native shrub species shall each comprise at least 10% of the total year five cover value.
5. Invasive/Non-Native Species:
 - a. In enhancement areas, there will be less than 10% cover of blackberry, Scotch broom, thistle, bindweed/morning glory, all invasive knotweed species, tansy ragwort, English ivy, purple loosestrife, yellow iris and other non-native, invasive, aggressive tree, shrub, viny or herbaceous species combined at the end of the first through fifth growing seasons. Reed canary grass cover shall not counted towards the 10% threshold but reed canary grass cover in monitoring plots and general observations about reed canary grass coverage on the site should be noted.
 - b. In enhancement areas, any patches of Invasive/Non-Native Species as noted shall be removed using removal means appropriate for the species. A “patch” is defined as an area greater than 200 ft² that has more than 50% areal cover of Invasive/Non-Native Species. Reed canary grass shall not be counted towards the 50% areal cover threshold in identifying patches.

Monitoring

A field inspection will be completed soon after plantings are installed, and an as-built report will be submitted to applicable permitting agencies. Thereafter, monitoring will be conducted annually for 5 years near the end of the plant growing season.

Year 1 vegetation monitoring will include a complete plant survival count. Year 2-5 vegetation cover monitoring shall be done either via a cover estimation for discrete areas separately or by sampling a minimum of 10% of the mitigation enhancement area using sampling plots, at the discretion of the biologist doing the monitoring. Percent cover of Invasive/Non-Native Species described under Performance Standard 5a should be also be made either via visual estimation

or by plot sampling, or both. The enhancement plantings areas should be surveyed for patches of Invasive/Non-Native Species as described under Performance Standard 5b. Locations of any patches should be mapped and located for control by maintenance crews.

Monitoring will also include recommendations for management of the site to meet performance standards, and site photographs to document vegetation development.

Annual monitoring reports documenting progress of the mitigation in meeting performance standards will be submitted per the schedule provided by permitting agencies. At minimum, annual reports will include the following:

- Number of each species originally planted.
- Number of plants of each species surviving at the end of the first growing season.
- Number and species of replacement plantings (if any).
- Photos from pre-determined photopoints.
- Estimated cover of native woody species.
- Estimated cover of invasive species.
- Description of measures taken to control invasive species.
- General observations on plant survival and health and any patterns/trends noted in species survival or health.
- General observations on Invasive/Non-Native Species on the site and recommendations for management.

Maintenance and Contingency

Plant maintenance activities should include irrigation, weed and invasive/non-native species control, mulch replacement, and replanting as necessary on a schedule sufficient to achieve Performance Standards.

Contingency Actions:

- If more than 20% of plants are dead or severely stressed during any of the maintenance or monitoring inspections, additional plantings of the same or alternative native species may be added to the planting areas. Appropriate maintenance actions should be implemented to improve plant growing conditions.
- Performance Standard 4: If yearly monitoring indicates that native woody species areal cover and species composition performance standards are not on track to be met by Year 5, contingency measures such as additional plantings and improved maintenance actions shall be implemented by the permittee as recommended by the project biologist, project landscape architect, project landscape contractor and other parties knowledgeable in such areas.
- Performance Standard 5: If yearly monitoring indicates that Invasive/Non-native Species performance standards are not on track to be met by Year 5, contingency measures such as additional plantings and improved maintenance actions shall be implemented by the permittee as recommended by the project biologist, project landscape architect, project landscape contractor and other parties knowledgeable in such areas.

- If one or more performance standards have not been met at the end of the 5-year monitoring period, the permittee and/or their designee shall confer with the City on acceptable adaptive management or contingency actions which may include additional replanting and extension of the maintenance and monitoring period beyond 5 years.

Performance Bond

A mitigation performance and/or maintenance bond will be provided by the project applicant as required by the City of Sedro-Woolley Municipal Code.

Citations

- City of Sedro-Wooley. 2016. City of Sedro-Wooley Shoreline Management Program Update. Effective June 14, 2016. Available at: https://www.ci.sedro-woolley.wa.us/departments/planning/shoreline_master_plan.php
- City of Sedro-Wooley. 2019. City of Sedro-Wooley Zoning Map. Available at: https://www.ci.sedro-woolley.wa.us/Departments/Planning/Comprehensive%20Plan/Comp_Plan_Land_Use_Map.pdf
- Skagit County. 2010. Aquifer Recharge Area Map. Category 1 Areas. (Skagit County Code 14.24.310). Available at: https://www.skagitcounty.net/GIS/Documents/Critical_Areas/Category%201%20Areas%20Aquifer%20Recharge%20Map.pdf
- Skagit County. 2016. Potential Landslide and Erosion Hazard Areas. Available at: <https://www.skagitcounty.net/GIS/Documents/GeoHazard/cw103-53.pdf>
- Skagit County. 2020. iMap. Skagit County interactive maps. Available at: <https://www.skagitcounty.net/Maps/iMap/>
- Skagit County 2017. FEMA Q3 100 Year Floodplain. Map. Available at: <https://www.skagitcounty.net/GIS/Documents/Flood/FEMA%20Q3%20100%20Year%20Floodplain%20Map.pdf>
- U.S. Army Corps of Engineers. May 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region, Version 2.0.
- U.S. Department of Agriculture (USDA). Natural Resources Conservation Service (NRCS). 2020. Custom Soil Report for Skagit County Area, WA. Downloaded from: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- U.S. Fish and Wildlife Service. National Wetlands Inventory Mapper. 2020. Available at: <http://www.fws.gov/wetlands/data/mapper.HTML>
- U.S. Geological Survey (USGS). 2020. The National Map. National Hydrography Layer. Available at: <https://viewer.nationalmap.gov/advanced-viewer/>
- Washington State Department of Ecology. 2016. Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State. October 2016. Publication Number 16-06-029. Available at: <https://fortress.wa.gov/ecy/publications/SummaryPages/1606029.html>
- Washington State Department of Ecology. 2020. Water Quality Assessment for Washington. On-line interactive map. Available at: <https://fortress.wa.gov/ecy/wqamapviewer/map.aspx>
- Washington Department of Natural Resources (WDNR). 2020. Forest Practices Application Mapping Tool. Available at: <https://fpamt.dnr.wa.gov/default.aspxb>

Washington State Department of Fish and Wildlife (WDFW). 2020a. PHS on the Web. Priority Habitats and Species database. Available at: <http://apps.wdfw.wa.gov/phsontheweb/>

WDFW. 2020b. Salmonscape online fish distribution maps. Available at: <http://apps.wdfw.wa.gov/salmonscape/map.html>

Appendix A: Figures

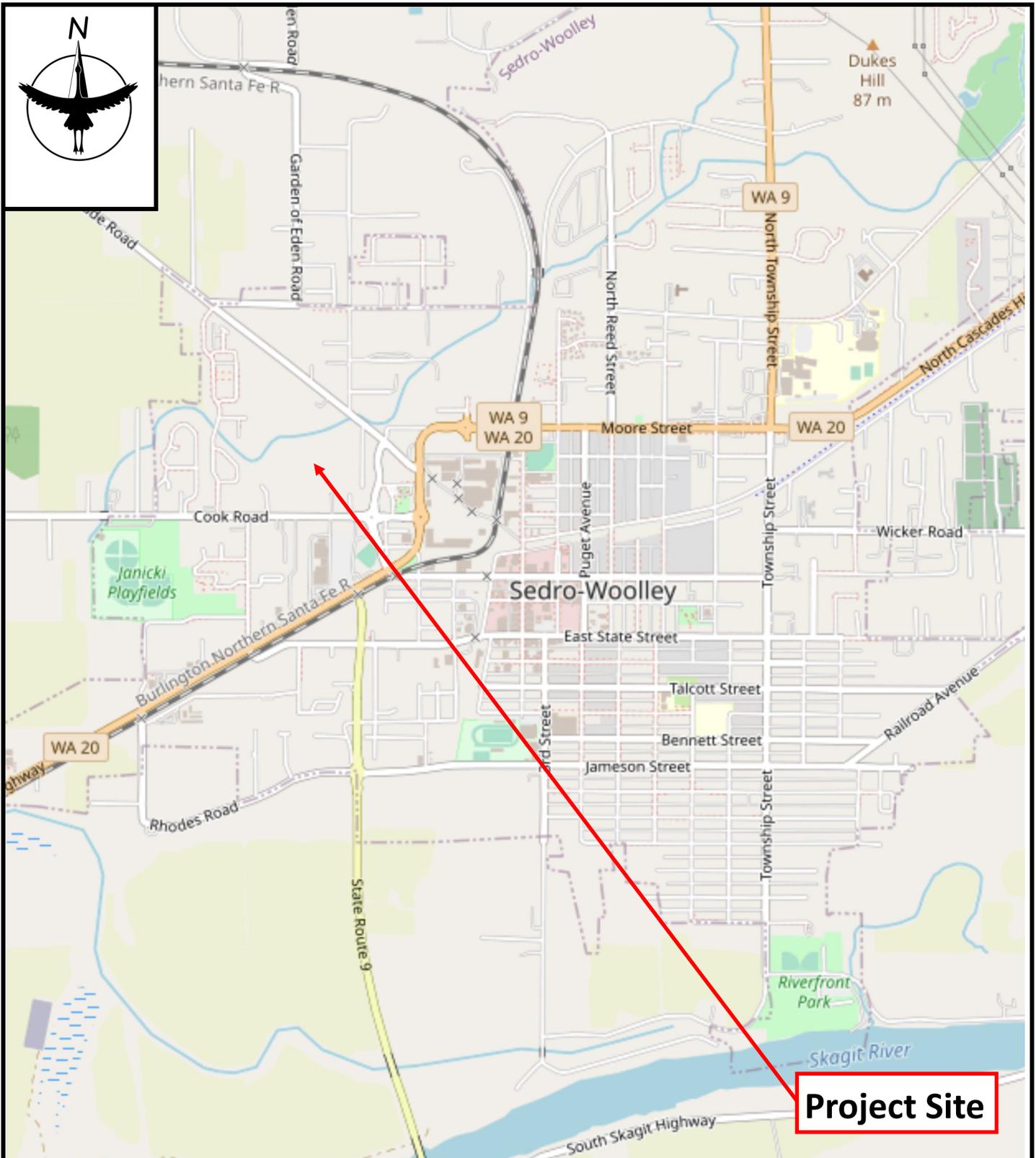


Figure 1. Vicinity Map.

Image Source: USGS The National Map (<https://viewer.nationalmap.gov/advanced-viewer/>)

Bucko Estates
Sedro-Woolley, WA.



Essency Environmental LLC
11104 320th Ave NE
Carnation, WA 98014
425 269-3119
425 761-5903
www.essencyenvironmental.com



LEGEND	
	Parcel Boundaries
	Type 3/Type F Stream OHWM
	Standard Stream Buffer -110'
	Sample Plot

Figure 2. Critical Areas Existing Conditions

Bucko Estates
 Parcels P37253, P37250, P37251, P37256, and P37151
 Sedro-Woolley, WA


Essency Environmental LLC
 11104 320th Ave NE
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 425 269-3119 425 761-5903
 www.essencyenvironmental.com

Date: 1/29/2021



May 3, 2020

Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Figure 3- NWI Map

Appendix B: Site Photographs



Photo 1. From northwest corner of Parcel P37253, facing east.



Photo 2. From northwest corner of Parcel P37253, facing south.



Photo 3. Brickyard Creek from the center of the site, facing east-northeast.



Photo 4. Brickyard Creek from the center of the site, facing west.



Photo 5. From sample plot P12, facing north.



Photo 6. From sample plot P12, facing east.



Photo 7. From sample plot P12, facing west.



Photo 8. Existing building on parcel P37251 from sample plot P12, facing south.



Photo 9. From southwest corner of Parcel P37251, facing north.



Photo 10. From southwest corner of Parcel P37251, facing east.



Photo 11. From southwest corner of Parcel P37251, facing west.



Photo 12. From southwest corner of Parcel P37251, facing south.

Appendix C: Soils Report



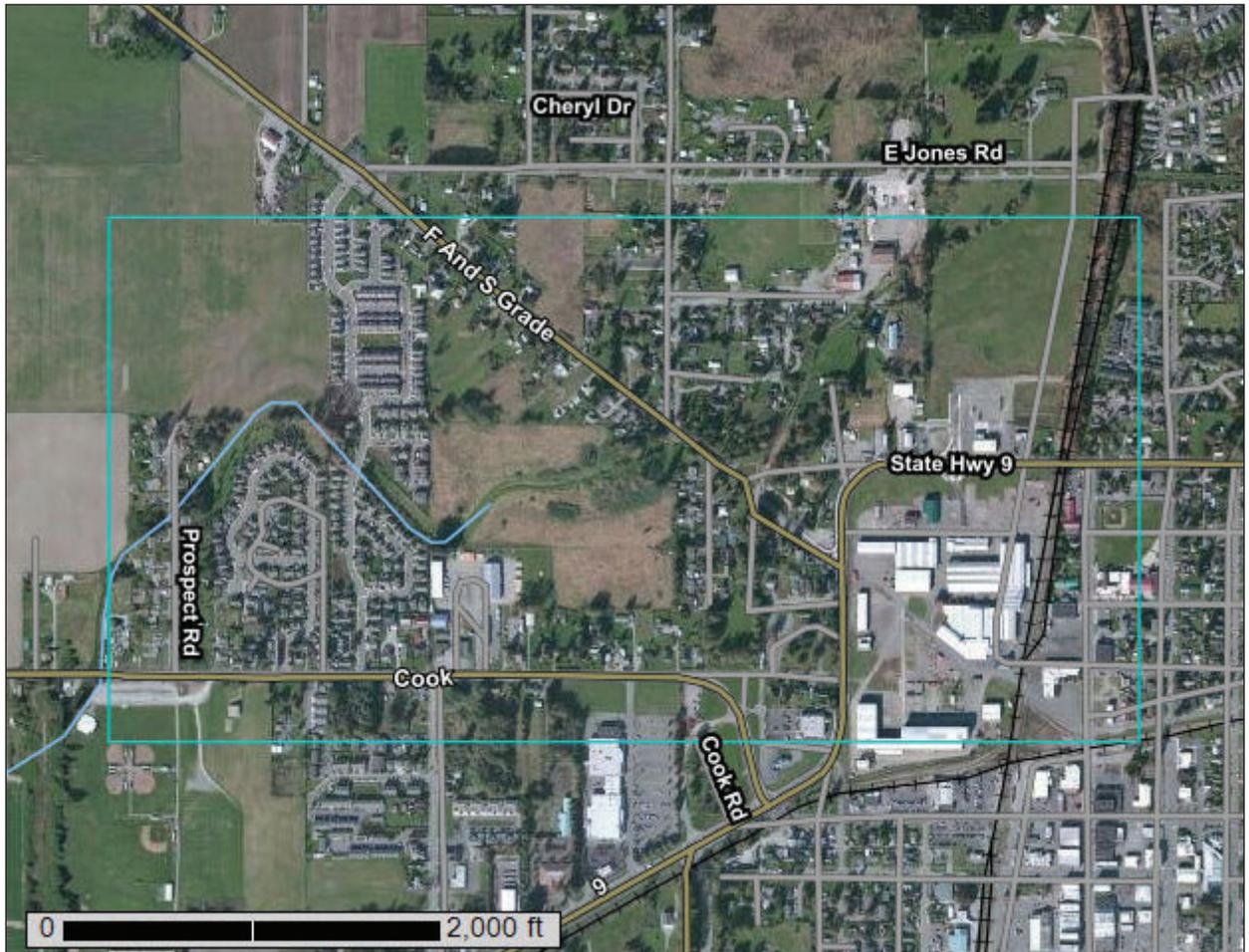
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Skagit County Area, Washington



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

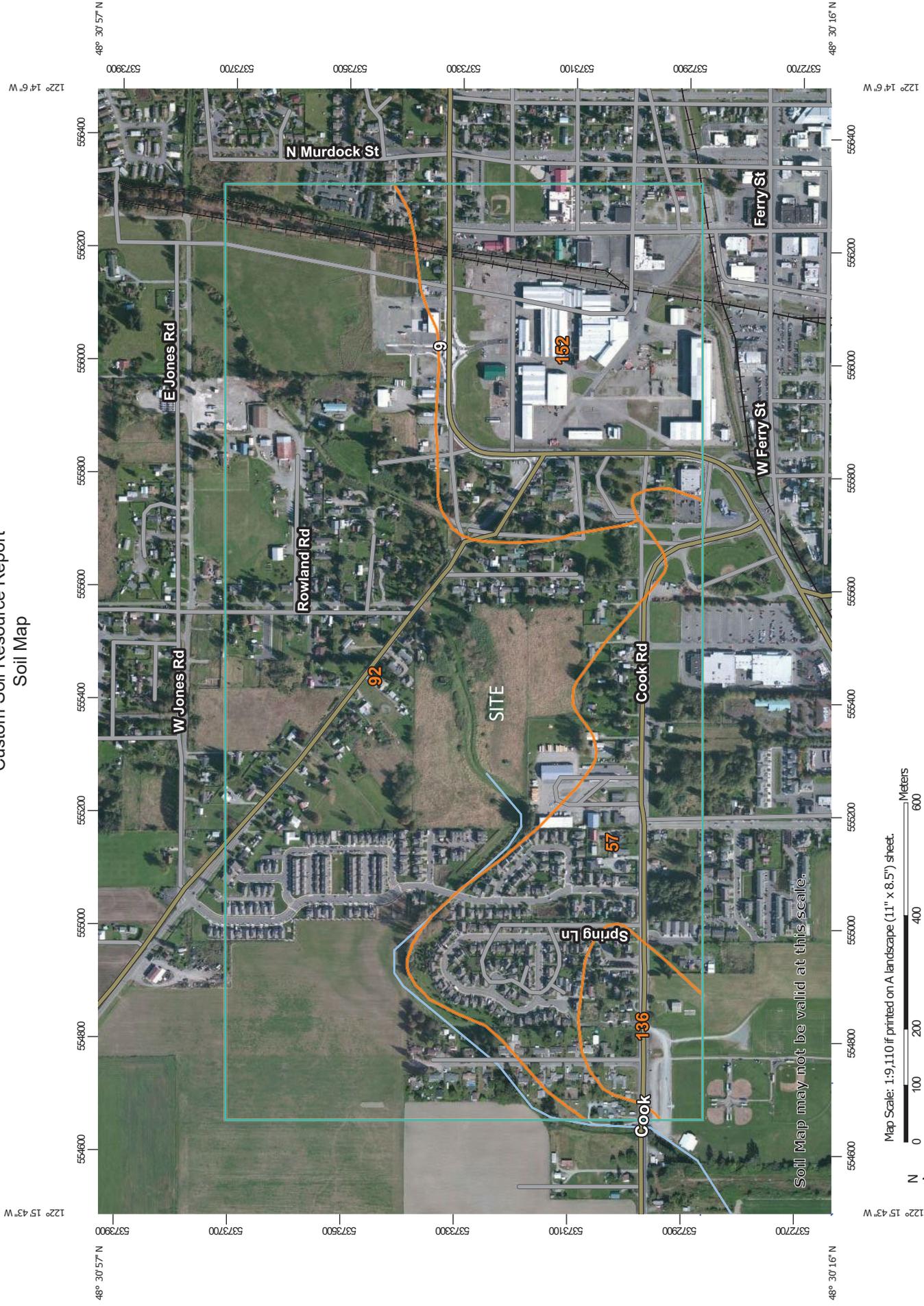
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.

Map Scale: 1:9,110 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Soils**
 -  Soil Map Unit Polygons
 -  Soil Map Unit Lines
 -  Soil Map Unit Points
- Special Point Features**
 -  Blowout
 -  Borrow Pit
 -  Clay Spot
 -  Closed Depression
 -  Gravel Pit
 -  Gravelly Spot
 -  Landfill
 -  Lava Flow
 -  Marsh or swamp
 -  Mine or Quarry
 -  Miscellaneous Water
 -  Perennial Water
 -  Rock Outcrop
 -  Saline Spot
 -  Sandy Spot
 -  Severely Eroded Spot
 -  Sinkhole
 -  Slide or Slip
 -  Sodic Spot
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography
- Other Features**
 -  Spoil Area
 -  Stony Spot
 -  Very Stony Spot
 -  Wet Spot
 -  Other
 -  Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Skagit County Area, Washington
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 9, 2010—Aug 28, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
57	Field silt loam, protected	61.2	17.7%
92	Minkler silt loam	198.7	57.4%
136	Sumas silt loam	14.3	4.1%
152	Urban land-Mt. Vernon-Field complex	72.2	20.8%
Totals for Area of Interest		346.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

Custom Soil Resource Report

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Skagit County Area, Washington

57—Field silt loam, protected

Map Unit Setting

National map unit symbol: 2hwb

Elevation: 10 to 50 feet

Mean annual precipitation: 32 inches

Mean annual air temperature: 50 degrees F

Frost-free period: 160 to 210 days

Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Field and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Field

Setting

Landform: Flood plains

Parent material: Alluvium and volcanic ash

Typical profile

H1 - 0 to 13 inches: silt loam

H2 - 13 to 21 inches: silt loam

H3 - 21 to 40 inches: stratified sand to loamy fine sand

H4 - 40 to 60 inches: stratified sand to very fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 36 to 48 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Forage suitability group: Seasonally Wet Soils (G002XN202WA)

Hydric soil rating: No

Minor Components

Skagit, undrained

Percent of map unit: 5 percent

Landform: Flood plains

Hydric soil rating: Yes

Sumas, undrained

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

92—Minkler silt loam

Map Unit Setting

National map unit symbol: 2hxl
Elevation: 50 to 80 feet
Mean annual precipitation: 50 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Minkler and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Minkler

Setting

Landform: Terraces
Parent material: Alluvium and glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: medial silt loam
H2 - 12 to 15 inches: medial silt loam
H3 - 15 to 60 inches: stratified fine sand to very fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 6 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Forage suitability group: Wet Soils (G002XN102WA)
Hydric soil rating: No

136—Sumas silt loam

Map Unit Setting

National map unit symbol: 2hsv
Elevation: 0 to 50 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 210 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Sumas, drained, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sumas, Drained

Setting

Landform: Deltas, flood plains
Parent material: Alluvium

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 16 inches: silty clay loam
H3 - 16 to 60 inches: coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 12 to 20 inches to strongly contrasting textural stratification
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 12 to 35 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Forage suitability group: Soils with Few Limitations (G002XN502WA)
Hydric soil rating: Yes

Minor Components

Sumas, undrained

Percent of map unit: 5 percent
Landform: Tidal flats
Hydric soil rating: Yes

Mt. vernon

Percent of map unit: 5 percent
Hydric soil rating: No

Field

Percent of map unit: 5 percent
Hydric soil rating: No

Skagit, undrained

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

152—Urban land-Mt. Vernon-Field complex

Map Unit Setting

National map unit symbol: 2htf
Elevation: 10 to 50 feet
Mean annual precipitation: 32 to 40 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 40 percent
Mt. vernon and similar soils: 30 percent
Field and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Mt. Vernon

Setting

Landform: Natural levees, flood plains
Parent material: Alluvium and volcanic ash

Typical profile

H1 - 0 to 10 inches: ashy very fine sandy loam
H2 - 10 to 29 inches: stratified ashy sand to very fine sandy loam
H3 - 29 to 60 inches: stratified fine sand to silt loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Forage suitability group: Soils with Few Limitations (G002XN502WA)
Hydric soil rating: No

Description of Field

Setting

Landform: Flood plains, natural levees
Parent material: Alluvium and volcanic ash

Typical profile

H1 - 0 to 13 inches: silt loam
H2 - 13 to 21 inches: silt loam
H3 - 21 to 40 inches: stratified sand to loamy fine sand
H4 - 40 to 60 inches: stratified sand to very fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 24 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: No

Minor Components

Mt. vernon

Percent of map unit: 10 percent
Hydric soil rating: No

Custom Soil Resource Report

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix D: Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P1
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510876°N Long: 122.252909°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus trichocarpa</u>	20	yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
4. _____				
50% =10%; 20% =4%	20	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	3	yes	FAC	Total % Cover of: Multiply by:
2. _____				OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/>
3. _____				FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/>
4. _____				FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/>
5. _____				FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/>
50% =1.5%; 20% =0.6%	3	= Total Cover		UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/>
				Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B)
				Prevalence Index = B/A = <input type="checkbox"/>
Herb (Plot size: <u>6 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Tanacetum vulgare</u>	3	no	FACU	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Agrostis sp.</u>	20	yes	FAC	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Dactylis glomerata</u>	67	yes	FACU	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Vicia sativa</u>	5	no	FACU	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Galium aparine</u>	3	no	FACU	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. <u>Cirsium arvense</u>	2	no	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
50% =50%; 20% =20%	100	= Total Cover		
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P2
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510714°N Long: 122.252921°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	<u>20 ft dm</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____					
3. _____					
4. _____					
_____ = Total Cover					
Prevalence Index worksheet:					
Sapling/Shrub Stratum		Plot size: <u>10 ft dm</u>			
1. _____					Total % Cover of: _____ Multiply by: _____
2. _____					OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
_____ = Total Cover					UPL species _____ x 5 = _____
					Column Totals: _____ (A) _____ (B)
					Prevalence Index = B/A = _____
Hydrophytic Vegetation Indicators:					
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Herb (Plot size: <u>6 ft dm</u>)					
1. <u>Dactylis glomerata</u>		35	Yes	FACU	
2. <u>Agrostis capillaris</u>		50	Yes	FAC	
3. <u>Anthoxanthum odoratum</u>		15	No	FACU	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
100 = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks: Vegetation recently mown.

SOIL

Sampling Point: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/2	100					Silt loam	
8-16	10YR 3/3	100					Fine sandy loam	
16+	2.5 Y 4/2	97	7.5YR 5/6	3	C	M	Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)		
	<input type="checkbox"/> Redox Depressions (F8)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 05/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P3
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510537°N Long: 122.252476° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown. Near Geotest TP8.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	<u>20 ft dm</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____					Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____					
_____ = Total Cover					
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	<u>10 ft dm</u>				Total % Cover of: _____ Multiply by: _____
2. _____					OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
_____ = Total Cover					UPL species _____ x 5 = _____
_____ = Total Cover					Column Totals: _____ (A) _____ (B)
_____ = Total Cover					Prevalence Index = B/A = _____
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Rumex acetosella</u>	<u>6 ft dm</u>	15	No	FAC	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Agrostis capillaris</u>		10	No	FAC	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Anthoxanthum odoratum</u>		60	Yes	FACU	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Vicia sativa</u>		10	No	FACU	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Plantago lanceolata</u>		5	No	FACU	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
50% = 50 20% = 20		100		= Total Cover	
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P4
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510194°N Long: 122.251894° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____		_____	_____	_____	
_____ = Total Cover					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
_____ = Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	(Plot size: <u>6 ft dm</u>)	45	Yes	FACW	
2. <u>Agrostis capillaris</u>		55	Yes	FAC	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P5
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509524°N Long: 122.252178° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: Recently mown. Along stream edge.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
(Plot size: <u>20 ft dm</u>)				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)		
1. _____				Total Number of Dominant Species Across All Strata:	<u>2</u> (B)		
2. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)		
3. _____							
4. _____							
	= Total Cover						
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
(Plot size: <u>10 ft dm</u>)						Total % Cover of:	Multiply by:
1. _____						OBL species	<u> </u> x 1 = <u> </u>
2. _____						FACW species	<u> </u> x 2 = <u> </u>
3. _____						FAC species	<u> </u> x 3 = <u> </u>
4. _____						FACU species	<u> </u> x 4 = <u> </u>
5. _____						UPL species	<u> </u> x 5 = <u> </u>
	= Total Cover			Column Totals:	<u> </u> (A) <u> </u> (B)		
Herb	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
(Plot size: <u>6 ft dm</u>)						<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
1. <u>Phalaris arundinacea</u>	15	No	FACW			<input type="checkbox"/> 2 - Dominance Test is >50%	
2. <u>Schedonorus pratensis</u>	50	Yes	FACU			<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
3. <u>Anthoxanthum odoratum</u>	20	Yes	FACU			<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Poa sp.</u>	10	No	FAC			<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
5. <u>Vicia sativa</u>	4	No	FACU			<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Galium aparine</u>	1	No	FACU			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____							
8. _____							
9. _____							
10. _____							
11. _____							
	100 = Total Cover						
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
(Plot size: <u> </u>)							
1. _____							
2. _____							
	= Total Cover						
% Bare Ground in Herb Stratum <u> </u>							

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P6
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509524°N Long: 122.252178° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____		_____	_____	_____	
_____ = Total Cover					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
_____ = Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Plantago lanceolata</u>	(Plot size: <u>6 ft dm</u>)	5	No	FACU	
2. <u>Festuca rubra</u>		10	No	FAC	
3. <u>Anthoxanthum odoratum</u>		40	Yes	FACU	
4. <u>Agrostis sp.</u>		15	No	FAC	
5. <u>Dactylis glomerata</u>		30	Yes	FACU	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

Remarks: Vegetation recently mown.

SOIL

Sampling Point: P6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/2	100					Sandy loam	
10-16	10YR 3/2	100					Loamy very fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p> <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) </p>	<p>Indicators for Problematic Hydric Soils³:</p> <p> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </p>	<p> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>
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<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p>			<p>Secondary Indicators (2 or more required)</p>		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)			

<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P7
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510344°N Long: 122.250809°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
(Plot size: <u>20 ft dm</u>)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
1. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
3. _____				
4. _____				
	_____ = Total Cover			
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
(Plot size: <u>10 ft dm</u>)				Total % Cover of: Multiply by:
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
	_____ = Total Cover			Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
(Plot size: <u>6 ft dm</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Cirsium arvense</u>	10	No	FACU	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
2. <u>Agrostis sp.</u>	80	Yes	FAC	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
3. <u>Anthoxanthum odoratum</u>	10	No	FACU	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
5. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	100 = Total Cover			
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
(Plot size: _____)				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
	_____ = Total Cover			
% Bare Ground in Herb Stratum _____				

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P8
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510581°N Long: 122.249844°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____		_____	_____	_____	
_____ = Total Cover					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
_____ = Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Dactylis glomerata</u>	(Plot size: <u>6 ft dm</u>)	10	No	FACU	
2. <u>Agrostis sp.</u>		90	Yes	FAC	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/15/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P9
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510934°N Long: 122.251241°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____		_____	_____	_____	
			_____	_____	= Total Cover
Sapling/Shrub Stratum (Plot size: <u>10 ft dm</u>)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____		_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
Herb (Plot size: <u>6 ft dm</u>)					
1. <u>Cirsium arvense</u>		5	No	FAC	
2. <u>Agrostis sp.</u>		50	Yes	FAC	
3. <u>Ranunculus acris</u>		15	No	FAC	
4. <u>Plantago lanceolata</u>		15	No	FACU	
5. <u>Anthoxanthum odoratum</u>		15	No	FACU	
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
		100	= Total Cover		
Woody Vine Stratum (Plot size: _____)					
1. _____		_____	_____	_____	
2. _____		_____	_____	_____	
		_____	_____	= Total Cover	
% Bare Ground in Herb Stratum _____					
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks: Vegetation recently mown.

SOIL

Sampling Point: P9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/3	100					Very fine sandy loam	
5-16	10YR 4/3	100					Very fine sandy loam	
				</				

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P10
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510794°N Long: 122.247888° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <input type="text"/> (A)
2. _____				Total Number of Dominant Species Across All Strata: <input type="text"/> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <input type="text"/> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: Multiply by:
2. _____				OBL species <input type="text"/> x 1 = <input type="text"/>
3. _____				FACW species <input type="text"/> x 2 = <input type="text"/>
4. _____				FAC species <input type="text"/> x 3 = <input type="text"/>
5. _____				FACU species <input type="text"/> x 4 = <input type="text"/>
_____ = Total Cover				UPL species <input type="text"/> x 5 = <input type="text"/>
_____ = Total Cover				Column Totals: <input type="text"/> (A) <input type="text"/> (B)
_____ = Total Cover				Prevalence Index = B/A = <input type="text"/>
Herb (Plot size: <u>6 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Lawn grass</u>	98	Yes		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Hypochaeris radicata</u>	2	No	FACU	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____				<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
100 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input type="checkbox"/> No <input type="checkbox"/>
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks: Vegetation recently mown lawn.

SOIL

Sampling Point: P10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/3	100					Sandy loam	
8-12	10YR 3/3	99	5YR 4/6	1	C	M	Very fine sandy loam	Relict redox
12-16	2.5Y 4/2	85	2.5YR4/6	15	C	M	Very fine sand	Relict redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: *Most redox have sharp edges rather than diffuse boundaries and are hard thick masses.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P11
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510695°N Long: 122.248276° W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u><i>Pseudotsuga menziesii</i></u>	25	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
50% cover= <u>12.5%</u> ; 20% cover= <u>5%</u>			25 = Total Cover	
Sapling/Shrub Stratum (Plot size: <u>10 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
			_____ = Total Cover	UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb (Plot size: <u>6 ft dm</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u><i>Dactylis glomerata</i></u>	90	Yes	FACU	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u><i>Vicia sativa</i></u>	5	No	FACU	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u><i>Anthoxanthum odoratum</i></u>	5	No	FACU	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
			100 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
			_____ = Total Cover	
% Bare Ground in Herb Stratum _____				

Remarks: Vegetation recently mown.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P12
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.510369°N Long: 122.247660°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
(Plot size: <u>20 ft dm</u>)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
1. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
3. _____				
4. _____				
	= Total Cover			
Sapling/Shrub Stratum				Prevalence Index worksheet:
(Plot size: <u>10 ft dm</u>)				Total % Cover of: _____ Multiply by:
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
	= Total Cover			Column Totals: _____ (A) _____ (B)
Herb				Prevalence Index = B/A = _____
(Plot size: <u>6 ft dm</u>)				
1. <u>Dactylis glomerata</u>	80	Yes	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Trifolium pratense</u>	6	No	FACU	
3. <u>Rumex obtusifolius</u>	2	No	FAC	
4. <u>Schedonorus pratensis</u>	2	No	FACU	
5. <u>Agrostis capillaris</u>	6	No	FAC	
6. <u>Holcus lanatus</u>	2	No	FAC	
7. <u>Phalaris arundinacea</u>	2	No	FACW	
8. _____				
9. _____				
10. _____				
11. _____				
	100 = Total Cover			
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
(Plot size: _____)				
1. _____				
2. _____				
	= Total Cover			
% Bare Ground in Herb Stratum _____				

Remarks:

SOIL

Sampling Point: P12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/2	100					Sandy loam	
7-15	2.5Y 5/2	85	7.5 YR 4/6	15	C	M	Sand	Relict redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Very dry.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P13
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509994°N Long: 122.250613°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	<u>20 ft dm</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____					
3. _____					
4. _____					
_____ = Total Cover					
1. _____	<u>10 ft dm</u>)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
1. <u>Phalaris arundinacea</u>	<u>6 ft dm</u>)	<u>100</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
_____ = Total Cover					
1. _____	<u> </u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P14
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509994°N Long: 122.250613°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	<u>20 ft dm</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____					
3. _____					
4. _____					
_____ = Total Cover					
1. _____	<u>10 ft dm</u>)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
1. <u>Phalaris arundinacea</u>	<u>6 ft dm</u>)	<u>100</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
_____ = Total Cover					
1. _____	<u> </u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks:

SOIL

Sampling Point: P14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	100					Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p>___ Histosol (A1) ___ Sandy Redox (S5)</p> <p>___ Histic Epipedon (A2) ___ Stripped Matrix (S6)</p> <p>___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p>___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)</p> <p>___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)</p> <p>___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6)</p> <p>___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)</p> <p>___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p>___ 2 cm Muck (A10)</p> <p>___ Red Parent Material (TF2)</p> <p>___ Very Shallow Dark Surface (TF12)</p> <p>___ Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>
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<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p>___ Surface Water (A1) ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p>___ High Water Table (A2) ___ Salt Crust (B11)</p> <p>___ Saturation (A3) ___ Aquatic Invertebrates (B13)</p> <p>___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1)</p> <p>___ Sediment Deposits (B2) ___ Oxidized Rhizospheres along Living Roots (C3)</p> <p>___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4)</p> <p>___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6)</p> <p>___ Iron Deposits (B5) ___ Stunted or Stressed Plants (D1) (LRR A)</p> <p>___ Surface Soil Cracks (B6) ___ Other (Explain in Remarks)</p> <p>___ Inundation Visible on Aerial Imagery (B7)</p> <p>___ Sparsely Vegetated Concave Surface (B8)</p>	<p>Secondary Indicators (2 or more required)</p> <p>___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</p> <p>___ Drainage Patterns (B10)</p> <p>___ Dry-Season Water Table (C2)</p> <p>___ Saturation Visible on Aerial Imagery (C9)</p> <p>___ Geomorphic Position (D2)</p> <p>___ Shallow Aquitard (D3)</p> <p>___ FAC-Neutral Test (D5)</p> <p>___ Raised Ant Mounds (D6) (LRR A)</p> <p>___ Frost-Heave Hummocks (D7)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Very dry.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/26/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P15
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.508558°N Long: 122.248434°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	<u>20 ft dm</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____					Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
4. _____					
_____ = Total Cover					
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	<u>10 ft dm</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. _____					OBL species _____ x 1 = _____
3. _____					FACW species _____ x 2 = _____
4. _____					FAC species _____ x 3 = _____
5. _____					FACU species _____ x 4 = _____
_____ = Total Cover					UPL species _____ x 5 = _____
					Column Totals: _____ (A) _____ (B)
					Prevalence Index = B/A = _____
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Anthoxanthum odoratum</u>	<u>6 ft dm</u>	<u>39</u>	<u>Yes</u>	<u>FACU</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Ranunculus acris</u>		<u>20</u>	<u>Yes</u>	<u>FAC</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Agrostis capillaris</u>		<u>60</u>	<u>Yes</u>	<u>FAC</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Cirsium arvense</u>		<u>1</u>	<u>No</u>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____					<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
_____ = Total Cover					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____					Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks:

SOIL

Sampling Point: P15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10.5	10YR 3/2	100					Ashy loam	
10.5-16	2.5Y 4/3	95	10YR 5/6	5	C	M	Fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p>___ Histosol (A1) ___ Sandy Redox (S5)</p> <p>___ Histic Epipedon (A2) ___ Stripped Matrix (S6)</p> <p>___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p>___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2)</p> <p>___ Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3)</p> <p>___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6)</p> <p>___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7)</p> <p>___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p>___ 2 cm Muck (A10)</p> <p>___ Red Parent Material (TF2)</p> <p>___ Very Shallow Dark Surface (TF12)</p> <p>___ Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>
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<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p>___ Surface Water (A1) ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p>___ High Water Table (A2) ___ Salt Crust (B11)</p> <p>___ Saturation (A3) ___ Aquatic Invertebrates (B13)</p> <p>___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1)</p> <p>___ Sediment Deposits (B2) ___ Oxidized Rhizospheres along Living Roots (C3)</p> <p>___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4)</p> <p>___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6)</p> <p>___ Iron Deposits (B5) ___ Stunted or Stressed Plants (D1) (LRR A)</p> <p>___ Surface Soil Cracks (B6) ___ Other (Explain in Remarks)</p> <p>___ Inundation Visible on Aerial Imagery (B7)</p> <p>___ Sparsely Vegetated Concave Surface (B8)</p>		<p>Secondary Indicators (2 or more required)</p> <p>___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</p> <p>___ Drainage Patterns (B10)</p> <p>___ Dry-Season Water Table (C2)</p> <p>___ Saturation Visible on Aerial Imagery (C9)</p> <p>___ Geomorphic Position (D2)</p> <p>___ Shallow Aquitard (D3)</p> <p>___ FAC-Neutral Test (D5)</p> <p>___ Raised Ant Mounds (D6) (LRR A)</p> <p>___ Frost-Heave Hummocks (D7)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/27/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P16
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.508822°N Long: 122.248950°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____		_____	_____	_____	
_____ = Total Cover					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
_____ = Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Anthoxanthum odoratum</u>	(Plot size: <u>6 ft dm</u>)	50	Yes	FACU	
2. <u>Ranunculus acris</u>		3	No	FAC	
3. <u>Ranunculus repens</u>		2	No	FAC	
4. <u>Cirsium arvense</u>		3	No	FAC	
5. <u>Plantago lanceolata</u>		2	No	FACU	
6. <u>Schedonorus arundinaceus</u>		15	No	FAC	
7. <u>Poa pratensis</u>		20	Yes	FAC	
8. _____		_____	_____	_____	
9. _____		_____	_____	_____	
10. _____		_____	_____	_____	
11. _____		_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/27/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P20
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509870°N Long: 122.249614°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
4. _____		_____	_____	_____	
_____ = Total Cover					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/> FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/> FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/> FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/> UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/> Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B) Prevalence Index = B/A = <input type="checkbox"/>
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
_____ = Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Dactylis glomerata</u>	(Plot size: <u>6 ft dm</u>)	40	Yes	FACU	
2. <u>Anthoxanthum odoratum</u>		40	Yes	FACU	
3. <u>Ranunculus repens</u>		20	Yes	FAC	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/27/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P21
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509752°N Long: 122.248265°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	<u>20 ft dm</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____					
3. _____					
4. _____					
_____ = Total Cover					
Sapling/Shrub Stratum	Plot size:				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <input type="checkbox"/> x 1 = <input type="checkbox"/> FACW species <input type="checkbox"/> x 2 = <input type="checkbox"/> FAC species <input type="checkbox"/> x 3 = <input type="checkbox"/> FACU species <input type="checkbox"/> x 4 = <input type="checkbox"/> UPL species <input type="checkbox"/> x 5 = <input type="checkbox"/> Column Totals: <input type="checkbox"/> (A) <input type="checkbox"/> (B) Prevalence Index = B/A = <input type="checkbox"/>
1. _____	<u>10 ft dm</u>				
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
Herb	Plot size:				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Poa pratensis</u>	<u>6 ft dm</u>	30	Yes	FAC	
2. <u>Anthoxanthum odoratum</u>		70	Yes	FACU	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
100 = Total Cover					
Woody Vine Stratum	Plot size:				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bucko City/County: Sedro-Woolley/Skagit Sampling Date: 5/27/20
 Applicant/Owner: Sarah Bucko State: WA Sampling Point: P22
 Investigator(s): M. Harenda/A. Wones Section, Township, Range: S23, T35N, R4E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA2 Lat: 48.509015°N Long: 122.247817°W Datum: WGS 84
 Soil Map Unit Name: Minkler silt loam NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: Recently mown.

VEGETATION – Use scientific names of plants.

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	(Plot size: <u>20 ft dm</u>)	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
4. _____		_____	_____	_____	
= Total Cover					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	(Plot size: <u>10 ft dm</u>)	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		_____	_____	_____	
= Total Cover					
Herb	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Juncus effusus</u>	(Plot size: <u>6 ft dm</u>)	5	No	FACW	
2. <u>Anthoxanthum odoratum</u>		30	Yes	FACU	
3. <u>Festuca rubra</u>		25	Yes	FAC	
4. <u>Ranunculus repens</u>		15	No	FAC	
5. <u>Taraxacum officinale</u>		5	No	FACU	
6. <u>Dactylis glomerata</u>		20	Yes	FACU	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	
100 = Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	(Plot size: _____)	_____	_____	_____	
2. _____		_____	_____	_____	_____
= Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks:

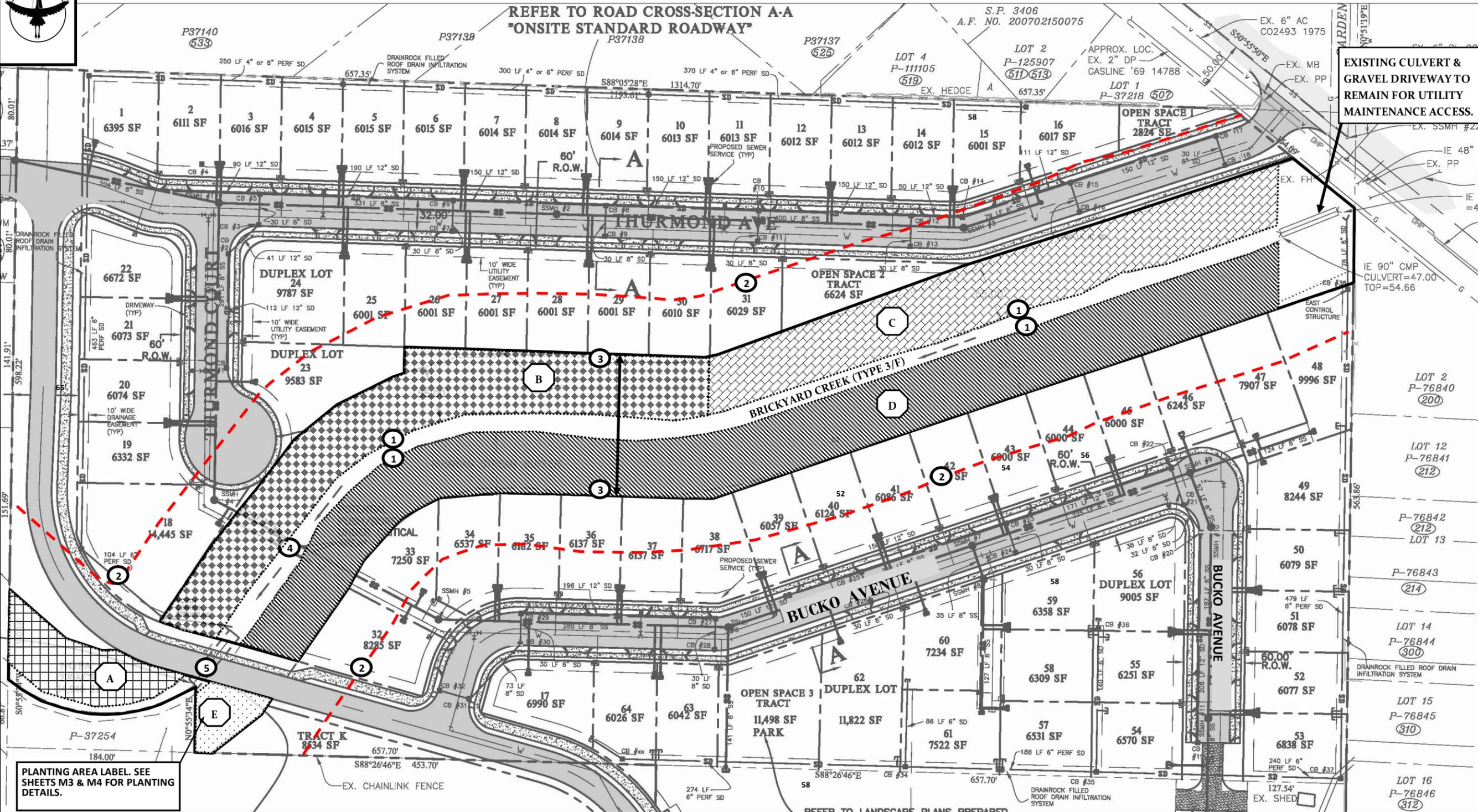
Appendix E: Critical Areas Impacts and Mitigation Plan



Scale: 1"=100'

BASEMAP PLAN BY: RAVNIK & ASSOCIATES

REFER TO ROAD CROSS-SECTION A-A
"ONSITE STANDARD ROADWAY"



EXISTING CULVERT &
GRAVEL DRIVEWAY TO
REMAIN FOR UTILITY
MAINTENANCE ACCESS.

PLANTING AREA LABEL. SEE
SHEETS M3 & M4 FOR PLANTING
DETAILS.

- NOTES:
- ① BRICKYARD CREEK ORDINARY HIGH WATER MARK.
 - ② --- 110-FT STANDARD RIPARIAN BUFFER OF BRICKYARD CREEK.
 - ③ ENHANCED REDUCED BUFFER ON EACH SIDE OF BRICKYARD CREEK.
 - ④ INSTALL WATER AND SEWER LINES UNDER CREEK VIA EITHER TRENCHING (IF CREEK IS DRY AS APPROVED BY WDFW) OR PUSHING/BORING UNDER CREEK. RESTORE TO EXISTING GRADE W/ MIN 3' COVER. STABILIZE SURFACE SOILS AS NEEDED & SEED W/ EROSION CONTROL MIX.
 - ⑤ INSTALL 11'3" X 6' CULVERT IN BRICKYARD CREEK (~731 SF IMPACT AREA.) SEE ENGINEERING PLANS FOR DETAILS.

TOTAL AREA OF RIPARIAN BUFFER REDUCTION (BETWEEN STANDARD BUFFER AND PCA BOUNDARY INC ROAD IMPACTS) = 3.43 ACRES
TOTAL AREA OF BUFFER ENHANCEMENT = 3.44 ACRES

Date: Rev 7/7/2021

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11104 320th Ave NE
Carnation, WA 98014

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SHEET M2 - MITIGATION PLANTING AREAS

Bucko Estates
Sedro-Woolley, WA

Sheet: M2

PLANT QUANTITIES									
				PLANTING AREAS (See locations on Sheet M2)					
COMMON NAME	SCIENTIFIC NAME	STOCK TYPE	SPACING*	AREA A - 8,743 SF 	AREA B - 37,076 SF 	AREA C - 34,674 SF 	AREA D - 65,840 SF 	AREA E - 3,473 SF 	TOTALS
TREES/LARGE SHRUBS									
Douglas fir	<i>Pseudotsuga menziesii</i>	2-gal container or min 18" bareroot	Min 10' o.c	10	70	60	80	5	225
Western red cedar	<i>Thuja plicata</i>	2-gal container or min 18" bareroot	Min 10' o.c	20	90	80	140	10	340
Sitka spruce	<i>Picea sitchensis</i>	2-gal container or min 18" bareroot	Min 10' o.c	10	60	50	100	10	230
Oregon ash#	<i>Fraxinus latifolia</i>	1-gal container or min 12" bareroot	Min 10' o.c	10	60	50	100	10	230
Pacific willow#	<i>Salix lasiandra</i>	Min 18" bareroot or 36" live stake	Min 10' o.c	25	100	50	250	10	435
Grand fir	<i>Abies grandis</i>	2-gal container or min 18" bareroot	Min 10' o.c	5	50	40	50	5	150
Vine maple	<i>Acer circinatum</i>	1-gal container or min 12" bareroot	Min 10' o.c	10	40	30	50	5	135
SHRUBS									
Redtwig dogwood#	<i>Cornus sericea</i>	1-gal container or min 12" bareroot	See Sheet M4	20	80	50	130	10	290
Sitka willow#	<i>Salix sitchensis</i>	Min 18" bareroot or 36" live stake	See Sheet M4	20	80	50	130	10	290
Nootka rose	<i>Rosa nutkana</i>	1-gal container or min 12" bareroot	See Sheet M4	30	110	150	270	10	570
Snowberry	<i>Symphoricarpos albus</i>	1-gal container or min 12" bareroot	See Sheet M4	40	110	150	270	10	580
Red flowering currant	<i>Ribes sanguineum</i>	1-gal container or min 12" bareroot	See Sheet M4	20	120	150	270	10	570
Twinberry	<i>Lonicera involucrata</i>	1-gal container or min 12" bareroot	See Sheet M4	10	120	150	270	10	560
TOTALS				230	1090	1060	2110	115	4605

NOTES:

TARGET PLANTING SURVIVAL DENSITIES ARE 400 TREES/ACRE AND 600 SHRUBS/ACRE. PLANT QUANTITIES IN EACH PLANTING AREA WERE INFLUENCED BY LOCAL SITE CONDITIONS INCLUDING TOPOGRAPHY, PROXIMITY TO BRICKYARD CREEK, ASPECT, AND SOIL CONDITIONS.

#OREGON ASH, WILLOW, AND DOGWOOD SPECIES SHOULD BE PLANTED WITHIN 0-20' HORIZONTAL DISTANCE FROM EDGE OF BRICKYARD CREEK.

* SEE PLANT SPACING TYPICAL AND NOTES ON SHEET M4.

Date: 7/7/2021

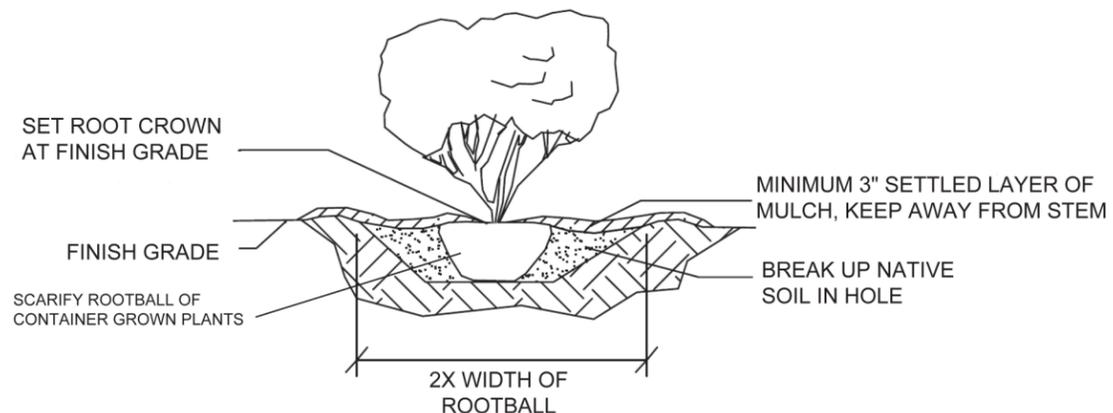
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 Carnation, WA 98014
 425 269-3119
 425 761-5903



SHEET M3 – PLANT SCHEDULE

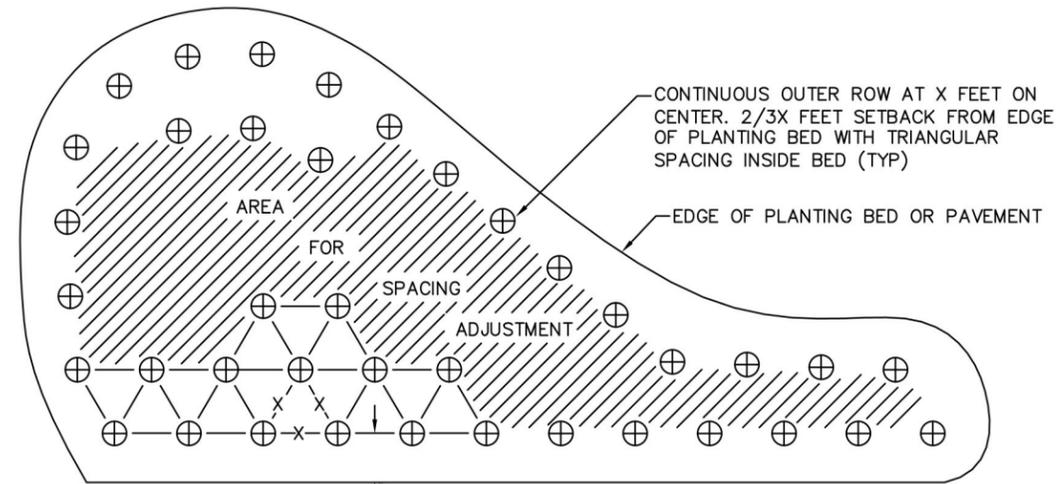
Bucko Estates
 Sedro-Woolley, WA

Sheet: M3



**TYP. TREE/SHRUB PLANTING:
INDIVIDUAL PLANTING HOLE**

NOT TO SCALE



NOTES ON PLANT SPACING: PLANTS CAN BE PLANTED IN IRREGULAR/CLUMPED PATTERN TO MIMIC NATURAL CONDITIONS.
MIN SPACING BETWEEN TREES/LARGE SHRUBS = 10' O.C.
OVERALL AVERAGE SPACING FOR SHRUBS IS 6.5' O.C TO ANY OTHER PLANT.

Planting Pattern

SCALE: Not to Scale

Date: Rev 7/7/21

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425 761-5903



MITIGATION AND PLANTING NOTES

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH THIS KIND OF WORK AND UNDER THE DIRECTION OF A QUALIFIED SUPERVISOR.
2. PLANT SIZING AND QUALITY STANDARDS SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
3. ALL PLANT MATERIAL SHALL BE NURSERY STOCK AND LOCALLY GROWN OR REGIONALLY ACCLIMATIZED TO THE PACIFIC NORTHWEST. PLANT MATERIAL SHALL EXHIBIT NORMAL HABITS OF GROWTH FOR THE SPECIES, SHALL HAVE BUDS INTACT AND SHALL BE FREE OF DISEASE, INSECTS, SCARS, BRUISES, BREAKS, AND WEED AND SEED ROOTS.
4. MITIGATION ENHANCEMENT AREAS SHOULD BE PLANTED AS SHOWN PER SHEET M2 AND THE PLANT SCHEDULE ON SHEET M3. REFER TO CONSTRUCTION PLANS PREPARED BY RAVNIK AND ASSOCIATES FOR LOT AND TRACT DIMENSIONS AND MEASUREMENT REFERENCES. SPECIES SUBSTITUTIONS SUBJECT TO APPROVAL BY THE PROJECT BIOLOGIST.
5. GRUB BLACKBERRY AND REED CANARY GRASS THICKETS PRIOR TO PLANTING. MOW REST OF ENHANCEMENT PLANTING AREA PRIOR TO PLANTING. DECOMPACT SURFACE SOILS AS NEEDED PRIOR TO PLANTING.
6. FOR CONTAINER PLANTS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.

MAINTENANCE, CONTINGENCY AND MONITORING NOTES

1. SEE MITIGATION PLAN REPORT PREPARED BY ESSENCY ENVIRONMENTAL FOR INFORMATION ON PERFORMANCE STANDARDS, MONITORING REQUIREMENTS AND DETAILS, AND FINANCIAL
2. GUARANTEE REQUIREMENTS FOR MITIGATION.
3. PLANT MAINTENANCE ACTIVITIES SHOULD INCLUDE IRRIGATION, WEED AND INVASIVE/NON-NATIVE SPECIES CONTROL, MULCH REPLACEMENT, AND REPLANTING AS NECESSARY ON A SCHEDULE SUFFICIENT TO ACHIEVE PERFORMANCE STANDARDS.
4. CONTINGENCY ACTIONS: SEE MITIGATION PLAN REPORT PREPARED BY ESSENCY ENVIRONMENTAL FOR INFORMATION ON CONTINGENCY MEASURES AND ACTIONS.

SHEET M4 – PLANTING AND MITIGATION NOTES

Bucko Estates
Sedro-Woolley, WA

Sheet: M4

**ADDENDUM TO SEPA ENVIRONMENTAL CHECKLIST
FOR BUCKO ESTATES**

This addendum (Addendum) supplements the Applicant's SEPA Environmental Checklist that was submitted to the City on February 3, 2021. The Addendum accounts for changes to the project that are a result of the City's request to change the location of the City's Trail Road Extension project (Arterial Road) and the Applicant's accommodation of that request. The Addendum supplements the February 3, 2021 Checklist and does not replace the prior checklist. Where there is no change from the original checklist, this will be noted below in green below. Changes from the original checklist are noted in yellow below. Pursuant to WAC 197-11-625(5), the City is not required to circulate the addendum.

SUMMARY OF CHANGE TO IMPACTS

The changes required to accommodate the Arterial Road will not change the general size, scope, or layout of the project. The number of lots will be reduced by one, as one lot will be lost due to the Arterial Road realignment. Impacts to critical area will remain the same, as there will continue to be only one creek crossing, now at the site of the Arterial Road. The Applicant will provide an updated Critical Areas Report to account for this change. Traffic impacts are not expected to increase, as the connections to F & S Grade Road and Cook Road will remain the same and there will be fewer lots. Accordingly, the Applicant is not providing an updated Traffic Report. Impervious surface area is expected to be reduced slightly, as the access road from Cook Road will be narrower than originally contemplated, though this reduction may be offset by additional impervious surface area caused by the Arterial Road north of the connection to "B" Street.

A. BACKGROUND**1. Name of proposed project, if applicable:**

No change.

2. Name of applicant:

No change.

3. Address and phone number of applicant and contact person:

No change.

4. Date checklist prepared:

This Addendum was prepared on June 30, 2021.

5. Agency requesting checklist:

No change.

6. Proposed timing or schedule (including phasing, if applicable):

Generally there is no change as to phasing, except that the anticipated start time may be pushed back due to the City's request as to the Arterial Road.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No change.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Applicant is providing an updated Critical Areas report to show the new location of the creek crossing associated with the Arterial Road. The Geotechnical Report and Traffic Report that were provided to the City with the February 3, 2021 Checklist are not impacted by the revised preliminary plat map and thus will not be updated or resubmitted.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

No change.

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

No change.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The description of the proposal remains generally unchanged with the exception of the following items that are required by the City's request to reroute the Arterial Road:

- Whereas the original preliminary plat map provided for one creek crossing – a neighborhood collector street (“A” street) connecting the sections of roadway that serve the north and south sides of the creek (“B street” and “Thurmond Ave”), the revised preliminary plat map will also provide for one creek crossing via the Arterial Road rather than “A” street. Thus, there will still be only one creek crossing of similar dimensions and scope. No additional environmental impacts are expected to will occur as a result of the revised layout of rights-of-way and lots to accommodate the City's request for an arterial road that bisects the project.
- Whereas the original preliminary plat map showed a 65-foot wide strip of land being dedicated to the City for its arterial road, the revised preliminary plat map shows the new arterial road

extending north from Cook Road (in the general location of, and in place of, the original access road from Cook Road to the project), extending over Brickyard Creek and then north along the west side of the proposed plat. This will increase the area of land that is required by the City to be dedicated as right-of-way. Otherwise, it is not expected that there will be any additional or different environmental impacts as a result of the City's required plat reconfiguration.

- The roadway from the project to Cook road will now be by the Arterial Road across property that will be secured by the City. The Arterial Road cross-section will be narrower than the original proposed access roadway. Thus, this change will result in less impacts.
- Whereas the original preliminary plat identifies a total of 65 residential lots, one lot will be lost due to the City-required realignment of the Arterial Road. This change will also result in fewer impacts.
- The amount of utilities and the location of those utilities will not substantially change as a result of the Arterial Road realignment and corresponding revisions to the preliminary plat map.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

No change.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

No change.

b. What is the steepest slope on the site (approximate percent slope)?

No change.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

No change.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so,

describe.

No change.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of anyfilling, excavation, and grading proposed. Indicate source of fill.

Though the configuration of the streets and lots are changed to some degree as a result of accommodating the City's Arterial Road, the type, total area, and approximate quantities of any filling, excavation, off site export/import of structural fill, and grading proposed remain unchanged, except that the loss of a lot and the narrowing of the roadway from Cook Road to the project may result in less total filling, excavation, and grading.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No change.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

No change, except that the loss of a lot and the narrowing of the roadway from Cook Road to the project may result in slightly less impervious surfaces.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

No change.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No change.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

No change.

2. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No change.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

The only change to the response provided in the February 3, 2021 Checklist is that the sole crossing over Brickyard Creek will occur where the Arterial Road crosses and not at the location of the earlier proposed "A" Street crossing.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No change.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No change.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No change.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No change.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No change.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No change.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

No change, except that a portion of the property the City is acquiring adjacent to Cook Road for the Arterial Road right-of-way will be used to assist in the project's management of stormwater runoff.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No change.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No change.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

No change.

3. Plants

a. Check the types of vegetation found on the site:

No change.

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

No change.

c. List threatened and endangered species known to be on or near the site.

No change.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

No change, except that the Applicant will provide updated landscaping plans reflecting the City-required reconfiguration of lots and roads.

e. List all noxious weeds and invasive species known to be on or near the site.

No change.

4. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

No change.

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

No change.

c. Is the site part of a migration route? If so, explain.

No change.

d. Proposed measures to preserve or enhance wildlife, if any:

No change.

e. List any invasive animal species known to be on or near the site.

No change.

5. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

No change.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No change.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

No change.

6. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

No change.

1) Describe any known or possible contamination at the site from present or past uses.

No change.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

No change.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

No change.

4) Describe special emergency services that might be required.

No change.

5) Proposed measures to reduce or control environmental health hazards, if any:

No change.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

No change.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

No change.

3) Proposed measures to reduce or control noise impacts, if any:

No change.

7. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current landuses on nearby or adjacent properties? If so, describe.

No change.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No change.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No change.

c. Describe any structures on the site.

No change.

d. Will any structures be demolished? If so, what?

No change.

e. What is the current zoning classification of the site?

No change.

f. What is the current comprehensive plan designation of the site?

No change.

g. If applicable, what is the current shoreline master program designation of the site?

No change.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No change.

i. Approximately how many people would reside or work in the completed project?

No change.

j. Approximately how many people would the completed project displace?

No change.

k. Proposed measures to avoid or reduce displacement impacts, if any:

No change.

l. Proposed measures to ensure the proposal is compatible with existing and projected landuses and plans, if any:

This project as submitted to the City on February 3, 2021, specifically referenced the then-current Arterial Road alignment along the project's west edge per the City's Comprehensive Transportation Plan. As directed by the City, this project was changed to accommodate the City's change in location of the Arterial Road, which facilitates the City's long-range plans and reduces future economic burdens on the City.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

No change.

8. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No change, except that the Arterial Road realignment will result in the loss of one lot from the project.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No change.

c. Proposed measures to reduce or control housing impacts, if any:

No change.

9. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No change.

b. What views in the immediate vicinity would be altered or obstructed?

No change.

c. Proposed measures to reduce or control aesthetic impacts, if any:

No change.

10. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

No change.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No change.

c. What existing off-site sources of light or glare may affect your proposal?

No change.

d. Proposed measures to reduce or control light and glare impacts, if any:

11. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

No change.

b. Would the proposed project displace any existing recreational uses? If so, describe. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

No change.

12. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

No change.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No change.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

No change.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

No change.

13. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

No change.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No change.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

No change.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No change.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No change.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

No change.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No change.

h. Proposed measures to reduce or control transportation impacts, if any:

No change.

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS [\[help\]](#)
(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

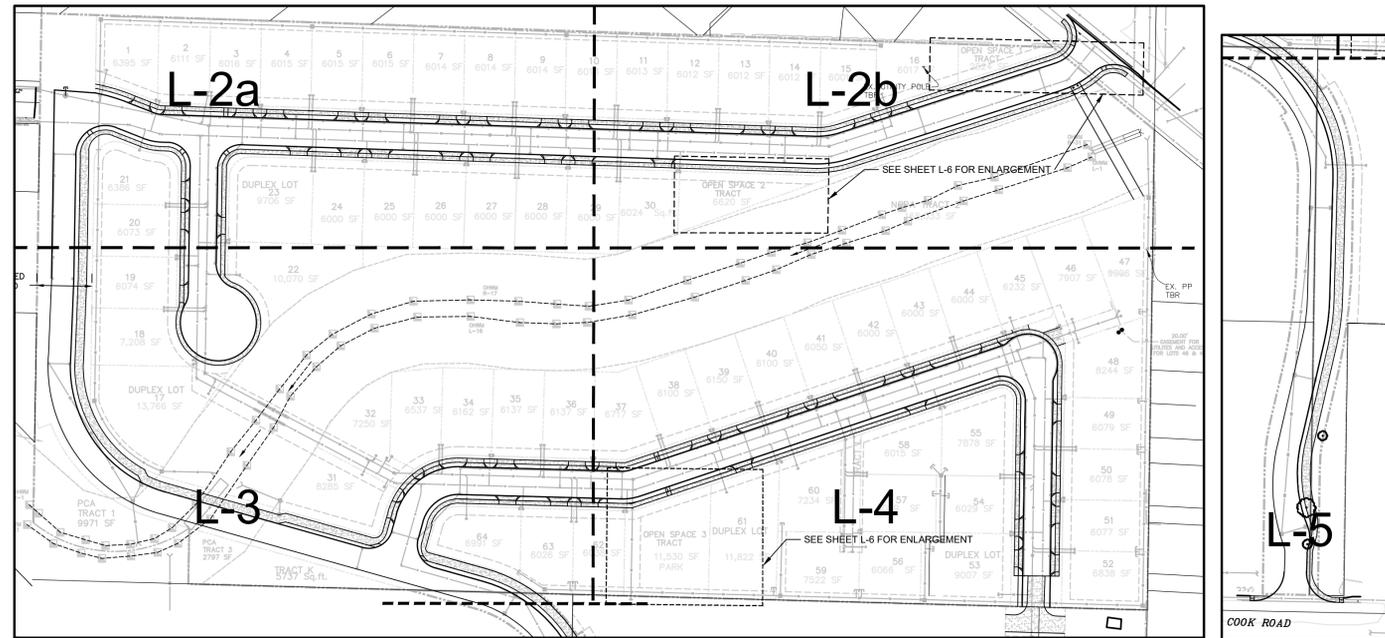
Bucko Plat

PRELIMINARY LANDSCAPE PLAN

SHEET LIST

- L-1 COVERSHEET, KEY MAP, AND NOTES
- L-2 PLANTING PLAN
- L-3 PLANTING PLAN
- L-4 PLANTING PLAN
- L-5 PLANTING PLAN AND PLANTING DETAILS
- L-6 RECREATION AREAS

Exhibit M



A - PLAT

B - COOK RD.

KEY MAP (A and B)

1" = 100'-0" (CHECK SCALE BAR FOR ACCURACY)

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH THIS KIND OF WORK AND UNDER THE SUPERVISION OF A QUALIFIED FOREMAN.
2. ALL PLANT MATERIAL SIZES AND QUALITY TO CONFORM TO AMERICAN ASSOC. OF NURSERYMEN, AMERICAN STANDARD FOR NURSERY STOCK, 2002.
3. PLANT LOCATIONS ON THE PLANS ARE DIAGRAMMATIC AND MAY BE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE LANDSCAPE CONTRACTOR.
4. ALL PLANT MATERIAL SHALL BE OF NURSERY STOCK AND SHALL BE OF THE TYPE, SIZE AND CONDITION SPECIFIED. THE PLANT MATERIAL SHALL EXHIBIT NORMAL HABITS OF GROWTH FOR THE SPECIES, SHALL HAVE BUDS INTACT AND SHALL BE FREE OF DISEASE, INSECTS, SCARS, BRUISES, BREAKS, SEED AND WEED ROOTS.
5. SEE NOTES THIS SHEET FOR TOPSOIL DEPTH AND SPECIFICATION.
6. FINE BARK MULCH IS TO BE INSTALLED AT ALL NEW PLANTING AREAS WITH A MINIMUM OF 3 INCHES.
7. ALL NON IRRIGATED LANDSCAPE AREAS SHALL HAVE PLANTING BACKFILL AMENDED WITH A TRANSPLANT AMENDMENT (SUPERTHRIVE OR EQUAL) AND WETTING AGENT (TERAWET OR EQUAL) APPLIED AT MANUFACTURERS RECOMMENDED RATE.
8. LANDSCAPE CONTRACTOR SHALL VERIFY LOCATION OF ALL SITE UTILITIES PRIOR TO LANDSCAPE IMPLEMENTATION. PLANT LOCATIONS MAY BE ADJUSTED TO AVOID CONFLICT.
9. LANDSCAPE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE IMPROVEMENTS, PAVING, WALLS, AND UNDERGROUND UTILITIES. DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT NO ADDITIONAL COST.
10. PLANT COUNT IS FOR THE CONTRACTOR'S CONVENIENCE; IF THERE IS A DISCREPANCY, THE PLAN SHALL GOVERN. ACTUAL PLANT QUANTITIES TO BE DETERMINED BY REQUIRED PLANT SPACING.
11. ALL AREAS TO BE PLANTED WITH GROUNDCOVER ARE INDICATED ON THE PLAN WITH A HATCH PATTERN. SEE PLANT LIST FOR PLANT TYPE, SIZE, AND SPACING.
12. SUBSTITUTION OF PLANT VARIETIES DUE TO LACK OF AVAILABILITY SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND THE CITY OF MOUNT VERNON.
13. ALL DIMENSIONS ARE ASSUMED TO BE PARALLEL OR PERPENDICULAR UNLESS OTHERWISE NOTED.
14. ALL SOIL GRADES TO BE A MINIMUM SIX INCHES BELOW ADJACENT FINISH FLOOR ELEVATIONS UNLESS NOTED OTHERWISE. ALL GRADES ADJACENT TO A BUILDING SHALL HAVE A MAXIMUM SLOPE OF 5% 3' FROM FOUNDATION.
15. ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
16. AN AUTOMATED IRRIGATION SYSTEM WILL BE PROVIDED ON ALL COMMON AREAS. SYSTEM TO BE BIDDER DESIGNED.
17. BASEMAP PROVIDED BY RAVNIK ASSOCIATES, BURLINGTON, WA.

SOIL NOTES

1. FINAL SOIL ORGANIC CONTENT
 - 1.1. MINIMUM 10%
2. CONTRACTOR MAY STOCKPILE SITE TOPSOIL FOR POSSIBLE RE-USE IN LANDSCAPE BEDS. STOCKPILED TOPSOIL TO BE TESTED BY SOILS LABORATORY FOR 'NURSERY' USE. ALL RECOMMENDATIONS ARE TO BE FOLLOWED. REPORT AND USE OF STOCKPILED SOIL TO BE APPROVED BY OWNER.
3. SITE TOPSOIL THAT IS TO BE USED IN PLANTER BED AREAS MUST BE TREATED TO INSURE THAT IT IS WEED FREE. CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ALL HORSETAIL AND ANY OTHER WEED PLANTS OR WEED SEEDS THAT MAY BE PRESENT IN SITE TOPSOIL. CONTRACTOR TO SUBMIT PLAN FOR INSURING TOPSOIL IS WEED FREE AND PLAN TO BE APPROVED BY THE OWNER.
4. SITE TOPSOIL TO BE SCREENED TO REMOVE ALL GRASS CLODS AND DEBRIS LARGER THAN ONE INCH.
5. EXISTING SITE TOPSOIL TO BE AMENDED WITH COMPOST AT A THE MINIMUM PRE-APPROVED RATE OF 3:1. THREE UNITS OF SITE TOPSOIL TO ONE UNIT OF COMPOST. IF SOIL TEST REQUIRES MORE COMPOST THAN THE 3:1 RATIO, THAT THE SOIL TEST RECOMMENDATION IS TO BE FOLLOWED.
6. IN LIEU OF AMENDING SITE TOPSOIL CONTRACTORS MAY CHOOSE TO USE IMPORTED 2-WAY TOPSOIL. 2-WAY SOIL TO BE COMPLIANT WITH DOE BMP 5.13.
7. AMENDED TOPSOIL DEPTHS
 - 7.1. PLANTER BEDS TO HAVE A MINIMUM OF 6 INCHES OF TOPSOIL. 3 INCHES OF AMENDED SOIL IS TO BE INCORPORATED INTO PLANTER AREAS AND THEN AN ADDITIONAL 3 INCHES OF AMENDED SOIL IS TO BE PLACED FOR A TOTAL AMENDED DEPTH OF 6 INCHES.
 - 7.2. LAWNS AREAS TO HAVE A MINIMUM OF FOUR INCHES OF TOPSOIL. TOPSOIL TO BE ROTOTILLED INTO EXISTING SUBGRADE.
 - 7.3. STREET TREE PLANTER STRIPS TO HAVE A MINIMUM OF 12 INCHES OF TOPSOIL FOR A LENGTH OF 6 FEET IMMEDIATELY UNDER THE CENTER OF THE TREE. 3 INCHES OF AMENDED TOPSOIL IS TO BE INCORPORATED INTO PLANTER STRIPS AND THEN AN ADDITIONAL 9 INCHES OF AMENDED SOIL IS TO BE PLACED FOR A TOTAL DEPTH OF 12 INCHES.
 - 7.3. STREET TREE PLANTER STRIPS, BEYOND THE 6 FOOT LONG PLANTING PIT, IS TO HAVE A MINIMUM OF 6 INCHES OF TOPSOIL. 3 INCHES OF AMENDED TOPSOIL IS TO BE INCORPORATED INTO PLANTER STRIPS AND THEN AN ADDITIONAL 3 INCHES OF AMENDED SOIL IS TO BE PLACED FOR A TOTAL DEPTH OF 6 INCHES.
8. IMPORTED TOPSOIL DEPTHS
 - 8.1. SAME AS ABOVE
9. SEE PLANS FOR LOCATIONS WHERE ADDITIONAL TOPSOIL DEPTHS ARE REQUIRED.

MAINTENANCE NOTES

1. UNDER NO CIRCUMSTANCE ARE STREET TREES TO BE TOPPED OR PRUNED WITHOUT PERMISSION OF THE CITY ARBORIST.
2. UNDER NO CIRCUMSTANCE ARE SHRUBS TO BE SHEARED OR SHAPED WITHOUT EXPLICIT PERMISSION FROM THE OWNER. SHRUBS ARE DESIGNED TO FILL AND GROW IN TO A PERMANENT MATURE SIZE.
3. GROUNDCOVER THAT GROWS 'OUT' OF BEDS AND INTO ADJACENT WALKS OR ROADS ARE TO BE CUT-BACK AS NEEDED.
4. PERENNIAL AND GRASSES WHICH ARE DECIDUOUS MAY BE CUT BACK AT OWNERS DISCRETION, ONCE PER YEAR, DURING THE MONTHS OF FEBRUARY, MARCH OR APRIL.
5. LAWN TO BE MOWED WEEKLY DURING THE GROWING SEASON AND FERTILIZED ONCE PER YEAR MIN PER PRODUCT INSTRUCTIONS.
6. ALL WEEDS TO BE REMOVED IN A TIMELY MANNER, ONCE PER MONTH MINIMUM, BY MECHANICAL OR CHEMICAL MEANS, IN COMPLIANCE WITH ALL LOCAL AND STATE GUIDELINES AND REQUIREMENTS.
7. BARK MULCH IN PLANTER BEDS TO BE TOPPED OFF WITH 1" LIFT MIN, ONCE PER YEAR IN THE SPRING.

LANDSCAPE STATISTICS AND RECREATION DESIGN STANDARDS AND GUIDELINES IN SEDRO-WOOLLEY

Landscape Statistics		
	S.F.	
STREET FRONTAGE	3" caliper approved tree every 30' o.c. required	provided per code.
	Trees shown in legend that are not 3" are used in other locations within the project	

Usable Open Space Statistics		
	65 LOTS	
REQUIRED	8,000 SF + 100 SF per unit beyond 25 units	64 units - 25 = 39 units 39 x 100sf = 3,900sf 8,000sf + 3,900sf = 11,900 sf
PROVIDED		2824 + 6624 + 11,498 + 8534 = 29,480 sf

RECREATION ELEMENTS	Chapter 6 - "Additional standards for Recreation Areas in Subdivision and Multi-Family Developments"
REQUIRED	S-W Design Standards requires four amenities be incorporated in the recreation areas. Drinking fountain required with more than 25 lots.
PROVIDED	1 - Site Furnishings (benches and picnic tables) 2 - sport court 3 - Childrens Play Equipment with slides 4 - Drinking Fountain
EXTRA PROVIDED	mowed grass for informal play, picnicking, etc.

NO.	DATE	REVISION	BY	REV.
1	1.27.2021	SITE PLAN REVIEW	pd	pd
2	6.25.2021	REVISED ROAD ALIGNMENT PER CS-W	pd	pd
3	8.23.2021	REVISED PER CS-W 8-21-21 PLANNING AND PW COMMENTS	pd	pd
3	9.8.2021	MINOR R.O.W. REVISIONS	pd	pd

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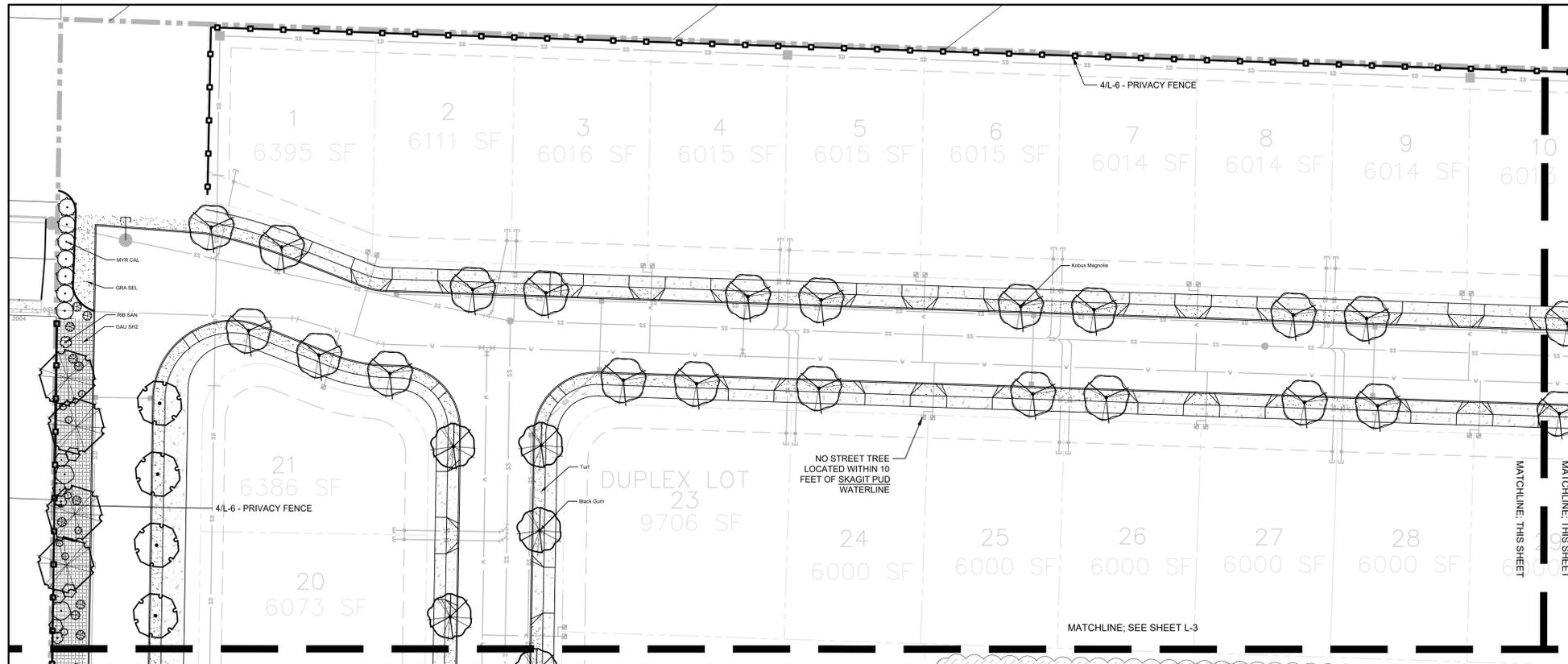
Bucko Plat
Sedro-Woolley, WA

SCALES:
HORIZONTAL :
VERTICAL : N/A
DESIGNED: PD
DRAWN: PD
CHECKED: PD

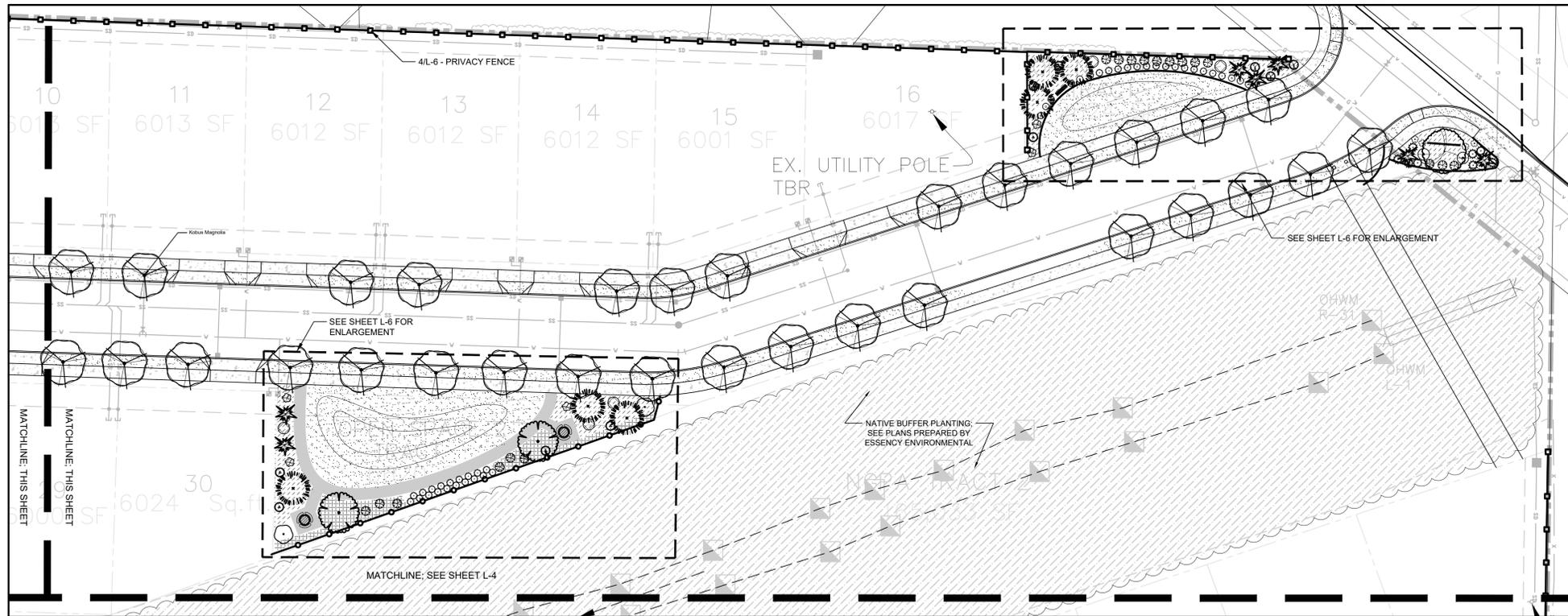
PLANTING PLAN

ISSUE DATE: 9.8.2021
DRAWING: 2047land
JOB NO.: 2047
SHEET: **L-1**





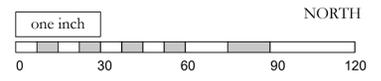
PLANTING PLAN A
1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)



PLANTING PLAN B
1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE BLO	Acer palmatum 'Bloodgood'	Bloodgood Japanese Maple	2" Cal.
	ACE FJR	Acer rubrum 'Frank Jr.' TM	Redpointe Red Maple	3" Cal.
	BET RIV	Betula nigra	River Birch	3" Cal.
	CHA ARR	Chamaecyparis nootkatensis 'Green Arrow'	Green Arrow Nootka Cypress	7' Ht.
	GIN G10	Ginkgo biloba 'Goldspire'	Fastigate Maidenhair Tree	2" Cal.
	GLE LIM	Gleditsia triacanthos 'Limelight'	Honey Locust	3" Cal.
	LIQ FAS	Liquidambar styraciflua 'Fastigiata'	Sweetgum 'Fastigiata'	2" Cal.
	MAG KOB	Magnolia kobus	Kobus Magnolia	3" Cal.
	NYS WIL	Nyssa sylvatica 'Wildfire'	Black Gum	3" Cal.
	SEQ SEM	Sequoia sempervirens	Coast Redwood	5' Ht.
	STE PSE	Stewartia pseudocamellia	Japanese Stewartia	2" Cal.
	THU GR2	Thuja standishii x plicata 'Green Giant'	Green Giant Cedar	7' Ht.
	TIL GRE	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	3" Cal.
	TSU MER	Tsuga mertensiana	Mountain Hemlock	6' Ht.
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE CIR	Acer circinatum	Vine Maple	5 gal.
	COR DUN	Cornus sanguinea 'Anny's Winter Orange'	Anny's Winter Orange Dogwood	2 gal.
	FOR FI2	Forsythia x intermedia 'Fiesta'	Fiesta Forsythia	2 gal.
	HYD WAV	Hydrangea macrophylla 'Blue Wave'	Blue Wave Lacecap Hydrangea	2 gal.
	ILE GGI	Ilex glabra	'Gem Box' Inkberry Holly	2 gal.
	MAH RE4	Mahonia repens	Creeping Mahonia	2 gal.
	MYR CAL	Myrica californica	Pacific Wax Myrtle	2 gal.
	NAN LE8	Nandina domestica 'Lemon Lime'	Lemon Lime Nandina	2 gal.
	OSM HET	Osmanthus heterophyllus 'Goshiki'	Goshiki Holly Olive	2 gal.
	PIE CA2	Pieris japonica 'Cavatine'	Lily of the Valley Bush	2 gal.
	PRU OT2	Prunus laurocerasus 'Otto Luyken'	Luykens Laurel	2 gal.
	RHO SC2	Rhododendron schlippenbachii	Royal Azalea	5 gal.
	RHO XT8	Rhododendron x TBD-large	Rhody - greater than 8 feet	2 gal.
	RIB SAN	Ribes sanguineum	Red Flowering Currant	5 gal.
	SAR RUS	Sarcococca ruscifolia	Fragrant Sarcococca	2 gal.
	SPI SP2	Spiraea japonica 'Little Princess'	Little Princess Japanese Spirea	2 gal.
	SYM ALB	Symphoricarpos albus	Common White Snowberry	2 gal.
	TAX EME	Taxus cuspidata 'Emerald Spreader' TM	Emerald Spreader Japanese Yew	2 gal.
	VIB SHA	Viburnum plicatum tomentosum 'Shasta'	Shasta Japanese Snowball	2 gal.



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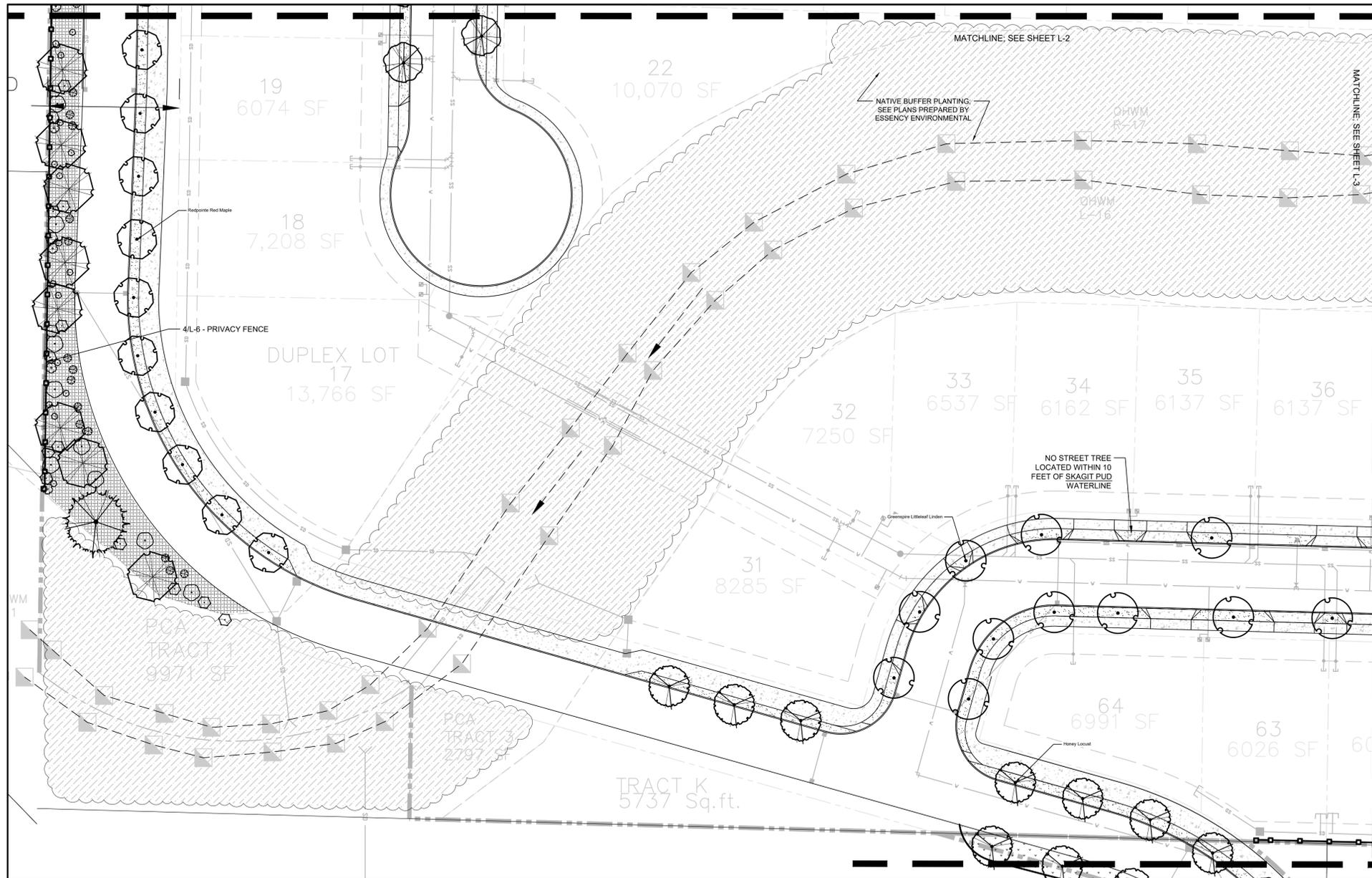
Bucko Plat

Sedro-Woolley, WA

SCALES: 1" = 30'-0"
HORIZONTAL :
VERTICAL : N/A
DESIGNED: PD
DRAWN: PD
CHECKED: PD

PLANTING PLAN

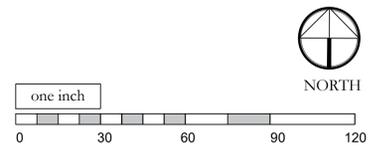
ISSUE DATE: 9.8.2021
DRAWING: 2047land
JOB NO.: 2047
SHEET: L-2



PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE BLO	Acer palmatum 'Bloodgood'	Bloodgood Japanese Maple	2" Ce
	ACE FJR	Acer rubrum 'Frank Jr.' TM	Redpointe Red Maple	3" Ce
	BET RIV	Betula nigra	River Birch	3" Ce
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	VIB SHA	Viburnum plicatum tomentosum 'Shasta'	Shasta Japanese Snowball	2 gal

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1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)



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2	6.25.2021	REVISED ROAD ALIGNMENT PER CS-W	pd	pd
3	8.23.2021	REVISED PER CS-W 8-21-21 PLANNING AND PW COMMENTS	pd	pd
3	9.8.2021	MINOR R.O.W. REVISIONS	pd	pd

prepared by:
Bucko Proerties
contact:
Laura Bucko Sarah Bucko

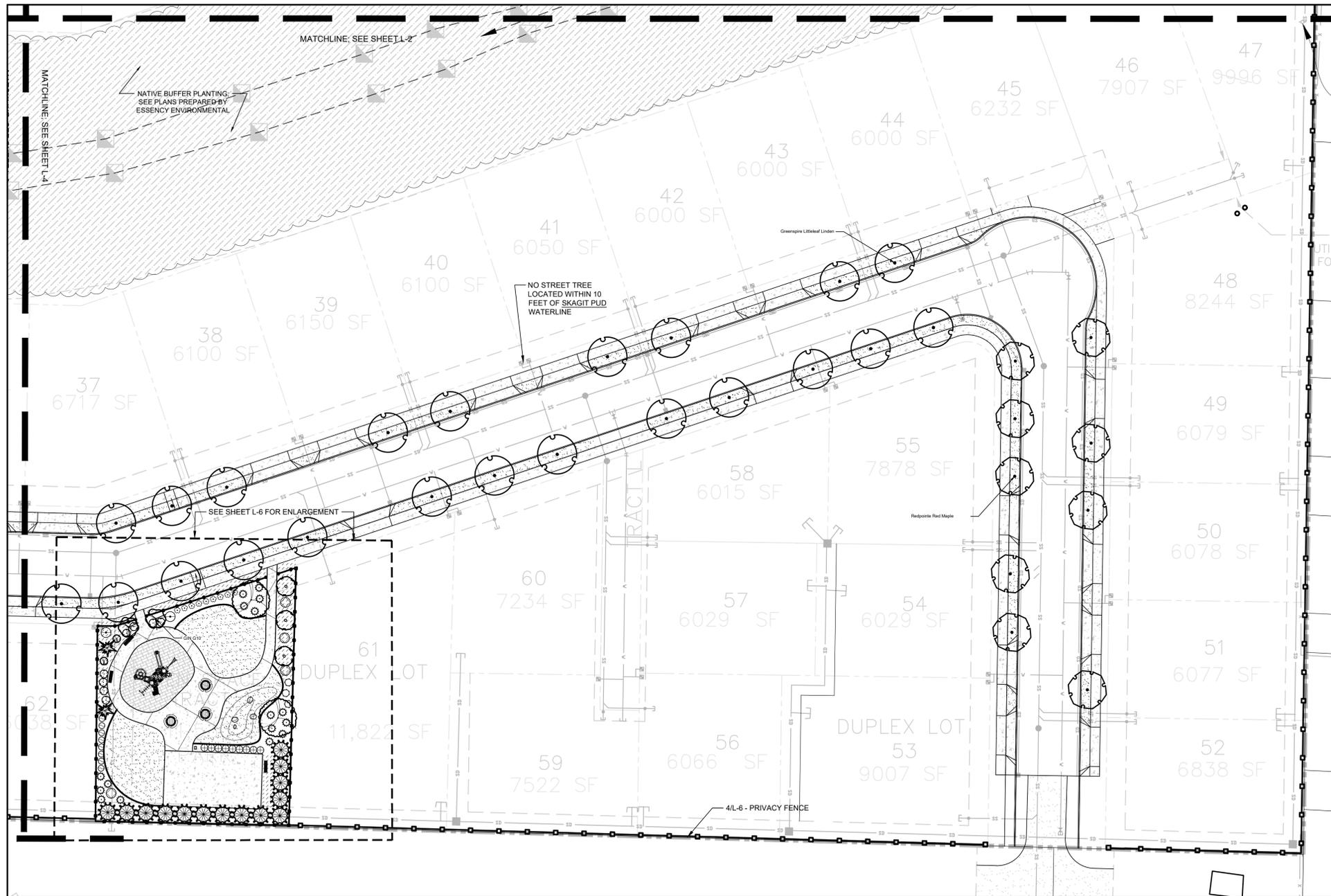
prepared by:
 eccosDesign
Landscape Architecture and Planning
Mount Vernon, WA 98273
p. 360.419.7400
f. 800.508.2017
www.eccosdesign.com

Bucko Plat
Sedro-Woolley, WA

SCALES: 1" = 30'-0"
HORIZONTAL :
VERTICAL : N/A
DESIGNED: PD
DRAWN: PD
CHECKED: PD

PLANTING PLAN

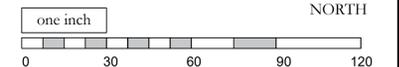
ISSUE DATE: 9.8.2021
DRAWING: 2047land
JOB NO.: 2047
SHEET: L-3



PLANTING PLAN A
 1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)

PLANT SCHEDULE

TREES		CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE BLO	Acer palmatum 'Bloodgood'	Bloodgood Japanese Maple	2" Cal.	
	ACE FJR	Acer rubrum 'Frank Jr.' TM	Redpointe Red Maple	3" Cal.	
	BET RIV	Betula nigra	River Birch	3" Cal.	
	CHA ARR	Chamaecyparis nootkatensis 'Green Arrow'	Green Arrow Nootka Cypress	7' Ht.	
	GIN G10	Ginkgo biloba 'Goldspire'	Fastigiata Maidenhair Tree	2" Cal.	
	GLE LIM	Gleditsia triacanthos 'Limelight'	Honey Locust	3" Cal.	
	LIQ FAS	Liquidambar styraciflua 'Fastigiata'	Sweetgum 'Fastigiata'	2" Cal.	
	MAG KOB	Magnolia kobus	Kobus Magnolia	3" Cal.	
	NYS WIL	Nyssa sylvatica 'Wildfire'	Black Gum	3" Cal.	
	SEQ SEM	Sequoia sempervirens	Coast Redwood	5' Ht.	
	STE PSE	Stewartia pseudocamellia	Japanese Stewartia	2" Cal.	
	THU GR2	Thuja standishii x plicata 'Green Giant'	Green Giant Cedar	7' Ht.	
	TIL GRE	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	3" Cal.	
	TSU MER	Tsuga mertensiana	Mountain Hemlock	6' Ht.	
SHRUBS		CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE CIR	Acer circinatum	Vine Maple	5 gal.	
	COR DUN	Cornus sanguinea 'Anny's Winter Orange'	Anny's Winter Orange Dogwood	2 gal.	
	FOR FI2	Forsythia x intermedia 'Fiesta'	Fiesta Forsythia	2 gal.	
	HYD WAV	Hydrangea macrophylla 'Blue Wave'	Blue Wave Lacecap Hydrangea	2 gal.	
	ILE GGI	Ilex glabra	'Gem Box' Inkberry Holly	2 gal.	
	MAH RE4	Mahonia repens	Creeping Mahonia	2 gal.	
	MYR CAL	Myrica californica	Pacific Wax Myrtle	2 gal.	
	NAN LE8	Nandina domestica 'Lemon Lime'	Lemon Lime Nandina	2 gal.	
	OSM HET	Osmanthus heterophyllus 'Goshiki'	Goshiki Holly Olive	2 gal.	
	PIE CA2	Pieris japonica 'Cavatine'	Lily of the Valley Bush	2 gal.	
	PRU OT2	Prunus laurocerasus 'Otto Luyken'	Luykens Laurel	2 gal.	
	RHO SC2	Rhododendron schlippenbachii	Royal Azalea	5 gal.	
	RHO XTB	Rhododendron x TBD-large	Rhody - greater than 8 feet	2 gal.	
	RIB SAN	Ribes sanguineum	Red Flowering Currant	5 gal.	
	SAR RUS	Sarcococca ruscifolia	Fragrant Sarcococca	2 gal.	
	SPI SP2	Spiraea japonica 'Little Princess'	Little Princess Japanese Spiraea	2 gal.	
	SYM ALB	Symphoricarpos albus	Common White Snowberry	2 gal.	
	TAX EME	Taxus cuspidata 'Emerald Spreader' TM	Emerald Spreader Japanese Yew	2 gal.	
	VIB SHA	Viburnum plicatum tomentosum 'Shasta'	Shasta Japanese Snowball	2 gal.	



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prepared by:
Bucko Proerties
 contact:
 Laura Bucko Sarah Bucko

prepared by:

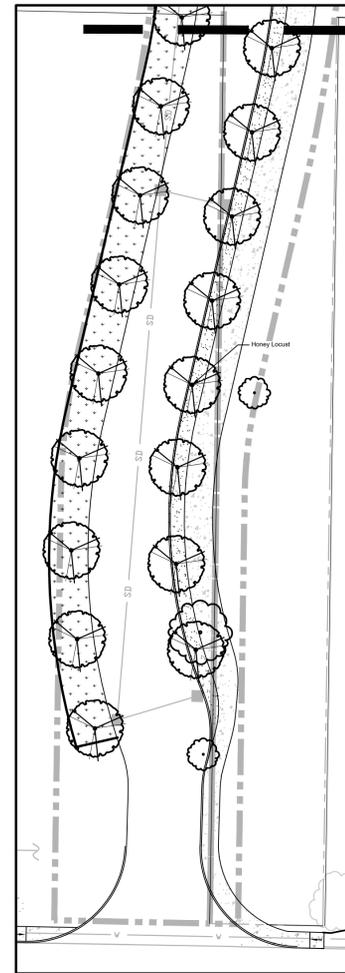
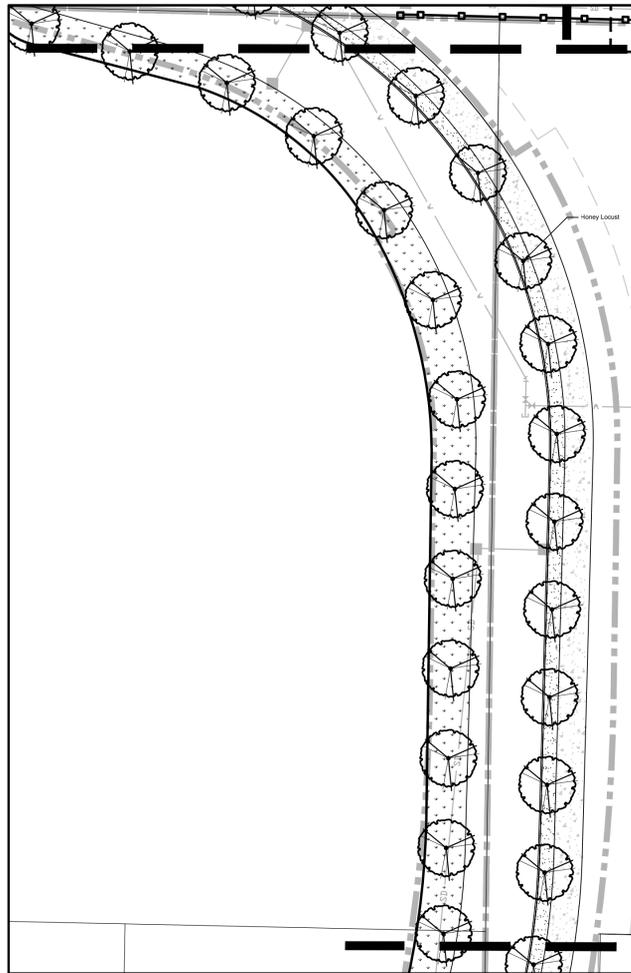
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Bucko Plat
 Sedro-Woolley, WA

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 VERTICAL : N/A
 DESIGNED: PD
 DRAWN: PD
 CHECKED: PD

PLANTING PLAN

ISSUE DATE: 9.8.2021
 DRAWING: 2047land
 JOB NO.: 2047
 SHEET: L-4



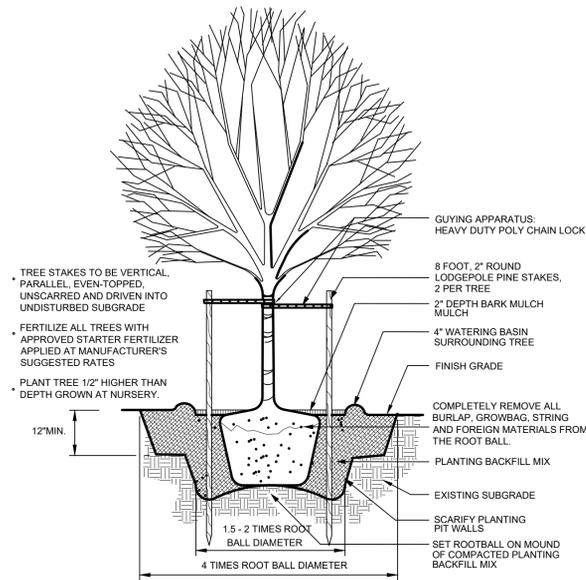
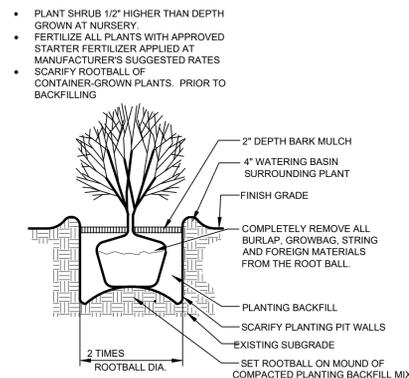
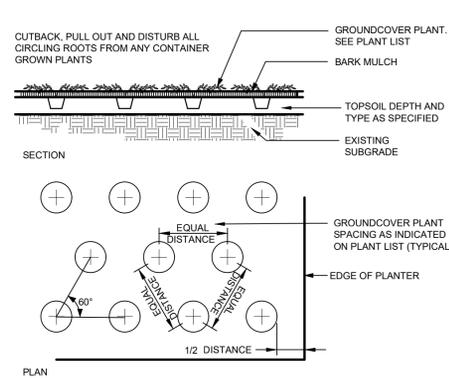
north

South

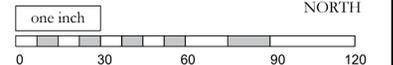
PLANTING PLAN C north and C south
1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ACE BLO	Acer palmatum 'Bloodgood'	Bloodgood Japanese Maple	2" Cal.
	ACE FJR	Acer rubrum 'Frank Jr.' TM	Redpointe Red Maple	3" Cal.
	BET RIV	Betula nigra	River Birch	3" Cal.
	CHA ARR	Chamaecyparis nootkatensis 'Green Arrow'	Green Arrow Nootka Cypress	7' Ht.
	GIN G10	Ginkgo biloba 'Goldspire'	Fastigate Maidenhair Tree	2" Cal.
	GLE LIM	Gleditsia triacanthos 'Limelight'	Honey Locust	3" Cal.
	LIQ FAS	Liquidambar styraciflua 'Fastigiata'	Sweetgum 'Fastigiata'	2" Cal.
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	ILE GGI	Ilex glabra	'Gem Box' Inkberry Holly	2 gal.
	MAH RE4	Mahonia repens	Creeping Mahonia	2 gal.
	MYR CAL	Myrica californica	Pacific Wax Myrtle	2 gal.
	NAN LE8	Nandina domestica 'Lemon Lime'	Lemon Lime Nandina	2 gal.
	OSM HET	Osmanthus heterophyllus 'Goshiki'	Goshiki Holly Olive	2 gal.
	PIE CA2	Pieris japonica 'Cavatine'	Lily of the Valley Bush	2 gal.
	PRU OT2	Prunus laurocerasus 'Otto Luyken'	Luykens Laurel	2 gal.
	RHO SC2	Rhododendron schlippenbachii	Royal Azalea	5 gal.
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	SPI SP2	Spiraea japonica 'Little Princess'	Little Princess Japanese Spirea	2 gal.
	SYM ALB	Symphoricarpos albus	Common White Snowberry	2 gal.
	TAX EME	Taxus cuspidata 'Emerald Spreader' TM	Emerald Spreader Japanese Yew	2 gal.
	VIB SHA	Viburnum plicatum tomentosum 'Shasta'	Shasta Japanese Snowball	2 gal.
GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	SIZE
	ARC UVA	Arctostaphylos uva-ursi	Kinnikinnick	6"
	GAU SH2	Gaultheria shallon	Salal	6"



3 TYPICAL PLANTING DETAILS
L-5 NO SCALE



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prepared for:
Bucko Proerties
contact:
Laura Bucko Sarah Bucko

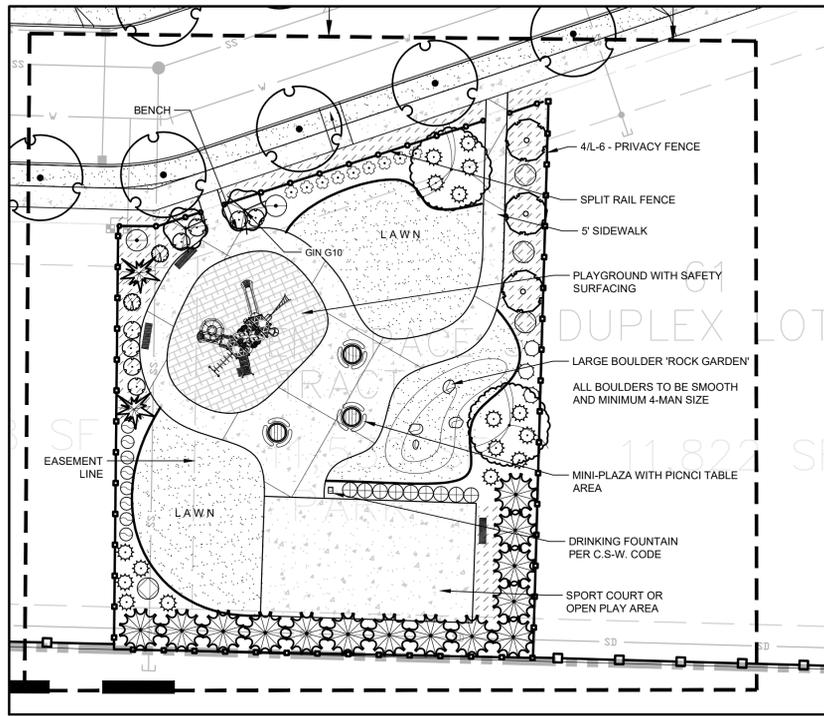
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Bucko Plat
Sedro-Woolley, WA

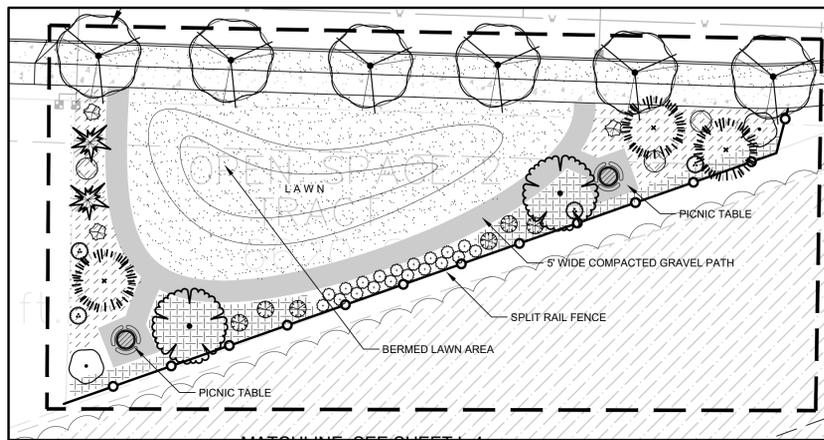
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VERTICAL : N/A
DESIGNED: PD
DRAWN: PD
CHECKED: PD

PLANTING PLAN

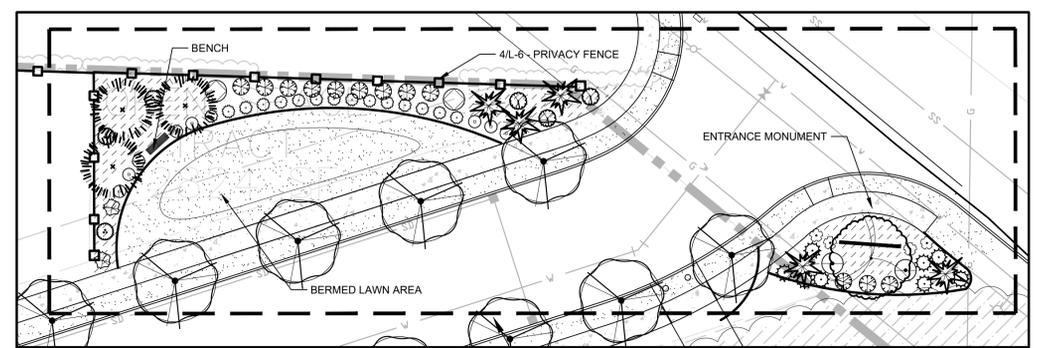
ISSUE DATE: 9.8.2021
DRAWING: 2047land
JOB NO.: 2047
SHEET: L-5



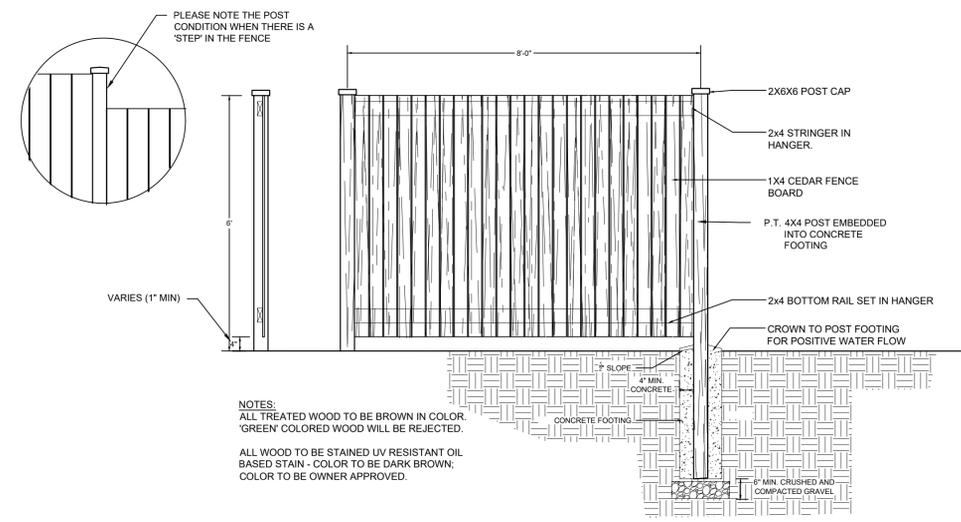
1 | MINI-PARK A
 L-6 | 1" = 20'-0" (CHECK SCALE BAR FOR ACCURACY)



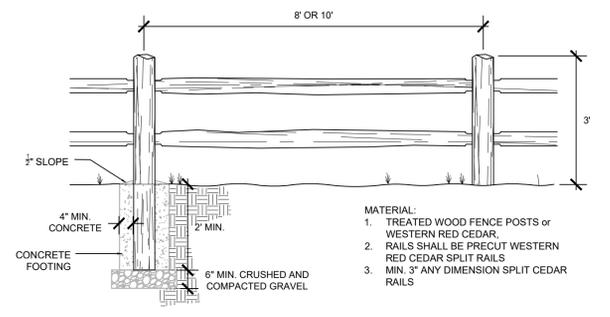
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 L-6 | 1" = 20'-0" (CHECK SCALE BAR FOR ACCURACY)



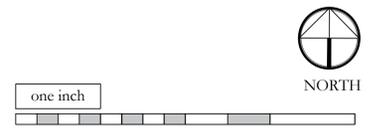
3 | MINI-PARK C AND ENTRANCE SIGN
 L-6 | 1" = 20'-0" (CHECK SCALE BAR FOR ACCURACY)



4 | SCREENING FENCE
 L-6 | NO SCALE



5 | SPLIT RAIL FENCE
 L-6 | NO SCALE



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prepared for:
Bucko Proerties
 contact:
 Laura Bucko Sarah Bucko

prepared by:

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Bucko Plat
 Sedro-Woolley, WA

SCALES:
 HORIZONTAL :
 VERTICAL : N/A
 DESIGNED: PD
 DRAWN: PD
 CHECKED: PD

PLANTING PLAN

ISSUE DATE: 9.8.2021
 DRAWING: 2047land
 JOB NO.: 2047
 SHEET: L-6

CITY OF SEDRO-WOOLLEY
SEPA Notice of Threshold Determination
Mitigated Determination of Non-significance (MDNS)

Description of proposal/application: A proposal for a 64 lot, 68 unit subdivision development. The project is located south of F&S Grade Road and connects through to Cook Road. The property has two existing homes that will be replaced. Four of the lots are proposed to be duplex lots and the remaining lots will be single family residential. The approximately 19.6 acre property is zoned Residential 7 and is bisected by Brickyard Creek. The project is proposed to be carried out over three phases and includes the construction of new public roads with sidewalks, open space tracts, riparian corridor enhancements and stormwater infrastructure. A portion of the new north-south road is a planned arterial road that will connect Cook Rd through to F&S Grade Rd in the future. The arterial is a part of the City's transportation plan; the arterial will not yet connect all the way through to F&S Grade Rd as a part of this project. File #LP-2021-067.

Proponent: Bucko Survivors Trust
ATTN: Sarah Bucko
13315 Overton Street
Portland, OR 97229

Location of project: Between Cook Rd & F&S Grade Rd, Parcels P37250, P37251, P37253 & P37256

Environmental Review: The City of Sedro-Woolley, lead agency for this proposal, has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This determination is based upon the following mitigation being provided by the applicant:

1. Hours of construction shall be limited to 7:00 a.m. to 9:00 p.m. weekdays and 8:00 a.m. to 9:00 p.m. weekends as required in SWMC 9.46.020;
2. Comply with Northwest Clean Air Agency Regulations during construction activities;
3. Provide mitigation for project related impacts to critical areas and buffers in accordance with Chapter 17.65 SWMC;
4. All construction traffic shall use temporary construction access as approved by the Public Works Department;
5. Contribute police mitigation fees of \$505.76 per unit as per the residential unit fee calculation in the Capital Facilities Element of the City of Sedro-Woolley Comprehensive Plan; and
6. Lighting from the site shall be directed and/or shielded so as to not shine at the neighboring residential properties.

The lead agency previously issued a comment period for this proposal under the optional DNS process in WAC 197-11-355. There is no further comment period on this threshold determination. Per SWMC 2.88.170, you may appeal this threshold determination in writing to the City of Sedro-Woolley Planning Department within 14 days from date of publication. Written appeals and appeal fees must be submitted by 4:30 p.m. **Wednesday, September 8,**

2021. Contact the Planning Director at the City of Sedro-Woolley, 325 Metcalf Street, Sedro-Woolley, Washington, 98284 or electronically at jcoleman@sedro-woolley.gov to read or ask about the procedures for SEPA appeals.

Responsible SEPA Official: Planning Director – City of Sedro-Woolley

Contact Person: John Coleman, Planning Director

Address: 325 Metcalf Street, Sedro-Woolley, WA 98284

Date of Issue: Wednesday, August 25, 2021 **Date of publication:** Wednesday, August 25, 2021

Signature:



John Coleman, Planning Director

Per SWMC 2.88.170, you may appeal this threshold determination in writing to the City of Sedro-Woolley Planning Department no later than **Wednesday, September 8, 2021**. Written appeals must be submitted, along with the required fee, to the Planning Department, City of Sedro-Woolley, 325 Metcalf Street, Sedro-Woolley, WA, 98284. You should be prepared to make specific factual objections. Contact the Planning Department to read or ask about the procedures for SEPA appeals.

NOTICE OF PUBLIC HEARING
Wednesday, January 12, 2022 at 3:00PM
Virtual Online Meeting via Zoom Webinar

Exhibit O

Application: LP-2021-067; 64 residential units (60 single-family and 4 duplex) proposed spanning Assessor's Parcels 37250, 37251, and 37253 in addition to two existing single family houses (one located on P37250, the other on P37251) with a roadway extension southerly to Cook Road across the westerly side of Assessor's Parcel 37256.

Applicant Contact: John Ravnik and Heike Nelson, PO Box 361, Burlington, WA 98233

Project Address: 503 and 505 F & S Grade Road, Sedro-Woolley, WA 98284. Assessor's Parcels 37250, 37251, 37253, 37256

Project: This proposal is for the construction of 64 residential units (60 single-family and 4 duplex) on 19.6 acres spanning Assessor's Parcels 37250, 37251, and 37253 in addition to two existing single family houses (one located on P37250, the other on P37251) with a roadway extension southerly to Cook Road across the westerly side of Assessor's Parcel 37256. The project also includes access, utilities, and open space amenities to serve all proposed lots. The expansion is proposed to be located southerly of F & S Grade Road and easterly of Klinger Estates and Thurmond Avenue. File #2021-067.

Public Comment: Interested persons may comment on the application, receive notice and participate in any hearings and request a copy of the decision. Written testimony may be submitted to: City of Sedro-Woolley Planning Department, ATTN: Assistant Planner, 325 Metcalf Street, Sedro-Woolley, Washington, 98284, or by email to nmcgowan@sedro-woolley.gov until 2:00 PM on the date of the public hearing.

Documents are available for review: Please contact the Assistant Planner, Nicole McGowan, by phone at (360) 855-0771 or e-mail at nmcgowan@sedro-woolley.gov to request documents, which will be made available electronically or mailed to the requestor. Electronic documents are available at no cost; paper copies will be provided at the requestor's cost. A staff report will be available seven days prior to the hearing.

Hearing Examiner: The Hearing Examiner will hold an open record public hearing on the proposed project at **3:00PM, Wednesday, January 12, 2022** via Zoom Webinar. There is no physical location for the hearing due to COVID-19 protocols. Based on the information presented to the Hearing Examiner and testimony at that hearing, the Hearing Examiner will make a decision whether to approve, approve with conditions, or deny the proposal.

Zoom Meeting: For information on how to join the remote meeting, visit the Planning Department hearing examiner page on the City of Sedro-Woolley's website: https://www.ci.sedro-woolley.wa.us/departments/planning/hearing_examiner.php

Notice Published: Thursday, December 30, 2021

Exhibit P

Figure 1
Study Area (Map revised)

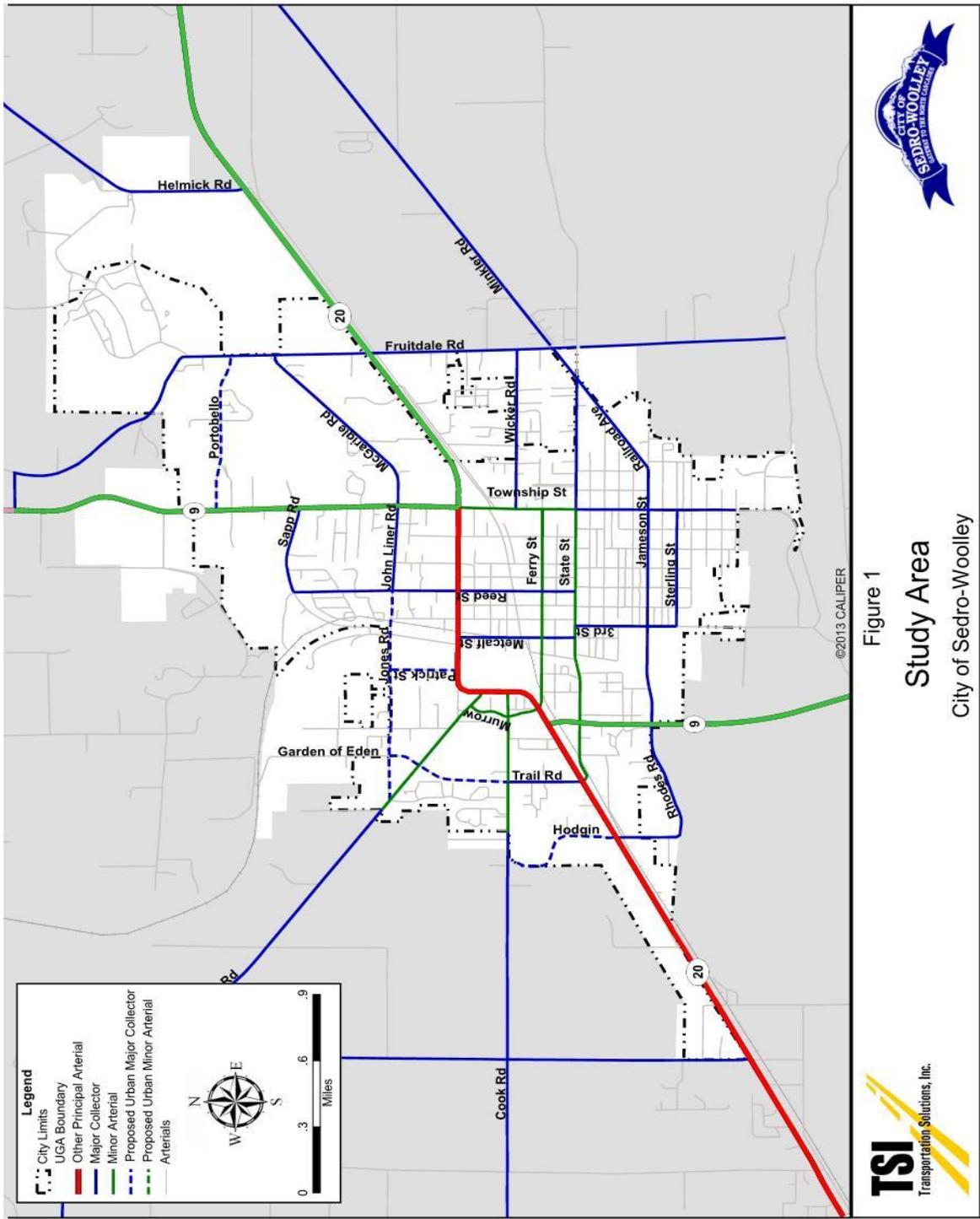


Figure 1
Study Area
City of Sedro-Woolley

Patrick M. Hayden
PO Box 454
109 Warner Street
Sedro-Woolley, WA. 98284-0454
360-855-1811
pmhayden@gmail.com



January 7, 2022

Sedro-Woolley Hearing Examiner
c/o Sedro-Woolley Planning Department
Sedro-Woolley Municipal Building
325 Metcalf Street
Sedro-Woolley, WA. 98284

Re: Bucko Estates, LP-2021-067, consisting of 64 residential units, roadway extension
Project Address: 503 and 505 F & S Grade Road, Sedro-Woolley, WA 98284
Assessor's Parcels 37250, 37251, 37253, 37256

Dear Sir or Madam:

Please include this letter as my comment on the above referenced application in the record of the Hearing Examiner in support of a pedestrian trail easement in the Brickyard Creek Protected Area. (As used in this letter, "Brickyard Creek Protected Area" refers to the protected critical area of the creek as shown on the development map.) The hearing is scheduled for 3:00 PM, January 12, 2022. I understand that the hearing is not at a physical location. The first part of this letter will discuss how the City Planner's recommendation for a trail easement in the Brickyard Creek Protection Area is supported by the policies of the Sedro-Woolley Comprehensive Plan. The second part will convey my personal opinions. I am a resident of the City of Sedro-Woolley and a trail user.

1. Background

Brickyard Creek is a primary conveyance for city storm water to the Skagit River. It is also a salmon bearing stream, and is protected as such (*Sedro-Woolley Comprehensive Plan*, Land Use Element, page 22). It flows from the NE corner of the city in a SW direction to the Skagit River, through several developments, through city property, and is adjacent to Janicki Playfields on Cook Road.

Brickyard Creek runs through the property on which this development will be built. The creek is the largest environmentally sensitive area and significant natural waterway transecting the city limits of Sedro-Woolley. A pedestrian trail easement, adjacent to Brickyard Creek, as requested

by the City Planning Department, would be an important recreational feature and non-motorized transportation improvement, supported by the *City Comprehensive Plan* policies, at little or no cost to the developer. To omit this trail easement from the development will create permanent gap in a Brickyard Creek trail corridor. The Hearing Examiner should require the developer to convey a pedestrian trail easement for a future trail in the Brickyard Creek Protection Area as a condition of development.

Brickyard Creek has played an important role in the City and surrounding area. At one point it probably flowed NW across very flat farmland into the Samish River. It was re-routed SW into the Skagit River to help drain this farmland. It has a slow flow rate for most of its course. Though it is a major storm water conveyance, it is at capacity during a major storm event. Most developments North of SR 20 empty into it during a peak storm water event.

Brickyard Creek evolved into a city storm water conveyance over time. It was once managed by a sub-flood control district, and was later take over by the City as Sedro-Woolley grew Northward. It is covered by various easements - written and prescriptive - that give various government agencies authority to access, maintain and use it as a drainage ditch.

In addition, it was improved to be an access for salmon from the Skagit River, and has become a spawning stream. It is planted with salmon fry, is an HPA waterway, and is subject to setbacks and state oversight that was not as strictly enforced 25 years ago when Cook Road started to be developed. A brief history of Brickyard Creek is included in the *Comprehensive Plan*. The study by Sturdy Engineering is probably the most comprehensive compilation about the creek.

2. Trail as Recreational Feature

In addition to its role as a stormwater conveyance, Brickyard Creek can uniquely connect people to the natural environment as a passive trail corridor which emphasizes the role of Brickyard Creek as a salmon spawning stream. The *Sedro-Woolley Comprehensive Plan* contemplates integrating natural and critical areas as trail corridors and passive parks, especially if they illustrate important environmental values such as preservation of salmon habitat, to the extent that such use is not inconsistent with protection of critical areas.

The *Sedro-Woolley Comprehensive Plan* calls for the establishment of pedestrian trails in new developments: Section 6.24 of the Parks and Recreation Element proposes as a long term goal:

“Trails – 1 mile of trail (separated from roadways) per 1,000 residents in 2036. This includes both trails on public lands and trails on private land where an easement is in place to allow public trail access.”

“It is recommended that an option of a dedication of land be continued in instances in which large subdivisions are being constructed in which dedication of land for

recreational purposes would correspond to plans to be implemented in the parks element (i.e. neighborhood parks, *an integral part of a trail system*).” (Emphasis added.) (Page 148).

Section 6.08 of the Parks and Recreation Element specifically calls for uses of critical areas in new developments for passive, low impact uses such as pathways:

“Newer housing subdivisions are required to provide recreation areas and open spaces within the subdivision for the benefit of the new residents. Owned and maintained by the homeowners association, these recreation areas and open spaces are typically smaller than standard city parks, but provide conveniently located recreational opportunities for residents of the subdivision. *Newer residential subdivisions may also contain property set aside as critical areas, such as wetland and stream buffers or land with steep slopes.* Homeowners associations are responsible for maintaining and protecting these critical areas. *Critical areas can provide limited passive recreation, such as paths and seating areas.*” (Emphasis added.) (Parks and Recreation Element, Section 6.08, page 138.)

Parks and Recreation Element Section 6.24, page 147, establishes the following policy:

“24. Creek Corridors, power easement corridors and abandoned railway corridors shall be examined as potential parks and trails.”

Second, the Parks and Recreation Element of the Comprehensive Plan contemplates linking people to existing City and County parks with trail systems. Specifically, the City owns a five acre parcel suitable for a trail along Brickyard Creek lying West side of the Janicki Playfields between SR 20 and Cook Road. A trail in the Brickyard Creek corridor could help link the Bucko development to the Janicki Playfields without routing people onto city streets.

The *Sedro-Woolley Comprehensive Plan*, Chapter 6, Parks and Recreation, policies and goals support the establishment of a trail easement for both of these purposes:

Policy P1.3: *Establish a network of bicycle and pedestrian trails, which are coordinated with Skagit County in order to provide linkages to existing and proposed regional parks, open spaces and trail systems.* (Emphasis added.)

Policy P2.1: Increase the amount of natural areas to be preserved within Sedro-Woolley’s developed urban area, especially along shorelines, steep hillsides, wetlands and stream corridors.

Policy P4.2: Acquire areas of environmental significance for preservation and limited, sensitive development of educational and interpretive facilities.

Parks and Recreation Element lists several existing and planned parks with similar trail systems centered around critical areas, including interpretive facilities related to streams.

The establishment of a trail ROW easement in this Brickyard Creek Protected Area supports the Planning Department's recommendation that a trail or trail easement be established in the Protection Area. A trail easement will promote the goal of the *Comprehensive Plan* to create pedestrian trails for recreational uses in critical areas.

3. Non-Motorized Transportation

The establishment of a pedestrian trail easement in the Brickyard Creek Protected area corridor would also be consistent the *Sedro-Woolley Comprehensive Plan*, Chapter 3, Transportation Element Goal T4 and Policies T4.1 through T4.9. (The following are summaries.)

1. Policy T4.2 requires the development of a system of regional and local trails for bicycles, walkers, joggers and tourists for both transportation and recreation. Dedication of a trail in lieu of a park fee is provided for in this policy statement.
2. Policy T4.8 requires the continuation of an existing program to connect pedestrian transportation improvements.
3. Policy T4.9 requires the city to encourage pedestrian connections between adjacent developments.

Historically, the Cascade Trail, which begins in Burlington and ends in Concrete, was the only trail in Sedro-Woolley. It was a "rails to trails" project. Sedro-Woolley's role was minimal - it was spearheaded by Skagit County. But since 2000 the City *Comprehensive Plan* has incorporated pedestrian trails. Developers have been encouraged to build pedestrian links. At first this was resisted by developers, who wanted to exclude the public from their development amenities. But with the construction of Sauk Mountain Estates, trails have come into their own. The most recent *Comprehensive Plan* strongly supports trails that are separate from vehicle lanes as both an recreation and a transportation facility.

The preservation of pedestrian easement in the Brickyard Creek Protection Area will comply with this aspect of the Transportation Element of the *Comprehensive Plan*.

4. Request for Easement at This Time

I am familiar with the background of this property, with Brickyard Creek, and with the effort to build trails in Sedro-Woolley. Trails are often an ongoing project - they are constructed in increments as property is developed. My hope is that a trail can connect the Cascade Trail on SR 20 at Collins Road with the Northern State parks. But its not going to happen all at once as a complete project. It will only happen as pieces of trail can be stitched together over time as property is developed. Brickyard Creek, which runs from SR 20 and terminates near Northern State property at Sauk Mountain Estates is the most logical, natural trail corridor. The city owns parts of it, and the rest is encumbered by easements, rules and setbacks that prevent it from being of value for developed.

I do not think it is necessary that the developer of Bucko Estates build a trail at this time. But it is essential that the City acquire an *easement* for the pedestrian trail inside the Brickyard Creek Protected Area corridor (and perhaps an unambiguous easement for storm water conveyance and facility maintenance, though it probably already has that right). The City can construct pieces of a pedestrian trail over time - it does not have to be done at once. But if pieces of the corridor are lost, it will impact the viability of the whole trail.

The City has to manage Brickyard Creek for three purposes: storm water conveyance, fish habitat, and hopefully as a recreational trail. The trail would allow the City to construct displays and signage to educate people about the role of Brickyard Creek as a storm water and salmon rearing facility. The trail would be integrated into the natural environment. These are benefits that would not exist if the route was limited to the sidewalks in front of houses.

The developer is entitled to a credit against Park Impact Fees for the value of a trail easement. However, the Brickyard Creek Protection Area is already subject to other easements, and to DOE and HPA waterway restrictions, which prevent any residential development inside its boundaries - so the trail easement probably has little economic value to the developer; it would take no developable land. But these restrictions make this location for a trail the most logical location - as opposed to running it outside the BCPA boundaries and among houses. Locating a trail easement inside the BCPA would provide the most benefit and the best location, at the least use of developable property. It just makes sense to put a trail there.

5. Summary

I request that the Hearing Examiner grant the City Planning Department's original request and rule that the developer grant the City a pedestrian trail easement inside the entire length of the Brickyard Creek Protection Area, to be located at time of construction by the City. The developer can be given a credit against GMA Park Impact Fees to the extent the easement has economic value. **It is not necessary that the developer construct the trail, nor that it be constructed at this time.** But if the the easement is not granted to the City as part of the development requirements, then the City will lose the opportunity for the Brickyard Creek trail for this segment of the creek. This request, and an affirmative decision by the Hearing Examiner, has ample support in the *Sedro-Woolley Comprehensive Plan* for both the location of the trail and the general concept.

Very truly yours,

Patrick M. Hayden

Patrick M. Hayden

From: Gayleen 'Blankers' Ronk <gayleengirl@yahoo.com>
Sent: Tuesday, January 11, 2022 6:30 PM
To: Nicole McGowan
Cc: Gayleen
Subject: Re: LP-2021-067

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside of the City of Sedro-Woolley mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

*Hello Nicole,
Thank you for talking with me on Monday about the proposed subdivision for Bucko Estates! I appreciate your time. Below are our comments for the public hearing on Jan 12th.
Thank you!*

Hello,

Thank you for taking the public's comments into consideration, and the alterations that have been made to the Bucko Estate plans. As we have a previously scheduled appointment we cannot attend the meeting on Jan. 12th.

We have a few concerns that we would like addressed:

1) North Trail Road will run next to our home, and eventually the Major Urban Collector Arterial from John Liner, Jones Rd, F&S Grade Rd will also run right next to our home; there will be very high volume of traffic from vehicles and trucks that will use North Trail Road as access to Cook Rd. We'd like you to consider accommodations:

-Noise Control.

Please accommodate by providing sound barriers.

-Larger Easement.

Please place a greater distance between our property and North Trail Rd.

2) Section A. e. iv. on page 8 in the Hearing Examiner Staff Report, Policy H4.3 states that structures will "respect existing views of the natural features". The placement of homes in Bucko Estates will significantly obstruct our home's beautiful natural views of the foothills and mountains. Also, those new homes, even across North Trail Road, will be at a slightly higher elevation than where we are, which will further obstruct our views.

We chose to live here primarily because of the beauty and peacefulness, now that will be taken away. This causes a lot of sadness, and it will cost us as our home will lose some value. Please consider at minimum:

-Increasing the Easement distance between our property and North Trail Road.

-Keeping all houses along, or backing up to, North Trail Road as one story homes.

-Accommodation or compensation for our loss of our hill and mountain views, and the significant increase in noise.

Thank you for your time and consideration,
Gayleen and Shawn Ronk
801 Thurmond

gayleengirl@yahoo.com

Exhibit R



Gibson Traffic Consultants
2813 Rockefeller Avenue
Suite B
Everett, WA 98201
425.339.8266

Bucko Residential Development Traffic Impact Analysis

Jurisdiction: City of Sedro Woolley

November 2020



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1. INTRODUCTION

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide an analysis of the impacts of the Bucko Residential development in the City of Sedro Woolley. The development is proposed to consist of 70 residential units (60 single-family detached units and 5 duplex units). The Bucko Residential development is located on the south side of F&S Grade Road, east of Garden of Eden Road. The development is proposed to have one access to F&S Grade Road at the intersection of Garden of Eden Road, one access to Cook Road. Additionally, the development will have a future access to a Trail Road extension on the west side of the site. A site vicinity map is included in Figure 1.

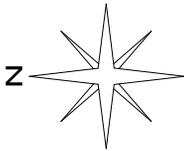
Zach Wieben, responsible for this report, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of the Institute of Transportation Engineers (ITE).

2. METHODOLOGY

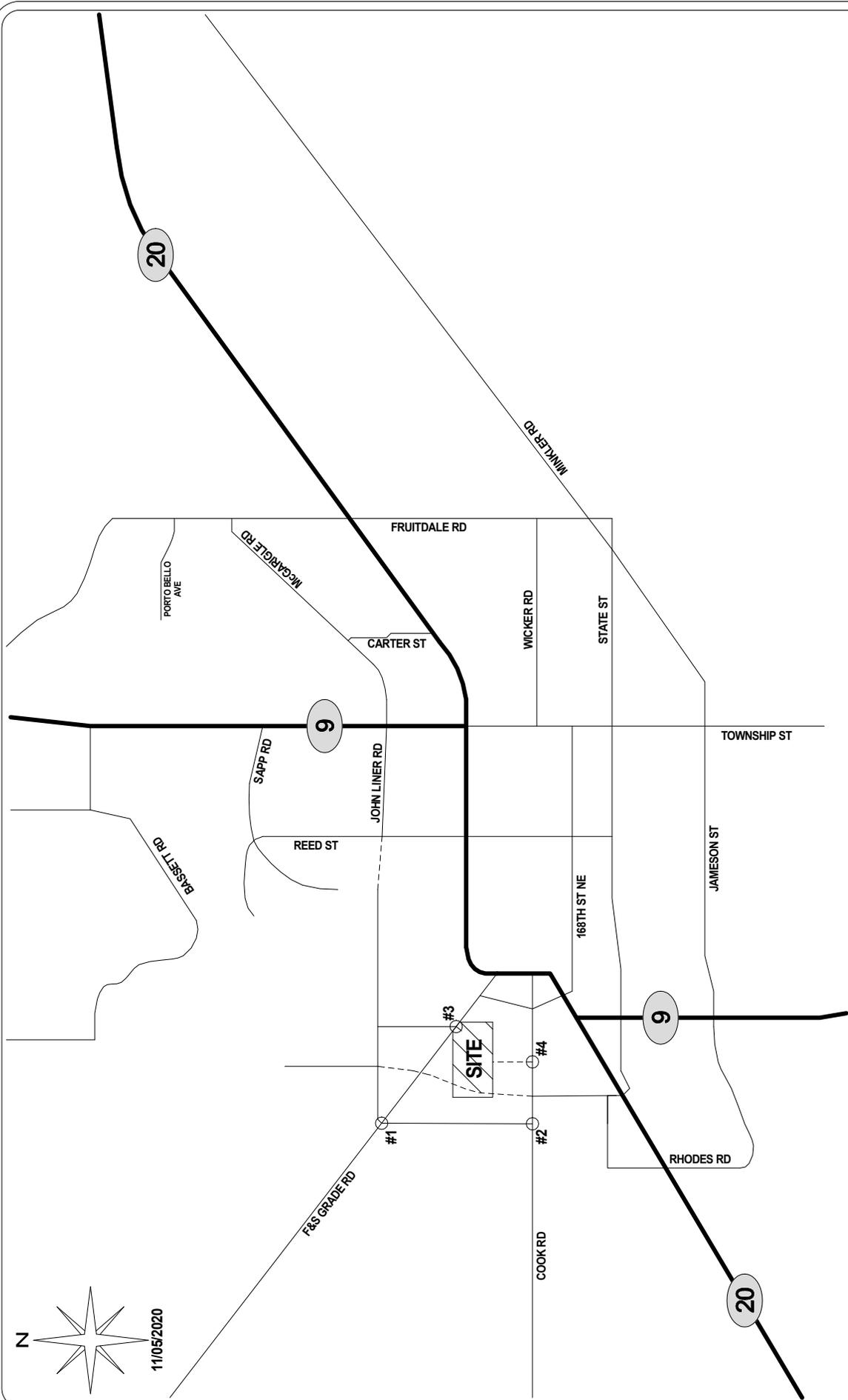
Scoping discussions with the City of Sedro Woolley staff identified four off-site intersections to be analyzed. The four intersections analyzed during the PM peak-hour in this report are listed below.

1. F&S Grade Road at Klinger Street
2. Cook Road at Klinger Street
3. F&S Grade Road at Garden of Eden Road
4. Cook Road at South Access

Intersections were analyzed during the 4-6 PM typical afternoon commuter peak period. Turning movement counts at the off-site intersections were conducted in October 2020. Count data was compared to count data at adjacent intersections conducted prior to any Covid-19 closures or stay-at-home orders that reduced traffic volumes. Adjustments were made to increase the October 2020 counts to account for any reduced volume. The existing count data at the study intersections is based on data collected by the independent count firm Idax. The trip generation calculations were performed using data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition (2017)*. The intersection analysis has been performed using existing channelization, phasing, intersection peak-hour factors, and intersection heavy vehicle factors from the existing turning movement counts. The intersection level of service has been reported for each study intersection.



11/05/2020



TRAFFIC IMPACT STUDY
GTC #20-252

GIBSON TRAFFIC CONSULTANTS

- LEGEND**
-  DEVELOPMENT SITE
 -  #X STUDY INTERSECTION
 -  FUTURE ROAD

**BUCKO RESIDENTIAL
70 CONSTRUCTED SFD UNITS**

CITY OF SEDRO WOOLLEY

FIGURE 1
SITE VICINITY
MAP

The peak-hour level of service (LOS) analysis calculations were completed using the *Synchro 10.3, Build 151* software for signalized and unsignalized intersections. This software applies the operational analysis methodology of the *Highway Capacity Manual 6th Edition (HCM)*. Traffic congestion is generally measured in terms of level of service. In accordance with the HCM 6th Edition, road facilities and intersections are rated between LOS A and LOS F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The level of service criteria is summarized in Table 1. The level of service at two-way stop-controlled intersections is based on the average delay of the worst approach. The level of service at signalized and all-way stop-controlled intersections is based on the average delay for all approaches. Geometric characteristics and conflicting traffic movements are taken into consideration when determining level of service values.

Table 1: Level of Service Criteria for Intersections

Level of ¹ Service	Expected Delay	Intersection Control Delay (Seconds per Vehicle)	
		Unsignalized Intersections	Signalized/Roundabout Intersections
A	Little/No Delay	≤10	≤10
B	Short Delays	>10 and ≤15	>10 and ≤20
C	Average Delays	>15 and ≤25	>20 and ≤35
D	Long Delays	>25 and ≤35	>35 and ≤55
E	Very Long Delays	>35 and ≤50	>55 and ≤80
F	Extreme Delays ²	>50	>80

The City of Sedro Woolley’s level of service standard for SR-20, SR-9, and principal arterials is LOS D. The City of Sedro Woolley’s level of service standard for minor arterials and major collectors is LOS C.

¹ **Source:** *Highway Capacity Manual 6th Edition*.

LOS A: Free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).

LOS B: Generally stable traffic flow conditions.

LOS C: Occasional back-ups may develop, but delay to vehicles is short term and still tolerable.

LOS D: During short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e. vehicles delayed one cycle or less at signal).

LOS E: Intersections operate at or near capacity, with long queues developing on all approaches and long delays.

LOS F: Jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

² When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection.

3. TRIP GENERATION AND DISTRIBUTION

3.1 Trip Generation Calculations

The Bucko Residential development is proposed to consist of 70 residential units (60 single-family detached units, 5 duplex units). The development will remove 2 existing single-family residential units that will be credited to the development’s net new trip generation calculations. Average trip generation rates published in the Institute of Transportation Engineers’ *Trip Generation Manual 10th Edition* (2017) were used for the existing and proposed uses. The following ITE Land Use Codes (LUC) 210, Single-Family Detached Housing, was used in the trip generation calculations. Table 2 summarizes the trip generation calculations.

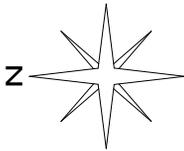
Table 2: Trip Generation Summary

Land Use	Units/SF	ADT	AM Peak-Hour			PM Peak-Hour		
			In	Out	Total	In	Out	Total
LUC 210, Single-Family Detached/Duplex	70 units	661	13	39	52	43	26	69
LUC 210, Single-Family Detached	-2 units	-19	-1	-1	-1	-1	-1	-2
TOTAL		642	12	38	50	42	25	67

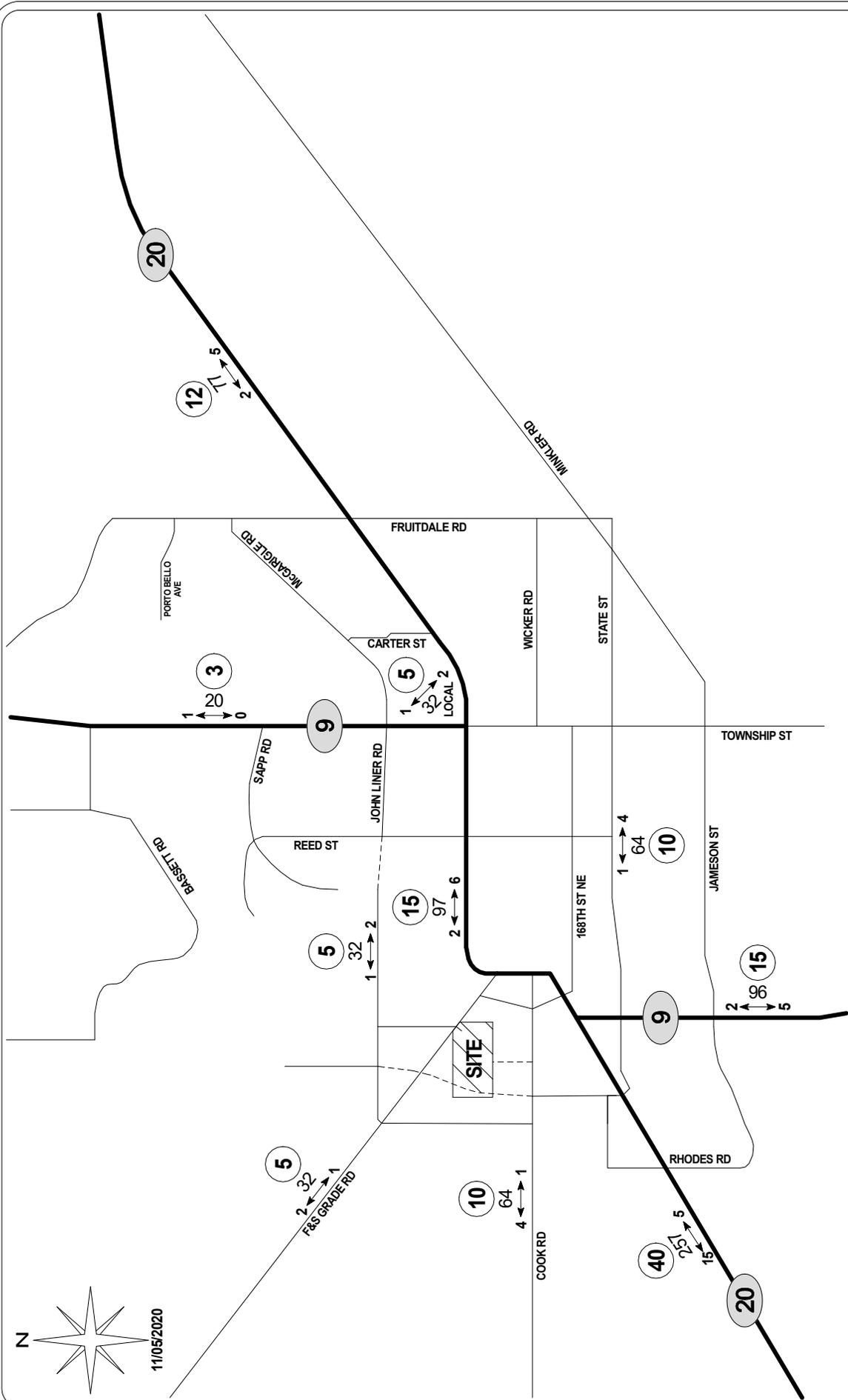
The Bucko Residential development would generate approximately 642 new average daily trips, 50 new AM peak-hour trips, and 67 new PM peak-hour trips. Detailed trip generation calculations are included in the attachments.

3.2 Trip Distribution

It is estimated that 60% of the development’s trips will travel along SR-20, forty percent to and from the west and fifteen percent to and from the east. Approximately 25% of the development’s trips are expected travel to and from the south of SR-20, ten percent on State Street and fifteen percent on SR-9. An additional 10% of the trips from the development are expected to travel to and from the west on Cook Road. An additional 5% of the trips are expected to travel to and from the east on John Liner Road. The remaining 5% of the trips from the development are anticipated to travel to and from the north along F&S Grade Road. Detailed trip distributions for the AM and PM peak-hours are included in Figure 2 and Figure 3, respectively.



11/05/2020



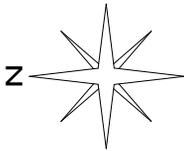
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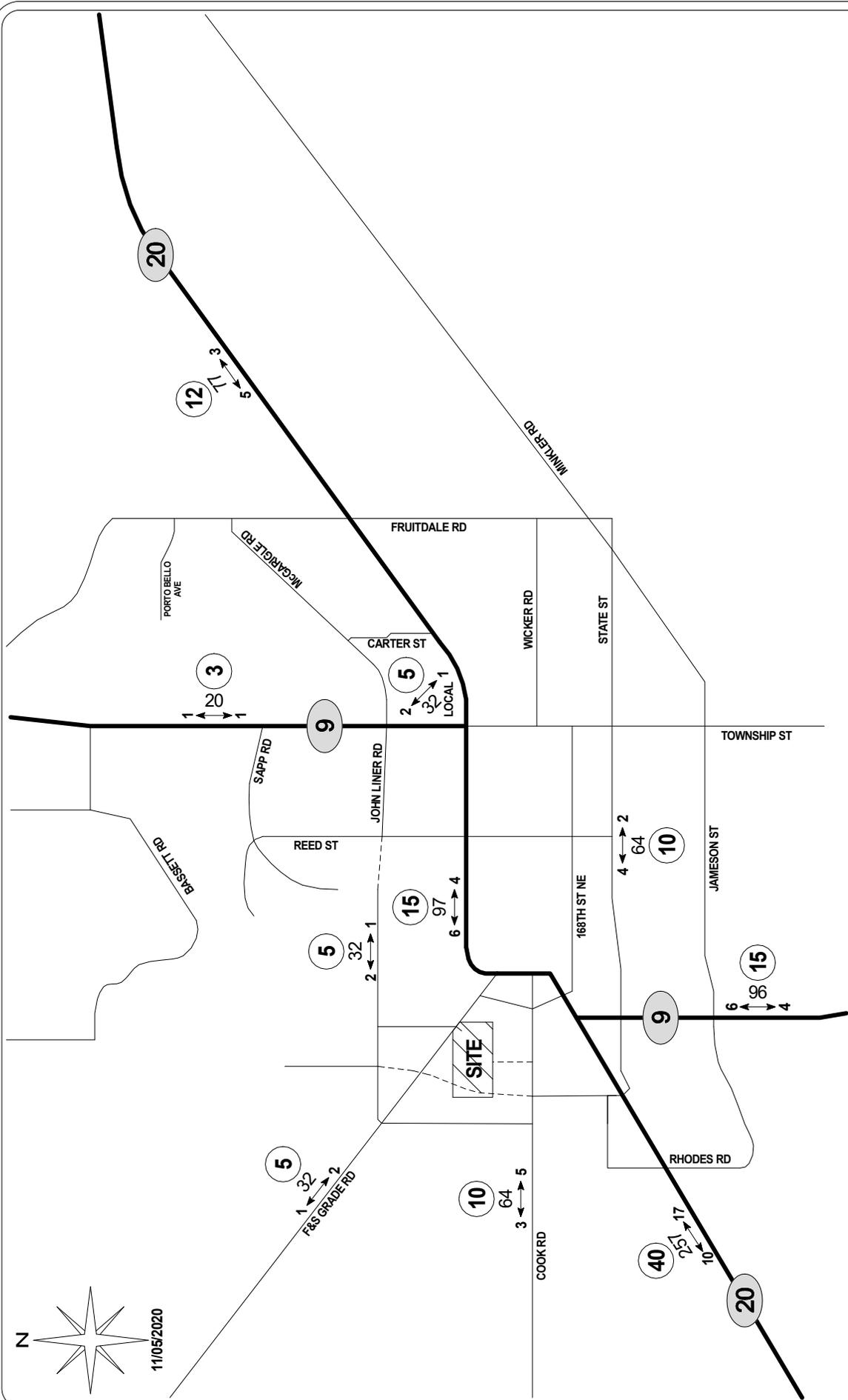
BUCKO RESIDENTIAL
70 CONSTRUCTED SFD UNITS
CITY OF SEDRO WOOLLEY

LEGEND
AWDPT → PEAK
← PM
XX
NEW SITE TRAFFIC (DAILY/PEAK HOUR)
TRIP DISTRIBUTION %

FIGURE 2
DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR



11/05/2020



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FIGURE 3
DEVELOPMENT TRIP
DISTRIBUTION
PM PEAK-HOUR

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LEGEND
AWMDT
PM ← → PEAK
NEW SITE TRAFFIC
(DAILY/PEAK HOUR)
TRIP DISTRIBUTION %
XX

BUCKO RESIDENTIAL
70 CONSTRUCTED SFD UNITS

CITY OF SEDRO WOOLLEY

4. WEEKDAY PM PEAK-HOUR ANALYSIS

The scope of the level of service analysis performed as part of this report is based on scoping discussions between GTC staff and City of Sedro Woolley staff. Level of service at the following intersections has been analyzed for the weekday PM peak-hour:

1. F&S Grade Road at Klinger Street
2. Cook Road at Klinger Street
3. F&S Grade Road at Garden of Eden Road
4. Cook Road at South Access

Level of Service for each of the study intersections was performed for the following scenarios:

- 2020 Existing Conditions
- 2026 Baseline Conditions
- 2026 Future Conditions with Development

4.1 Turning Movement Calculations

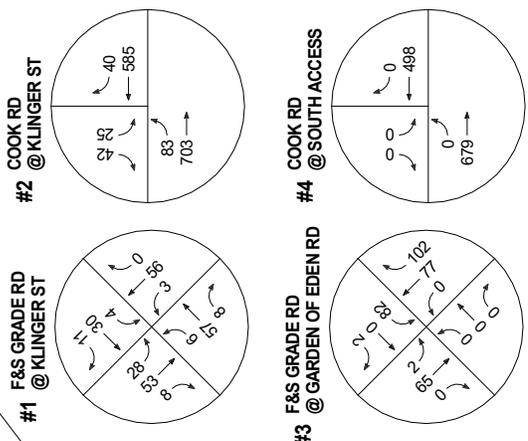
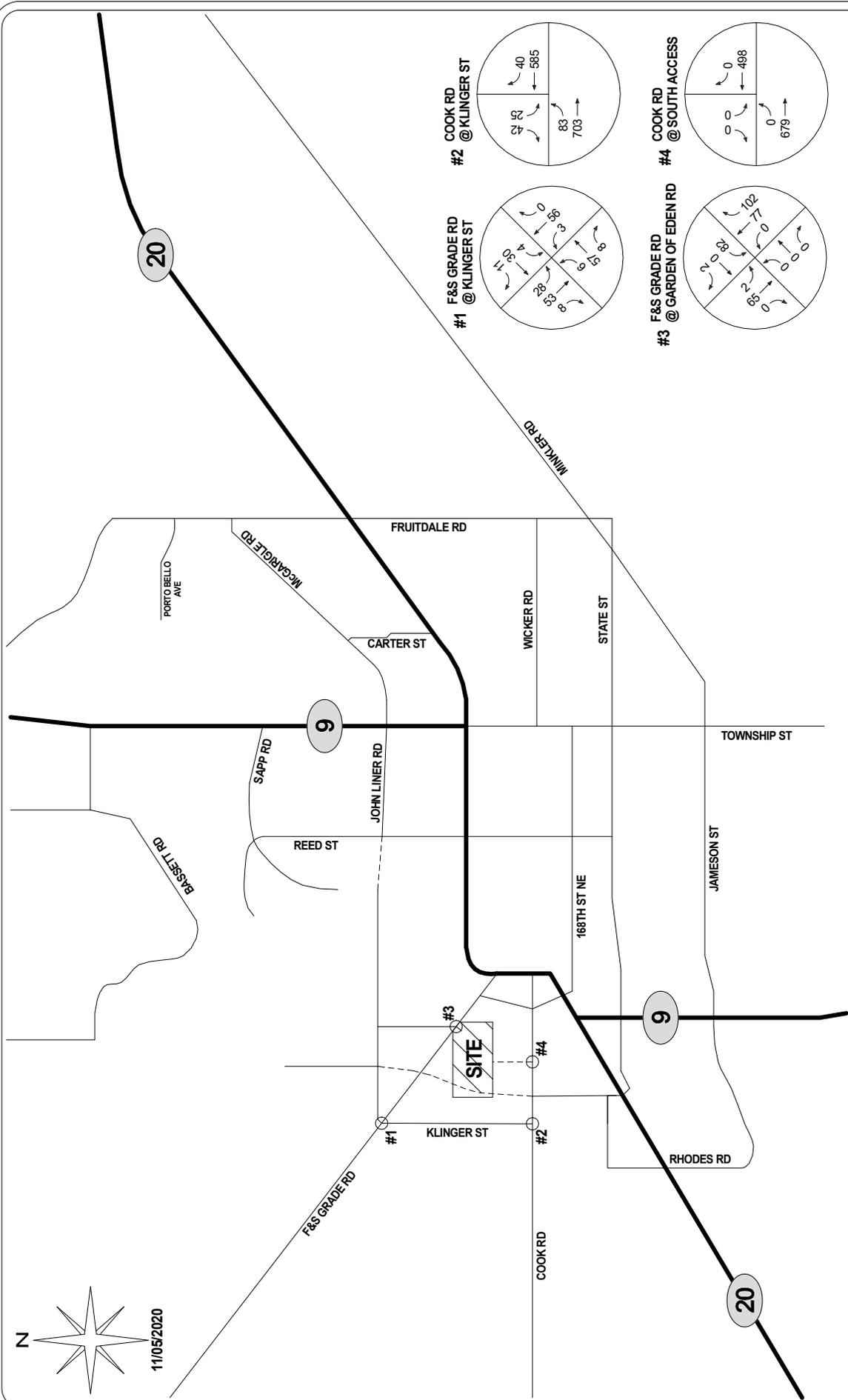
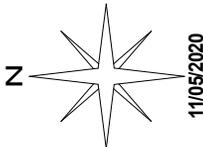
The 2020 existing turning movements at the study intersections are based on data collected by the independent traffic count firm Idax. Turning movement counts were conducted in October 2020. The October 2020 PM peak-hour eastbound and westbound vehicle counts at Cook Road and Klinger Street east of Klinger Street were compared to the eastbound and westbound vehicle counts at Cook Road at Trail Road west of Trail Road conducted in February 2020 prior to any Covid-19 closures/restrictions. The comparison of these counts showed the October 2020 counts were between 8% below and 4% higher than the February 2020 counts. This difference is within typical +/-10% daily variation usually observed in count data. However, the October 2020 intersection turning movement counts for all study intersections were increased by 8.6% (1.00/0.92) as a conservative assumption for intersection forecasts to adjust for Covid-19 impacts. The 2020 existing volumes at the study intersections are shown in Figure 4.

The 2026 baseline volumes were calculated by applying a 2% annually compounding background growth rate to the existing volumes as well as pipeline trips from the Northern State Campus Planned Action, the proposed McGarigle Development, the proposed Duke's Hill Development, the proposed Gateway Village Phase I development, proposed Trail Road development, proposed Garden Meadows development, and diverting trips from the John Liner Road/Trail Road Corridor Project. Traffic volumes at the study intersections for the "High Intensity Site Development" were added from a draft version of the Northern State Campus Planned Action EIS completed in 2015 by TSI, Inc. City of Sedro Woolley staff were not able to provide a final analysis and therefore inclusion of trips from the Northern State Campus Planned Action should be considered conservative and preliminary.

Improvement projects identified in the City of Sedro Woolley's 2021-2026 TIP will construct roadway improvements creating a continuous arterial on John Liner Road/Jones Road from Township Street/SR-9 to F&S Grade Road as well as an extension of Trail Road from Cook Road

to F&S Grade Road. The Trail Road extension would convert the existing “T” intersection at Cook Road and Trail Road to a four-leg intersection. The City has identified improvements to the intersection that would either construct a single-lane roundabout or a signalized intersection. Both the Trail Road extension and the Trail Road and Cook Road intersection improvements are identified in the City’s 2021-2026 TIP with construction occurring in 2025 and 2026. The 2026 future baseline volumes are shown in Figure 5.

The 2026 future with development turning movement volumes were calculated by adding the development trips to the 2026 baseline volumes. The 2026 future with development volumes are shown in Figure 6.



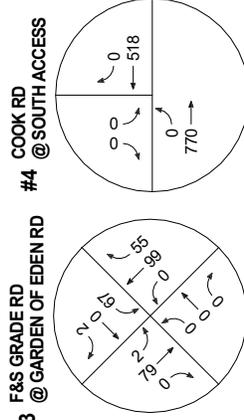
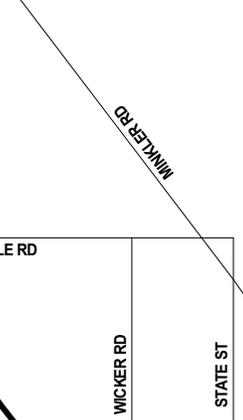
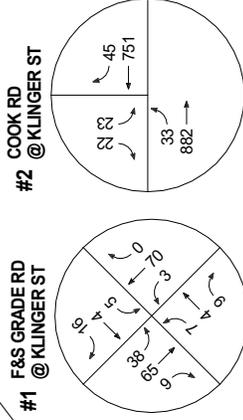
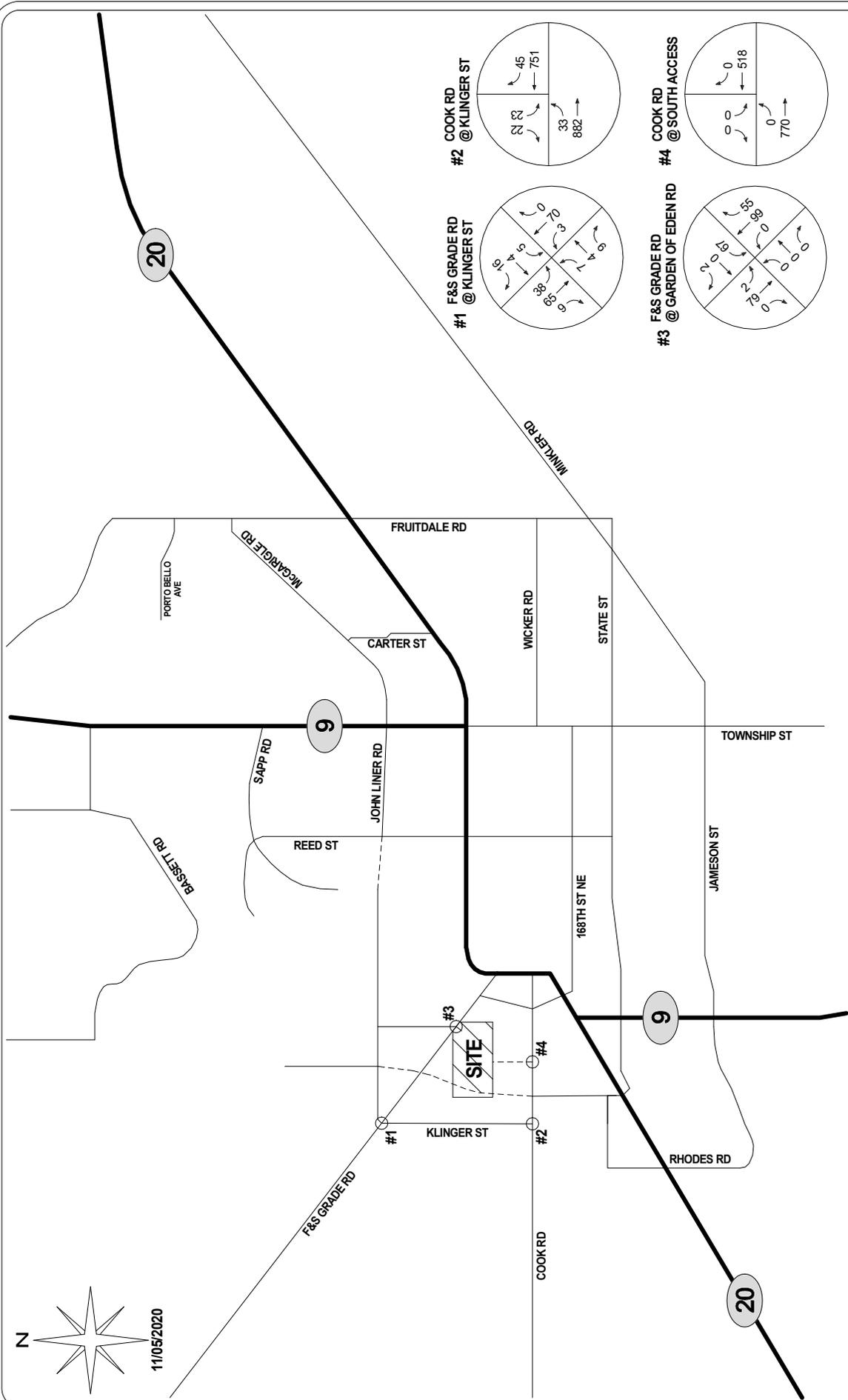
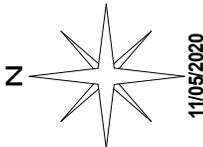
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FIGURE 4
EXISTING
TURNING MOVEMENTS
PM PEAK-HOUR

LEGEND
XX → PEAK HOUR TURNING MOVEMENT VOLUMES

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CITY OF SEDRO WOOLLEY



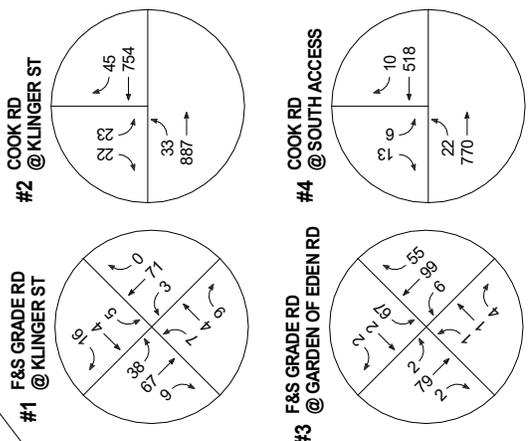
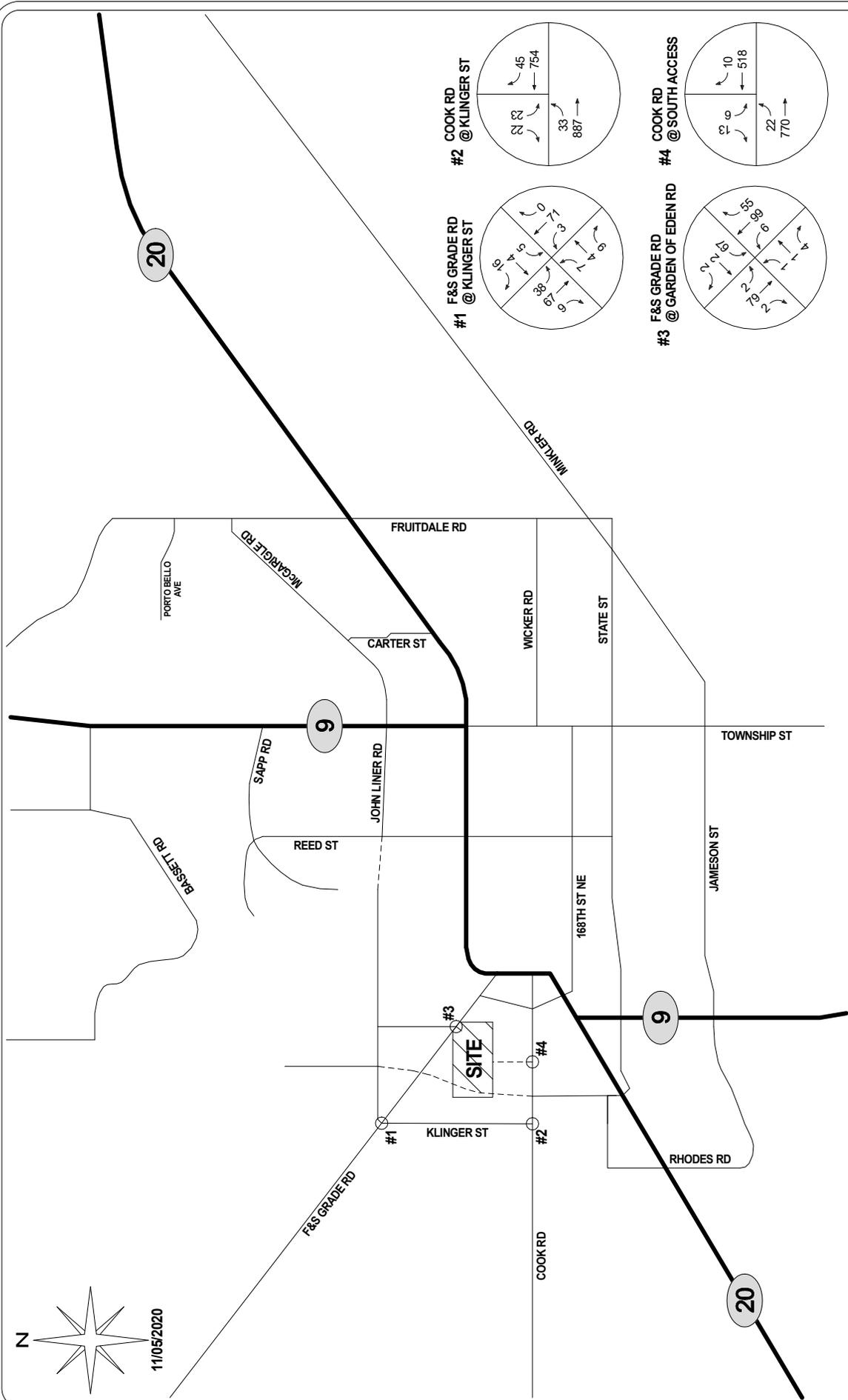
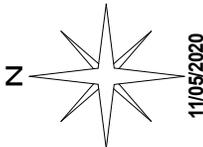
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FIGURE 5
2026 BASELINE
TURNING MOVEMENTS
PM PEAK-HOUR

LEGEND
XX → PEAK HOUR TURNING MOVEMENT VOLUMES

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CITY OF SEDRO WOOLLEY



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FIGURE 6
2026 FUTURE W/ DEV.
TURNING MOVEMENTS
PM PEAK-HOUR

LEGEND
XX → PEAK HOUR TURNING MOVEMENT VOLUMES

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4.2 LOS Analysis

The Bucko Residential development is anticipated to be constructed and occupied prior to the year 2026. The 2020 existing, 2026 baseline and 2026 future with development level of service as well as the critical approaches are shown in Table 3.

Table 3: Intersection LOS Summary – Weekday PM Peak-Hour

Intersection	LOS Stand.	2020 Existing Conditions		2026 Baseline Conditions		2026 Fut. w/ Dev. Conditions	
		LOS	Delay	LOS	Delay	LOS	Delay
1. F&S Grade Rd @ Klinger St	C	B	10.9 sec Northbound	A	9.9 sec Northbound	B	10.0 sec Northbound
2. Cook Rd @ Klinger St	C	C	17.1 sec Southbound	C	20.3 sec Southbound	C	20.4 sec Southbound
3. F&S Grade Rd @ Garden of Eden Rd.	C	B	10.8 sec Southbound	B	10.7 sec Southbound	B	11.0 sec Southbound
4. Cook Road @ South Access	C	-	-	-	-	B	14.3 sec Southbound

All study intersections are expected to operate at acceptable levels of service in the 2026 forecast year with planned improvement projects. No additional mitigation by the development should therefore be required.

5. COLLISION DATA

WSDOT collision data from 2015 through June 2020 was reviewed at the study intersections. The collision data is summarized in Table 4.

Table 4: 5.5-Year Collision Rate Calculation (2015-June 2020)

Intersection	Intersection Control	Estimated ADT	Total Collisions	Injury/Fatal Collisions	Collision Rate ³	Collision Frequency ⁴
1. F&S Grade Rd @ Klinger St	Unsignalized	2,640	3	1	0.57	0.55
2. Cook Rd @ Klinger St	Unsignalized	14,780	3	0	0.10	0.55
3. F&S Grade Rd @ Garden of Eden Rd.	Unsignalized	3,300	2	0	0.30	0.36

All intersections had collision frequencies below 5 collisions per year for unsignalized intersections. This frequency is a typical threshold where additional safety analysis may be necessary. Additionally, no fatalities were reported in the collision data. All study intersections also had a collision rate of less than 1.0 collision per million entering vehicles (MEV). Therefore,

³ Collisions Per Million Entering Vehicles (MEV)

⁴ Collisions Per Year

no additional safety mitigation should be required from the development. Collision data is included in the attachments.

6. ACCESS ANALYSIS

Cook Road east of Trail Road is a 3-lane Minor Arterial with a posted speed limit of 35 mph. The development's access to Cook Road will be located approximately 625 feet east of Trail Road (centerline to centerline). The access will have more than 250 feet of stopping sight distance which is sufficient for a posted speed limit of 35 mph per AASHTO standards. Cook Road already has an existing center turn lane, therefore no additional channelization analysis was performed.

The development's access to F&S Grade Road will form the south leg of the Garden of Eden Road intersection. This location is the only frontage for the development along F&S Grade Road. The development will also have a future access to the future Trail Road extension on the west side of the site.

7. TRAFFIC MITIGATION FEES

The City of Sedro Woolley assesses traffic impact fees per PM peak-hour trip. The City's current fee per PM peak-hour trip for development's outside the CBD area is \$2,809. The Bucko Residential development is expected to generate 67 new PM peak-hour trips after accounting for credit for existing structures. The development would therefore have a traffic impact fee of \$188,203.00.

The development will be dedicating right-of-way to the City for the future Trail Road extension on the west side of the site. The Trail Road Arterial Extension (C9A) is included in the City's cost fee basis completed in July 2020 by TSI. The City of Sedro Woolley Code states "*A credit, not to exceed the impact fee otherwise payable, shall be provided for the value of any dedication of land for, improvement to, or new construction, of any system improvements provided by the developer, to facilities that are identified in the capital facilities plan and on the TIF project list...*" (Section 15.60.050.C). Therefore, the value of the land dedicated for the future Trail Road Arterial Extension is eligible to be included as a credit against all or a portion of the impact fees owed by the development.

8. CONCLUSIONS

The Bucko Residential development is proposed to consist of 70 residential units (60 single-family detached units, 5 duplex units). Two existing single-family detached homes will be removed with the development and credited towards the trip generation calculations. The Bucko Residential development would generate approximately 642 new average daily trips, 50 new AM peak-hour trips, and 67 new PM peak-hour trips. All the intersections analyzed would operate within acceptable level of service standards with acceptable delays in 2026 with planned roadway improvements by the City of Sedro Woolley.

The development would have a proportional traffic impact fee of \$188,203. The value of the land dedicated for the future Trail Road Arterial Extension is eligible to be included as a credit against all or a portion of the impact fees owed by the development.

Trip Generation Calculations

Bucko Residential
GTC #20-252

Trip Generation for: Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

LAND USES	VARIABLE	ITE LU code	Gross Trips				Internal Crossover		NET EXTERNAL TRIPS BY TYPE								
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	IN BOTH DIRECTIONS		DIRECTIONAL ASSIGNMENTS						
									TOTAL	PASS-BY	DIVERTED LINK	NEW	PASS-BY	DIVERTED LINK	NEW		
In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In	Out	In	Out	In	Out					
Single-Family Detached	70 units	210	9.44	50%	50%	661	0%	0	0%	0	0	0	0	0	0	330	330
Single-Family Detached (removed)	-2 units	210	9.44	50%	50%	-19	0%	0	0%	0	0	0	0	0	0	-9	-9
Totals						642		0		0	0	642	0	0	0	321	321

Bucko Residential
GTC #20-252

**Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM
(a.k.a.): Weekday PM Peak Hour**

LAND USES	VARIABLE	ITE LU code	Gross Trips						Internal Crossover		NET EXTERNAL TRIPS BY TYPE										
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	TOTAL In+Out (Total)	IN BOTH DIRECTIONS			DIRECTIONAL ASSIGNMENTS								
										PASS-BY % of Ext. Trips	In+Out (Total)	% of Ext. Trips	DIVERTED LINK In+Out (Total)	NEW In+Out (Total)	PASS-BY In	Out	DIVERTED LINK In	Out	NEW In	Out	
Single-Family Detached	70 units	210	0.99	63%	37%	69.30	0%	0.00	0.00	0%	0.00	69.30	0%	0.00	0.00	0.00	0.00	0.00	0.00	43.7	25.6
Single-Family Detached (remov	-2 units	210	0.99	63%	37%	-1.98	0%	0.00	0.00	0%	0.00	-1.98	0%	0.00	0.00	0.00	0.00	0.00	0.00	-1.3	-0.7
Totals						67.32		0.00	0.00		67.32			0.00	67.32		0.00	0.00	0.00	42.4	24.9

Bucko Residential
GTC #20-252

AM Peak-Hour

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	641.92	12.58	37.74	50.32
1%	6.42	0.13	0.38	0.50
2%	12.84	0.25	0.75	1.01
3%	19.26	0.38	1.13	1.51
4%	25.68	0.50	1.51	2.01
5%	32.10	0.63	1.89	2.52
6%	38.52	0.75	2.26	3.02
7%	44.93	0.88	2.64	3.52
8%	51.35	1.01	3.02	4.03
9%	57.77	1.13	3.40	4.53
10%	64.19	1.26	3.77	5.03
11%	70.61	1.38	4.15	5.54
12%	77.03	1.51	4.53	6.04
13%	83.45	1.64	4.91	6.54
14%	89.87	1.76	5.28	7.04
15%	96.29	1.89	5.66	7.55
16%	102.71	2.01	6.04	8.05
17%	109.13	2.14	6.42	8.55
18%	115.55	2.26	6.79	9.06
19%	121.96	2.39	7.17	9.56
20%	128.38	2.52	7.55	10.06
21%	134.80	2.64	7.93	10.57
22%	141.22	2.77	8.30	11.07
23%	147.64	2.89	8.68	11.57
24%	154.06	3.02	9.06	12.08
25%	160.48	3.15	9.44	12.58
26%	166.90	3.27	9.81	13.08
27%	173.32	3.40	10.19	13.59
28%	179.74	3.52	10.57	14.09
29%	186.16	3.65	10.94	14.59
30%	192.58	3.77	11.32	15.10
31%	199.00	3.90	11.70	15.60
32%	205.41	4.03	12.08	16.10
33%	211.83	4.15	12.45	16.61
34%	218.25	4.28	12.83	17.11
35%	224.67	4.40	13.21	17.61
36%	231.09	4.53	13.59	18.12
37%	237.51	4.65	13.96	18.62
38%	243.93	4.78	14.34	19.12
39%	250.35	4.91	14.72	19.62
40%	256.77	5.03	15.10	20.13
41%	263.19	5.16	15.47	20.63
42%	269.61	5.28	15.85	21.13
43%	276.03	5.41	16.23	21.64
44%	282.44	5.54	16.61	22.14
45%	288.86	5.66	16.98	22.64
46%	295.28	5.79	17.36	23.15
47%	301.70	5.91	17.74	23.65
48%	308.12	6.04	18.12	24.15
49%	314.54	6.16	18.49	24.66
50%	320.96	6.29	18.87	25.16
51%	327.38	6.42	19.25	25.66
52%	333.80	6.54	19.62	26.17
53%	340.22	6.67	20.00	26.67
54%	346.64	6.79	20.38	27.17
55%	353.06	6.92	20.76	27.68
56%	359.48	7.04	21.13	28.18
57%	365.89	7.17	21.51	28.68
58%	372.31	7.30	21.89	29.19
59%	378.73	7.42	22.27	29.69
60%	385.15	7.55	22.64	30.19
61%	391.57	7.67	23.02	30.70
62%	397.99	7.80	23.40	31.20
63%	404.41	7.93	23.78	31.70
64%	410.83	8.05	24.15	32.20
65%	417.25	8.18	24.53	32.71
66%	423.67	8.30	24.91	33.21
67%	430.09	8.43	25.29	33.71
68%	436.51	8.55	25.66	34.22
69%	442.92	8.68	26.04	34.72
70%	449.34	8.81	26.42	35.22
71%	455.76	8.93	26.80	35.73
72%	462.18	9.06	27.17	36.23
73%	468.60	9.18	27.55	36.73
74%	475.02	9.31	27.93	37.24
75%	481.44	9.44	28.31	37.74
76%	487.86	9.56	28.68	38.24
77%	494.28	9.69	29.06	38.75
78%	500.70	9.81	29.44	39.25
79%	507.12	9.94	29.81	39.75
80%	513.54	10.06	30.19	40.26
81%	519.96	10.19	30.57	40.76
82%	526.37	10.32	30.95	41.26
83%	532.79	10.44	31.32	41.77
84%	539.21	10.57	31.70	42.27
85%	545.63	10.69	32.08	42.77
86%	552.05	10.82	32.46	43.28
87%	558.47	10.94	32.83	43.78
88%	564.89	11.07	33.21	44.28
89%	571.31	11.20	33.59	44.78
90%	577.73	11.32	33.97	45.29
91%	584.15	11.45	34.34	45.79
92%	590.57	11.57	34.72	46.29
93%	596.99	11.70	35.10	46.80
94%	603.40	11.83	35.48	47.30
95%	609.82	11.95	35.85	47.80
96%	616.24	12.08	36.23	48.31
97%	622.66	12.20	36.61	48.81
98%	629.08	12.33	36.99	49.31
99%	635.50	12.45	37.36	49.82
100%	641.92	12.58	37.74	50.32

Bucko Residential
GTC #20-252

PM Peak-Hour

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	641.92	42.41	24.91	67.32
1%	6.42	0.42	0.25	0.67
2%	12.84	0.85	0.50	1.35
3%	19.26	1.27	0.75	2.02
4%	25.68	1.70	1.00	2.69
5%	32.10	2.12	1.25	3.37
6%	38.52	2.54	1.49	4.04
7%	44.93	2.97	1.74	4.71
8%	51.35	3.39	1.99	5.39
9%	57.77	3.82	2.24	6.06
10%	64.19	4.24	2.49	6.73
11%	70.61	4.67	2.74	7.41
12%	77.03	5.09	2.99	8.08
13%	83.45	5.51	3.24	8.75
14%	89.87	5.94	3.49	9.42
15%	96.29	6.36	3.74	10.10
16%	102.71	6.79	3.99	10.77
17%	109.13	7.21	4.23	11.44
18%	115.55	7.63	4.48	12.12
19%	121.96	8.06	4.73	12.79
20%	128.38	8.48	4.98	13.46
21%	134.80	8.91	5.23	14.14
22%	141.22	9.33	5.48	14.81
23%	147.64	9.75	5.73	15.48
24%	154.06	10.18	5.98	16.16
25%	160.48	10.60	6.23	16.83
26%	166.90	11.03	6.48	17.50
27%	173.32	11.45	6.73	18.18
28%	179.74	11.87	6.97	18.85
29%	186.16	12.30	7.22	19.52
30%	192.58	12.72	7.47	20.20
31%	199.00	13.15	7.72	20.87
32%	205.41	13.57	7.97	21.54
33%	211.83	14.00	8.22	22.22
34%	218.25	14.42	8.47	22.89
35%	224.67	14.84	8.72	23.56
36%	231.09	15.27	8.97	24.24
37%	237.51	15.69	9.22	24.91
38%	243.93	16.12	9.47	25.58
39%	250.35	16.54	9.71	26.25
40%	256.77	16.96	9.96	26.93
41%	263.19	17.39	10.21	27.60
42%	269.61	17.81	10.46	28.27
43%	276.03	18.24	10.71	28.95
44%	282.44	18.66	10.96	29.62
45%	288.86	19.08	11.21	30.29
46%	295.28	19.51	11.46	30.97
47%	301.70	19.93	11.71	31.64
48%	308.12	20.36	11.96	32.31
49%	314.54	20.78	12.21	32.99
50%	320.96	21.21	12.46	33.66

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	641.92	42.41	24.91	67.32
51%	327.38	21.63	12.70	34.33
52%	333.80	22.05	12.95	35.01
53%	340.22	22.48	13.20	35.68
54%	346.64	22.90	13.45	36.35
55%	353.06	23.33	13.70	37.03
56%	359.48	23.75	13.95	37.70
57%	365.89	24.17	14.20	38.37
58%	372.31	24.60	14.45	39.05
59%	378.73	25.02	14.70	39.72
60%	385.15	25.45	14.95	40.39
61%	391.57	25.87	15.20	41.07
62%	397.99	26.29	15.44	41.74
63%	404.41	26.72	15.69	42.41
64%	410.83	27.14	15.94	43.08
65%	417.25	27.57	16.19	43.76
66%	423.67	27.99	16.44	44.43
67%	430.09	28.41	16.69	45.10
68%	436.51	28.84	16.94	45.78
69%	442.92	29.26	17.19	46.45
70%	449.34	29.69	17.44	47.12
71%	455.76	30.11	17.69	47.80
72%	462.18	30.54	17.94	48.47
73%	468.60	30.96	18.18	49.14
74%	475.02	31.38	18.43	49.82
75%	481.44	31.81	18.68	50.49
76%	487.86	32.23	18.93	51.16
77%	494.28	32.66	19.18	51.84
78%	500.70	33.08	19.43	52.51
79%	507.12	33.50	19.68	53.18
80%	513.54	33.93	19.93	53.86
81%	519.96	34.35	20.18	54.53
82%	526.37	34.78	20.43	55.20
83%	532.79	35.20	20.68	55.88
84%	539.21	35.62	20.92	56.55
85%	545.63	36.05	21.17	57.22
86%	552.05	36.47	21.42	57.90
87%	558.47	36.90	21.67	58.57
88%	564.89	37.32	21.92	59.24
89%	571.31	37.74	22.17	59.91
90%	577.73	38.17	22.42	60.59
91%	584.15	38.59	22.67	61.26
92%	590.57	39.02	22.92	61.93
93%	596.99	39.44	23.17	62.61
94%	603.40	39.87	23.42	63.28
95%	609.82	40.29	23.66	63.95
96%	616.24	40.71	23.91	64.63
97%	622.66	41.14	24.16	65.30
98%	629.08	41.56	24.41	65.97
99%	635.50	41.99	24.66	66.65
100%	641.92	42.41	24.91	67.32

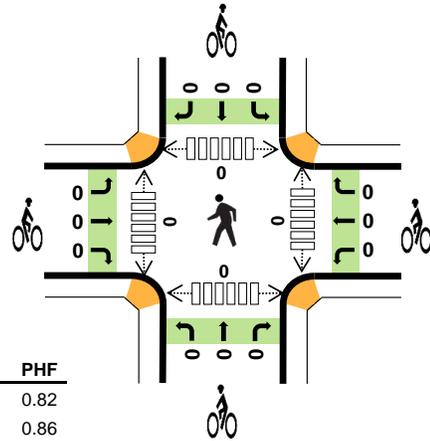
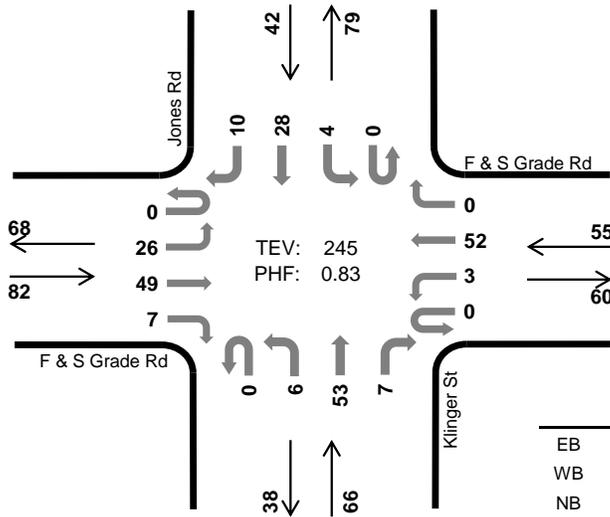
Turning Movement Counts

Klinger St F & S Grade Rd



Peak Hour

Date: 10/15/2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	1.2%	0.82
WB	1.8%	0.86
NB	0.0%	0.87
SB	0.0%	0.70
TOTAL	0.8%	0.83

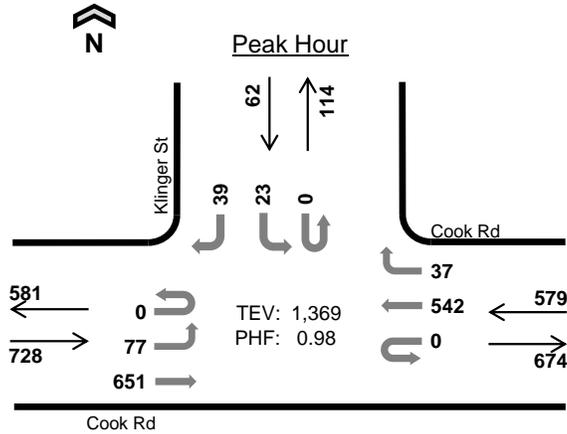
Two-Hour Count Summaries

Interval Start	F & S Grade Rd				F & S Grade Rd				Klinger St				Jones Rd				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	3	13	2	0	3	14	1	0	2	15	3	0	0	3	3	62	0	
4:15 PM	0	6	14	1	0	1	26	0	0	2	8	2	0	0	4	4	68	0	
4:30 PM	0	5	12	1	0	2	14	0	0	0	10	1	0	0	10	3	58	0	
4:45 PM	0	4	12	1	0	0	13	0	0	1	15	1	0	1	4	3	55	243	
5:00 PM	0	5	11	0	0	0	15	0	0	2	10	4	0	0	6	3	56	237	
5:15 PM	0	5	17	3	0	1	10	0	0	2	10	2	0	1	9	0	60	229	
5:30 PM	0	12	9	3	0	2	14	0	0	1	18	0	0	2	9	4	74	245	
5:45 PM	0	2	9	1	0	1	7	0	0	2	14	1	0	0	3	3	43	233	
Count Total	0	42	97	12	0	10	113	1	0	12	100	14	0	4	48	23	476	0	
Peak Hour	All	0	26	49	7	0	3	52	0	0	6	53	7	0	4	28	10	245	0
	HV	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
	HV%	-	0%	2%	0%	-	0%	2%	-	-	0%	0%	0%	-	0%	0%	0%	1%	0

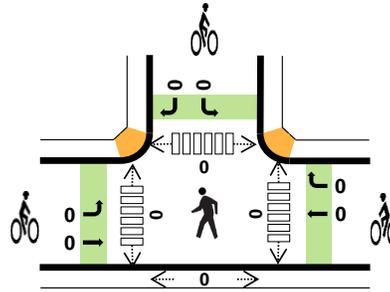
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0
4:30 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	4	7	0	0	11	0	0	1	0	1	0	0	0	0	0
Peak Hour	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0

Klinger St Cook Rd



Date: 10/15/2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	4.0%	0.92
WB	4.5%	0.97
NB	-	-
SB	1.6%	0.82
TOTAL	4.1%	0.98

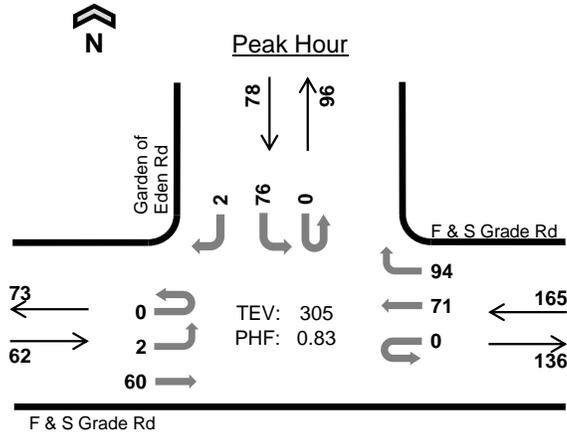
Two-Hour Count Summaries

Interval Start	Cook Rd Eastbound				Cook Rd Westbound				0 Northbound				Klinger St Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	21	135	0	0	0	162	12	0	0	0	0	0	4	0	6	340	0	
4:15 PM	0	13	154	0	0	0	125	13	0	0	0	0	0	6	0	8	319	0	
4:30 PM	0	19	151	0	0	0	143	6	0	0	0	0	0	5	0	14	338	0	
4:45 PM	0	19	178	0	0	0	131	9	0	0	0	0	0	2	0	8	347	1,344	
5:00 PM	0	16	172	0	0	0	133	13	0	0	0	0	0	9	0	7	350	1,354	
5:15 PM	0	23	150	0	0	0	135	9	0	0	0	0	0	7	0	10	334	1,369	
5:30 PM	0	23	169	0	0	0	106	9	0	0	0	0	0	5	0	13	325	1,356	
5:45 PM	0	17	168	0	0	0	88	14	0	0	0	0	0	6	0	7	300	1,309	
Count Total	0	151	1,277	0	0	0	1,023	85	0	0	0	0	0	44	0	73	2,653	0	
Peak Hour	All	0	77	651	0	0	0	542	37	0	0	0	0	0	23	0	39	1,369	0
	HV	0	1	28	0	0	0	26	0	0	0	0	0	0	1	0	0	56	0
	HV%	-	1%	4%	-	-	-	5%	0%	-	-	-	-	-	4%	-	0%	4%	0

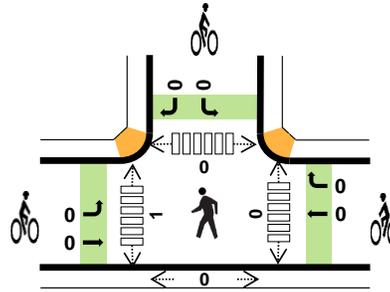
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	7	14	0	1	22	0	0	0	0	0	0	0	0	0	0
4:15 PM	6	7	0	1	14	0	1	0	0	1	0	0	1	0	1
4:30 PM	5	7	0	0	12	0	0	0	0	0	0	0	0	0	0
4:45 PM	12	5	0	0	17	0	0	0	0	0	0	0	0	0	0
5:00 PM	4	6	0	1	11	0	0	0	0	0	0	0	0	0	0
5:15 PM	8	8	0	0	16	0	0	0	0	0	0	0	0	0	0
5:30 PM	8	4	0	0	12	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0
Count Total	52	54	0	3	109	0	1	0	0	1	0	0	1	0	1
Peak Hr	29	26	0	1	56	0	0	0	0	0	0	0	0	0	0

Garden of Eden Rd F & S Grade Rd



Date: 10/15/2020
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	3.2%	0.82
WB	3.6%	0.74
NB	-	-
SB	0.0%	0.70
TOTAL	2.6%	0.83

Two-Hour Count Summaries

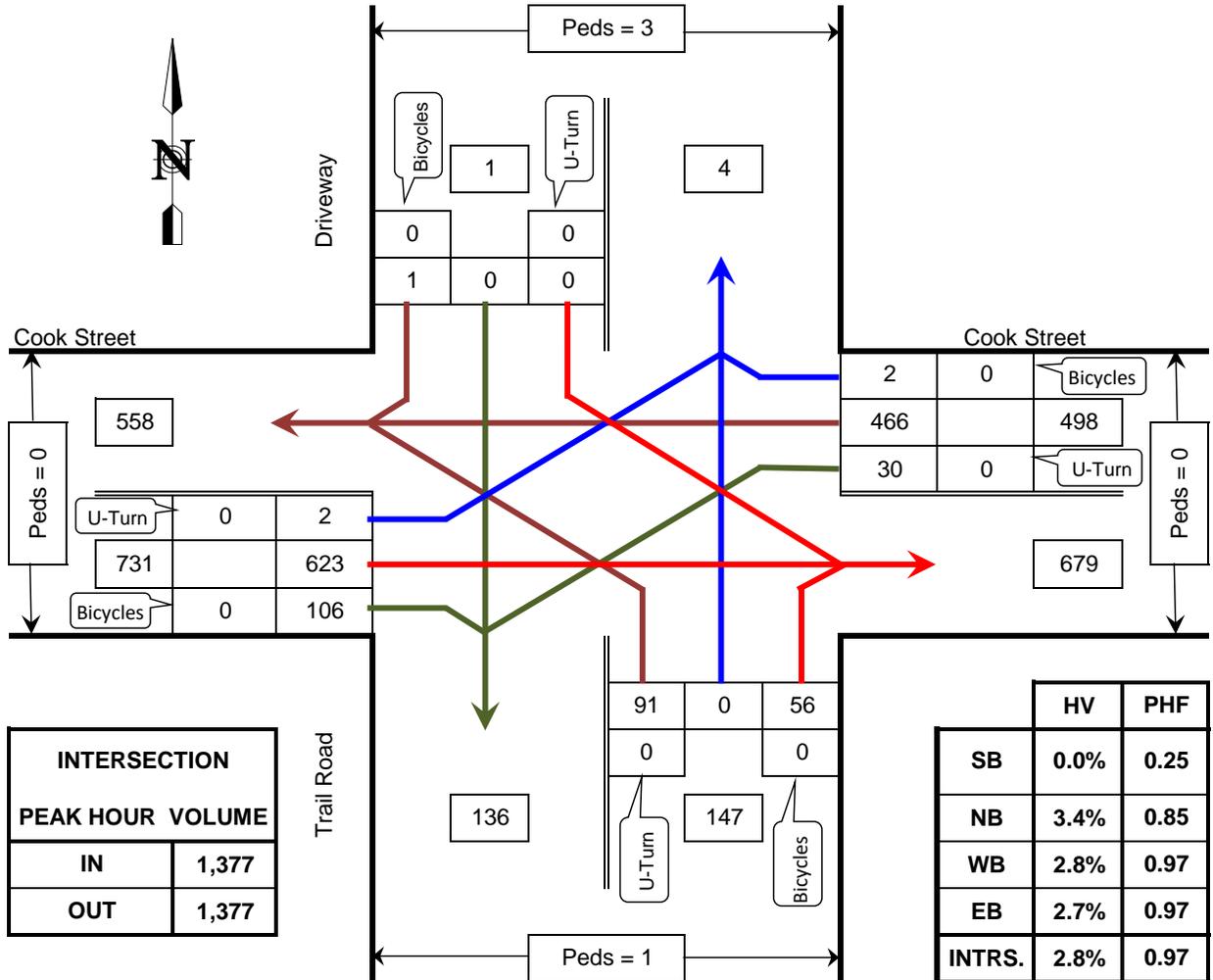
Interval Start	F & S Grade Rd Eastbound				F & S Grade Rd Westbound				0 Northbound				Garden of Eden Rd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	1	13	0	0	0	13	25	0	0	0	0	0	27	0	1	80	0	
4:15 PM	0	0	19	0	0	0	27	29	0	0	0	0	0	16	0	1	92	0	
4:30 PM	0	1	12	0	0	0	17	23	0	0	0	0	0	19	0	0	72	0	
4:45 PM	0	0	16	0	0	0	14	17	0	0	0	0	0	14	0	0	61	305	
5:00 PM	0	0	18	0	0	0	18	16	0	0	0	0	0	12	0	0	64	289	
5:15 PM	0	0	20	0	0	0	17	30	0	0	0	0	0	10	0	0	77	274	
5:30 PM	0	0	18	0	0	0	19	23	0	0	0	0	0	9	0	0	69	271	
5:45 PM	0	1	11	0	0	0	8	25	0	0	0	0	0	9	0	2	56	266	
Count Total	0	3	127	0	0	0	133	188	0	0	0	0	0	116	0	4	571	0	
Peak Hour	All	0	2	60	0	0	0	71	94	0	0	0	0	0	76	0	2	305	0
	HV	0	0	2	0	0	0	5	1	0	0	0	0	0	0	0	0	8	0
	HV%	-	0%	3%	-	-	-	7%	1%	-	-	-	-	-	0%	-	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
Count Total	3	10	0	2	15	0	0	0	0	0	0	1	1	0	2
Peak Hr	2	6	0	0	8	0	0	0	0	0	0	1	0	0	1

TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



PHF = Peak Hour Factor
HV = Heavy Vehicle

Cook Street @ Trail Road

Sedro Woolley, WA

COUNTED BY: TDG

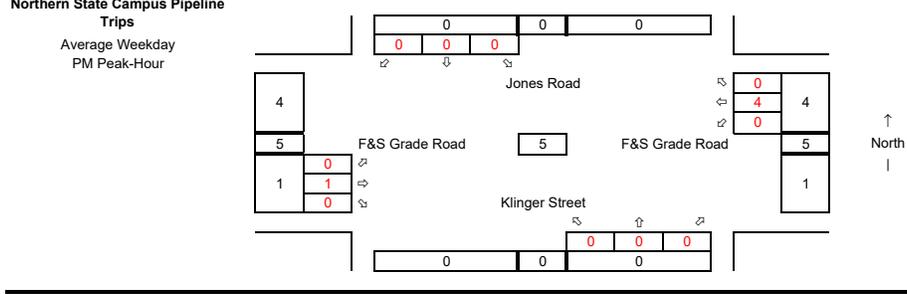
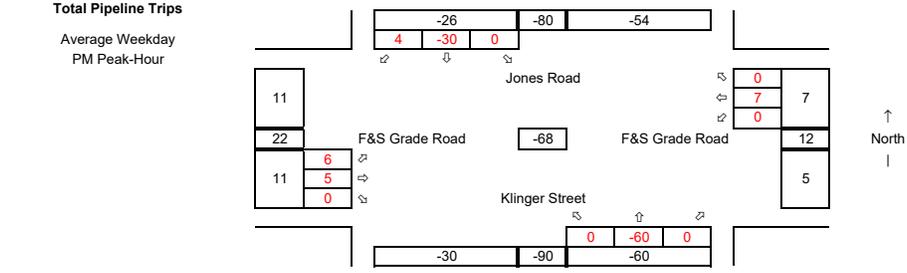
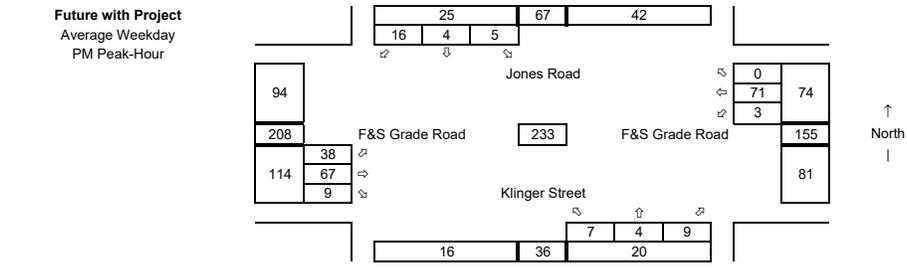
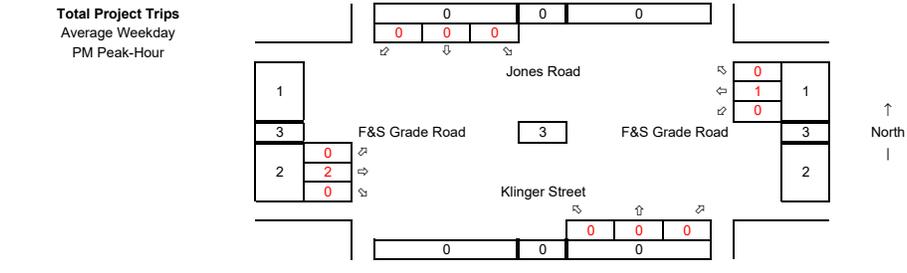
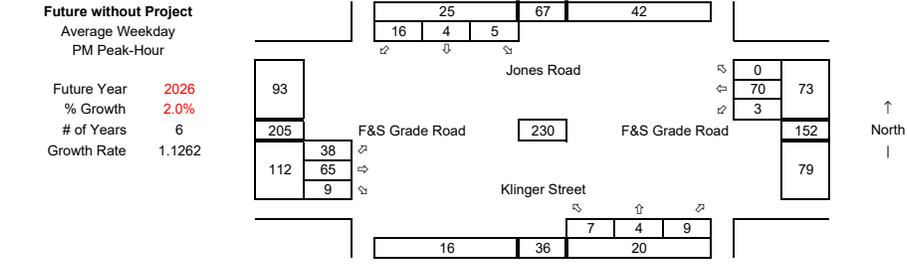
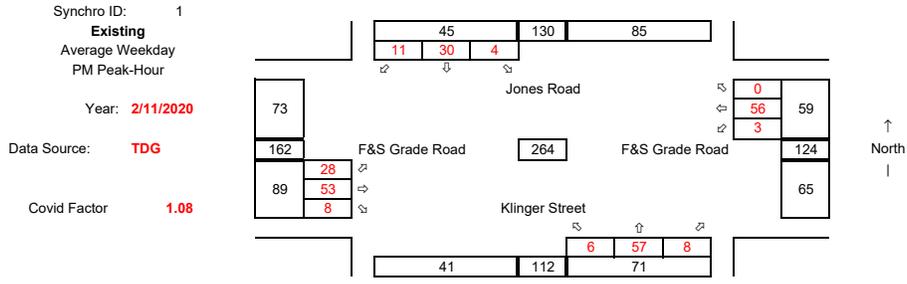
DATE OF COUNT: Tue. 2/11/20

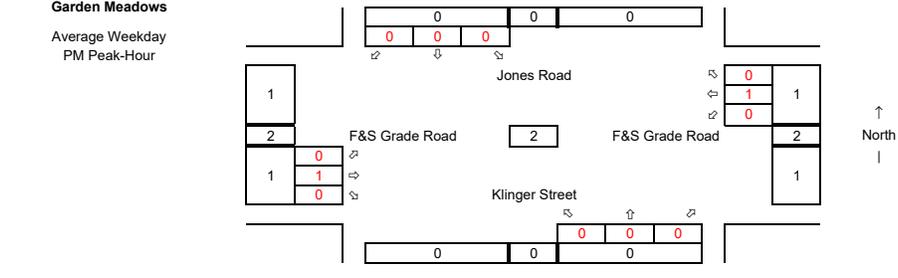
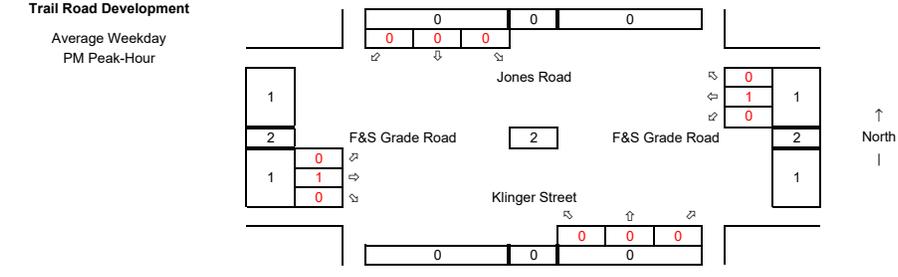
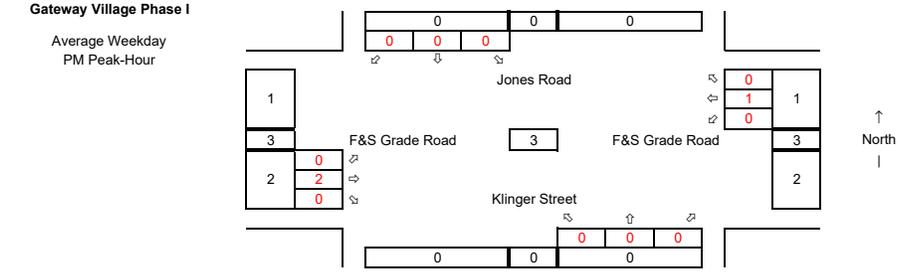
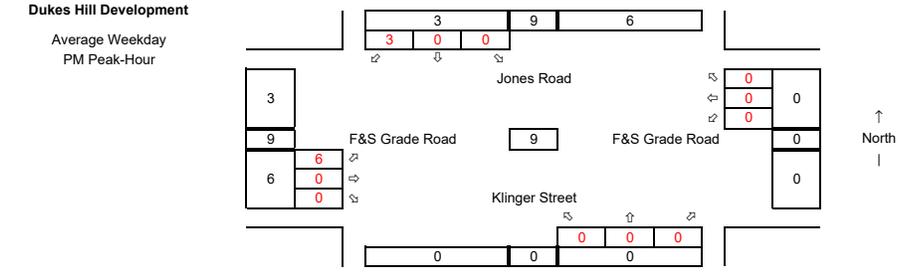
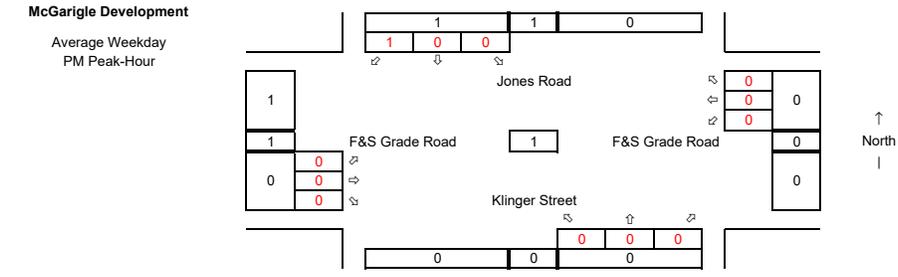
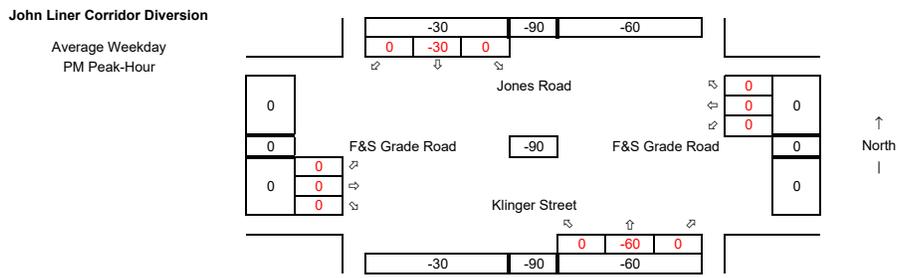
REDUCTION DATE: Wed. 2/12/20

TIME OF COUNT: 4:00 PM - 6:00 PM

Turning Movement Calculations

1 F&S Grade Rd @ Jones Rd





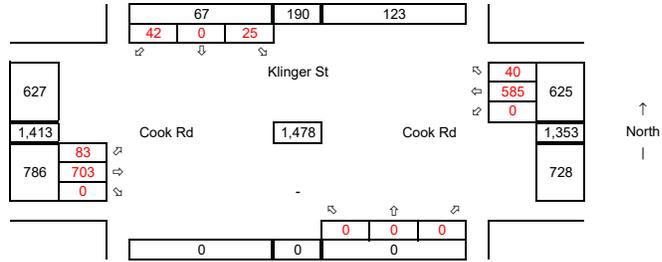
Synchro ID: 2

Existing
Average Weekday
PM Peak-Hour

Year: 1/1/2020

Data Source: GTC

Covid Factor 1.08



Future without Project

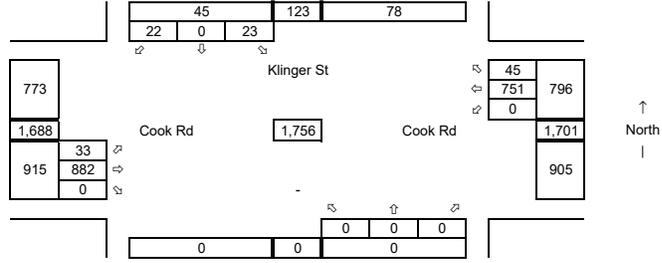
Average Weekday
PM Peak-Hour

Future Year 2026

% Growth 2.0%

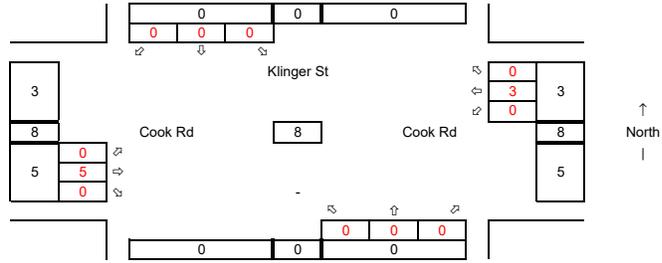
of Years 6

Growth Rate 1.1262



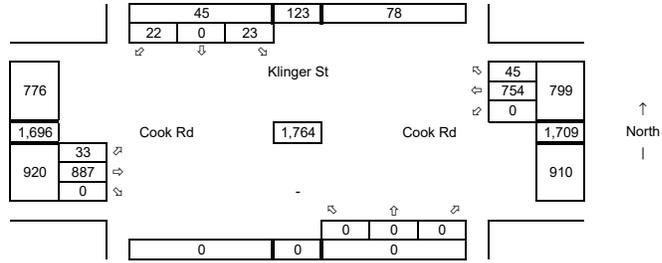
Total Project Trips

Average Weekday
PM Peak-Hour



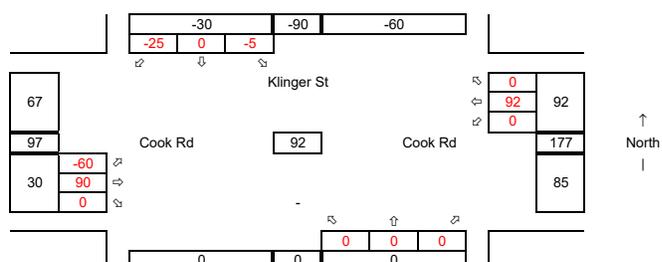
Future with Project

Average Weekday
PM Peak-Hour



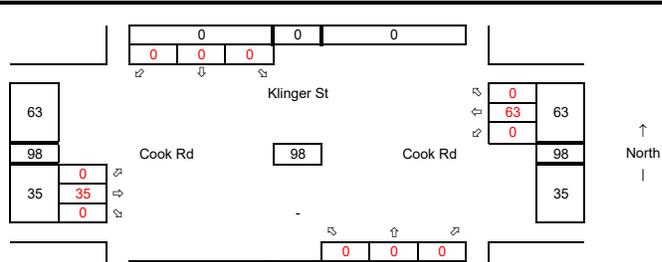
Total Pipeline Trips

Average Weekday
PM Peak-Hour



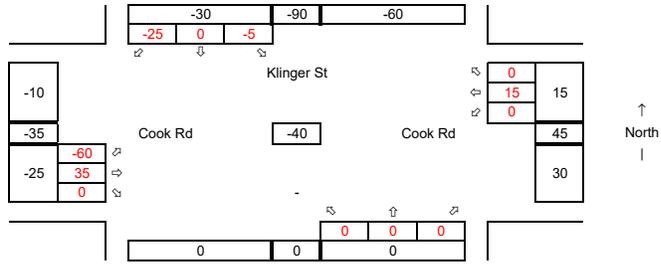
Northern State Campus Pipeline

Trips
Average Weekday
PM Peak-Hour



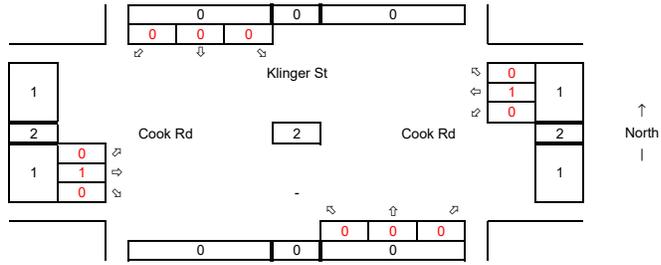
John Liner Corridor Diversion

Average Weekday
PM Peak-Hour



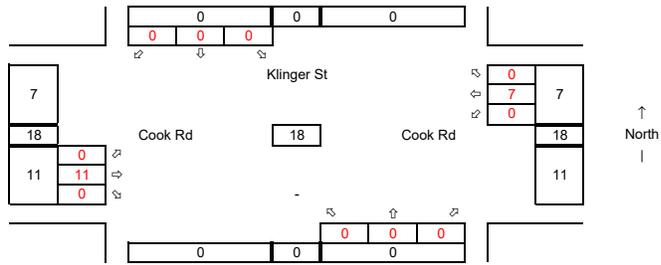
McGarigle Development

Average Weekday
PM Peak-Hour



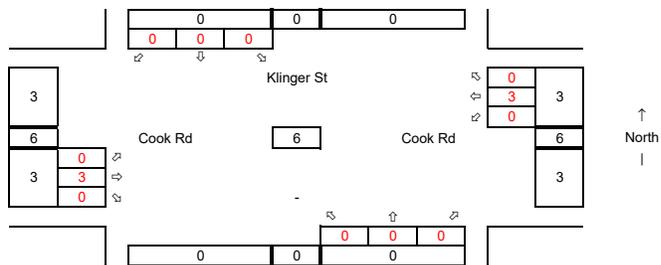
Dukes Hill Development

Average Weekday
PM Peak-Hour



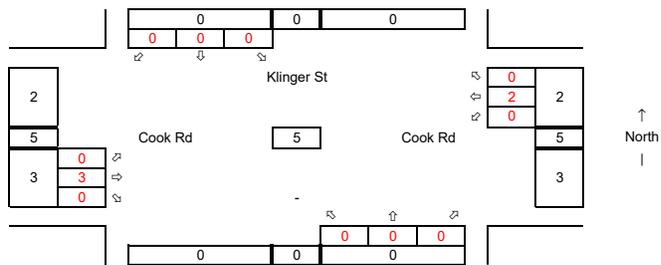
Gateway Village Phase I

Average Weekday
PM Peak-Hour



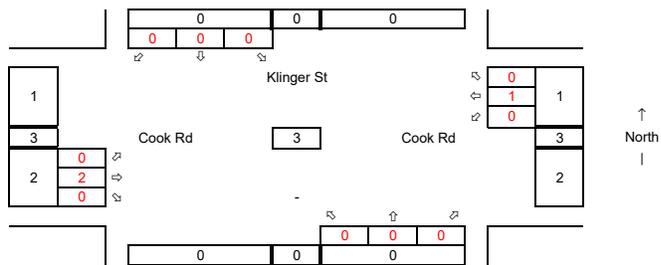
Trail Road Development

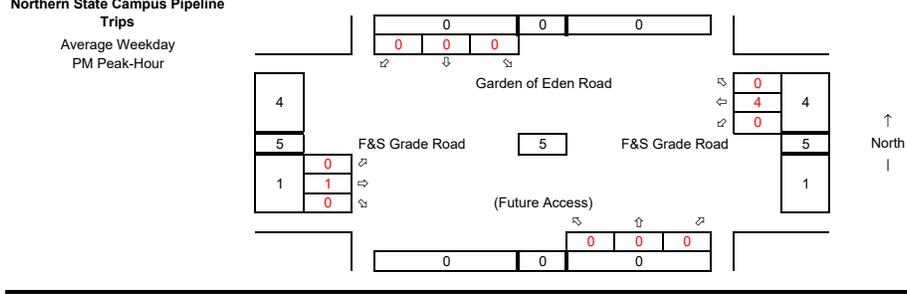
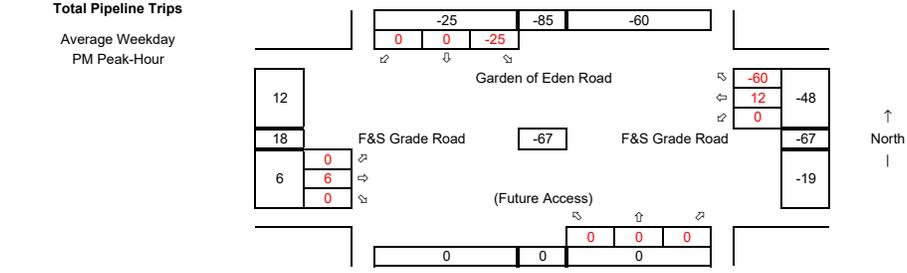
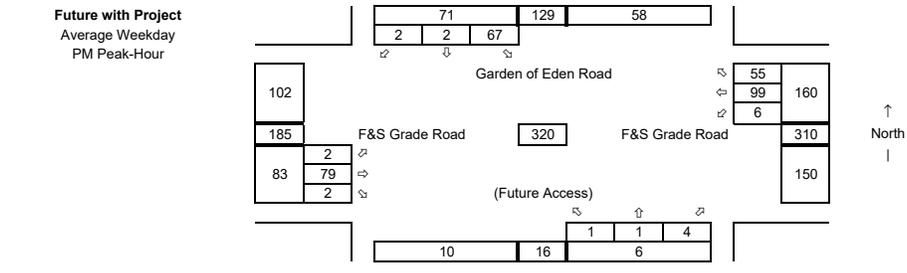
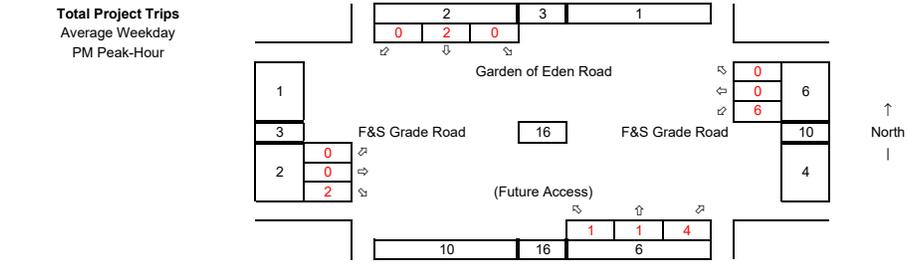
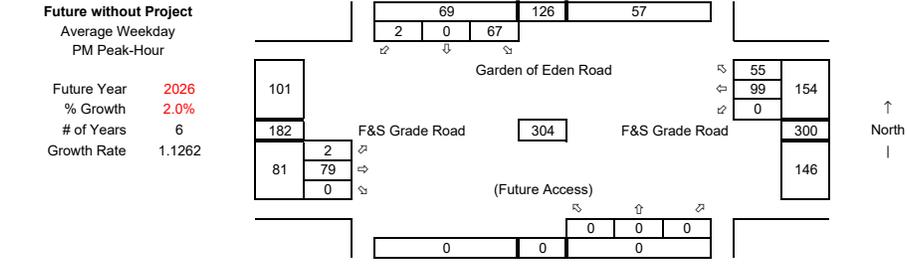
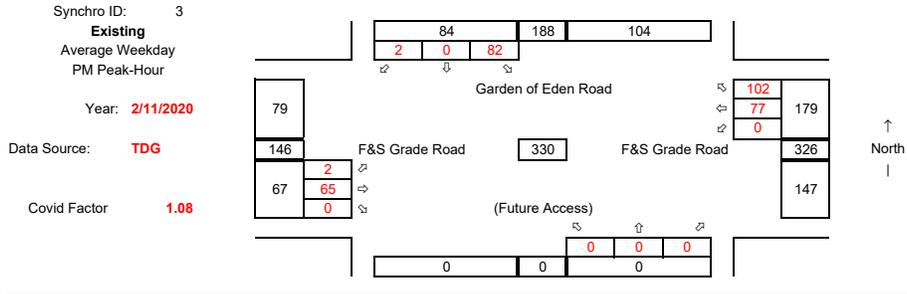
Average Weekday
PM Peak-Hour



Garden Meadows

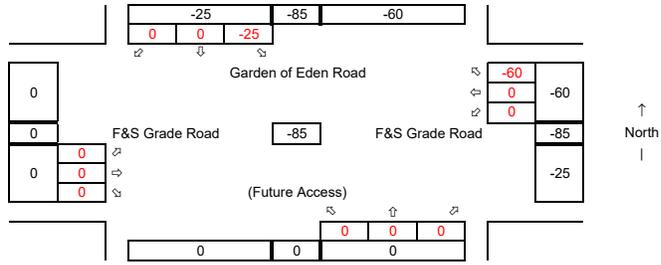
Average Weekday
PM Peak-Hour





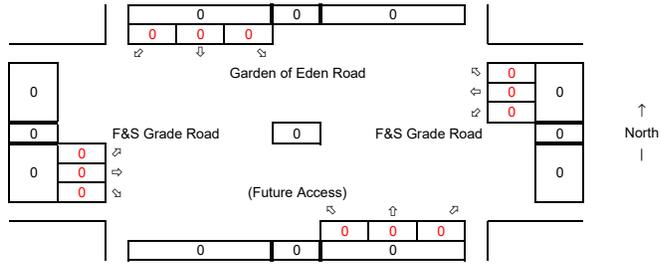
John Liner Corridor Diversion

Average Weekday
PM Peak-Hour



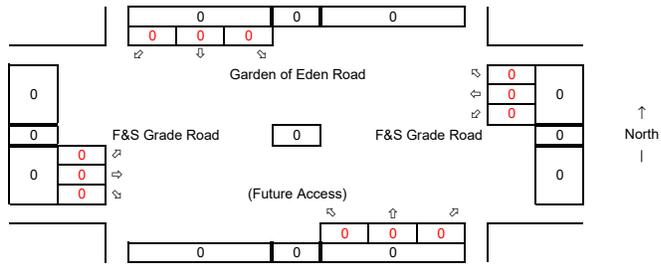
McGarigle Development

Average Weekday
PM Peak-Hour



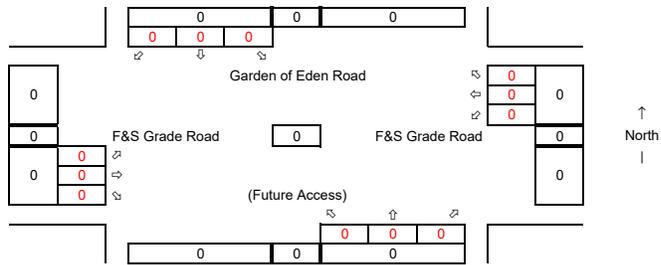
Dukes Hill Development

Average Weekday
PM Peak-Hour



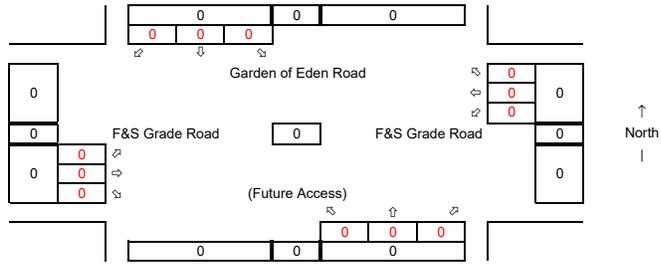
Gateway Village Phase I

Average Weekday
PM Peak-Hour



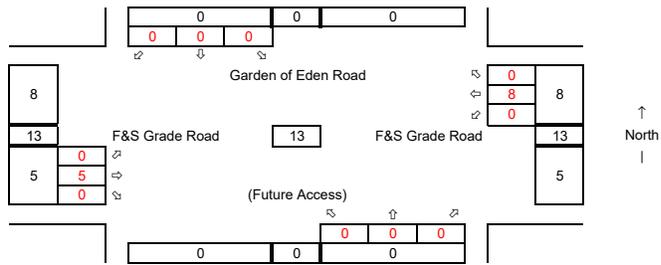
Trail Road Development

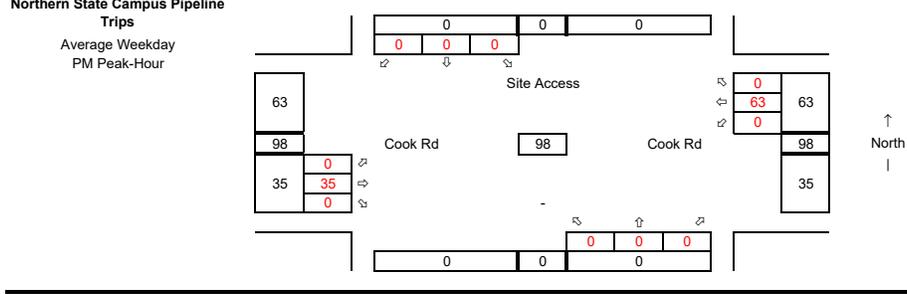
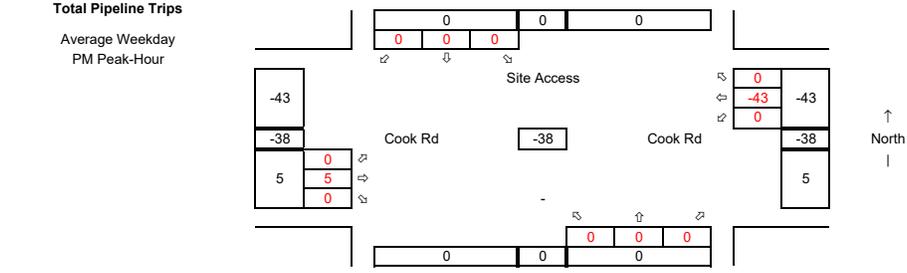
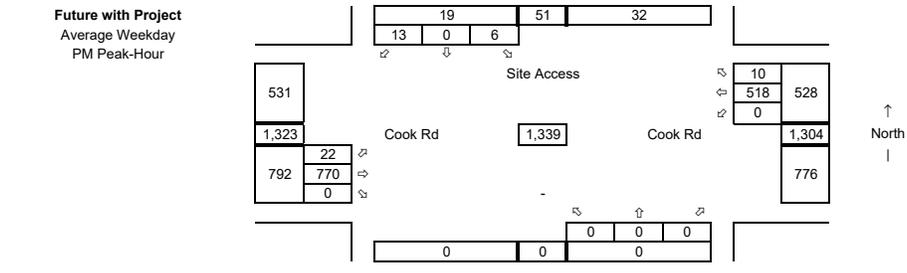
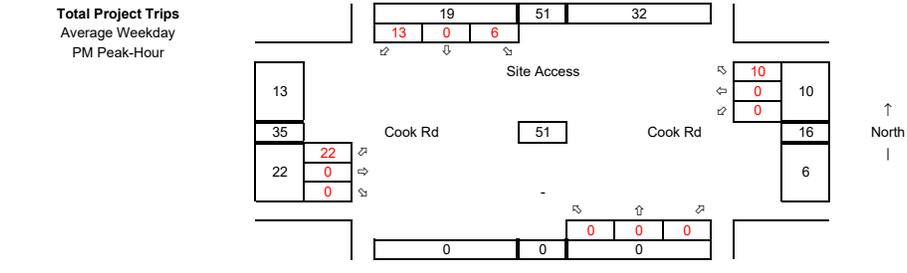
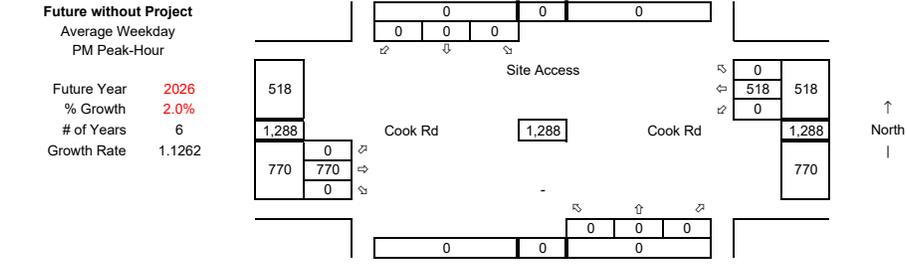
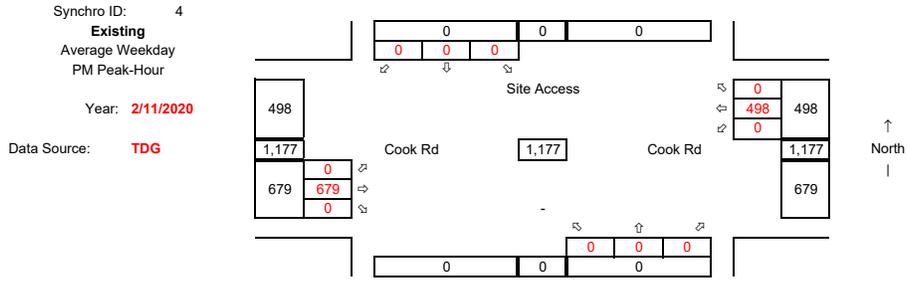
Average Weekday
PM Peak-Hour



Garden Meadows

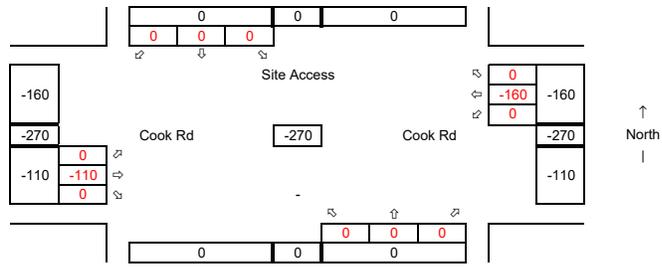
Average Weekday
PM Peak-Hour





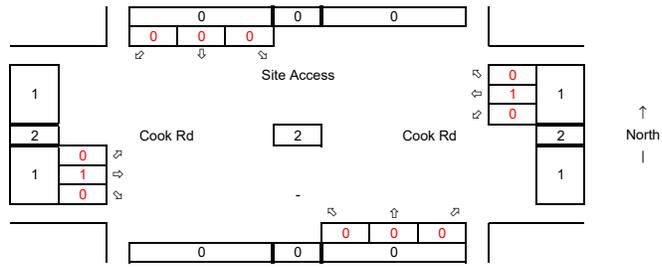
John Liner Corridor Diversion

Average Weekday
PM Peak-Hour



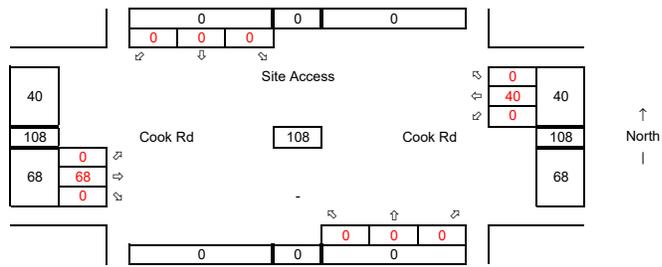
McGarigle Development

Average Weekday
PM Peak-Hour



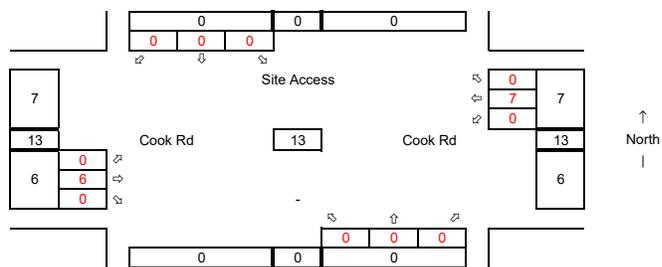
Dukes Hill Development

Average Weekday
PM Peak-Hour



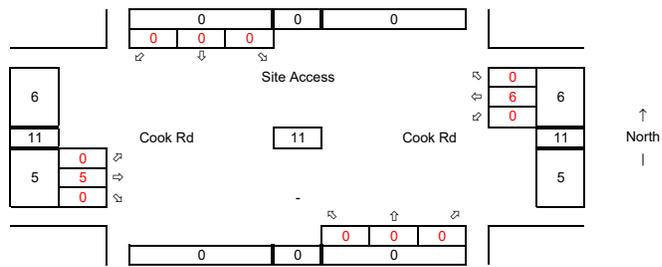
Gateway Village Phase I

Average Weekday
PM Peak-Hour



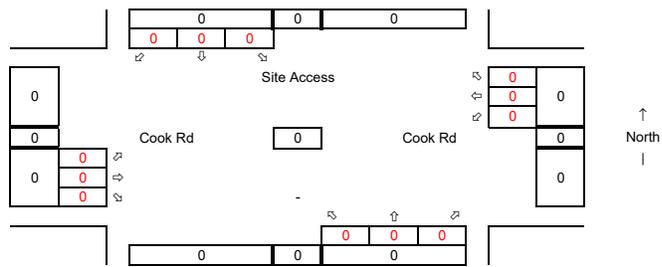
Trail Road Development

Average Weekday
PM Peak-Hour



Garden Meadows

Average Weekday
PM Peak-Hour



Existing LOS

HCM 6th TWSC
1: Klinger St & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	53	8	3	56	0	6	57	8	4	30	11
Future Vol, veh/h	28	53	8	3	56	0	6	57	8	4	30	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	2	2	2	0	0	0	0	0	0
Mvmt Flow	34	64	10	4	67	0	7	69	10	5	36	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	74	0	0	237	212	69	252	217	67
Stage 1	-	-	-	-	-	-	137	137	-	75	75	-
Stage 2	-	-	-	-	-	-	100	75	-	177	142	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1541	-	-	1526	-	-	722	689	1000	706	685	1002
Stage 1	-	-	-	-	-	-	871	787	-	939	836	-
Stage 2	-	-	-	-	-	-	911	836	-	829	783	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1541	-	-	1526	-	-	669	671	1000	632	667	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	669	671	-	632	667	-
Stage 1	-	-	-	-	-	-	851	769	-	917	833	-
Stage 2	-	-	-	-	-	-	857	833	-	730	765	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.3			0.4			10.9			10.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	697	1541	-	-	1526	-	-	722
HCM Lane V/C Ratio	0.123	0.022	-	-	0.002	-	-	0.075
HCM Control Delay (s)	10.9	7.4	0	-	7.4	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
2: Cook Rd & Klinger St

Bucko Residential

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	703	585	40	25	42
Future Vol, veh/h	83	703	585	40	25	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	85	717	597	41	26	43

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	638	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.236	-	-
Pot Cap-1 Maneuver	936	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	936	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	936	-	-	-	365
HCM Lane V/C Ratio	0.09	-	-	-	0.187
HCM Control Delay (s)	9.2	-	-	-	17.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.7

HCM 6th TWSC

3: Site Access/Garden of Eden Rd & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	65	0	0	77	102	0	0	0	82	0	2
Future Vol, veh/h	2	65	0	0	77	102	0	0	0	82	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	4	4	4	2	2	2	0	0	0
Mvmt Flow	2	78	0	0	93	123	0	0	0	99	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	78	0	0	239	298	78	237	237	156
Stage 1	-	-	-	-	-	-	82	82	-	155	155	-
Stage 2	-	-	-	-	-	-	157	216	-	82	82	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1348	-	-	1508	-	-	715	614	983	722	667	895
Stage 1	-	-	-	-	-	-	926	827	-	852	773	-
Stage 2	-	-	-	-	-	-	845	724	-	931	831	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1348	-	-	1508	-	-	711	613	983	721	666	894
Mov Cap-2 Maneuver	-	-	-	-	-	-	711	613	-	721	666	-
Stage 1	-	-	-	-	-	-	924	825	-	850	773	-
Stage 2	-	-	-	-	-	-	842	724	-	929	829	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			0			10.8		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1348	-	-	1508	-	-	724
HCM Lane V/C Ratio	-	0.002	-	-	-	-	-	0.14
HCM Control Delay (s)	0	7.7	0	-	0	-	-	10.8
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.5

2026 Baseline LOS

HCM 6th TWSC
1: Klinger St & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	65	9	3	70	0	7	4	9	5	4	16
Future Vol, veh/h	38	65	9	3	70	0	7	4	9	5	4	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	2	2	2	0	0	0	0	0	0
Mvmt Flow	46	78	11	4	84	0	8	5	11	6	5	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	89	0	0	280	268	84	276	273	84
Stage 1	-	-	-	-	-	-	176	176	-	92	92	-
Stage 2	-	-	-	-	-	-	104	92	-	184	181	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1519	-	-	1506	-	-	676	641	981	680	637	981
Stage 1	-	-	-	-	-	-	831	757	-	920	823	-
Stage 2	-	-	-	-	-	-	907	823	-	822	754	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1519	-	-	1506	-	-	642	619	981	651	615	981
Mov Cap-2 Maneuver	-	-	-	-	-	-	642	619	-	651	615	-
Stage 1	-	-	-	-	-	-	804	733	-	891	821	-
Stage 2	-	-	-	-	-	-	881	821	-	782	730	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.5			0.3			9.9			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	754	1519	-	-	1506	-	-	820
HCM Lane V/C Ratio	0.032	0.03	-	-	0.002	-	-	0.037
HCM Control Delay (s)	9.9	7.4	0	-	7.4	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

HCM 6th TWSC
2: Cook Rd & Klinger St

Bucko Residential

Intersection

Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	882	751	45	23	22
Future Vol, veh/h	33	882	751	45	23	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	34	900	766	46	23	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	812	0	-	0	1757 789
Stage 1	-	-	-	-	789 -
Stage 2	-	-	-	-	968 -
Critical Hdwy	4.14	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.236	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	806	-	-	-	93 391
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	368 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	806	-	-	-	89 391
Mov Cap-2 Maneuver	-	-	-	-	221 -
Stage 1	-	-	-	-	429 -
Stage 2	-	-	-	-	368 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	20.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	806	-	-	-	281
HCM Lane V/C Ratio	0.042	-	-	-	0.163
HCM Control Delay (s)	9.7	-	-	-	20.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM 6th TWSC

3: Site Access/Garden of Eden Rd & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	2	79	0	0	99	55	0	0	0	67	0	2
Future Vol, veh/h	2	79	0	0	99	55	0	0	0	67	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	4	4	4	2	2	2	0	0	0
Mvmt Flow	2	95	0	0	119	66	0	0	0	81	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	95	0	0	253	284	95	251	251	153
Stage 1	-	-	-	-	-	-	99	99	-	152	152	-
Stage 2	-	-	-	-	-	-	154	185	-	99	99	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1384	-	-	1486	-	-	700	625	962	707	656	898
Stage 1	-	-	-	-	-	-	907	813	-	855	775	-
Stage 2	-	-	-	-	-	-	848	747	-	912	817	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1384	-	-	1486	-	-	697	624	962	706	655	897
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	624	-	706	655	-
Stage 1	-	-	-	-	-	-	905	811	-	853	775	-
Stage 2	-	-	-	-	-	-	845	747	-	910	815	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			0			10.7		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1384	-	-	1486	-	-	710
HCM Lane V/C Ratio	-	0.002	-	-	-	-	-	0.117
HCM Control Delay (s)	0	7.6	0	-	0	-	-	10.7
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.4

2026 Future with Development LOS

HCM 6th TWSC
1: Klinger St & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	67	9	3	71	0	7	4	9	5	4	16
Future Vol, veh/h	38	67	9	3	71	0	7	4	9	5	4	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	2	2	2	0	0	0	0	0	0
Mvmt Flow	46	81	11	4	86	0	8	5	11	6	5	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	86	0	0	92	0	0	285	273	87	281	278	86
Stage 1	-	-	-	-	-	-	179	179	-	94	94	-
Stage 2	-	-	-	-	-	-	106	94	-	187	184	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1517	-	-	1503	-	-	671	637	977	675	633	978
Stage 1	-	-	-	-	-	-	827	755	-	918	821	-
Stage 2	-	-	-	-	-	-	905	821	-	819	751	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1517	-	-	1503	-	-	636	615	977	646	611	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	615	-	646	611	-
Stage 1	-	-	-	-	-	-	801	731	-	889	819	-
Stage 2	-	-	-	-	-	-	879	819	-	779	727	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.5			0.3			10			9.6		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	748	1517	-	-	1503	-	-	816
HCM Lane V/C Ratio	0.032	0.03	-	-	0.002	-	-	0.037
HCM Control Delay (s)	10	7.4	0	-	7.4	0	-	9.6
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

HCM 6th TWSC
2: Cook Rd & Klinger St

Bucko Residential

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations	↘	↑	↗		↘	
Traffic Vol, veh/h	33	887	754	45	23	22
Future Vol, veh/h	33	887	754	45	23	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	34	905	769	46	23	22

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	815	0	0	1765	792
Stage 1	-	-	-	792	-
Stage 2	-	-	-	973	-
Critical Hdwy	4.14	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.236	-	-	3.518	3.318
Pot Cap-1 Maneuver	804	-	-	92	389
Stage 1	-	-	-	446	-
Stage 2	-	-	-	366	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	804	-	-	88	389
Mov Cap-2 Maneuver	-	-	-	220	-
Stage 1	-	-	-	427	-
Stage 2	-	-	-	366	-

Approach	EB	WB	SB
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HCM Control Delay, s	0.3	0	20.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	804	-	-	-	279
HCM Lane V/C Ratio	0.042	-	-	-	0.165
HCM Control Delay (s)	9.7	-	-	-	20.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM 6th TWSC

3: Site Access/Garden of Eden Rd & F&S Grade Rd

Bucko Residential

Intersection

Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	79	2	6	99	55	1	1	4	67	2	2
Future Vol, veh/h	2	79	2	6	99	55	1	1	4	67	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	4	4	4	2	2	2	0	0	0
Mvmt Flow	2	95	2	7	119	66	1	1	5	81	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	97	0	0	269	299	96	269	267	153
Stage 1	-	-	-	-	-	-	100	100	-	166	166	-
Stage 2	-	-	-	-	-	-	169	199	-	103	101	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1384	-	-	1484	-	-	684	613	960	688	642	898
Stage 1	-	-	-	-	-	-	906	812	-	841	765	-
Stage 2	-	-	-	-	-	-	833	736	-	908	815	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1384	-	-	1484	-	-	676	609	960	680	638	897
Mov Cap-2 Maneuver	-	-	-	-	-	-	676	609	-	680	638	-
Stage 1	-	-	-	-	-	-	904	810	-	839	761	-
Stage 2	-	-	-	-	-	-	823	732	-	900	813	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			9.4			11		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	823	1384	-	-	1484	-	-	683
HCM Lane V/C Ratio	0.009	0.002	-	-	0.005	-	-	0.125
HCM Control Delay (s)	9.4	7.6	0	-	7.4	0	-	11
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

HCM 6th TWSC
4: Cook Rd & Site Access

Bucko Residential

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
Traffic Vol, veh/h	22	770	518	10	6	13
Future Vol, veh/h	22	770	518	10	6	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	2	2
Mvmt Flow	24	837	563	11	7	14

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	574	0	0	1454	569
Stage 1	-	-	-	569	-
Stage 2	-	-	-	885	-
Critical Hdwy	4.14	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.236	-	-	3.518	3.318
Pot Cap-1 Maneuver	989	-	-	143	522
Stage 1	-	-	-	566	-
Stage 2	-	-	-	403	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	989	-	-	140	522
Mov Cap-2 Maneuver	-	-	-	274	-
Stage 1	-	-	-	552	-
Stage 2	-	-	-	403	-

Approach	EB	WB	SB
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HCM Control Delay, s	0.2	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	989	-	-	-	406
HCM Lane V/C Ratio	0.024	-	-	-	0.051
HCM Control Delay (s)	8.7	-	-	-	14.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Collision Data

Collision Data Date Range

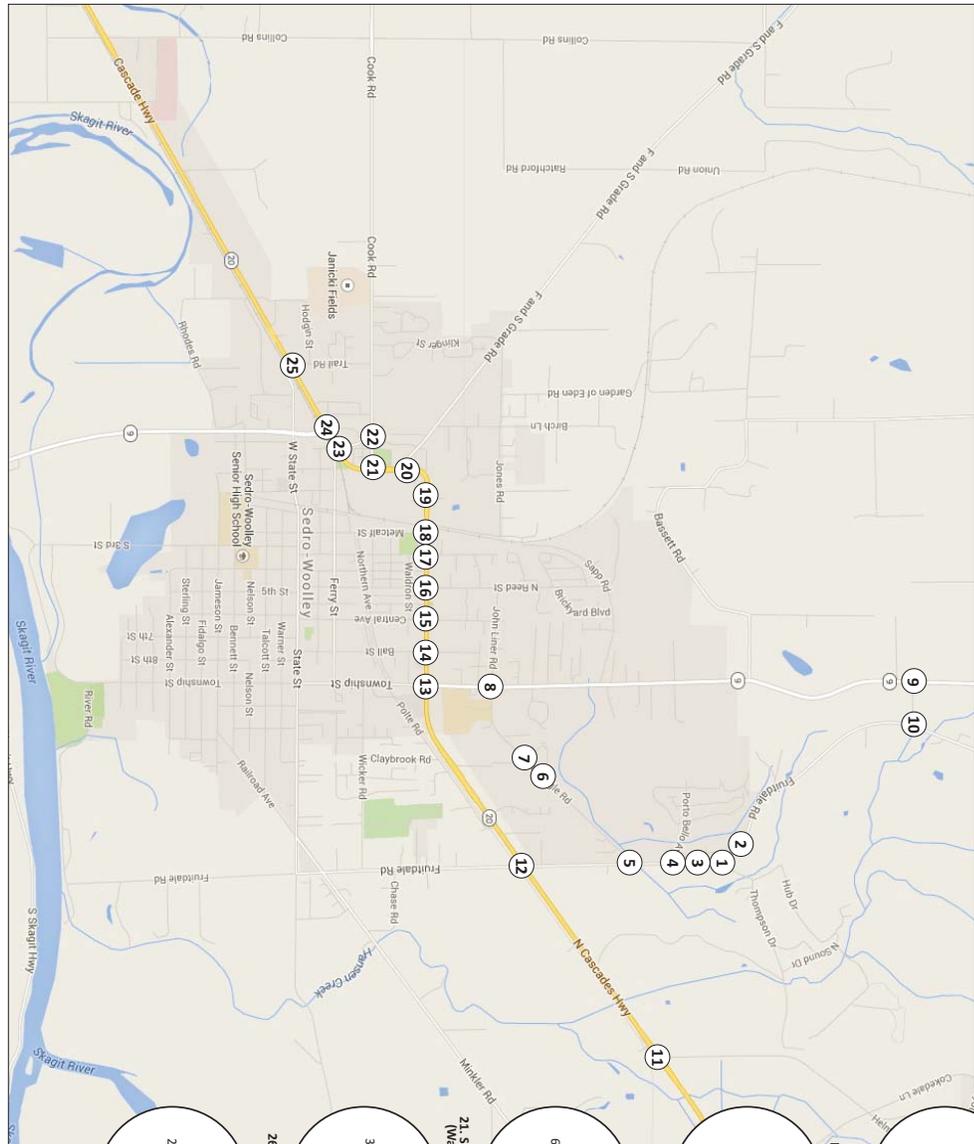
Start 1/1/2015
 End 6/30/2020

Total Years 5.50

Intersection	No. Collisions	No. Injury Collisions	Estimated ADT	Collisions per Year	Collisions per MEV
#1: F&S Grade Rd @ Klinger St	3	1	2,640	0.55	0.57
#2: Cook Rd @ Klinger St	3	0	14,780	0.55	0.10
#3: F&S Grade Rd @ Garden of Eden Rd	2	0	3,300	0.36	0.30

PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	DIST FROM REF POINT MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# I N J U R I E S	# F A T A L S	# P E R I C U L O U S	# P B I K D E S	FIRST COLLISION TYPE / OBJECT STRUCK
COOK RD	900	KLINGER ST	0			3640522	2015-12-22	17:04	No Apparent Injury	0	0	0	0	From same direction - one left turn - one straight
F AND S GRADE RD	700		50 F	SE	KLINGER ST	E488245	2015-11-25	19:51	No Apparent Injury	0	0	0	0	From same direction - both going straight - both moving - rear-end
GARDEN OF EDEN RD	100		88 F	N	F AND S GRADE RD	3640593	2015-01-03	01:24	Unknown	0	0	1	0	Utility Pole
COOK RD	0	KLINGER ST	0			E543341	2016-04-25	09:36	No Apparent Injury	0	0	2	0	Entering at angle
F AND S GRADE RD	0	GARDEN OF EDEN RD	0			E872159	2018-11-27	9:50	No Apparent Injury	0	0	2	0	Entering at angle
COOK RD	0	KLINGER ST	0			E986302	2019-11-24	12:19	No Apparent Injury	0	0	2	0	Entering at angle
F AND S GRADE RD	801	KLINGER ST	0			EAT70236	2020-09-26	09:27	Suspected Minor Injury	1	0	2	0	Entering at angle

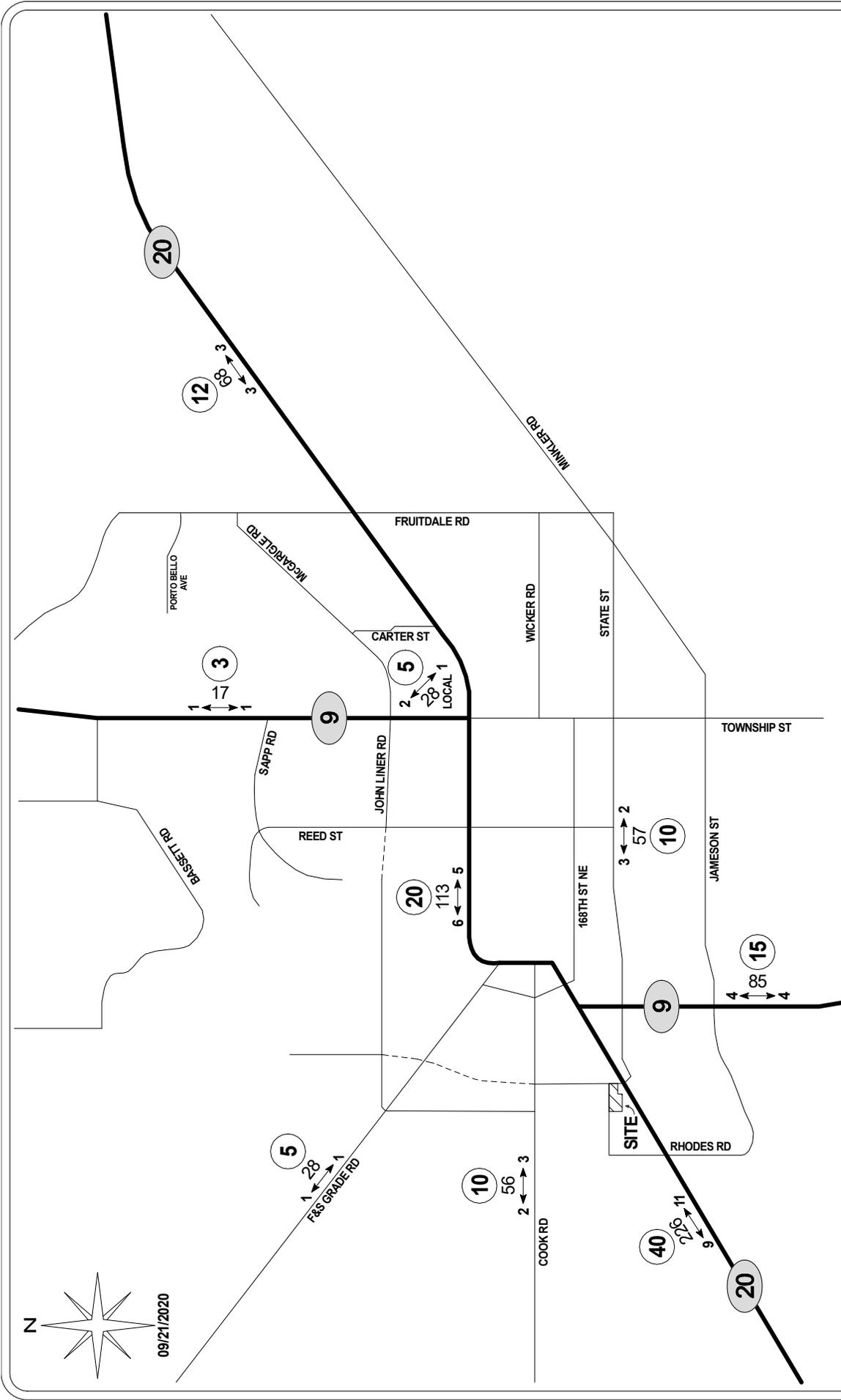
Pipeline Projects



Intersection PM Peak Hour Trip Impact

1. Site Access at Fruittale Road	2. Willflower Way at Fruittale Road (North)	3. Willflower Way at Fruittale Road (South)	4. Porto Bello Ave at Fruittale Road	5. McGarigle Road at Fruittale Road
6. McGarigle Road at Independence Blvd	7. McGarigle Road at Carter Street	8. McGarigle Road at SR 9 (Township Street)	9. Kallioch Road at SR 9	10. Kallioch Road at Fruittale Road
11. SR 20 at Hiramka Road	12. SR 20 at Fruittale Road	13. SR 20 at Township Street	14. SR 20 at Ball Street	15. SR 20 at Central Ave
16. SR 20 at Reed Street	17. SR 20 at Nullock Street	18. SR 20 at McLean Street	19. SR 20 at Patch Street	20. SR 20 at F and S Grade Road
21. SR 20 at Cook Road (Washington Street)	22. Cook (Washington) at Edward K. Wurrow	23. SR 20 at W Ferry Street	24. SR 20 at SR 9	25. SR 20 at Trail Road/W State Street
26. Cook Road at Old Hwy 99	27. Cook Road at I-5 NB Ramps	28. Cook Road at I-5 SB Ramps		

Figure 4.5. High Intensity Site Development Action (Alternative 3) Trip Assignment PM Peak Hour



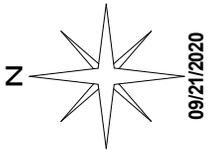
TRAFFIC IMPACT STUDY
GTC #20-222

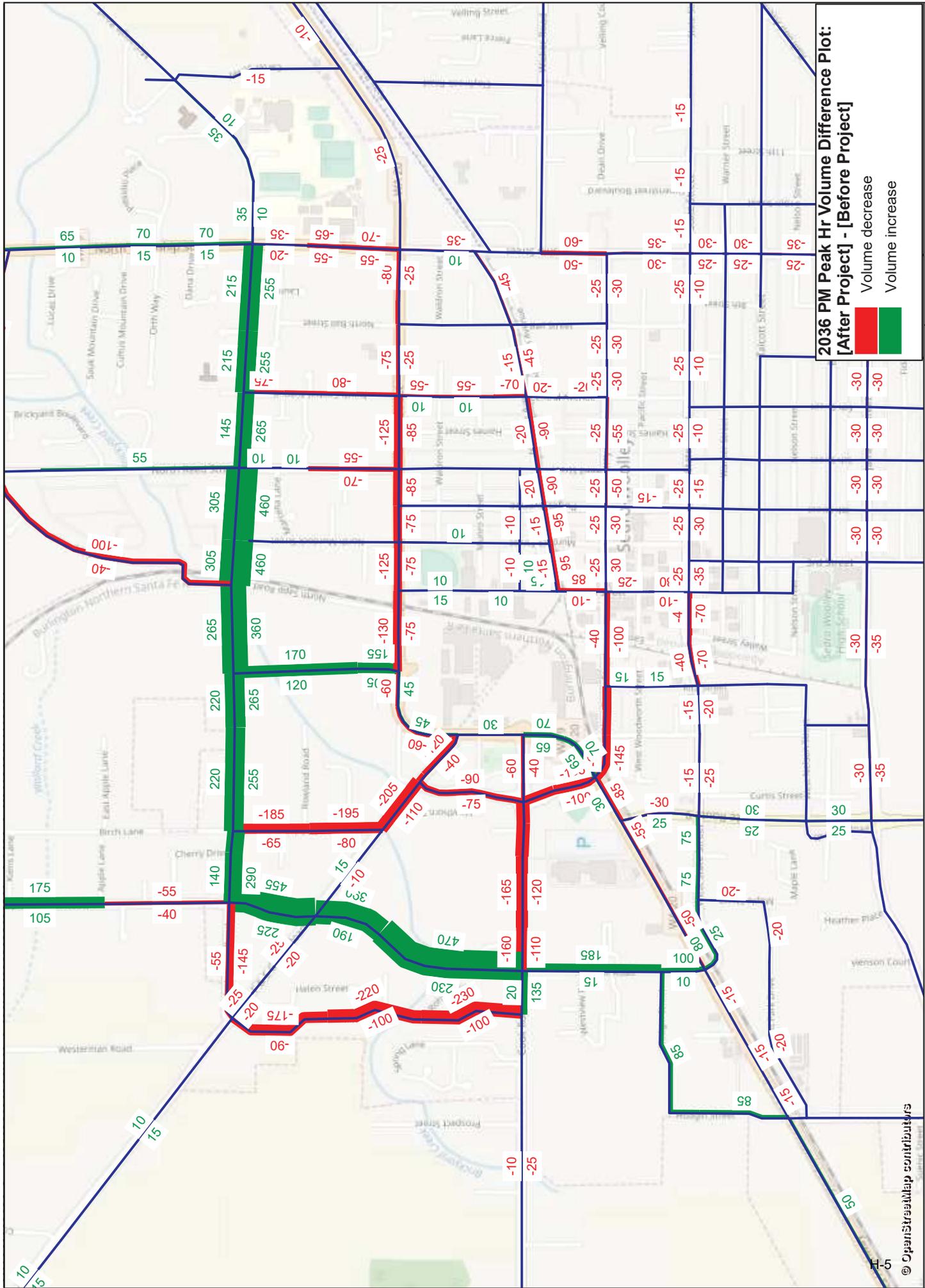
FIGURE 3
DEVELOPMENT TRIP
DISTRIBUTION
PM PEAK-HOUR

GIBSON TRAFFIC CONSULTANTS

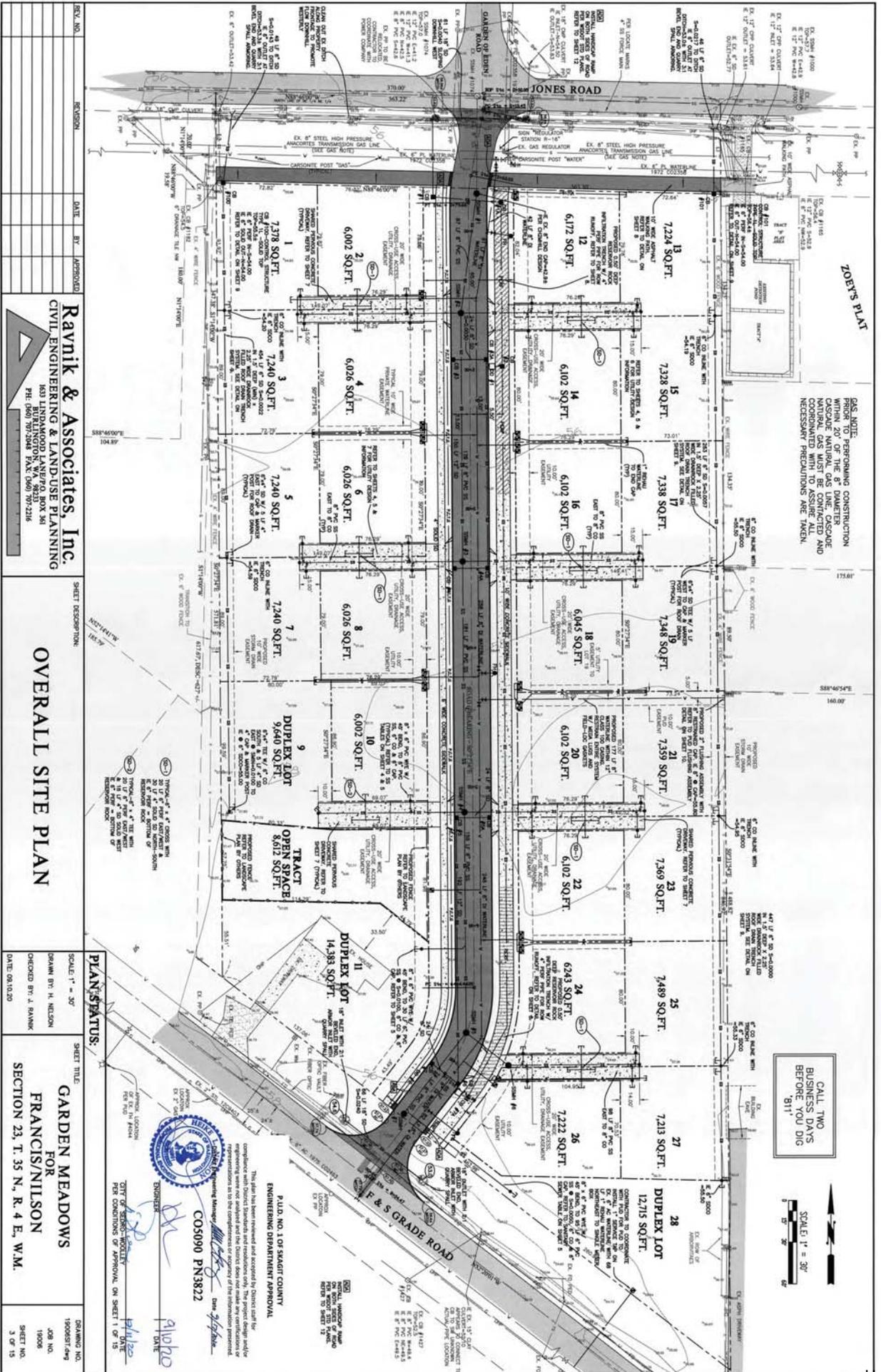
TRAIL ROAD
67 MID-RISE APARTMENTS
11,006 SF COMMERCIAL
CITY OF SEDRO WOOLLEY

LEGEND
AWDT
PM ← PEAK →
NEW SITE TRAFFIC (DAILY/PEAK HOUR)
TRIP DISTRIBUTION %
XX





2036 PM Peak Hr Volume Difference Plot:
[After Project] - [Before Project]
 Volume decrease
 Volume increase



PLEASE NOTE: PERFORMING CONSTRUCTION WITHIN 20' OF THE 8" DIAMETER CASCADE NATURAL GAS LINE, CASCADE CONTROLS MUST BE CONTACTED AND NECESSARY PRECAUTIONS ARE TAKEN.

CALL TWO BUSINESS DAYS BEFORE 811



REV. NO.	REVISION	DATE	BY	APPROVED
Ravnik & Associates, Inc. CIVIL ENGINEERING & LAND-USE PLANNING 163 HINDAMOOD LANE/PO. BOX 346 PHE. BURLINGTON, VA 22613 TEL. 703.754.3444 FAX. 703.754.3216				
OVERALL SITE PLAN				
SHEET DESCRIPTION:				
PLANS/PARTS:				
SCALE: 1" = 30' DRAWN BY: H. NELSON CHECKED BY: J. BANIK DATE: 08.10.20				
GARDEN MEADOWS FOR FRANCIS/NILSON SECTION 23, T. 35 N., R. 4 E., W.M.				
DRAWING NO.	1900857-049	JOB NO.	19008	SHEET NO.
				3 OF 15



PLD. NO. 1 OF 56467 COUNTY ENGINEERING DEPARTMENT APPROVAL

CO5090 PN3822

DATE: 9/10/20

Sedro Woolley Six-Year TIP



Six Year Transportation Improvement Program From 2021 to 2026

Agency: Sedro Woolley

County: Skagit

MPO/RTPO: SCOG

Y Inside

N Outside

Functional Class	05	Priority Number	15	A. PIN/Project No. B. STIP ID C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description G. Structure ID		Hearing	06/24/20	Adopted	07/08/20	Amendment	Resolution No.	1055-20	Improvement Type	01	Utility Codes	S W	Total Length	0.420 CE	Environmental Type		RW Required	Yes
				Trail Road Arterial Extension Trail Road Cook Road to F&S Grade Road Construct new major collector.		SW55																

Funding									
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds	Total Funds
P	PE	2024	WSDOT	0	WSDOT	344,000	61,000	405,000	405,000
P	RW	2025	WSDOT	0	WSDOT	1,650,000	291,000	1,941,000	1,941,000
P	CN	2026	TIB	0	TIB	2,636,000	466,000	3,102,000	3,102,000
Totals				0		4,630,000	818,000	5,448,000	5,448,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	0	0	0	405,000	0
RW	0	0	0	0	1,941,000
CN	0	0	0	0	3,102,000
Totals	0	0	0	405,000	5,043,000

Sedro Woolley Traffic Impact Fee Documents



8250 - 165th Avenue NE
Suite 100
Redmond, WA 98052-6628
T 425-883-4134
F 425-867-0898
www.tsinw.com

**ATTACHMENT A
ORDINANCE 1960-20**

**TRANSPORTATION IMPACT FEE RATE STUDY
2020 UPDATE
FINAL REPORT**

July 2020

Prepared for:
City of Sedro-Woolley

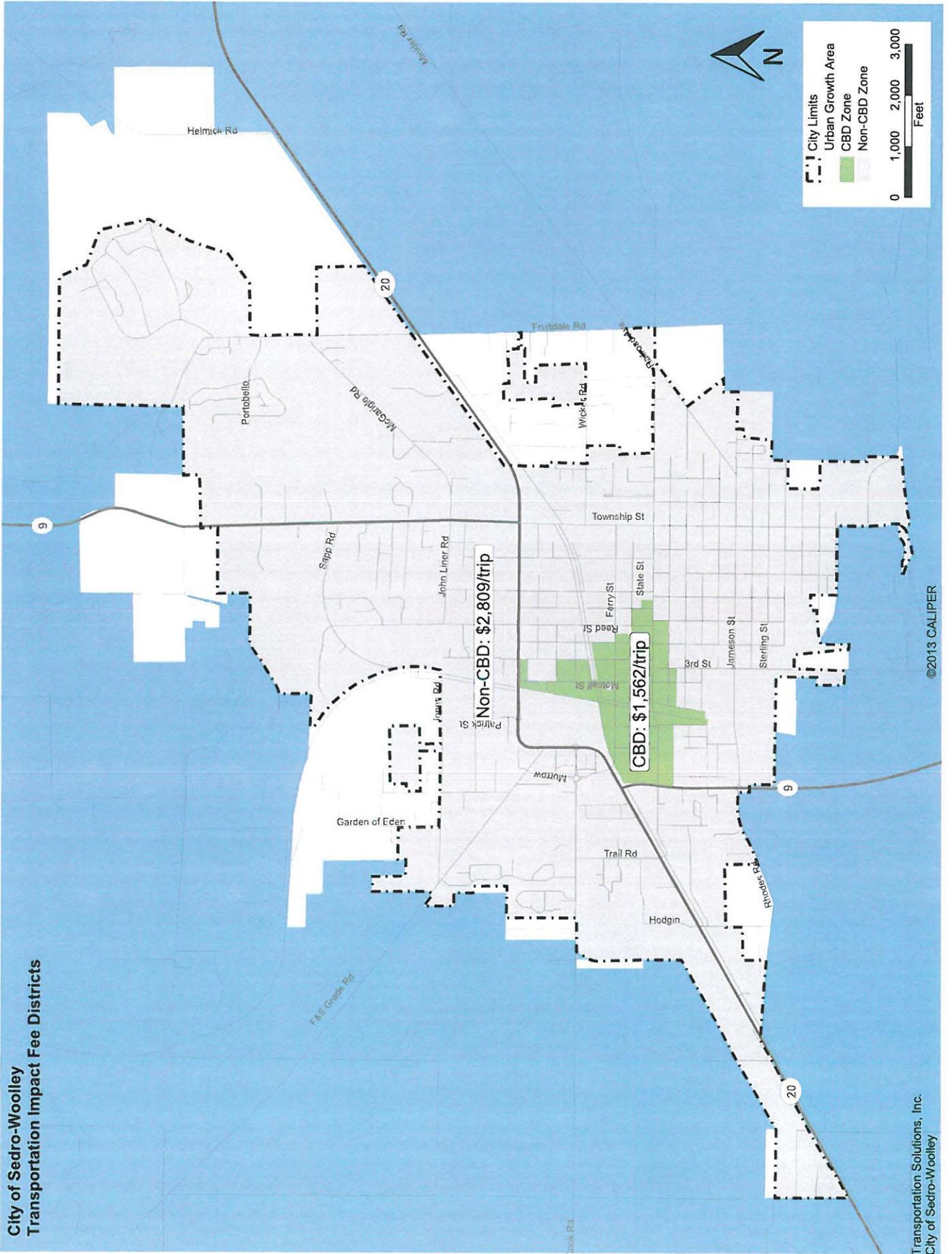
Prepared by:
Transportation Solutions, Inc.
8250 165th Avenue NE, Suite 100
Redmond, WA 98052-6628

Table 1. Transportation Impact Fee Project List

ID	Project Name	Project Limits	Description	Cost (\$)
S16	SR20 & SR9 (Township) Intersection Impr.		Channelization and signal impr.	828,000
S2	SR20 & Reed St Intersection Impr.		RIRO access restriction	50,000
S17	Township St & John Liner/McGarigle Rd Intersection Impr.		Intersection improvements	2,494,000
S14C	SR20/Cascade Trail West Extension Ph.2A	Holtcamp Rd/Hodgin Rd	Shared use path	841,000
C1C	John Liner Bike/Ped Impr	Reed St / SR 9	Complete Streets completion	579,000
C19	Patrick St Extension	Michael St/E Jones St	New major collector w/sidewalks (excludes ROW costs)	2,920,000
C1B	Jones/John Liner RR Undercrossing	Sapp Rd / Reed St	New BNSF undercrossing and new arterial street	8,535,000
C1D	John Liner Rd Impr.	Reed St / Township St	Reconstruct to arterial section	1,900,000
C3	Cook Rd / Trail Rd Intersection Improvements		Intersection improvements	4,313,000
C9A	Trail Rd Arterial Extension	Cook Rd / F&S Grade	Construct new minor arterial	5,446,000
C9B	Garden of Eden Rd Extension	F&S Grade / Jones Rd	Construct new minor arterial	1,430,000
C1A	Jones Rd Improvements	F&S Grade / Sapp Rd	Reconstruct to arterial section	4,995,000
C18	Portobello Arterial Extension	Township / Cascadia	New major collector (excludes ROW)	1,700,000 ¹
S18	SR 9 / W State St Intersection Improvements		Add eastbound RT lane	250,000
S13C	SR9N Ped/Bike Safety Impr.	Park Cott./city limit	Bike lane & sidewalk improvements	434,000
C7A	Jameson St Arterial Improvements	600' e/o Batey to Railroad St	Widen to arterial standards w/3 lanes, bike lane, sidewalk	3,600,000
C7B	Jameson / 11 th St Intersection Improvements		Change access to RIRO	70,000
C7C	Railroad St / Jameson Intersection Improvements		Intersection improvements to include new roundabout	750,000
C7D	Railroad St Arterial Improvements	Jameson St / Fruitdale	Reconstruct to arterial standards incl. 3 lanes, bike lanes, sidewalks	2,880,000
S15A	SR20 West Widening & Safety Improvements Project 2A	Hospital Dr/Holtcamp	Improve and widen to 3 lanes	325,000
C38	Cook Rd Arterial Ext.	SR20 to Metcalf St	New major collector	825,000
S20	SR 20 / Central Ave Intersection Improvements		Intersection improvements or RIRO	150,000
C2	F&S Grade Rd Arterial Impr.	SR20 MP65.16 / Jones	Reconstruct to arterial standards	2,960,000
S14D	SR20/Cascade Trail West Extension Ph.2B	Collins Rd/Holtcamp Rd	Shared use path	620,000
C13	Rhodes Rd Arterial Impr	SR 9 / SR 20	Reconstruct to arterial standards incl. bike lanes, sidewalks	500,000
C15	Hodgin Rd Arterial Ext.	SR 20 / Cook	New collector arterial	2,225,000
S9	SR9/N Township St Arterial Impr.	SR 20 / City limits	Planning phase – reconstruct to arterial standards	100,000
S13D	SR9 / Centennial Trail Ped/Bike Safety Improvements	Summer Meadows Pl / North City Limits	Construct bicycle lane and sidewalk improvements incl. ped crossing bridge at Brickyard Crk	1,700,000

¹Portobello arterial extension cost is not applied toward TIF rate calculation

**City of Sedro-Woolley
Transportation Impact Fee Districts**



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Transportation Solutions, Inc.
City of Sedro-Woolley

**PRELIMINARY
DRAINAGE REPORT
for
BUCKO ESTATES
RESIDENTIAL LONG PLAT DEVELOPMENT**

January 30, 2021



This preliminary drainage report has been prepared to conceptual address the storm water design necessary to mitigate the increased amount of runoff from the proposed Bucko Estates residential plat to create approximately 60-single family lots and 5-duplex lots on three existing parcels of land where currently two residential homes are located.

The residential development proposed herein is to occur on parcels 37250, 37251, and 37253 with a road extension southerly through the west side of P37256 to Cook Road. All parcels are located within the City of Sedro Woolley. The two existing house sites have a current site address of 503 and 505 F & S Grade Road, Sedro Woolley, Washington. Subdivisionally, the subject parcels are located within Section 23, Township 35 N., Range 4 E.

This residential plat project encompasses a total of three parcels (19.6 acres,) and a new roadway extension southerly from the south side of the project to Cook Road through a fourth parcel owned by the applicant. The project is located southwesterly of F & S Grade Road, east of the Klinger Estates development, and approximately 650 feet northerly of Cook Road. This project proposes to create a total of 65 residential lots; comprising 60 new single-family building parcels and five duplex parcels along with three open space tracts to be used as recreational areas as required by the City of Sedro Woolley. Lot areas will be a minimum of 6,000 square feet for single-family lots and a minimum of 9,000 square feet for the proposed duplex lots.

The subject parcels where residential development is proposed are currently zoned Residential (R7), as shown on the attached exhibits. Surrounding properties to the west, north, and east are also zoned Residential (R7). Property to the south adjoining this project's east half is zoned Mixed Commercial at the extension of a new roadway to Cook Road. Property to the south that is located west of the new road extension is zoned Public where the school district's bus barn facility is located.

The onsite soils are identified by the NRCS Web Soil Survey as Minkler silt loam. The SCS Soils Survey for Skagit County notes this soil as being a very deep moderately well drained soil on river terraces. Per the geotechnical report provided by Geotest, the site soils generally consist of 0.75-to 1-foot of topsoil overlying a variable thickness of medium stiff, tan, sandy, silt with rootlets. Below the silt, from 1 to 4-feet below ground surface (BGS), subsurface soils ranged from sandy silts to very silty sands to poorly

graded sands. Per Geotest, the variable silty sands and sandy silts are representative of interbedded, fluvial sands and silts. The geotechnical investigation and preliminary testing notes the use of a long term design infiltration rate of 1.00 inch per hour at depths of approximately 2 to 5-feet BGS. Future PIT testing may be performed to establish a more beneficial infiltration rate. Seasonal high ground water was determined in the winter months to vary over the site from 6-feet deep in the northerly area of this project to 2-feet deep in the southeasterly portion based on the attached Geotest geotechnical information. The onsite soils are identified as having a hydrologic group classification of "D". A copy of the NRCS/SCS soils information, along with the geotechnical information prepared by Geotest, is included at the end of this drainage report.

This drainage analysis and report have been prepared to meet the requirements of the 2014 Department of Ecology (DOE) Storm Water Manual regulations as required by the City of Sedro Woolley. Per the 2014 DOE Figure I-2.4.1 Flow Chart for Determining Requirements for New Development, this development will be required to meet all 9 of DOE's Minimum Requirements. Refer to a copy of Figure I-2.4.1 included at the end of this report. Most notably, these minimum requirements include MR #5-Onsite Stormwater Management, MR #6- Runoff Treatment (water quality measures) and MR #7 Stormwater Flow Control (detention).

The analysis to determine applicable runoff flow rates, stormwater facilities, allowable release rates to serve the proposed development, and water quality design represented herein, will be performed using the continuous Western Washington Hydrology Model (WWHM), as incorporated in software created by Clear Creek Solutions. This continuous methodology for calculating allowable developed stormwater runoff rates is consistent with the requirements from the 2014 DOE Stormwater Management Manual. The WWHM software uses long-term local 15-minute time step precipitation data over 50-years to simulate the potential impacts of land use development, running HSPF in the background to generate runoff hydrographs for the project. WWHM uses this information to size and/or determine if stormwater control facilities are sufficient to mitigate the effects of increased runoff (peak discharge, duration, and volume) from proposed land development. DOE requires that storm water discharges to streams shall match developed discharge durations to predeveloped durations for the range of predeveloped discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow. WWHM computes the predevelopment 2- through 100-year flow frequency values and computes the post-development runoff 2- through 100-year flow frequency values from the outlet of the proposed stormwater facilities. The model uses discharge data to compare the predevelopment and post-development durations and determines if the flow control standards have been met. For this project the point of compliance (POC) will be established as being the bisecting drainage course, aka Brickyard Creek, at this project's west property line. Since various onsite LID BMP's will be incorporated within lots as available, clean runoff will be dispersed to the buffer areas adjoining this drainage course as allowed by DOE.

Projects are required to meet the 2014 DOE flow related standards to determine whether or not the proposed stormwater facilities will provide a sufficient level of mitigation for

the additional runoff created from proposed land development. There are two flow-related standards in the 2014 DOE Manual that must be met. Minimum Requirement #5 - On-site Stormwater Management and Minimum Requirement #7 - Flow Control.

Minimum Requirement #5 allows the user to demonstrate compliance with the LID Performance Standard of matching developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year peak flow to 50% of the 2-year predevelopment peak flow. If the post development flow duration values exceed any of the predevelopment flow levels between 8% and 50% of the 2-year predevelopment peak flow values, then the LID performance standard has not been met. This project will use the LID performance standard to meet this criteria. Generally, this project proposes to use three sub-basins to model the pre-developed condition and nine sub-basin areas for the post-developed condition within WWHM software to most accurately analyze the developed runoff waters from the proposed site development. This is due to the use of differing various forms of onsite BMP's such as dispersion and infiltration. These proposed mitigation measures will show that this project will pass the LID performance standard as noted within the WWHM software provided within this report.

Minimum Requirement #7 specifies that the stormwater discharge from the site, after development, shall match discharge durations for predeveloped duration. For the stormwater facilities to receive a "pass" for this detention criteria within the WWHM analysis there are three criteria which must be met at the project's point of compliance (PCO1): (1) The post-developed flow duration values must not exceed any of the predevelopment flow levels between 50% and 100% of the two-year predeveloped peak flow values, (2) The post-developed flow duration values must not exceed any of the predevelopment flow level between 100% of the two-year and 100% of the 50-year predeveloped peak flow more than 10% of the time (110% threshold), and (3) No more than 50% of the flow duration levels exceed the 100% threshold. This project will use the same stormwater mitigation provisions used for MR #5 above, such as various dispersion facilities, infiltration trenches, and potentially permeable sections to detain and infiltrate a majority of developed runoff waters as specified further on within this report. A small amount of developed runoff will be discharged into Brickyard Creek, however these discharge amounts will be regulated and will not exceed the allowable amounts as dictated by DOE, as will be denoted by the system noting a "Pass" in the WWHM software.

PRE-DEVELOPED CONDITIONS

The 19.6-acre subject property area proposed for this residential plat development exists as three parcels of land with a new roadway to be constructed southerly over a forth parcel which is not proposed for residential development at this time. The subject properties currently support two single-family residences, a small shed and an out building in the property's northeasterly corner, with the remainder of the site generally being in an unmaintained pasture/field condition covered with long grass. Developed public roadways serve the site from the project's easterly side (F & S Grade Road) and potentially from the west side (Thurmond Avenue). There is existing single family

residential development on the north, west and east sides of the project. To the south is the school district bus barn facility and vacant land.

The property areas contain a total of 19.6 acres. It is anticipated that the westerly portion of the property is to be dedicated to the City for future right of way, and the buffer area abutting Brickyard Creek, are two areas where no change to drainage characteristics is proposed with this project. Thus these two areas have been removed from the overall basin area being analyzed. To analyze the stormwater impacts from development using WWHM, it is necessary to first determine the target flow duration curve for the existing, pre-developed condition that must be met for the overall site. For this project nine pre-developed sub-basin areas will be used to create a model to represent anticipated overall development, three for proposed public rights of way (one of which is the offsite roadway to be constructed south of the project area which will provide a connection to Cook Road) and six private sub-basin areas depicting residential lot development. Other than planted enhancement, no change is proposed to the surface areas within the 55-foot wide buffer area along the north and south sides of Brickyard Creek. This area will not be included within the basin areas, however the project's Point of Compliance will be at the onsite westerly end of Brickyard Creek. Various post-developed basin areas will be created for the post-developed site conditions to replicate the differing areas based on potential development areas and stormwater mitigation measures used. The pre-developed WWHM model created represents a North sub-basin, South sub-basin, and Offsite south sub-basin as noted within the following sections of this report. The area within each of the pre-developed basin areas is denoted on the attached Existing Conditions Drainage Exhibit.

The three pre-developed conditions include 15.38-acres of area where new residential development is proposed, including new public roadways, new home construction, driveway's and the new roadway extending southerly from the plat to provide a connection to Cook Road. Areas of the site that will have their drainage characteristics altered are included in the basin used to determine the predeveloped flow duration curve. The predeveloped flow curve is what establishes the maximum amount of stormwater that can be released from this basin area at the project's Point of Compliance (POC) and still meet DOE requirements. For this project all the sub-basin areas route runoff which reaches the same point along the west side of the site, thus this is noted as the project's POC.

For all of the pre-developed basin areas, all areas proposed for some type of land conversion, such as roadway, house, sidewalk, and driveway construction will be modeled as Forest for the pre-developed condition even though they currently exist in a pasture condition today as this is required by the DOE Manual. Based on the WWHM model created to represent the overall project a pre-developed compliance curve has been generated for the POC as noted using three pre-developed sub-basin areas comprising this project, assuming a forested cover. The resulting compliance curve and flows are noted within the WWHM information as "501 POC1". This is the compliance curve that must be met by any release from proposed detention facilities at the project's POC to meet the flow control standard and obtain a "passing" drainage system during the post-developed

condition. Below is the information used to determine the pre-developed compliance curve within WWHM for the overall site.

Overall Basin Area – Pre-Developed

The following sub-basin areas information has been used to create the pre-developed target compliance curve for the Overall Basin:

Total Pre-Developed Overall Basin Area = 15.38 acres

North Sub-Basin 6.94 acres

6.94 acres Forested, C, flat

6.94 acres

South Sub-Basin 7.74 acres

7.74 acres Forested, C, flat

7.74 acres

Offsite Sub-Basin 0.70 acres

0.70 acres Forested, C, flat

0.70 acres

Based on the conditions represented above design information for the Pre-developed “Overall” basin for the project, the following flow information was determined using WWHM software:

Flow Frequency Return Periods-Pre-developed. (Overall Basin-501 POC #1)

<u>Return Period</u>	<u>Flow (cfs)</u>
2 year	0.2888
5 year	0.5223
10 year	0.7071
25 year	0.9719
50 year	1.1905
100 year	1.4261

POST-DEVELOPED CONDITIONS

Development of this property to create 65 new residential lots (including 5 duplex lots) will include the construction of a new public roadway, private driveways, and new infrastructure needed to provide utilities, along with vehicle and pedestrian access southerly to Cook Road as required.

Using 9 sub-basin areas and WWHM software, a flow duration curve has been determined for the post-developed condition of the post-developed basin area as noted. This uses the combined flow generated by the proposed onsite public roadway improvements (North ROW Basin-Onsite and South ROW Basin-Onsite), Offsite public roadway improvements southerly to Cook Road (ROW Basin-Offsite) and the residential

building development proposed within each lot. These are titled North Basin, West Basin, SE Basin and SW Basin as specified below to determine developed runoff rates using WWHM continuous software analysis required by the 2014 DOE standards.

Per the geotechnical report an initial long term design infiltration rate of 1.0 inch per hour will be used for the underlying soils and will be used to model the infiltration systems noted below. This is a preliminary infiltration rate and further studies, such as a PIT test, may be performed by the geotechnical engineer to reevaluate this infiltration rate for the final design of the drainage systems within this project. If permeable pavement sections are incorporated into the final design, higher infiltration rates can be used because the permeable section provides excellent protection for underlying native soils from sedimentation therefore, the influent control correction factor may be disregarded for the infiltration rates. Refer to the Preliminary Stormwater Assessment Report prepared by Geotest attached at the end of this report.

For the purposes of modeling and analyzing stormwater runoff the Post-Developed project will be segregated into nine sub-basin areas. Four sub-basin areas north of Brickyard Creek, four sub-basin areas located southerly of Brickyard Creek, and the ninth sub-basin being the offsite right of way to the south where a new public road will be extended to Cook Road. Information below describes the sub-basin areas and preliminarily what mitigation measures are currently anticipated to be used for this project.

Three sub-basin areas will be used to model the proposed rights of way where public roadways will be constructed. Even though these three areas will be considered to have the same point of compliance as the overall project, they are being segregated within the attached model to confirm that these areas are providing the required public drainage mitigation provisions separate from the private on-lot drainage provisions used for private lot runoff.

North ROW Sub-Basin, South ROW Sub-Basin & Offsite South Sub-Basin Area (Public ROW's)

Using WWHM software three sub-basins have been created to represent the post-developed condition for the proposed public ROW areas. These sub-basin post-developed conditions will be used to determine the runoff rates from these public improvements, including roadway and sidewalk areas proposed. This information is used to determine the necessary stormwater requirements needed to manage and mitigate the increase in runoff from these areas. Due to the bisecting Brickyard Creek, and the long offsite extension to Cook Road, these areas were modeled as three sub-basins (North, South, and Offsite) as noted below. The City of Sedro Woolley requires a segregated stormwater system to serve proposed rights of way (ROW) so they are not commingled with lot development runoff. Thus developed runoff from the three ROW basin areas will be collected and routed to an associated underground infiltration area to be located below portions of the adjoining concrete sidewalk paralleling the roadways. These ROW infiltration systems will detain and infiltrate a majority of the developed runoff flows from the development within these ROW areas. These areas will potentially release only

a small amount of runoff if at final design the incorporation of risers/control structures are included within the drainage design. To be conservative for this Preliminary Drainage Report, it has been assumed that all ROW runoff waters will be infiltrated into underlying drainrock filled trenches. It is assumed that sidewalks will be back-sloped where they will have sufficient area to disperse runoff, and thus the proposed sidewalk areas within the rights of way are modeled as “pasture” as allowed by the 2014 DOE Manual. Developed runoff routed to the stormwater mitigation facilities are noted as the Post-developed, unmitigated flow.

The following is the land cover characteristics of the basin areas used to model the post-developed duration curves for the three ROW sub-basin areas as noted:

North ROW Onsite Sub-Basin=2.28 acres

0.37 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.73 acres C, Lawn, Flat

1.18 acres Roads/Flat

2.28 acres

South ROW Onsite Sub-Basin= 2.23 acres

0.40 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.70 acres C, Lawn, Flat

1.13 acres Roads/Flat

2.23 acres

ROW Offsite Sub-Basin= 0.70 acres (South to Cook Road)

0.18 acres C, Lawn, Flat

0.42 acres Roads/Flat

0.10 acres Sidewalks Flat

0.70 acres

Public Sub-Basin = North ROW Sub-Basin + South ROW Sub-Basin + Offsite South ROW Sub-Basin:

$$2.28 \text{ ac} + 2.23 \text{ ac} + 0.70 \text{ ac} = 5.21 \text{ acres}$$

WVHM uses the post-developed flow duration curves to determine the required size of proposed infiltration trench to mitigate the increase in stormwater generated from each of the post-developed right of way sub-basin areas. A theoretical riser is used to determine when 100% of the runoff has been infiltrated within the designed infiltration area. When properly designed the “release through riser” will be 0 cfs indicating that 100% of the runoff has been infiltrated. Using this analysis generates information and a resulting design to provide a sufficient infiltration trench volume and footprint area to detain and infiltrate developed runoff. As noted, during final design stages for this project, control structures may be incorporated into the design to allow for a small release and/or overflow into Brickyard Creek as allowed by DOE standards. For this analysis, Brickyard Creek at the westerly property line of the site will be used as the project’s overall Point of Compliance (POC1). When accounting for all nine sub-basin areas and

the stormwater design features provided for each area, the analysis will conform to flow control requirements required by DOE and the City of Sedro Woolley for the increase of runoff generated from new development proposed for the site ROW areas at the project's POC1.

North Sub-Basin, West Sub-Basin, Mid North

Sub-Basin, SW Sub-Basin, South Mid Sub-Basin, and SE Sub-basin areas (Private)

The resulting post-developed, unmitigated flow information from the private sub-basin areas is noted within the attached WWHM information. This sub-basin information was used to determine the post-developed runoff values for the noted areas and routes them to the POC1 used for this project. The following is the land cover characteristics for the post-developed condition for private sub-basins used to create the post-developed duration curves:

North Sub-Basin (16 lots) = 2.23 acres

1.18 acres Roof Tops/Flat (16 SF lots @ 3,200 sf each lot)

0.87 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.09 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.09 acres Driveways/Flat (50% Dispersal credit)

2.23 acres

West Sub-Basin (5 lots) = 0.74 acres

0.37 acres Roof Tops/Flat (5 SF lots @ 3,200 sf each lot)

0.32 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.03 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.03 acres Driveways/Flat (50% Dispersal credit)

0.74 acres

Mid North-Sub-Basin (10 lots) = 1.69 acres

0.93 acres Roof Tops/Flat (7 SF lots @ 3,200 sf each lot/3 Dplx @ 6,000 sf)

0.61 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.075 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.075 acres Driveways/Flat (50% Dispersal credit)

0.74 acres

SW Sub-Basin (5 lots) = 0.70 acres

0.37 acres Roof Tops/Flat (5 SF lots @ 3,200 sf each lot)

0.27 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.03 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.03 acres Driveways/Flat (50% Dispersal credit)

0.70 acres

SE Sub-Basin (16 lots) = 2.80 acres

1.30 acres Roof Tops/Flat (14 SF lots @ 3,200 sf each lot/2 Dplx @ 6,000 sf)

1.29 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.105 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.105 acres Driveways/Flat (50% Dispersal credit)

2.80 acres

Mid-South Sub-Basin (13 lots) = 2.01 acres

0.96 acres Roof Tops/Flat (13 SF lots @ 3,200 sf each lot)

0.90 acres C, Pasture, Flat (Sidewalk sloped to landscape)

0.075 acres C, Lawn, Flat (50% Dispersal credit for driveway)

0.075 acres Driveways/Flat (50% Dispersal credit)

2.01 acres

Private Sub-Basin = North Sub-Basin + West Sub-Basin + Mid-North Sub-Basin
+ SW Sub-Basin + SE Sub-Basin + Mid-South Sub-Basin = Total private basin
areas:

$$2.23 \text{ ac} + 0.74 \text{ ac} + 1.69 \text{ ac} + 0.70 \text{ ac} + 2.80 \text{ ac} + 2.01 \text{ ac} = 10.17 \text{ acres}$$

**Total Overall = Public ROW Sub-Basins + Private Sub-Basin
= 5.21 acres + 10.17 acres = 15.38 acres**

Based on all of the post-developed sub-basin areas represented above, the following runoff rates were estimated to occur from the post-developed, unmitigated site condition as determined by WWHM software for the 15.38-acres of area noted above and routes these waters to their associated infiltration or dispersion facilities as noted below.

PROPOSED DETENTION/INFILTRATION

As previously noted, this project's post-developed condition has been analyzed by using a total of nine sub-basin areas. These represent three sub-basin areas to encompass the public ROW improvements and six additional sub-basins to model and analyze private lot development as previously specified. Per the geotechnical information provided by Geotest Services, a preliminary long term design infiltration rate of 1.00 inch per hour has been used for the underlying soils. Refer to attached Geotest report at the end of this Drainage Report.

The ROW basin areas will collect post-developed pretreated road and sidewalk runoff waters and route them to an infiltration system located under portions of the sidewalks along the sides of the proposed public roadway. The system will be constructed to have a bottom elevation that has at least 3-feet of vertical separation above high ground water. Refer to attached Geotest report at the end of this Drainage Report.

The private sub-basin areas will collect runoff from new houses roofs and route them to disperse onto the enhanced Brickyard Creek buffer area, or alternating to a roof drain infiltration system. Driveway areas from private sub-basin areas will be dispersed across

grass lawn areas. The roof drain infiltration systems will be designed to have a bottom elevation at least 1-foot above high seasonal ground water.

Below is how the sub-basins preliminarily propose to provide stormwater mitigation using detention/infiltration measures as required by the 2014 DOE.

Public ROW Sub-Basin Areas Mitigation

For the three public ROW sub-basin areas, stormwater mitigation is anticipated to include a section of drainrock-filled infiltration trenches. The sections are anticipated to be comprised of 4-inch to 8-inch diameter perforated storm pipe within a varying depth of clean drainrock-filled trench, that will provide the necessary storage volume to detain developed runoff until it can be infiltrated into the underlying soils. With the final design, a small amount of runoff from these sub-basin areas may be released via a simple control structure as allowed by DOE and the City. The 4-inch, 6-inch and/or 8-inch sections of perforated pipe will be installed within the proposed infiltration trenches to facilitate distribution of collected storm waters and to provide more volume if needed.

Using the preliminary design information as previously noted, WWHM has determined a preliminary sizing for the total trench size that must be constructed to mitigate the proposed right of ways to serve this residential development is as follows:

North ROW - Preliminary Infiltration Trench

1611 ft x 10 ft = 16,110 square foot bottom footprint area required
1.25-foot depth drainrock

South ROW Preliminary Infiltration Trench

1724 ft x 10 ft = 17,240 square foot bottom footprint area required
2.00-foot depth drainrock

Offsite South ROW- Preliminary Infiltration Trench

569 ft x 10 ft = 5,690 square foot bottom footprint area required
0.50-foot depth drainrock

Using the developed land conditions previously noted for the ROW sub-basins, and infiltration trenches as noted, it is estimated that the following mitigated flows will be 100% infiltrated into the underlying soils. However, the exact size and locations of infiltration systems to serve the rights of way will be more specifically designed with the next stage of this project when plan and profiles are created for the new public roadways serving this project. For the purposes of this report, the available area under sidewalks with conservative depths have been assumed with no overflow riser. Future, more specific design will be done when approval of the preliminary plat has been granted to better position the locations and depths of these infiltration systems to serve the proposed new public right of way surfaces.

Private lot Sub-Basin Areas

Roof runoff from new roofs to be constructed directly adjoining Brickyard Creek will be routed to dispersion trenches which will overflow down-gradient over more than 50-feet of area to remain in a landscape condition.

Roof runoff from new roofs that do not adjoin Brickyard Creek will route roof water to a roof drain infiltration trench system to be installed along portions of the north, west, south and east property lines of the project. Refer to the information below for the estimated length, width and depth of clean drainrock-filled trench with a 4, 6, and/or 8-inch diameter perforated storm pipe. The bottom depth of these systems shall be set at an elevation that is at least 1-foot of vertical separation above the seasonal high ground water which is assumed to be at varying depths across the site based on testing done by Geotest. These roof drain infiltration systems will be provided storm pipe connections for each lot and will likely have a control structure release of a small amount of clean stormwater to overflow to Brickyard Creek.

The combination of stormwater release anticipated from the site in its post-developed condition, when accounting for the various BMP's and including both the roof runoff dispersion directly into Brickyard Creek and the control structure release of runoff overflow from roof drain infiltration trenches will not exceed the DOE thresholds at the project's POC, which has been established to be the west property line at the creek.

For this preliminary stage of the project, the underlying soils have the capacity to infiltrate at a rate of 1.0 inch per hour as noted within the attached geotechnical report.

The enclosed analysis assumes new residential driveways on each lot will be graded to promote sheet flow dispersion as noted on DOE Volume V Chapter 5-Sheet Flow Dispersion Detail V-5.3.2 (attached). For this preliminary analysis the standard DOE runoff credit will be applied for this driveway dispersion. This allows the driveway surfaces to be modeled as 50% lawn and 50% driveway. However, when the final more specific drainage analysis is designed, there are additional ways to provide mitigation for these surfaces. It should be noted that based on preliminary review, it takes approximately 16 lf of dispersion length to fully infiltrate 500 sf of driveway runoff. Therefore, these driveway surfaces could be classified as "ineffective" and could be removed from the model. Additionally, though not required nor used for this preliminary drainage analysis, another alternative to using dispersion runoff from the driveways on these lots, a permeable driveway section could also be used as needed to mitigate increased runoff generated by the proposed driveway areas and the incorporation of an underlying reservoir rock will provide sufficient voids for detention of developed stormwaters until they can be infiltrated into the underlying soils.

North Sub-Basin Area - Private

of New Lots: 16 new single family lots located along the north side of the project
Roof Runoff: 910-foot x 3-foot x 1.67-foot deep infiltration trench system
Driveways: Sheet flow dispersed over 25-feet
Long Term Infiltration rate: 1 inch/hr

The bottom depth of this system shall be set at an elevation which is at least 1-foot higher than the seasonal high ground water and/or restrictive layer which is estimated to be approximately 4-feet deep along the north side of the site based on testing done by Geotest.

Roof runoff from all the northerly lots (Lots 1-16), will be collected and routed to the backyard roof drain infiltration trench system as noted to be installed along the north side of these lots. Storm piping from this basin will provided a controlled release of stormwater overflow to Brickyard Creek, likely via a connection to the West sub-basin's roof drain infiltration system.

West Sub-Basin Area - Private

of New Lots: 5 new single family lots located along the west side of the project
Roof Runoff: 314-foot x 3-foot x 1.67-foot deep infiltration trench system
Driveways: Sheet flow dispersed
Long Term Infiltration rate: 1 inch/hr

The bottom depth of this system shall be set at an elevation which is at least 1-foot higher than the seasonal high ground water, which per the Geotest report is located at approximately 6-feet below the surface along the west side of the site. Storm piping from this basin will be connected to a control structure where small amounts of clean stormwater roof runoff can overflow into Brickyard Creek as allowed by the DOE regulations.

Mid North Sub-Basin Area - Private

of New Lots: 7 new single family lots/3 new duplex lots located along the north side of Brickyard Creek
Roof Runoff: Routed to Roof drain dispersion trenches and dispersed over greater than 50-feet of landscaping area
Driveways: Sheet flow dispersed
Long Term Infiltration rate: 1 inch/hr

These 10 new lots located within the Mid North sub-basin area are all situated along the north side of the Brickyard Creek and its associated buffer area. This allows clean roof runoff to be dispersed across more than 50-feet of buffer area and be discharged to Brickyard Creek. Since this project's POC is located in Brickyard Creek at this project's west property line, these discharged flows are not by-passing the overall project area analyzed for compliance of this project. Having the availability to discharge onto more than 50-feet of buffer area, allows these roof areas to be modeled as "Dispersed" within the WWHM software.

When house sites are constructed they shall provide 10 lf of 2-foot wide x 2-feet deep Dispersion trench for each 700 square feet of contributing roof area. This trench shall provide a 4-inch perforated pipe and be back-filled with clean drainrock as required by DOE BMP 5.10B and Figures 3.1.5 and 3.1.6 (copy of figures attached). Roof runoff can also be dispersed by the use of splash blocks if the contributing roof area is less than 700 sf. Refer to the 2014 DOE Manual – Volume III Chapter 3 for additional Roof Drain Dispersion specifics. Just as for the other residential sub-basin areas within this project, driveways will be graded to disperse developed runoff via sheet flow per DOE Detail V-5.3.2 (attached) where there is over 25-feet of lawn and/or landscape area to provide runoff waters an opportunity to percolate into the underlying soils.

Southwest Sub-Basin Area - Private

of New Lots: 5 new single family lots located in the southwest corner of the project
Roof Runoff: 440-foot x 3.25-foot x 3-foot deep infiltration trench system
Driveways: Sheet flow dispersed
Long Term Infiltration rate: 1 inch/hr

Just as for the other roof drain infiltration systems, the bottom depth of this system shall be set at an elevation which is at least 1-foot higher than the seasonal high ground water, which per the Geotest report is located at approximately 5.2-feet below the surface within the southwest corner of the site. Storm piping from this basin will be connected to a control structure to release small amounts of clean stormwater roof runoff to an overflow into Brickyard Creek to the west of this sub-basin area as allowed by DOE regulations.

Southeast Sub-Basin Area - Private

of New Lots: 15 new single family lots/1 duplex located along the south and east side of the project
Roof Runoff: 908-foot x 3.5-foot x 1-foot deep infiltration trench system
Driveways: Sheet flow dispersed over 25-feet
Long Term Infiltration rate: 1 inch/hr

The bottom depth of this system shall be set at an elevation which is at least 1-foot higher than the seasonal high ground water and/or restrictive layer which is estimated to be at approximately 2-feet of depth along the southeast side of the project area, however is as deep as 6-feet further north based on testing done by Geotest.

Roof runoff from all the southeasterly and easterly sides of the project will be collected and routed to the backyard roof drain infiltration trench system as noted to be installed along the south and east side of these lots. Storm piping from this basin will provided a controlled release of stormwater overflow to Brickyard Creek at the sub-basin's northeast corner.

Using the developed land conditions previously noted for the ROW sub-basins with the noted infiltration systems below adjoining sidewalk areas and private sub-basins incorporating the infiltration and dispersion facilities noted, it is estimated that the following mitigated flows will be discharged from the site at the project's POC:

Flow Frequency Return Periods-Mitigated. (801 POC1)

<u>Return Period</u>	<u>Flow (cfs)</u>
2 year	0.4756
5 year	0.8045
10 year	1.0899
25 year	1.5409
50 year	1.9516
100 year	2.4344

Based on the analysis performed by WWHM, use of 1.0 inch/hr infiltration rate and the proposed infiltration and dispersion systems; the facilities are sufficient to mitigate the increase in storm water from the proposed development and the system overall "passes" as noted on the attached WWHM Report located at the end of this document. This "pass" signifies that the currently shown system is properly sized to provide mitigation for detention as determined using the continuous model software WWHM required by the 2014 DOE manual for the proposed development of 15.38-acres for residential development as proposed.

WATER QUALITY

Pollution generating surfaces such as roadways proposed with this residential development impervious are required to receive Basic Treatment for water quality per DOE's Figure 2.1-Runoff Treatment Facility Selection Flow Chart attached. No Oil or Phosphorous Control Facilities are required for this site per SMMWW Volume V Section 2.1.

North ROW, South ROW, and Offsite South Sub-Basin Areas

Basic treatment for runoff from the pollution generating impervious surfaces (PGIS) within the ROW basin areas of this project will be achieved by using soils onsite below the proposed infiltration trenches. Per the preliminary Geotest report, the cation exchange capacity, CEC, and organic content within the underlying soils are suitable for providing water quality at depths below the proposed ROW infiltration trenches to meet the requirements of Basic Treatment. Refer to Geotest information provided at the end of this report. Pretreatment for road runoff will be provided by routing surface runoff from PGIS to a DOE-approved treatment vault prior to discharging them to proposed ROW infiltration trenches. When the final design is done, WWHM will be used to determine the total 15-minute flow rate and size each vault based on the specific area contributing runoff to it. Per the DOE GULD, approval a 4-foot Downstream Defender can provide pretreatment for up to 1.3 cfs which is sufficient to provide pretreatment for the water quality runoff values. When the time of final road design, including plan and profiles of the new roadways are completed, the surfaces will be graded to convey runoff to

treatment vaults as required. Though not anticipated with this preliminary report, future designs may include a small amount of stormwater discharged from the proposed ROWs infiltration/detention systems to be routed to Brickyard Creek or adjoining storm systems which also may discharge into Brickyard Creek.

North, West, Mid North, Southeast, Southwest, and Mid-South Sub-Basin Areas

Treatment is not required for roof drains, as they are considered by DOE to be non-pollution generating. Basic treatment will be provided by sheet flowing and dispersing runoff from driveways areas onto areas where the runoff can infiltrate into the underlying soils onsite. Per the preliminary Geotech report the cation exchange capacity, CEC, and organic content within the upper layers of soil are suitable for providing water quality. Water quality provision conform to the 2014 DOE standards and the City of Sedro Woolley requirements.

DOWNSTREAM IMPACTS

Due to the proposed infiltration/detention facilities and associated controlled releases, this project will retain a majority of the post-developed runoff water, releasing only a small amount of stormwater from the developed site, generally at rates equal to or less than what occurs from the estimated predeveloped pasture condition. The developed site will likely discharge less water than what currently occurs today to Brickyard Creek where local runoff waters will continue to flow westerly ultimately reaching the Skagit River south of the project. Therefore, based on the analysis as noted herein with the provision of the infiltration/detention system, there likely will be a reduction in the amount of runoff from the site, therefore no downstream impacts are anticipated.

CONCLUSION:

For the three proposed public ROW areas, the majority of the storm water runoff from the development of new roadway will be collected by catch basins located within the road and conveyed to the detention system by a combination of sheet flows, concrete gutter flow, and pipe flow. Surface water runoff from the developed areas within the ROW drainage sub-basin areas will be routed to pretreatment vaults (DOE approved) prior to the runoff being routed to an underground infiltration system below proposed sidewalk areas, where the water will be released via infiltration into the underlying soils. There is a potential that during final design for this site, the design might include an overflow for rare large storm events where a small amount of runoff would overflow and discharge into Brickyard Creek. The ROW infiltration systems have been sized currently to infiltrate 100% of the post-developed runoff models as denoted within the WWHM views provided for these sub-basins. Water quality treatment in the form of both pretreatment and basic treatment will be provided for the removal of petroleum particulates, sediments, and nutrients from storm runoff prior to it being released from the site as required by DOE standards.

The private basin models (North, West, Southwest, Southeast, Mid-North and Mid-South sub-basins) denote how the increase in runoff from new lot development will be mitigated by use of infiltration and dispersion to be provided as applicable per DOE. The

roof drain infiltration trenches along the north, west, south and east sides of the site will infiltrate a majority of the post-developed runoff, with a small permissible amount to be discharged from the site via simple overflow control structures at rates as allowed by DOE and WWHM analysis. Lots which abut Brickyard Creek directly will disperse clean roof runoff onto more than 50-feet of buffer area.

At the project's POC, assigned to be the onsite west end of Brickyard Creek, the flows during the developed flow duration do not exceed predevelopment flow levels between 50% and 100% of the two-year predeveloped peak flow values, the developed flow duration values do not exceed any of the predevelopment flow level between 100% of the two-year and 100% of the 50-year predeveloped peak flow more than 10% of the time (110% threshold), and so that no more than 50% of the flow duration levels exceed the 100% threshold, which is indicated by a "Pass" within the WWHM report attached. The onsite stormwater management, detention volume, allowable release rates, and proposed water quality provisions for the three ROW sub-basins along with the six private sub-basin areas as noted herein will conform to the requirements of the City of Sedro Woolley and the 2014 Department of Ecology Stormwater Manual.

In summary, “Minimum Requirements” per the 2014 DOE Stormwater Management Manual have been addressed within sections of this report as noted in the following:

#1 - Preparation of a Stormwater Site Plan

A stormwater site plan will be completed and submitted to the City for review and approval with the preparation of civil construction plans for this project.

#2 - Construction Stormwater Pollution Prevention (SWPP)

The contractor will be responsible for preparation of a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction.

#3 - Source Control of Pollution

There are no known specific sources of pollution that will be generated from the site, therefore no source control is proposed with this project.

#4 - Preservation of Natural Drainage Systems and Outfalls

This new development project proposes use of existing storm drainage facilities that currently serve the site. The stormwater design will preserve the natural drainage systems and outfalls.

#5 - On-site Stormwater Management

Per the 2014 DOE Manual Minimum Requirement #5: On-site Stormwater Management, this project must employ on-site stormwater management BMPs. Based on Table 2.5.1 in Volume 1 of the DOE manual, since the project constitutes new development within an Urban Growth Area, and is located within the City of Sedro Woolley, this project has the choice of using the Low Impact Development Performance Standard and BMP T5.13; or the On-site Stormwater Management BMP's from List #2. This project will use Low Impact Development Performance Standards to meet the onsite stormwater management requirements. Per the preliminary geotechnical report prepared by Geotest for this project, the preliminary stormwater analysis will utilize a long term design infiltration capacity of 1.00 inch/hr for infiltration systems. On-site stormwater management provisions have been incorporated into the site's stormwater design in the form of infiltration and dispersion and are sufficient for this project to pass when applying the LID Performance by use of the WWHM analysis. New home construction on each lot will be designed to route roof runoff waters to either disperse onto more than 50-feet of buffer area or to a roof drain infiltration trench, where there is reasonable detention volume and infiltration area as denoted earlier within this report.

#6 - Runoff Treatment

Per MR #6 requirements noted in the 2014 DOE Manual Volume I, Section 2.2.6, this project will provide stormwater runoff treatment facilities as noted. Runoff from pollution-generating impervious surfaces (PGIS) from the three proposed ROW areas will be routed to a water quality vault approved by DOE for pretreatment, prior to the waters being routed to underground infiltration facilities. In addition underlying soils have sufficient cation exchange capacity and organic content to provide water quality

below the trenches as required by DOE per the information provided by Geotest included at the end of this report.

For private lot basin PGIS, runoff from driveway surfaces is proposed to be filtered through a layer of soils that have suitability as dictated by the DOE manual and the City of Sedro Woolley.

#7 – Flow Control

For public right of way improvements, as noted within the previous sections of this report, the release of stormwater runoff from the proposed underground infiltration trench system is assumed to infiltrate 100% of the runoff model into the underlying soils. During final stormwater design, an overflow riser may be incorporated into the site design. If an overflow riser is proposed it will discharge water a rate that will not exceed durations of the pre-developed condition at the project's POC for the range of pre-developed discharge rates from 50% of the 2-year peak up to the full 50-year peak based on WWHM analysis.

For private sub-basin areas (North, West, Southwest, Southeast, Mid-North and Mid-South sub-basins), which will be comprised of new driveways and adjoining lot roof areas will be routed to disperse or be routed to a roof drain infiltration system sized to detain and infiltrate developed runoff into the underlying soils. Other small new hard surfaces such as walkways, etc. onsite will be sloped to disperse runoff onto proposed adjoining lawn/landscape areas where they can percolate into the underlying soils

Based on the Onsite LID provisions designed, including infiltration and dispersion, the small amount of overflow that will be discharged from the site will not exceed the estimated pre developed thresholds as established by DOE and per WWHM the project receives a "Pass".

#8 - Wetlands Protection

There are no wetlands onsite.

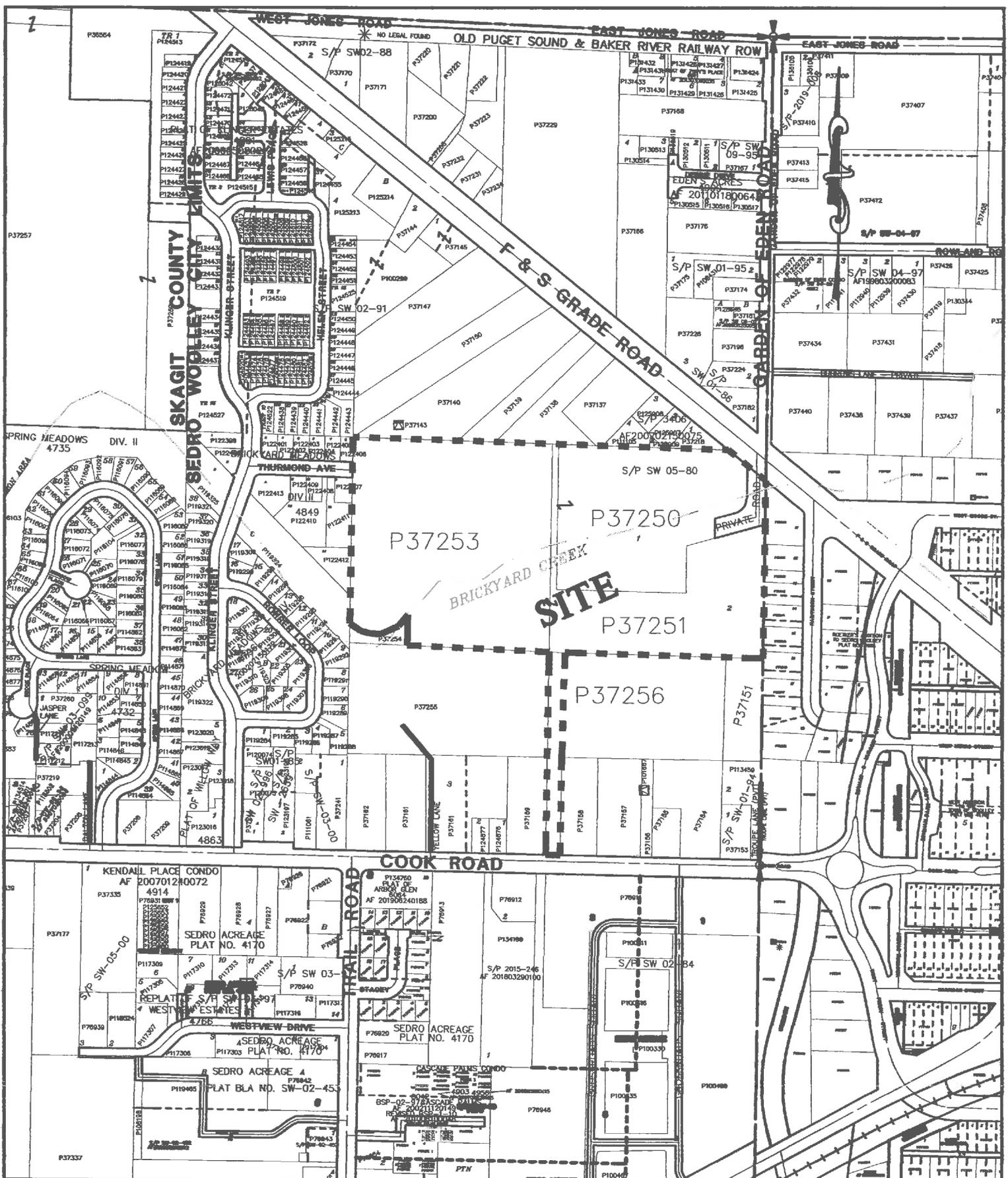
#9 - Basin/Watershed Planning

This project is not located within an area where a Basin/Watershed plan has been prepared.

#10 - Operation and Maintenance

Operation and Maintenance provisions for the DOE manual for catch basin structures, storm piping, Downstream Defender vaults, control structure/storm catch basin, and permeable pavements will be included with asbuilts for this project.

**VICINITY MAP
AERIAL EXHIBIT
11"x17" EXISTING CONDITIONS DRAINAGE EXHIBIT
11"x17" DEVELOPED CONDITIONS DRAINAGE EXHIBIT**



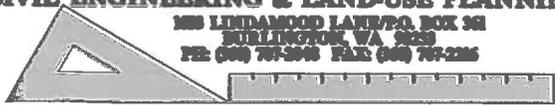
Ravnik & Associates, Inc.
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 1633 LINDAMOOD LANE/P.O. BOX 361
 BURLINGTON, WA 98233
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SHEET DESCRIPTION:
VICINITY MAP

SCALE: 1"=400'
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 JOB NO. 2020-08
 DATE: 01.14.21

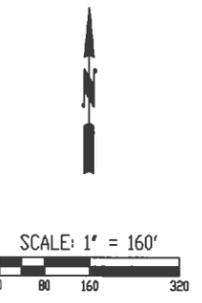
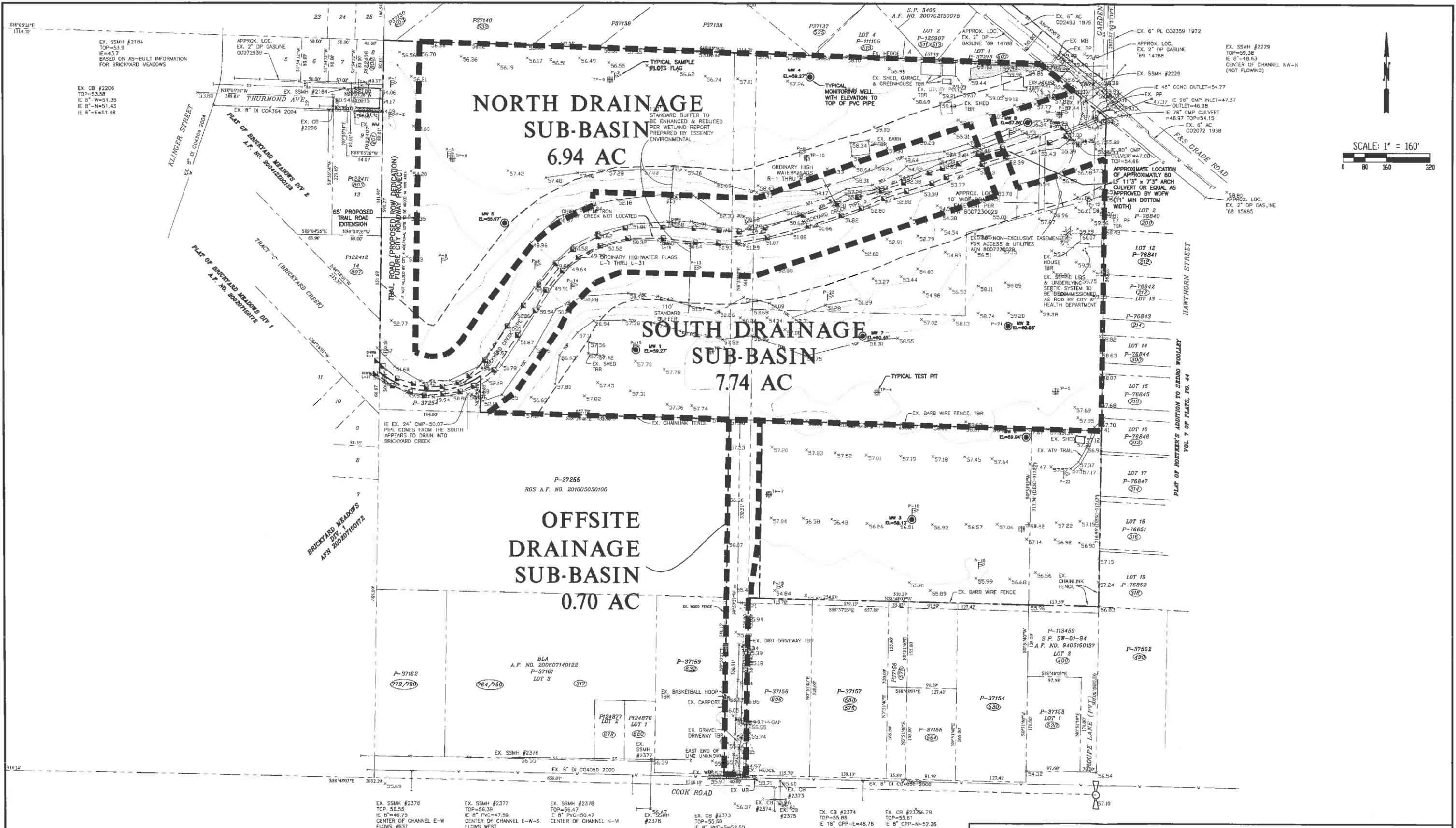


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SHEET DESCRIPTION:
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PHOTO**

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DRAWN BY: D. REISEN
JOB NO. 2020-08
DATE: 11.11.2020



PLAN STATUS:

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 CHECKED BY: HLN
 DATE: 01.17.21

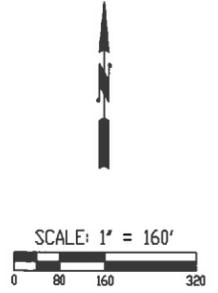
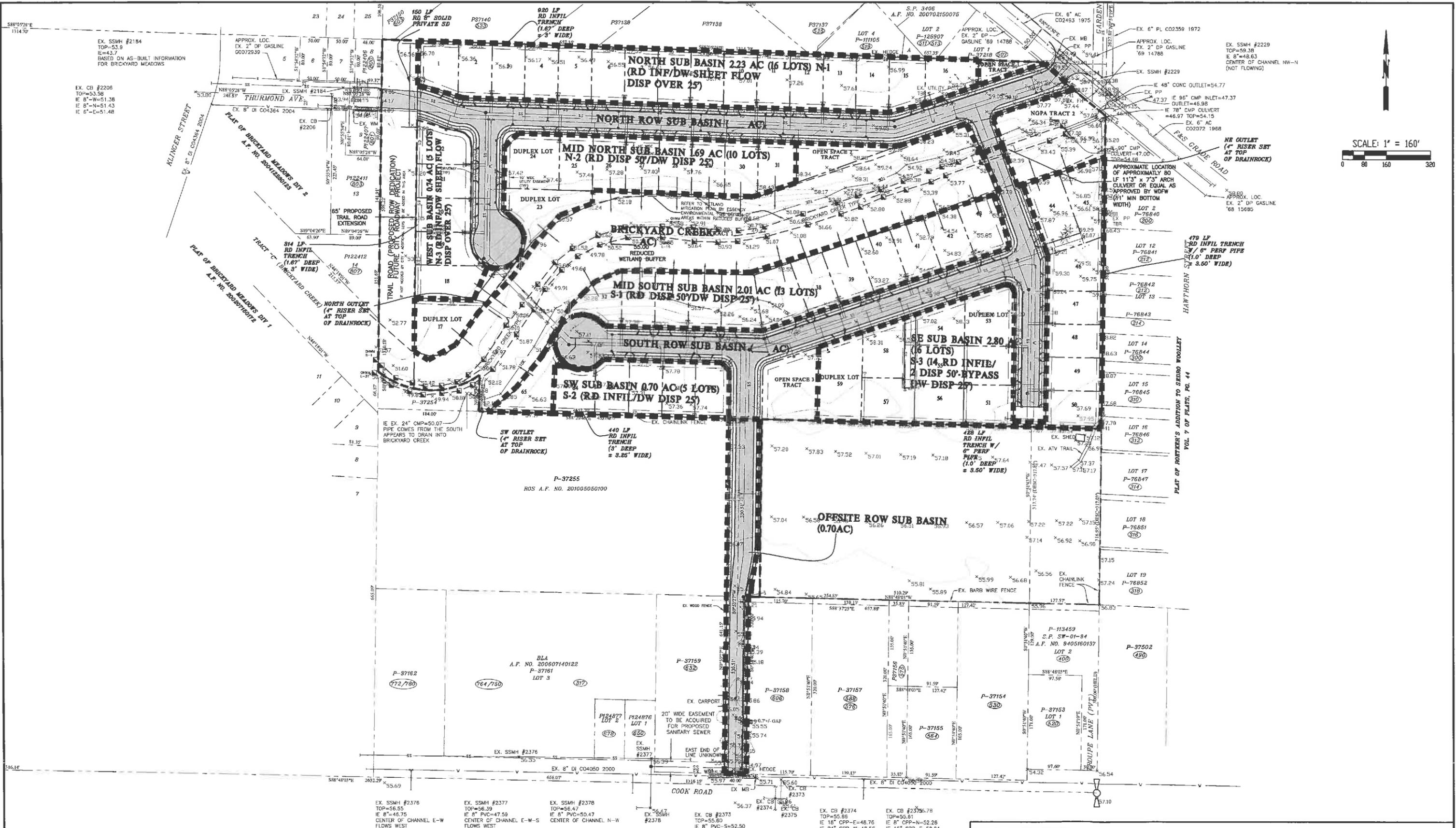
SHEET TITLE: **BUCKO ESTATES
 PRELIMINARY LONG PLAT
 FOR
 BUCKO SURVIVORS TRUST
 SECTION 23 T. 35 N., R. 4 E., W.M.**

DRAWING NO.
 2020-06 PRELIM.dwg
 JOB NO.
 2020-06
 SHEET NO.
 1 OF 2

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
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SHEET DESCRIPTION:
EXISTING CONDITIONS



PLAN STATUS:

SCALE: 1"=160'
 DRAWN BY: DLR
 CHECKED BY: HLN
 DATE: 01.17.21

SHEET TITLE:
**BUCKO ESTATES
 PRELIMINARY LONG PLAT
 FOR
 BUCKO SURVIVORS TRUST
 SECTION 23 T. 35 N., R. 4 E., W.M.**

DRAWING NO.
 2020-06 prelim.dwg
 JOB NO.
 2020-06
 SHEET NO.
 2 OF 2

REV. NO.	REVISION	DATE	BY	APPROVED

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SHEET DESCRIPTION:
DEVELOPED CONDITIONS

**NRCS SOILS MAP
NRCS SOILS INFORMATION
GEOTEST PRELIMINARY INFILTRATION EVALUATION**



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Skagit County Area, Washington



October 7, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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Soil Map



Map Scale: 1:3,380 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 - Area of Interest (AOI)
- Soils**
 - Soil Map Unit Polygons
 - Soil Map Unit Lines
 - Soil Map Unit Points
- Special Point Features**
 - Blowout
 - Borrow Pit
 - Clay Spot
 - Closed Depression
 - Gravel Pit
 - Gravelly Spot
 - Landfill
 - Lava Flow
 - Marsh or swamp
 - Mine or Quarry
 - Miscellaneous Water
 - Perennial Water
 - Rock Outcrop
 - Saline Spot
 - Sandy Spot
 - Severely Eroded Spot
 - Sinkhole
 - Slide or Slip
 - Sodic Spot
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Background**
 - Aerial Photography
- Other Features**
 - Spoil Area
 - Stony Spot
 - Very Stony Spot
 - Wet Spot
 - Other
 - Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Skagit County Area, Washington
 Survey Area Data: Version 20, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 24, 2012—Oct 10, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
57	Field silt loam, protected	0.2	1.0%
92	Minkler silt loam	24.5	99.0%
Totals for Area of Interest		24.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

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onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Skagit County Area, Washington

57—Field silt loam, protected

Map Unit Setting

National map unit symbol: 2hwb

Elevation: 10 to 50 feet

Mean annual precipitation: 32 inches

Mean annual air temperature: 50 degrees F

Frost-free period: 160 to 210 days

Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Field and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Field

Setting

Landform: Flood plains

Parent material: Alluvium and volcanic ash

Typical profile

H1 - 0 to 13 inches: silt loam

H2 - 13 to 21 inches: silt loam

H3 - 21 to 40 inches: stratified sand to loamy fine sand

H4 - 40 to 60 inches: stratified sand to very fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 36 to 48 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Forage suitability group: Seasonally Wet Soils (G002XN202WA)

Other vegetative classification: Seasonally Wet Soils (G002XN202WA)

Hydric soil rating: No

Minor Components

Sumas, undrained

Percent of map unit: 5 percent

Landform: Flood plains

Other vegetative classification: Wet Soils (G002XN102WA)

Hydric soil rating: Yes

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Skagit, undrained

Percent of map unit: 5 percent

Landform: Flood plains

Other vegetative classification: Wet Soils (G002XN102WA)

Hydric soil rating: Yes

92—Minkler silt loam

Map Unit Setting

National map unit symbol: 2hxl

Elevation: 50 to 80 feet

Mean annual precipitation: 50 inches

Mean annual air temperature: 50 degrees F

Frost-free period: 190 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Minkler and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Minkler

Setting

Landform: Terraces

Parent material: Alluvium and glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: medial silt loam

H2 - 12 to 15 inches: medial silt loam

H3 - 15 to 60 inches: stratified fine sand to very fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 6 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Forage suitability group: Wet Soils (G002XN102WA)

Other vegetative classification: Wet Soils (G002XN102WA)

Hydric soil rating: No

Custom Soil Resource Report

**Preliminary Stormwater
Infiltration Assessment**
Bucko Property Development
500 Block F&S Grade Road
Sedro-Woolley, WA 98273

Prepared For:

Sarah Bucko
13315 NW Overton Street
Portland, OR 97229



1 888 251 5276
Bellingham | Arlington | Oak Harbor
www.geotest-inc.com



August 26, 2020
Project No. 20-0312

Sarah Bucko
13315 NW Overton Street
Portland, OR 97229

CC: John Ravnik, P.E.
Ravnik and Associates

**Regarding: Preliminary Stormwater Infiltration Assessment and Groundwater Monitoring
Bucko Property Development**
500 Block F & S Grade Road (5 parcels)
Sedro-Woolley, Washington 98284
(Parcel #: P37151, P37250, P37251, P37253 and P37256)

Dear Ms. Bucko,

As requested, GeoTest Services, Inc. (GeoTest) is pleased to submit the following report summarizing the results of our preliminary stormwater infiltration assessment and seasonal groundwater monitoring data for the proposed development at the 500 Block of F&S Grade Road in Sedro-Woolley, WA (Vicinity Map, Figure 1). This report has been prepared in general accordance with the terms and conditions established in our services agreement dated February 21, 2020.

We appreciate the opportunity to provide geotechnical services on this project and look forward to assisting you during further geotechnical, design, and construction phases. Should you have any questions regarding the information contained within the report, or if we may be of service in other regards, please contact the undersigned.



Respectfully,
GeoTest Services, Inc.



08/26/2020

Kurt Parker

Kurt Parker, L.E.G.
Geotechnical Department Manager



08/26/2020

Cassidy W. Dimitroff

Cass Dimitroff, L.G.
Geotechnical Project Manager

Enclosure: Preliminary Stormwater Infiltration Assessment and Groundwater Monitoring



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PURPOSE AND SCOPE OF SERVICES

The purpose of this evaluation is to establish general subsurface conditions beneath the site from which conclusions and recommendations pertaining to stormwater infiltration feasibility can be formulated. Our scope of services includes the following tasks:

- Exploration of soil and groundwater conditions underlying the site by excavating 10 test pits with a subcontracted excavator to evaluate subsurface conditions. Advancement of 8 hand auger borings for the installation of shallow monitoring wells throughout the project site.
- Laboratory testing on representative samples to classify and evaluate the engineering characteristics of the soils encountered.
- Seasonal groundwater monitoring via shallow monitoring wells and piezometric data loggers from the date of exploration through the end of the typical wet season (May 2020).
- To provide an illustrated written report containing a description of surface, subsurface and groundwater conditions, with findings and recommendations pertaining to the feasibility of onsite traditional stormwater infiltration along with groundwater monitoring data.

PROJECT DESCRIPTION

The subject property is located on the southwest side of the F & S Grade Road, in the western portion of Sedro-Woolley, Washington. The property is a collection of 5 individual parcels totaling approximately 25 acres. Based on discussions with the client and project civil designer, GeoTest understands that the proposed site development includes single-family subdivision construction with the potential for some multifamily development in the areas currently zoned for commercial development. The project civil designer has informed GeoTest that the project requires investigation and evaluation for onsite stormwater controls under modern Department of Ecology Stormwater Management Manual of Western Washington (SMMWW 2019) requirements. The site is relatively flat with less than a few feet of elevation differential across the property. The planned improvements may require minor grading, but we do not expect that more than a few feet of cut or fill will be required to achieve desired finish grades. We anticipate that stormwater management will likely include the use of shallow infiltration facilities, depending on feasibility results and seasonal groundwater monitoring to be addressed in this study.

SITE CONDITIONS

This section includes a description of the general surface and subsurface conditions observed at the project site during the time of our field investigation. Interpretations of site conditions are based on the results and review of available information, site reconnaissance, subsurface explorations, laboratory testing and previous experience in the project vicinity.

Surface Conditions

The subject property is located near the western margin of the City of Sedro-Woolley, Washington, to the north of State Route SR20. The roughly L-shaped subject property is approximately 1,000 feet in length north to south and approximately 1,250 feet wide on the north end and 650 feet wide on the south end of the property. The project site is bound by residential properties on all sides excepting the northeast corner along F&S Grade Road and in the southwestern corner where the property adjoins the local school bus yard. The closest major body of water is the Skagit River located 1.5 miles to the south. The property is bisected by a drainage corridor (Brickyard Creek) trending from the northeast corner of the property downhill to the southwest corner. This drainage corridor bottom is roughly 10 feet lower in elevation than the remainder of the site and appears to have been man-made or altered to provide driving access on the north and south sides.

Surface conditions vary across the property with primarily vegetated ground with medium height grasses throughout the property. Large blackberry brambles are found along north and south sides of the central drainage corridor. Large mature trees are found sparsely along the property boundary and in the northeast corner of the site. The site is largely vacant excepting a single-family residence in the northeast corner and a vacated smaller residence on the northeast boundary. A small, vacant wooden building is also located near the southwest corner of the property likely associated with historic site occupancy. Within the subject property topography is generally level outside of the central drainage corridor, with only minor elevation changes of less than 3 feet. Surface groundwater was observed in the southernmost section of the property during early March site visits, coinciding with subsurface findings and seasonal groundwater monitoring results.

Subsurface Soil Conditions

Subsurface conditions were explored by advancing 10 test pits with a subcontracted tracked excavator (TP-1 through TP-10) and 8 hand operated auger borings (MW-1 through MW-8) on March 2 and March 6, 2020. A total of 8 groundwater monitoring wells were installed for wet season groundwater level monitoring through beginning of May 2020. Approximate test locations are found in the *Site and Exploration Plan* (Figure 2) of this report.

Subsurface conditions generally consisted of 0.5 to 1.0 foot of grass surfaced topsoil overlying a variable thickness of stiff, light brown to gray, sandy silt to silty sand upper alluvial deposits. At the location of TP-1 and TP-2, in the northeast corner of the property, approximately 4 to 5.5 feet of uncontrolled fill was observed from the surface overlying thin relict topsoil or directly overlying native alluvium. The upper alluvium commonly contained fines content ranging from approximately 10% to 50% by weight. In some test locations the upper 0.5 to 1.0 foot of the upper alluvial displayed higher fines content, yielding up to 92% fines. The upper alluvial deposits typically extended to depths of 4 to 5 feet BGS before encountering a commonly restrictive, fine-grained silt horizon. This silt horizon was typically 1-foot-thick and showed signs of heavy mottling and water restriction. Below these siltier deposits, subsurface soils transitioned to a lower, coarser-grained alluvial unit ranging from poorly graded sand with trace silt to slightly silty sand. Within the coarse-grained soil unit, fines content ranged from 5% to 10% based on field estimations and 4.2% by weight per laboratory test results. At the location of TP-6 and MW-5, lower coarse-grained soils directly underlaid the upper alluvial without the presence of the restrictive silt horizon. Test pit and monitor well logs can be found as Figures 4 to 16. Laboratory results are provided as Figures 17 and 18. A *Soil Classification System and Key* is attached as Figure 3.

We interpret the variable silty sands, sands and sandy silts to be representative of interbedded, fluvial deposits, typical of the Skagit River system in this area.

General Geologic Conditions

Geologic mapping of the project area was obtained from the Geologic Map of the Sedro-Woolley North and Lyman 7.5-minute Quadrangles, Western Skagit County, Washington (Dragovich et al., 1999), published by the Washington State Department of Natural Resources (DNR). The project area is mapped as Quaternary-aged older alluvium and lahar run-out deposits of the Skagit River Valley (Represented as Unit Qoa). The deposits consist of pumiceous or vesicular dacite-clast-bearing, moderately to well-sorted, locally well-stratified volcanic sand, gravelly sand, sandy gravel, and cobble gravel with minor silt. This description generally concurs with the native materials identified in the test pit and hand auger explorations.

Groundwater

Pervasive groundwater conditions were encountered within all exploration locations during our primary field investigations at depths ranging from 2.5 on the southern portion of the site up to 8.5 feet BGS in the northeast corner of the property. We interpret this encounter to be the regional groundwater table or aquifer associated with the Skagit River valley. Scattered light mottling and oxidation was observed within upper fine-grained silty soils at most exploration locations, which in our opinion represents perched, transient or migratory water from meteoric sources and not the regional groundwater table.

Restrictive silty soils typically found at depths of 4 to 5 feet BGS were highly mottled and are interpreted as impermeable surfaces that develop perched conditions seasonally. Mottling patterns do not indicate substantial mounding on this surface and may also reflect pervasive groundwaters interacting with these surfaces from below.

The groundwater conditions reported on the exploration logs are for the specific locations and dates indicated, and therefore may not be indicative of other locations and/or times. Monitoring wells were constructed with hand auger borings to depths ranging from 7.6 to 8.8 feet BGS. Results of seasonal monitoring are discussed in the *Seasonal Groundwater Monitoring* section of this report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the data collected during this investigation, it is our opinion that the subsurface conditions at the site are suitable for the infiltration of stormwater, provided the recommendations contained herein are incorporated into the project design. This report constitutes a preliminary stormwater infiltration evaluation for design purposes. The below recommended rates are intended to inform the stormwater facility engineers in terms of feasibility and potential design rates. Our final recommended design rates will be based on calculations performed in this report as well as the concurrent winter wet season groundwater monitoring study. Due to the highly variable nature of the subsurface conditions on the project site, we recommend that final facility locations undergo additional exploration and testing by GeoTest to confirm infiltration potential. Additional exploration should include Pilot Infiltration Testing (PIT) to determine or confirm final design rates. We also recommend additional test pit and trench exploration in the areas in consideration for infiltration facilities.

Stormwater Infiltration Potential

Test Pit Gradation Results

From the explorations in the areas of interest, 9 representative soil samples were selected and mechanically tested for grain size distribution and calculation according to the soil grain size analysis method, Section 3.3.6 of the 2019 *Stormwater Management Manual for Western Washington* (SMMWW). A summary of these results are summarized in Table 1 below.

Table 1: Preliminary Infiltration Rates Based on Grain Size Analysis

Test Pit ID & Depth	Geologic Unit	% passing #200 Sieve	Uncorrected K _{sat} Infiltration Rate [in/hr]	Corrected K _{sat} Infiltration Rate [in/hr]
TP-1 (6.5)	Lower Alluvium	4.01	105.5	18.9**
TP-3 (2.5)	Upper Alluvium	17.8	21.8	3.9
TP-4 (1.8)	Upper Alluvium	53.5	3.4	0.62
TP-5 (1.5)	Upper Alluvium	61.07	2.3	0.41
TP-8 (2.8)	Upper Alluvium	23.98	15.9	2.9
TP-9 (2.0)	Upper Alluvium	92.44	*	*
TP-9 (3.0)	Upper Alluvium	44.35	5.5	1.0
TP-10 (2.5)	Upper Alluvium	33.31	9.9	1.8
TP-10 (4.0)	Upper Alluvium	10.42	32.1	5.8

Notes:
 * - Impervious. No rate determined
 ** - Rates not viable by grain size method

The native site soils are variable in terms of predicted infiltration rate and fines content. The above rates are representative of loose soil conditions, and do not take into account relative soil density, particle shape, and stratigraphic effects.

The regional groundwater table was encountered at all test pit locations during primary field investigation with depths ranging from 2.5 feet on the southern portion of the site up to 8.5 feet BGS on the northern portion of the site. No perched groundwater conditions were observed during explorations in the mid spring season. GeoTest performed concurrent seasonal groundwater monitoring to determine seasonal fluctuations and high-water levels. Monitoring was conducted from early March through early May of 2020 and is discussed in detail in the ***Seasonal Groundwater Monitoring*** section below.

In general terms, given grain-size data from the entire site, the soils can generally be categorized into two groups, the upper and lower alluvial units, to which two individual preliminary infiltration rates may be applied. However, due to the groundwater presence within the lower alluvium, this unit was not fully targeted in laboratory analysis and should not be considered for stormwater gallery use. For the typically finer-grained, upper alluvial unit, we recommend the preliminary design rate of **1.0 inches per hour** be utilized during the design process. These soils are typically found in the upper 4 feet of the soil column but may extend as low as 5 feet on some

locations. This upper alluvial unit displays some variability in fines content generally ranging from 10% to 50% in some locations. Due to this variability, we recommend further investigation of soils at the final depths and locations of stormwater facilities. The designer should also consider separation requirements of underlying restrictive soils and groundwater elevations at stormwater facility locations. Considering the high fines content of native soils with potential for onsite infiltration, we recommend field PIT testing of final design locations to verify appropriate design rates.

Stormwater Treatment

The stormwater facilities on-site may require some form of pollutant pretreatment with an existing or amended soil prior to on-site infiltration or offsite discharge. Cation exchange capacities, organic contents, and pH of site subsurface soils were tested to determine possible pollutant treatment suitability.

Subcontracted laboratory tests were performed by Northwest Agricultural Consultants on four soil samples collected from the explorations shown in Table 2. A summary of the laboratory test results are presented below. Subcontracted testing results are also attached at the end of this report.

Table 2: SSC-6 Stormwater Treatment Testing Results

Exploration ID:	Depth (ft)	Geologic Unit	Cation Exchange Capacity (meq/100 grams)	Organic Content (%)	pH (unitless)
TP-3	1.5	Upper Alluvium	4.9	1.98	6.2
TP-4	0.5	Topsoil	12.7	6.75	5.7
TP-8	1.2	Upper Alluvium	6.0	3.03	6.0
TP-9	0.5	Topsoil	12.6	6.94	6.0

Notes:
 --2019 SMMWW SSC-6 Criteria for Treatment: CEC ≥ 5.0 meq/100g; Organic Content ≥ 1%

Suitability for the use of onsite soils for pollutant treatment is determined in accordance with SSC-6 of the 2019 SMMWW. Soils with an organic content of greater than or equal to 1 percent and a cation exchange capacity of greater than or equal to 5 meq/100 grams are characterized as suitable for stormwater treatment. Based on the results shown in Table 2, native upper alluvial soils as depicted in the above samples from test pit explorations appear to be near or above cation exchange capacity requirements and are not anticipated to require treatment.

If treatment is elected, on-site soils can be amended by mixing higher silt content soils or adding mulch (or other admixtures) to elevate the cation exchange capacity and organic contents, if required. On-site amended soil may require additional testing to confirm compliance with ecological regulations. GeoTest is available to perform additional laboratory testing as part of an

expanded scope of services if the soil is to be amended. We also recommend that further testing be performed to determine rates for an amended soil if treatment of stormwater is required by design. Alternatively, the owner may elect to import amended soils with the desired properties for the planned treatment facilities.

Seasonal Groundwater Monitoring

The goal of this phase of the project was to determine seasonal groundwater fluctuations over time and provide this information to the project team. During our initial field exploration beginning on March 2, 2020, three hand auger borings were performed by GeoTest personnel to provide additional exploration and to facilitate monitoring well installations. On March 6, 2020, during our primary field exploration program, an additional five hand auger borings were advanced for well installations. Following completion of the borehole advance, plastic PVC monitor wells were installed at all eight hand auger locations. At the well locations, two-inch SCH-40 PVC was inserted to depths ranging from 7.6 to 8.8 feet below ground surface (BGS) with the bottom 5 feet consisting of slotted screen PVC. Well construction and backfill was completed by GeoTest personnel in accordance with industry standard techniques and materials. Monitor wells included a stick-up height above the ground surface and were secured with a bolting cap for tamper resistance.

To ensure the functionality of the wells before the deployment of data loggers, existing well water was evacuated to the full depth of casing using an electric Everbilt Non-submersible Transfer Pump (Model# ZE00802A) and small-diameter hoses, with the aid of a portable Honda generator. Wells were evacuated to their full depth at three intervals for each well, pausing to allow recharge for approximately 5 minutes between pumping episodes. Commissioning of the wells produced adequate clear water return at the surface, and all locations were considered suitable for continued monitoring.

Installation of downhole automated piezometric data loggers and one surface barometric logger were completed on March 6 (5 loggers) and March 13 (3 additional loggers), 2020. GeoTest deployed In-Situ Rugged TROLL 100 data loggers into all well locations. Loggers were set typically near of the base of the well and tied off to the well cap to ensure a consistent level reference for data collection. A barometric data logger was installed to record ambient barometric pressure of the project site and was used to correct barometric pressure readings of down-well data loggers. The In-Situ Rugged BaroTROLL surface barometric logger was placed near the southwestern portion of the property, near MW-1. The downhole loggers were set to record barometric pressure, temperature and water level above the loggers at 1-hour intervals throughout the monitoring period. The barometric logger was set to record pressure and temperature at 1-hour intervals. Over 1,500 data points were recorded for each location over the course of the study.

Return visits to verify functionality of the downhole loggers and to download interim data were performed monthly throughout the monitoring period. A final site visit to collect the downhole

loggers and terminate the field study was performed on May 8, 2020. To facilitate each lot's future development, the wells are intended to be left in place for future uses.

Please reference the attached Figure 1 – *Vicinity Map* and Figure 2 – *Site and Exploration Plan* for general and site-specific locations. Borehole logs for the monitor well locations are included as Figures 9 through 16. Graphs of monitoring wells data are attached at the end of this report.

To summarize our findings, the overall water levels were significantly higher on the southern portion (southernmost field) of the project site (MW-3 and MW-6) and trended lower toward the central creek and to the north. Near the central portion of the site (MW-1,2,5,6,7) groundwater elevations typically peaked at 5 to 6 feet below ground surface whereas in the southern portion of the site groundwater was recorded at the surface and down to approximately 2 feet BGS. Other groundwater variations include MW-4 near the northernmost boundary of the property at approximately 4 feet BGS and MW-8 near the northeast corner of the property where peak elevations were recorded at approximately 7.5 feet BGS. Due to this elevated presence in the southern portion of the of the site during the seasonal peak, we recommend this area not be considered for stormwater facility locations. All well locations were installed at existing ground surfaces with no benching or mounding of well sites. Elevation across the site is also generally level with only 1 to 2 feet of elevation change throughout.

Based on the data recorded throughout the 2020 wet seasonal, we interpret the maximum groundwater elevation among the project site to be at an **average of 4 to 5 feet BGS (excepting the southernmost section of the site)**. Due to the variability of groundwater elevation we recommend that a site-wide groundwater elevation not be applied to the entire property.

Geotechnical Consultation and Construction Monitoring

GeoTest recommends that we be involved in the project design review process. The purpose of the review is to verify that the recommendations presented in this report are understood and incorporated in the design and specifications.

GeoTest is available to provide a full range of materials testing and special inspection during construction as required by the local building department and the International Building Code. This may include specific construction inspections on materials such as reinforced concrete, reinforced masonry, wood framing and structural steel. These services are supported by our fully accredited materials testing laboratory.

USE OF THIS REPORT

GeoTest Services has prepared this report for the exclusive use of Sarah Bucko and her consultants for specific application to the design of the proposed development to be located at the 500 Block of F&S Grade Road in Sedro-Woolley, Washington. Use of this report by others is at the user's sole risk. This report is not applicable to other site locations. Our services are conducted in accordance with accepted practices of the geotechnical engineering profession; no other warranty, express or implied, is made as to the professional advice included in this report.

Our site explorations indicate subsurface conditions at the dates and locations indicated. It is not warranted that these conditions are representative of conditions at other locations and times. The analyses, conclusions, and recommendations contained in this report are based on site conditions to the limited depth and time of our explorations, a geological reconnaissance of the area, and a review of previously published geological information for the site. If variations in subsurface conditions are encountered during construction that differ from those contained within this report, GeoTest should be allowed to review the recommendations and, if necessary, make revisions. If there is a substantial lapse of time between submission of this report and the start of construction, or if conditions change due to construction operations at or adjacent to the project site, we recommend that we review this report to determine the applicability of the conclusions and recommendations contained herein.

The earthwork contractor is responsible to perform all work in conformance with all applicable WISHA/OSHA regulations. GeoTest Services, Inc. is not responsible for job site safety on this project, and this responsibility is specifically disclaimed.

Attachments: Figure 1	Vicinity Map
Figure 2	Site and Exploration Plan
Figure 3	Soil Classification System and Key
Figures 4-16	Exploration Logs
Figures 17-18	Grain Size Test Data
Attached	CEC, pH, OC Test Results
Attached	Groundwater Monitoring Data
Attached	Report Limitations and Guidelines

REFERENCES

Bakeman, S., Dan, G., Howie, D., Killelea, J., Labib, F., & Ed, O. (n.d.) 2012. *Stormwater Management Manual for Western Washington*, as Amended in December 2014 (The 2014 SWMMWW) (pp. 1-1042) (United States, Washington State Department of Ecology).

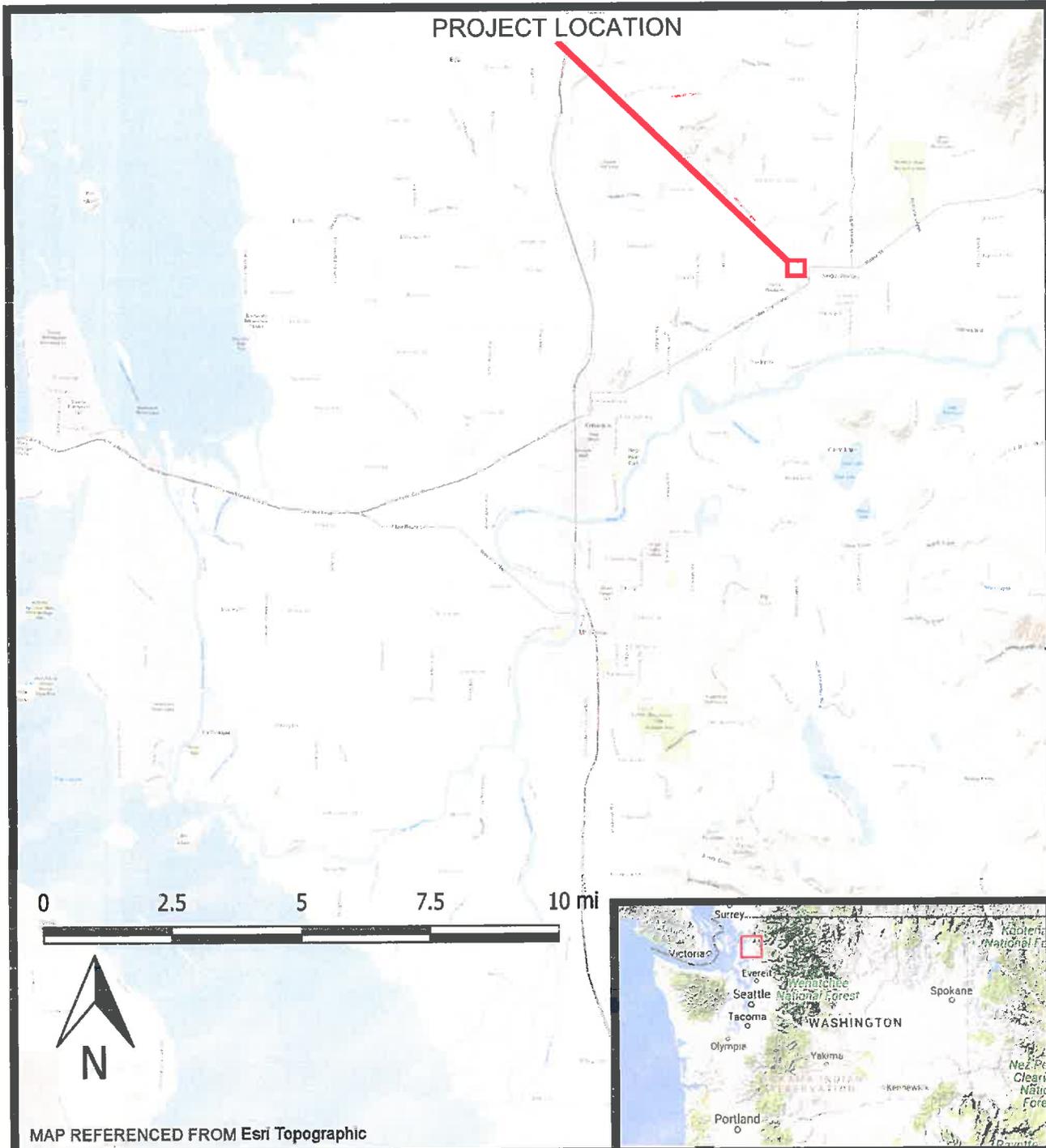
Dragovich, Joe D., Norman, David K., Lapen, Thomas J., and Anderson, Garth, 1999, Geologic map of the Sedro-Woolley North and Lyman 7.5-minute quadrangles, western Skagit County, Washington: Washington Division of Geology and Earth Resources, Open File Report 99-3, scale 1:24,000

Garipey, D., Graul, C. Heye, A., Howie, D., Labib, F. & Song, K. (n.d.) 2019. *Stormwater Management Manual for Western Washington (2019 SMMWW)* (pp. 1-1108) (United States, Washington Department of Ecology).

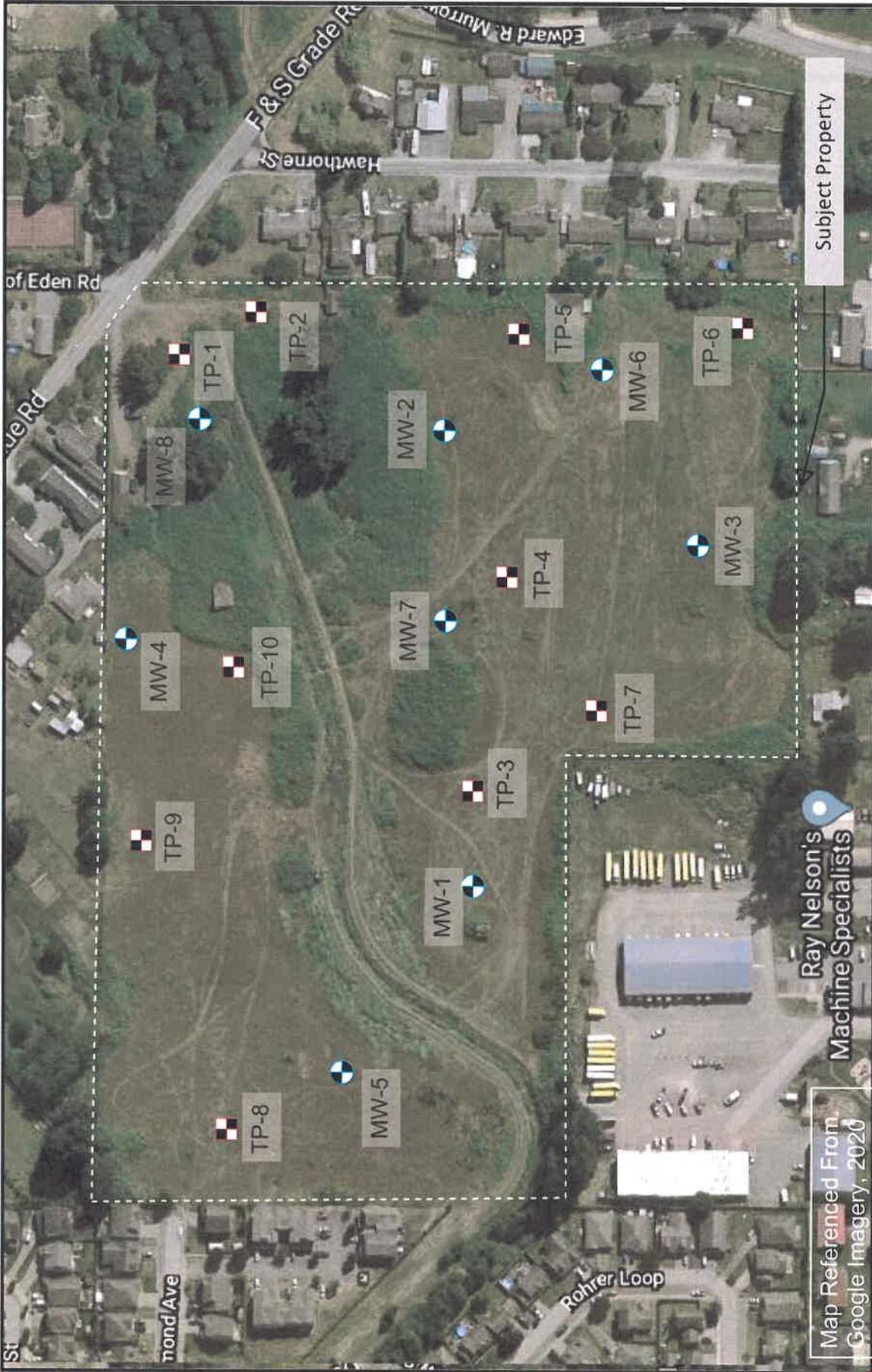
Skagit County iMap. Skagit County Planning and Development. Retrieved May 2020 from <https://www.skagitcounty.net/Maps/iMap>.

Washington State Department of Natural Resources *Geologic Information Portal*. Retrieved May 2020 from <https://geologyportal.dnr.wa.gov/>.

Washington State Department of Ecology. *Well Log Viewer*. Retrieved May 2020 from <https://fortress.wa.gov/ecy/wellconstruction/map/WCLSWebMap/WellConstructionMapSearch.aspx>.



	Date: 4-5-20	By: CD	Scale: As Shown	Project 20-0312
	VICINITY MAP BUCKO PROPERTY INFILTRATION F&S GRADE ROAD SEDRO-WOOLLEY, WA 98284			Figure 1



Subject Property

Ray Nelson's
Machine Specialists

Map Referenced From:
Google Imagery, 2020

200 feet



-  TP-# = Test Pit Location
-  MW-# = Monitoring Well



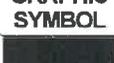
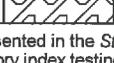
Date: 4/5/2020 By: CWD Scale: As Shown

SITE AND EXPLORATION PLAN
BUCKO PROPERTY INFILTRATION
F & S GRADE ROAD
SEDRO-WOOLLEY, WA 98284

Project
20-0312

Figure
2

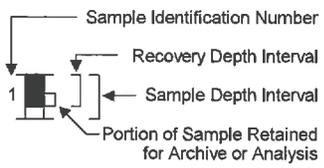
Soil Classification System

MAJOR DIVISIONS		GRAPHIC SYMBOL	USCS LETTER SYMBOL	TYPICAL DESCRIPTIONS ⁽¹⁾⁽²⁾
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL	CLEAN GRAVEL (Little or no fines)	 GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
	(More than 50% of coarse fraction retained on No. 4 sieve)	GRAVEL WITH FINES (Appreciable amount of fines)	 GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		SAND AND SANDY SOIL	CLEAN SAND (Little or no fines)	 GM
	(More than 50% of coarse fraction passed through No. 4 sieve)	SAND WITH FINES (Appreciable amount of fines)	 GC	Clayey gravel; gravel/sand/clay mixture(s)
		CLEAN SAND (Little or no fines)	 SW	Well-graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)	 SP	Poorly graded sand; gravelly sand; little or no fines
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)		 SM	Well-graded sand; gravelly sand; little or no fines
			 SC	Clayey sand; sand/clay mixture(s)
			 ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
			 CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
			 OL	Organic silt; organic, silty clay of low plasticity
			 MH	Inorganic silt; micaceous or diatomaceous fine sand
 CH			Inorganic clay of high plasticity; fat clay	
		 OH	Organic clay of medium to high plasticity; organic silt	
		 PT	Peat; humus; swamp soil with high organic content	

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

- Notes: 1. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
2. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
 Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
 > 12% and ≤ 30% - "gravelly," "sandy," "silty," etc.
 Additional Constituents: > 5% and ≤ 12% - "slightly gravelly," "slightly sandy," "slightly silty," etc.
 ≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

Drilling and Sampling Key		Field and Lab Test Data		
SAMPLE NUMBER & INTERVAL	SAMPLER TYPE	Code	Description	
	Code	Description	Code	Description
	a	3.25-inch O.D., 2.42-inch I.D. Split Spoon	PP = 1.0	Pocket Penetrometer, tsf
	b	2.00-inch O.D., 1.50-inch I.D. Split Spoon	TV = 0.5	Torvane, tsf
	c	Shelby Tube	PID = 100	Photoionization Detector VOC screening, ppm
	d	Grab Sample	W = 10	Moisture Content, %
	e	Other - See text if applicable	D = 120	Dry Density, pcf
	1	300-lb Hammer, 30-inch Drop	-200 = 60	Material smaller than No. 200 sieve, %
	2	140-lb Hammer, 30-inch Drop	GS	Grain Size - See separate figure for data
	3	Pushed	AL	Atterberg Limits - See separate figure for data
	4	Other - See text if applicable	GT	Other Geotechnical Testing
Groundwater		CA	Chemical Analysis	
 Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.				



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Soil Classification System and Key

Figure
3

TP-1

SAMPLE DATA			SOIL PROFILE		GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u>
						Ground Elevation (ft): <u>52</u>
						Excavated By: <u>Swany / CD</u>
	0			ML/OL		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)
2	1	d		SM	Medium dense, medium brown to gray, moist, silty SAND, minor gravel, scattered organics and construction material (Uncontrolled Fill)	
4	2	d			interbedded SAND lenses interbedded SILT lens	
6	3	d	W = 12 GS	ML/OL		Medium stiff, dark brown, moist, sandy SILT, strong organics (Relict Topsoil)
8				SP	Medium dense, light brown to gray, moist to wet with depth, poorly graded SAND, trace gravel (Lower Alluvium)	▽ Slight groundwater seepage encountered at 8.5 ft.
10	Test Pit Completed 03/06/20 Total Depth of Test Pit = 8.8 ft.					
12						

TP-2

SAMPLE DATA			SOIL PROFILE		GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u>
						Ground Elevation (ft): <u>56</u>
						Excavated By: <u>Swany / CD</u>
	0				SM	Medium dense, medium brown to gray, moist, gravelly silty SAND, scattered organics and construction material (Uncontrolled Fill)
2	4	d			Apparent Imported fill lenses	
4	5	d		ML	Medium stiff to stiff, medium brown, moist, sandy SILT, minor gravel, trace thin rootlets (Upper Alluvium)	
6	6	d		SP	Medium dense, light brown to gray, moist to wet with depth, poorly graded SAND, trace gravel (Lower Alluvium)	▽ Slight groundwater seepage encountered at 8.2 ft.
8	7	d				
10	Test Pit Completed 03/06/20 Total Depth of Test Pit = 8.3 ft.					
12						

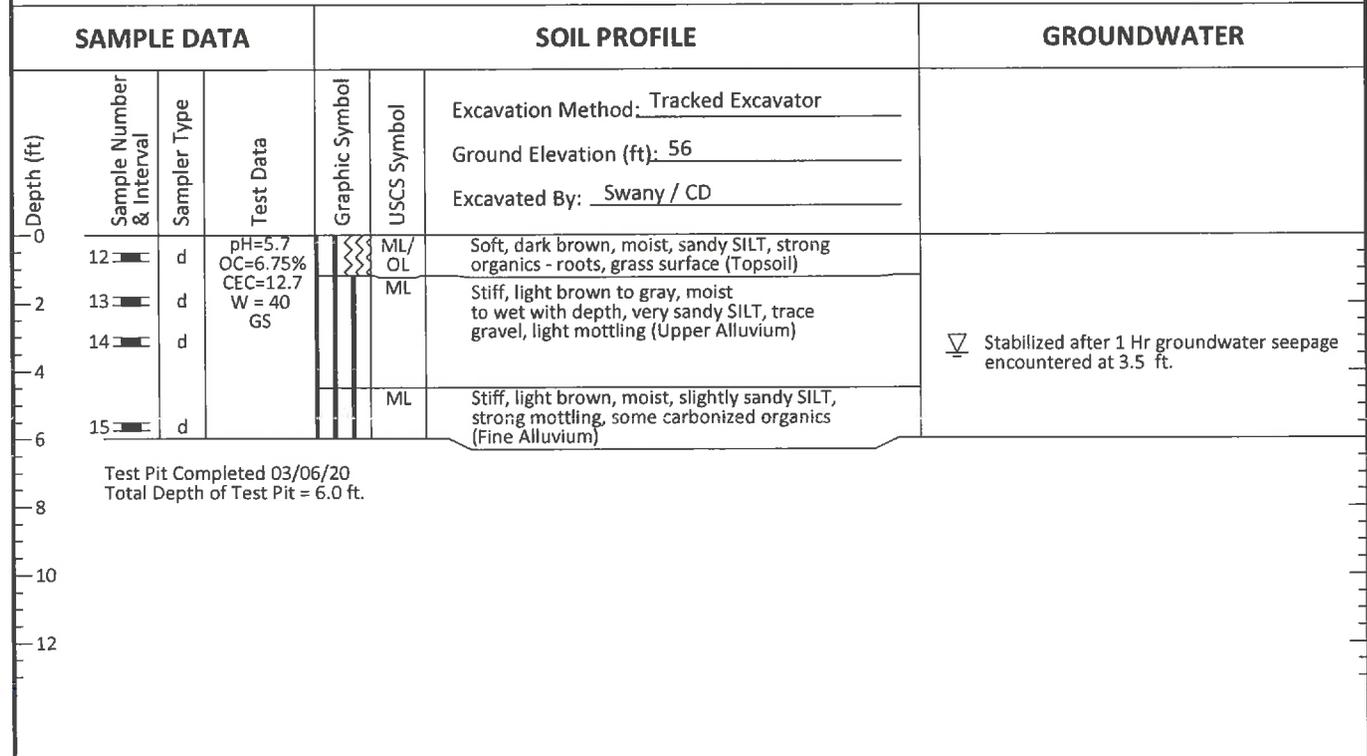
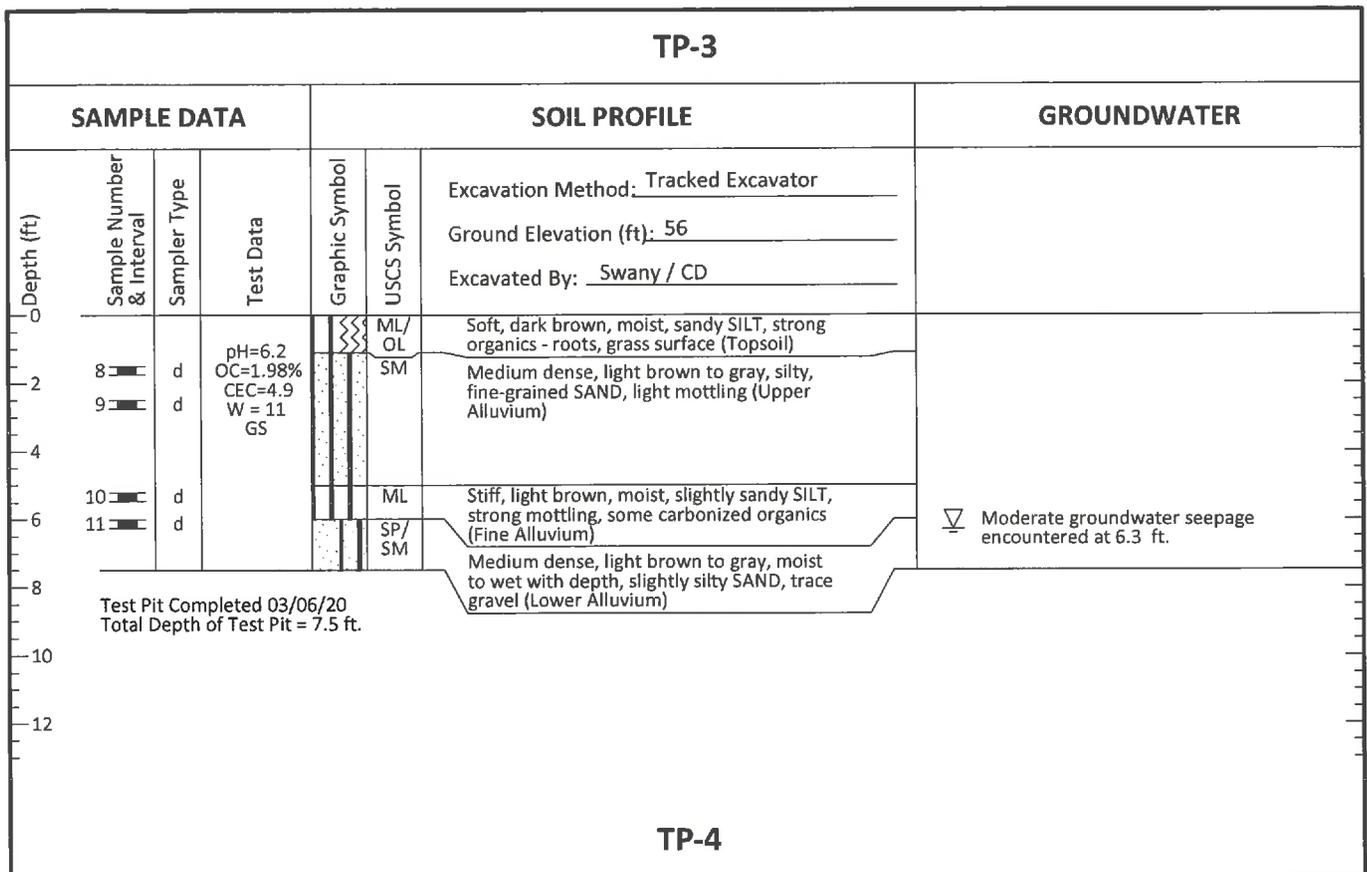
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of Test Pits

Figure
4



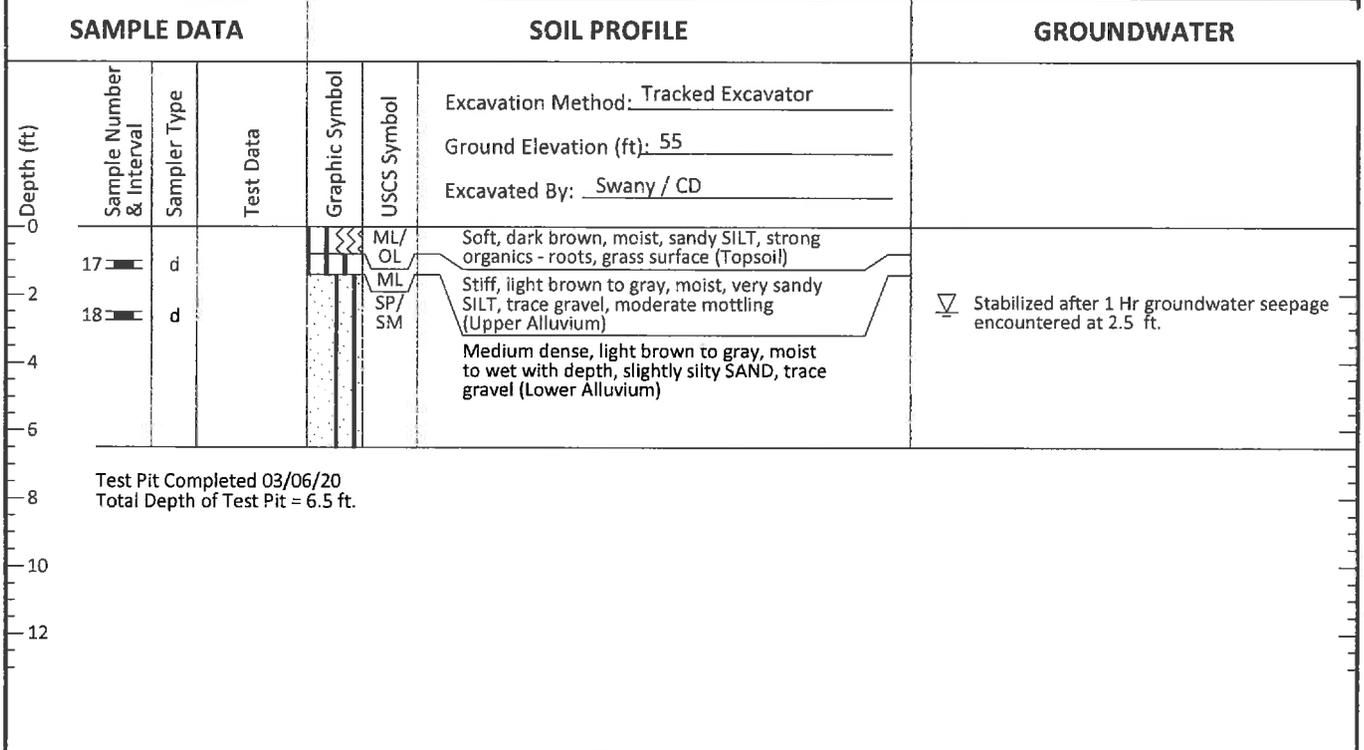
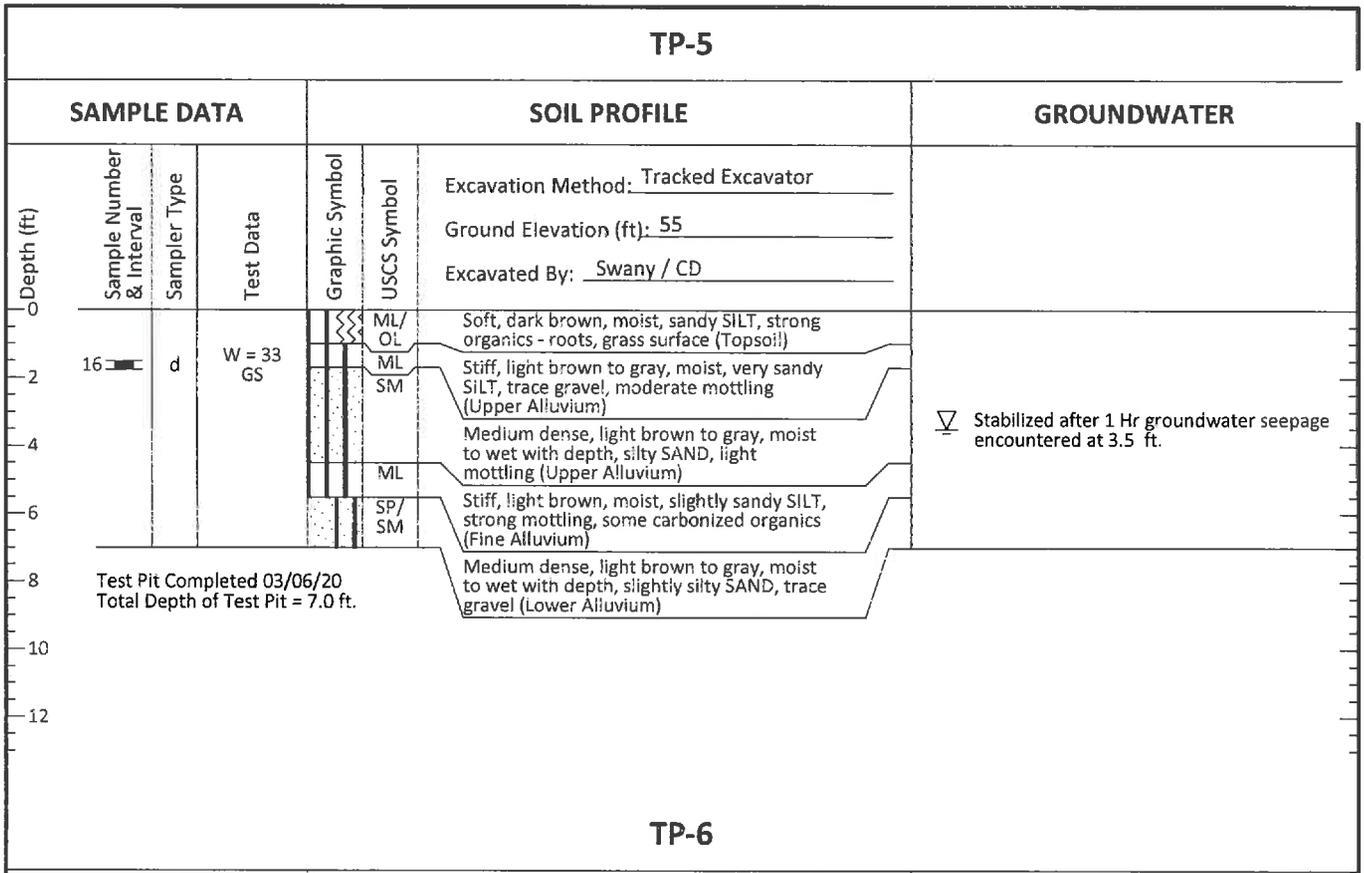
Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
 F&S Grade Road
 Sedro-Woolley, WA

Log of Test Pits

Figure
5



- Notes:
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 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
 F&S Grade Road
 Sedro-Woolley, WA

Log of Test Pits

Figure
6

TP-7

SAMPLE DATA			SOIL PROFILE			GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>55</u> Excavated By: <u>Swany / CD</u>	
	19	d			ML/OL SM		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil) Medium dense, light brown to gray, moist to wet with depth, silty SAND, light mottling (Upper Alluvium)
					ML		
					SP/SM		
Test Pit Completed 03/06/20 Total Depth of Test Pit = 7.0 ft.							

▽ Stabilized after 1 Hr groundwater seepage encountered at 2.5 ft.

TP-8

SAMPLE DATA			SOIL PROFILE			GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>54</u> Excavated By: <u>Swany / CD</u>	
	20	d	pH=6.0 OC=3.03% CEC=6.0 W = 15 GS		ML/OL SM		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil) Medium dense, light brown to gray, moist, silty SAND, light mottling (Upper Alluvium)
	21	d			ML		
	22	d			SP/SM		
23	d						
Test Pit Completed 03/06/20 Total Depth of Test Pit = 9.0 ft.							

▽ Slight groundwater seepage encountered at 7.5 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
 F&S Grade Road
 Sedro-Woolley, WA

Log of Test Pits

Figure
7

TP-10

SAMPLE DATA			SOIL PROFILE			GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>56</u> Excavated By: <u>Swany / CD</u>	
	29	d			ML/OL		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)
	30	d	W = 18 GS		ML SM		Stiff, light brown to gray, moist, very sandy SILT, trace gravel, moderate mottling (Upper Alluvium)
	31	d	W = 18 GS		ML SM		Medium dense, light brown to gray, moist, very silty, fine-grained SAND, light mottling (Upper Alluvium) Slight reduction in fines with depth to ~ 10%
	32	d			ML		Stiff, light brown, moist, slightly sandy SILT, strong mottling, some carbonized organics (Fine Alluvium)
Test Pit Completed 03/06/20 Total Depth of Test Pit = 8.5 ft.							
∇ Slight groundwater seepage encountered at 7.5 ft.							

TP-9

SAMPLE DATA			SOIL PROFILE			GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>55</u> Excavated By: <u>Swany / CD</u>	
	24	d	pH=6.0 OC=6.94% CEC=12.6		ML/OL		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)
	25	d	W = 35 GS		ML SM		Stiff, light brown to gray, moist, slightly sandy SILT, trace gravel, moderate mottling (Upper Alluvium)
	26	d	W = 26 GS		ML SM		Medium dense, light brown to gray, moist to wet with depth, very silty, fine-grained SAND, light mottling (Upper Alluvium)
	27	d			ML SP		Stiff, light brown, moist, slightly sandy SILT, strong mottling, some carbonized organics (Fine Alluvium)
Test Pit Completed 03/06/20 Total Depth of Test Pit = 8.8 ft.							
∇ Stabilized after 1 Hr groundwater seepage encountered at 6.5 ft.							

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

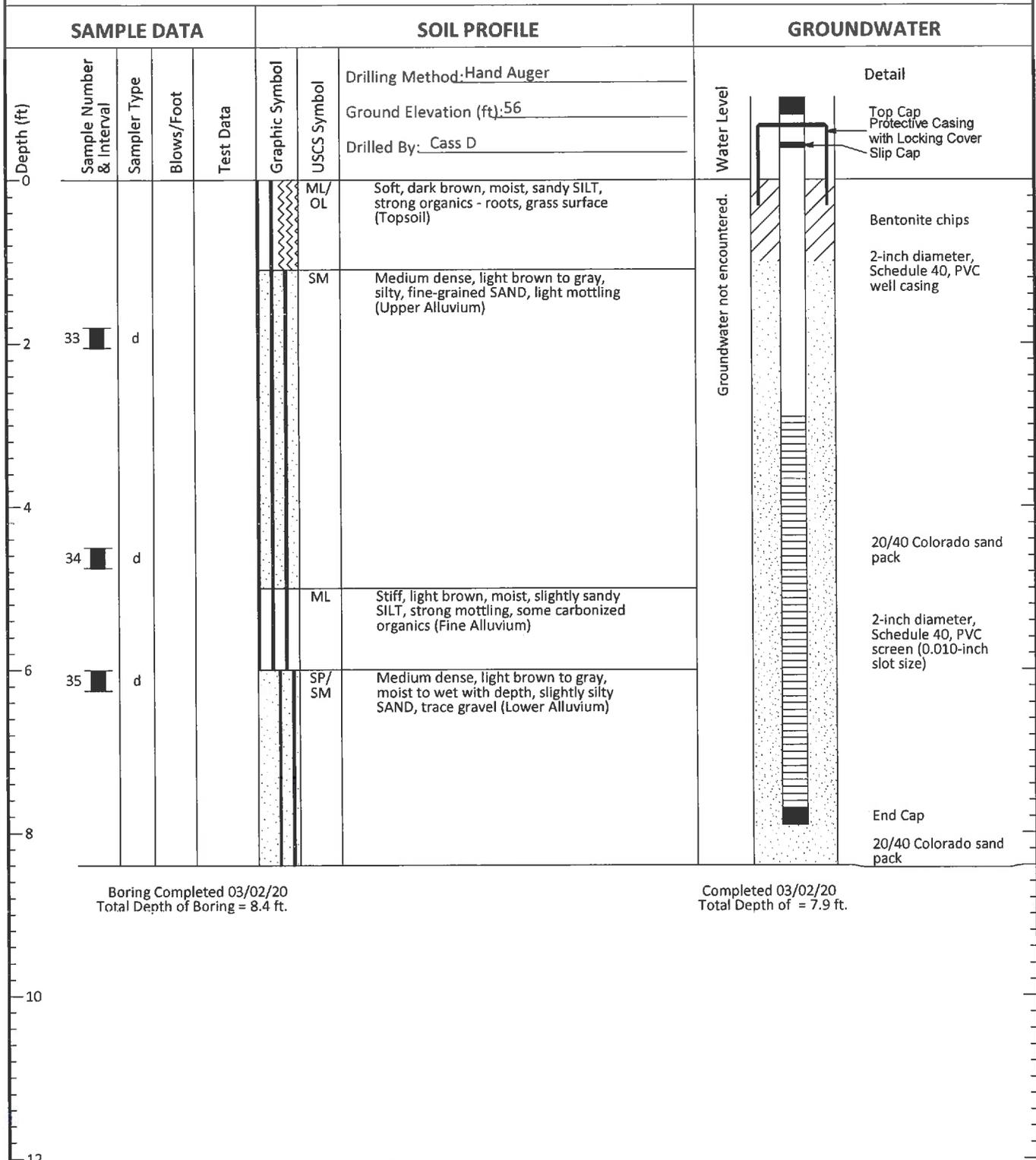


Bucko Property Infiltration
 F&S Grade Road
 Sedro-Woolley, WA

Log of Test Pits

Figure
8

MW-1



Boring Completed 03/02/20
Total Depth of Boring = 8.4 ft.

Completed 03/02/20
Total Depth of = 7.9 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

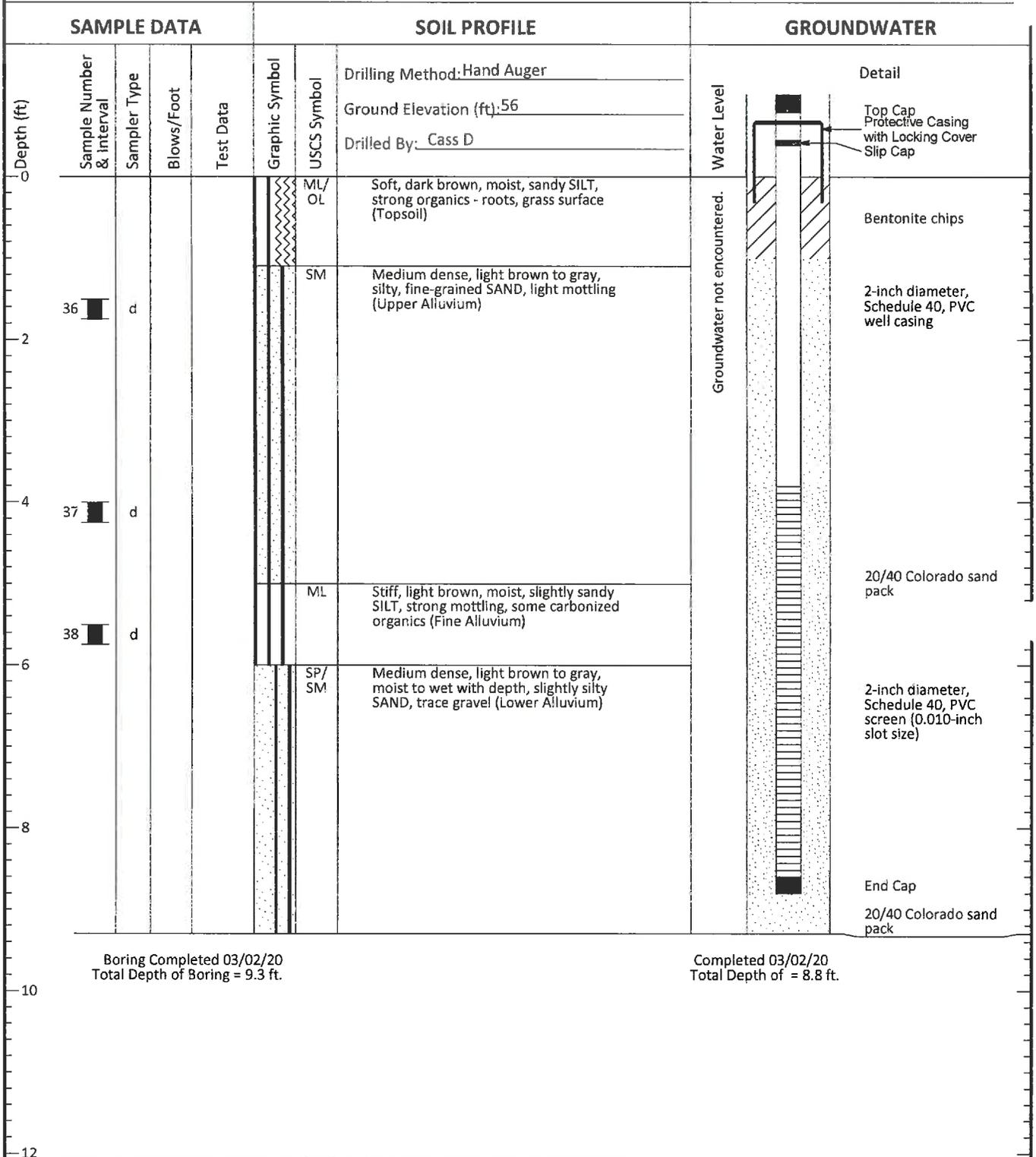


Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-1

Figure
9

MW-2



- Notes:
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Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-2

Figure
10

MW-3

SAMPLE DATA				SOIL PROFILE			GROUNDWATER						
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hand Auger	Water Level	Detail				
							Ground Elevation (ft): 55			Groundwater not encountered.			
							Drilled By: Cass D					Top Cap Protective Casing with Locking Cover Slip Cap	
	0				ML/OL		Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)						Bentonite chips
	2	39	d			SM	Medium dense, light brown to gray, moist to wet with depth, silty SAND, light mottling (Upper Alluvium)						2-inch diameter, Schedule 40, PVC well casing
4					ML	Stiff, light brown, moist, slightly sandy SILT, strong mottling, some carbonized organics (Fine Alluvium)	20/40 Colorado sand pack						
6	40	d			SP/SM	Medium dense, light brown to gray, moist to wet with depth, slightly silty SAND, trace gravel (Lower Alluvium)	2-inch diameter, Schedule 40, PVC screen (0.010-inch slot size)	End Cap					
8								20/40 Colorado sand pack					

Boring Completed 03/02/20
Total Depth of Boring = 8.8 ft.

Completed 03/02/20
Total Depth of = 8.3 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-3

Figure
11

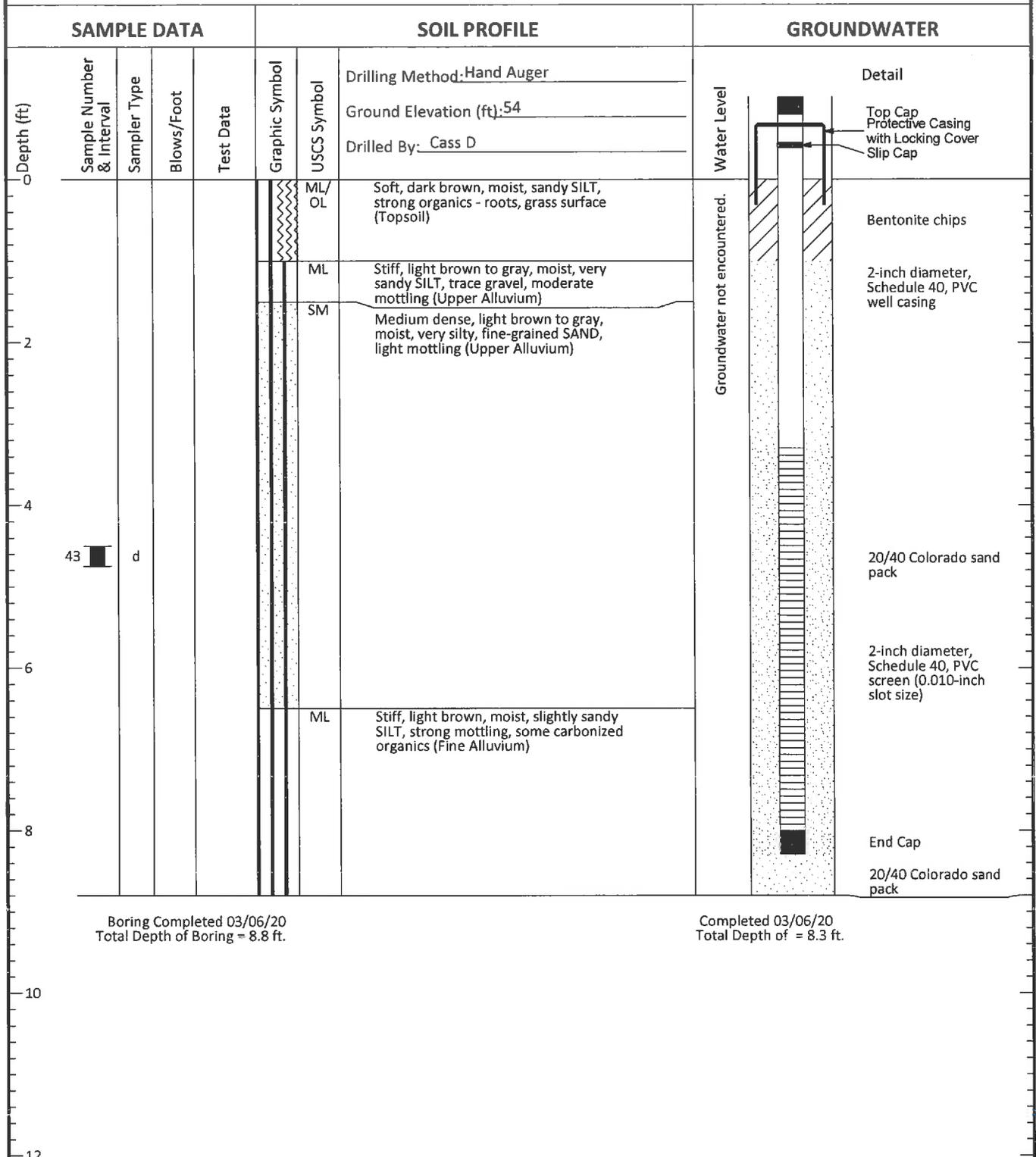
MW-4

SAMPLE DATA				SOIL PROFILE			GROUNDWATER			
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hand Auger	Water Level Groundwater not encountered.	Detail	
							Ground Elevation (ft): 55			
							Drilled By: Cass D			
	41	d				ML/OI	Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)		Bentonite chips 2-inch diameter, Schedule 40, PVC well casing 20/40 Colorado sand pack 2-inch diameter, Schedule 40, PVC screen (0.010-inch slot size) End Cap 20/40 Colorado sand pack	
	42	d				ML	Stiff, light brown to gray, moist, slightly sandy SILT, trace gravel, moderate mottling (Upper Alluvium)			
					SM	Medium dense, light brown to gray, moist to wet with depth, very silty, fine-grained SAND, light mottling (Upper Alluvium)				
					ML	Stiff, light brown, moist, slightly sandy SILT, strong mottling, some carbonized organics (Fine Alluvium)				
						SP	Medium dense, light brown to gray, moist to wet with depth, poorly graded, coarse-grained SAND, trace gravel (Lower Alluvium)			
Boring Completed 03/06/20 Total Depth of Boring = 8.7 ft.							Completed 03/06/20 Total Depth of = 8.2 ft.			

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



MW-5



Boring Completed 03/06/20
Total Depth of Boring = 8.8 ft.

Completed 03/06/20
Total Depth of = 8.3 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

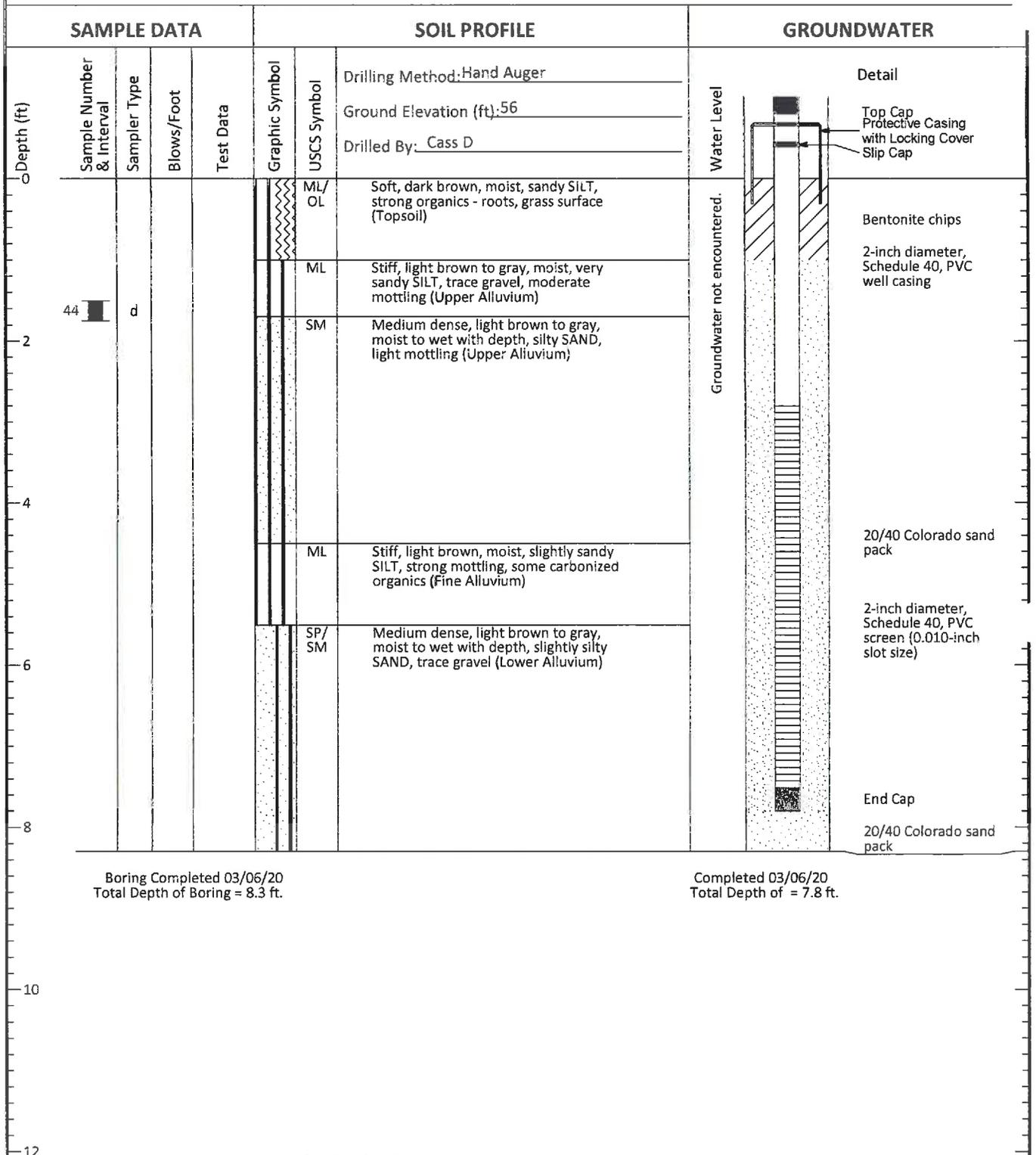


Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-5

Figure
13

MW-6



Boring Completed 03/06/20
Total Depth of Boring = 8.3 ft.

Completed 03/06/20
Total Depth of = 7.8 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-6

Figure
14

MW-7

SAMPLE DATA				SOIL PROFILE			GROUNDWATER			
Depth (ft) 0 2 4 6 8 10 12	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: <u>Hand Auger</u>	Water Level	Detail	
							Ground Elevation (ft): <u>56</u>			
							Drilled By: <u>Cass D</u>	Groundwater not encountered.	Top Cap Protective Casing with Locking Cover Slip Cap	
	45	d				ML/ OL	Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)		Bentonite chips 2-inch diameter, Schedule 40, PVC well casing	
						SM	Medium dense, light brown to gray, silty, fine-grained SAND, light mottling (Upper Alluvium)		20/40 Colorado sand pack	
					ML	Stiff, light brown, moist, slightly sandy SILT, strong mottling, some carbonized organics (Fine Alluvium)		2-inch diameter, Schedule 40, PVC screen (0.010-inch slot size)		
					SP/ SM	Medium dense, light brown to gray, moist to wet with depth, slightly silty SAND, trace gravel (Lower Alluvium)		End Cap 20/40 Colorado sand pack		

Boring Completed 03/06/20
Total Depth of Boring = 8.1 ft.

Completed 03/06/20
Total Depth of = 7.6 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-7

Figure
15

MW-8

SAMPLE DATA				SOIL PROFILE			GROUNDWATER			
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hand Auger	Water Level		
							Ground Elevation (ft): 56			
							Drilled By: Cass D			
	0					ML/OL	Soft, dark brown, moist, sandy SILT, strong organics - roots, grass surface (Topsoil)			Groundwater not encountered.
	2	46	d			SM	Medium dense, medium brown to gray, moist, silty SAND, minor gravel, scattered organics and construction material (Uncontrolled Fill)			
4					ML/OL	Medium stiff, dark brown, moist, sandy SILT, strong organics (Relict Topsoil)				
6					SP	Medium dense, light brown to gray, moist to wet with depth, poorly graded SAND, trace gravel (Lower Alluvium)				
8	47	d								
10										
12										

Boring Completed 03/06/20
Total Depth of Boring = 9.3 ft.

Completed 03/06/20
Total Depth of = 8.8 ft.

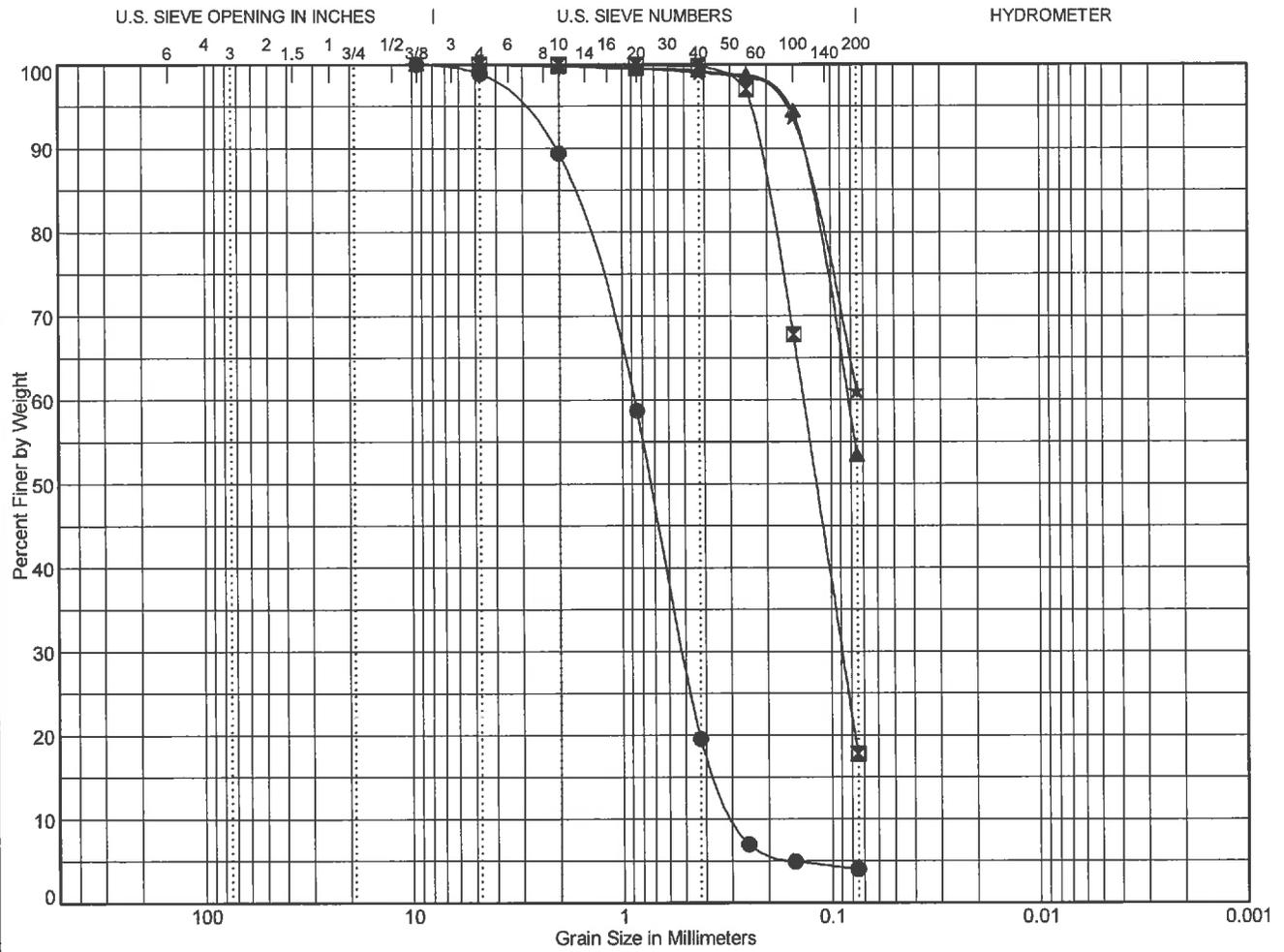
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Log of MW-8

Figure
16



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Point	Depth	Classification	LL	PL	PI	C _c	C _u
● TP-1	6.5	Poorly graded SAND, trace fine gravel (SP)				1.04	3.10
☒ TP-3	2.5	Silty, fine-grained SAND (SM)					
▲ TP-4	1.8	Very sandy SILT, trace fine gravel (ML)					
★ TP-5	1.5	Very sandy SILT, trace fine gravel (ML)					

Point	Depth	D ₉₀	D ₆₀	D ₅₀	D ₃₀	D ₁₀	% Coarse Gravel	% Fine Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Fines
● TP-1	6.5	2.113	0.881	0.728	0.511	0.284	0.0	1.1	9.5	69.8	15.6	4.0
☒ TP-3	2.5	0.221	0.135	0.117	0.089		0.0	0.0	0.0	0.2	82.0	17.8
▲ TP-4	1.8	0.139	0.084				0.0	0.1	0.2	0.6	45.8	53.5
★ TP-5	1.5	0.139					0.0	0.1	0.1	0.8	38.0	61.1

$$C_c = D_{30}^2 / (D_{60} * D_{10})$$

$$C_u = D_{60} / D_{10}$$

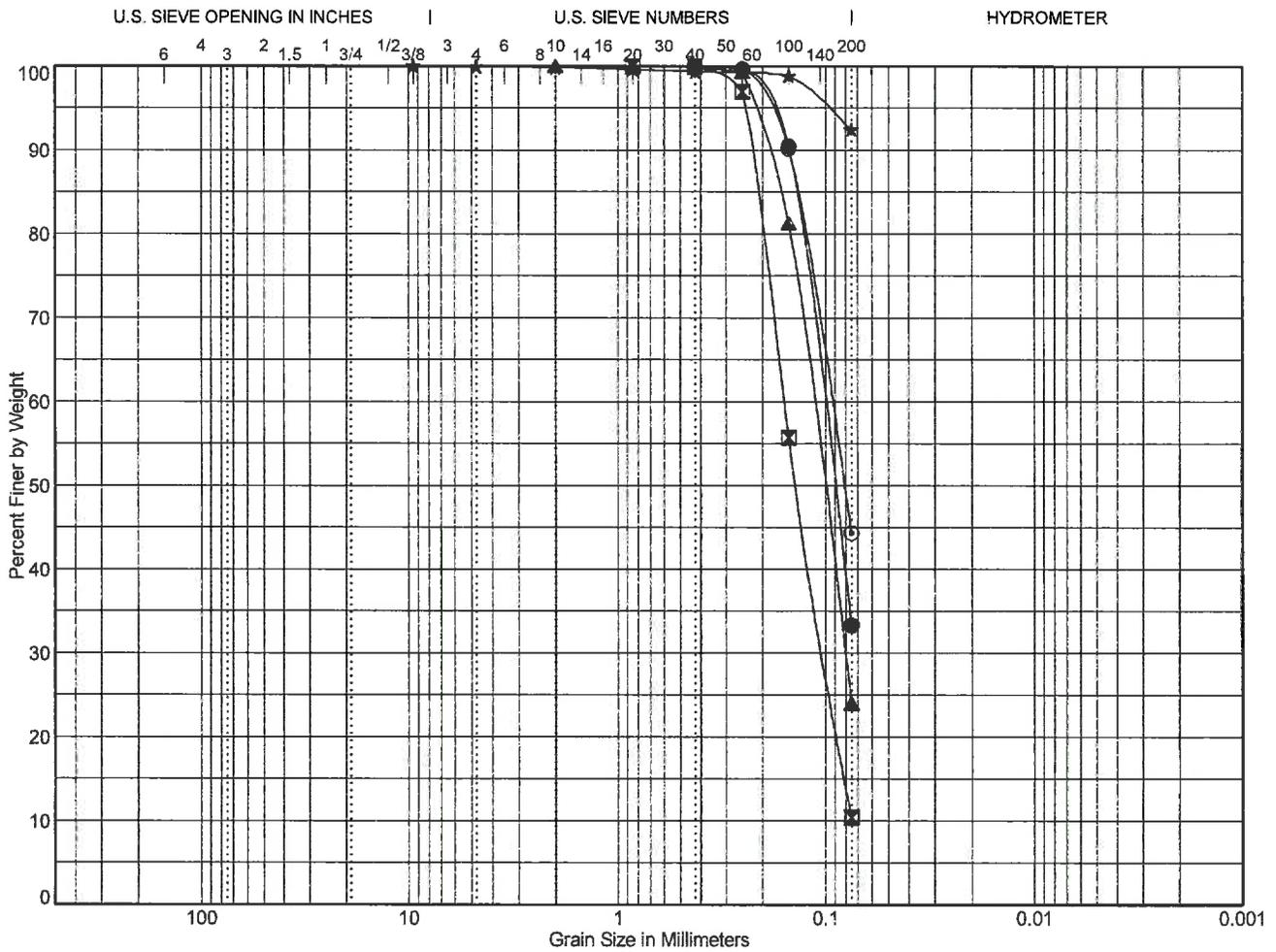
To be well graded: $1 < C_c < 3$ and $C_u > 4$ for GW or $C_u > 6$ for SW



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Grain Size Test Data

Figure
17



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Point	Depth	Classification	LL	PL	PI	C _c	C _u
●	TP-10 2.5	Very silty, fine-grained SAND (SM)					
☒	TP-10 4.0	Slightly silty, fine-grained SAND (SM)				0.87	2.12
▲	TP-8 2.8	Silty, fine-grained SAND (SM)					
★	TP-9 2.0	Slightly sandy SILT, trace fine gravel (ML)					
⊙	TP-9 3.0	Very silty, fine-grained SAND (SM)					

Point	Depth	D ₉₀	D ₆₀	D ₅₀	D ₃₀	D ₁₀	% Coarse Gravel	% Fine Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Fines
●	TP-10 2.5	0.149	0.104	0.092			0.0	0.0	0.0	0.0	66.7	33.3
☒	TP-10 4.0	0.229	0.158	0.137	0.101		0.0	0.0	0.0	0.1	89.5	10.4
▲	TP-8 2.8	0.192	0.116	0.103	0.081		0.0	0.0	0.0	0.1	75.9	24.0
★	TP-9 2.0						0.0	0.1	0.1	0.5	6.9	92.4
⊙	TP-9 3.0	0.15	0.095	0.082			0.0	0.0	0.0	0.0	55.7	44.3

$$C_c = D_{30}^2 / (D_{60} * D_{10}) \quad \text{To be well graded: } 1 < C_c < 3 \text{ and}$$

$$C_u = D_{60} / D_{10} \quad C_u > 4 \text{ for GW or } C_u > 6 \text{ for SW}$$



Bucko Property Infiltration
F&S Grade Road
Sedro-Woolley, WA

Grain Size Test Data

Figure
18



**Northwest Agricultural
Consultants**

2545 W Falls Avenue
Kennewick, WA 99336
509.783.7450
www.nwag.com
lab@nwag.com

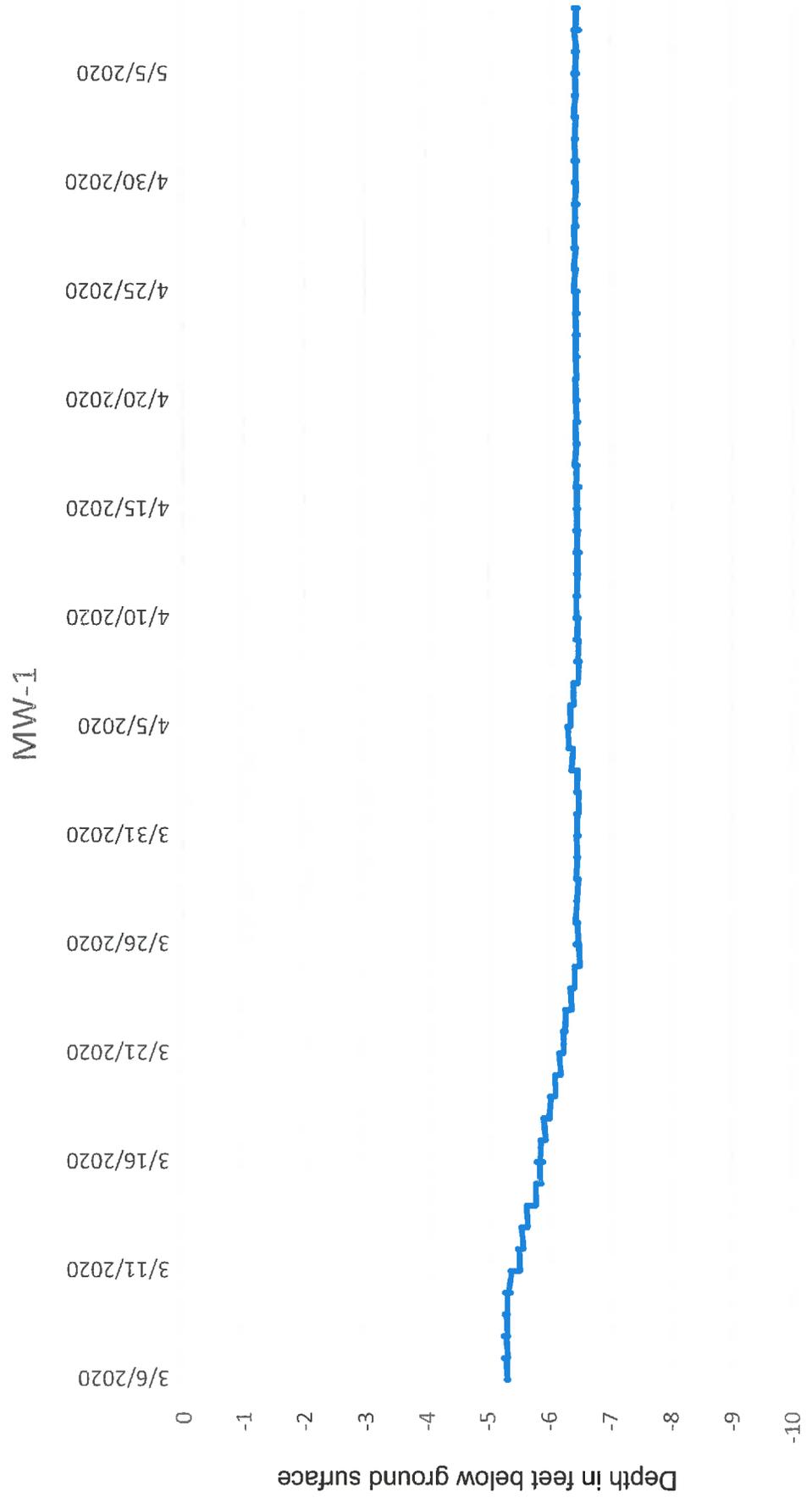
PAP-Accredited

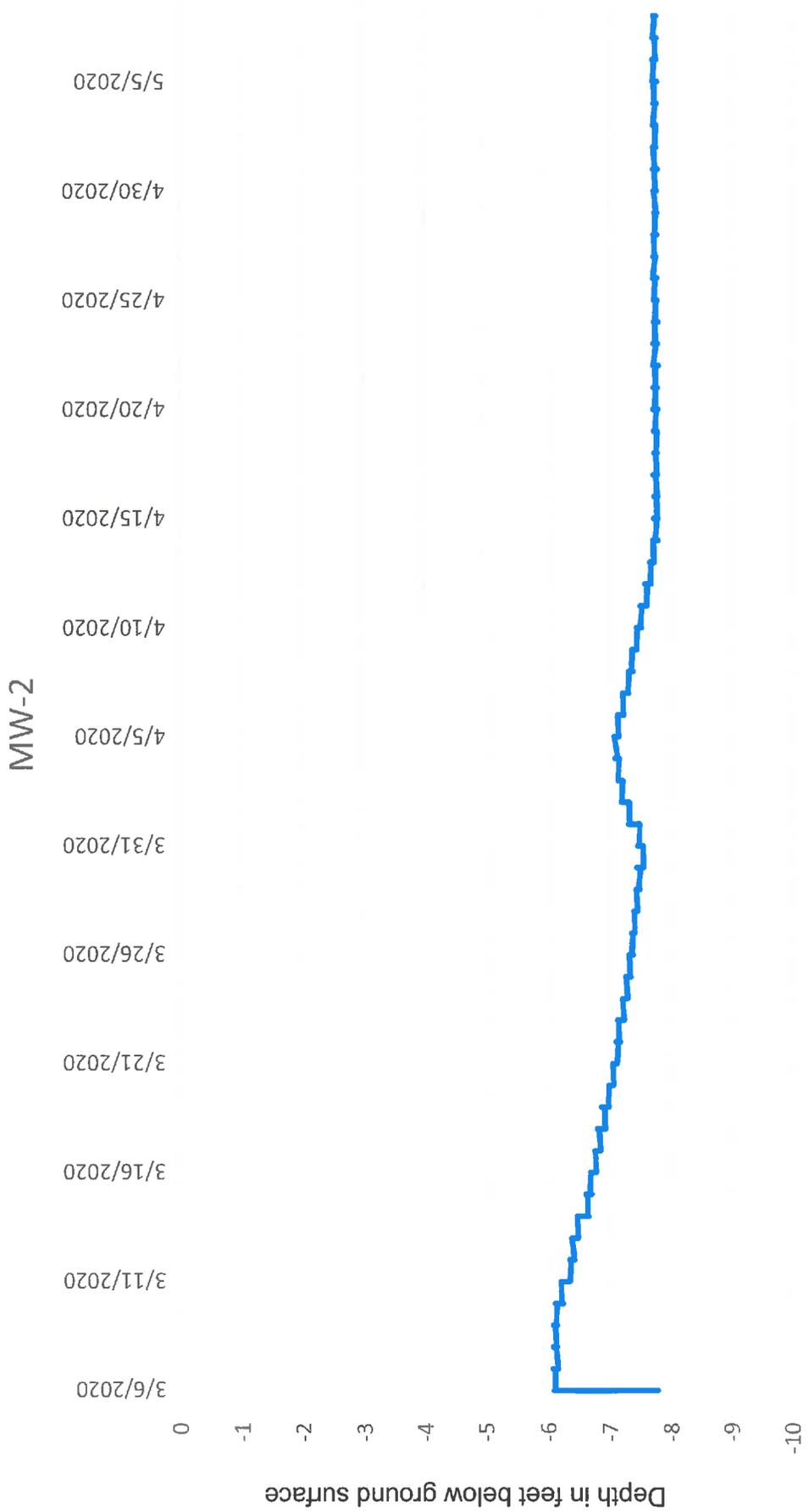


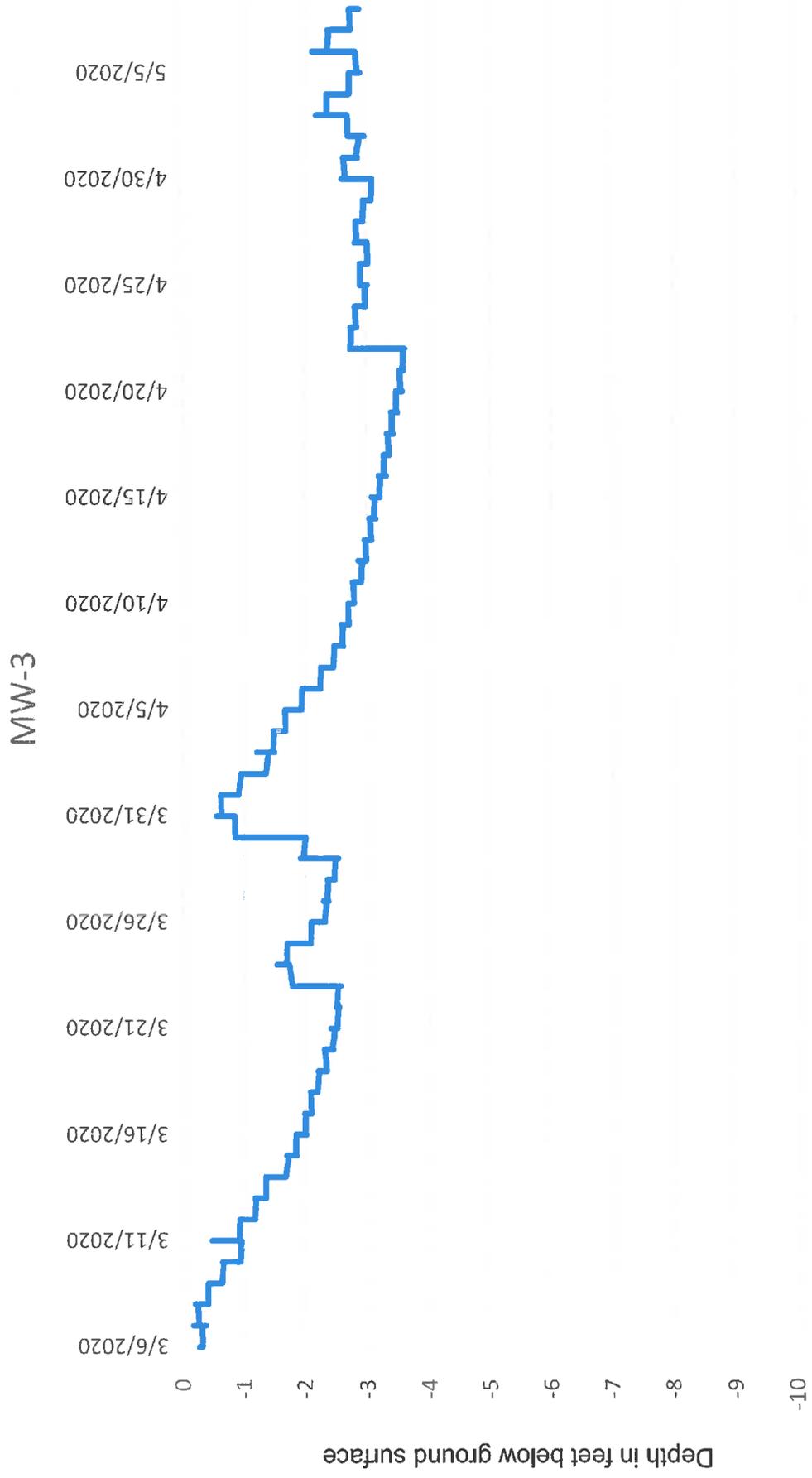
GeoTest Services Inc.
741 Marine Drive
Bellingham, WA 98225

Report: 51147-1-1
Date: March 19, 2020
Project No: 20-0312
Project Name: Bucko Property Infiltration

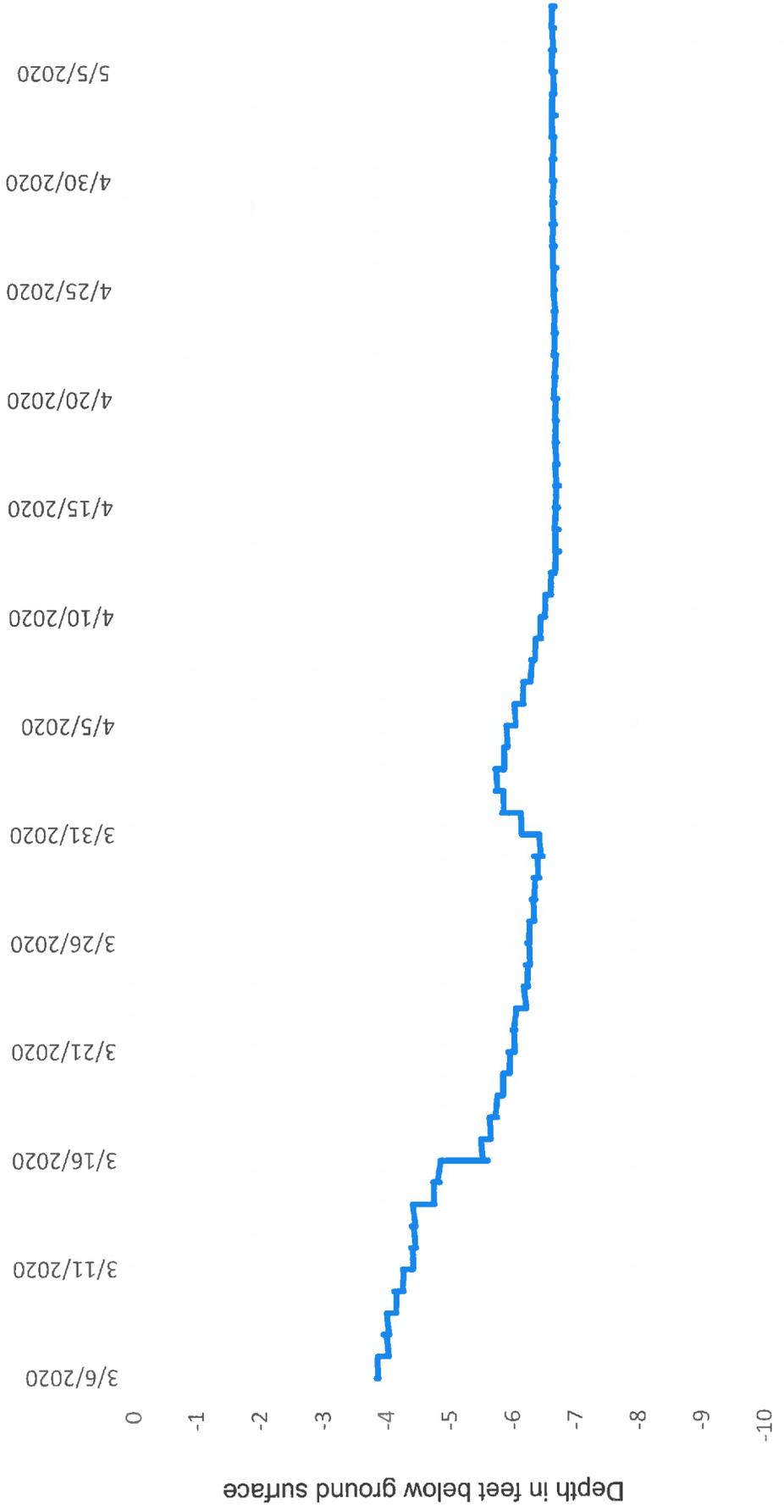
Sample ID	pH	Organic Matter	Cation Exchange Capacity
TP-3 @ 1.5'	6.2	1.98%	4.9 meq/100g
TP-4 @ 0.5'	5.7	6.75%	12.7 meq/100g
TP-8 @ 1.2'	6.0	3.03%	6.0 meq/100g
TP-9 @ 0.5'	6.0	6.94%	12.6 meq/100g
Method	SM 4500-H⁺ B	ASTM D2974	EPA 9081

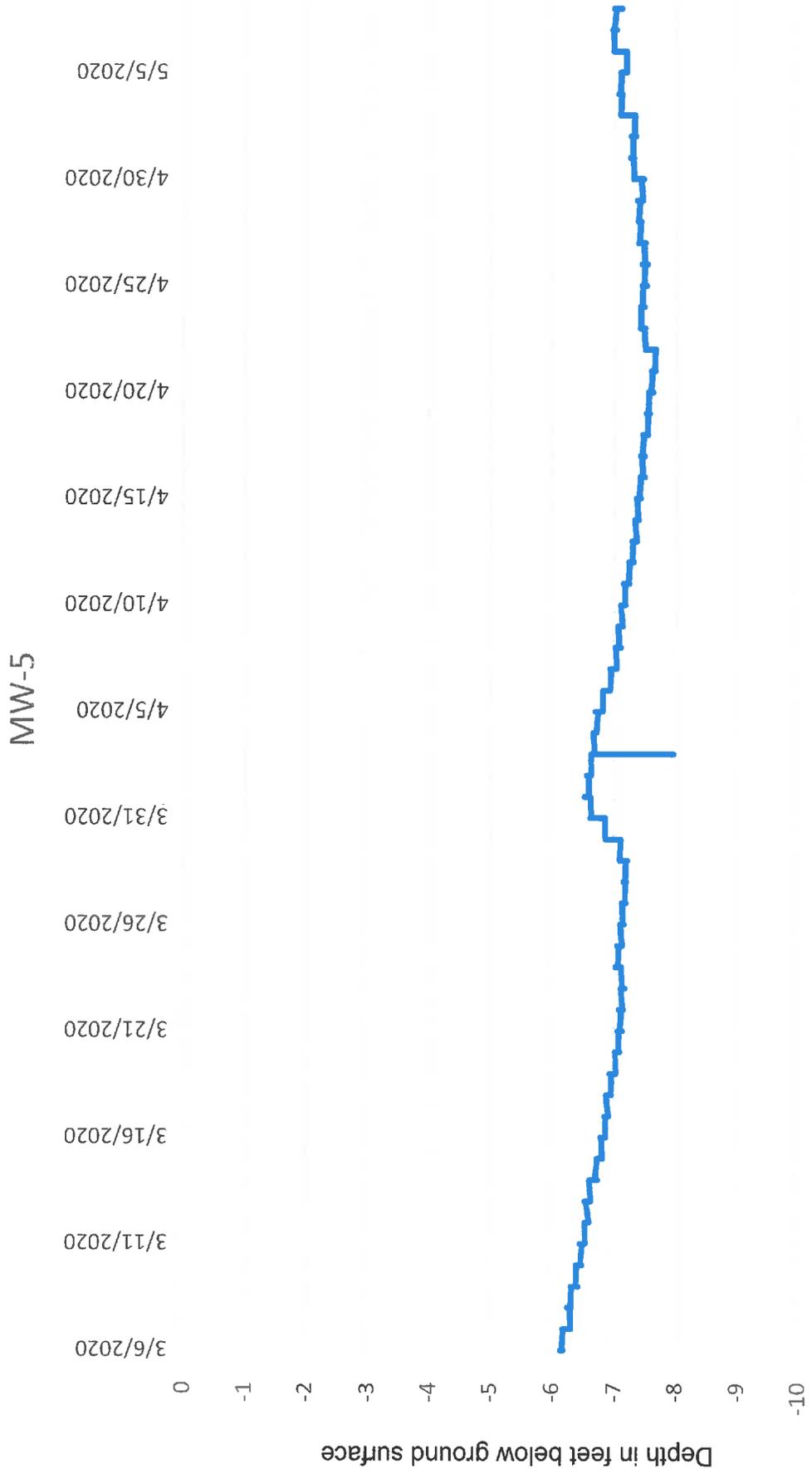


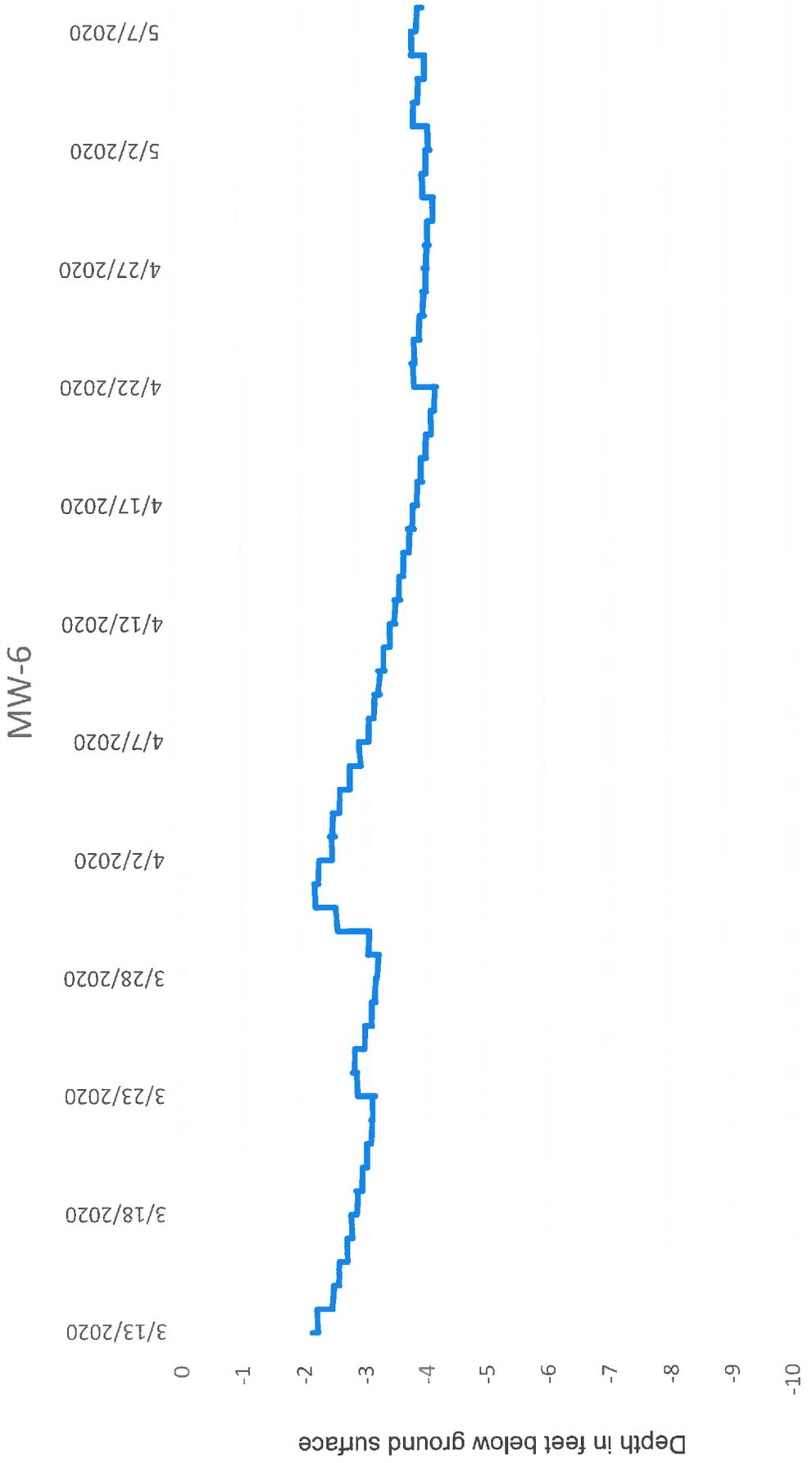


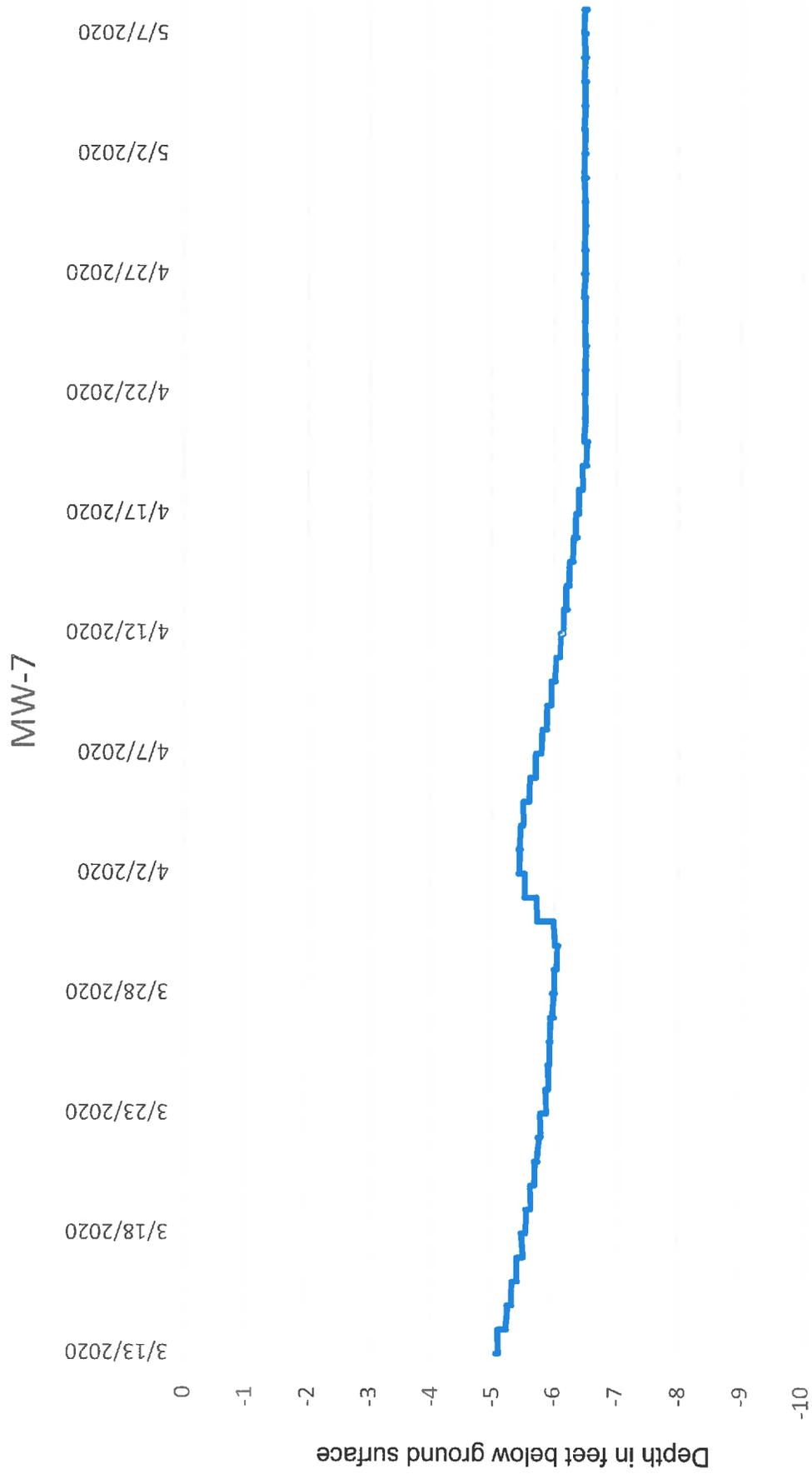


MW-4

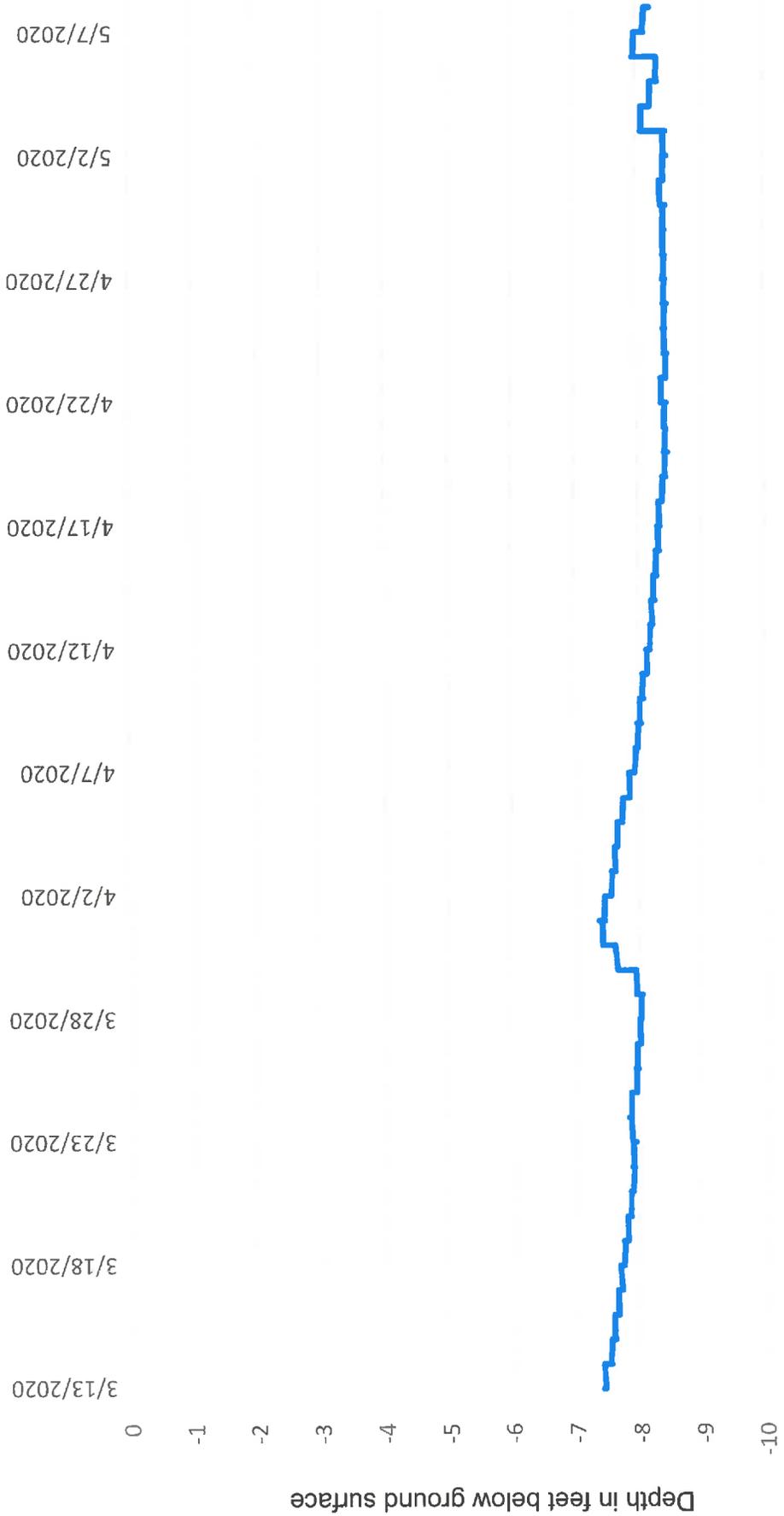








MW-8





REPORT LIMITATIONS AND GUIDELINES FOR ITS USE¹

Subsurface issues may cause construction delays, cost overruns, claims, and disputes. While you cannot eliminate all such risks, you can manage them. The following information is provided to help:

Geotechnical Services are Performed for Specific Purposes, Persons, and Projects

At GeoTest our geotechnical engineers and geologists structure their services to meet specific needs of our clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of an owner, a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client. No one except you should rely on your geotechnical engineer who prepared it. And no one – not even you – should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report is Based on a Unique Set of Project-Specific Factors

GeoTest's geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the clients goals, objectives, and risk management preferences; the general nature of the structure involved its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless GeoTest, who conducted the study specifically states otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.



Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed, for example, from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed construction,
- alterations in drainage designs; or
- composition of the design team; the passage of time; man-made alterations and construction whether on or adjacent to the site; or by natural alterations and events, such as floods, earthquakes or groundwater fluctuations; or project ownership.

Always inform GeoTest's geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

Subsurface Conditions Can Change

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. Do not rely on the findings and conclusions of this report, whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact GeoTest before applying the report to determine if it is still relevant. A minor amount of additional testing or analysis will help determine if the report remains applicable.

Most Geotechnical and Geologic Findings are Professional Opinions

Our site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoTest's engineers and geologists review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in your report. Retaining GeoTest who developed this report to provide construction observation is the most effective method of managing the risks associated with anticipated or unanticipated conditions.



A Report's Recommendations are Not Final

Do not over-rely on the construction recommendations included in this report. Those recommendations are not final, because geotechnical engineers or geologists develop them principally from judgment and opinion. GeoTest's geotechnical engineers or geologists can finalize their recommendations only by observing actual subsurface conditions revealed during construction. GeoTest cannot assume responsibility or liability for the report's recommendations if our firm does not perform the construction observation.

A Geotechnical Engineering or Geologic Report may be Subject to Misinterpretation

Misinterpretation of this report by other design team members can result in costly problems. Lower that risk by having GeoTest confer with appropriate members of the design team after submitting the report. Also, we suggest retaining GeoTest to review pertinent elements of the design teams plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having GeoTest participate in pre-bid and preconstruction conferences, and by providing construction observation.

Do not Redraw the Exploration Logs

Our geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors of omissions, the logs included in this report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable; but recognizes that separating logs from the report can elevate risk.

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In that letter, consider advising the contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with GeoTest and/or to conduct additional study to obtain the specific types of information they need or prefer. A pre-bid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.



In addition, it is recommended that a contingency for unanticipated conditions be included in your project budget and schedule.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering or geology is far less exact than other engineering disciplines. This lack of understanding can create unrealistic expectations that can lead to disappointments, claims, and disputes. To help reduce risk, GeoTest includes an explanatory limitations section in our reports. Read these provisions closely. Ask questions and we encourage our clients or their representative to contact our office if you are unclear as to how these provisions apply to your project.

Environmental Concerns Are Not Covered in this Geotechnical or Geologic Report

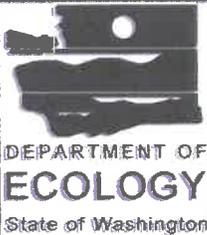
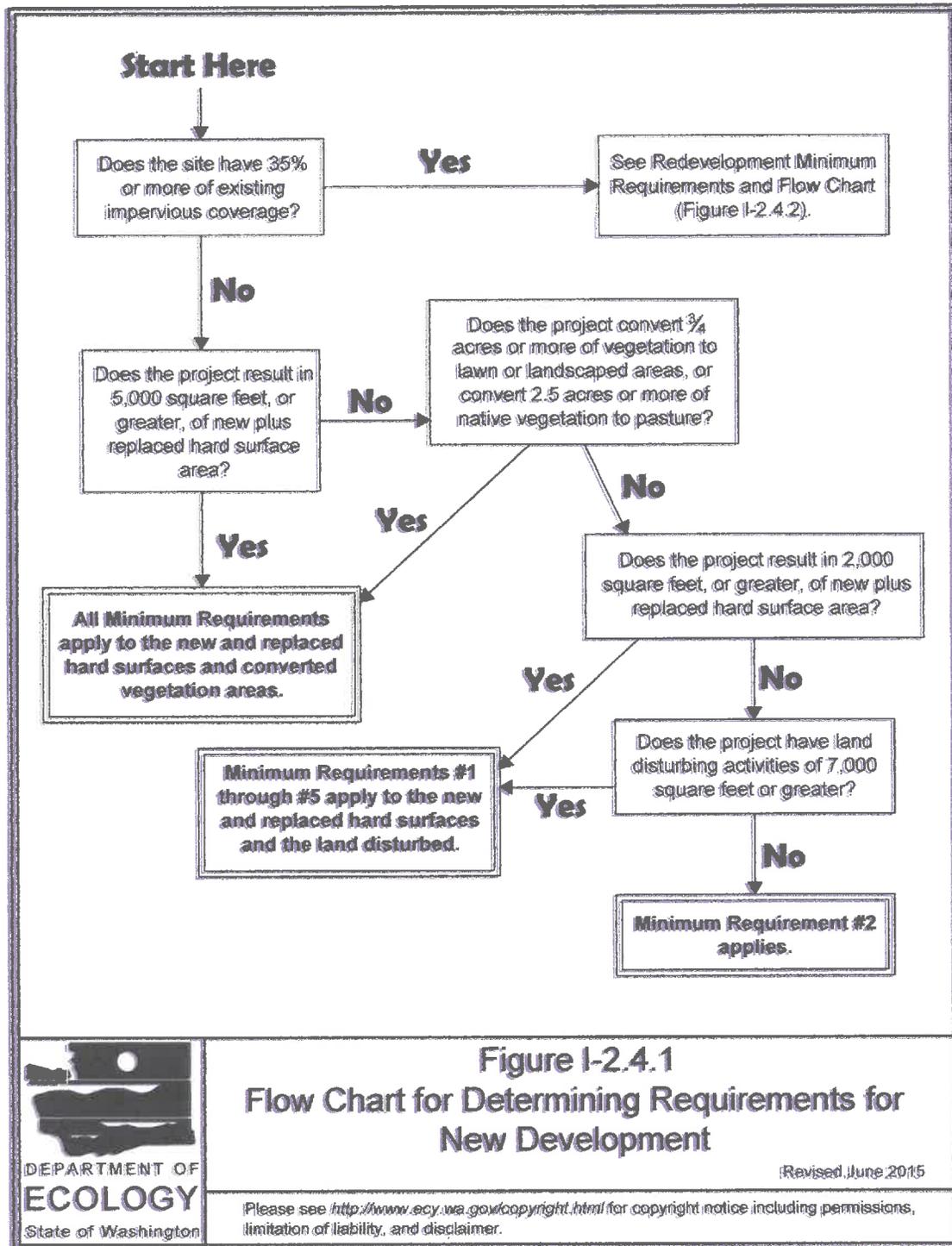
The equipment, techniques, and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated containments, etc. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. Do not rely on environmental report prepared for some one else.

Obtain Professional Assistance to Deal with Biological Pollutants

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts biological pollutants from growing on indoor surfaces. Biological pollutants includes but is not limited to molds, fungi, spores, bacteria and viruses. To be effective, all such strategies should be devised for the express purpose of prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional biological pollutant prevention consultant. Because just a small amount of water or moisture can lead to the development of severe biological infestations, a number of prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of this study, the geotechnical engineer or geologist in charge of this project is not a biological pollutant prevention consultant; none of the services performed in connection with this geotechnical engineering or geological study were designed or conducted for the purpose of preventing biological infestations.

2014 DOE FIGURE 1-2.4.1 – FLOW CHART
2014 DOE FIGURE V-5.3.2-SHEET FLOW DISPERSION
2014 DOE FIGURE III-3.1.5 TYPICAL DOWNSPOUT DISPERSION
TRENCH
2014 DOE FIGURE III-3.1.6 STANDARD DISPERSION TRENCH
WITH NOTCHED GRADE BOARD
2014 DOE FIGURE V-2.1.1 – TREATMENT FACILITY SELECTION
FLOW CHART

Figure I-2.4.1 Flow Chart for Determining Requirements for New Development



**Figure I-2.4.1
Flow Chart for Determining Requirements for
New Development**

Revised June 2015

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Figure V-5.3.2 Sheet Flow Dispersion for Driveways

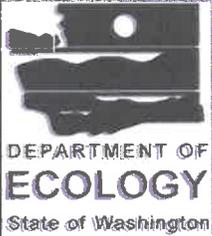
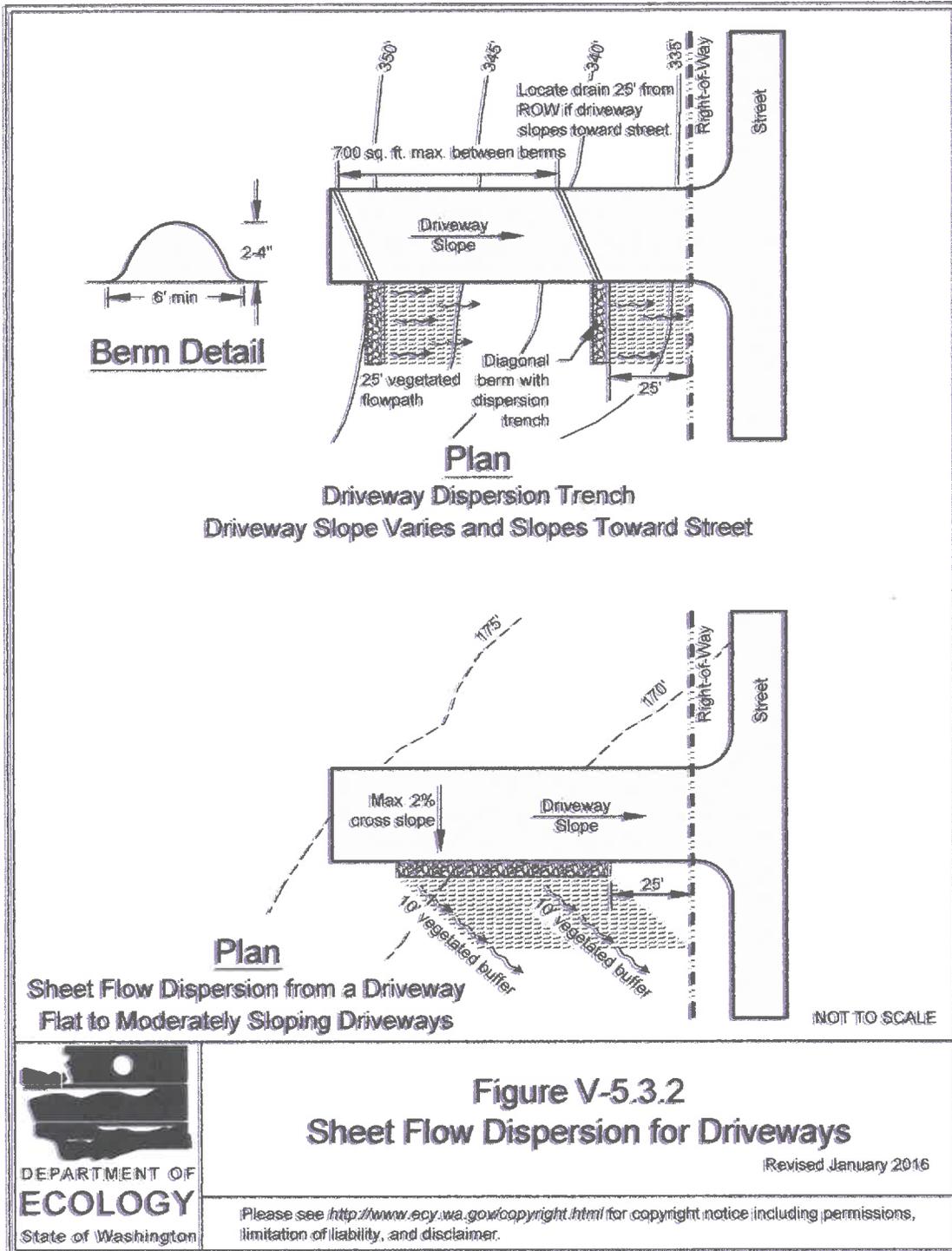
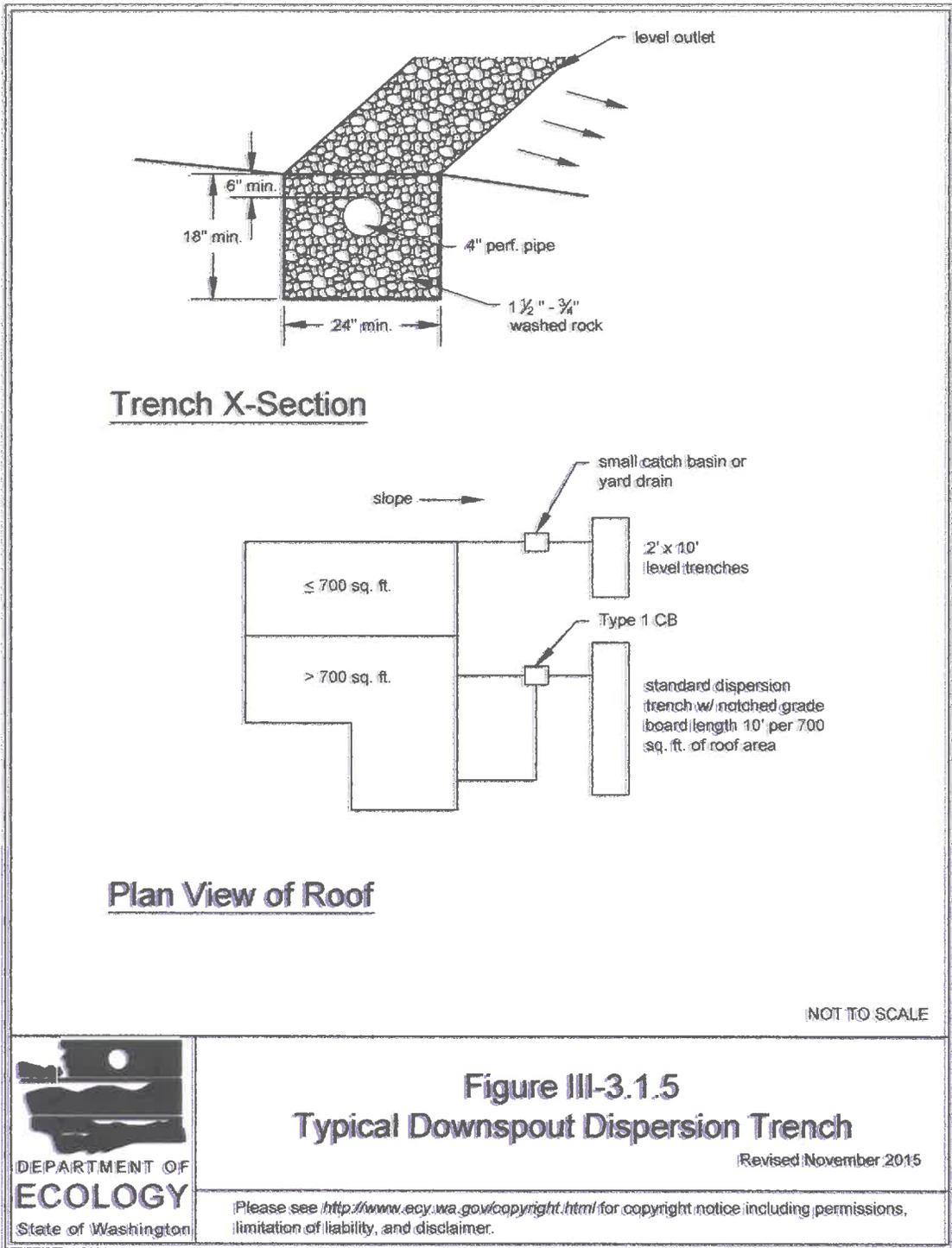


Figure V-5.3.2
Sheet Flow Dispersion for Driveways

Revised January 2016

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Figure III-3.1.5 Typical Downspout Dispersion Trench



DEPARTMENT OF
ECOLOGY
State of Washington

**Figure III-3.1.5
Typical Downspout Dispersion Trench**

Revised November 2015

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Figure III-3.1.6 Standard Dispersion Trench with Notched Grade Board

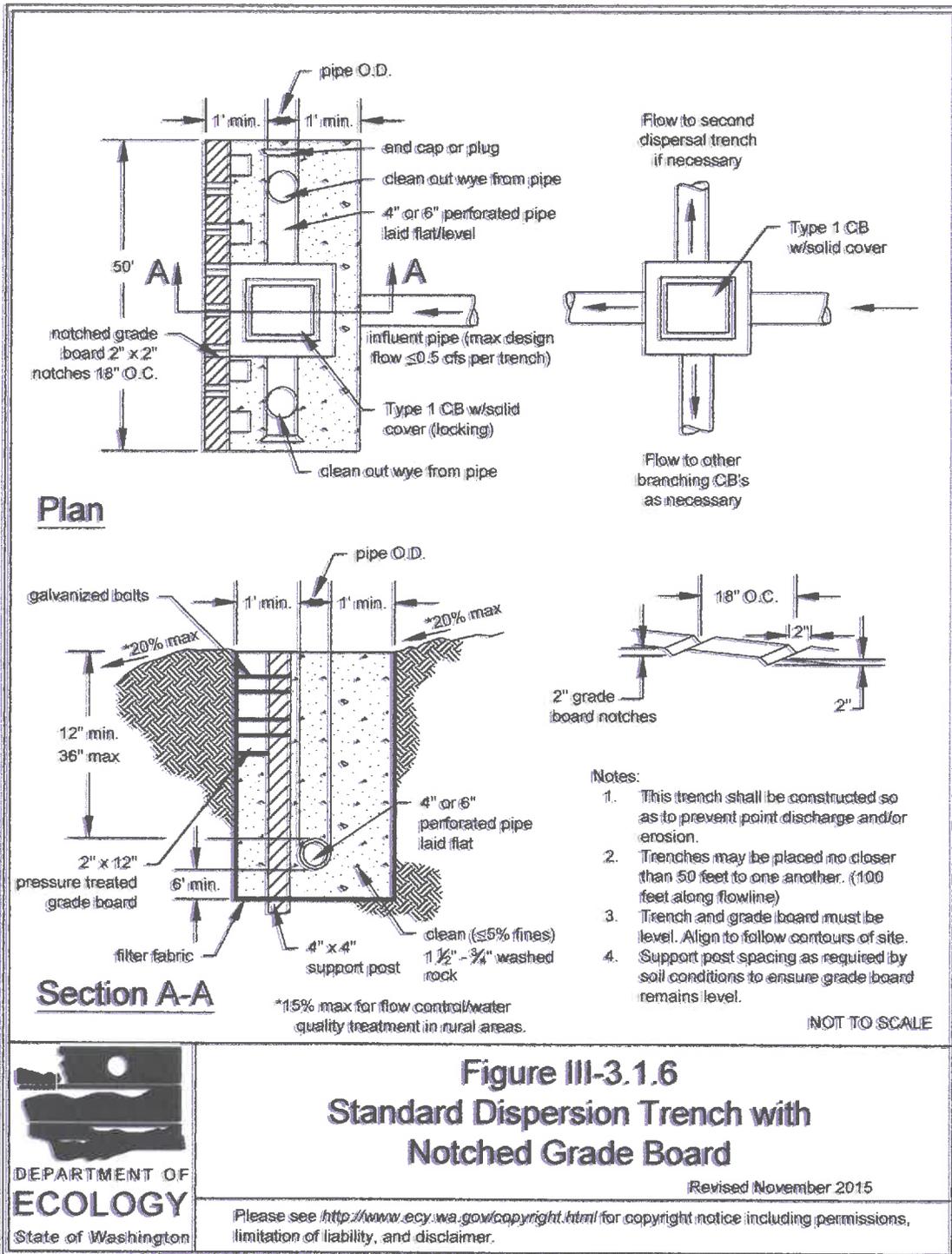
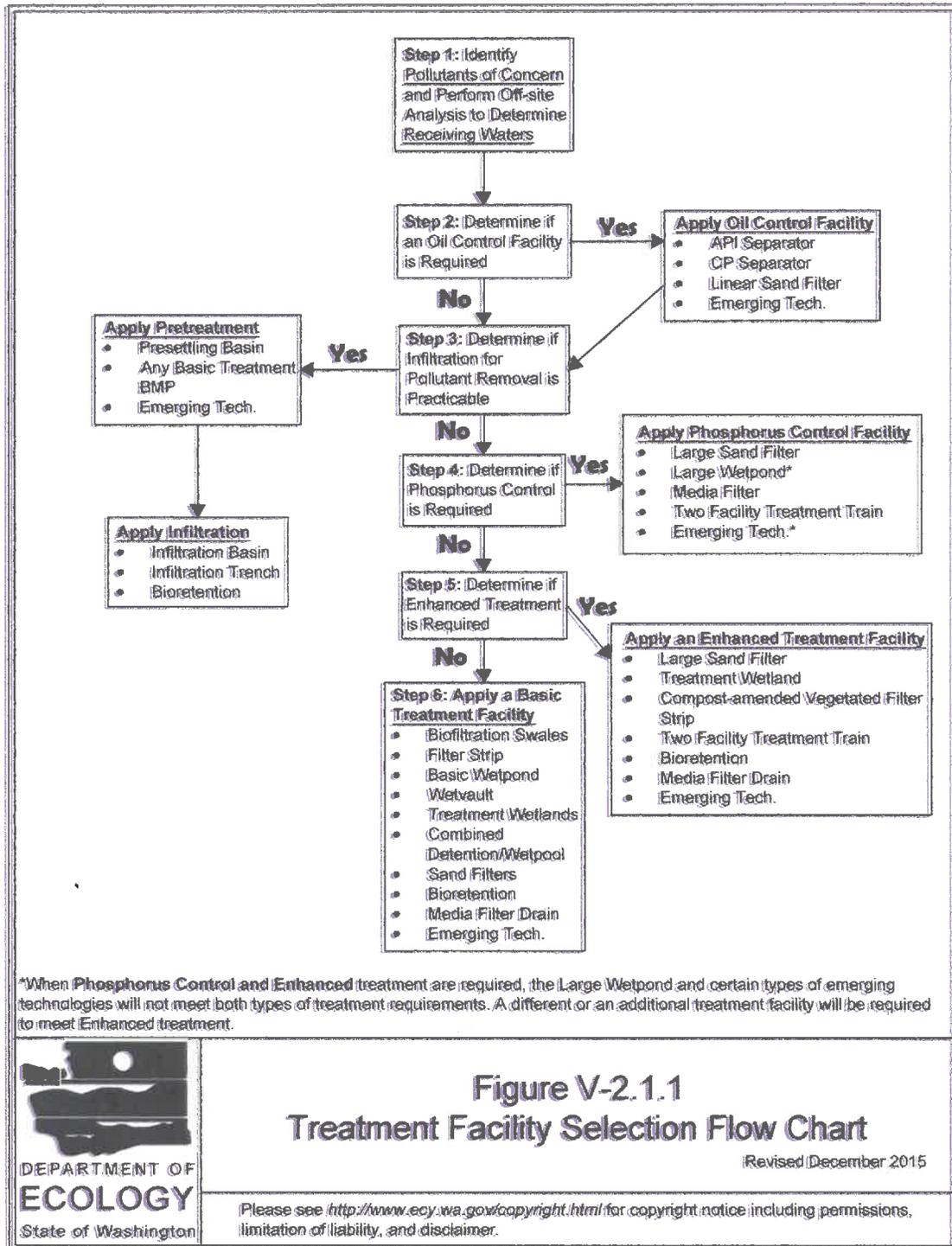


Figure V-2.1.1 Treatment Facility Selection Flow Chart



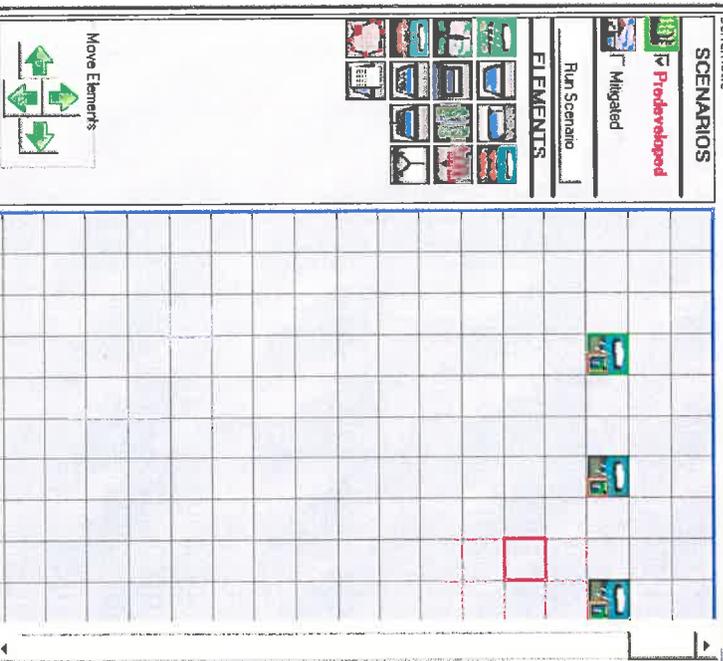
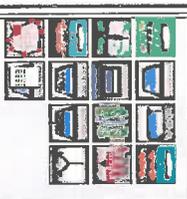
**WWHM VIEWS
WWHM REPORT**



SCENARIOS

Predeveloped
Migrated

Run Scenario



Move Elements
Save X,Y
Load X,Y

Basin 1 Predeveloped

Subbasin Name North Pre Developed

Flows To: Surface Interflow Groundwater

- Area in Basin
- C Forest, Fix 6.94
 - C Pasture, Fix 0
 - C Lawn, Fix 0
 - C IMP DISP MOD 0

- Available Impervious
- Show Only Selected
 - ROOF TOPS FLAT 0
 - DRIVEWAYS FLAT 0
 - SIDEWALKS FLAT 0

Pervious Total 6.94 Acres
 Basin Total 6.94 Acres
 Impervious Total 0 Acres

Desllect Zero Select Riv 60





SCENARIOS

Predeveloped

Mitigated

Run Scenario

ELEMENTS

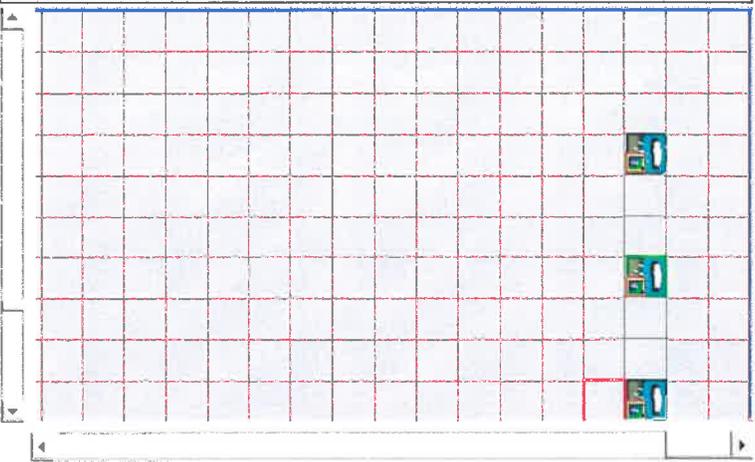


Move Elements



Save x,y/ Load x,y/

X 330 Y 9



Basin 2 Predeveloped

Subbasin Name South Pre Developed

Flows To : Surface

Infiltration

Groundwater

Area in Basin

Available Pervious

- Forest Flat 774
- Pasture Flat 0
- Lawn Flat 0
- CAMP DSP ADD 0

Available Impervious

- ROADS/FLAT 0
- ROOF TOPS/FLAT 0
- DRIVEWAYS/FLAT 0
- SIDEWALKS/FLAT 0

Show Only Selected

Pervious Total 774 Acres

Basin Total 774 Acres

Impervious Total 0 Acres

Acres

Desaltd Zero

Select Riv

60





SCENARIOS

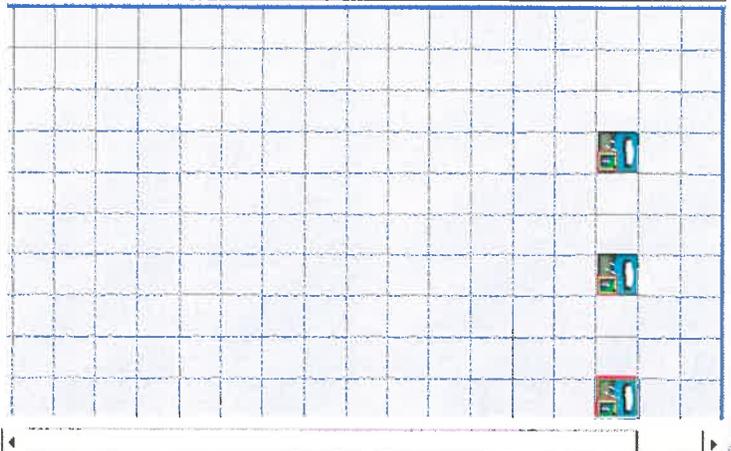
Run Scenario
Mitigated
Predeveloped

ELEMENTS



Save x,y Load x,y

X 330 Y 6



Basin 3 Predeveloped

Subbasin Name Distric South Pre Developed

Flows To: Surface Interflow Groundwater

Area in Basin

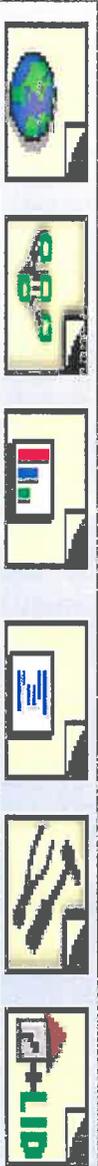
- Available Pervious
 - C Forest Flat 0.7
 - C Pasture Flat 0
 - C Lawn Flat 0
 - CAMP DISP MOD 0
- Available Impervious
 - Show Only Selected
 - ROADS/FLAT 0
 - RODE TOPS/FLAT 0
 - DRIVEWAYS/FLAT 0
 - SIDEWALKS/FLAT 0

Pervious Total 0.7 Acres Imperious Total 0 Acres

Basin Total 0.7 Acres

Desselet Zeirc Salient Riv 60

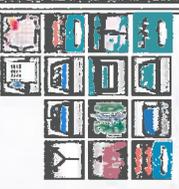




SCENARIOS

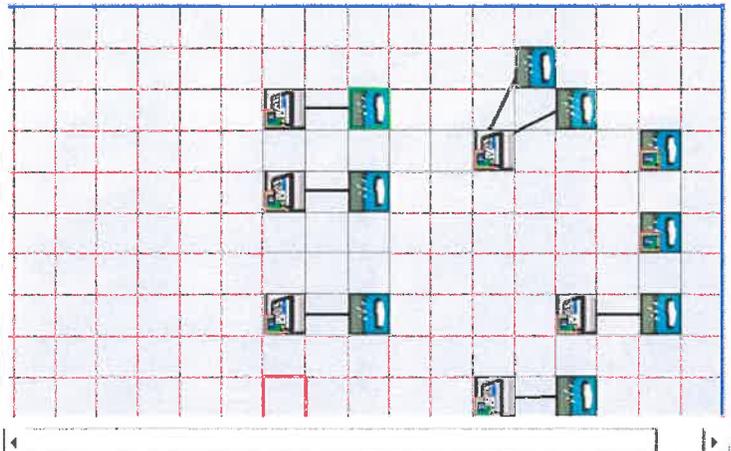
Run Scenario
 Developed
 Impervious

ELEMENTS



Save x,y Load x,y

X 930 Y 90



North ROW: Mkt/Highroad

Subbasin Name: North ROW

Surface: Designate as Bypass for POC

Flows To: Glavel Trench Bed/ North ROW

Area in Basin

Available Pervious

P Pavement Mod 0.73

Lawn Field 0.185

Infiltration: Designate as Bypass for POC

Groundwater

Show Only Selected

Available Impervious

ROADS/FLAT 1.18

ROOF TOPS/FLAT 0

DRIVEWAYS/FLAT 0

SIDEWALKS/FLAT 0.185

Pervious Total 0.915 Acres

Basin Total 2.28 Acres

Impervious Total 1.365 Acres

Deselct Zero

Select Riv

90





SCENARIOS

Predeveloped
 Mitigated

Run Scenario

ELEMENTS

Save x,y: X 300 Y 80 Load x,y

Move Elements

Gravel Trench Bed-North ROW Mitigated

Facility Name: Gravel Trench Bed-North ROW

Downstream Connection: Outlet 1, Outlet 2, Outlet 3

Facility Type: Gravel Trench/Bed, Quick Trench

Evaporation Applied to Facility:

Precipitation Applied to Facility:

Facility Bottom Elevation (ft): 0

Facility Dimensions: Trench Length: 1611, Trench Bottom Width: 10, Effective Total Depth: 2.25, Bottom slope of Trench: 0.01, Left Side Slope: 0, Right Side Slope: 0

Outlet Structure: Riser Height (ft): 1.25, Riser Diameter(ft): 4, Riser Type: Flat, Noch Type:

Material Layers for:

Layer 1 Thickness (ft)	2.25
Layer 1 porosity	0.31
Layer 2 Thickness (ft)	0
Layer 2 porosity	0
Layer 3 Thickness (ft)	0
Layer 3 porosity	0

Infiltration: Measured Infiltration Rate (in/hr): YES, Infiltration Reduction Factor: 1, Use Wetted Surface Area (sidewalks): YES

Total Volume Infiltrated(ac-ft): 185.614
Total Volume Through Riser(ac-ft): 0.002

Trench Volume at Riser Head (ac-ft): 1.46
Pond Increment: 0.10
Show Pond Table: Open Table

Total Volume Through Facility(ac-ft): 185.616
Percent Infiltrated: 100



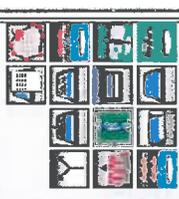


SCENARIOS

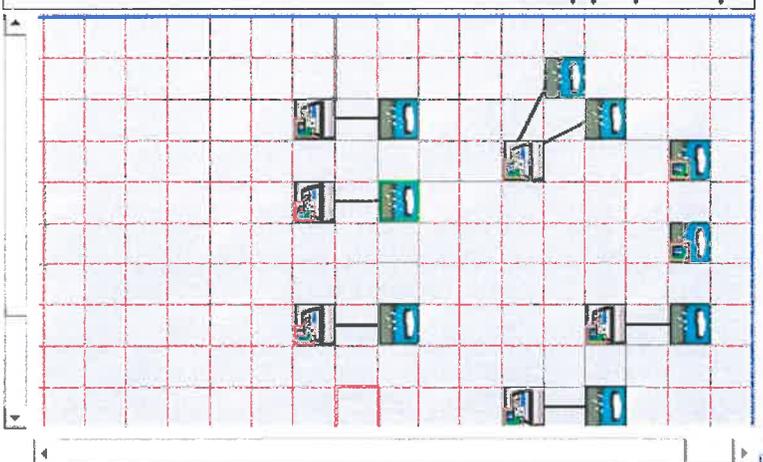
Prodeveloped
Mfrigated

Run Scenario

ELEMENTS



Save X,Y
Load X,Y



Basin 9 Mfrigated

Subbasin Name South ROW Sub Basin

Designate as Bypass for POC

Flows To: Gravel Trench Bed South ROW

Inflow Gravel Trench Bed South ROW

Groundwater

Area in Basin

Available Pervious

<input checked="" type="checkbox"/> Pavltue, Flat	7
<input checked="" type="checkbox"/> LARRY, Flat	2
<input checked="" type="checkbox"/> CAMP DISP ADD	0

Available Impervious

<input checked="" type="checkbox"/> ROADS/FLAT	1.33
<input checked="" type="checkbox"/> ROOF TOPS/FLAT	0
<input checked="" type="checkbox"/> DRIVEWAYS/FLAT	0
<input checked="" type="checkbox"/> SIDEWALKS/FLAT	2

Pervious Total 0.9 Acres

Impervious Total 1.33 Acres

Basin Total 2.23 Acres

Desaltd Zero

Salerni Rvr

GO





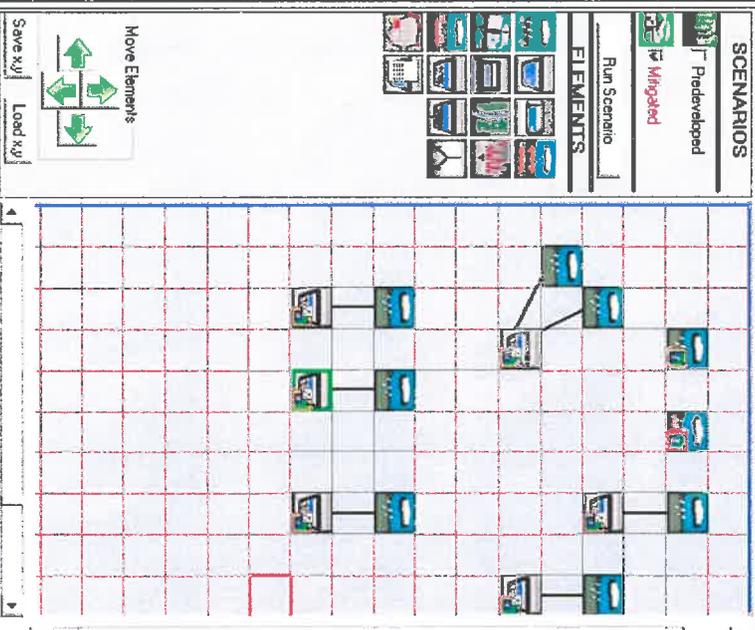
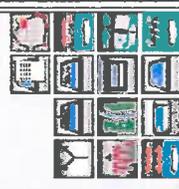
SCENARIOS

Predeveloped

Mitigated

Run Scenario

ELEMENTS



Save x,y/ Load x,y/ X: 830 Y: 83

B3 Gravel Trench Bed 6 Mitigated

Facility Name

Gravel Trench Bed-South ROW

Downstream Connection

Outlet 1 0 Outlet 2 0 Outlet 3 0

Facility Type

Gravel Trench/Bed Quick Trench

Evaporation Applied to Facility

0

Facility Bottom Elevation (ft)

0

Facility Dimensions

Trench Length	1724
Trench Bottom Width	12
Effective Total Depth	3
Bottom slope of Trench	0.005
Left Side Slope	0
Right Side Slope	0

Outlet Structure

Riser Height (ft)	2
Riser Diameter (ft)	4
Riser Type	Feet
Notch Type	

Material Layers for

Layer 1 Thickness (ft)	3
Layer 1 porosity	0.31
Layer 2 Thickness (ft)	0
Layer 2 porosity	0
Layer 3 Thickness (ft)	0
Layer 3 porosity	0

Orifice Diameter Height QMax

Number	(in)	(ft)	(cfs)
1	0	0	0
2	0	0	0
3	0	0	0

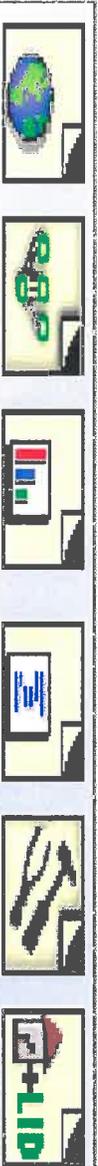
Trench Volume at Riser Head (acre-ft) 294

Pond Increment 0.10

Show Pond Table [Open Table]

Infiltration YES Measured Infiltration Rate (in/hr) 1 Infiltration Reduction Factor 1 Use Wetted Surface Area (sidewalks) YES Total Volume Infiltrated(acre-ft) 231.982 Total Volume Through Facility(acre-ft) 231.982 Total Volume Through Riser(acre-ft) 0 Percent Infiltrated 100



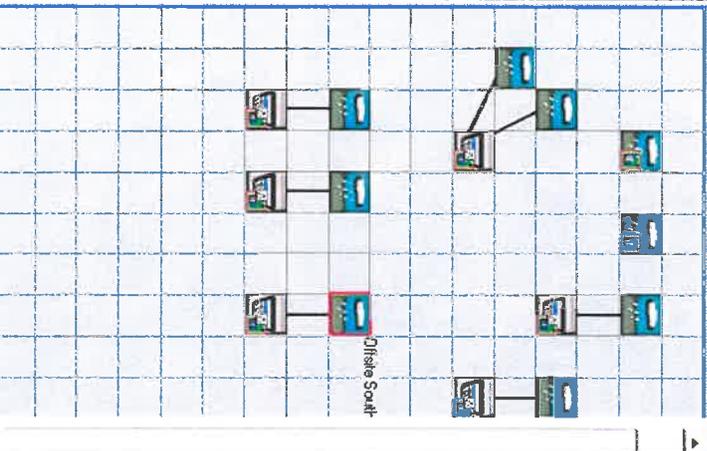
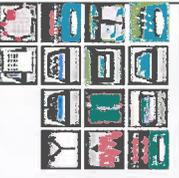


SCENARIOS

Predeveloped
Mitigated

Run Scenario

ELEMENTS



Move Elements

Save x,y: X: 320 Y: 24

Load x,y

South ROW Mitigated

Subbasin Name: Outside South ROW

Flows To: Gravel Trench Bed South ROW

Surface: Gravel Trench Bed South ROW

Area in Basin

Available Pervious	C Forest Flat	0
	C Pavement Flat	0.1
	C Lawn Flat	0
	EMPA DISP ADD	0

Inflow: Designate as Bypass for POC

Gravel Trench Bed South ROW

Show Only Selected

Available Impervious	ROADS/FLAT	0
	ROOF TOPS/FLAT	0
	DRIVEWAYS/FLAT	0
	SIDEWALKS/FLAT	0

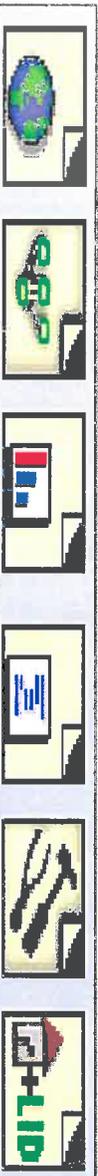
Pervious Total: 0.1 Acres

Basin Total: 0.52 Acres

Impervious Total: 0.42 Acres

Desired Zero Select Riv 90





SCENARIOS

Predeveloped **Mitigated**

Run Scenario

ELEMENTS

Move Elements

Save x,y | Load x,y

X: 330.00 | Y: 30.00

Gravel Trench Bed-South ROW Mitigated

Facility Name: Gravel Trench Bed-South ROW

Downstream Connection: Outlet 1 | Outlet 2 | Outlet 3

Facility Type: Gravel Trench/Bed | Quick Trench

Facility Bottom Elevation (ft): 0

Facility Dimensions:

Trench Length	589
Trench Bottom Width	10
Effective Trench Depth	1.5
Bottom slope of Trench	0.005
Left Side Slope	0
Right Side Slope	0

Outlet Structure:

Riser Height (ft)	0.5
Riser Diameter (in)	4
Riser Type	Flat
Notch Type	

Material Layers for:

Layer 1 Thickness (ft)	1.5
Layer 1 porosity	0.31
Layer 2 Thickness (ft)	0
Layer 2 porosity	0
Layer 3 Thickness (ft)	0
Layer 3 porosity	0

Infiltration: YES

Measured Infiltration Rate (in/hr): 1

Infiltration Reduction Factor: 1

Use Wetted Surface Area (sidewalls): YES

Total Volume Infiltrated (acre-ft): 231.982

Total Volume Through Riser (acre-ft): 0

Trench Volume at Riser Head (acre-ft): .021

Pond Increment: 0.10

Show Pond Table: Open Table

Total Volume Through Facility (acre-ft): 231.982

Percent Infiltrated: 100





SCENARIOS

Predeveloped
Mitigated

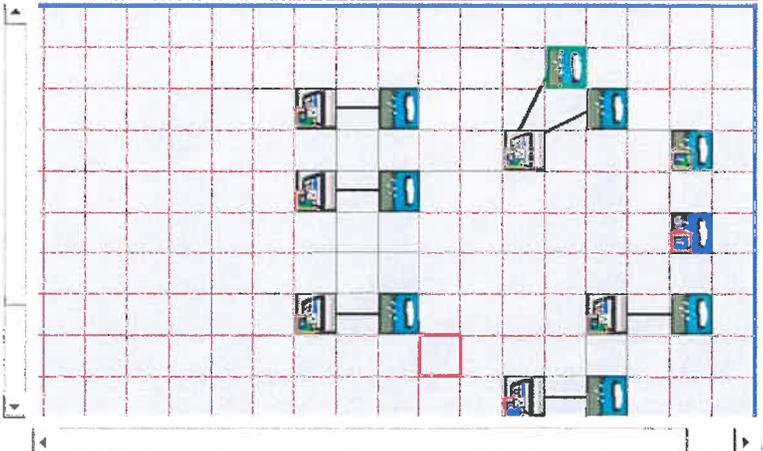
Run Scenario

ELEMENTS



Save X,Y Load X,Y

X 325 Y 21



N-1 North Lot Basin Mitigated

Subbasin Name [N-1 North Lot Basin]

Flows To: Surface [North Gravel Trench Bed] Infiltration [North Gravel Trench Bed] Groundwater

Area in Basin

Available Pervious

- Pavme, Flat 87
- Lawn, Flat 09
- CAMP DISP AMOD 10

Available Impervious

- ROADS/FLAT 1.18
- ROOF TOPS/FLAT 03
- DRIVEWAYS/FLAT 0
- SIDEWALKS/FLAT 0

Show Dims Selected

Pervious Total 0.96 Acres

Basin Total 2.23 Acres

Impervious Total 1.27 Acres

Desired Zero

Salient Rv

60

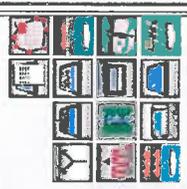




SCENARIOS

Predeveloped
 Mitigated

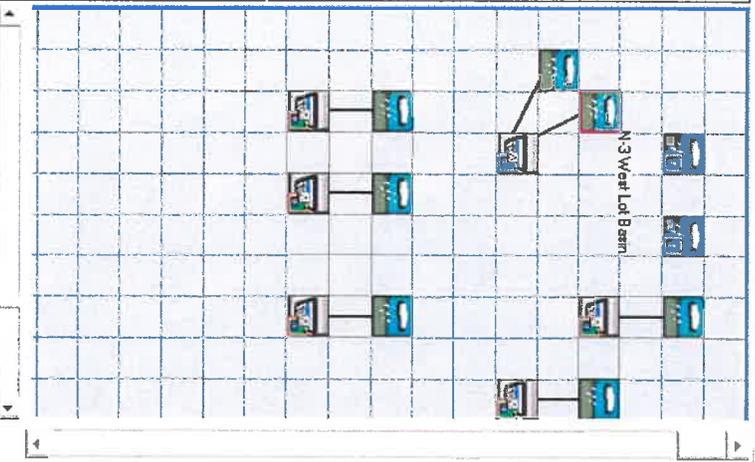
Run Scenario



Move Elements

Save x/y Load x/y

X 285
 Y 9



N-1 North Lot Basin

Subbasin Name

Flows To :

- Avail
- C_Park
- C_Lawn
- C_MP

N-3 West Lot Basin Mitigated

Subbasin Name

Flows To :

- Avail
- C_Park
- C_Lawn
- C_MP

Surface
 North Gravel Trench Bed

Interflow
 North Gravel Trench Bed

Groundwater
 Depictive as Bypass for POC

Area in Basin
 Available Pervious
 C_Park Mod 0.33
 C_Lawn Filt 1.03

Available ImperVIOUS
 Show Only Selected

ROADS/FLAT	0
ROOF TOPS/FLAT	37
DRIVEWAYS/FLAT	103
SIDEWALKS/FLAT	0

Pervious Total 0.35 Acres

Basin Total 0.75 Acres

ImperVIOUS Total 0.4 Acres

Desired Zc

Desired Zero

Select Rv

60



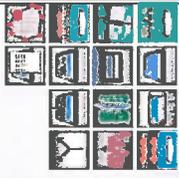


SCENARIOS

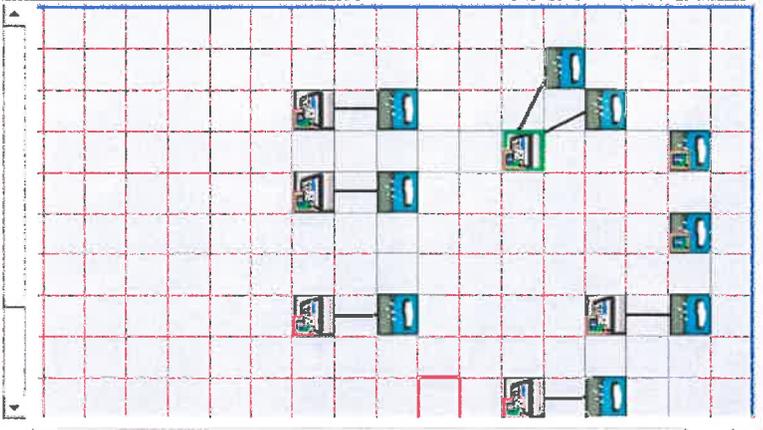
Predeveloped
 Miigaged

Run Scenario

ELEMENTS



Save x,y
 Load x,y



North Gravel Trench Bed Miigaged

Facility Name

Downstream Connection

Facility Type

Facility Bottom Elevation (ft)

Facility Dimensions

Trench Length

Trench Bottom Width

Effective Trench Depth

Bottom slope of Trench

Left Side Slope

Right Side Slope

Material Layers for

Infiltration

Measured Infiltration Rate (in/hr)

Infiltration Reduction Factor

Use Vented Surface Area (sidewalks)

Total Volume Infiltrated(ac-ft)

Total Volume Through Risers(ac-ft)

North Gravel Trench Bed

Outlet 1

Outlet 2

Outlet 3

Gravel Trench/Bed

Quick Trench

Outlet Structure

Riser Height (ft)

Riser Diameter(ft)

Riser Type

Notch Type

Orifice Diameter Height (ft)

Orifice Diameter (in)

Orifice Height (ft)

Orifice Max (cfs)

Trench Volume at Riser Head (acre-ft)

Pond Increment

Show Pond Table

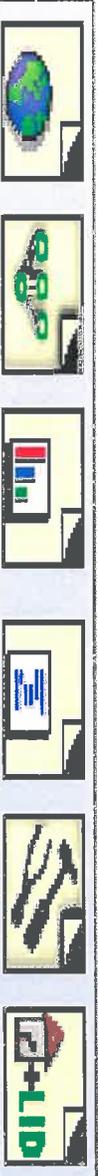
Open Table

Total Volume Through Facility(ac-ft)

Percent Infiltrated

Facility Name	North Gravel Trench Bed
Downstream Connection	Outlet 1
Facility Type	Gravel Trench/Bed
Facility Bottom Elevation (ft)	0
Facility Dimensions	1234
Trench Length	3
Trench Bottom Width	2.87
Effective Trench Depth	0.016
Bottom slope of Trench	0
Left Side Slope	0
Right Side Slope	0
Material Layers for	Layer 1 Thickness (ft) 2.67
	Layer 1 porosity 0.31
	Layer 2 Thickness (ft) 0
	Layer 2 porosity 0
	Layer 3 Thickness (ft) 0
	Layer 3 porosity 0
Infiltration	YES
Measured Infiltration Rate (in/hr)	1
Infiltration Reduction Factor	1
Use Vented Surface Area (sidewalks)	YES
Total Volume Infiltrated(ac-ft)	226,731
Total Volume Through Risers(ac-ft)	3,787
Outlet Structure	11.67
Riser Height (ft)	14
Riser Diameter(ft)	Flat
Riser Type	Notch Type
Orifice Diameter Height (ft)	0
Orifice Diameter (in)	0
Orifice Height (ft)	0
Orifice Max (cfs)	0
Trench Volume at Riser Head (acre-ft)	.045
Pond Increment	0.10
Show Pond Table	Open Table
Total Volume Through Facility(ac-ft)	230,518
Percent Infiltrated	98.36





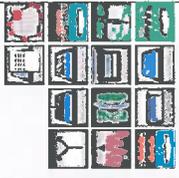
SCENARIOS

Predeveloped

Mitigated

Run Scenario

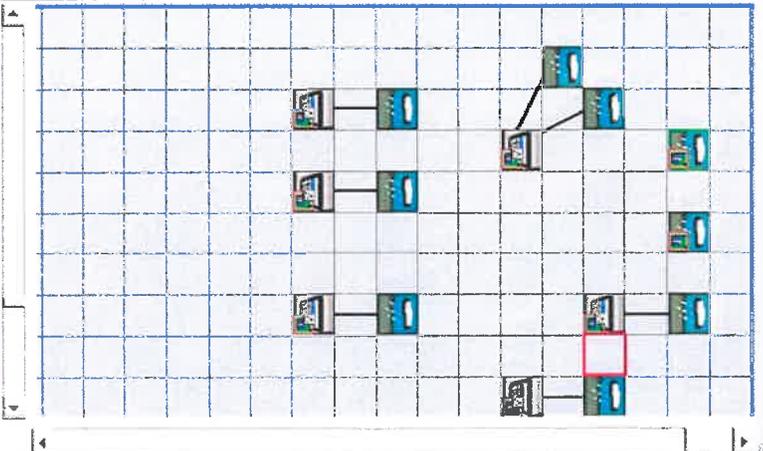
ELEMENTS



Move Elements

Save x,y

Load x,y



N-2 North Mid Basin Mitigated

Subbasin Name: N-2 North Mid Basin

Designate as Bypass for PDL

Flows To :

Surface

Inflow

Groundwater

Area in Basin

Available Pervious

<input checked="" type="checkbox"/> Pavement, Flat	161
<input checked="" type="checkbox"/> C. Lawn, 50k	075
<input checked="" type="checkbox"/> C/MP DISP AMOD	33

Available Impervious

<input checked="" type="checkbox"/> ROADS/FLAT	0
<input checked="" type="checkbox"/> ROOF TOPS/FLAT	0
<input checked="" type="checkbox"/> DRIVEWAYS/FLAT	075
<input checked="" type="checkbox"/> SIDEWALKS/FLAT	0

Show Only Selected

Pervious Total

1615 Acres

Impervious Total

0075 Acres

Basin Total

1689 Acres

Descent Zero

Salera Rv

60





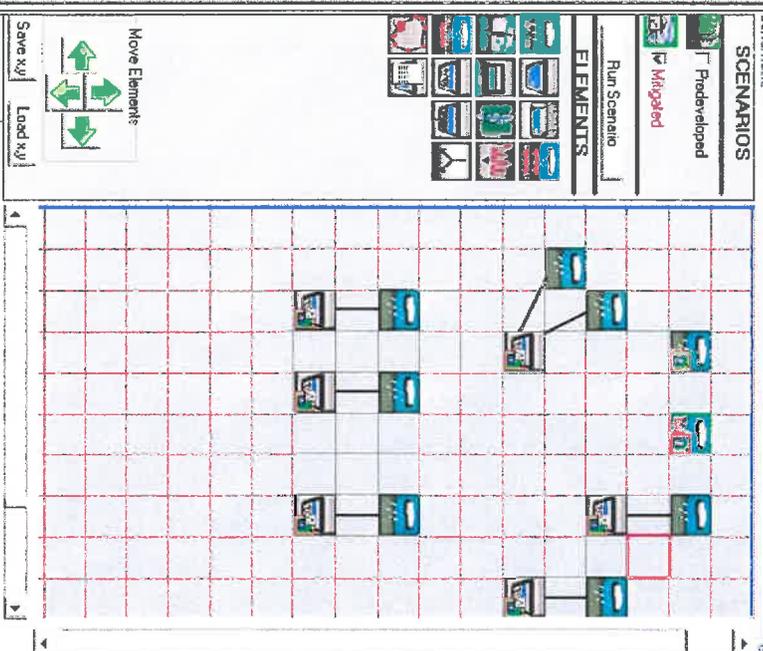
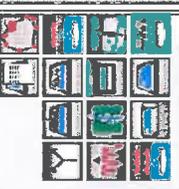
SCENARIOS

Prodrelapad

Mitigated

Run Scenario

ELEMENTS



Move Elements



Save x/y

Load x/y

S-1 South Mid Lot Basin Mitigated

Subbasin Name [S-1 South Mid Lot Basin]

Flows To:

Surface

Interflow

Groundwater

Area in Basin

Available Pervious

Available Impervious

Perioust old

Basin Total

Impervious Total

Descent Zero

Salart Rv

60

1.536 Acres

2.01 Acres

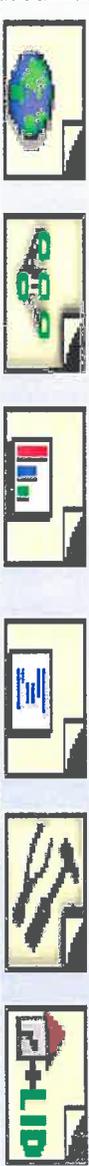
0.075 Acres

Descent Zero

Salart Rv

60





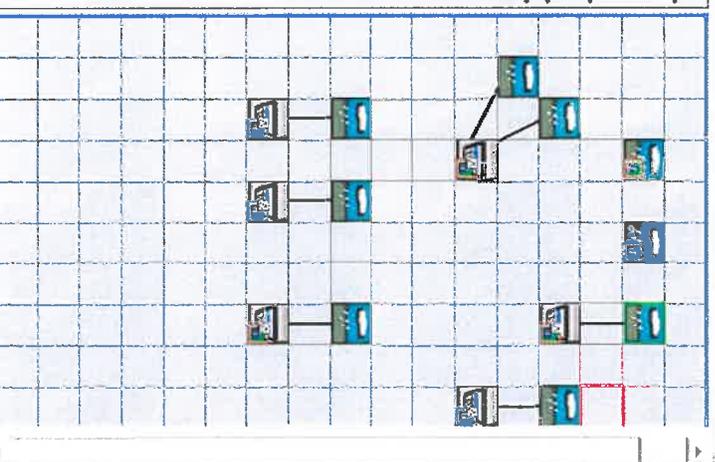
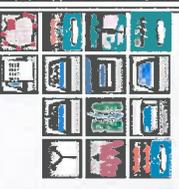
SCENARIOS

Predeveloped

Mitigated

Run Scenario

ELEMENTS



Move Elements

Save x,y

Load x,y

X: 330

Y: 6

S-1 South Mid

Subbasin

Flows To :

- Avail
- C. F. 36
- C. L. 36
- C. M. 36

S-2 SW Lot Basin Mitigated

Subbasin Name: S-2 SW Lot Basin

Flows To :

- Area in Basin
- C. P. 36
- C. L. 36
- C. M. 36

Destination as Byproduct for PDC

Groundwater

Available Impervious

- RODE TOPS/FLAT
- DREVENAS/FLAT
- SIDEWALKS/FLAT

Previous Total

0.3

Acres

Impervious Total

0.4

Acres

Basin Total

0.7

Acres

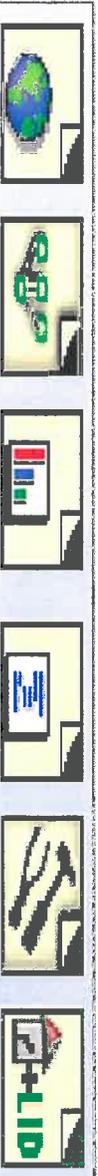
Deselected Z

Deselected Zero

Select Rv

GO





SCENARIOS

Predeveloped
 Mitigated

Run Scenario

ELEMENTS

Move Elements

Save x,y | Load x,y

X: 830 | Y: 62

Subbasin 1

Flows To:

Available Elements: [Icons for various facility types]

S-1 South Mid
 S-1 South Gravel Trench Bed 2 Mitigated

Facility Name
 Southwest Gravel Trench Bed 2

Outlet 1 [0] **Outlet 2** [0] **Outlet 3** [0]

Downstream Connection
 Facility Type: Gravel Trench/Bed
 Precipitation Applied to Facility:
 Evaporation Applied to Facility:

Facility Bottom Elevation (ft)
 [0]

Facility Dimensions

Trench Length	448
Trench Bottom Width	325
Effective Total Depth	4
Bottom slope of Trench	0.01
Left Side Slope	0
Right Side Slope	0

Outlet Structure

Riser Height (ft)	3
Riser Diameter (in)	6
Riser Type	Flat
Notch Type	

Material Layers for

Layer 1 Thickness (ft)	4
Layer 1 porosity	0.36
Layer 2 Thickness (ft)	0
Layer 2 porosity	0
Layer 3 Thickness (ft)	0
Layer 3 porosity	0

Infiltration

Measured Infiltration Rate (in/hr) [1] **YES**

Infiltration Reduction Factor [1] **YES**

Use Wetted Surface Area (sidewalks) [YES]

Total Volume Infiltrated (acre-ft) [54.764] **YES**

Total Volume Through Riser (acre-ft) [0.046]

Trench Volume at Riser Head (acre-ft) [0.036]

Pond Increment [0.10]

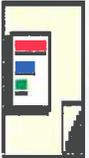
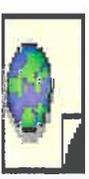
Show Pond Table [Open Table]

Orifice Number (in)	Diameter (ft)	QMax (cfs)
1	0	0
2	0	0
3	0	0

Total Volume Through Facility (acre-ft) [54.809]

Percent Infiltrated [99.92]



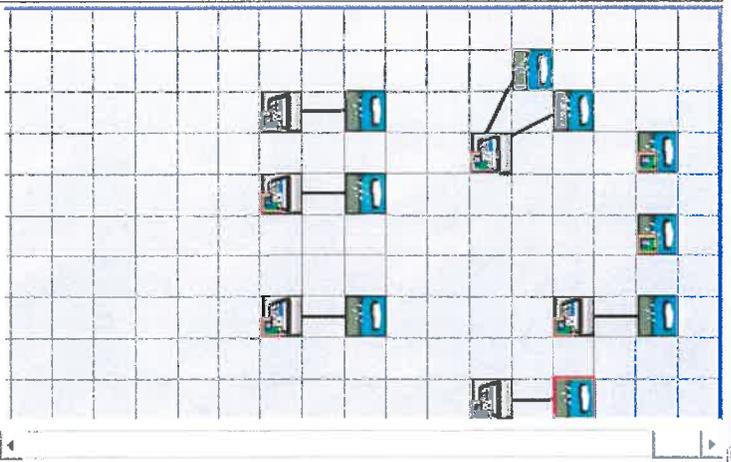
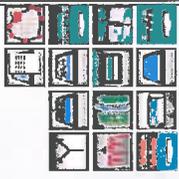


SCENARIOS

Prodeveloped

Mitigated

Run Scenario



Move Elements



Save x,y

Load x,y

S-3 SE Lot Basin Mitigated

Subbasin Name: S-3 SE Lot Basin

Flows To: SE Gravel Trench Bed 1

Area in Basin

- Permeable Pav: 1.29
- Lawn, Park: 1.05
- CAMP DISP /M/D: 1.15

Available Impervious

- ROOF TOPS/FLAT: 1.15
- DRIVEWAYS/FLAT: 1.05
- SIDEWALKS/FLAT: 0

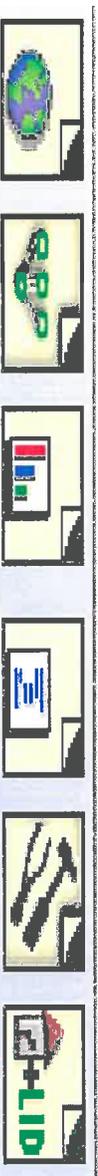
Permeable Total 1.545 Acres

Basin Total 2.8 Acres

Impervious Total 1.255 Acres

Desired Zero Salient Rvr 60





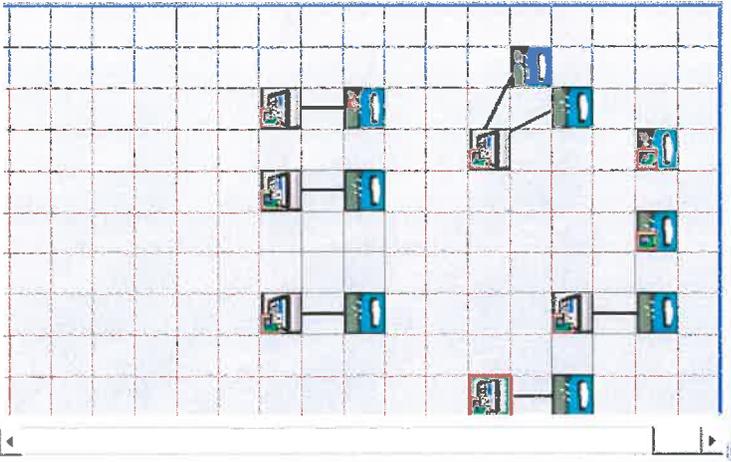
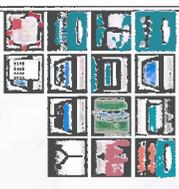
SCENARIOS

Predeveloped

Mitigated

Run Scenario

ELEMENTS



Move Elements
 Save x,y | Load x,y
 X: 130 | Y: 115

SE Gravel Trench Bed 1 Mitigated

Facility Name

Downstream Connection

Facility Type

Precipitation Applied to Facility

Evaporation Applied to Facility

Facility Bottom Elevation (ft)

Facility Dimensions

Trench Length

Trench Bottom Width

Effective Total Depth

Bottom slope of Trench

Left Side Slope

Right Side Slope

Material Layers for

Layer 1 Thickness (ft)

Layer 1 Porosity

Layer 2 Thickness (ft)

Layer 2 Porosity

Layer 3 Thickness (ft)

Layer 3 Porosity

Infiltration

Measured Infiltration Rate (in/hr)

Infiltration Reduction Factor

Use Wetted Surface Area (sidewalks)

Total Volume Infiltrated(ace-ft)

Total Volume Through Riser(ace-ft)

SE Gravel Trench Bed 1

Outlet 1

Outlet 2

Outlet 3

Gravel Trench/Bed

Quick Trench

Outlet Structure

Riser Height (ft)

Riser Diameter(in)

Riser Type

Notch Type

Orifice Diameter Height QMax
 Number (in) (ft) (cfs)

1 4 10 0.59428

2 10 10 0

3 10 10 0

Trench Volume at Riser Head (ace-ft) 0.031

Pond Increment 0.10

Show Pond Table [Open Table]

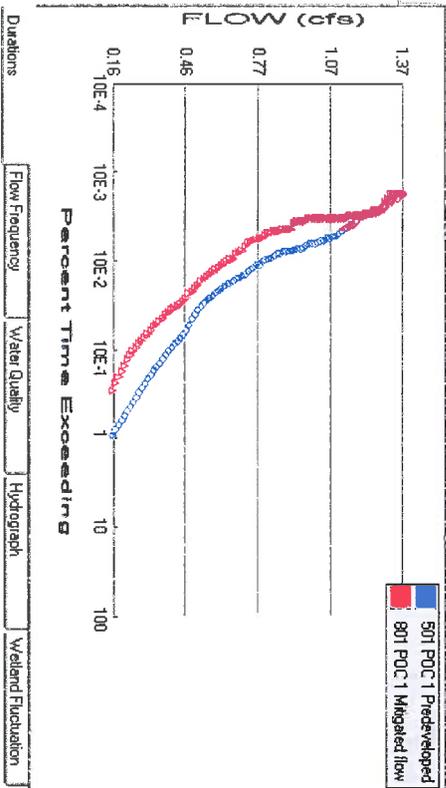
Total Volume Through Facility(ace-ft) 153.149

Percent Infiltrated 54.77





Analysis



Analyze datasets

- 801 POC1 Redeveloped flow
- 801 POC1 Mitigated flow

Buttons: All Datasets | Flow | Stage | Precip | Excp | POC 1

Flood Frequency Method
 Log Pearson Type III 17B
 Weibull
 Gamma
 Normal

801 POC1 Redeveloped
 801 POC1 Mitigated flow

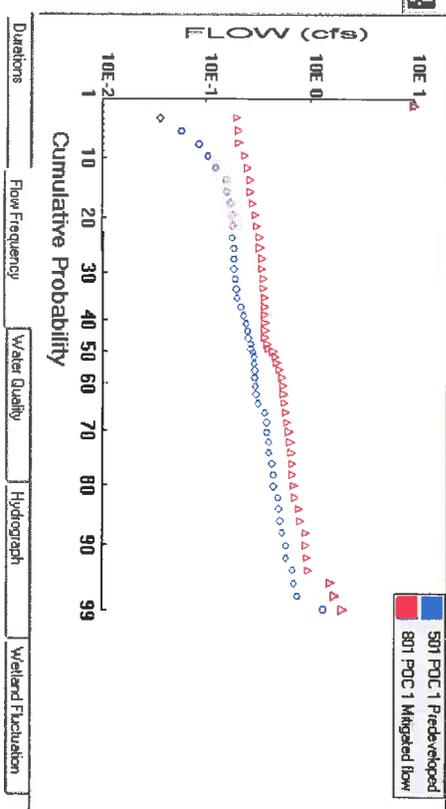
The Facility PASSED
 The Facility PASSED

Flow (CFS)	Predev	Dev	Percentage	Pass/Fail
0.1610	4136	1294	31	Pass
0.1732	3562	1062	29	Pass
0.1854	3121	917	29	Pass
0.1976	2762	784	28	Pass
0.2098	2456	676	27	Pass
0.2221	2184	577	26	Pass
0.2343	1895	515	26	Pass
0.2465	1734	463	26	Pass
0.2587	1537	420	27	Pass
0.2710	1355	380	28	Pass
0.2832	1206	351	29	Pass
0.2954	1067	322	30	Pass
0.3076	961	295	30	Pass
0.3198	861	270	31	Pass
0.3321	763	245	32	Pass
0.3443	703	231	32	Pass
0.3565	641	215	33	Pass
0.3687	576	199	34	Pass
0.3809	505	181	35	Pass
0.3932	460	172	37	Pass
0.4054	428	159	37	Pass
0.4176	389	154	39	Pass
0.4298	360	145	40	Pass
0.4420	332	137	41	Pass
0.4543	303	128	42	Pass
0.4665	274	119	43	Pass
0.4787	237	105	44	Pass
0.4909	203	100	49	Pass
0.5031	180	90	50	Pass
0.5154	161	84	52	Pass
0.5275	145	76	52	Pass





Analysis



- Analyze datasets
- 1 PUYALLUP DAILY EVAP WILNENSEN-HAISE
 - 2 BURLEINGTON PRECIP
 - 501 POC Predicted flow
 - 801 POC Mitigated flow
 - 1000 Gravel Trench Bed 1 ALL OUTLET'S Mitigated
 - 1001 Gravel Trench Bed 1 OUTLET 1 Mitigated
 - 1002 Gravel Trench Bed 1 OUTLET 2 Mitigated
 - 1003 Gravel Trench Bed 1 STAGE Mitigated

All Datasets | Flow | Stage | Recip | Evap | POC 1

Flood Frequency Method
Log Pearson Type III 17B
Weibull
Current
Cumulative

Flow Frequency	501 POC 1 Predicted flow	801 POC 1 Mitigated flow
2 Year	0.2888	0.4756
5 Year	0.5223	0.8045
10 Year	0.7071	1.0899
25 Year	0.9719	1.5409
50 Year	1.1905	1.9516
100 Year	1.4261	2.4344
Yearly Peaks		
1949	0.7670	0.6836
1950	0.4960	0.4602
1951	0.4046	0.5649
1952	0.3718	0.3673
1953	0.1764	0.5839
1954	0.1905	0.2512
1955	0.2716	0.3035
1956	0.2315	0.3692
1957	0.4060	0.9134
1958	0.1784	0.3518
1959	0.4447	0.2825
1960	0.2919	0.5571
1961	0.1868	0.3638
1962	0.0354	0.4831
1963	0.1840	0.2640
1964	0.2190	0.5321
1965	0.3893	1.7684
1966	0.1952	0.3304
1967	0.2554	0.6312
1968	0.5412	0.5282
1969	0.1531	0.2063
1970	0.1018	0.6041
1971	0.5207	0.9108
1972	0.2516	0.2943
1973	0.2494	0.3467
1974	n	n
1975	n	n



Western Washington Hydrology Model
PROJECT REPORT

Project Name: 01.19.21
Site Address:
City :
Report Date : 1/18/2021
Gage : Burlington
Data Start : 1948/10/01
Data End : 1999/09/30
Precip Scale: 1.00
WWHM3 Version:

PREDEVELOPED LAND USE

Name : North Pre Deveveloped
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Forest, Flat	6.94

<u>Impervious Land Use</u>	<u>Acres</u>
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Element Flows To:		
Surface	Interflow	Groundwater

Name : Offsite South ROW
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Pasture, Flat	.1

<u>Impervious Land Use</u>	<u>Acres</u>
ROADS FLAT	0.42

Element Flows To:		
Surface	Interflow	Groundwater
Gravel Trench Bed-South ROW,	Gravel Trench Bed-South ROW,	

Name : North ROW
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Pasture, Mod	.73
C, Lawn, Flat	.185

<u>Impervious Land Use</u>	<u>Acres</u>
ROADS FLAT	1.18
SIDEWALKS FLAT	0.185

Element Flows To:

Surface	Interflow	Groundwater
Gravel Trench Bed-North ROW,	Gravel Trench Bed-North ROW,	

Name : N-1 North Lot Basin

Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Lawn, Flat	.09
C, Pasture, Flat	.87

<u>Impervious Land Use</u>	<u>Acres</u>
ROOF TOPS FLAT	1.18
DRIVEWAYS FLAT	0.09

Element Flows To:

Surface	Interflow	Groundwater
North Gravel Trench Bed ,	North Gravel Trench Bed ,	

Name : N-3 West Lot Basin

Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Lawn, Flat	.03
C, Pasture, Mod	.32

<u>Impervious Land Use</u>	<u>Acres</u>
ROOF TOPS FLAT	0.37
DRIVEWAYS FLAT	0.03

Element Flows To:
Surface Interflow Groundwater
North Gravel Trench Bed , North Gravel Trench Bed ,

Name : N-2 North Mid Basin
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C IMP DISP MOD	.93
C, Lawn, Flat	.075
C, Pasture, Flat	.61

<u>Impervious Land Use</u>	<u>Acres</u>
DRIVEWAYS FLAT	0.075

Element Flows To:
Surface Interflow Groundwater

Name : S-1 South Mid Lot Basin
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C IMP DISP MOD	.96
C, Lawn, Flat	.075
C, Pasture, Flat	.9

<u>Impervious Land Use</u>	<u>Acres</u>
DRIVEWAYS FLAT	0.075

Element Flows To:
Surface Interflow Groundwater

Name : S-2 SW Lot Basin
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Lawn, Flat	.03
C, Pasture, Flat	.27

<u>Impervious Land Use</u>	<u>Acres</u>
ROOF TOPS FLAT	0.37
DRIVEWAYS FLAT	0.03

Element Flows To:

Surface	Interflow	Groundwater
Southwest Gravel Trench Bed 2,	Southwest Gravel Trench Bed 2,	

Name : S-3 SE Lot Basin
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C IMP DISP MOD	.15
C, Lawn, Flat	.105
C, Pasture, Flat	1.29

<u>Impervious Land Use</u>	<u>Acres</u>
ROOF TOPS FLAT	1.15
DRIVEWAYS FLAT	0.105

Element Flows To:

Surface	Interflow	Groundwater
SE Gravel Trench Bed 1,	SE Gravel Trench Bed 1,	

Name : SE Gravel Trench Bed 1
 Bottom Length: 1047ft.
 Bottom Width : 3.5ft.
 Trench bottom slope 1: 0.01 To 1
 Trench Left side slope 0: 0 To 1
 Trench right side slope 2: 0 To 1
 Material thickness of first layer : 2
 Pour Space of material for first layer : 0.37
 Material thickness of second layer : 0
 Pour Space of material for second layer : 0
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0
 Infiltration On
 Infiltration rate : 1
 Infiltration safety factor : 1
 Wetted surface area On
Discharge Structure
 Riser Height: 1 ft.
 Riser Diameter: 4 in.
 Orifice 1 Diameter: 4 in. Elevation: 0 ft.

Element Flows To:

Outlet 1

Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.084	0.000	0.000	0.000
0.022	0.084	0.001	0.063	0.086
0.044	0.084	0.001	0.089	0.087
0.067	0.084	0.002	0.109	0.088
0.089	0.084	0.003	0.125	0.089
0.111	0.084	0.003	0.140	0.090
0.133	0.084	0.004	0.153	0.091
0.156	0.084	0.005	0.166	0.092
0.178	0.084	0.006	0.177	0.093
0.200	0.084	0.006	0.188	0.095
0.222	0.084	0.007	0.198	0.096
0.244	0.084	0.008	0.208	0.097
0.267	0.084	0.008	0.217	0.098
0.289	0.084	0.009	0.226	0.099
0.311	0.084	0.010	0.234	0.100
0.333	0.084	0.010	0.243	0.101
0.356	0.084	0.011	0.251	0.102
0.378	0.084	0.012	0.258	0.103
0.400	0.084	0.012	0.266	0.104
0.422	0.084	0.013	0.273	0.105
0.444	0.084	0.014	0.280	0.106
0.467	0.084	0.015	0.287	0.108
0.489	0.084	0.015	0.294	0.109
0.511	0.084	0.016	0.300	0.110
0.533	0.084	0.017	0.307	0.111
0.556	0.084	0.017	0.313	0.112
0.578	0.084	0.018	0.319	0.113
0.600	0.084	0.019	0.326	0.114
0.622	0.084	0.019	0.331	0.115
0.644	0.084	0.020	0.337	0.116
0.667	0.084	0.021	0.343	0.117
0.689	0.084	0.021	0.349	0.118
0.711	0.084	0.022	0.354	0.119
0.733	0.084	0.023	0.360	0.120
0.756	0.084	0.024	0.365	0.122
0.778	0.084	0.024	0.371	0.123
0.800	0.084	0.025	0.376	0.124
0.822	0.084	0.026	0.381	0.125
0.844	0.084	0.026	0.386	0.126
0.867	0.084	0.027	0.391	0.127
0.889	0.084	0.028	0.396	0.128
0.911	0.084	0.028	0.401	0.129
0.933	0.084	0.029	0.406	0.130
0.956	0.084	0.030	0.411	0.131
0.978	0.084	0.030	0.416	0.132
1.000	0.084	0.031	0.420	0.133
1.022	0.084	0.032	0.436	0.135
1.044	0.084	0.033	0.460	0.136

1.067	0.084	0.033	0.490	0.137
1.089	0.084	0.034	0.525	0.138
1.111	0.084	0.035	0.563	0.139
1.133	0.084	0.035	0.605	0.140
1.156	0.084	0.036	0.651	0.141
1.178	0.084	0.037	0.699	0.142
1.200	0.084	0.037	0.751	0.143
1.222	0.084	0.038	0.805	0.144
1.244	0.084	0.039	0.861	0.145
1.267	0.084	0.039	0.920	0.146
1.289	0.084	0.040	0.981	0.148
1.311	0.084	0.041	1.045	0.149
1.333	0.084	0.042	1.110	0.150
1.356	0.084	0.042	1.178	0.151
1.378	0.084	0.043	1.247	0.152
1.400	0.084	0.044	1.318	0.153
1.422	0.084	0.044	1.392	0.154
1.444	0.084	0.045	1.467	0.155
1.467	0.084	0.046	1.544	0.156
1.489	0.084	0.046	1.622	0.157
1.511	0.084	0.047	1.703	0.158
1.533	0.084	0.048	1.785	0.159
1.556	0.084	0.048	1.868	0.160
1.578	0.084	0.049	1.954	0.162
1.600	0.084	0.050	2.040	0.163
1.622	0.084	0.050	2.129	0.164
1.644	0.084	0.051	2.218	0.165
1.667	0.084	0.052	2.310	0.166
1.689	0.084	0.053	2.402	0.167
1.711	0.084	0.053	2.496	0.168
1.733	0.084	0.054	2.592	0.169
1.756	0.084	0.055	2.689	0.170
1.778	0.084	0.055	2.787	0.171
1.800	0.084	0.056	2.887	0.172
1.822	0.084	0.057	2.988	0.173
1.844	0.084	0.057	3.090	0.175
1.867	0.084	0.058	3.193	0.176
1.889	0.084	0.059	3.298	0.177
1.911	0.084	0.059	3.404	0.178
1.933	0.084	0.060	3.511	0.179
1.956	0.084	0.061	3.620	0.180
1.978	0.084	0.062	3.730	0.181
2.000	0.084	0.062	3.841	0.182

Name : Southwest Gravel Trench Bed 2
Bottom Length: 448ft.
Bottom Width : 3.25ft.
Trench bottom slope 1: 0.01 To 1
Trench Left side slope 0: 0 To 1
Trench right side slope 2: 0 To 1
Material thickness of first layer : 4
Pour Space of material for first layer : 0.36
Material thickness of second layer : 0
Pour Space of material for second layer : 0
Material thickness of third layer : 0
Pour Space of material for third layer : 0

Infiltration On
 Infiltration rate : 1
 Infiltration safety factor : 1
 Wetted surface area On
Discharge Structure
 Riser Height: 3 ft.
 Riser Diameter: 6 in.

Element Flows To:
 Outlet 1 Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.033	0.000	0.000	0.000
0.044	0.033	0.001	0.000	0.035
0.089	0.033	0.001	0.000	0.036
0.133	0.033	0.002	0.000	0.036
0.178	0.033	0.002	0.000	0.037
0.222	0.033	0.003	0.000	0.038
0.267	0.033	0.003	0.000	0.039
0.311	0.033	0.004	0.000	0.040
0.356	0.033	0.004	0.000	0.041
0.400	0.033	0.005	0.000	0.042
0.444	0.033	0.005	0.000	0.043
0.489	0.033	0.006	0.000	0.044
0.533	0.033	0.006	0.000	0.045
0.578	0.033	0.007	0.000	0.046
0.622	0.033	0.007	0.000	0.047
0.667	0.033	0.008	0.000	0.048
0.711	0.033	0.009	0.000	0.049
0.756	0.033	0.009	0.000	0.049
0.800	0.033	0.010	0.000	0.050
0.844	0.033	0.010	0.000	0.051
0.889	0.033	0.011	0.000	0.052
0.933	0.033	0.011	0.000	0.053
0.978	0.033	0.012	0.000	0.054
1.022	0.033	0.012	0.000	0.055
1.067	0.033	0.013	0.000	0.056
1.111	0.033	0.013	0.000	0.057
1.156	0.033	0.014	0.000	0.058
1.200	0.033	0.014	0.000	0.059
1.244	0.033	0.015	0.000	0.060
1.289	0.033	0.016	0.000	0.061
1.333	0.033	0.016	0.000	0.062
1.378	0.033	0.017	0.000	0.062
1.422	0.033	0.017	0.000	0.063
1.467	0.033	0.018	0.000	0.064
1.511	0.033	0.018	0.000	0.065
1.556	0.033	0.019	0.000	0.066
1.600	0.033	0.019	0.000	0.067
1.644	0.033	0.020	0.000	0.068
1.689	0.033	0.020	0.000	0.069
1.733	0.033	0.021	0.000	0.070
1.778	0.033	0.021	0.000	0.071

1.822	0.033	0.022	0.000	0.072
1.867	0.033	0.022	0.000	0.073
1.911	0.033	0.023	0.000	0.074
1.956	0.033	0.024	0.000	0.075
2.000	0.033	0.024	0.000	0.075
2.044	0.033	0.025	0.000	0.076
2.089	0.033	0.025	0.000	0.077
2.133	0.033	0.026	0.000	0.078
2.178	0.033	0.026	0.000	0.079
2.222	0.033	0.027	0.000	0.080
2.267	0.033	0.027	0.000	0.081
2.311	0.033	0.028	0.000	0.082
2.356	0.033	0.028	0.000	0.083
2.400	0.033	0.029	0.000	0.084
2.444	0.033	0.029	0.000	0.085
2.489	0.033	0.030	0.000	0.086
2.533	0.033	0.030	0.000	0.087
2.578	0.033	0.031	0.000	0.088
2.622	0.033	0.032	0.000	0.088
2.667	0.033	0.032	0.000	0.089
2.711	0.033	0.033	0.000	0.090
2.756	0.033	0.033	0.000	0.091
2.800	0.033	0.034	0.000	0.092
2.844	0.033	0.034	0.000	0.093
2.889	0.033	0.035	0.000	0.094
2.933	0.033	0.035	0.000	0.095
2.978	0.033	0.036	0.000	0.096
3.022	0.033	0.036	0.016	0.097
3.067	0.033	0.037	0.084	0.098
3.111	0.033	0.037	0.180	0.099
3.156	0.033	0.038	0.299	0.100
3.200	0.033	0.039	0.436	0.101
3.244	0.033	0.039	0.589	0.101
3.289	0.033	0.040	0.756	0.102
3.333	0.033	0.040	0.937	0.103
3.378	0.033	0.041	1.131	0.104
3.422	0.033	0.041	1.336	0.105
3.467	0.033	0.042	1.552	0.106
3.511	0.033	0.042	1.779	0.107
3.556	0.033	0.043	2.016	0.108
3.600	0.033	0.043	2.263	0.109
3.644	0.033	0.044	2.519	0.110
3.689	0.033	0.044	2.784	0.111
3.733	0.033	0.045	3.058	0.112
3.778	0.033	0.045	3.340	0.113
3.822	0.033	0.046	3.631	0.114
3.867	0.033	0.047	3.929	0.114
3.911	0.033	0.047	4.235	0.115
3.956	0.033	0.048	4.549	0.116
4.000	0.033	0.048	4.869	0.117

Name : North Gravel Trench Bed
Bottom Length: 1234ft.
Bottom Width : 3ft.
Trench bottom slope 1: 0.005 To 1
Trench Left side slope 0: 0 To 1

Trench right side slope 2: 0 To 1
 Material thickness of first layer : 2.67
 Pour Space of material for first layer : 0.31
 Material thickness of second layer : 0
 Pour Space of material for second layer : 0
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0
 Infiltration On
 Infiltration rate : 1
 Infiltration safety factor : 1
 Wetted surface area On
Discharge Structure
 Riser Height: 1.67 ft.
 Riser Diameter: 4 in.

Element Flows To:
 Outlet 1 Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.085	0.000	0.000	0.000
0.030	0.085	0.001	0.000	0.087
0.059	0.085	0.002	0.000	0.089
0.089	0.085	0.002	0.000	0.091
0.119	0.085	0.003	0.000	0.092
0.148	0.085	0.004	0.000	0.094
0.178	0.085	0.005	0.000	0.096
0.208	0.085	0.005	0.000	0.098
0.237	0.085	0.006	0.000	0.099
0.267	0.085	0.007	0.000	0.101
0.297	0.085	0.008	0.000	0.103
0.326	0.085	0.009	0.000	0.104
0.356	0.085	0.009	0.000	0.106
0.386	0.085	0.010	0.000	0.108
0.415	0.085	0.011	0.000	0.109
0.445	0.085	0.012	0.000	0.111
0.475	0.085	0.013	0.000	0.113
0.504	0.085	0.013	0.000	0.115
0.534	0.085	0.014	0.000	0.116
0.564	0.085	0.015	0.000	0.118
0.593	0.085	0.016	0.000	0.120
0.623	0.085	0.016	0.000	0.121
0.653	0.085	0.017	0.000	0.123
0.682	0.085	0.018	0.000	0.125
0.712	0.085	0.019	0.000	0.126
0.742	0.085	0.020	0.000	0.128
0.771	0.085	0.020	0.000	0.130
0.801	0.085	0.021	0.000	0.132
0.831	0.085	0.022	0.000	0.133
0.860	0.085	0.023	0.000	0.135
0.890	0.085	0.023	0.000	0.137
0.920	0.085	0.024	0.000	0.138
0.949	0.085	0.025	0.000	0.140
0.979	0.085	0.026	0.000	0.142

1.009	0.085	0.027	0.000	0.143
1.038	0.085	0.027	0.000	0.145
1.068	0.085	0.028	0.000	0.147
1.098	0.085	0.029	0.000	0.149
1.127	0.085	0.030	0.000	0.150
1.157	0.085	0.030	0.000	0.152
1.187	0.085	0.031	0.000	0.154
1.216	0.085	0.032	0.000	0.155
1.246	0.085	0.033	0.000	0.157
1.276	0.085	0.034	0.000	0.159
1.305	0.085	0.034	0.000	0.160
1.335	0.085	0.035	0.000	0.162
1.365	0.085	0.036	0.000	0.164
1.394	0.085	0.037	0.000	0.166
1.424	0.085	0.038	0.000	0.167
1.454	0.085	0.038	0.000	0.169
1.483	0.085	0.039	0.000	0.171
1.513	0.085	0.040	0.000	0.172
1.543	0.085	0.041	0.000	0.174
1.572	0.085	0.041	0.000	0.176
1.602	0.085	0.042	0.000	0.177
1.632	0.085	0.043	0.000	0.179
1.661	0.085	0.044	0.000	0.181
1.691	0.085	0.045	0.010	0.183
1.721	0.085	0.045	0.037	0.184
1.750	0.085	0.046	0.074	0.186
1.780	0.085	0.047	0.118	0.188
1.810	0.085	0.048	0.169	0.189
1.839	0.085	0.048	0.226	0.191
1.869	0.085	0.049	0.288	0.193
1.899	0.085	0.050	0.355	0.194
1.928	0.085	0.051	0.426	0.196
1.958	0.085	0.052	0.502	0.198
1.988	0.085	0.052	0.581	0.200
2.017	0.085	0.053	0.665	0.201
2.047	0.085	0.054	0.751	0.203
2.077	0.085	0.055	0.842	0.205
2.106	0.085	0.055	0.936	0.206
2.136	0.085	0.056	1.033	0.208
2.166	0.085	0.057	1.133	0.210
2.195	0.085	0.058	1.236	0.211
2.225	0.085	0.059	1.342	0.213
2.255	0.085	0.059	1.451	0.215
2.284	0.085	0.060	1.563	0.217
2.314	0.085	0.061	1.678	0.218
2.344	0.085	0.062	1.795	0.220
2.373	0.085	0.063	1.915	0.222
2.403	0.085	0.063	2.037	0.223
2.433	0.085	0.064	2.162	0.225
2.462	0.085	0.065	2.290	0.227
2.492	0.085	0.066	2.419	0.228
2.522	0.085	0.066	2.552	0.230
2.551	0.085	0.067	2.686	0.232
2.581	0.085	0.068	2.823	0.234
2.611	0.085	0.069	2.962	0.235
2.640	0.085	0.070	3.103	0.237
2.670	0.085	0.070	3.246	0.239

Name : Gravel Trench Bed-South ROW
 Bottom Length: .569ft.
 Bottom Width : 10ft.
 Trench bottom slope 1: 0.005 To 1
 Trench Left side slope 0: 0 To 1
 Trench right side slope 2: 0 To 1
 Material thickness of first layer : 1.5
 Pour Space of material for first layer : 0.31
 Material thickness of second layer : 0
 Pour Space of material for second layer : 0
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0
 Infiltration On
 Infiltration rate : 1
 Infiltration safety factor : 1
 Wetted surface area On
Discharge Structure
 Riser Height: 0.5 ft.
 Riser Diameter: 4 in.

Element Flows To:
 Outlet 1 Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.131	0.000	0.000	0.000
0.017	0.131	0.001	0.000	0.132
0.033	0.131	0.001	0.000	0.133
0.050	0.131	0.002	0.000	0.133
0.067	0.131	0.003	0.000	0.134
0.083	0.131	0.003	0.000	0.134
0.100	0.131	0.004	0.000	0.134
0.117	0.131	0.005	0.000	0.135
0.133	0.131	0.005	0.000	0.135
0.150	0.131	0.006	0.000	0.136
0.167	0.131	0.007	0.000	0.136
0.183	0.131	0.007	0.000	0.137
0.200	0.131	0.008	0.000	0.137
0.217	0.131	0.009	0.000	0.138
0.233	0.131	0.009	0.000	0.138
0.250	0.131	0.010	0.000	0.138
0.267	0.131	0.011	0.000	0.139
0.283	0.131	0.011	0.000	0.139
0.300	0.131	0.012	0.000	0.140
0.317	0.131	0.013	0.000	0.140
0.333	0.131	0.013	0.000	0.141
0.350	0.131	0.014	0.000	0.141
0.367	0.131	0.015	0.000	0.142
0.383	0.131	0.016	0.000	0.142
0.400	0.131	0.016	0.000	0.142
0.417	0.131	0.017	0.000	0.143
0.433	0.131	0.018	0.000	0.143

0.450	0.131	0.018	0.000	0.144
0.467	0.131	0.019	0.000	0.144
0.483	0.131	0.020	0.000	0.145
0.500	0.131	0.020	0.000	0.145
0.517	0.131	0.021	0.007	0.146
0.533	0.131	0.022	0.020	0.146
0.550	0.131	0.022	0.036	0.146
0.567	0.131	0.023	0.056	0.147
0.583	0.131	0.024	0.078	0.147
0.600	0.131	0.024	0.103	0.148
0.617	0.131	0.025	0.129	0.148
0.633	0.131	0.026	0.158	0.149
0.650	0.131	0.026	0.189	0.149
0.667	0.131	0.027	0.221	0.150
0.683	0.131	0.028	0.255	0.150
0.700	0.131	0.028	0.290	0.150
0.717	0.131	0.029	0.327	0.151
0.733	0.131	0.030	0.366	0.151
0.750	0.131	0.030	0.406	0.152
0.767	0.131	0.031	0.447	0.152
0.783	0.131	0.032	0.490	0.153
0.800	0.131	0.032	0.533	0.153
0.817	0.131	0.033	0.578	0.154
0.833	0.131	0.034	0.625	0.154
0.850	0.131	0.034	0.672	0.154
0.867	0.131	0.035	0.721	0.155
0.883	0.131	0.036	0.770	0.155
0.900	0.131	0.036	0.821	0.156
0.917	0.131	0.037	0.873	0.156
0.933	0.131	0.038	0.926	0.157
0.950	0.131	0.038	0.980	0.157
0.967	0.131	0.039	1.035	0.158
0.983	0.131	0.040	1.091	0.158
1.000	0.131	0.040	1.148	0.159
1.017	0.131	0.041	1.206	0.159
1.033	0.131	0.042	1.264	0.159
1.050	0.131	0.043	1.324	0.160
1.067	0.131	0.043	1.385	0.160
1.083	0.131	0.044	1.446	0.161
1.100	0.131	0.045	1.509	0.161
1.117	0.131	0.045	1.572	0.162
1.133	0.131	0.046	1.636	0.162
1.150	0.131	0.047	1.701	0.163
1.167	0.131	0.047	1.767	0.163
1.183	0.131	0.048	1.834	0.163
1.200	0.131	0.049	1.901	0.164
1.217	0.131	0.049	1.970	0.164
1.233	0.131	0.050	2.039	0.165
1.250	0.131	0.051	2.109	0.165
1.267	0.131	0.051	2.179	0.166
1.283	0.131	0.052	2.251	0.166
1.300	0.131	0.053	2.323	0.167
1.317	0.131	0.053	2.396	0.167
1.333	0.131	0.054	2.470	0.167
1.350	0.131	0.055	2.544	0.168
1.367	0.131	0.055	2.619	0.168
1.383	0.131	0.056	2.695	0.169

1.400	0.131	0.057	2.772	0.169
1.417	0.131	0.057	2.849	0.170
1.433	0.131	0.058	2.927	0.170
1.450	0.131	0.059	3.006	0.171
1.467	0.131	0.059	3.085	0.171
1.483	0.131	0.060	3.166	0.171
1.500	0.131	0.061	3.246	0.172

Name : Gravel Trench Bed-North ROW
Bottom Length: 1611ft.
Bottom Width : 10ft.
Trench bottom slope 1: 0.01 To 1
Trench Left side slope 0: 0 To 1
Trench right side slope 2: 0 To 1
Material thickness of first layer : 2.25
Pour Space of material for first layer : 0.31
Material thickness of second layer : 0
Pour Space of material for second layer : 0
Material thickness of third layer : 0
Pour Space of material for third layer : 0
Infiltration On
Infiltration rate : 1
Infiltration safety factor : 1
Wetted surface area On
Discharge Structure
Riser Height: 1.25 ft.
Riser Diameter: 4 in.

Element Flows To:
Outlet 1 **Outlet 2**

Gravel Trench Bed Hydraulic Table

<u>Stage(ft)</u>	<u>Area(acr)</u>	<u>Volume(acr-ft)</u>	<u>Dschrg(cfs)</u>	<u>Infilt(cfs)</u>
0.000	0.370	0.000	0.000	0.000
0.025	0.370	0.003	0.000	0.375
0.050	0.370	0.006	0.000	0.377
0.075	0.370	0.009	0.000	0.379
0.100	0.370	0.011	0.000	0.380
0.125	0.370	0.014	0.000	0.382
0.150	0.370	0.017	0.000	0.384
0.175	0.370	0.020	0.000	0.386
0.200	0.370	0.023	0.000	0.388
0.225	0.370	0.026	0.000	0.390
0.250	0.370	0.029	0.000	0.392
0.275	0.370	0.032	0.000	0.394
0.300	0.370	0.034	0.000	0.395
0.325	0.370	0.037	0.000	0.397
0.350	0.370	0.040	0.000	0.399
0.375	0.370	0.043	0.000	0.401
0.400	0.370	0.046	0.000	0.403
0.425	0.370	0.049	0.000	0.405
0.450	0.370	0.052	0.000	0.407
0.475	0.370	0.054	0.000	0.409

0.500	0.370	0.057	0.000	0.410
0.525	0.370	0.060	0.000	0.412
0.550	0.370	0.063	0.000	0.414
0.575	0.370	0.066	0.000	0.416
0.600	0.370	0.069	0.000	0.418
0.625	0.370	0.072	0.000	0.420
0.650	0.370	0.075	0.000	0.422
0.675	0.370	0.077	0.000	0.424
0.700	0.370	0.080	0.000	0.425
0.725	0.370	0.083	0.000	0.427
0.750	0.370	0.086	0.000	0.429
0.775	0.370	0.089	0.000	0.431
0.800	0.370	0.092	0.000	0.433
0.825	0.370	0.095	0.000	0.435
0.850	0.370	0.097	0.000	0.437
0.875	0.370	0.100	0.000	0.439
0.900	0.370	0.103	0.000	0.440
0.925	0.370	0.106	0.000	0.442
0.950	0.370	0.109	0.000	0.444
0.975	0.370	0.112	0.000	0.446
1.000	0.370	0.115	0.000	0.448
1.025	0.370	0.118	0.000	0.450
1.050	0.370	0.120	0.000	0.452
1.075	0.370	0.123	0.000	0.454
1.100	0.370	0.126	0.000	0.455
1.125	0.370	0.129	0.000	0.457
1.150	0.370	0.132	0.000	0.459
1.175	0.370	0.135	0.000	0.461
1.200	0.370	0.138	0.000	0.463
1.225	0.370	0.140	0.000	0.465
1.250	0.370	0.143	0.000	0.467
1.275	0.370	0.146	0.013	0.469
1.300	0.370	0.149	0.036	0.470
1.325	0.370	0.152	0.067	0.472
1.350	0.370	0.155	0.103	0.474
1.375	0.370	0.158	0.143	0.476
1.400	0.370	0.161	0.189	0.478
1.425	0.370	0.163	0.238	0.480
1.450	0.370	0.166	0.290	0.482
1.475	0.370	0.169	0.346	0.484
1.500	0.370	0.172	0.406	0.485
1.525	0.370	0.175	0.468	0.487
1.550	0.370	0.178	0.533	0.489
1.575	0.370	0.181	0.601	0.491
1.600	0.370	0.183	0.672	0.493
1.625	0.370	0.186	0.745	0.495
1.650	0.370	0.189	0.821	0.497
1.675	0.370	0.192	0.899	0.499
1.700	0.370	0.195	0.980	0.501
1.725	0.370	0.198	1.063	0.502
1.750	0.370	0.201	1.148	0.504
1.775	0.370	0.204	1.235	0.506
1.800	0.370	0.206	1.324	0.508
1.825	0.370	0.209	1.415	0.510
1.850	0.370	0.212	1.509	0.512
1.875	0.370	0.215	1.604	0.514
1.900	0.370	0.218	1.701	0.516

1.925	0.370	0.221	1.800	0.517
1.950	0.370	0.224	1.901	0.519
1.975	0.370	0.226	2.004	0.521
2.000	0.370	0.229	2.109	0.523
2.025	0.370	0.232	2.215	0.525
2.050	0.370	0.235	2.323	0.527
2.075	0.370	0.238	2.433	0.529
2.100	0.370	0.241	2.544	0.531
2.125	0.370	0.244	2.657	0.532
2.150	0.370	0.246	2.772	0.534
2.175	0.370	0.249	2.888	0.536
2.200	0.370	0.252	3.006	0.538
2.225	0.370	0.255	3.125	0.540
2.250	0.370	0.258	3.246	0.542

Name : South ROW Sub Basin
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Lawn, Flat	.2
C, Pasture, Flat	.7

<u>Impervious Land Use</u>	<u>Acres</u>
ROADS FLAT	1.13
SIDEWALKS FLAT	0.2

Element Flows To:

Surface	Interflow	Groundwater
Gravel Trench Bed-South ROW,	Gravel Trench Bed-South ROW,	

Name : Gravel Trench Bed-South ROW
 Bottom Length: 1724ft.
 Bottom Width : 12ft.
 Trench bottom slope 1: 0.005 To 1
 Trench Left side slope 0: 0 To 1
 Trench right side slope 2: 0 To 1
 Material thickness of first layer : 3
 Pour Space of material for first layer : 0.31
 Material thickness of second layer : 0
 Pour Space of material for second layer : 0
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0
 Infiltration On
 Infiltration rate : 1
 Infiltration safety factor : 1
 Wetted surface area On
Discharge Structure
 Riser Height: 2 ft.
 Riser Diameter: 4 in.

Element Flows To:

Outlet 1

Outlet 2

Gravel Trench Bed Hydraulic Table

<u>Stage(ft)</u>	<u>Area(acr)</u>	<u>Volume(acr-ft)</u>	<u>Dschrg(cfs)</u>	<u>Infilt(cfs)</u>
0.000	0.475	0.000	0.000	0.000
0.033	0.475	0.005	0.000	0.482
0.067	0.475	0.010	0.000	0.484
0.100	0.475	0.015	0.000	0.487
0.133	0.475	0.020	0.000	0.490
0.167	0.475	0.025	0.000	0.492
0.200	0.475	0.029	0.000	0.495
0.233	0.475	0.034	0.000	0.498
0.267	0.475	0.039	0.000	0.500
0.300	0.475	0.044	0.000	0.503
0.333	0.475	0.049	0.000	0.506
0.367	0.475	0.054	0.000	0.508
0.400	0.475	0.059	0.000	0.511
0.433	0.475	0.064	0.000	0.514
0.467	0.475	0.069	0.000	0.516
0.500	0.475	0.074	0.000	0.519
0.533	0.475	0.079	0.000	0.522
0.567	0.475	0.083	0.000	0.524
0.600	0.475	0.088	0.000	0.527
0.633	0.475	0.093	0.000	0.530
0.667	0.475	0.098	0.000	0.532
0.700	0.475	0.103	0.000	0.535
0.733	0.475	0.108	0.000	0.538
0.767	0.475	0.113	0.000	0.541
0.800	0.475	0.118	0.000	0.543
0.833	0.475	0.123	0.000	0.546
0.867	0.475	0.128	0.000	0.549
0.900	0.475	0.133	0.000	0.551
0.933	0.475	0.137	0.000	0.554
0.967	0.475	0.142	0.000	0.557
1.000	0.475	0.147	0.000	0.559
1.033	0.475	0.152	0.000	0.562
1.067	0.475	0.157	0.000	0.565
1.100	0.475	0.162	0.000	0.567
1.133	0.475	0.167	0.000	0.570
1.167	0.475	0.172	0.000	0.573
1.200	0.475	0.177	0.000	0.575
1.233	0.475	0.182	0.000	0.578
1.267	0.475	0.186	0.000	0.581
1.300	0.475	0.191	0.000	0.583
1.333	0.475	0.196	0.000	0.586
1.367	0.475	0.201	0.000	0.589
1.400	0.475	0.206	0.000	0.591
1.433	0.475	0.211	0.000	0.594
1.467	0.475	0.216	0.000	0.597
1.500	0.475	0.221	0.000	0.599
1.533	0.475	0.226	0.000	0.602
1.567	0.475	0.231	0.000	0.605

1.600	0.475	0.236	0.000	0.607
1.633	0.475	0.240	0.000	0.610
1.667	0.475	0.245	0.000	0.613
1.700	0.475	0.250	0.000	0.616
1.733	0.475	0.255	0.000	0.618
1.767	0.475	0.260	0.000	0.621
1.800	0.475	0.265	0.000	0.624
1.833	0.475	0.270	0.000	0.626
1.867	0.475	0.275	0.000	0.629
1.900	0.475	0.280	0.000	0.632
1.933	0.475	0.285	0.000	0.634
1.967	0.475	0.290	0.000	0.637
2.000	0.475	0.294	0.000	0.640
2.033	0.475	0.299	0.020	0.642
2.067	0.475	0.304	0.056	0.645
2.100	0.475	0.309	0.103	0.648
2.133	0.475	0.314	0.158	0.650
2.167	0.475	0.319	0.221	0.653
2.200	0.475	0.324	0.290	0.656
2.233	0.475	0.329	0.366	0.658
2.267	0.475	0.334	0.447	0.661
2.300	0.475	0.339	0.533	0.664
2.333	0.475	0.344	0.625	0.666
2.367	0.475	0.348	0.721	0.669
2.400	0.475	0.353	0.821	0.672
2.433	0.475	0.358	0.926	0.674
2.467	0.475	0.363	1.035	0.677
2.500	0.475	0.368	1.148	0.680
2.533	0.475	0.373	1.264	0.682
2.567	0.475	0.378	1.385	0.685
2.600	0.475	0.383	1.509	0.688
2.633	0.475	0.388	1.636	0.691
2.667	0.475	0.393	1.767	0.693
2.700	0.475	0.398	1.901	0.696
2.733	0.475	0.402	2.039	0.699
2.767	0.475	0.407	2.179	0.701
2.800	0.475	0.412	2.323	0.704
2.833	0.475	0.417	2.470	0.707
2.867	0.475	0.422	2.619	0.709
2.900	0.475	0.427	2.772	0.712
2.933	0.475	0.432	2.927	0.715
2.967	0.475	0.437	3.085	0.717
3.000	0.475	0.442	3.246	0.720

Name : South Pre Developed

Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Forest, Flat	7.74

<u>Impervious Land Use</u>	<u>Acres</u>
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Element Flows To:
 Surface Interflow Groundwater

Name : Offsite South Pre Developed

Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Forest, Flat	.7

<u>Impervious Land Use</u>	<u>Acres</u>
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Element Flows To:
 Surface Interflow Groundwater

MITIGATED LAND USE

ANALYSIS RESULTS

Flow Frequency Return Periods for Predeveloped. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	0.288802
5 year	0.522261
10 year	0.707103
25 year	0.971949
50 year	1.190451
100 year	1.426065

Flow Frequency Return Periods for Mitigated. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	0.475606
5 year	0.80452
10 year	1.089914
25 year	1.540895
50 year	1.951566
100 year	2.434449

Yearly Peaks for Predeveloped and Mitigated. POC #1

<u>Year</u>	<u>Predeveloped</u>	<u>Mitigated</u>
1950	0.767	0.684
1951	0.496	0.460
1952	0.405	0.565
1953	0.372	0.367
1954	0.176	0.584
1955	0.191	0.251

1956	0.272	0.304
1957	0.231	0.369
1958	0.406	0.913
1959	0.178	0.352
1960	0.445	0.282
1961	0.292	0.557
1962	0.187	0.366
1963	0.035	0.483
1964	0.184	0.264
1965	0.219	0.532
1966	0.389	1.768
1967	0.195	0.330
1968	0.255	0.631
1969	0.541	0.928
1970	0.153	0.206
1971	0.102	0.604
1972	0.521	0.911
1973	0.252	0.294
1974	0.245	0.347
1975	0.500	0.500
1976	1.998	2.731
1977	0.157	0.969
1978	0.200	0.372
1979	0.321	0.708
1980	0.178	0.385
1981	0.445	0.802
1982	0.270	0.358
1983	0.596	0.553
1984	0.298	0.371
1985	0.595	0.646
1986	0.122	0.263
1987	0.389	0.401
1988	0.292	0.342
1989	0.709	1.613
1990	0.170	0.442
1991	0.438	0.668
1992	0.690	0.713
1993	0.300	0.673
1994	0.285	0.326
1995	0.057	0.196
1996	0.083	0.234
1997	0.298	0.787
1998	1.353	2.112
1999	0.309	0.371
2000	0.185	0.203

Ranked Yearly Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	1.9984	2.7310
2	1.3535	2.1121
3	0.7670	1.7684
4	0.7089	1.6129
5	0.6897	0.9689
6	0.5962	0.9282
7	0.5948	0.9134
8	0.5412	0.9108

9	0.5207	0.8018
10	0.5000	0.7869
11	0.4960	0.7132
12	0.4447	0.7083
13	0.4446	0.6836
14	0.4384	0.6731
15	0.4060	0.6677
16	0.4046	0.6456
17	0.3893	0.6312
18	0.3888	0.6041
19	0.3718	0.5839
20	0.3205	0.5649
21	0.3091	0.5571
22	0.3003	0.5527
23	0.2982	0.5321
24	0.2976	0.5003
25	0.2919	0.4831
26	0.2915	0.4602
27	0.2849	0.4423
28	0.2716	0.4005
29	0.2697	0.3848
30	0.2554	0.3718
31	0.2516	0.3714
32	0.2454	0.3712
33	0.2315	0.3692
34	0.2190	0.3673
35	0.2001	0.3658
36	0.1952	0.3576
37	0.1905	0.3518
38	0.1868	0.3467
39	0.1845	0.3420
40	0.1840	0.3304
41	0.1784	0.3263
42	0.1784	0.3035
43	0.1764	0.2943
44	0.1700	0.2825
45	0.1565	0.2640
46	0.1531	0.2625
47	0.1217	0.2512
48	0.1018	0.2343
49	0.0831	0.2063
50	0.0569	0.2029
51	0.0354	0.1964

POC #1

The Facility PASSED

The Facility PASSED.

Flow(CFS)	Predev	Dev	Percentage	Pass/Fail
0.1444	4209	1667	39	Pass
0.1550	3729	1432	38	Pass
0.1655	3244	1194	36	Pass
0.1761	2863	1021	35	Pass
0.1867	2580	908	35	Pass
0.1972	2312	784	33	Pass

0.2078	2111	692	32	Pass
0.2184	1892	602	31	Pass
0.2289	1702	545	32	Pass
0.2395	1511	489	32	Pass
0.2501	1349	449	33	Pass
0.2606	1228	413	33	Pass
0.2712	1096	376	34	Pass
0.2818	979	355	36	Pass
0.2923	895	328	36	Pass
0.3029	816	309	37	Pass
0.3135	753	282	37	Pass
0.3240	683	260	38	Pass
0.3346	627	241	38	Pass
0.3452	571	230	40	Pass
0.3557	514	217	42	Pass
0.3663	469	202	43	Pass
0.3769	438	186	42	Pass
0.3874	403	178	44	Pass
0.3980	367	167	45	Pass
0.4086	336	159	47	Pass
0.4191	312	153	49	Pass
0.4297	287	145	50	Pass
0.4403	267	137	51	Pass
0.4508	242	129	53	Pass
0.4614	216	121	56	Pass
0.4720	192	113	58	Pass
0.4825	173	105	60	Pass
0.4931	155	98	63	Pass
0.5037	142	90	63	Pass
0.5142	134	84	62	Pass
0.5248	125	77	61	Pass
0.5353	118	74	62	Pass
0.5459	112	69	61	Pass
0.5565	107	66	61	Pass
0.5670	102	61	59	Pass
0.5776	97	60	61	Pass
0.5882	90	56	62	Pass
0.5987	85	55	64	Pass
0.6093	82	52	63	Pass
0.6199	81	49	60	Pass
0.6304	75	48	64	Pass
0.6410	72	45	62	Pass
0.6516	71	43	60	Pass
0.6621	68	43	63	Pass
0.6727	65	38	58	Pass
0.6833	61	37	60	Pass
0.6938	57	36	63	Pass
0.7044	56	34	60	Pass
0.7150	52	30	57	Pass
0.7255	50	28	56	Pass
0.7361	49	28	57	Pass
0.7467	46	27	58	Pass
0.7572	44	27	61	Pass
0.7678	40	25	62	Pass
0.7784	40	25	62	Pass
0.7889	39	23	58	Pass
0.7995	39	23	58	Pass

0.8101	38	22	57	Pass
0.8206	38	22	57	Pass
0.8312	37	22	59	Pass
0.8418	37	21	56	Pass
0.8523	37	21	56	Pass
0.8629	36	21	58	Pass
0.8735	36	20	55	Pass
0.8840	35	20	57	Pass
0.8946	35	20	57	Pass
0.9052	34	20	58	Pass
0.9157	33	17	51	Pass
0.9263	33	17	51	Pass
0.9369	32	16	50	Pass
0.9474	32	16	50	Pass
0.9580	29	16	55	Pass
0.9686	28	16	57	Pass
0.9791	28	15	53	Pass
0.9897	28	15	53	Pass
1.0003	27	15	55	Pass
1.0108	27	15	55	Pass
1.0214	26	15	57	Pass
1.0320	25	15	60	Pass
1.0425	24	15	62	Pass
1.0531	24	15	62	Pass
1.0637	23	15	65	Pass
1.0742	23	15	65	Pass
1.0848	22	15	68	Pass
1.0954	22	15	68	Pass
1.1059	19	15	78	Pass
1.1165	19	15	78	Pass
1.1271	18	15	83	Pass
1.1376	17	15	88	Pass
1.1482	17	14	82	Pass
1.1588	16	14	87	Pass
1.1693	15	14	93	Pass
1.1799	14	14	100	Pass
1.1905	13	14	107	Pass

Water Quality BMP Flow and Volume for POC 1.
 On-line facility volume: 0 acre-feet
 On-line facility target flow: 0 cfs.
 Adjusted for 15 min: 0 cfs.
 Off-line facility target flow: 0 cfs.
 Adjusted for 15 min: 0 cfs.

Perlnd and Implnd Changes
 No changes have been made.

This program and accompanying documentation is provided 'as-is' without warranty of any kind. The entire risk regarding the performance and results of this program is assumed by the user. Clear Creek Solutions and the Washington State Department of Ecology disclaims all warranties, either expressed or implied, including but not limited to implied warranties of program and accompanying documentation. In no event shall Clear Creek Solutions and/or the Washington State Department of Ecology be liable for any damages whatsoever (including without limitation to damages for loss of business profits, loss of business information, business interruption, and the like) arising out of the use of, or inability

to use this program even if Clear Creek Solutions or the Washington State Department of Ecology has been advised of the possibility of such damages.

M E M O R A N D U M

To: Andrew Reeves, Hearing Examiner for City of Sedro Woolley
From: Reuben Schutz
Date: January 20, 2022
Re: Bucko Estates – Condition 3

You asked us at the preliminary plat hearing to draft a new Condition 3. We provided draft language to the City on January 14th and received edits from the City earlier today. Since then the parties have discussed the condition but have not reached an agreement as to final language. Because the deadline for providing draft language is today, the parties have agreed to submit the two versions for the Examiner’s consideration.

The Buckos proposed the following language:

The Developer will dedicate an 8-foot wide easement to the City to allow the City to maintain Brickyard Creek. The easement will be located within the buffer tract on the south side of Brickyard Creek at least 3-feet from the back lot lines of lots abutting the buffer tract. The easement will include provisions for restoring damage caused by City actions within the easement, indemnification for actions taken by the City or its agents in the easement area, and City insurance requirements. The easement will also allow for future public pedestrian access to allow the City to incorporate the trail into a public trail system. Until such time as the City connects the trail to a City trail system, the easement will be limited to maintenance purposes and access will be limited to the Developer/HOA and the City.

The City proposed the following changes:

The Developer will dedicate an 8-foot wide easement to the City and construct a crushed rock trail to the City’s specifications to allow the City to maintain Brickyard Creek. The easement will be located within the outer-most eight feet of the 55’ the buffer tract on the south side of Brickyard Creek ~~at least 3 feet from the back lot lines of lots abutting the buffer tract~~. The easement will include mutual indemnification provisions for restoring the restoration of damage caused by City either Party’s actions within the easement, ~~indemnification for actions taken by the City or its agents in the easement area, and City insurance requirements~~. The easement will also allow for future public pedestrian access to allow the City to incorporate the trail into a public trail system. Until such time as the City connects the trail to adopts amendments to the Comprehensive Plan to allow for a City trail system along Brickyard Creek, the easement will be limited to maintenance purposes and access will be limited to the HOA and the City.

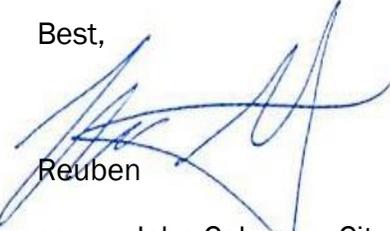
The reason the Buckos requested 3 feet between the lots and the trail is to allow the HOA to plant a narrow buffer to mitigate graffiti/property damage. This would help alleviating the owners' concerns regarding the trail/path.

In addition, because the path is for City maintenance and will become part of the City's trail system, we believe that the City should construct the trail. The HOA does not need the trail and the trail does not mitigate any impacts. It has no nexus to the project.

Finally, we believe that the trail should be limited to HOA and City use until it is ready to be incorporated into a usable trail system. The City could adopt a general plan tomorrow, but not construct an actual trail system for many years.

Thank you very much for your consideration.

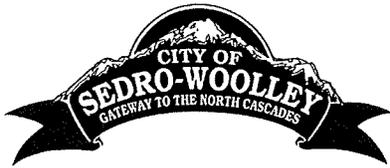
Best,



Reuben

cc: John Coleman, City Planning Director

Nikki Thomson, City Attorney



Building & Planning Department
Sedro-Woolley Municipal Building
325 Metcalf Street
Sedro-Woolley, WA 98284
Phone (360) 855-0771
Fax (360) 855-0733

January 20, 2022

TO: Andrew Reeves, Hearing Examiner

RE: #LP-2021-067 – BUCKO ESTATES – CONDITION 3 OF PRELIMINARY PLAT APPROVAL

Dear Mr. Reeves,

As the letter from Mr. Ruben Schutz (Applicant's Representative) points out, the two parties have not been able to agree on the language of Condition 3. The letter from Applicant's Representative includes both their proposed Condition 3 and the city's proposed Condition 3. The letter from the Applicant's Representative also includes their reasoning for their requested Condition 3 language; this letter contains the city's reasoning for our proposed Condition 3.

The development will have a direct impact that necessitates the path to be constructed as part of the plat. The path is required for access to the creek for the Public Works Department. The new development will impede the city's ability to access the creek unless the path is constructed. The city requires the path to accommodate the city's ongoing maintenance of the creek.

Because the path is necessary for maintenance, the path should be built by the developer as part of the plat construction, and it should be built to the specifications provided by the city. David Lee, City Engineer has specified that the 8' trail should be constructed of 6" of crushed rock with weed barrier geotextile fabric. Such construction will accommodate a walking path with occasional light truck traffic. The path should be built by the developer as part of the required habitat improvement that is installed before the city approves final plat for Phase 1.

Moving the path three feet in is very problematic. The path needs to be on the outer edge of the buffer so it does not cut through the buffer area and cause habitat fragmentation. This is the reason the path cannot meander through the buffer area as the path was originally proposed. The Skagit River Systems Coop comments pointed out the problem with the original path, so we need to have the path on the edge of the buffer.

Since the path needs to be in place for maintenance, the path will be in place as part of Phase 1. Thus, the path can be used as a public trail as soon as the city completes updates to the Comprehensive Plan that call for a trail along Brickyard Creek.

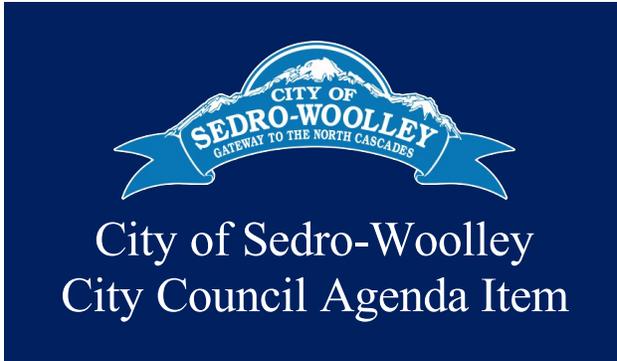
If you have any questions, please do not hesitate to call me at 855-0771 or send me an e-mail at jcoleman@sedro-woolley.gov.

Sincerely,

John Coleman, AICP
Planning Director

Exhibit U

cc: Ruben Schutz, Attorney for applicant
Nikki Thompson, City Attorney
File – LP-2021-067



Agenda
Item No.

Date: February 23, 2022

Subject: Resolution Authorizing Staff to Apply
for Grant Funding from the Washington
State Recreation & Conservation Office
for the Riverfront Park Kiwanis Fields
Bleacher Project

FROM:

Nathan Salseina, Public Works Operations Division Supervisor

RECOMMENDED ACTION:

Motion to adopt resolution number 1088-22 which authorizes staff to apply for and accept funding from the Recreation & Conservations Office Youth Athletic Facilities Program to fund the Riverfront Park Kiwanis Fields Bleacher Project.

ISSUE:

Should the council authorize staff to apply for grant funding from the Washington State Recreation & Conservation Office (RCO) youth athletic facilities program to fund this project?

BACKGROUND/SUMMARY INFORMATION:

Riverfront Park has 6 homemade bleacher sets constructed out of pressure treated wood, and has 2 metal bleacher sets with wood tops. The bleachers were constructed approximately 12 years ago by volunteers and donated to the city for use by spectators viewing baseball and softball games at the park. Over the years, the wood has begun to deteriorate and splinter. Additionally, the bleacher sets were damaged by the Skagit River Floods from November 2021. Pressure treated wood seats are not the ideal material for bleacher seating as we have routinely received complaints about splinters, and the pressure treated wood material rubbing off on peoples clothing. They also require many repairs due to wear and tear, weather, and vandalism. Staff proposes to apply for an RCO grant to help pay for the cost to replace these bleachers with ADA accessible aluminum bleachers. The aluminum bleachers will be maintenance free, other than the occasional cleaning, and they should have an estimated 30-year service life. Additionally, they will be transportable so that they can be easily moved to higher ground in the event of another flood. The following is a proposed timeline if we are successful in our quest for grant funding.

Now: Developing specifications and final cost estimates, fine tuning grant application.

May 3rd: Grant applications due to RCO.

May 4th-31st: RCO Technical Review.

Aug 1st- 31st: RCO Evaluation.

June 2023: Grants Awarded.

Fall 2023: Purchase and install new bleachers.

Using a combination of support from the RCO, Support from our partners with Sedro-Woolley Little League, city funds, and community support, I believe we can make this project a reality. RCO requires the city council to adopt the attached resolution authorizing city staff to apply for grant funding.

FISCAL IMPACT, IF APPROPRIATE:

Staff proposes to apply for funding from the RCO in the amount of \$50,000 to fund this estimated \$100,000 project. This YAF grant program has a 50% local match requirement. The cities match requirement of \$50,000 would come from the cities REET 1 and 2 revenues that are accumulated in Funds 1 and 2. There is sufficient funding within the combined fund balance to cover this expense (2022 beginning fund balance is \$1,648,872 with \$300,000 committed for projects in 2022). A budget amendment will be required if the grant is awarded.

ATTACHMENTS:

1. Picture of aluminum bleachers
2. Spec Sheet Bleachers
3. RCO Authorizing Resolution

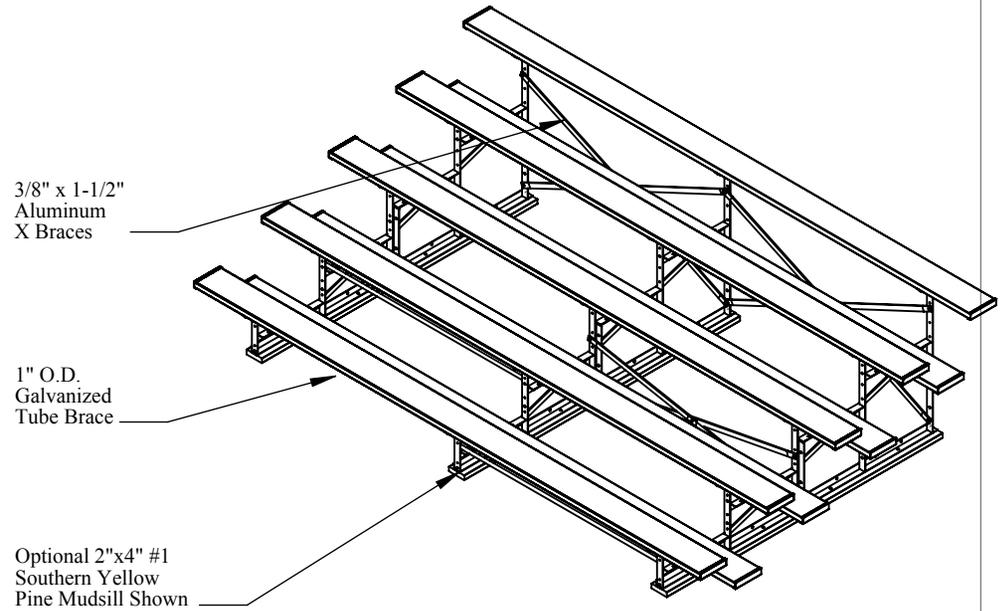




105"

Nominal 2"x10"x.078
Aluminum Alloy 6063
T6 Extruded Foot plank
with an Mill Finish

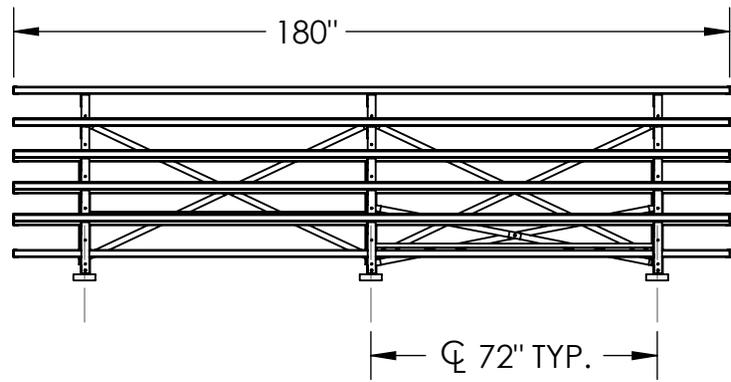
Nominal 2"x10"x.078
Aluminum Alloy 6063
T6 Extruded Seat plank
with an Anodized Finish



3/8" x 1-1/2"
Aluminum
X Braces

1" O.D.
Galvanized
Tube Brace

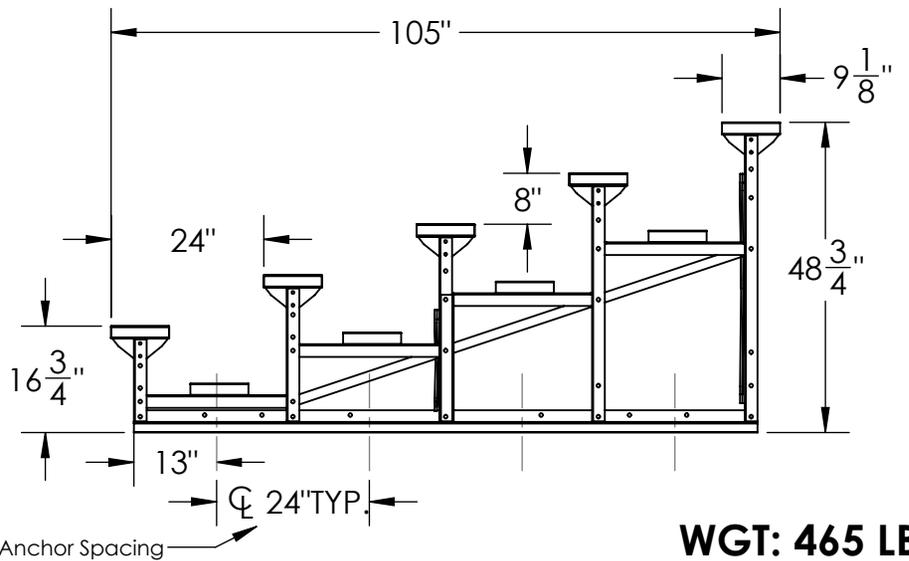
Optional 2"x4" #1
Southern Yellow
Pine Mudsill Shown



180"

☉ 72" TYP.

Frame Anchor Spacing



16 ³/₄"

24"

8"

48 ³/₄"

9 ¹/₈"

105"

☉ 24" TYP.

13"

Frame Anchor Spacing

WGT: 465 LBS.

	Initials	Date	Kay Park-Rec Corp.	Spec Drawing	Model #: BLA5A15	Notes: This Drawing and all information contained herein is the property of Kay Park Rec. and is not to be reproduced without express written permission. Kay Park Rec. assumes no responsibility for unauthorized use of this drawing. Kay Park Rec. is not responsible for local permits and occupancy requirements.
Created:	DAT	2/21/2011	1301 Pine Street Janesville, IA 50647	Description: 5 Row 15 Foot Aluminum Frame Bleacher with Single Foot Boards and No Gaurdrails		
Saved:		3/17/2015	1-800-553-2476			
S:\CADDRWGS\Solidworks\Bleachers\BLA\BLA Assemblies\Bleachers (17).dwg			WWW.KAYPARK.COM			
Sedro-Woolley				Council Packet		321



Applicant Resolution/Authorization

Organization Name (sponsor) _____

Resolution No. or Document Name _____

Project(s) Number(s), and Name(s) _____

This resolution/authorization authorizes the person(s) identified below (in Section 2) to act as the authorized representative/agent on behalf of our organization and to legally bind our organization with respect to the above Project(s) for which we seek grant funding assistance managed through the Recreation and Conservation Office (Office).

WHEREAS, grant assistance is requested by our organization to aid in financing the cost of the Project(s) referenced above;

NOW, THEREFORE, BE IT RESOLVED that:

1. Our organization has applied for or intends to apply for funding assistance managed by the Office for the above "Project(s)."
2. Our organization authorizes the following persons or persons holding specified titles/positions (and subsequent holders of those titles/positions) to execute the following documents binding our organization on the above projects:

Grant Document	Name of Signatory or Title of Person Authorized to Sign
Grant application (submission thereof)	
Project contact (day-to-day administering of the grant and communicating with the RCO)	
RCO Grant Agreement (Agreement)	
Agreement amendments	
Authorizing property and real estate documents (Notice of Grant, Deed of Right or Assignment of Rights if applicable). These are items that are typical recorded on the property with the county.	

The above persons are considered an "authorized representative(s)/agent(s)" for purposes of the documents indicated. Our organization shall comply with a request from the RCO to provide documentation of persons who may be authorized to execute documents related to the grant.

3. Our organization has reviewed the sample RCO Grant Agreement on the Recreation and Conservation Office's WEB SITE at: <https://rco.wa.gov/wp-content/uploads/2019/06/SampleProjAgreement.pdf>. We understand and acknowledge that if offered an agreement to sign in the future, it will contain an indemnification and legal venue stipulation and other terms and conditions substantially in the form contained in the sample Agreement and that such terms and conditions of any signed Agreement shall be legally binding on the sponsor if our representative/agent enters into an Agreement on our behalf. The Office reserves the right to revise the Agreement prior to execution.
4. Our organization acknowledges and warrants, after conferring with its legal counsel, that its authorized representative(s)/agent(s) have full legal authority to act and sign on behalf of the organization for their assigned role/document.
5. Grant assistance is contingent on a signed Agreement. Entering into any Agreement with the Office is purely voluntary on our part.
6. Our organization understands that grant policies and requirements vary depending on the grant program applied to, the grant program and source of funding in the Agreement, the characteristics of the project, and the characteristics of our organization.
7. Our organization further understands that prior to our authorized representative(s)/agent(s) executing any of the documents listed above, the RCO may make revisions to its sample Agreement and that such revisions could include the indemnification and the legal venue stipulation. Our organization accepts the legal obligation that we shall, prior to execution of the Agreement(s), confer with our authorized representative(s)/agent(s) as to any revisions to the project Agreement from that of the sample Agreement. We also acknowledge and accept that if our authorized representative(s)/agent(s) executes the Agreement(s) with any such revisions, all terms and conditions of the executed Agreement shall be conclusively deemed to be executed with our authorization.
8. Any grant assistance received will be used for only direct eligible and allowable costs that are reasonable and necessary to implement the project(s) referenced above.
9. [for Recreation and Conservation Funding Board Grant Programs Only] If match is required for the grant, we understand our organization must certify the availability of match at least one month before funding approval. In addition, our organization understands it is responsible for supporting all non-cash matching share commitments to this project should they not materialize.
10. Our organization acknowledges that if it receives grant funds managed by the Office, the Office will pay us on only a reimbursement basis. We understand reimbursement basis means that we will only request payment from the Office after we incur grant eligible and allowable costs and pay them. The Office may also determine an amount of retainage and hold that amount until all project deliverables, grant reports, or other responsibilities are complete.
11. [for Acquisition Projects Only] Our organization acknowledges that any property acquired with grant assistance must be dedicated for the purposes of the grant in perpetuity unless otherwise agreed to in writing by our organization and the Office. We agree to dedicate the property in a signed "Deed of Right" for fee acquisitions, or an "Assignment of Rights" for other than fee acquisitions (which documents will be based upon the Office's standard versions of those documents), to be recorded on the title of the property with the county auditor. Our organization acknowledges that any property

acquired in fee title must be immediately made available to the public unless otherwise provided for in policy, the Agreement, or authorized in writing by the Office Director.

12. [for Development, Renovation, Enhancement, and Restoration Projects Only–If our organization owns the project property] Our organization acknowledges that any property owned by our organization that is developed, renovated, enhanced, or restored with grant assistance must be dedicated for the purpose of the grant in perpetuity unless otherwise allowed by grant program policy, or Office in writing and per the Agreement or an amendment thereto.
13. [for Development, Renovation, Enhancement, and Restoration Projects Only–If your organization DOES NOT own the property] Our organization acknowledges that any property not owned by our organization that is developed, renovated, enhanced, or restored with grant assistance must be dedicated for the purpose of the grant as required by grant program policies unless otherwise provided for per the Agreement or an amendment thereto.
14. [Only for Projects located in Water Resources Inventory Areas 1-19 that are applying for funds from the Critical Habitat, Natural Areas, State Lands Restoration and Enhancement, Riparian Protection, or Urban Wildlife Habitat grant categories; Aquatic Lands Enhancement Account; or the Puget Sound Acquisition and Restoration program, or a Salmon Recovery Funding Board approved grant] Our organization certifies the following: the Project does not conflict with the Puget Sound Action Agenda developed by the Puget Sound Partnership under RCW 90.71.310.
15. This resolution/authorization is deemed to be part of the formal grant application to the Office.
16. Our organization warrants and certifies that this resolution/authorization was properly and lawfully adopted following the requirements of our organization and applicable laws and policies and that our organization has full legal authority to commit our organization to the warranties, certifications, promises and obligations set forth herein.

This resolution/authorization is signed and approved on behalf of the resolving body of our organization by the following authorized member(s):

Signed _____

Title _____ Date _____

On File at: _____

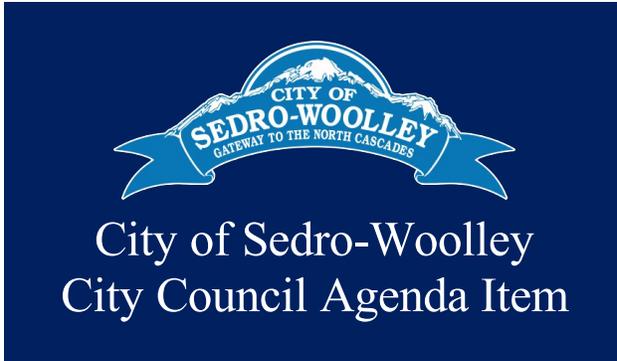
This Applicant Resolution/Authorization was adopted by our organization during the meeting held:
(Local Governments and Nonprofit Organizations Only):

Location: _____ Date: _____

Washington State Attorney General's Office

Approved as to form Brian Tallen 2/13/2020
Assistant Attorney General Date

You may reproduce the above language in your own format; however, text may not change.



Agenda
Item No.

Date: February 23, 2022

Subject: Fire Department Data

FROM:

Frank Wagner, Fire Chief

RECOMMENDED ACTION:

Incident Data from January 2022, as well as, Call Data from 2021 and comparison to past 5 years.

ISSUE:

BACKGROUND/SUMMARY INFORMATION:

FISCAL IMPACT, IF APPROPRIATE:

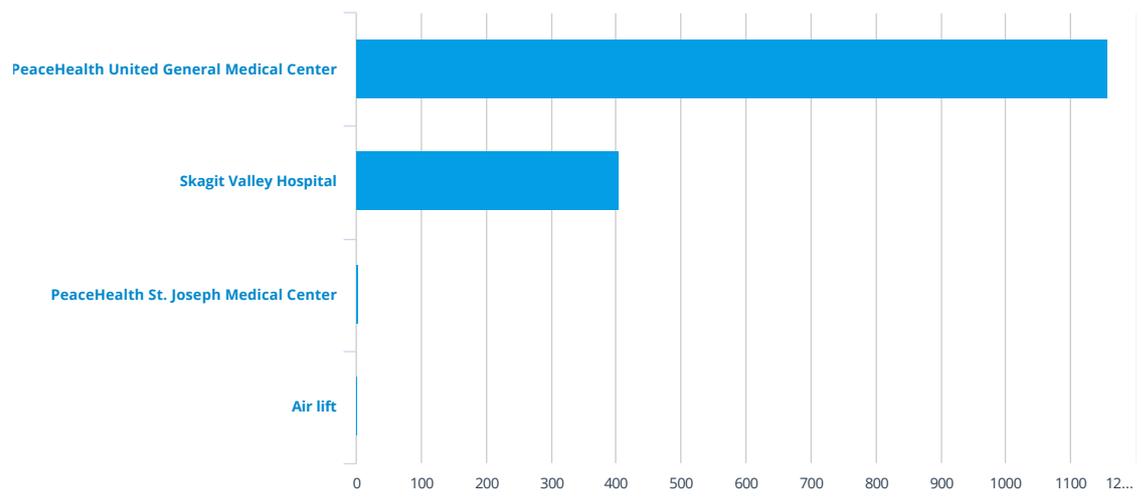
ATTACHMENTS:

1. Ambulance Transports by Destination 2021
2. Incidents by Month 2021
3. Incidents by Year
4. January 2021

Previous Year ▾ Jan 1, 2021 - Dec 31, 2021 ▾

1,571
RECORDS
In Selected Time Slice

365
DAYS
In Selected Time Slice



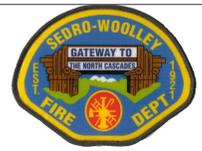
Counts % Rows % Columns % All

	Jan '21	Feb '21	Mar '21	Apr '21	May '21	Jun '21	Jul '21	Aug '21	Sep '21	Oct '21	Nov '21	Dec '21	Jan '22	Total
Air lift						2					1			3
PeaceHealth St. Joseph Medical Center								1	3			1		5
PeaceHealth United General Medical Center	90	93	100	100	82	113	98	111	89	86	95	101		1,158
Skagit Valley Hospital	30	26	28	36	47	34	42	40	29	34	22	37		405
Total	120	119	128	136	129	149	140	152	121	120	118	139		1,571

Sedro-Woolley Fire Department

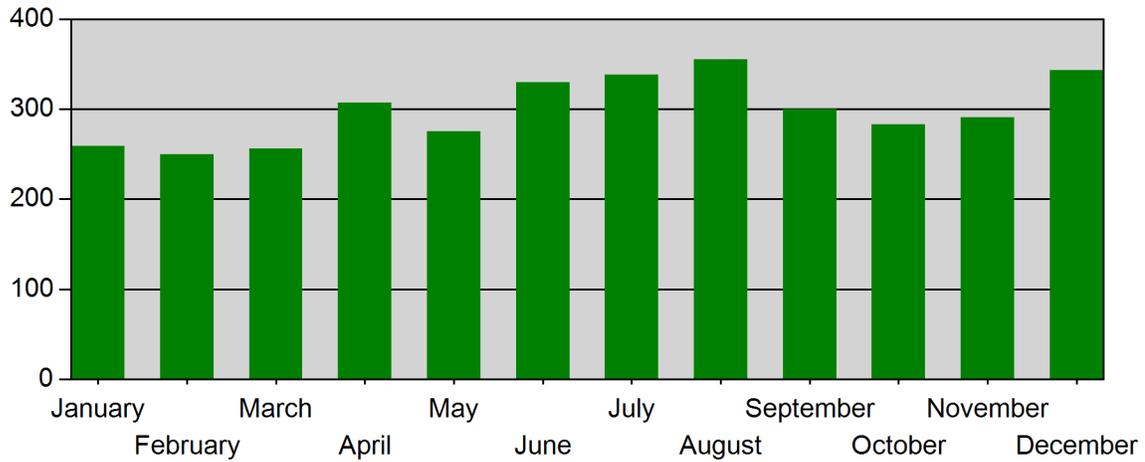
Sedro-Woolley, WA

This report was generated on 2/3/2022 10:50:49 AM



Incidents by Month for Month Range

Start Month: January | End Month: December | Year: 2021



MONTH	INCIDENTS
January	259
February	250
March	256
April	307
May	275
June	330
July	338
August	355
September	300
October	283
November	291
December	343

Only REVIEWED incidents included

Sedro-Woolley

Council Packet



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Doc Id: 10
Page # 1 of 1

Sedro-Woolley Fire Department

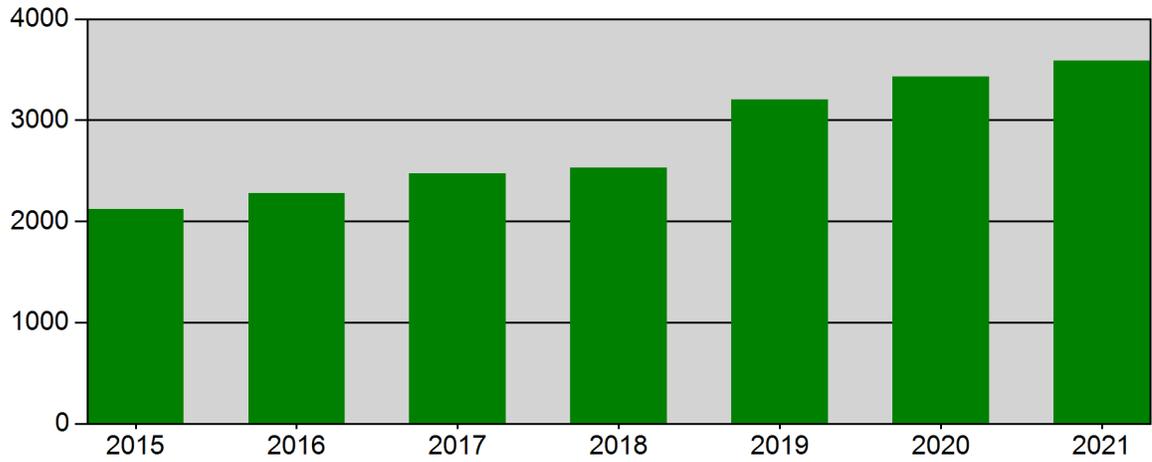
Sedro-Woolley, WA

This report was generated on 2/3/2022 10:49:23 AM



Incidents by Year for Year Range

StartYear: 2015 | EndYear: 2021



YEAR	INCIDENTS
2015	2122
2016	2278
2017	2472
2018	2528
2019	3203
2020	3429
2021	3587

Only REVIEWED incidents included

Sedro-Woolley

Council Packet

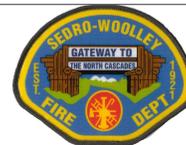


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Doc Id: 22
Page # 1 of 1

Sedro-Woolley Fire Department

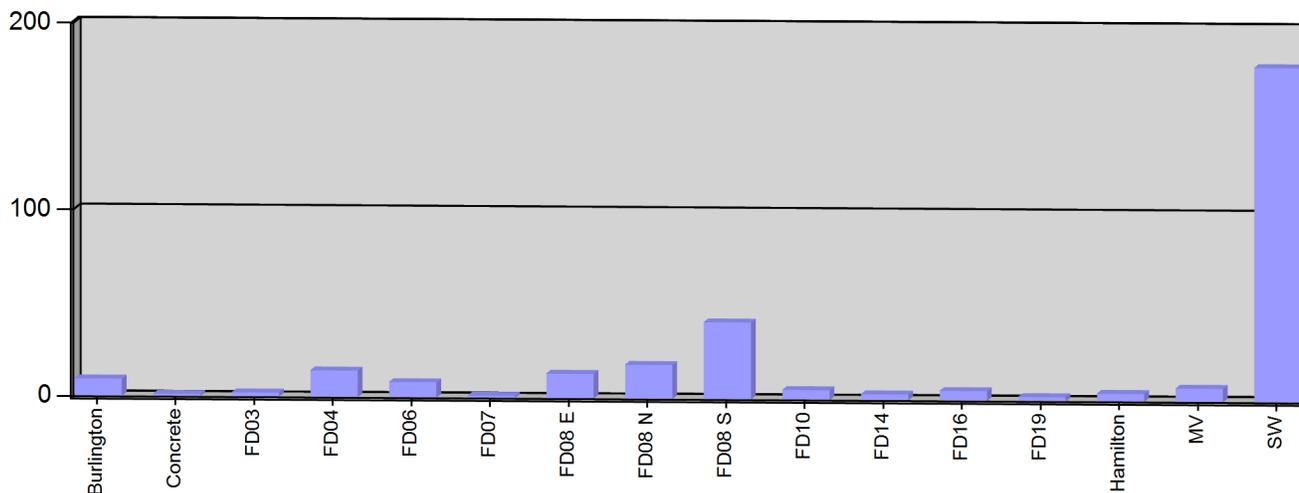
Sedro-Woolley, WA

This report was generated on 2/3/2022 10:53:10 AM



Incident Count per Zone for Date Range

Start Date: 01/01/2022 | End Date: 01/31/2022



ZONE	# INCIDENTS
Burlington - City of Burlington	9
Concrete - Town of Concrete	1
FD03 - Fire District 3	2
FD04 - Fire District 4	14
FD06 - Fire District 6	8
FD07 - Fire District 7	1
FD08 E - Outside city limits East D8	13
FD08 N - Outside the City Limits North D8	18
FD08 S - Outside City limits South D8	41
FD10 - Fire District 10	5
FD14 - Fire District 14	3
FD16 - Fire District 16	5
FD19 - Fire District 19	2
Hamilton - Town of Hamilton	4
MV - City of Mount Vernon	7
SW - Inside the City Limits of SW	179

TOTAL: 312

Zone information is defined on the Basic Info 3 screen of an incident. Only REVIEWED incidents included. Archived Zones cannot be unarchived.

January 24, 2022

Dear Partners,

Like so many others at this time of year, we are reflecting on 2021 and planning our 2022 work. It has been almost a year since we reset our approach to relicensing the Skagit River Hydropower Project, and I wanted to update you on our progress and next steps.

This time last year, some of our partners were voicing concerns that they weren't truly engaged in the relicensing process. That was concerning to me personally: City Light must meet regulatory deadlines, but we also have a larger, mission-driven commitment to being a good partner to Tribes, federal, state, and local agencies, and others as we support the Skagit River watershed and meet the needs of our customers.

In March 2021, City Light started changing its approach to relicensing, and you were willing to give us a chance to make improvements. Thank you for that. We have made a concerted effort to communicate better, resolve our issues earlier and more effectively, and stay focused on ecosystem needs for future generations. Working together, we believe we have made real progress and have much to be optimistic about.

Back in March, we made some short- and long-term commitments to what we would do and how. We started looking beyond the immediate regulatory requirements and took a longer-term view of the entire watershed. We prioritized resolving our differences about the study plan, and as a result, immediately doubled the amount of money spent on scientific studies. Those studies are critical to inform the next stage of decision-making about mitigation.

We also committed to:

Return water to the bypass reach: Restoring water to the bypass reach is vital to the cultural well-being of the Upper Skagit Tribe. We are already working on data collection and conceptual design of a new valve that will enable us to release controlled flows directly from the dam. Over the next few months, we will be working with license partners to determine the level of flow that would meet short- and long-term needs while ensuring the protection of endangered fish species that may use the bypass reach. We will collaborate with our partners every step of the way to ensure that we are moving forward in a way that meets cultural and ecosystem needs while also meeting regulatory requirements.

Create a fund to support Skagit watershed habitat restoration during the relicensing process:

Last year, the Seattle City Council passed an ordinance creating the Skagit Habitat Enhancement Program. The fund can spend \$2.5 million in the first year and an additional \$500,000 in each

subsequent year until the new license is issued. The Council also allocated an additional \$500,000 for 2021 that could be allocated to projects supported by tribes prior to the implementation of the new administrative process for the fund.

The first two projects selected are:

- The Smokehouse Project estuary restoration project, sponsored by the Swinomish Indian Tribal Community; and
- The Skagit River Estuary restoration projects, sponsored by the Washington Department of Fish and Wildlife.

Accelerate ecosystem protection and restoration work: The new FERC license will be issued with an extensive set of ecosystem protections and restoration requirements, and those requirements are informed by multiple years of study. However, City Light also committed to working with partners on early implementation of mitigation measures that could be implemented in advance of the license.

Study fish passage: Because of our partners' involvement, we are now doing extensive research to understand the engineering feasibility and biological impacts of moving salmon from the lower to the upper river. Questions about species interactions, population viability, and physical infrastructure options need to be answered. The studies will inform the next set of decisions that Tribes and regulatory agencies will make about fish passage.

We look forward to sharing preliminary results as we roll out the initial study report in March and collaborating with you on the best way to move forward.

Other areas of real importance to City Light ratepayers and local communities include:

Partner Relationships

The process reset started last March. Since then, we have had hundreds of meetings with hundreds of individuals from the Tribes and partner agencies. Our focus has been on having constructive dialogue where everyone feels heard and where it is "safe" to raise issues and resolve them together. I would love to hear your perspective on how or whether this shift is working for you.

Responsibility to Customers

As a publicly owned utility, City Light has a responsibility to manage ratepayer dollars effectively. We have budgeted \$68 million from 2018 to 2026 for the relicensing process. Relicensing, which only happens every 30-50 years, is in an intense regulatory process that takes many years to complete. It requires the work of dozens of scientists, engineers, lawyers, and other experts, as well as careful coordination among many federal and state agencies, Tribes, groups, and individuals. We are also on pace to meet our major milestones. While the timing of some project components may have shifted, the overall project is on track. It may seem like it takes a long time to relicense, but keep in mind that the decisions established under this license will have implications for decades to come. It's critical that we take the time needed to get this right.

City Light's costs are comparable to recent relicensing projects of similar size and complexity, even while we are doing more research and more community outreach than is typical. Relicensing is a regulatory requirement, but it is also a long-term investment in our future. We plan for these investments well in advance in order to avoid impact to customers. The \$68 million dollar budget is for the process and the science that will determine the required investment in license measures. Ultimately, the budget for license implementation and mitigation measures will be developed as the terms of the new license are determined.

Moving Forward

The next big milestone is in March 2022, when we file the Initial Study Report. There will be significant opportunities for collaboration then, and as we move into the development of mitigation measures to include in the new license.

We should all be proud of the work we have done in the past year. However, my message to City Light leadership and staff is clear: there is still much work to be done, and it will require continued conversation, collaboration, and compromise. We are positioned to improve the health of the watershed, and we are grateful for your partnership.

If you have any questions or concerns, please don't hesitate to reach out. We are still limiting in-person meetings and trying not to let that interfere with building important relationships.

Take care and be safe.

A handwritten signature in black ink that reads "Debra J. Smith". The signature is written in a cursive, flowing style with a long horizontal line extending from the end.

Debra J. Smith
General Manager and CEO
Seattle City Light



Agenda Item No. _____

Date: February 23, 2022

Subject: Building Permit and Planning Permit
Review Status

FROM:

John Coleman, AICP, Planning Director

RECOMMENDED ACTION:

Review only

ISSUE:

This status sheet shows the active Building and Planning permits. This information is being provided for your review and no action is required.

Please let me know if you have any questions.

ATTACHMENTS:

1. Permit Tracking Data

APPLIED BUILDING PERMITS

X = COMPLETE

R = REVISIONS RECEIVED

W = WAITING FOR RESPONSE

NO ENTRY = INITIAL REVIEW NOT COMPLETE

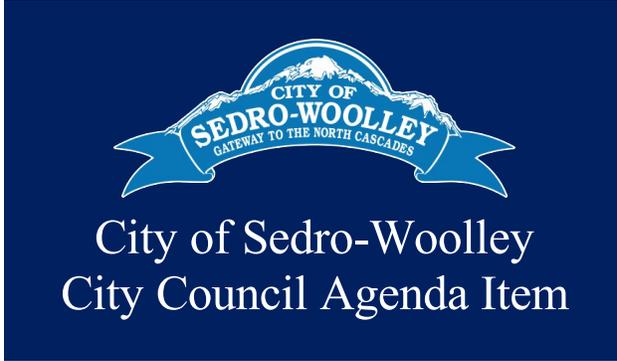
APPL. DATE	PERMIT #	NAME	ADDRESS	BLDG	REVIEW		COMMENTS	house sign ordered
					PLNG	ENGR		
			PARCEL #					
1/28/2021	2021-062	BYK Construction	820 Trail Road	X	R		New Mixed Use Bldng. Submitted new drawings 7/19/21. Contact Paul about 6" parapets.	x
3/19/2021	2021-124	BYK Construction	100 State Street	W	W		Mixed use above existing grocery store - waiting for applicaion to submit add'l info	
12/3/2021	2021-515	BYK Construction	753 Parkland Loop		X		New Single Family	x
12/17/2021	2021-401	BYK Construction	710 Parkland Loop		X		New Single Family	x
12/17/2021	2021-541	BYK Construction	707 Parkland Loop		X		New Single Family	x
12/17/2021	2021-542	BYK Construction	712 & 714 Parkland Loop		X		New Duplex.	x
1/12/2022	2022-009	BYK Construction	130 N Trail Road	X	X		New Single Family	x
1/31/2022	2022-028	Julie and Tim Marquez	1130 Warner Street		X		Single Family Remodel.	
2/14/2022	2022-056	Chris Schaffner	339 Ferry Street			NA	Remodel existing bank building into Pharmacy and Coffee Shop	
2/15/2022	2022-057	PeaceHealth	2000 Hospital Drive			NA	Install fire sprinklers in Sterile Processing Dept.	
2/14/2022	2022-058	Sedro Woolley Corner LLC	1102 State Route 20	NA	R		Fill and Grade permit for site Improvements to construct 3 unit commercial building. SEPA review with this permit.	
2/16/2022	2022-059	Sedro Woolley Corner LLC	1102 State Route 20				New Commercial Building "Shell Only"	x

APPLIED PLANNING/ ENGINEERING PERMITS

X = COMPLETE
R = REVISIONS RECEIVED
W = WAITING FOR RESPONSE
NO ENTRY = INTIAL REVIEW NOT COMPLETE
WR = Wating for Comment period to end

APPL. RECEIVED	APPL. COMPLETE	PERMIT #	NAME	ADDRESS/ PARCEL #	REVIEW		COMMENTS
					PLNG	ENGR	
6/8/2017	6/12/2017	2017-181	Josh Anderson	564 Cook and 530 Cook BLA	W	X	BLA Paid 6-12-17. sent review letter 6-16-17.
8/21/2018	9/25/2018	2018-232	Scott Wammack of Grandview North LLC	929 Alderwood Lane	W		Short plat application for 2 lots, 2 units. Preliminary short plat approval issued 1-25-19.
2/14/2019		2019-042	Double Barrel BBQ-Jim Lee	108 West Moore St	W	NA	Waiver. PAID. Sent review letter 3-15-19. Needs a site plan
7/1/2019	7/11/2019	2019-183	AA Spruce Investments LLC	201 Garden of Eden Rd	X	X	Short plat application for 4 Lots, 6 units. Preliminary short plat approval issued 1/22/21. Approval expires 1/21/24. Applicant may submit civil plans and building permits. Waiting for applicant fo complete site work and request final plat approval.
10/10/2019	10/15/2019	2019-370	BYK Construction	100 State Street	W	NA	BLA, Sent Review Letter 1/2/20. Planning comment letter sent 7/29/20
10/11/2019	3/12/2020	2019-375	RJ Group	N. Township to Portobello Avenue	W	W	201- lot PRD located between Portobello Ave and N Township St. SEPA MDNS with comment period issued 5/18/20, comment period over 6/1/20, new materials requested 6/30/20, materials received 8/5/20. Third Party wetland review report received 9/10/20, Planning comments (including report) sent 9/15/20. Waiting on revisions from applicant.
4/9/2020	4/21/2020	2020-096	Lindboom Construction	709 W Jones Rd	X	X	Short Plat application for a 4 lot, 6 unit subdivision. Two lots are duplex lots. Preliminary plat approval issued 11-30-21. Approval expires 11-29-24. Applicant may submit civil plans and building permits. Waiting for applicant to complete site work and request final plat approval.
12/11/2020		2020-352	Ginger Pennington	Parcel # P113969	X	X	Conditional Use Permit for a multi-family development in the industrial zone. Notice of Decision (approved with conditions) issued 12-28-21. Applicant may submit civil plans and building permits. Approval expires 12-27-26. Waiting for applicant fo complete site work and request final plat approval.

2/10/2021		ADU-2021-078	Christina and Derek Schmidt	826 Jameson Street	W	NA	ADU Application. Converting existing garage into an ADU. Application fees paid. Planning review letter sent 4/2/21.
2/4/2021	2/22/2021	2021-067	Sarah Bucko	F&S Grade Road through to Cook Road	W	W	Long plat application for 65 new residential lots. DA final approved 1-12-22. HEX Public hearing 1-12-22. HEX recommended approval with conditions 2-4-22.
3/10/2022	4/26/2021	2021-113	BYK Construction	820 Trail Rd.			Exc & Gd for new mixed use building with commercial below and 67 res units above. Letter of complete app sent 4-26-21. NOA and SEPA comment period mailed 4-29-21. First MDNS retracted - more info from ecology. Second MDNS issued 2-11-22.
3/4/2021	4/30/2021	2021-109	Bob Ruby	1288 N. Fruitdale Road	W	W	Long plat and PRD application for a 95 lot PRD at golf course. Letter of complete app sent 4/30/21. Third party wetland review required significant wetland study to be done. Awaiting applicant's revised wetland study.
5/5/2021	5/5/2021	2021-194	Jack Moore	402 Burrows Lane	R	NA	BLA - Planning comments requesting revisions sent 5/5/21. Comment 1 redacted - no record of survey required. Revised materials received 1/12/22. Planning comments sent 2-15-22.
7/9/2021	7/9/2021	2021-303	Renee Strouf (Davis)	735 Jameson Street	W	NA	Boundary line adjustment. Sent review comments via email 7-23-21 JC.
1/19/2022	1/24/2022	2022-016	Monte Petersen	528 F & S Grade Rd.			Short Plat Application. Letter of complete app sent 1-24-22. NOA mailed 2-11-22.
2/3/2022	2/11/2022	2022-030	Stakkeland	863 Cook Road			Fill and grade with SEPA. Letter of complete app sent 2-11-22. NOA and SEPA comment period to be mailed 2-17-22.
2/14/2022		2022-058	Sedro Woolley Corner LLC	1102 State Route 20	R		Fill and Grade permit for site Improvements to construct 3 unit commercial building. SEPA review with this permit.



Agenda
Item No.

Date:

February 23, 2022

Subject:

Discussion regarding pending litigation
pursuant to RCW 42.30.110(1)(i).

FROM:

Nikki Thompson, City Attorney

RECOMMENDED ACTION:

No action will be taken in executive session or following session.

ISSUE:

BACKGROUND/SUMMARY INFORMATION:

FISCAL IMPACT, IF APPROPRIATE:

ATTACHMENTS: