PLANNING COMMISSION MEETING
WEDNESDAY, SEPTEMBER 9, 2026 — 6:30 PM
501 DELTA AVENUE
MARYSVILLE, WA 98270

AGENDA

The Planning Commission meeting is a hybrid meeting which you are welcome to attend in person or via Teams. Anyone wishing to provide verbal public comment is encouraged to pre-register by contacting the Staff Contact for the agenda item outlined above the day prior to the meeting. Those providing verbal public comment will need to provide their name, address, e-mail and phone number for the public record.

To listen to the meeting without providing public comment:
Join: https://teams.microsoft.com/meet/258075646844112?p=gQgycc6WgFuZUYf5dk
Meeting ID: 258 075 646 844 112
Passcode: qW282A5B

Call to Order

Roll Call

Approval Of Minutes

1. Draft Meeting Minutes 7/28/2026
2. Draft Meeting Minutes 7/14/2026

Audience Participation (for topics not on the agenda)

Public Hearing

New Business

Lake Stevens and Lakewood School District Capital Facilities Plans 2026 - 2031
Recommended Motion: I move to set a Public Hearing for September 22, 2026 to consider the Lake Stevens and Lakewood School Districts' Capital Facilities Plans.

Critical Areas Ordinance
Recommended Motion: I move to set a Public Hearing on the Critical Areas Ordinance update for September 22, 2026.

Limited Commercial in Cascade Industrial Center
Recommended Motion: I move to set a Public Hearing for September 22nd on the limited commercial in the Cascade Industrial Center.

Director's Comments

Adjournment

Next Meeting

Special Accommodations: The City of Marysville strives to provide accessible meetings for people with disabilities. Please contact the City Clerk's office at (360) 363-8000 or 1-800-833-6384 (Voice Relay), 1-800-833-6388 (TDD Relay) two business days prior to the meeting date if any special accommodations are needed for this meeting.

PLANNING COMMISSION MEETING
TUESDAY, JULY 28, 2026 — 6:30 PM
501 DELTA AVENUE
MARYSVILLE, WA 98270

MINUTES

Call to Order

Chair Leifer called the meeting to order at 6:30 p.m., noting the formal resignation of Commissioner Terri Jones

Roll Call

Commission: Chair Stephen Leifer, Vice Chair Brandon Whitaker, Commissioner Shannon Jordan, Commissioner John Ray, Commissioner Raymond Miller, Commissioner Jerry Andes

Staff: Interim CD Director Angela Gemmer

Approval Of Minutes

June 23, 2026: A motion was made by Commissioner Raymond Miller and seconded by Commissioner Jerry Andes to approve the minutes with a minor amendment.

Audience Participation (for topics not on the agenda)

Public Hearing

116th Street Master Plan Repeal

Angela Gemmer, Interim CD Director, briefed the commissioners on the 116th Street Master Plan Repeal.

Chair Leifer opened the public hearing.

David Toyer, representing the applicant, summarized the letter provided to the commissioners. Commissioners asked questions.

Public Comment: Margaret Natterstad, resident at 10532 38th Avenue NE, provided comment

Commissioner Brandon Whitaker closed the public hearing. Commissioner Shannon Jordan 2nd.

Commissioner Raymond Miller moved the Planning Commission to recommend approval of the code amendment to the City Council for adoption by ordinance. Commissioner Jerry Andes 2nd. 3 Yes.

Sign Variance Code Amendments

Angela Gemmer, Senior Planner, provided a brief of the sign variance code amendments.

Chair Leifer opened the public hearing. Commissioner Brandon Whitaker closed the public hearing. Commissioner Shannon Jordan 2nd.

Commissioner Brandon Whitaker moved the Planning Commission to recommend approval of the code amendment to the City Council for adoption by ordinance. Commissioner Jerry Andes 2nd. 4 Yes

New Business

Director's Comments

Adjournment

The meeting ended at 7:47. Commissioner Raymond Miller made a motion. Commissioner Shannon Jordan 2nd

Next Meeting

August 25, 2026

PLANNING COMMISSION MEETING
TUESDAY, JULY 14, 2026 — 6:30 PM
501 DELTA AVENUE
MARYSVILLE, WA 98270

MINUTES

Call to Order

Chair Leifer called the meeting to order at 6:32 p.m., noting the absence of Commissioner Terri Jones and Brandon Whitaker.

Roll Call

Commission: Chair Stephen Leifer, Vice Chair Shannon Jordan, Commissioner Jerry Andes, Commissioner John Ray, and Commissioner Raymond Miller

Staff: Interim CD Director Angela Gemmer

Absent: Commissioner Terri Jones, Commissioner Brandon Whitaker

Approval Of Minutes

June 23, 2026: Commissioner Raymond Miller moved to approve the minutes. Commissioner Jerry Andes moved to 2nd.

Audience Participation (for topics not on the agenda)

Public Hearing

New Business

Sign Code Variance Amendment

Angela Gemmer, Interim CD Director, introduced the sign variance amendment.

Commissioner Shannon Jordan moved to set the Public Hearing is to be held on July 28th, Commissioner Jerry Andes moved to 2nd. 5 Yes.

Critical Areas Ordinance Update

Angela Gemmer, Interim CD Director, reintroduced the critical areas ordinance update with additional information from a memo from the Washington Fish and Wildlife.

Work Session was proposd on July 28th.

116th Street Master Plan Repeal

Angela Gemmer, Interim CD Director, reintroduced the 116th Street Master Plan Repeal with additional information.

Comissioners asked questions.

Commissioner Raymond Miller moved to set the Public Hearing is to be held on July 28th, Commissioner Shannon Jordan moved to 2nd. 5 Yes.

Director's Comments

Adjournment

The meeting ended at 8:00. Commissioner Shannon Jordan made a motion to adjourn.

Next Meeting

July 28, 2026

Agenda Bill

AGENDA ITEM NO. 1.

DATE: September 9, 2026

SUBMITTED BY: Angela Gemmer, Planning Manager

PRESENTED BY: Angela Gemmer, Planning Manager

ITEM TYPE: Discussion Item

AGENDA SECTION: New Business

SUBJECT:
Lake Stevens and Lakewood School District Capital Facilities Plans 2026 - 2031

SUGGESTED ACTION:
Recommended Motion: I move to set a Public Hearing for September 22, 2026 to consider the Lake Stevens and Lakewood School Districts' Capital Facilities Plans.

SUMMARY:
Pursuant to MMC 22D.040.030(1), any district serving the City of Marysville shall be eligible to receive school impact fees upon adoption by Marysville City Council of a Capital Facilities Plan (CFP) for the district as a sub-element of the Capital Facilities Element of the Marysville Comprehensive Plan. Districts' CFPs are reviewed and adopted on a biennial basis. This cycle, the Lake Stevens and Lakewood School Districts have submitted CFPs requesting school impact fees for 2027 - 2028. Due to declining enrollment, the Marysville School District has not submitted a CFP and will also not be requesting impact fees.

Upon receipt of a district's CFP, the Community Development Department must determine:

1. That the analysis contained within the CFP is consistent with current data developed pursuant to the requirements of the Growth Management Act (GMA).
2. That any school impact fee proposed in the District's CFP has been calculated using the formula contained in MMC 22D.040.050 Table 1.

3. That the CFP has been adopted by the District's board of directors.

Based on a review of the Districts' CFPs, it appears each plan has been prepared pursuant to the requirements of the GMA (RCW 36.70A), the impact fees for Lake Stevens and Lakewood School Districts have been calculated using the formula contained in MMC 22D.040.050 Table 1, and the CFPs have been adopted by each district's board of directors.

A breakdown of current and proposed impact fees, as outlined in the Districts' CFPs, applying the 50 percent pursuant to MMC 22D.040.050(1) is outlined in the attached memo.

Staff respectfully request the Planning Commission review the CFPs and ask questions at the work session on September 8th. After the discussion, staff respectfully requests that Planning Commission set a Public Hearing for September 22nd to consider the Lake Stevens and Lakewood Schools Districts' 2026 – 2031 CFPs.

ATTACHMENTS:
PC memo - 2026 School District CFPs, E1 - Lake Stevens School District Capital Facilities Plan, E2 - Lake Stevens School District SEPA checklist, E3 - Lakewood School District Capital Facilities Plan, E4 - Lakewood School District SEPA checklist

COMMUNITY DEVELOPMENT DEPARTMENT
501 Delta Avenue ◆ Marysville, WA 98270
(360) 363-8100 ◆ (360) 651-5099 FAX

MEMORANDUM

DATE: September 2, 2026

TO: Planning Commission

FROM: Angela Gemmer, Interim Community Development Director

SUBJECT: 2026 – 2031 School District Capital Facilities Plans for Lake Stevens and Lakewood School Districts (CPA26-0003)

CC: Emily Morgan, Interim Planning Manager

Exhibits:

1. Lake Stevens School District CFP
2. Lake Stevens School District SEPA checklist
3. Lakewood School District CFP
4. Lakewood School District SEPA checklist

Pursuant to MMC 22D.040.030(1), any district serving the City of Marysville shall be eligible to receive school impact fees upon adoption by Marysville City Council of a Capital Facilities Plan (CFP) for the district as a sub-element of the Capital Facilities Element of the Marysville Comprehensive Plan. Districts' CFPs are reviewed and adopted on a biennial basis. This cycle, the Lake Stevens and Lakewood School Districts have submitted CFPs requesting school impact fees for 2027 - 2028. Due to declining enrollment, the Marysville School District has not submitted a CFP and will also not be requesting impact fees.

Upon receipt of a district's CFP, the Community Development Department must determine:

1. That the analysis contained within the CFP is consistent with current data developed pursuant to the requirements of the Growth Management Act (GMA).
2. That any school impact fee proposed in the District's CFP has been calculated using the formula contained in MMC 22D.040.050 Table 1.
3. That the CFP has been adopted by the District's board of directors.

Based on a review of the Districts' CFPs, it appears each plan has been prepared pursuant to the requirements of the GMA (RCW 36.70A), the impact fees for Lake Stevens and Lakewood School Districts have been calculated using the formula contained in MMC 22D.040.050 Table 1, and the CFPs have been adopted by each district's board of directors.

The following is a breakdown of current and proposed impact fees, as outlined in the Districts' CFPs, applying the 50 percent pursuant to MMC 22D.040.050(1). It is important to note that

Washington State law Senate Bill SB 5258 requires that local jurisdictions calculate residential impact fees based on factors such as square footage, number of bedrooms, or trips generated so that impact fees are proportional to the impact. This State law has resulted in greater differentiation among the impact fees than occurred previously.

Lake Stevens School District	**2024 – 2029 (current)**	**2026 - 2031 (proposed)**	**Difference**
Single-family (three or more bedrooms)	$13,730.00	**$12,193.00**	**-$1,537.00**
Single family (two or fewer bedrooms)	$13,730.00	**$7,578.00**	**-$6,152.00**
Duplex/townhouse (three or more bedrooms)	$2,627.00	**$2,064.00**	**-$563.00**
Duplex/townhouse (two or fewer bedrooms)	$2,627.00	**$9,040.00**	**+$6,413.00**
Multi-family (three or more bedrooms)	$2,307.00	**$1,154.00**	**-$1,153.00**
Multi-family (two or fewer bedrooms)	$0.00	$0.00	$0.00
Lakewood School District	**2024 – 2029 (current)**	**2026 - 2031 (proposed)**	**Difference**
Single-family (three or more bedrooms)	$0.00	**$1,784.00**	**+$1,784.00**
Single family (two or fewer bedrooms)	$0.00	$0.00	$0.00
Townhome/duplex (three or more bedrooms)	$0.00	**$3,402.00**	**+$3,402.00**
Townhome/duplex (two or fewer bedrooms)	$0.00	$0.00	$0.00
Multi-family (two or more bedroom unit)	$0.00	**$3,092.00**	**+$3,092.00**
Multi-family (studio or one bedroom unit)	$0.00	$0.00	$0.00

Staff respectfully request the Planning Commission review the CFPs and ask questions at the work session on September 8th. After the discussion, staff respectfully requests that Planning Commission set a Public Hearing for September 22nd to consider the Lake Stevens and Lakewood Schools Districts' 2026 – 2031 CFPs.

Inspiring Excellence

LAKE STEVENS
School District

2026 – 2031 CAPITAL FACILITIES PLAN
LAKE STEVENS SCHOOL DISTRICT NO. 4

prepared for:

Snohomish County

And

City of Lake Stevens
City of Marysville

July 9, 2026

CAPITAL FACILITIES PLAN
LAKE STEVENS SCHOOL DISTRICT NO. 4

BOARD OF DIRECTORS

David Iseminger, President
Mari Taylor, Vice-President
Ryan Dickson
Brian Kessler
Paul Lund

SUPERINTENDENT

Mary Templeton, Ed.D.

This plan is not a static document. It will change as demographics, information and District plans change. It is a "snapshot" of one moment in time.

For information on the Lake Stevens School District Capital Facilities Plan contact Robb Stanton at the District (425) 335-1500

TABLE OF CONTENTS

	Page
SECTION 1: INTRODUCTION	**1**
Purpose of the Capital Facilities Plan	1
Overview of the Lake Stevens School District	2
Significant Issues Related to Facility Planning in the Lake Stevens School District	3
SECTION 2: DEFINITIONS	**4**
SECTION 3: DISTRICT EDUCATIONAL PROGRAM STANDARDS	**8**
Educational Program Standards for Elementary Grades	9
Educational Program Standards for Middle, Mid-High and High Schools	9
Minimum Educational Service Standards	10
SECTION 4: CAPITAL FACILITIES INVENTORY	**11**
Capital Facilities	11
Schools	11
Leased Facilities	12
Relocatable Classroom Facilities (Portables)	12
Support Facilities	13
Land Inventory	14
SECTION 5: STUDENT ENROLLMENT TRENDS AND PROJECTIONS	**16**
Historic Trends and Projections	16
2044 Enrollment Projection	17
SECTION 6: CAPITAL FACILITIES PLAN	**19**
Existing Deficiencies	19
Facility Needs (2026-2031)	19
Forecast of Future Facility Needs through 2044	20
Planned Improvements (2026-2031)	20
Capital Facilities Six-Year Finance Plan	21
Impact Fee Calculation Criteria	25
Proposed Impact Fee Schedule	30

LIST OF TABLES

	Page
Table 3-1: Minimum Educational Program Standards (MPES) Met	10
Table 4-1: School Capacity Inventory	12
Table 4-2: Portables	13
Table 4-3: Support Facilities	13
Table 5-1: Enrollment 2016-2025	16
Table 5-2: Projected Enrollment 2026-2031	17
Table 5-3: Projected 2044 Enrollment	18
Table 6-1: Projected Additional Capacity Needs 2026-2031	19
Table 6-2 Additional Capacity Need: 2031 & 2044	20
Table 6-3: Capital Facilities Plan 2026-2031	22
Table 6-4: Impact Fee Revenues and Expenditures	24
Table 6-5: Projected Growth-Related Capacity Surplus (Deficit) After Programmed Improvements	25
Table 6-6: Student Generation Rates	26
Table 6-7: Impact Fee Variables	29
Table 6-8: Calculated Impact Fees	30

LIST OF FIGURES

	Page
Figure 1: Map of District Facilities	15
Figure 2: Lake Stevens School District Enrollment 2016-2025	16
Figure 3: Projected Lake Stevens School District Enrollment 2026-2031	17

APPENDICES

Appendix A: Impact Fee Calculations

Appendix B: OSPI Enrollment Forecasting Methodology

Appendix C: OFM Ration Method – 2044 Enrollment Estimate

Appendix D: Student Generation Rates – FLO Analytics

Appendix E: Board Resolution Adopting Capital Facilities Plan

Appendix F: Snohomish County Comprehensive Plan -- Appendix F

Appendix G: SEPA Checklist and Determination of Non-Significance

Appendix H: Historical State Match Data

SECTION 1: INTRODUCTION

Purpose of the Capital Facilities Plan

The Washington Growth Management Act (GMA) outlines fifteen broad goals including adequate provision of necessary public facilities and services. Schools are among these necessary facilities and services. The public school districts serving Snohomish County residents have developed capital facilities plans to satisfy the requirements of RCW 36.70A.070 and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in their districts.

This Capital Facilities Plan (CFP) is intended to provide the Lake Stevens School District (District), Snohomish County, the City of Lake Stevens, the City of Marysville and other jurisdictions a description of facilities needed to accommodate projected student enrollment at acceptable levels of service over the next twenty years (2044), with a more detailed schedule and financing program for capital improvements over the next six years (2026-2031). This CFP is based in large measure on the *2024 Facilities Needs Plan for the Lake Stevens School District*.

When Snohomish County adopted its GMA Comprehensive Plan in 1995, it addressed future school capital facilities plans in Appendix F of the Comprehensive Plan[1]. This part of the plan established the criteria for all future updates of the District CFP, which is to occur every two years. This CFP updates the GMA-based Capital Facilities Plan last adopted by the District in 2024.

In accordance with GMA mandates and Chapter 30.66C SCC, this CFP contains the following required elements:

Element	See Page	Table
Future enrollment forecasts for each grade span (elementary, middle, mid-high and high).	17	5-2
An inventory of existing capital facilities owned by the District, showing the locations and student capacities of the facilities.	12	4-1
A forecast of the future needs for capital facilities and school sites; distinguishing between existing and projected deficiencies.	19 20	6-1 6-2
The proposed capacities of expanded or new capital facilities.	22	6-3

[1] See Appendix G of this CFP

Element	See Page	Table
A six-year plan for financing capital facilities within projected funding capacities, which clearly identifies sources of public money for such purposes. The financing plan separates projects and portions of projects that add capacity from those which do not, since the latter are generally not appropriate for impact fee funding. The financing plan and/or the impact fee calculation formula must also differentiate between projects or portions of projects that address existing deficiencies (ineligible for impact fees) and those which address future growth-related needs.	22	6-3
A calculation of impact fees to be assessed and support data substantiating said fees.	Appendix A	
A report on fees collected through December 2025 and how those funds were used.	24	6-4

In developing this CFP, the guidelines of Appendix F[2] were used as follows:

- Information was obtained from recognized sources, such as the U.S. Census or the Puget Sound Regional Council. School districts may generate their own data if it is derived through statistically reliable methodologies. Information is to be consistent with the State Office of Financial Management (OFM) population forecasts and those of Snohomish County.
- Chapter 30.66C SCC requires that student generation rates be independently calculated by each school district. Rates were updated for this CFP by FLO Analytics (See Appendix D).
- The CFP complies with RCW 36.70A (the Growth Management Act) and, where impact fees are to be assessed, RCW 82.02.
- The calculation methodology for impact fees meets the conditions and test of RCW 82.02. Districts which propose the use of impact fees should identify in future plan updates alternative funding sources if impact fees are not available due to action by the state, county or the cities within their district boundaries.

Adoption of this CFP by reference by the County and cities of Marysville and Lake Stevens constitutes approval of the methodology used herein by those entities.

Overview of the Lake Stevens School District

The Lake Stevens School District is located six miles east of downtown Everett and encompasses most of the City of Lake Stevens as well as portions of unincorporated Snohomish County and a small portion of the City of Marysville. The District is located south of the Marysville School District and north of the Snohomish School District.

The District currently serves a student population of 9,594[3] with seven elementary schools, two middle schools, one mid-high school, one high school and one homeschool partnership program (HomeLink).

[2] See Appendix G of this CFP

[3] April 2026 Headcount Report

Elementary schools provide educational programs for students in kindergarten through grade five. Middle schools serve grades six and seven, the mid-high serves grades eight and nine and the high school serves grades ten through twelve. HomeLink provides programs for students from kindergarten through eighth grade. The District employs over 600 certificated staff members and over 600 classified staff for a total of over 1,200.

Significant Issues Related to Facility Planning in the Lake Stevens School District

The most significant issues facing the Lake Stevens School District in terms of providing classroom capacity to accommodate existing and projected demands are:

- Continued housing growth in the District.
- The need to have unhoused students before becoming eligible for state construction funding.
- The implementation of reduced class sizes at the K-3 level at all elementary schools.
- Uneven distribution of growth across the district and an imbalance in growth in the north and south ends of the district, requiring facilities to balance enrollment.
- Increased critical areas regulations, decreasing the amount of developable area on school sites.
- Discounted school impact fees and changes to how and when these fees are calculated and paid, none of which supports mitigating the true impact of development.
- The need for additional property and lack of suitable sites within Urban Growth Area (UGA) boundaries to accommodate school facilities.
- The elimination of the ability to develop schools outside of UGAs.
- The inability to add temporary capacity with portable classrooms on school sites without costly stormwater and infrastructure improvements.
- Aging school facilities.
- Projected permanent capacity shortfall by 2031 for K-5 of 1,111 students (with no improvements).

These issues are addressed in greater detail in this Capital Facilities Plan.

SECTION 2: DEFINITIONS

Note: Definitions of terms proceeded by an asterisk (*) are provided in Chapter 30.9SCC. They are included here, in some cases with further clarification to aid in the understanding of this CFP. Any such clarifications provided herein in no way affect the legal definitions and meanings assigned to them in Chapter 30.9 SCC.

*Appendix F means Appendix F of the Snohomish County Growth Management Act (GMA) Comprehensive Plan.

*Average Assessed Value average assessed value by dwelling unit type for all residential units constructed within the district. These figures are provided by Snohomish County. The current average assessed values for 2026 are (1) single family detached, 0-2 bedrooms: $463,339, (2) single family detached, 3+ bedrooms: $713,433, (3) duplex/townhomes, 0-2 bedrooms: $278,179, (4) duplex/townhome, 3+ bedrooms: $395,811, (5) multifamily, 0-2 bedrooms: $154,822, and (6) Multifamily, 3+ bedrooms: $215,056.

*Boeckh Index (See Construction Cost Allocation)

*Board means the Board of Directors of the Lake Stevens School District ("School Board").

Capital Bond Rate means the annual percentage rate computed against capital (construction) bonds issued by the District. For 2024, a rate of 4.77% is used. (See also "Interest Rate")

*Capital Facilities means school facilities identified in the District's capital facilities plan that are "system improvements" as defined by the GMA as opposed to localized "project improvements."

*Capital Facilities Plan (CFP) means the District's facilities plan adopted by its school board consisting of those elements required by Chapter 30.66C SCC and meeting the requirements of the GMA and Appendix F. The definition refers to *this* document, which is consistent with the adopted *"2024 Facilities Needs Plan for the Lake Stevens School District,"* which is a separate document.

Construction Cost Allocation (formerly the Boeckh Index) means a factor used by OSPI as a guideline for determining the area cost allowance for new school construction. The Index for the 2026 Capital Facilities Plan is $399.38, as provided by OSPI.

*City means City of Lake Stevens and/or City of Marysville.

*Council means the Snohomish County Council and/or the Lake Stevens or Marysville City Council.

*County means Snohomish County.

*Commerce means the Washington State Department of Commerce.

*Developer means the proponent of a development activity, such as any person or entity that owns or holds purchase options or other development control over property for which development activity is

proposed.

*Development means all subdivisions, short subdivisions, conditional use or special use permits, binding site plan approvals, rezones accompanied by an official site plan, or building permits (including building permits for multi-family and duplex residential structures, and all similar uses) and other applications requiring land use permits or approval by Snohomish County, the City of Lake Stevens and/or City of Marysville.

*Development Activity means any residential construction or expansion of a building, structure or use of land or any other change of building, structure or land that creates additional demand and need for school facilities but excluding building permits for attached or detached accessory apartments, and remodeling or renovation permits which do not result in additional dwelling units. Also excluded from this definition is "Housing for Older Persons" as defined by 46 U.S.C. § 3607, when guaranteed by a restrictive covenant, and new single-family detached units constructed on legal lots created prior to May 1, 1991.

*Development Approval means any written authorization from the County and/or City, which authorizes the commencement of a development activity.

*Director means the Director of the Snohomish County Department of Planning and Development Services (PDS), or the Director's designee.

District means Lake Stevens School District No. 4.

*District Property Tax Levy Rate (Capital Levy) means the District's current capital property tax rate per thousand dollars of assessed value. For this Capital Facilities Plan, the assumed levy rate is .00148.

*Dwelling Unit Type means (1) single-family detached residences, (2) townhomes and duplex (duplexes, triplexes and quadplexes) units and (3) multi-family apartment or condominium units.

*Encumbered means school impact fees identified by the District to be committed as part of the funding for capital facilities for which the publicly funded share has been assured, development approvals have been sought or construction contracts have been let.

*Estimated Facility Construction Cost means the planned costs of new schools or the actual construction costs of schools of the same grade span recently constructed by the District, including on-site and off-site improvement costs. If the District does not have this cost information available, construction costs of school facilities of the same or similar grade span within another District are acceptable.

*FTE (Full Time Equivalent) is a means of measuring student enrollment based on the number of hours per day in attendance at the District's schools. A student is considered one FTE if they are enrolled for the equivalent of a full schedule each full day.

*GFA (per student) means the Gross Floor Area per student.

*Grade Span means a category into which the District groups its grades of students (e.g., elementary, middle, mid-high and high school).

Growth Management Act (GMA) - means the Growth Management Act (RCW 36.70A).

*Interest Rate means the current interest rate as stated in the Bond Buyer Twenty Year Bond General Obligation Bond Index. For this Capital Facilities Plan an assumed rate of 4.77% is used, as provided by Snohomish County. (See also "Capital Bond Rate")

*Land Cost Per Acre means the estimated average land acquisition cost per acre (in current dollars) based on recent site acquisition costs, comparisons of comparable site acquisition costs in other districts, or the average assessed value per acre of properties comparable to school sites located within the District. In 2026 the District estimates land costs to average $800,000 per acre.

*Multi-Family Dwelling Unit means any residential dwelling unit that is not a single-family unit as defined by Chapter 30.66C. SCC[3]

*OFM means Washington State Office of Financial Management.

*OSPI means Washington State Office of the Superintendent of Public Instruction.

*Permanent Facilities means school facilities of the District with a fixed foundation.

*R.C.W. means the Revised Code of Washington (a state law).

*Relocatable Facilities (also referred to as temporary classrooms or portables) means factory-built structures, transportable in one or more sections, which are designed to be used as an education space and are needed:

- to prevent the overbuilding of school facilities,
- to meet the needs of service areas within the District, or
- to cover the gap between the time that families move into new residential developments and the date that construction is completed on permanent school facilities.

*Relocatable Facilities Cost means the total cost, based on actual costs incurred by the District, for purchasing and installing portable classrooms.

*Relocatable Facilities Student Capacity means the rated capacity for a typical portable classroom used for a specified grade span.

*School Impact Fee means a payment of money imposed upon development as a condition of development approval to pay for school facilities needed to serve the new growth and development. The school impact fee does not include a reasonable permit fee, an application fee, the administrative fee for collecting and handling impact fees, or the cost of reviewing independent fee calculations.

*SEPA means the State Environmental Policy Act (RCW 43.21C).

*Single-Family Dwelling Unit means any detached residential dwelling unit designed for occupancy by a single-family or household.

*Standard of Service means the standard adopted by the District which identifies the program year, the class size by grade span and taking into account the requirements of students with special needs, the number of classrooms, the types of facilities the District believes will best serve its student population and other factors as identified in the District's capital facilities plan. The District's standard of service shall not be adjusted for any portion of the classrooms housed in relocatable facilities that are used as temporary facilities or from any specialized facilities housed in relocatable facilities.

*State Match Percentage means the proportion of funds that are provided to the District for specific capital projects from the State's Common School Construction Fund. These funds are disbursed based on a formula which calculates district assessed valuation per pupil relative to the whole State assessed valuation per pupil to establish the maximum percentage of the total project eligible to be paid by the State.

*Student Factor (Student Generation Rate [SGR]) means the number of students of each grade span (elementary, middle, mid-high and high school) that the District determines are typically generated by different dwelling unit types within the District[4]. Each District will use a survey or statistically valid methodology to derive the specific student generation rate, provided that the survey or methodology is approved by the Snohomish County Council as part of the adopted capital facilities plan for each District. (See Appendix D)

*Subdivision means all small and large lot subdivisions as defined in Section 30.41 of the Snohomish County Code.

*Teaching Station means a facility space (classroom) specifically dedicated to implementing the District's educational program and capable of accommodating at any one time, at least a full class of up to 30 students. In addition to traditional classrooms, these spaces can include computer labs, auditoriums, gymnasiums, music rooms and other special education and resource rooms.

*Unhoused Students means District enrolled students who are housed in portable or temporary classroom space, or in permanent classrooms in which the maximum class size is exceeded.

*WAC means the Washington Administrative Code.

[4] For purposes of calculating Student Generation Rates, assisted living or senior citizen housing are not included.

SECTION 3: DISTRICT EDUCATIONAL PROGRAM STANDARDS

School facility and student capacity needs are dictated by the types and amounts of space required to accommodate the District's adopted educational program. The educational program standards that typically drive facility space needs include grade configuration, optimum facility size, class size, educational program offerings, classroom utilization and scheduling requirements, and use of relocatable classroom facilities (portables). Educational Program Standards are the same as the minimum level of service as required by Appendix F of the Growth Management Comprehensive Plan.

In addition, government mandates and community expectations may affect how classroom space is used. Traditional educational programs offered by school districts are often supplemented by nontraditional or special programs such as special education, English as a second language, remediation, alcohol and drug education, preschool and daycare programs, computer labs, music programs, etc. These special or nontraditional educational programs can have a significant impact on the available student capacity of school facilities.

Examples of special programs offered by the Lake Stevens School District at specific school sites include:

- Behavioral Program
- Bilingual Program
- Career and Technical Education
- Community Education
- Conflict Resolution
- Contract-Based Learning
- Credit Retrieval
- Drug Resistance Education
- Early Learning Center, which includes ECEAP and developmental preschool
- Full-day Kindergarten
- Highly Capable
- Home School Parent Partnership (HomeLink)
- Language Assistance Program (LAP)
- Life Skills Self-Contained Program
- Multi-Age Instruction
- Multi-tiered Systems of Support
- Occupational and Physical Therapy
- Online Distance Learning
- Running Start
- Speech and Language Pathologists
- Structured Learning Center Self-Contained Program
- Summer School
- Title 1
- Title 2

Variations in student capacity between schools are often a result of what special or nontraditional

programs are offered at specific schools. These special programs require classroom space, which can reduce the regular classroom capacity of some of the buildings housing these programs. Some students, for example, leave their regular classroom for a short period of time to receive instruction in these special programs. Newer schools within the District have been designed to accommodate most of these programs. However, older schools often require space modifications to accommodate special programs, and in some circumstances, these modifications may reduce the overall classroom capacities of the buildings.

District educational program requirements will undoubtedly change in the future as a result of changes in the program year, special programs, class sizes, grade span configurations, state funding levels and use of new technology, as well as other physical aspects of the school facilities. The school capacity inventory will be reviewed periodically and adjusted for any changes to the educational program standards. These changes will also be reflected in future updates of this Capital Facilities Plan.

In addition, districts are wrestling with the outcomes from the McCleary decision and additional funding and requirements from OSPI and the state Legislature. Many of these outcomes, like full-day kindergarten and reduced class sizes at the elementary level and new graduation requirements at the high school level can have significant impacts to the use of facilities. These will need to be incorporated into the District's facility capacities and uses.

The District's minimum educational program requirements, which directly affect school capacity, are outlined below for the elementary, middle, mid-high and high school grade levels.

Educational Program Standards for Elementary Grades

- Average class size for kindergarten should not exceed **23** students.
- Average class size for grades 1-3 should not exceed **25** students.
- Average class size for grades 4-5 should not exceed **27** students.
- Special Education for students may be provided in a self-contained classroom. The practical capacity for these classrooms is **12** students.
- All students will be provided music instruction in a separate classroom.
- Optimum design capacity for new elementary schools is 650 students. However, the actual capacity of individual schools may vary depending on the educational programs offered.

Educational Program Standards for Middle, Mid-High and High Schools

- Class size for secondary grade (6-12) regular classrooms should not exceed **30** students.
- Special Education for students may be provided in a self-contained classroom. The practical capacity for these classrooms is 12 students.
- As a result of scheduling conflicts for student programs, the need for specialized rooms for certain programs, and the need for teachers to have a workspace during planning periods, it is not possible to achieve 100% utilization of all regular teaching stations throughout the day. Therefore, classroom capacity is adjusted using a utilization factor of 83% at the high school, mid-high and middle school levels.
- Some Special Education services for students will be provided in a self-contained classroom.
- Identified students will also be provided other nontraditional educational opportunities in classrooms designated as follows:
    - Resource Rooms (i.e., computer labs, study rooms).
    - Special Education Classrooms.

- Program Specific Classrooms:
    - Music
    - Physical Education
    - Drama
    - Family and Consumer Sciences
    - Art
    - Career and Technical Education

Optimum design capacity for new middle schools is 750 students. Optimum design capacity for new high schools is 2,000 students. The actual capacity of individual schools may vary depending on the educational programs offered.

Minimum Educational Program Standards

The Lake Stevens School District will evaluate student housing levels based on the District as a whole system and not on a school by school or site by site basis. This may result in portable classrooms being used as interim housing, attendance boundary changes or other program changes to balance student housing across the system.

The Lake Stevens School District has set minimum educational program standards based on several criteria. Exceeding these minimum standards will trigger significant changes in program delivery. If there are 27 or fewer students in a majority of K-5 classrooms, the standards have been met; if there are 30 or fewer students in a majority of 6-12 classrooms, the minimum standards have been met. The Lake Stevens School District meets these standards at all grade levels.

Table 3-1 – Minimum Educational Program Standards (MEPS) Met

Grade Level	Classrooms Meeting MLOS	Total Classrooms	% Meeting MEPS
Total Elementary	180	186	97%
Total Secondary	188	196	96%
District Total	368	382	96%

It should be noted that the minimum educational program standard is just that, a minimum, and not the desired or accepted operating standard. Also, portables are used to accommodate students within District standards, but are not considered a permanent solution. (See Chapter 4).

SECTION 4: CAPITAL FACILITIES INVENTORY

Capital Facilities

Under GMA, public entities are required to inventory capital facilities used to serve the existing populations. Capital facilities are defined as any structure, improvement, piece of equipment, or other major asset, including land that has a useful life of at least ten years. The purpose of the facilities inventory is to establish a baseline for determining what facilities will be required to accommodate future demand (student enrollment) at acceptable or established levels of service. This section provides an inventory of capital facilities owned and operated by the Lake Stevens School District including schools, portables, developed school sites, undeveloped land and support facilities. School facility capacity was inventoried based on the space required to accommodate the District's adopted educational program standards (see Section 3). A map showing locations of District school facilities is provided as Figure 1.

Schools

The Lake Stevens School District includes: seven elementary schools grades K-5, two middle schools grades 6-7, one mid-high school grades 8-9, one high school grades 10-12, and an alternative K-8 home school partnership program (HomeLink).

The Office of the Superintendent of Public Instruction (OSPI) calculates school capacity by dividing gross square footage of a building by a standard square footage per student. This method is used by the State as a simple and uniform approach for determining school capacity for purposes of allocating available State Match Funds to school districts for school construction. However, this method is not considered an accurate reflection of the capacity required to accommodate the adopted educational program of each individual district. For this reason, school capacity was determined based on the number of teaching stations within each building and the space requirements of the District's adopted education program. These capacity calculations were used to establish the District's baseline capacity and determine future capacity needs based on projected student enrollment. The school capacity inventory is summarized in Table 4-1.

Table 4-1 – School Capacity Inventory

School Name	Site Size (acres)	Bldg. Area (Sq. Ft.)	Teaching Stations - Regular	Teaching Stations - SPED	Perm. Student Capacity*	Capacity with Portables	Year Built or Last Remodel	Potential for Expansion of Perm. Facility
Elementary Schools								
Glenwood Elementary	9.0	55,889	22	3	564	753	1992	Yes
Highland Elementary	8.7	64,457	20	4	528	690	1999	Yes
Hillcrest Elementary	15.0	83,469	21	4	541	976	2008	Yes
Mt. Pilchuck Elementary	22.0	69,708	21	3	543	651	2008	Yes
Skyline Elementary	15.0	56,897	18	5	486	702	1992	Yes
Stevens Creek Elementary	20.0	93,269	26	3	684	738	2018	Yes
Sunnycrest Elementary	15.0	62,036	24	1	588	750	2009	Yes
Elementary Total	104.7	485,725	152	23	3,934	5,260		
Middle Schools								
Lake Stevens Middle School	25.0	96,062	26	5	635	849	1996	Yes
North Lake Middle School	15.0	106,410	34	2	787	887	2001	Yes
Middle School Total	40.0	202,472	60	7	1,422	1,736		
Mid-High								
Cavelero Mid-High School	37.0	240,782	62	8	1,539	1,593	2007	Yes
Mid-High Total	37.0	240,782	62	8	1,539	1,593		
High Schools								
Lake Stevens High School	38.0	323,919	86	6	2,052	2,052	2021	Yes
High School Total	38.0	323,919	86	6	2,052	2,052		
District Totals	219.7	1,252,898	360	44	8,947	10,641		

*Note: Student Capacity is exclusive of portables and includes adjustments for special programs.

Leased Facilities

The District does not lease any permanent classrooms.

Relocatable Classrooms (Portables)

Portables are used as temporary classroom space to house students until funding can be secured to construct permanent classroom facilities. Portables are not viewed by the District as a solution for housing students on a permanent basis. The Lake Stevens School District currently uses 92 portable classrooms at various school sites throughout the District to provide temporary capacity for K-12 students. This compares with 75 portables used in 2020. A typical portable classroom can provide capacity for a full-size class of students. Current use of portables throughout the District is summarized in Table 4-2.

Table 4-2 – Portables

School Name	Portable Classrooms	Capacity in Portables	Remaining Useful Life	Portable Area (ft^2)
ELEMENTARY SCHOOLS				
Glenwood	10	125	Good/excellent	8,960
Highland	10	150	Good	8,960
Hillcrest	21	295	Good/excellent	18,816
Mt. Pilchuck	9	75	Good	8,064
Skyline	11	100	Good/excellent	9,856
Stevens Creek	2	50	Excellent	1,792
Sunnycrest	7	100	Good	6,272
Elementary Total	70	895		62,720
MIDDLE SCHOOLS				
Lake Stevens Middle	11	192	Good	9,856
North Lake Middle	9	100	Good	8,064
Middle Schools Total	20	292		17,920
MID-HIGH SCHOOL				
Cavelero Mid-High	2	45	Excellent	1,792
Mid-High Total	2	45		1,792
HIGH SCHOOL				
Lake Stevens High School	0	0		0
High School Total	0	0		0
District K-12 Total	92	1,232		82,432

The District will continue to purchase or move existing portables, as needed, to cover the gap between the time that families move into new residential developments and the time the District is able to complete construction on permanent school facilities.

Support Facilities

In addition to schools, the Lake Stevens School District owns and operates additional facilities that provide operational support functions to the schools. An inventory of these facilities is provided in Table 4-3.

Table 4-3 – Support Facilities

Facility	Site Acres	Building Area (sq.ft.)
Education Service Center	1.4	14,771
Grounds	1.0	2,788
Maintenance	1.0	5,724
Transportation	6.0	15,589
Support Facility Total	9.4	38,872

Land Inventory

The Lake Stevens School District owns four undeveloped sites described below:

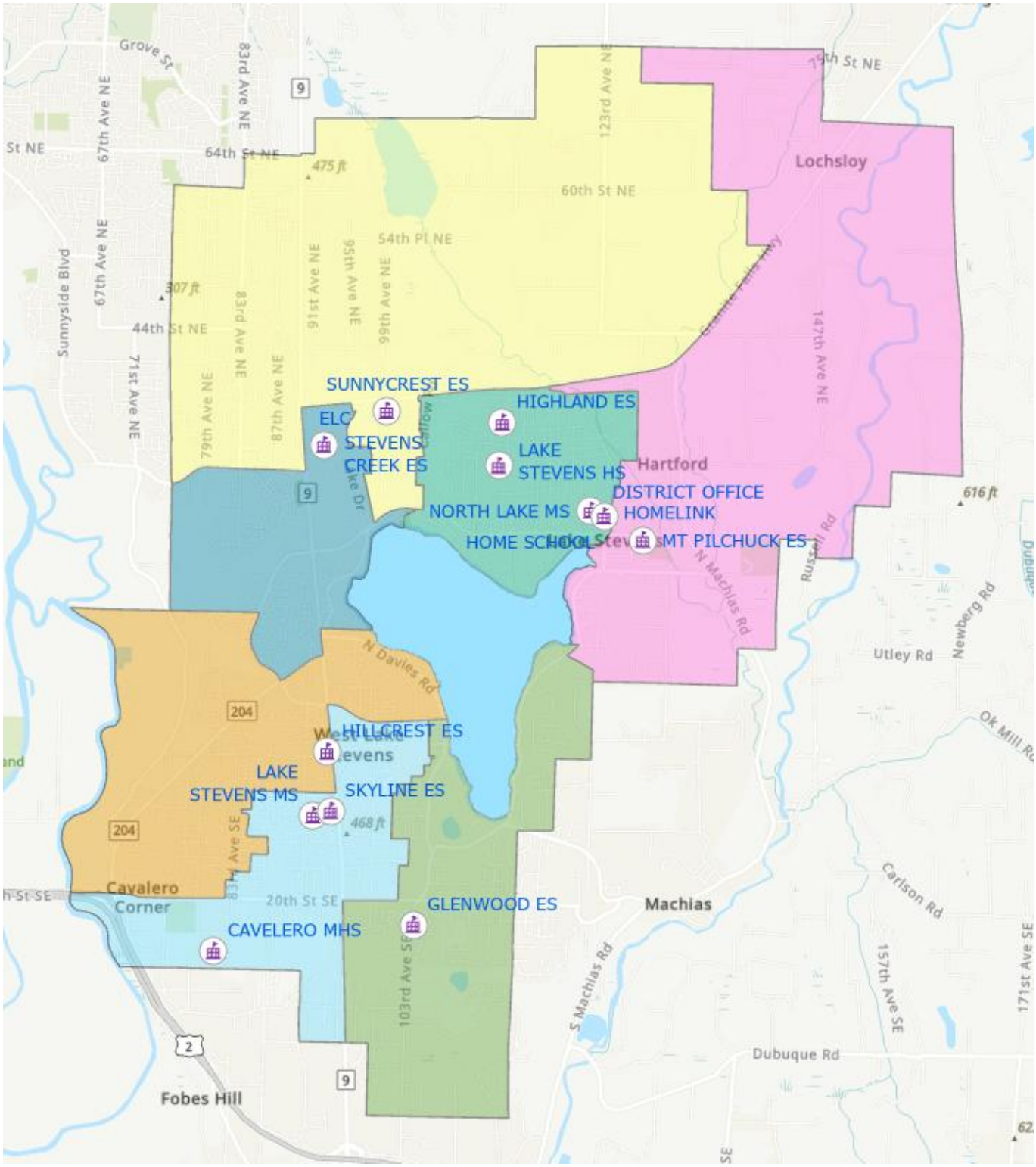
Ten acres located in the northeast area of the District (Lochsloy area), west of Highway 92. This site will eventually be used for an elementary school (beyond the year 2031). It is presently used as an auxiliary sports field.

An approximately 23-acre site northeast of the intersection of Highway 9 and Soper Hill Road bordered by Lake Drive on the east. This is the site of the district's newest elementary school, number eight, currently under construction.

A parcel of approximately 23 acres located at 20th Street SE and 83rd Street. This property was donated to the School District for an educational facility. The property is encumbered by wetlands and easements, leaving less than 10 available acres. It is planned to be a future elementary school.

A 2.42-acre site (Jubb Field) located in an area north of Highway #92 is used as a small softball field. It is not of sufficient size to support a school.

Figure 1 – Map of District Facilities

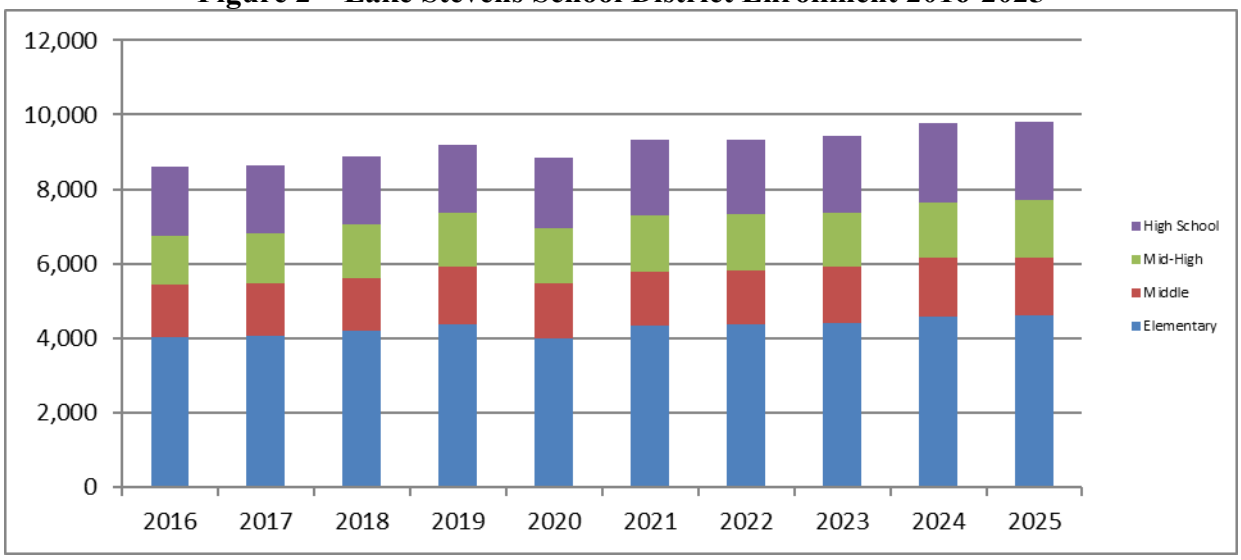


SECTION 5: STUDENT ENROLLMENT TRENDS AND PROJECTIONS

Historic Trends and Projections

Student enrollment in the Lake Stevens School District remained relatively constant between 1973 and 1985 (15%) and then grew significantly from 1985 through 2005 (approximately 120%). Between 2016 and 2025, student enrollment increased by 1,214 students, over 14%. The District has been and is projected to continue to be one of the fastest growing districts in Snohomish County based on the OFM-based population forecast. Population is estimated by the County to rise from 50,461 in 2020 to almost 67,294 in Year 2044, an increase of 33%.

Figure 2 – Lake Stevens School District Enrollment 2016-2025



Enrollment projections are most accurate for the initial years of the forecast period. Moving further into the future, economic conditions and demographic trends in the area affect the estimates. Monitoring population growth for the area is an essential yearly activity in the ongoing management of the capital facilities plan. In the event enrollment growth slows, plans for new facilities can be delayed. It is much more difficult, however, to initiate new projects or speed projects up in the event enrollment growth exceeds the projections. Table 5-1 shows enrollment growth from 2016 to 2025 according to OSPI and District records.

Table 5-1 - Enrollment 2016-2025

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Elementary	4,030	4,083	4,207	4,362	3,998	4,354	4,372	4,397	4,578	4,632
Middle	1,398	1,405	1,414	1,556	1,468	1,426	1,450	1,527	1,571	1,539
Mid-High	1,312	1,344	1,426	1,448	1,476	1,524	1,497	1,447	1,481	1,533
High School	1,871	1,814	1,828	1,834	1,912	2,021	2,020	2,075	2,134	2,121
Total	**8,611**	**8,646**	**8,875**	**9,200**	**8,854**	**9,325**	**9,339**	**9,446**	**9,764**	**9,825**

Note that the District's enrollment dropped by 346 students (3.8%) in 2020. In 2020, education was mostly held remotely due to the COVID-19 pandemic, and many districts experienced enrollment

declines. Unlike many districts, however, enrollment in Lake Stevens bounced back up by 471 students (5.3%) in 2021 and enrollment has continued to grow since.

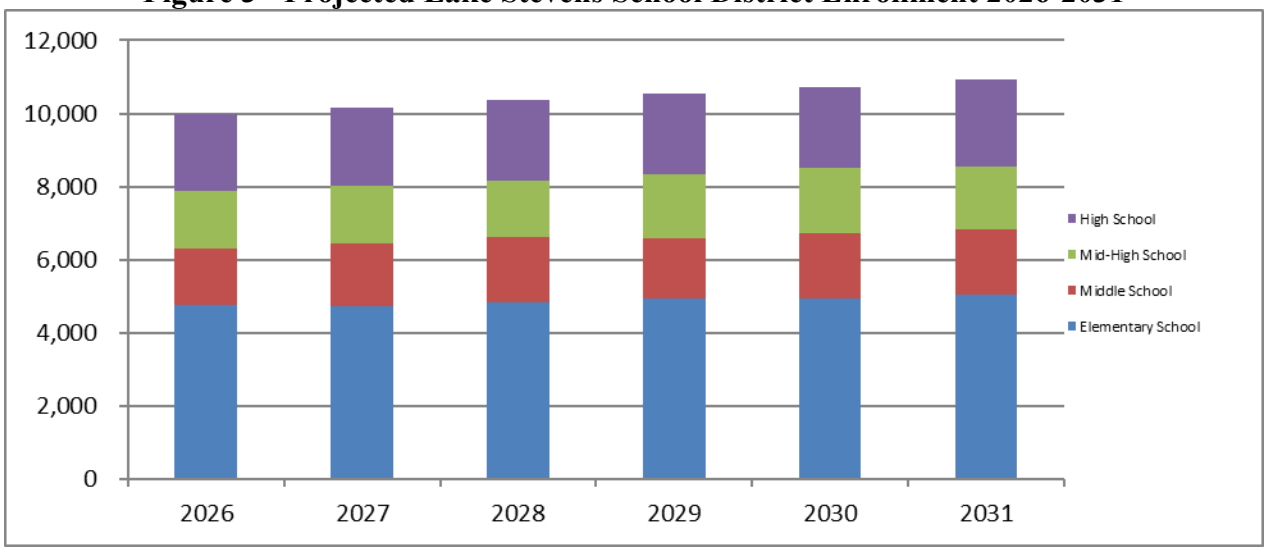
The District has either used a Ratio Method for its projections or accepted the projections from the State Office of the Superintendent of Public Instruction (OSPI). The Ratio Method (See Appendix C) estimates future enrollments as a percentage of total population, which is tracked for past years, with assumptions being made for what this percentage will be in future years. Between 2010-2025, the average percentage was 18.38%. For future planning, a level rate of 17.66% was used through 2031 and for Year 2044. These assumptions recognize a trend toward lower household sizes offset by significant growth anticipated in the Lake Stevens area. OSPI methodology uses a modified cohort survival method which is explained in Appendix B.

OSPI Cohort Projection estimates are found in Table 5-2. These have been adopted as part of this Capital Facilities Plan.

Table 5-2 - Projected Enrollment 2026-2031

	2025*	2026	2027	2028	2029	2030	2031
Elementary School	4,632	4,761	4,727	4,816	4,921	4,930	5,045
Middle School	1,539	1,531	1,725	1,792	1,673	1,779	1,793
Mid-High School	1,533	1,570	1,557	1,550	1,747	1,813	1,694
High School	2,121	2,104	2,147	2,193	2,204	2,208	2,382
Total	9,825	9,966	10,156	10,351	10,545	10,730	10,914

Figure 3 - Projected Lake Stevens School District Enrollment 2026-2031



In summary, the OSPI Cohort Projection estimates that headcount enrollment will total 10,914 students in 2031. This represents an 11.1% increase over 2025. The District accepts the OSPI estimate for its 2026 CFP planning.

2044 Enrollment Projection

The District projects a 2044 student enrollment of 11,883 based on the Ratio method. (OSPI does not forecast enrollments beyond 2031). The forecast is based on the County's OFM-based population

forecast of 67,294 in the District. Although student enrollment projections beyond 2031 are highly speculative, they are useful for developing long-range comprehensive facilities plans. These long-range enrollment projections may also be used in determining future site acquisition needs.

Table 5-3 - Projected 2044 Enrollment

Grade Span	Projected 2044 FTE Student Enrollment
Elementary (K-5)	5,530
Middle (6-7)	1,888
Mid-High (8-9)	1,884
High (10-12)	2,581
District Total (K-12)	11,883

The 2044 estimate represents a 20.1% increase over 2025 enrollment levels. The total population in the Lake Stevens School District is forecasted to rise by 20%. The total enrollment estimate was broken down by grade span to evaluate long-term site acquisition needs for elementary, middle school, mid-high school and high school facilities. Enrollment by grade span was determined based on recent and projected enrollment trends at the elementary, middle, mid-high and high school levels.

Again, the 2044 estimates are highly speculative and are used only for general planning purposes. Analysis of future facilities and capacity needs is provided in Section 6 of this Capital Facilities Plan.

SECTION 6: CAPITAL FACILITIES PLAN

Existing Deficiencies

Current enrollment at each grade level is identified in Table 5-2. The District currently (2025) has 698 unhoused students at the elementary level, 117 unhoused students at the middle school level and 69 unhoused students at the high school level. It has excess capacity (6) at the mid-high school.

Facility Needs (2026-2031)

Projected available student capacity was derived by subtracting projected student enrollment from 2025 permanent school capacity (excluding portables) for each of the six years in the forecast period (2026-2031). The District's enrollment projections in Table 5-2 have been applied to the existing capacity (Table 4-1). If no capacity improvements were to be made by the year 2031 the District would be over capacity at the elementary level by 1,111 students, 371 students at the middle school level, 155 students at the mid-high school and 330 students at the high school.

These projected future capacity needs are depicted on Table 6-1. This table compares actual future space needs with the portion of those needs that are "growth related." RCW 82.02 and Chapter 30.66C SCC mandate that new developments cannot be assessed impact fees to correct existing deficiencies. Thus, any capacity deficiencies existing in the District in 2025 must be deducted from the total projected deficiencies before impact fees are assessed.

Table 6-1 - Projected Additional Capacity Needs 2026 – 2031

Grade Span	2025*	2026	2027	2028	2029	2030	2031
Elementary (K-5)							
Permanent capacity	3,934	3,934	3,934	3,934	3,934	3,934	3,934
Enrollment	4,632	4,761	4,727	4,816	4,921	4,930	5,045
Capacity Surplus/(Deficit)	(698)	(827)	(793)	(882)	(987)	(996)	(1,111)
Growth Related		(129)	(95)	(184)	(289)	(298)	(413)
Middle School (6-7)							
Permanent capacity	1,422	1,422	1,422	1,422	1,422	1,422	1,422
Enrollment	1,539	1,531	1,725	1,792	1,673	1,779	1,793
Capacity Surplus/(Deficit)	(117)	(109)	(303)	(370)	(251)	(357)	(371)
Growth Related		0	(186)	(253)	(134)	(240)	(254)
Mid-High (8-9)							
Permanent capacity	1,539	1,539	1,539	1,539	1,539	1,539	1,539
Enrollment	1,533	1,570	1,557	1,550	1,747	1,813	1,694
Capacity Surplus/(Deficit)	6	(31)	(18)	(11)	(208)	(274)	(155)
Growth Related		(37)	(24)	(17)	(214)	(280)	(161)
High School (10-12)							
Permanent capacity	2,052	2,052	2,052	2,052	2,052	2,052	2,052
Enrollment	2,121	2,104	2,147	2,193	2,204	2,208	2,382
Capacity Surplus/(Deficit)	(69)	(52)	(95)	(141)	(152)	(156)	(330)
Growth Related		0	(26)	(72)	(83)	(87)	(261)

* October 2025 enrollment

Figures assume no capital improvements

Forecast of Future Facility Needs through 2044

Additional elementary, middle, mid-high and high school classroom space will need to be constructed between 2026 and 2044 to meet the projected student population increase. The District will have to purchase additional school sites to facilitate growth during this time frame. By the end of the six-year forecast period (2031), additional permanent student capacity will be needed as follows:

Table 6-2 –Additional Capacity Need 2031 & 2044

Grade Level	2026 Capacity	2031 Enrollment	2031 Additional Capacity Needed	2044 Enrollment	2044 Additional Capacity Needed
Elementary	3,934	5,045	1,111	5,530	1,596
Middle School	1,422	1,793	371	1,888	466
Mid-High	1,539	1,694	155	1,884	345
High School	2,052	2,382	330	2,581	529
Total	8,947	10,914	1,967	11,883	2,936

Planned Improvements (2026-2031)

The following is a brief outline of those projects likely needed to accommodate unhoused students in the Lake Stevens School District through the Year 2031 based on OSPI enrollment projections.

Elementary Schools: Based upon current enrollment estimates, elementary student population will increase to the level of requiring two new elementary schools. The CFP reflects acquisition of land for one school, the construction of one new elementary and expansion of two existing elementaries in 2026 through 2028.

Middle Schools: Based upon current enrollment estimates, middle school student population will increase to the level of requiring an expansion of an existing middle school. The CFP reflects the expansion of Lake Stevens Middle School in 2029.

Interim Classroom Facilities (Portables): Additional portables will be purchased in future years, as needed. However, it remains a District goal to house all students in permanent facilities.

Site Acquisition and Improvements: An additional elementary school site and a middle school site will be needed in areas where student growth is taking place. The 10-acre Lochsloy property is in the far corner of the district, not in an area of growth and will not meet this need. Affordable land suitable for school facilities will be difficult to acquire.

Support Facilities

The District has added a satellite pupil transportation lot at Cavelero Mid High to support the growing needs for the district. This is a temporary measure until a site can be acquired and a new, larger pupil transportation center can be built.

Capital Facilities Six-Year Finance Plan

The Six Year Finance Plan shown on Table 6-3 demonstrates how the District intends to fund new construction and improvements to school facilities for the years 2026-2031. The financing components include bond issue(s), state match funds, school mitigation and impact fees.

The financing plan separates projects and portions of projects that add capacity from those that do not, since the latter are generally not appropriate for impact fee funding. The financing plan and impact fee calculation formula also differentiate between projects or portions of projects that address existing deficiencies (ineligible for impact fees) and those which address future growth-related needs.

Table 6-3 – 2026-2031 Capital Facilities Plan

Estimated Project Cost by Year (In $Millions)	2026	2027	2028	2029	2030	2031	Total	Local Cost*	State Match
Improvements Adding Student Capacity									
Elementary									
Site Acquisition									
Acres						20	20		
Purchase Cost						$ 16.0	$ 16.0	$ 16.0	$ -
Capacity Addition						650	650		
Relocatable Facilities Cost							$ -	$ -	
Capacity Addition							0		
Construction Cost		$ 97.1	$ 11.9				$ 109.0	$ 89.2	$ 19.8
Capacity Addition		966	114				1080		
Middle									
Site Acquisition									
Acres						30	30		
Purchase Cost						$ 24.0	$ 24.0	$ 24.0	$ -
Capacity Addition						850	850		
Relocatable Facilities Cost							$ -	$ -	$ -
Capacity Addition							0		
Construction Cost				$ 26.9			$ 26.9	$ 26.9	
Capacity Addition				237			237		
Mid-High									
Site Acquisition									
Acres							-		
Purchase Cost							$ -	$ -	$ -
Capacity Addition							-		
Relocatable Facilities Cost				$ 1.3			$ 1.3	$ 1.3	$ -
Capacity Addition				135			135		
Construction Cost							$ -	$ -	$ -
Capacity Addition							-		
High School									
Site Acquisition									
Acres							-		
Purchase Cost							$ -	$ -	$ -
Capacity Addition							-		
Relocatable Facilities Cost							$ -	$ -	$ -
Capacity Addition							0		
Construction Cost			$ 27.70				$ 27.70	$ 27.70	$ -
Capacity Addition			280				280		
Student Capacity Total Cost	$ -	$ 97.1	$ 39.6	$ 26.9	$-	$ 40.0	$ 203.5	$ 183.7	$ 19.8
Improvements Not Adding Student Capacity									
Elementary									
Construction Cost		$ 51.8	$ 58.8				$ 110.6	$ 85.0	$ 25.6
Middle									
Construction Cost				$ 71.9			$ 71.9	$ 44.6	$ 27.3
Mid-High									
Construction Cost							$ -	$ -	$ -
High School									
Construction Cost							$ -	$ -	$ -
District-wide Improvements									
Construction Cost	$ 15.0		$ 12.0			$ 5.2	$ 32.2	$ 32.2	$ -
Non-Student Capacity Total Cost	$15.00	$ 51.83	$ 70.81	$ 71.95	$-	$ 5.20	$214.79	$161.89	$52.90
Elementary (including land acquisition)	$ -	$ 148.9	$ 70.7	$ -	$-	$ 16.0	$ 235.6	$ 190.2	$ 45.4
Middle	$ -	$ -	$ -	$ 98.8	$-	$ 24.0	$ 122.8	$ 95.5	$ 27.3
Mid-High	$ -	$ -	$ -	$ 1.3	$-	$ -	$ 1.3	$ 1.3	$ -
High School	$ -	$ -	$ 27.7	$ -	$-	$ -	$ 27.7	$ 27.7	$ -
District Wide	$ 15.0	$ -	$ 12.0	$ -	$-	$ 5.2	$ 32.2	$ 32.2	$ -
Annual Total	$15.00	$148.90	$110.40	$100.05	$-	$45.20	$419.55	$346.85	$72.70

*Local Costs include funds currently available, impact fees to be collected and bonds or levies not yet approved.

General Obligation Bonds: Bonds are typically used to fund the construction of new schools and other capital improvement projects. A 60% voter approval is required to pass a bond. Bonds are then retired through collection of property taxes. A capital improvements bond for $314,000,000 was approved by voters in February 2025. Funds will be used to construct a new elementary school, modernize and expand two others as well as a middle school, add a 9-12 innovative learning center, and fund other non-growth-related projects.

The total costs of the growth-related projects outlined in Table 6-3 represent recent and current bids per information obtained through OSPI, the District's architect and neighboring school districts that have recently or are planning to construct classroom space. An escalation factor of 5.5% per year has been applied out to 2031.

State Match Funds: State Match Funds come from the Common School Construction Fund. Bonds are sold on behalf of the fund then retired from revenues accruing predominately from the sale of renewable resources (i.e., timber) from State school lands set aside by the Enabling Act of 1889. If these sources are insufficient to meet needs, the Legislature can appropriate funds or the State Board of Education can establish a moratorium on certain projects.

School districts may qualify for State matching funds for a specific capital project. To qualify, a project must first meet State-established criteria of need. This is determined by a formula that specifies the amount of square footage the State will help finance to house the enrollment projected for the district. If a project qualifies, it can become part of a State prioritization system. This system prioritizes allocation of available funding resources to school districts based on a formula which calculates district assessed valuation per pupil relative to the whole State assessed valuation per pupil to establish the percent of the total project cost to be paid by the State for eligible projects.

State Match Funds can only be applied to major school construction projects. Site acquisition and minor improvements are not eligible to receive matching funds from the State. Because state matching funds are dispersed after a district has paid its local share of the project, matching funds from the State may not be received by a school district until after a school has been constructed. In such cases, the District must "front fund" a project. That is, the District must finance the project with local funds. When the State share is finally disbursed (without accounting for escalation) the future District project is partially reimbursed.

Not all costs for building a new school or expanding an existing one are eligible for reimbursement through the state's program. Because of this, the District has historically received approximately 30% of the actual cost of school construction in state matching funds[5]. For its 2026 CFP, the District assumes a 30% match.

School Impact Fees: Development impact fees have been adopted by several jurisdictions as a means of supplementing traditional funding sources for construction of public facilities needed to accommodate new development. School impact fees are generally collected by the permitting agency at the time building permits or certificates of occupancy are issued.

[5] See Appendix H

Impact fees have been calculated utilizing the formula in Chapter 30.66C SCC. The resulting figures are based on the District's cost per dwelling unit to purchase land for school sites, make site improvements, construct schools and purchase, install or relocate temporary facilities (portables). Credits have also been applied in the formula to account for state match funds to be reimbursed to the District and projected future property taxes to be paid by the owner of a dwelling unit. The costs of projects that do not add capacity or which address existing deficiencies have been eliminated from the variables used in the calculations. Only capacity improvements are eligible for impact fees.

Shown on Table 6-4, since 2012 the Lake Stevens School District has collected and expended the following impact fees:

Table 6-4 – Impact Fee Revenue and Expenditures

Year	Revenue	Expenditure
2025	$ 2,433,831	$ 4,080,632
2024	$ 5,781,814	$ 743,787
2023	$ 2,782,209	$ 1,889,623
2022	$ 3,007,540	$ 2,204,707
2021	$ 3,855,167	$ 4,334,823
2020	$ 4,438,497	$ 5,235,528
2019	$ 4,483,964	$ 4,177,428
2018	$ 1,760,609	$ 4,076,918
2016	$ 1,595,840	$ 1,872,014
2014	$ 698,188	$ 1,389,784
2013	$ 1,005,470	$ 22,304
2012	$ 1,526,561	$ -
Total	**$33,369,690**	**$30,027,548**

The law allows ten years for collected dollars to be spent.

By ordinance, new developments cannot be assessed impact fees to correct existing deficiencies. Thus, existing capacity deficiencies must be deducted from the total projected deficiencies in the calculation of impact fees.

The financing plan separates projects and portions of projects that add capacity from those that do not, since non-capacity improvements are not eligible for impact fee funding. The financing plan and impact fee calculation also differentiate between projects or portions of projects that address existing deficiencies (ineligible for impact fees) and those which address future growth-related needs (Table 6-1). From this process, the District can develop a plan that can be translated into a bond issue package for submittal to District voters, if deemed appropriate.

Table 6-5 presents an estimate of the permanent capacity impacts of the proposed capital construction projects. This does not take into consideration temporary facilities for the reasons stated earlier.

Table 6-5 – Projected Growth-Related Capacity (Deficit) After Programmed Improvements

2025	Elementary	Middle	Mid-High	High School
Existing Capacity	3,934	1,422	1,539	2,052
Programmed Improvement Capacity				
Capacity After Improvement	3,934	1,422	1,539	2,052
Current Enrollment	4,632	1,539	1,533	2,121
Surplus (Deficit) After Improvement	(698)	(117)	6	(69)
2026	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	3,934	1,422	1,539	2,052
Programmed Improvement Capacity	0	0	0	0
Capacity After Improvement	3,934	1,422	1,539	2,052
Projected Enrollment	4,761	1,531	1,570	2,104
Surplus (Deficit) After Improvement	(827)	(109)	(31)	(52)
2027	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	3,934	1,422	1,539	2,052
Programmed Improvement Capacity	966	0	0	0
Capacity After Improvement	4,900	1,422	1,539	2,052
Projected Enrollment	4,727	1,725	1,557	2,147
Surplus (Deficit) After Improvement	173	(303)	(18)	(95)
2028	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	4,900	1,422	1,539	2,052
Programmed Improvement Capacity	114	0	0	280
Capacity After Improvement	5,014	1,422	1,539	2,332
Projected Enrollment	4,816	1,792	1,550	2,193
Surplus (Deficit) After Improvement	198	(370)	(11)	139
2029	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	5,014	1,422	1,539	2,332
Programmed Improvement Capacity	0	237	0	0
Capacity After Improvement	5,014	1,659	1,539	2,332
Projected Enrollment	4,921	1,673	1,747	2,204
Surplus (Deficit) After Improvement*	93	(14)	(208)	128
2030	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	5,014	1,659	1,539	2,332
Programmed Improvement Capacity	0	0	0	0
Capacity After Improvement	5,014	1,659	1,539	2,332
Projected Enrollment	4,930	1,779	1,813	2,208
Surplus (Deficit) After Improvement*	84	(120)	(274)	124
2031	**Elementary**	**Middle**	**Mid-High**	**High School**
Existing Capacity	5,014	1,659	1,539	2,332
Programmed Improvement Capacity	0	0	0	0
Capacity After Improvement	5,014	1,659	1,539	2,332
Projected Enrollment	5,045	1,793	1,694	2,382
Surplus (Deficit) After Improvement	(31)	(134)	(155)	(50)

Impact Fee Calculation Criteria

1. Site Acquisition Cost Element

Site Size: The site size given the optimum acreage for each school type based on studies of existing school sites OSPI standards. Generally, districts will require at least 10 acres for an elementary school; 25-30 acres for a middle school or junior high school; and 40 acres or more for a high school. Actual school sites may vary in size depending on the size of parcels available for sale and other site development

constraints, such as wetlands. It also varies based on the need for athletic fields adjacent to the school along with other specific planning factors.

This space for site size on the Variable Table contains a number only when the District plans to acquire additional land during the six-year planning period, 2026-2031. As noted previously,the District will need to acquire an elementary school and a middle school site between 2026 and 2031.

Average Land Cost Per Acre: The cost per acre is based on estimates of land costs within the District, based either on recent land purchases or by its knowledge of prevailing costs in the particular real estate market. Prices per acre will vary throughout the County and will be heavily influenced by the urban vs. rural setting of the specific district and the location of the planned school site. The Lake Stevens School District estimates its vacant land costs to be $800,000 per acre. Until a site is located for acquisition, the actual purchase price is unknown. Developed sites, which sometimes must be acquired adjacent to existing school sites, can cost well over the $800,000 per acre figure.

Facility Design Capacity (Student FTE): Facility design capacities reflect the District's optimum number of students each school type is designed to accommodate. These figures are based on actual design studies of optimum floor area for new school facilities. The Lake Stevens School District designs new elementary schools to accommodate 650 students, new middle schools 750 students and new high schools 2,000 students.

Student Factor: The student factor (or student generation rate) is the average number of students generated by each housing type – in this case: single-family detached dwellings and multiple- family dwellings. Multiple-family dwellings, which may be rental or owner-occupied units within structures containing two or more dwelling units, were broken out into townhomes/multiplexes and multifamily apartment and condominium units. In addition, starting with the 2026 Capital Facilities Plan, districts are required to analyze this information by the number of bedrooms in each unit, broken down by units with two or fewer bedrooms and those with three or more. Pursuant to a requirement of Chapter 30.66C SCC, each school district was required to conduct student generation studies within their jurisdictions. A description of this methodology is contained in Appendix C. FLO Analytics performed the analysis. The student generation rates for the Lake Stevens School District are shown on Table 6-6.

Table 6-6 – Student Generation Rates

2026					
Student Generation Rates	**Elementary**	**Middle**	**Mid-High**	**High**	**Total**
Single Family Detached (SFD)	0.358	0.108	0.089	0.093	0.648
SFD, 0-2 bedrooms	0.185	0.074	0.037	0.074	0.370
SFD, 3+ bedrooms	0.360	0.108	0.090	0.093	0.652
Duplex/Townhome (D/T)	0.125	0.042	0.023	0.019	0.208
D/T, 0-2 bedrooms	0.250	0.091	0.045	0.023	0.409
D/T, 3+ bedrooms	0.100	0.032	0.018	0.018	0.168
Multifamily (MF)	0.061	0.008	0.020	0.020	0.111
MF, 0-2 bedrooms	0.000	0.000	0.000	0.000	0.000
MF, 3+ bedrooms	0.061	0.008	0.020	0.020	0.111

2024					
Student Generation Rates	**Elementary**	**Middle**	**Mid-High**	**High**	**Total**
Single Family	0.370	0.110	0.090	0.117	0.687
Townhome/Duplex (T/D)	0.086	0.025	0.012	0.018	0.141
Multiple Family, 0-1 Bedroom	0.000	0.000	0.000	0.000	0.000
Multiple Family, 2+ Bedroom	0.035	0.015	0.004	0.027	0.081

The table also shows the Student Generation rates from the 2024 CFP. Per the report from FLO Analytics: "The multifamily category includes all structures with five or more housing units and structures with 3–4 housing units that are stacked. The housing inventory does not include the information needed to differentiate between MF units with 0-2 bedrooms and three bedrooms or more; therefore, the MF rate includes all MF housing units and only applies to the "Multifamily 3+ bedrooms" category in Snohomish County code." After a year of growth, the 2026 report shows a slight decrease in most grade levels for most housing types.

2. School Construction Cost Variables

Additional Building Capacity: These figures are the actual capacity additions to the Lake Stevens School District that will occur because of improvements listed on Table 6-3 (Capital Facilities Plan).

Current Facility Square Footage: These numbers are taken from Tables 4-1 and 4-2. They are used in combination with the "Existing Portables Square Footage" to apportion the impact fee amounts between permanent and temporary capacity figures in accordance with Chapter 30.66C. SCC.

Estimated Facility Construction Cost: The estimated facility construction cost is based on planned costs or on actual costs of recently constructed schools. The facility cost is the total cost for construction projects as defined on Table 6-3. Costs of construction adjusted to the "growth related" factor are shown in Table 6-7. Projects or portions of projects that address existing deficiencies (which are those students who are un-housed as of October 2025) are not included in the facility cost for impact fee calculation.

Facility construction costs also include the off-site development costs. Costs vary with each site and may include such items as sewer line extensions, water lines, off-site road and frontage improvements. Off-site development costs are not covered by State Match Funds. Off-site development costs vary and can represent 10% or more of the total building construction cost.

3. Relocatable Facilities Cost Element

Impact fees may be collected to allow acquisition of portables to help relieve capacity deficiencies on a temporary basis. The cost allocated to new development must be growth related and must be in proportion to the current permanent versus temporary space allocations by the district.

Existing Units: This is the total number of existing portables in use by the district in Table 4-2.

New Facilities Required Through 2031: This is the estimated number of portables to be acquired.

Cost Per Unit: This is the average cost to purchase and set up a portable. It includes site preparation but does not include moveable furnishings in the unit.

Relocatable Facilities Cost: This is simply the total number of needed units multiplied by the cost per unit. The number is then adjusted to the "growth-related" factor.

For districts, such as Lake Stevens, which do not credit any portable capacity to the permanent capacity total (see Table 4-1), this number is not directly applicable to the fee calculation and is for information only. The impact fee allows a general fee calculation for portables; however, the amount is adjusted to the proportion of total square footage in portables to the total square footage of permanent and portable

space in the district.

4. Fee Credit Variables

Construction Cost Allocation: This number is used by OSPI as a guideline for determining the area cost allowance for new school construction. The index is an average of a seven-city building cost index for commercial and factory buildings in Washington State and is adjusted every year for inflation. The current allocation is $399.38 (July 2026) up from $375.00 in 2024.

State Match Percentage: The State match percentage is the proportion of funds that are provided to the school districts, for specific capital projects, from the State's Common School Construction Fund. These funds are disbursed based on a formula which calculates the District's assessed valuation per pupil relative to the whole State assessed valuation per pupil to establish the percentage of the total project to be paid by the State.

Because of the method of computing state match, the District has historically received approximately 30% of the actual cost of school construction in state matching funds[6]. For its 2026 CFP, the District assumes a 30% match.

5. Tax Credit Variables

Under Chapter 30.66C SCC, a credit is granted to new development to account for taxes that will be paid to the school district over the next ten years. The credit is calculated using "present value."

Interest Rate (20-year GO Bond): This is the interest rate of return on a 20-year General Obligation Bond and is derived from the bond buyer index. The current assumed interest rate is 4.77%.

Levy Rate (in mils): The Property Tax Levy Rate (for bonds*)* is determined by dividing the District's average capital property tax rate by one thousand. The current levy rate for the Lake Stevens School District is 0.00148.

Average Assessed Value: This figure is based on the District's average assessed value for each type of dwelling unit (single-family and multiple family). The average assessed values are based on estimates made by the County's Planning and Development Services Department utilizing information from the Assessor's files. The current average assessed values for 2026 are (1) single family detached, 0-2 bedrooms: $463,339, (2) single family detached, 3+ bedrooms: $713,433, (3) duplex/townhomes, 0-2 bedrooms: $278,179, (4) duplex/townhome, 3+ bedrooms: $395,811, (5) multifamily, 0-2 bedrooms: $154,822, and (6) Multifamily, 3+ bedrooms: $215,056.

6. Adjustments

Growth Related Capacity Percentage: Only the portions of projects addressing new unhoused need are included in the impact fee calculations. The percentage is determined by the number of new unhoused students divided by the number of students for which the project would provide additional capacity.

Fee Discount: In accordance with Chapter 30.66C SCC, all fees calculated using the above factors are to be reduced by 50%

[6] See Appendix H

Table 6-7 - Impact Fee Variables

Criteria	Elementary	Middle	Mid-High	High
Growth-Related Capacity Deficiencies	413	254	161	261
Discount (Snohomish County, Lake Stevens and Marysville)	50%	50%	50%	50%
Student Factor	**Elementary**	**Middle**	**Mid-High**	**High**
Single Family Detached, 0-2 bedrooms	0.185	0.074	0.037	0.074
Single Family Detached, 3+ bedrooms	0.360	0.108	0.090	0.093
Duplex/Towmhome, 0-2 bedrooms	0.250	0.091	0.045	0.023
Duplex/Towmhome, 3+ bedrooms	0.100	0.032	0.018	0.018
Multifamily, 0-2 bedrooms	0.000	0.000	0.000	0.000
Multifamily, 3+ bedrooms	0.061	0.008	0.020	0.020
Site Acquisition Cost Element	**Elementary**	**Middle**	**Mid-High**	**High**
Site Needs (acres)	20	30	0	0
Growth Related	12.71	8.96	0	0
Cost Per Acre	$800,000	$800,000	$800,000	$800,000
Additional Capacity	650	850	0	0
Growth Related	413	254	161	261
School Construction Cost Element	**Elementary**	**Middle**	**Mid-High**	**High**
Estimated Facility Construction Cost	$108,961,947	$26,852,752	$0	$27,700,000
Growth Related	$41,667,856	$26,852,752	$0	$25,820,357
Additional Capacity	1080	237	0	280
Growth Related	413	254	161	261
Current Facility Square Footage	485,725	202,472	240,782	323,919
Relocatable Facilities Cost Element	**Elementary**	**Middle**	**Mid-High**	**High**
Relocatable Facilities Cost	$250,000	$250,000	$250,000	$250,000
Growth Related	$250,000	$250,000	$250,000	$250,000
Relocatable Facilities Capacity/Unit	27	27	27	27
Growth Related	27	27	27	27
Existing Portable Square Footage	62,720	17,920	1,792	0
State Match Credit	**Elementary**	**Middle**	**Mid-High**	**High**
Cost Construction Allocation	$399.38	$399.38	$399.38	$399.38
School Space per Student (OSPI)	90	117	117	130
State Match Percentage	30.0%	30.0%	30.0%	30.0%
Tax Payment Credit	**Elementary**	**Middle**	**Mid-High**	**High**
Interest Rate	4.77%	4.77%	4.77%	4.77%
Loan Payoff (Years)	10	10	10	10
Property Tax Levy Rate (Bonds)	0.00148	0.00148	0.00148	0.00148
Average AV per DU Type	**SF Small**	**SF Large**	**MF Small**	**MF Large**
	$463,339	$713,433	$154,822	$ 215,056
	Duplex/Townhome Small		**Duplex/Townhome Large**	
	$278,179		$395,811	

Proposed Impact Fee Schedule

Using the variables and formula described, impact fees proposed for the Lake Stevens School District are summarized in Table 6-8 (refer to Appendix A for worksheets).

Table 6-8 - Calculated Impact Fees

Housing Type	Impact Fee Per Unit	Discounted (50%) Impact Fee Per Unit
Single Family Detached, 0-2 bedrooms	$15,155	$7,578
Single Family Detached, 3+ bedrooms	$24,385	$12,193
Duplex/Towmhome, 0-2 bedrooms	$18,081	$9,040
Duplex/Towmhome, 3+ bedrooms	$4,128	$2,064
Multifamily, 0-2 bedrooms	$0	$0
Multifamily, 3+ bedrooms	$2,307	$1,154

Appendix A
Impact Fee Calculations

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

SINGLE-FAMILY DETACHED, 0-2

SITE ACQUISITION COST

acres needed	12.71	x	$	800,000	/	capacity (# students)	650	x	student factor	0.185	=	$2,893	(elementary)
acres needed	8.96	x	$	800,000	/	capacity (# students)	850	x	student factor	0.074	=	$624	(middle)
acres needed	0.00	x	$	800,000	/	capacity (# students)	0	x	student factor	0.037	=	$0	(mid-high)
acres needed	0.00	x	$	800,000	/	capacity (# students)	0	x	student factor	0.074	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $3,518

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/			capacity (# students)	1080	x	student factor	0.185	=	$7,138	(elementary)
total const. cost	$26,852,752	/			capacity (# students)	237	x	student factor	0.074	=	$8,384	(middle)
total const. cost	$0	/			capacity (# students)	0	x	student factor	0.037	=	$0	(mid-high)
total const. cost	$25,820,357	/			capacity (# students)	280	x	student factor	0.074		$6,824	(high school)
								Subtotal			$22,346	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	=	93.83%

TOTAL FACILITY CONSTRUCTION COST = $20,966

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.185	=	$1,713	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.074	=	$685	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.037	=	$343	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.074	=	$685	(high school)
					Subtotal			$3,426	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	=	6.17%

TOTAL RELOCATABLE COST ELEMENT = $211

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

CCA Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.185	=	$1,995	(elementary)
CCA Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.074	=	$1,037	(middle)
CCA Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.037	=	$0	(mid-high)
CCA Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.074	=	$1,153	(high school)

TOTAL STATE MATCH CREDIT = $4,185

TAX PAYMENT CREDIT

[((1+ interest rate 4.77%) ^ 10 years to pay off bond) - 1] / [interest rate 4.77% x

(1 + interest rate 4.77%)^ 10 years to pay off bond] x 0.00148 capital levy rate x

assessed value 463,339.00 tax payment credit = $5,355

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$3,518
FACILITY CONSTRUCTION COST	$20,966
RELOCATABLE FACILITIES COST (PORTABLES)	$211
(LESS STATE MATCH CREDIT)	($4,185)
(LESS TAX PAYMENT CREDIT)	($5,355)

	Non-Discounted	50% Discount
SINGLE FAMILY RESIDENTIAL - 0-2 BEDROOMS FINAL IMPACT FEE PER UNIT	**$15,155**	**$7,578**

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

SINGLE-FAMILY DETACHED, 3+

SITE ACQUISITION COST

acres needed	12.71	x	$	800,000	/	capacity (# students)	650	x	student factor	0.360	=	$5,630	(elementary)
acres needed	8.96	x	$	800,000	/	capacity (# students)	850	x	student factor	0.108	=	$911	(middle)
acres needed	0.00	x	$	800,000	/	capacity (# students)	0	x	student factor	0.090	=	$0	(mid-high)
acres needed	0.00	x	$	800,000	/	capacity (# students)	0	x	student factor	0.093	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $6,542

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/		capacity (# students)	1080	x	student factor	0.360	=	$13,889	(elementary)
total const. cost	$26,852,752	/		capacity (# students)	237	x	student factor	0.108	=	$12,237	(middle)
total const. cost	$0	/		capacity (# students)	0	x	student factor	0.090	=	$0	(mid-high)
total const. cost	$25,820,357	/		capacity (# students)	280	x	student factor	0.093		$8,576	(high school)
							Subtotal			$34,702	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	=	93.83%

TOTAL FACILITY CONSTRUCTION COST = $32,560

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.360	=	$3,333	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.108	=	$1,000	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.090	=	$833	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.093	=	$861	(high school)
					Subtotal			$6,028	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	=	6.17%

TOTAL RELOCATABLE COST ELEMENT = $372

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

CCA Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.360	=	$3,882	(elementary)
CCA Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.108	=	$1,514	(middle)
CCA Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.090	=	$0	(mid-high)
CCA Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.093	=	$1,449	(high school)
TOTAL STATE MATCH CREDIT										=	$6,844	

TAX PAYMENT CREDIT

[((1+ interest rate	4.77%	) ^	10	years to pay off bond) - 1]	/	[interest rate	4.77%	x	
(1 + interest rate	4.77%	)^	10	years to pay off bond]	x	0.00148	capital levy rate	x	
assessed value	713,433.00						tax payment credit	=	$8,245

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$6,542
FACILITY CONSTRUCTION COST	$32,560
RELOCATABLE FACILITIES COST (PORTABLES)	$372
(LESS STATE MATCH CREDIT)	($6,844)
(LESS TAX PAYMENT CREDIT)	($8,245)

	Non-Discounted	50% Discount
SINGLE FAMILY RESIDENTIAL - 3+ BEDROOMS FINAL IMPACT FEE PER UNIT	**$24,385**	**$12,193**

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

DUPLEXES AND TOWNHOMES, 0-2

SITE ACQUISITION COST

acres needed	12.71	x	$	800,000	/	capacity (# students)	650	x	student factor	0.250	=	$3,910	(elementary)
acres needed	8.96	x	$	800,000	/	capacity (# students)	850	x	student factor	0.091	=	$768	(middle)
acres needed	0	x	$	800,000	/	capacity (# students)	0	x	student factor	0.045	=	$0	(mid-high)
acres needed	0	x	$	800,000	/	capacity (# students)	0	x	student factor	0.023	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $4,678

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/		capacity (# students)	1080	x	student factor	0.250	=	$9,645	(elementary)
total const. cost	$26,852,752	/		capacity (# students)	237	x	student factor	0.091	=	$10,311	(middle)
total const. cost	$0	/		capacity (# students)	0	x	student factor	0.045	=	$0	(mid-high)
total const. cost	$25,820,357	/		capacity (# students)	280	x	student factor	0.023	=	$2,121	(high school)
							Subtotal			$22,077	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	=	93.83%

TOTAL FACILITY CONSTRUCTION COST = $ 20,714

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.250		=	$2,315	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.091		=	$843	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.045		=	$417	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.023		=	$213	(high school)
							Subtotal		$3,787	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	=	6.17%

TOTAL RELOCATABLE COST ELEMENT = $234

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

CCA Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.250	=	$2,696	(elementary)
CCA Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.091	=	$1,276	(middle)
CCA Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.045	=	$0	(mid-high)
CCA Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.023	=	$358	(high school)

TOTAL STATE MATCH CREDIT = $4,330

TAX PAYMENT CREDIT

[((1+ interest rate 4.77%) ^ 10 years to pay off bond) - 1] / [interest rate 4.77% x

(1 + interest rate 4.77%)^ 10 years to pay off bond] x 0.00148 capital levy rate x

assessed value 278,179.00 tax payment credit = $3,215

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$4,678
FACILITY CONSTRUCTION COST	$20,714
RELOCATABLE FACILITIES COST (PORTABLES)	$234
(LESS STATE MATCH CREDIT)	($4,330)
(LESS TAX PAYMENT CREDIT)	($3,215)

	Non-Discounted	50% Discount
DUPLEXES AND TOWNHOMES 0-2 BEDROOMS FINAL IMPACT FEE PER UNIT	**$18,081**	**$9,040**

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

DUPLEXES AND TOWNHOMES, 3+

SITE ACQUISITION COST

acres needed	12.71	x	$	800,000	/	capacity (# students)	650	x	student factor	0.100	=	$1,564	(elementary)
acres needed	8.96	x	$	800,000	/	capacity (# students)	850	x	student factor	0.032	=	$270	(middle)
acres needed	0	x	$	800,000	/	capacity (# students)	0	x	student factor	0.018	=	$0	(mid-high)
acres needed	0	x	$	800,000	/	capacity (# students)	0	x	student factor	0.018	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $1,834

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/		capacity (# students)	1080	x	student factor	0.100	=	$3,858	(elementary)
total const. cost	$26,852,752	/		capacity (# students)	237	x	student factor	0.032	=	$3,626	(middle)
total const. cost	$0	/		capacity (# students)	0	x	student factor	0.018	=	$0	(mid-high)
total const. cost	$25,820,357	/		capacity (# students)	280	x	student factor	0.018	=	$1,660	(high school)
							Subtotal			$9,144	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	=	93.83%

TOTAL FACILITY CONSTRUCTION COST = $ 8,579

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.100		=	$926	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.032		=	$296	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.018		=	$167	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.018		=	$167	(high school)
							Subtotal		$1,556	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	=	6.17%

TOTAL RELOCATABLE COST ELEMENT = $96

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

BOECKH Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.100	=	$1,078	(elementary)
BOECKH Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.032	=	$449	(middle)
BOECKH Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.018	=	$0	(mid-high)
BOECKH Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.018	=	$280	(high school)

TOTAL STATE MATCH CREDIT = $1,807

TAX PAYMENT CREDIT

[((1+ interest rate 4.77%) ^ 10 years to pay off bond) - 1] / [interest rate 4.77% x

(1 + interest rate 4.77%)^ 10 years to pay off bond] x 0.00148 capital levy rate x

assessed value 395,811.00 tax payment credit = $4,574

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$1,834
FACILITY CONSTRUCTION COST	$8,579
RELOCATABLE FACILITIES COST (PORTABLES)	$96
(LESS STATE MATCH CREDIT)	($1,807)
(LESS TAX PAYMENT CREDIT)	($4,574)

	Non-Discounted	50% Discount
DUPLEXES AND TOWNHOMES 3+ BEDROOMS FINAL IMPACT FEE PER UNIT	**$4,128**	**$2,064**

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

MULTIPLE FAMILY RESIDENTIAL, 0-2 BEDROOMS

SITE ACQUISITION COST

acres needed	12.71	x	$ 800,000	/	capacity (# students)	650	x	student factor	0.000	=	$0	(elementary)
acres needed	8.96	x	$ 800,000	/	capacity (# students)	850	x	student factor	0.000		$0	(middle)
acres needed	0	x	$ 800,000	/	capacity (# students)	0	x	student factor	0.000	=	$0	(mid-high)
acres needed	0	x	$ 800,000	/	capacity (# students)	0	x	student factor	0.000	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $0

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/		capacity (# students)	1080	x	student factor	0.000	=	$0	(elementary)
total const. cost	$26,852,752	/		capacity (# students)	237	x	student factor	0.000	=	$0	(middle)
total const. cost	$0	/		capacity (# students)	0	x	student factor	0.000	=	$0	(mid-high)
total const. Cost	$25,820,357	/		capacity (# students)	280	x	student factor	0.000	=	$0	(high school)
										$0	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	=	93.83%

TOTAL FACILITY CONSTRUCTION COST = $ -

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.000			=	$0	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.000			=	$0	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.000			=	$0	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.000			=	$0	(high school)
							Subtotal			$0	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	=	6.17%

TOTAL RELOCATABLE COST ELEMENT = $0

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

BOECKH Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.000	=	$0 (elementary)
BOECKH Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.000	=	$0 (middle)
BOECKH Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.000	=	$0 (mid-high)
BOECKH Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.000	=	$0 (high school)

TOTAL STATE MATCH CREDIT = $0

TAX PAYMENT CREDIT

[((1+ interest rate 4.77%) ^ 10 years to pay off bond) - 1] / [interest rate 4.77% x

(1 + interest rate 4.77%)^ 10 years to pay off bond] x 0.00148 capital levy rate x

assessed value 154,822.00 tax payment credit = $1,789

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$0
FACILITY CONSTRUCTION COST	$0
RELOCATABLE FACILITIES COST (PORTABLES)	$0
(LESS STATE MATCH CREDIT)	$0
(LESS TAX PAYMENT CREDIT)	($1,789)

	Non-Discounted	50% Discount
MULTIPLE FAMILY RESIDENTIAL -- 0-2 BEDROOMS FINAL IMPACT FEE PER UNIT	**$0**	**$0**

IMPACT FEE WORKSHEET
LAKE STEVENS SCHOOL DISTRICT

MULTIPLE FAMILY RESIDENTIAL, 3+ BEDROOMS

SITE ACQUISITION COST

acres needed	12.71	x	$ 800,000	/	capacity (# students)	650	x	student factor	0.061	=	$954	(elementary)
acres needed	8.96	x	$ 800,000	/	capacity (# students)	850	x	student factor	0.008		$67	(middle)
acres needed	0	x	$ 800,000	/	capacity (# students)	0	x	student factor	0.020	=	$0	(mid-high)
acres needed	0	x	$ 800,000	/	capacity (# students)	0	x	student factor	0.020	=	$0	(high school)

TOTAL SITE ACQUISITION COST = $1,022

SCHOOL CONSTRUCTION COST

total const. cost	$41,667,856	/		capacity (# students)	1080	x	student factor	0.061	=	$2,353	(elementary)
total const. cost	$26,852,752	/		capacity (# students)	237	x	student factor	0.008	=	$906	(middle)
total const. cost	$0	/		capacity (# students)	0	x	student factor	0.020	=	$0	(mid-high)
total const. Cost	$25,820,357	/		capacity (# students)	280	x	student factor	0.020	=	$1,844	(high school)
										$5,104	

Total Square Feet of Permanent Space (District)	1,252,898	/ Total Square Feet of School Facilities (000)	1,335,330	= 93.83%

TOTAL FACILITY CONSTRUCTION COST = $ 4,789

RELOCATABLE FACILITIES COST (PORTABLES)

Portable Cost	$ 250,000	/	27	facility size	x student factor	0.061		=	$565	(elementary)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.008		=	$74	(middle)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.020		=	$185	(mid-high)
Portable Cost	$ 250,000	/	27	facility size	x student factor	0.020		=	$185	(high school)
							Subtotal		$1,009	

Total Square Feet of Portable Space (District)	82,432	/ Total Square Feet of School Facilities (000)	1,335,330	= 6.17%

TOTAL RELOCATABLE COST ELEMENT = $62

CREDIT AGAINST COST CALCULATION -- MANDATORY

STATE MATCH CREDIT

BOECKH Index	$ 399.38	x OSPI Allowance	90	x	State Match %	30.00%	x	student factor	0.061	=	$658	(elementary)
BOECKH Index	$ 399.38	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.008	=	$112	(middle)
BOECKH Index	No projects	x OSPI Allowance	117	x	State Match %	30.00%	x	student factor	0.020	=	$0	(mid-high)
BOECKH Index	$ 399.38	x OSPI Allowance	130	x	State Match %	30.00%	x	student factor	0.020	=	$312	(high school)

TOTAL STATE MATCH CREDIT = $1,081

TAX PAYMENT CREDIT

[((1+ interest rate 4.77%) ^ 10 years to pay off bond) - 1] / [interest rate 4.77% x

(1 + interest rate 4.77%)^ 10 years to pay off bond] x 0.00148 capital levy rate x

assessed value 215,056.00 tax payment credit = $2,485

IMPACT FEE CALCULATION

SITE ACQUISITION COST	$1,022
FACILITY CONSTRUCTION COST	$4,789
RELOCATABLE FACILITIES COST (PORTABLES)	$62
(LESS STATE MATCH CREDIT)	($1,081)
(LESS TAX PAYMENT CREDIT)	($2,485)

	Non-Discounted	50% Discount
MULTIPLE FAMILY RESIDENTIAL -- 3+ BEDROOMS FINAL IMPACT FEE PER UNIT	**$2,307**	**$1,154**

Appendix B
OSPI Enrollment Forecasting Methodology

OSPI PROJECTION OF ENROLLMENT DATA
Cohort-Survival or Grade-Succession Technique

Development of a long-range school-building program requires a careful forecast of school enrollment indicating the projected number of children who will attend school each year. The following procedures are suggested for determining enrollment projections:

1. Enter in the lower left corner of the rectangle for each year the number of pupils actually enrolled in each grade on October 1, as reported on the October Report of School District Enrollment, Form M-70, column A. (For years prior to October 1, 1965, enter pupils actually enrolled as reported in the county superintendent's annual report, Form A-1.)
2. In order to arrive at enrollment projections for kindergarten and/or grade one pupils, determine the percent that the number of such pupils each year was of the number shown for the immediately preceding year. Compute an average of the percentages, enter it in the column headed "Ave. % of Survival", and apply such average percentage in projecting kindergarten and/or grade one enrollment for the next six years.
3. For grade two and above determine the percent of survival of the enrollment in each grade for each year to the enrollment. In the next lower grade during the preceding year and place this percentage in the upper right corner of the rectangle. (For example, if there were 75 pupils in actual enrollment in grade one on October 1, 1963, and 80 pupils were in actual enrollment in grade two on October 1, 1964, the percent of survival would be 80/75, or 106.7%. If the actual enrollment on October 1, 1965, in grade three had further increased to 100 pupils, the percent of survival to grade three would be 100/80 or 125 %.). Compute an average of survival percentages for each year for each grade and enter it in the column, "Ave. % of Survival".
4. In order to determine six-year enrollment projections for grade two and above, multiply the enrollment in the next lower grade during the preceding year by 7 the average percent of survival. For example, if, on October 1 of the last year of record, there were 100 students in grade one and the average percent of survival to grade two was 105, then 105% of 100 would result in a projection of 105 students in grade two on October 1 of the succeeding year.
5. If, after calculating the "Projected Enrollment", there are known factors which will further influence the projections, a statement should be prepared showing the nature of those factors, involved and their anticipated effect upon any portion of the calculated projection.

*Kindergarten students are projected based on a regression line.

Table C-1
LAKE STEVENS SCHOOL DISTRICT
STUDENT ENROLLMENT BY GRADE SPAN 2025-2031
(Based on actual student enrollment on October 1 of each year)

School Type	Grade Level	School Year						
		2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Elementary	K	678	732	741	751	760	769	778
	1	805	721	778	788	798	808	817
	2	740	838	750	810	820	831	841
	3	770	766	868	777	839	849	861
	4	895	788	784	888	795	859	869
	5	744	916	806	802	909	814	879
	K-5 Headcount	**4632**	**4761**	**4727**	**4816**	**4921**	**4930**	**5045**
Middle	6	751	767	944	831	827	937	839
	7	788	764	781	961	846	842	954
	6-7 Headcount	**1539**	**1531**	**1725**	**1792**	**1673**	**1779**	**1793**
Mid High	Grade 8	777	788	764	781	961	846	842
	Grade 9	756	782	793	769	786	967	852
	8-9 Headcount	**1533**	**1570**	**1557**	**1550**	**1747**	**1813**	**1694**
Sr. High	Grade 10	738	750	776	787	763	780	960
	Grade 11	682	688	699	723	734	711	727
	Grade 12	701	666	672	683	707	717	695
	10-12 Headcount	**2121**	**2104**	**2147**	**2193**	**2204**	**2208**	**2382**
	K-12 Headcount	**9825**	**9966**	**10156**	**10351**	**10545**	**10730**	**10914**

Source: Office of the Superintendent of Public Instruction

Appendix C
OFM Ratio Method – 2044 Enrollment Estimate

Enrollment Forecasts
OSPI and OFM Ratio Methods

The Growth Management Act requires that capital facilities plans for schools consider enrollment forecasts that are related to official population forecasts for the district. The OFM ratio method computes past enrollment as a percentage of past population and then estimates how those percentage trends will continue.

Snohomish County prepares the population estimates by distributing official estimates from the Washington Office of Financial Management (OFM) to the school district level. SCC 30.66C requires that these official OFM/County population forecasts be used in the capital facilities plans. Each district is responsible for estimating the assumed percentage of population that, in turn, will translate into enrollments.

The District's assumed percentage trends are applied to these County population forecasts. This is known as the Ratio Method. The District then decides to use either it or the six-year forecast (2026-2031) prepared by the State Office of the Superintendent of Public Instructions (OSPI) for use in the facilities plan. Whichever is used for the 2026-2031 planning period, OSPI does not forecast enrollments for Year 2044, so the Ratio Method is used for that purpose, regardless.

Table B-1 – Ratio Method of Enrollment Projection

2026			
Year	Population	Enrollment	Ratio
2010	**39,977**	**7,913**	19.79%
2011	*41,025*	7,985	19.46%
2012	*42,074*	7,987	18.98%
2013	*43,122*	8,126	18.84%
2014	*44,171*	8,253	18.68%
2015	*45,219*	8,392	18.56%
2016	*46,267*	8,611	18.61%
2017	*47,316*	8,646	18.27%
2018	*48,364*	8,875	18.35%
2019	*49,413*	9,200	18.62%
2020	**50,461**	**8,854**	17.55%
2021	*52,182*	9,325	17.87%
2022	*53,319*	9,339	17.52%
2023	*54,126*	9,446	17.45%
2024	*54,520*	*9,764*	17.91%
2025	*55,638*	*9,825*	17.66%
2026	*56,252*	9,933	17.66%
2027	*56,865*	10,042	17.66%
2028	*57,479*	10,150	17.66%
2029	*58,092*	10,258	17.66%
2030	*58,706*	10,367	17.66%
2031	*59,319*	10,475	17.66%
2044	*67,294*	11,883	17.66%

The table above shows actual enrollments and population estimates from 2010-2025, and their resulting ratio (the 2010 and 2020 population totals are official census figures).

Until 2015 the trend was a declining ratio of students to population. The ratio leveled off in the years 2016 through 2019. In 2020, school closures and online learning caused enrollment to drop. Then enrollment rebounded in 2021 and returned to pre-pandemic levels. The district projects that the ratio will level off for the projection period and average around 17.66%.

2044 Enrollment Estimate

The District's 2026 CFP ratio of 17.66% is used for the 2044 enrollment estimate. Using that number against the County's 2044 population estimate of 67,294 produces a projected enrollment number of 11,883 students in 2044.

Appendix D
Student Generation Rates

Memorandum

To: Lake Stevens School District
Robb Stanton
12309 22nd St NE
Lake Stevens, WA 98258

Date: April 29, 2026

Project No.: F2714.01.002

From: Alex Brasch
Senior Population Geographer

Re: 2025–26 Student Generation Rates — Lake Stevens School District

---

At the request of Lake Stevens School District (LSSD/District), FLO Analytics (FLO) estimated student generation rates (SGRs) for new residential housing units. We determined the number of District K–12 students (October 2025 headcount) by grade group residing in housing constructed within the district boundary during the most recent five-year period (2020–2024). We then calculated SGRs for single-family (SF) detached, townhome/duplex, and multifamily (MF) housing categories by dividing the number of students by the number of recently constructed housing units. This memo details the methodology FLO used to calculate the SGRs and presents the findings by grade group and housing type.

Methods

Snohomish County operates school impact fee programs authorized by the Washington State Legislature RCW 82.02.040 and the Washington State Growth Management Act Chapter 36.70A RCW. School districts that intend to collect impact fees must submit a school board adopted CFP for review by the County Planning Commission and County Council that fulfills the specifications of state law, the County comprehensive plan, and the County code.

According to Snohomish County Code Chapter 30.66C School Impact Mitigation, "To be eligible for school impact fees, districts must submit capital facilities plans [...] The plans must provide sufficient detail to allow computation of school impact fees according to the formula contained in SCC 30.66C.045." A key component of any impact fee formula is the SGR. As defined in Snohomish County Code Chapter 30.91S, SGRs or student factors are "the number of students of each grade span (elementary, middle/jr. high, high school) that a district determines are typically generated by different dwelling unit types within the district."

Concerning the calculation of SGRs by housing type, the amended ordinance no. 25-017 states that, "beginning with the update of participating school districts' CFPs in 2026, separate fees shall be calculated for the following dwelling unit types: single-family - two bedrooms or less; single family - three bedrooms or more; duplexes and townhomes - two bedrooms or less; duplexes and townhomes - three bedrooms or more; multi-family - one bedroom or less; and multi-family - two bedrooms or more."

3140 NE Broadway, Portland, OR 97232 | www.flo-analytics.com
© 2025 FLO Analytics

To comply with these codes and ordinances, FLO retrieved and processed the necessary parcel and housing information from the Snohomish County Assessor's Office and Information Technology Department, as well as the Puget Sound Regional Council. This data includes the attributes necessary for calculation of SGRs, such as housing type, number of housing units, and year built. Following data retrieval, we analyzed housing units constructed in the most recent five-year period (2020–2024)—excluding 2025 because those housing units may not have been completed and occupied by the start of the 2025–26 school year—and categorized them as SF detached, townhome/duplex, or MF units. The townhome/duplex category includes the following structure types: common wall single-family, duplex, triplex, and fourplex. The MF category includes all structures with five or more housing units. The Snohomish County Assessor's Office data does not include bedroom count information for MF housing; therefore, the MF rate includes all MF housing units.

In order to link the housing information to students, LSSD provided FLO with October 2025 headcount enrollment. FLO geocoded the student addresses to represent residences, which were then spatially matched to the aforementioned housing units. With this combination of information, we calculated SGRs by dividing the number of students per grade group (i.e., K–5, 6–7, 8–9, 10–12) by the number of recently constructed SF detached, townhome/duplex, and MF housing units.

Results

Table 1 includes the SGRs for SF detached, townhome/duplex, and MF housing types by grade group, as well as the number of housing units constructed in 2020–2024 and the number of students by grade group that have addresses matching those units. Of the 9,570 K–12 students residing within the district boundary in October 2025, 1,346 live in the 2,077 SF detached units that were built in the five-year period. Of those, 1,336 students live in the 2,050 SF detached units with three bedrooms or more, while 10 students live in the 27 SF detached units with two bedrooms or less. On average, each SF detached unit yields 0.648 K–12 students, while SF detached units with three bedrooms or more yield 0.652 K–12 students and SF detached units with two bedrooms or less yield 0.370 K–12 students.

A total of 55 LSSD students live in the 264 townhome/duplex units built in the same five-year period. Of those, 37 students live in the 220 townhome/duplex units with three bedrooms or more, while 18 students live in the 44 townhome/duplex units with two bedrooms or less. On average, each townhome/duplex unit yields 0.208 K–12 students, while townhome/duplex units with three bedrooms or more yield 0.168 K–12 students and townhome/duplex units with two bedrooms or less yield 0.409 K–12 students. A total of 27 LSSD students live in the 244 MF units built in the same five-year period. On average, each MF unit yields 0.111 K–12 students.

Table 1: K–12 Students by Grade Group per Housing Unit Built 2020–2024

Housing Type	Housing Units	Students					SGRs				
		K–5	6–7	8–9	10–12	K–12	K–5	6–7	8–9	10–12	K–12
Single-family Detached	2,077	744	224	185	193	1,346	0.358	0.108	0.089	0.093	0.648
Two Bedrooms or Less	27	5	2	1	2	10	0.185	0.074	0.037	0.074	0.370
Three Bedrooms or More	2,050	739	222	184	191	1,336	0.360	0.108	0.090	0.093	0.652
Townhome / Duplex [a]	264	33	11	6	5	55	0.125	0.042	0.023	0.019	0.208
Two Bedrooms or Less	44	11	4	2	1	18	0.250	0.091	0.045	0.023	0.409
Three Bedrooms or More	220	22	7	4	4	37	0.100	0.032	0.018	0.018	0.168
Multifamily [b]	244	15	2	5	5	27	0.061	0.008	0.020	0.020	0.111

Notes

Units built in 2025 are excluded, because they may not have been completed and occupied by the 2025–26 school year.
(a) The townhome/duplex category includes the following structure types: common wall single-family, duplex, triplex, and fourplex.
(b) The multifamily category includes all structures with five or more housing units.

Sources

Lake Stevens School District October 2025 headcount enrollment
Snohomish County Maps & GIS parcels and Assessor improvement records and master records.
Puget Sound Regional Council housing developments inventory.

Appendix E
Board Resolution

LAKE STEVENS SCHOOL DISTRICT NO. 4
RESOLUTION NO. 18-26
ADOPTION OF 2026-2031 CAPITAL FACILITIES PLAN

WHEREAS, the Lake Stevens School District is required by RCW 36.70 (the Growth Management Act) and the Snohomish County Comprehensive Plan to adopt a Capital Facilities Plan; and

WHEREAS, development of the Capital Facilities Plan was carried out by the District in accordance with accepted methodologies and requirements of the Growth Management Act; and

WHEREAS, impact fee calculations are consistent with methodologies meeting the conditions and tests of RCW 82.02 and Snohomish County Code; and

WHEREAS, the District finds that the methodologies accurately assess necessary additional capacity which address only growth-related needs; and

WHEREAS, a draft of the Plan was submitted to Snohomish County for review with changes having been made in accordance with County comments; and

WHEREAS, the District finds that the Plan meets the basic requirements of RCW 36.70A and RCW 82.02; and

WHEREAS, a review of the Plan was carried out pursuant to RCW 43.21C (the State Environmental Policy Act). A Determination of Non Significance has been issued.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Lake Stevens School District hereby adopts the Capital Facilities Plan for the years 2026-2031, pursuant to the requirements of RCW 36.70A and the Snohomish County Comprehensive Plan. The Snohomish County Council, the City of Lake Stevens and the City of Marysville are hereby requested to adopt the Plan as an element of their comprehensive plans and companion ordinances.

ADOPTED, by the Board of Directors of the Lake Stevens School District No. 4, Snohomish County, state of Washington, at a regular meeting thereof held this 8th day of July 2026.

LAKE STEVENS SCHOOL DISTRICT NO. 4
BOARD OF DIRECTORS

President

ATTEST:

Superintendent

Appendix F
Snohomish County Comprehensive Plan -- Appendix F

Appendix F
Review Criteria for School District Capital Facility Plans

Required Plan Contents

1. Future Enrollment Forecasts by Grade Span, including:

    - a 6-year forecast (or more) to support the financing program;

    - a description of the forecasting methodology and justification for its consistency with OFM population forecasts used in the county's comprehensive plan.

2. Inventory of Existing Facilities, including:

    - the location and capacity of existing schools;

    - a description of educational standards and a clearly defined minimum level of service such as classroom size, school size, use of portables, etc.;

    - the location and description of all district-owned or leased sites (if any) and properties;

    - a description of support facilities, such as administrative centers, transportation and maintenance yards and facilities, etc.; and

    - information on portables, including numbers, locations, remaining useful life (as appropriate to educational standards), etc.

3. Forecast of Future Facility Needs, including:

    - identification of new schools and/or school additions needed to address existing deficiencies and to meet demands of projected growth over the next 6 years; and

    - the number of additional portable classrooms needed.

4. Forecast of Future Site Needs, including:

    - the number, size, and general location of needed new school sites.

5. Financing Program (6-year minimum Planning Horizon)

- estimated cost of specific construction and site acquisition and development projects proposed to address growth-related needs;

- projected schedule for completion of these projects; and

- proposed sources of funding, including impact fees (if proposed), local bond issues (both approved and proposed), and state matching funds.

6. Impact Fee Support Data (where applicable), including:

- an explanation of the calculation methodology, including description of key variables and their computation;

- definitions and sources of data for all inputs into the fee calculation, indicating that it:

a) is accurate and reliable and that any sample data is statistically valid;

b) accurately reflects projected costs in the 6-year financing program; and

- a proposed fee schedule that reflects expected student generation rates from, at minimum, the following residential unit types: single-family, multi-family/studio or 1-bedroom, and multi-family/2-bedroom or more.

Plan Performance Criteria

1. School facility plans must meet the basic requirements set down in RCW 36.70A (the Growth Management Act). Districts proposing to use impact fees as a part of their financing program must also meet the requirements of RCW 82.02.

2. Where proposed, impact fees must utilize a calculation methodology that meets the conditions and tests of RCW 82.02.

3. Enrollment forecasts should utilize established methods and should produce results which are not inconsistent with the OFM population forecasts used in the county comprehensive plan. Each plan should also demonstrate that it is consistent with the 20-year forecast in the land use element of the county's comprehensive plan.

4. The financing plan should separate projects and portions of projects which add capacity from those which do not, since the latter are generally not appropriate for impact fee funding. The financing plan and/or the impact fee calculation formula must also differentiate between projects or portions of projects which address existing deficiencies (ineligible for impact fees) and those which address future growth-related needs.

5. Plans should use best-available information from recognized sources, such as the U.S. Census or the Puget Sound Regional Council. District-generated data may be used if it is derived through statistically reliable methodologies.

6. Districts which propose the use of impact fees should identify in future plan updates alternative funding sources in the event that impact fees are not available due to action by the state, county or the cities within their district boundaries.

Plan Review Procedures

1. District capital facility plan updates should be submitted to the County Planning and Development Services Department for review prior to formal adoption by the school district.

2. Each school district planning to expand its school capacity must submit to the county an updated capital facilities plan at least every 2 years. Proposed increases in impact fees must be submitted as part of an update to the capital facilities plan, and will be considered no more frequently than once a year.

3. Each school district will be responsible for conducting any required SEPA reviews on its capital facilities plan prior to its adoption, in accordance with state statutes and regulations.

4. School district capital facility plans and plan updates must be submitted no later than 180 calendar days prior to their desired effective date.

5. District plans and plan updates must include a resolution or motion from the district school board adopting the plan before it will become effective.

Appendix G
Determination of Nonsignificance

DETERMINATION OF NONSIGNIFICANCE

Lake Stevens School District No. 4
Capital Facilities Plan 2026 - 2031

DESCRIPTION OF PROPOSAL: The proposed action is the adoption of the Lake Stevens School District No. 4 Capital Facilities Plan, 2026-2031. Board adoption is scheduled to occur on July 8, 2026. This Capital Facilities Plan has been developed in accordance with the requirements of the State Growth Management Act and is a non-project proposal. It documents how the Lake Stevens School District utilizes its existing educational facilities given current district enrollment configurations and educational program standards and uses six-year enrollment projections to quantify capital facility needs for years 2026-2031.

PROPONENT: Lake Stevens School District No. 4

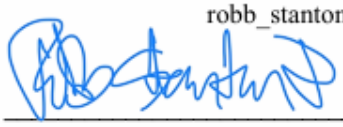
LOCATION OF PROPOSAL: Lake Stevens School District No. 4
Snohomish County, Washington

LEAD AGENCY: Lake Stevens School District No. 4

The lead agency for this proposal has determined that the proposal 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 an environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

This Determination of Nonsignificance (DNS) is issued under WAC 197-11-340(2). The lead agency will not act on this proposal for 14 days from the published date below. Comments may be submitted to the Responsible Official as named below.

RESPONSIBLE OFFICIAL: **Robb Stanton**
POSITION/TITLE: **Executive Director, School Planning and Construction**
ADDRESS: Lake Stevens School District No. 4
12309 22nd Street NE
Lake Stevens, WA 98258
PHONE: 425-335-1506
EMAIL: robb_stanton@lkstevens.wednet.edu

SIGNATURE: 

PUBLISHED: **The Everett Herald – June 18, 2026**

There is no administrative agency appeal.

Appendix H
Historical State Match Data

Table H-1 – Historical State Match Data

State Match Percentage	Year	Project Cost	State Match	State Match %
Cavelero Mid High	2005	$ 68,157,818.15	$ 20,074,255.25	29.5%
Stevens Creek Elementary	2017	$ 42,709,711.00	$ 9,332,740.00	21.9%
Lake Stevens High School	2020	$ 88,675,050.00	$ 18,689,410.00	21.1%
Elementary Eight	2026	$ 76,600,000.00	$ 19,789,237.00	25.8%
Skyline ES Replacement*	2026	$ 72,300,000.00	$ 13,297,387.00	18.4%
Glenwood ES Replacement*	2027	$ 70,700,000.00	$ 12,300,000.00	17.4%
Lake Stevens MS Modernization*	2027	$ 101,100,000.00	$ 27,300,000.00	27.0%
* Estimated Eligibility				

LAKE STEVENS SCHOOL DISTRICT NO. 4
ENVIRONMENTAL CHECKLIST
Adoption of
Capital Facilities Plan 2026-2031

Prepared by

SHOCKEY PLANNING GROUP, INC.
for
Lake Stevens School District No. 4

June 2026

SHOCKEY
PLANNING GROUP, Inc.

Proposal

Adoption of Capital Facilities Plan 2026-2031
Lake Stevens School District No. 4

Proponent

Lake Stevens School District No. 4
Robb Stanton
12309 22nd Street NE
Lake Stevens, Washington 98258
Phone: (425) 335-1506

Project Representative

SHOCKEY PLANNING GROUP, INC.
Camie Anderson
1426 35th Street, Suite 1
Everett, Washington 98201
Phone: (425) 258-9308

June 2026

TABLE OF CONTENTS

A. BACKGROUND 1
B. ENVIRONMENTAL ELEMENTS 4
1. EARTH 4
2. AIR 5
3. WATER 5
4. PLANTS 7
5. ANIMALS 8
6. ENERGY AND NATURAL RESOURCES 9
7. ENVIRONMENTAL HEALTH 9
8. LAND AND SHORELINE USE 11
9. HOUSING 13
10. AESTHETICS 14
11. LIGHT AND GLARE 14
12. RECREATION 15
13. HISTORIC AND CULTURAL PRESERVATION 15
14. TRANSPORTATION 16
15. PUBLIC SERVICES 17
16. UTILITIES 17
C. SIGNATURE 18

List of Figures

Figure 1 - Map of School Facilities 3

Appendices

Appendix A – Supplemental Sheet for Nonproject Actions
Appendix B – 2026-2031 Capital Facilities Plan

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable: Adoption of Capital Facilities Plan, 2026-2031

2. Name of applicant: Lake Stevens School District No. 4

3. Address and phone number of applicant and contact person:

Applicant Contact:
Lake Stevens School District No. 4
Attn: Robb Stanton
12309 22nd Street N.E
Lake Stevens, WA 98258
Phone: (425) 335-1506
Email: robb_stanton@lkstevens.wednet.edu

Environmental/Permitting Consultant:
Shockey Planning Group, Inc.
Attn: Camie Anderson
1426 35th Street, Suite 1
Everett, WA 98201
Phone: (425) 258-9308
Email: canderson@shockeyplanning.com

4. Date checklist prepared: June 8, 2026

5. Agency requesting checklist: Lead agency for environmental review and SEPA compliance is the Lake Stevens School District No 4.

6. Proposed timing or schedule (including phasing, if applicable):

The Lake Stevens School District's Capital Facilities Plan, 2026-2031, is scheduled to be adopted by the Lake Stevens School Board on July 8, 2026. The adopted Capital Facilities Plan (CFP) will then be forwarded to Snohomish County for adoption by reference in its Comprehensive Plan in Fall 2026. The County Planning Commission is scheduled to adopt all CFPs on August 25, 2026. The County Council will adopt the plans in October or November 2026.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The Capital Facilities Plan identifies school construction projects to accommodate unhoused students in the Lake Stevens School District through 2031. The Capital Facilities Plan will be updated at least bi-annually. Changes in actual enrollment and in enrollment projections will be used to recalculate facility needs as part of the biannual update. As noted above, project-specific environmental review will be undertaken at the time of permitting and construction of specific projects.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following reports/information are incorporated by reference and attached to this environmental checklist:

- Snohomish County General Policy Plan
- City of Lake Stevens Comprehensive Plan
- City of Marysville Comprehensive Plan

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.

Following adoption of the Capital Facilities Plan, it is anticipated that it will be incorporated into the comprehensive plans for Snohomish County and the Cities of Lake Stevens and Marysville. The next scheduled update for these plans is 2028.

10. List any government approvals or permits that will be needed for your proposal, if known.

Individual proposed projects may require various governmental approvals, and each project would be reviewed at the project-specific level. The District would obtain any of the required approvals.

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.).

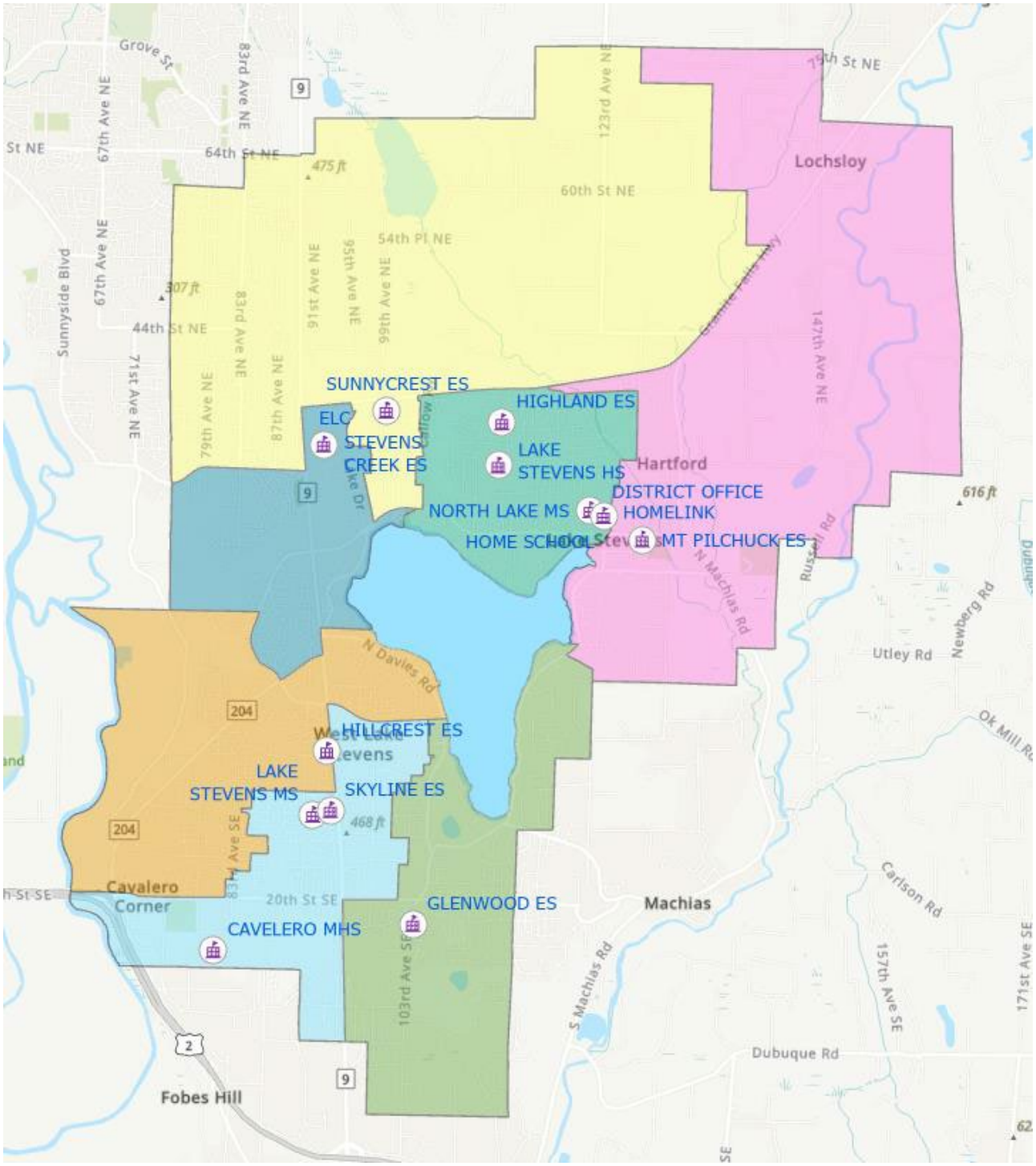
The Washington Growth Management Act (GMA) outlines thirteen broad goals including adequate provision of necessary public facilities and services. Schools are among these necessary facilities and services. The public school districts serving Snohomish County residents have developed capital facilities plans to satisfy the requirements of RCW 36.70A.070 and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in their districts.

This Capital Facilities Plan (CFP) is intended to provide the Lake Stevens School District (District), Snohomish County, the City of Lake Stevens, the City of Marysville and other jurisdictions a description of facilities needed to accommodate projected student enrollment at acceptable levels of service over the next seventeen years, with a more detailed schedule and financing program for capital improvements over the next six years (2026-2031).

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 Lake Stevens School District is located six miles east of downtown Everett and encompasses all of the City of Lake Stevens as well as portions of unincorporated Snohomish County and a small portion of the City of Marysville. The District is located south of the Marysville School District and north of the Snohomish School District. See ***Figure 1 – Map of School Facilities.***

Figure 1 - Map of School Facilities



B. ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site (circle/highlight one): Flat, rolling, hilly, steep slopes, mountainous, other.

The Lake Stevens School District is comprised of a variety of topographic features and landforms. Specific topographic and landform characteristics of the sites of proposed individual projects included in the CFP have been or would be described during project-level environmental review.

b. What is the steepest slope on the site (approximate percent slope)?

Specific slope characteristics at sites of the proposed individual projects included in the CFP have been or would be identified during project-level environmental review.

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.

Specific soil types and their characteristics at the sites of the proposed individual projects included in the CFP have been or would be identified during project-level environmental review. Typically, agricultural soils lie outside Urban Growth Areas. Schools are discouraged outside the UGA.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Specific soil types and properties have been or would be analyzed on the sites of the proposed individual projects included in the CFP, at the time of project-level environmental review. Any limitations or necessary mitigation would be identified during project-level environmental review.

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.

Individual projects included in the CFP have been or would be subject to Lake Stevens, Marysville or County project approval and environmental review, at the time of application.

Proposed grading activities as well as quantity, type, source and purpose of such activities would be addressed at that time. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion could occur during the construction of projects proposed in the CFP. Individual projects would be subject to the local project review process. Potential erosion impacts would be addressed on a site-specific basis during project-level environmental review. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The renovations and new school facilities proposed in the CFP would result in the increase of impervious surfaces. The amount of impervious surface constructed would vary by individual project. Impervious

surface quantities proposed to be constructed at each of the individual projects would be subject to project-level environmental review as well as the local project review process. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Measures to control and reduce erosion impacts would be assessed and implemented in accordance with individual jurisdictional requirements. Erosion control and reduction measures have been or would be determined during project-level environmental review and requirements of the permitting jurisdiction would be met.

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.

Various air emissions may result from the projects proposed in the CFP. The majority of emissions would be construction related and temporary. The air-quality impacts of specific projects have been or would be evaluated during project-level environmental review. For greater detail please see ***Appendix A – Supplemental Sheet for Nonproject Actions***.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Any off-site sources of emissions or odor that may affect individual projects included in the CFP would be addressed during project-level environmental review. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

The individual projects in the CFP would be subject to site-specific environmental review, and also subject to individual jurisdiction local project review processes. The District would be required to comply with all applicable clean air regulations and permit requirements. Proposed air quality measures, specific to individual projects would be identified during project-level environmental review. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact. For greater detail please refer to ***Appendix A - Supplemental Sheet for Nonproject Actions***.

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.

The Lake Stevens School District is characterized by a variety of surface water bodies. The individual water bodies that are in close proximity to proposed projects included in the CFP have been or would be

identified during project-level environmental review. When necessary, detailed studies of surface water regimes and flow patterns would be conducted, and the findings of such studies would be incorporated into the site designs of the individual projects. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP would, cause any significant adverse unavoidable impact.

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 proposed projects included in the CFP could require work within 200 feet of the surface waters located in the Lake Stevens School District. All local project approval requirements would be satisfied and evaluated at project-specific design, permitting and environmental review.

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.**

Specific information in regard to quantities and placement of fill or dredge material, resulting from the proposed projects contained in the CFP, would be provided during project-specific design, permitting and environmental review. All applicable local regulations regarding quantity and placement of dredge and fill material would be satisfied for all of the individual projects. All projects would be subject to local project review processes. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Any surface water withdrawals or diversions made in connection with the proposed projects outlined in the CFP would be addressed during project-specific design, permitting and environmental review.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

If any of the projects proposed in the CFP are located in a floodplain area, then they would be required to meet all applicable regulations addressing flood hazard areas through project-specific design, permitting and environmental review.

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.**

Waste material disposal methods required for specific projects included in the CFP would be addressed during project-level environmental review. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable impact. For greater detail please see ***Appendix A - Supplemental Sheet for Nonproject Actions***.

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.**

It is anticipated that large school projects will be connected to public water systems. Individual projects proposed by the CFP may withdraw from or discharge to groundwater resources. Any potential impacts on groundwater resources would be identified during project-specific design, permitting and environmental review. Each project is subject to local jurisdiction regulations regarding groundwater resources and would be compliant with such regulations. For more detail please see ***Appendix A - Supplemental Sheet for Nonproject Actions***.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (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.**

Discharges of waste material associated with proposed individual projects included in the CFP would be addressed during project-specific design, permitting and environmental review. It is anticipated that most, if not all new school facilities with discharge into public sewer systems.

c. Water Runoff (including storm water):

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.**

Individual projects included in the CFP will have various effects on stormwater runoff quantities and rates. These effects would be identified during project-specific design, permitting and environmental review. All proposed projects would be subject to local stormwater regulations and would be compliant with them.

2) **Could waste materials enter ground or surface waters? If so, generally describe.**

The impacts of specific projects included in the CFP on potential ground or surface water discharges would be addressed during project-specific design, permitting and environmental review. Each project would be subject to all applicable regulations regarding discharges to ground or surface water. For greater detail please see ***Appendix A - Supplemental Sheet for Nonproject Actions***.

3) **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

Any proposed school project would be required to submit a drainage analysis including potential impacts to drainage patterns and means of avoiding those impacts.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Proposed measures to reduce or control surface runoff attributable to the individual projects included in the CFP would be addressed during project-specific design, permitting and environmental review. All jurisdictional regulation requirements would be satisfied.

4. PLANTS

a. Check the types of vegetation found on the site:
X deciduous tree: alder, maple, aspen, other: _____

X evergreen tree: fir, cedar, pine, other: _____
X shrubs
X grass
__ pasture
__ crop or grain
__orchards, vineyards or other permanent crops
X wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other: _____
__water plants: water lily, eelgrass, milfoil, other: _____
X other types of vegetation: domestic vegetation

A variety of plant communities exist within the Lake Stevens School District boundaries. Vegetation types located at specific project sites included in the CFP would be identified during project-specific design, permitting and environmental review. Any potential wet soil plants would be identified at the project specific environmental review.

b. What kind and amount of vegetation will be removed or altered?

Some of the projects proposed in the CFP may require removal or alteration of vegetation. The specific alterations to vegetation on the sites of individual projects would be identified during project-specific environmental analysis.

c. List threatened and endangered species known to be on or near the site.

The specific impacts to threatened or endangered species by any of the proposed projects in the CFP have been or would be identified during project-specific environmental analysis. The proposed projects would be compliant with all applicable regulations regarding threatened and endangered species.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Proposed landscaping and other measures to preserve or enhance vegetation on the sites included in the CFP would be identified during project-specific design, permitting and environmental review. All projects would be subject to local jurisdiction project review, and the landscaping requirements implied therein.

e. List all noxious weeds and invasive species known to be on or near the site.

The specific presence of noxious weeds and invasive species would be determined at the time of specific project permitting. Project proposals would include the means of eliminating those with a potential hazard or impact to a school project.

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:

A wide variety of wildlife exists in the Lake Stevens School District. Inventories of existing species observed on the proposed sites included in the CFP would be conducted during project-level environmental review.

b. List any threatened and endangered species known to be on or near the site.

The specific impacts to threatened or endangered species by any of the proposed projects in the CFP would be identified during project-level environmental review. The proposed projects would be compliant with all regulations regarding threatened and endangered species.

c. Is the site part of a migration route? If so, explain.

Designated migration routes do exist inside the District. Impacts on migration routes by the proposed projects included in the CFP have been or would be identified during project-level environmental review.

d. Proposed measures to preserve or enhance wildlife, if any:

Measures to preserve or enhance wildlife would be identified and determined during project-level environmental analysis.

e. List any invasive animal species known to be on or near the site.

The specific presence of invasive species would be determined at the time of specific project permitting. Project proposals would include the means of eliminating those with a potential hazard or impact to a school project.

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.

The State Board of Education requires a life cycle cost analysis be conducted for all heating, lighting, and insulation systems, prior to permitting specific school projects. The identification of project energy needs has been or would be done during project-specific design and environmental review.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The impacts of proposed projects included in the CFP, on the use of solar energy by adjacent properties, have been or would be identified during project-specific design, permitting and environmental review.

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:

Projects included in the CFP have been or would be required to complete a life cycle cost analysis. Other conservation measures have been or would be identified during project-specific design, permitting and environmental review.

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 environmental health hazards associated with the adoption of the CFP. For a more detailed discussion, see ***Appendix A - Supplemental Sheet for Nonproject Actions***.

1) Describe any known or possible contamination at the site from present or past uses.

The specific presence of contaminants would be determined at the time of site selection or specific project permitting, including a Phase 1 Environmental Review and, if warranted, a Phase 2 analysis. Project proposals would include the means of eliminating materials with a potential hazard or impact to a school project.

a) 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.

Specific types of hazardous material would be identified for specific projects once their location is identified.

b) 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.

Hazardous materials would not typically be stored at a school facility; however, when such is necessary, building would be designed to afford maximum protection again spills or release.

c) Describe special emergency services that might be required.

Special emergency services have been or would be identified during project-specific design, permitting and environmental review. For greater detail, see ***Appendix A - Supplemental Sheet for Nonproject Actions.***

d) Proposed measures to reduce or control environmental health hazards, if any:

Safety procedures and programs are part of the school's emergency programs for both existing and proposed school facilities. Projects included in the CFP would comply with all current codes, regulations, and rules. Individual projects have been or would be subject to environmental review, and the local project approval process. Candidate acquisition sites could be disqualified if hazardous materials are discovered.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Various noise sources exist within the Lake Stevens School District boundaries. The specific noise sources that may affect individual projects included in the CFP have been or would be identified during project-specific design, permitting and environmental review.

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.

Short-term noise impacts associated with construction would exist for future projects included in the CFP. Long-term noise impacts associated with individual projects included in the CFP have been or would be identified through project-specific design, permitting and environmental review. Adoption of the CFP will not, and it is not anticipated that any project described in the CFP will, cause any significant adverse unavoidable noise impact. See ***Appendix A - Supplemental Sheet for Nonproject Actions***.

3) Proposed measures to reduce or control noise impacts, if any:

Mitigation measures to reduce or control project-generated noise impacts have been or would be analyzed during project-specific design, permitting and environmental review. All projects would be subject to all applicable regulations regarding noise and would be compliant.

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.

There are various land uses throughout the District's boundaries. Schools are a common feature in local neighborhoods. Specific land use designations that apply to individual sites included in the CFP would be identified during project-specific site selection, design, permitting and environmental review.

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 non-forest use?

Existing school sites have not recently been used for agriculture. A historical review would be conducted for proposed sites, in conjunction with project-specific design, permitting and environmental review.

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:

Schools within this urban District will not typically be located near the activities described.

c. Describe any structures on the site.

A brief description of existing school facilities is included in Section 4 of the CFP. Proposed structures, located on the proposed sites, have been or would be described in detail during the project-specific permitting and environmental review. See ***Appendix B – 2026-2031 Capital Facilities Plan***.

d. Will any structures be demolished? If so, what?

The remodeling and renovation of school structures may involve demolition of existing structures; any potential demolition would be reviewed for hazardous material removal. Any demolition of structures has been or would be identified during project-specific design, permitting and environmental review.

e. What is the current zoning classification of the site?

Projects in the Lake Stevens School District are, and would be, located in various zoning classifications under applicable local zoning codes. Current zoning classifications, at the time of project application, would be identified. Schools are permitted in most land use zones.

f. What is the current comprehensive plan designation of the site?

Projects included in the CFP are located within various Comprehensive Plan designations. Comprehensive plan designations would be identified at the time of project-specific permitting and environmental review. The CFPs are adopted as part of the Lake Stevens, Marysville and Snohomish County comprehensive plans and are, by definition, compatible with them.

g. If applicable, what is the current shoreline master program designation of the site?

Shoreline master program designations of the proposed project sites included in the CFP have been or would be identified during project-specific site selection, permitting, design, permitting and environmental review. It is unlikely that a school would be sited or constructed within a Shoreline Management jurisdiction.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Any environmentally sensitive areas located on District project sites have been or would be identified during the project-specific design, permitting and environmental review. As with most uses, schools would lie outside of designated wetlands and their buffers.

i. Approximately how many people would reside or work in the completed project?

The District employs approximately 1200 staff.

j. Approximately how many people would the completed project displace?

Any displacement of people caused by the projects proposed in the CFP has been or would be identified during project-specific design, permitting and environmental review.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Projects included in the CFP would be subject to project-specific environmental review and local approval, when appropriate. Proposed mitigating measures would be identified at that time.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The CFP is intended to identify facilities needed to accommodate student population growth anticipated by the land use elements of the County, Lake Stevens and Marysville Comprehensive Plans. Under the GMA, these jurisdictions are required to reassess the land use element of their comprehensive plans, if probable funding falls short of meeting existing needs. Reassessment undertaken is to ensure that the land use element, capital facilities plan elements and financing plan are coordinated and consistent.

The compatibility of the specific projects included in the CFP with existing uses and plans has been or would be assessed as part of the comprehensive planning process, and during project-specific environmental review.

In accordance with GMA mandates and Chapter 30.66C SCC, this CFP contains the following elements:

- Future enrollment forecasts for each grade span (elementary, middle and high).
- An inventory of existing facilities owned by the District.
- A forecast of the future facility needs for capital facilities and school sites, distinguishing between existing and projected deficiencies.
- The proposed capacities of expanded or new capital facilities.
- A financing program (minimum 6-year planning horizon).
- A schedule of impact fees (proposed), and support data.

In developing this CFP, the plan performance criteria of Appendix F of the Snohomish County General Policy Plan were used as follows:

- Information was obtained from recognized sources, such as the U.S. Census or the Puget Sound Regional Council. In addition, District generated data derived through statistically reliable methodologies was used. The information is consistent with the State Office of Financial Management (OFM) population forecasts used in the General Policy Plan.
- The CFP complies with the provisions of RCW 36.70A (Growth Management Act) and RCW 82.02.
- The calculation methodology for impact fees meets the conditions and tests of RCW 82.02. The District proposes the use of impact fees for funding its capital projects and facilities. In future CFP updates, the District intends to update alternative funding sources in the event that impact fees are not available due to action by the State, County or the cities within their district boundaries.
- The district has available three major sources of project financing: bonds, state match funds and school impact fees. Bonds are typically used to fund construction of new schools and require a 60% voter approval. They are then retired through property taxes. State match funds come from the common school construction fund. Bonds are sold on behalf of the funds then retired from revenues acquired predominantly from the sale of renewable resources from State school loans set aside by Enabling Act of 1889. To qualify, schools must meet state-established criteria of need. School impact fees are usually collected by the permitting agency at the time building permits are issued.

Housing projects in the Cities of Marysville and Lake Stevens and unincorporated Snohomish County are required to mitigate impacts to the District by voluntary mitigation agreements based on the anticipated impacts of each specific project. Where adopted, the impact fees are considered adequate mitigation for schools. Where not adopted, impacts and mitigation are review on a project-by-project basis under the State Environmental Policy Act.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Schools within this urban District will not typically be located near the rural agriculture or forestry activities. Should this occur, the design process and the entitlement process will disclose any potential incompatibilities which can be addressed on a case-by-case basis.

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing units would be provided in connection with the completion of the projects included in the CFP.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

The impacts of the projects proposed in the CFP on existing housing units have been or would be identified at the time of project-specific environmental analysis.

c. Proposed measures to reduce or control housing impacts, if any:

Measures to reduce or control any housing impacts caused by the projects included in the CFP have been or would be addressed during project-specific design, permitting and environmental review.

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 design elements of the projects included in the CFP have been or would be addressed during project-specific design, permitting and environmental review.

b. What views in the immediate vicinity would be altered or obstructed?

The aesthetic impacts of the projects included in the CFP have been or would be identified during project-specific design, permitting and environmental review.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Appropriate measures to reduce or control the aesthetic impacts of the projects included in the CFP have been or would be identified on a project-specific basis. Jurisdictional design requirements would be satisfied during project review.

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The light or glare impacts of the projects included in the CFP have been or would be identified during project-specific design, permitting and environmental review.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

The light or glare impacts of the projects included in the CFP have been or would be identified during project-specific environmental review when appropriate.

c. What existing off-site sources of light or glare may affect your proposal?

Off-site sources (such as land use generators and traffic) of light or glare that may affect projects included in the CFP have been or would be identified during project-specific environmental review.

d. Proposed measures to reduce or control light and glare impacts, if any:

Proposed measures to reduce or control light and glare impacts have been or would be identified during project-specific design, permitting and environmental review.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are numerous formal and informal recreational facilities within the Lake Stevens School District. These include facilities both on and in the vicinity of District facilities.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The recreational impacts of the projects included in the CFP have been or would be addressed during project-specific design, permitting and environmental review. The proposed projects included in the CFP, once completed, may enhance recreational opportunities and uses that exist on school sites.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Recreational impacts of the projects included in the CFP have been or would be subject to mitigation during project-specific design, permitting and environmental review. School sites provide opportunities for public use throughout the District's boundaries.

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.

There are no known places or objects listed on or proposed for such registers on any sites currently being considered for projects included in the CFP. The existence of historic and cultural resources on or next to the proposed sites included in the CFP would be identified in more detail during project-specific design, permitting and environmental review.

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.

An inventory of historical sites at or near the sites of the projects included in the CFP would be developed during project-specific environmental review, including review of date from the Washington State Department of Archaeology and Historic Preservation (DAHP)

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.

If any landmarks or evidence of historic, archaeological, scientific, or cultural importance were to be discovered during project-specific review, the State Historic Preservation Officer would be contacted.

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.**

If suspected sites are found, then archaeological monitoring would be a likely requirement of permit approval.

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.

The impact on public streets and highways of the individual projects included in the CFP has been or would be identified during project-specific permitting, design, permitting and environmental review.

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?

The relationship between the specific projects included in the CFP and public transit has been or would be identified during project-specific design, permitting and environmental review. The District does provide school bus service to their facilities, and the need for service has or would be evaluated during project-specific review. Community Transit facilities are located throughout the District's boundaries.

c. 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 need for new streets or roads, or improvements to existing streets or roads has been or would be addressed during project-specific permitting, design, permitting and environmental review.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

It is unlikely that any of these modes would be used as part of any school facilities.

e. 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 non-passenger vehicles). What data or transportation models were used to make these estimates?

The traffic impacts of the projects included in the CFP have been or would be addressed during project-specific design, permitting and environmental review.

f. 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.

Schools within this urban District will not typically be located near rural agriculture or forestry activities. Specific impacts of the projects included in the CFP would be addressed during project-specific design, permitting and environmental review.

g. Proposed measures to reduce or control transportation impacts, if any:

The mitigation of traffic impacts associated with the projects included in the CFP has been or would be addressed during project-specific design, permitting and environmental review. Identified mitigation would be consistent with the local permitting jurisdiction requirements for transportation mitigation and concurrency.

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:

The District does not anticipate that the projects identified in the CFP would substantially increase the need for public services. Actual needs would be evaluated at project-specific design, permitting and environmental review.

The CFP is intended to provide the District, Snohomish County, the Cities of Lake Stevens and Marysville, and other jurisdictions a description of facilities needed to accommodate projected student enrollment at acceptable levels of service through the year 2031. It also provides a more detailed schedule and financing program for capital improvements over the six-year period 2026-2031. The capital facilities financing plan is outlined in the CFP (Table 6-3). Funding sources include General Obligation Bonds, State Match Funds, and School Impact Fees. See ***Appendix B – 2026-2031 Capital Facilities Plan***.

b. Proposed measures to reduce or control direct impacts on public services, if any.

New school facilities would be built with automatic security systems, fire alarms, smoke alarms, heat sensors, and sprinkler systems. Other measures to reduce or control impacts to public services would be identified at the project-specific level of environmental review.

16. UTILITIES

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other: _____

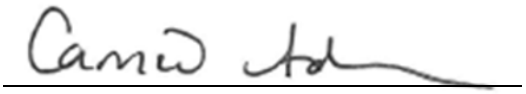
Electricity, natural gas, water, refuse service, and telephone are available at the sites of the projects proposed in the CFP. Sanitary sewer utilities are either available at the sites, or the District would apply for approval of alternative sewage disposal systems/procedures. The types of utilities available at specific project sites have been or would be addressed in more detail during project-specific design, permitting and environmental review.

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.

Utility revisions and construction have been or would be identified during project-specific environmental review when appropriate.

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: 

Applicant Representative

Name of signee: Camie Anderson

Position and Agency/Organization: President, Shockey Planning Group
Consultant to District

Date Prepared: June 8, 2026

Appendix A
Supplemental Sheet for Nonproject Actions

D. SUPPLEMENT SHEET FOR NONPROJECT ACTIONS
(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?

The Capital Facilities Plan (CFP) identifies school facilities to be constructed, renovated, and remodeled. There would be some environmental impacts associated with these activities. Additional impervious surfaces, such as roofs, parking lots, sidewalks, access roads, and playgrounds could increase stormwater runoff, which could enter surface or ground waters. Heating systems, emergency generators, and other school construction equipment could result in air emissions. The projects included in the CFP most likely would not require the production, storage, or release of toxic or hazardous substances, with the possible exception of the storage of diesel fuel or gasoline for emergency generation equipment. The District does not anticipate a significant increase in the production of noise from its facilities, with the possible exception of noise production due to short-term construction activities or the presence of additional students on a site. Construction impacts related to noise and air would be short term and are not anticipated to be significant.

Proposed measures to avoid or reduce such increases are:

Proposed measures to mitigate any such increases described above have been or would be addressed during project-specific design, permitting and environmental review. Stormwater detention and runoff would meet all applicable County, State and/or local requirements, and may be subject to National Pollutant Discharge Elimination System ("NPDES") permitting requirements. Discharges to air would meet applicable air pollution control requirements. Any fuel storage would be done in accordance with all applicable regulations.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The projects included in the CFP may require clearing plants off the building sites and a loss of animal habitat. Because some sites for the remodeling and renovation projects included in the CFP are already developed, lost habitat resulting from these projects should be minimal. These impacts have been or would be addressed in more detail during project-specific design, permitting and environmental review. This would include researching the State register for any threatened or endangered species that may exist on a school site or in the vicinity.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Specific measures to protect and conserve plants, animals, fish, and birds have been or would be identified during project-specific design, permitting and environmental review. The District would work directly with the permitting agency to minimize impacts and potentially provide mitigation measures for plants and animals. All applicable regulations would be satisfied. The District has incorporated many ecological programs into their curriculum.

3. How would the proposal be likely to deplete energy or natural resources?

The construction of the projects included in the CFP would require the consumption of energy. The consumption would be related to short-term construction impacts as well as projects at completion.

Proposed measures to protect or conserve energy and natural resources are:

The projects included in the CFP would be constructed in accordance with applicable energy efficiency standards. This would also include the completion of the life-cycle cost analysis, as required by the State Board of Education.

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?

The CFP and proposed individual projects would analyze these potential impacts on a project-specific level.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Appropriate measures to protect environmentally sensitive areas have been or would be implemented through the process of project-specific design, permitting and environmental review. Updates of this CFP would be coordinated with permitting agencies as part of the GMA process. One of the purposes of the GMA is to protect environmentally sensitive areas. The District's facilities planning process is part of the overall growth management planning process. Environmentally sensitive resources are more likely to be protected, with the extent of the District's CFP process. Future projects would comply with permitting regulations regarding environmentally sensitive areas.

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?

The CFP would not have any impact on land or shoreline uses that are incompatible with existing comprehensive plans, land use codes, or shoreline management plans. The District does not anticipate that the CFP, or the projects contained therein, would directly affect land and shoreline uses in the area served by the District.

Proposed measures to avoid or reduce shoreline and land use impacts are:

No measures to avoid or reduce land use impacts resulting from the CFP, or the projects included, are proposed at this time. To the extent the District's facilities planning process is part of the overall growth management planning process, land use impacts or conflicts should be minimized.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposal should not create substantial new demands for transportation. The projects included in the CFP may create an increase in traffic near District facilities. The construction of the facilities included in the CFP may result in minor increases in the demand for public services and utilities, such as fire and police protection, and water, sewer and electric utilities. None of these impacts is likely to be significant. The impacts on transportation, public services and utilities of the projects included in the CFP would be addressed during project-level environmental review.

Proposed measures to reduce or respond to such demand(s) are:

Any proposed measures to reduce demands on transportation, public services or utilities have been or would be done at the project-specific level. Requirements of the permitting jurisdiction would be complied with, as well as a review of concurrency requirements.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The CFP would not conflict with any laws or requirements for the protection of the environment. The Washington Growth Management Act (the GMA) outlines 13 broad goals, including adequate provision of necessary public facilities and services. Schools are among these necessary facilities and services. The public school districts serving Snohomish County residents have developed capital facilities plans to satisfy the requirements of RCW 36.70A.070, and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in their districts.

Appendix B
2026-2031
Capital Facilities Plan

INCORPORATED BY REFERENCE.

COPIES AVAILABLE FOR REVIEW BY CONTACTING LAKE STEVENS SCHOOL DISTRICT

Agenda Item Details

Meeting	Jun 17, 2026 - Regular Board Meeting
Category	5. NEW BUSINESS
Subject	G. 2026-2031 Capital Facilities Plan-Alex VanDuine
Type	Action
Absolute Date	Jun 17, 2026
Recommended Action	Approval of the 2026-2031 Capital Facilities Plan as presented.

Submitted by: Alex VanDuine, Director of Capital Projects and Facilities

The 2026–2031 Capital Facilities Plan (CFP) is required under Washington's Growth Management Act and supports the District's continued eligibility to collect school impact fees.

The plan outlines:

- Current and projected student enrollment;
- Existing facility capacity;
- Future capital needs;
- Planned construction projects; and
- Funding strategies for growth-related improvements.

Enrollment and Capacity

District enrollment is projected to grow from 2,731 students in 2025 to approximately 3,135 students by 2031–32.

By 2031, projected permanent capacity deficiencies include:

- 198 elementary students;
- 56 middle school students; and
- 179 high school students.

The District currently uses 19 portable classrooms to address interim space needs.

Planned Projects

Major projects identified in the CFP include:

- Construction of a new Lakewood Middle School;
- Conversion of the current middle school into additional elementary capacity;
- Addition of portable classrooms as needed; and
- Future land acquisition for growth.

The new middle school project is estimated at approximately $85 million, with the elementary conversion project estimated at $6 million.

Funding

Planned projects are expected to be funded through a combination of:

- Future voter-approved bonds or levies;
- State School Construction Assistance Program (SCAP) funding;
- School impact fees; and
- Local funding sources.

Recommendation

Administration recommends Board adoption of the 2026–2031 Capital Facilities Plan to maintain compliance with state requirements, support long-range facilities planning, and preserve eligibility for school impact fee collections.

Revised_2026 Lakewood SD CFP (6.15.26 Draft).pdf (976 KB)

LAKEWOOD SCHOOL DISTRICT NO. 306

CAPITAL FACILITIES PLAN

2026-2031

Adopted: June 17, 2026

LAKEWOOD SCHOOL DISTRICT NO. 306

CAPITAL FACILITIES PLAN

2026-2031

BOARD OF DIRECTORS
LEAHA TOCCO, PRESIDENT
CATHERINE "SANDY" GOTTS,
DANA KRUEGER
STEVEN LARSON
DAWN TAYLOR

SUPERINTENDENT

DR. ERIN MURPHY

Adopted: June 17, 2026

For information regarding the Lakewood School District Capital Facilities Plan, contact the Office of the Superintendent, Lakewood School District, 17110 16th Drive NE, Marysville, WA 98271. (Tel: (360) 652-4500)

TABLE OF CONTENTS

Page

Section 1. Introduction....1

Section 2. District Educational Program Standards....4

Section 3. Capital Facilities Inventory....8

Section 4. Student Enrollment Projections....11

Section 5. Capital Facilities Needs....14

Section 6. Capital Facilities Financing Plan....17

Section 7. School Impact Fees....20

Appendix A ……Population and Enrollment Data

Appendix B ……...Student Generation Factor Review

Appendix C …….School Impact Fee Calculations

INTRODUCTION

A. Purpose of the Capital Facilities Plan

The Washington State Growth Management Act (the "GMA") includes schools in the category of public facilities and services. School districts have adopted capital facilities plans to satisfy the requirements of the GMA and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in their districts.

The Lakewood School District (the "District") has prepared this Capital Facilities Plan (the "CFP") to provide Snohomish County (the "County") and the cities of Arlington and Marysville with a description of facilities needed to accommodate projected student enrollment and a schedule and financing program for capital improvements over the next six years (2026-2031).

In accordance with the Growth Management Act, adopted County Policy, the Snohomish County Ordinance Nos. 97-095, 99-107, and 25-017, the City of Arlington Ordinance No. 1263, and the City of Marysville Ordinance Nos. 2306 and 2213, this CFP contains the following required elements:

- Future enrollment forecasts for each grade span (elementary, middle, and high school).
- An inventory of existing capital facilities owned by the District, showing the locations and capacities of the facilities.
- A forecast of the future needs for capital facilities and school sites.
- The proposed capacities of expanded or new capital facilities.
- A six-year plan for financing capital facilities within projected funding capacities, which clearly identifies sources of public money for such purposes. The financing plan separates projects and portions of projects which add capacity from those which do not, since the latter are generally not appropriate for impact fee funding.
- As relevant, a calculation of impact fees to be assessed and supporting data substantiating said fees.

In developing this CFP, the District followed the following guidelines set forth in the Snohomish County Comprehensive Plan – Appendix F:

- Districts should use information from recognized sources, such as the U.S. Census or the Puget Sound Regional Council. School districts may generate their own data if it is derived through statistically reliable methodologies. Information must not be inconsistent with Office of Financial Management ("OFM") population forecasts. Student generation rates must be independently calculated by each school district.
- The CFP must comply with the GMA.

- The methodology used to calculate impact fees must comply with the GMA. In the event that impact fees are not available due to action by the state, county or cities within the District, the District in a future CFP update must identify alternative funding sources to replace the intended impact fee funding.
- The methodology used to calculate impact fees also complies with the criteria and the formulas established by the County.

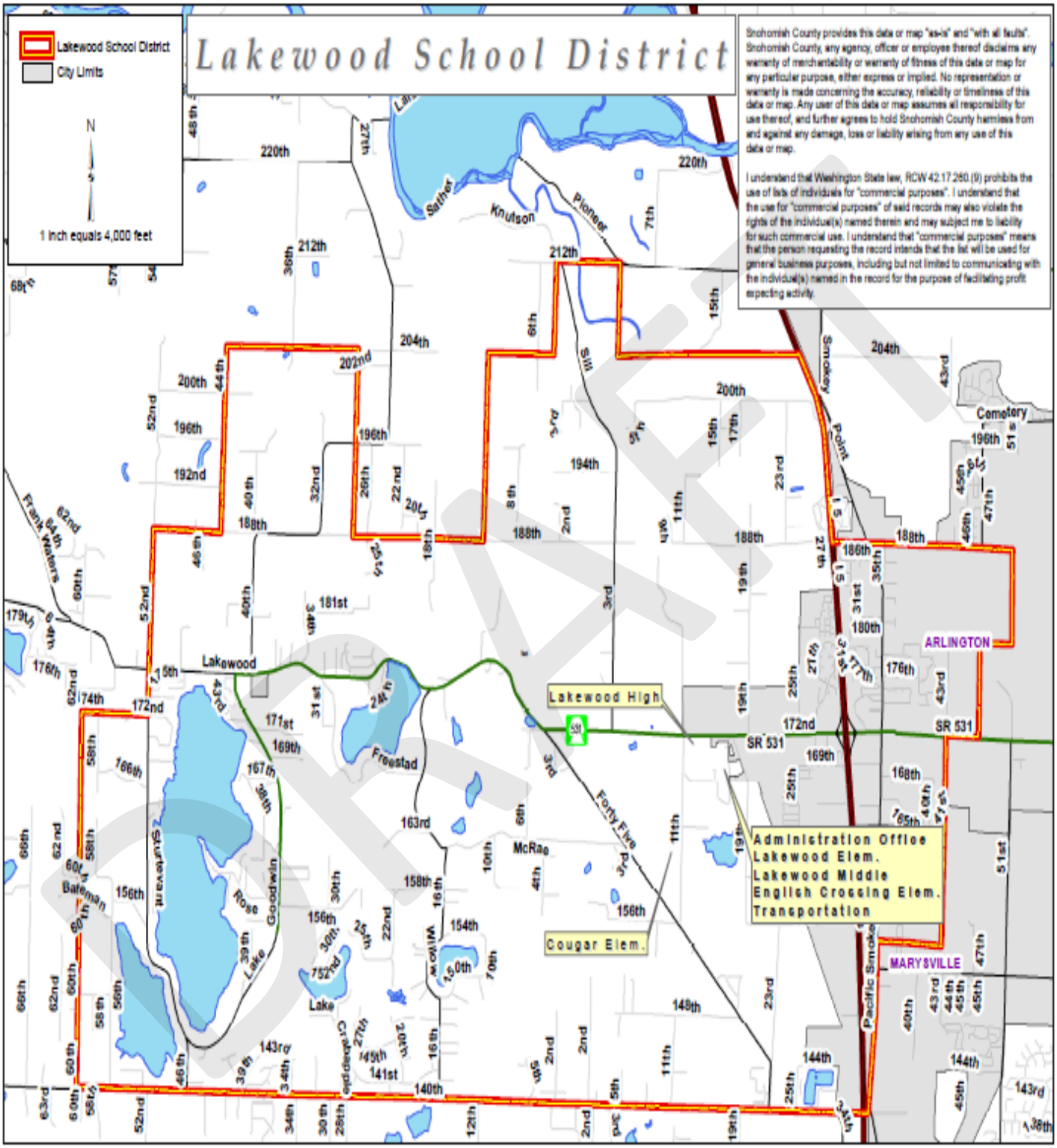
Snohomish County's Countywide Planning Policies direct jurisdictions in Snohomish County to "ensure the availability of sufficient land and services for future K-20 school needs" and "work with school districts to plan for the siting and improvement of school facilities." Policy ED-11 and Policy PS-21. The District appreciates any opportunity for cooperative planning efforts with its jurisdictions.

B. Overview of the Lakewood School District

The Lakewood School District is located along Interstate 5, north of Marysville, Washington, primarily serving unincorporated Snohomish County and a part of the City of Arlington and the City of Marysville. The District is bordered on the south by the Marysville School District, on the west and north by the Stanwood School District, and on the east by the Arlington School District.

The District serves a population of 2,731 headcount students, with an FTE enrollment of 2,651 (October 1, 2025, reported OSPI enrollment). The District has three elementary schools, one middle school, and one high school.

FIGURE 1
MAP OF FACILITIES



SECTION 2
DISTRICT EDUCATIONAL PROGRAM STANDARDS

School facility and student capacity needs are dictated by the types and amounts of space required to accommodate the District's adopted educational program. The educational program standards which typically drive facility space needs include grade configuration, optimum facility size, class size, educational program offerings, classroom utilization and scheduling requirements, and use of relocatable classroom facilities (portables), as well as specific and unique physical structure needs required to meet the needs of students with special needs.

In addition to factors which affect the amount of space required, government mandates and community expectations may affect how classroom space is used. Traditional educational programs offered by school districts are often supplemented by nontraditional, or special programs such as special education, expanded bilingual education, remediation, , social and emotional learning, substance abuse education, Comprehensive Sexual Health education, preschool and daycare programs, computer labs, music programs, and others. These special or nontraditional educational programs can have a significant impact on the available student capacity of school facilities, and upon planning for future needs.

The educational program standards contained in this CFP reflect the District's implementation of requirements for full-day kindergarten and reduced K-3 class size.

Special programs offered by the District at specific school sites include, but are not limited to:

Lakewood Elementary School (Preschool through 5th Grades)

- Bilingual Education Program
- Title I Services Program
- P – 5th Grade Counseling Services
- Speech and Language Disorder Therapy Program
- Early Childhood Education and Assistance Program (ECEAP)
- Developmentally Delayed Preschool Program - Ages 3 to 5
- K-5th Grade Special Education Resource Room Program
- Learning Assistance Program
- Occupational Therapy Program
- Highly Capable cluster Model Program
- Transitional Kindergarten Program

English Crossing Elementary School (Kindergarten through 5th Grades)

- K -5th Grade Special Education Resource Room Program
- Bilingual Education Program
- K – 5th Grade Counseling Services
- Speech and Language Disorder Therapy Program
- Learning Assistance Program
- Occupational Therapy Program

- K-5 Grade Special Education EBD Program
- Highly Capable cluster Model Program
- Title I Services Program
- K – 5th Grade Special Education Comprehensive Skills Program

Cougar Creek Elementary School (Kindergarten through 5th Grades)

- Bilingual Education Program
- Title I Services Program
- Speech and Language Disorder Therapy Program
- Learning Assistance Program
- Occupational Therapy Program
- K – 5th Grade Special Education Resource Room Program
- K – 5th Grade Special Education Comprehensive Skills Program
- K – 5th Grade Counseling Services
- Highly Capable cluster Model Program

Lakewood Middle School (6th through 8th Grades)

- Speech and Language Disorder Therapy Program
- 6th-8th Grade Special Education Resource and Inclusion Program
- 6th-8th Grade Special Education Comprehensive Skills Program
- Bilingual Education Program
- Occupational Therapy Program
- 6th – 8th EBD Program
- 6th – 8th Grade Counseling Services
- Career and Technical Education Program

Lakewood High School

- 9th-12th Grade Special Education Resource Room and Transition Program
- 9th-12th Grade Special Education Comprehensive Skills Program
- Transition Services Program (Ages 16-22)
- Bilingual Education Program
- Occupational Therapy Program
- Speech and Language Disorder Program
- 9th – 12th Grade Counseling Services
- College in the High School Program
- Advanced Placement Program
- Career and Technical Education Program

Variations in student capacity between schools may result from the special or nontraditional programs offered at specific schools. Some students, for example, leave their regular classroom for a short period of time to receive instruction in these special programs. New schools are designed to accommodate many of these programs. However, existing schools often require space modifications to accommodate special programs, and in some circumstances, these modifications may affect the overall classroom capacities of the buildings.

District educational program standards may change in the future as a result of changes in the program year, special programs, class sizes, grade span configurations, use of new technology, and other physical aspects of the school facilities. The school capacity inventory will be reviewed periodically and adjusted for any changes to the educational program standards. These changes will also be reflected in future updates of this Capital Facilities Plan.

The District educational program standards which directly affect school capacity are outlined below for the elementary, middle, and high school grade levels.

Educational Program Standards For Elementary Schools

- Class size for grades K – 3rd will not exceed 19 students.
- Class size for grades 4th and 5th will not exceed 24 students.
- All students will be provided library/media services in a school library.
- Special Education for students may be provided in, inclusion, self-contained or specialized classrooms.
- All students will be provided music instruction in a separate classroom when space is available
- Each classroom will have access to computers, interactive displays and related educational technology.
- Optimum design capacity for new elementary schools is 475 students. However, actual capacity of individual schools may vary depending on the educational programs offered.
- All students will be provided physical education instruction in a gym/multipurpose room.

Educational Program Standards For Middle and High Schools

- Class size for middle school grades will not exceed 27 students.
- Class size for high school grades will not exceed 29 students.
- As a result of scheduling conflicts for student programs, the need for specialized rooms for certain programs, and the need for teachers to have a work space during planning periods, it is not possible to achieve 100% utilization of all regular teaching stations throughout the day. In updating this Capital Facility Plan, a building review of classroom use was conducted in order to reflect the actual classroom utilization in the high school and middle school. Therefore, classroom capacity should be adjusted using a utilization factor of 95% at the middle school and 85% at the high school to reflect the use of classrooms for teacher planning. Special Education for students will be provided in self-contained or specialized classrooms. Inclusion model for qualified students on IEP's.
- Each classroom is equipped with access to computers, interactive displays and related educational-technology.
- Identified students will also be provided other nontraditional educational opportunities in classrooms designated as follows:

  Counseling Offices
  Resource Rooms (i.e. computer labs, study rooms)
  Special Education Classrooms

Program Specific Classrooms (i.e. music, drama, art, physical education, CTE Classrooms

- Optimum design capacity for new middle schools is 600 students. However, actual capacity of individual schools may vary depending on the educational programs offered.
- Optimum design capacity for new high schools is 800 students. However, actual capacity of individual schools may vary depending on the educational programs offered.

Minimum Educational Service Standards

The District will evaluate student housing levels based on the District as a whole system and not on a school by school or site by site basis. This may result in portable classrooms being used as interim housing, attendance boundary changes or other program changes to balance student housing across the system as a whole. A boundary change or a significant programmatic change would be made by the Board of Directors following appropriate public review and comment. The District may also request that development be deferred until planned facilities can be completed to meet the needs of the incoming population; however, the District has no control over the ultimate land use decisions made by the permitting jurisdictions.

The District's minimum level of service ("MLOS") is as follows: on average, K-5 classrooms have no more than 26 students per classroom, 6-8 classrooms have no more than 28 students per classroom, and 9-12 classrooms have no more than 30 students per classroom. The District sets minimum educational service standards based on several criteria. Exceeding these minimum standards will trigger significant changes in program delivery. Minimum standards have not been met if, on average using current FTE figures: K-4 classrooms have more than 26 students per classroom, 5-8 classrooms have more than 28 students per classroom, or 9-12 classrooms more than 30 students per classroom. The term "classroom" does not include special education classrooms or special program classrooms (i.e. computer labs, art rooms, chorus and band rooms, spaces used for physical education and other special program areas). Furthermore, the term "classroom" does not apply to special programs or activities that may occur in a regular classroom. The MLOS is not the District's desired or accepted operating standard.

For 2023-24 and 2024-25, the District's compliance with the MLOS was as follows (with MLOS set as applicable for those school years):

2023-24 School Year						
LOS Standard	**MINIMUM LOS# Elementary**	**REPORTED LOS Elementary**	**MINIMUM LOS Middle**	**REPORTED LOS Middle**	**MINIMUM LOS High**	**REPORTED LOS High**
	26	20.74	28	22.81	30	24.00

2024-25 School Year						
LOS Standard	**MINIMUM LOS# Elementary**	**REPORTED LOS Elementary**	**MINIMUM LOS Middle**	**REPORTED LOS Middle**	**MINIMUM LOS High**	**REPORTED LOS High**
	26	20.35	28	24.78	30	24.71

* The District determines the reported LOS by adding the number of students in regular classrooms at each grade level and dividing that number by the number of teaching stations (excludes portables).

SECTION 3
CAPITAL FACILITIES INVENTORY

The facilities inventory serves to establish a baseline for determining the facilities necessary to accommodate future demand (student enrollment) at acceptable levels of service. This section provides an inventory of capital facilities owned and operated by the District including schools, relocatable classrooms, undeveloped land, and support facilities. Facility capacity is based on the space required to accommodate the District's adopted educational program standards. *See* Section 2. Attached as Figure 1 (page 3) is a map showing locations of District facilities.

A. Schools

The District maintains three elementary schools, one middle school, and one high school. Lakewood Elementary School accommodates grades P-5, Cougar Creek Elementary School accommodates grades K-5, and English Crossing Elementary School accommodates grades K-5. Lakewood Middle School serves grades 6-8, and Lakewood High School serves grades 9-12.

School capacity was determined based on the number of teaching stations within each building and the space requirements of the District's adopted educational program. It is this capacity calculation that is used to establish the District's baseline capacity, and to determine future capacity needs based on projected student enrollment. The school capacity inventory is summarized in Table 1.

Relocatable classrooms are not viewed by the District as a solution for housing students on a permanent basis. Therefore, these facilities are not included in Table 1.

Table 1
School Capacity Inventory

Elementary School	Site Size (Acres)	Building Area (Square Feet)	Teaching Stations	Permanent Capacity	Year Built or Remodeled
English Crossing	*	41,430	20	403	1994
Cougar Creek	10**	44,217	21	424	2003
Lakewood	*	45,400	16	323	1958, 1997
TOTAL	*	**131,047**	**57**	**1,150**	

Middle School	Site Size (Acres)	Building Area (Square Feet)	Teaching Stations	Permanent Capacity	Year Built or Remodeled
Lakewood Middle	*	79,945	26	702	1971, 1994, 2002, 2024

High School	Site Size (Acres)	Building Area (Square Feet)	Teaching Stations	Permanent Capacity	Year Built or Remodeled
Lakewood High	*	169,000	34	850	2017

*Note: All facilities are located on one 89-acre campus located at Tax Parcel No. 31053000100300.
**The Cougar Creek site is approximately 22 acres located at 16216 11th Ave NE, Arlington, WA 98223. Note that the presence of critical areas on the site does not allow full utilization at this site.

B. Relocatable Classrooms

Relocatable classrooms are used on an interim basis to house students until funding can be secured to construct permanent classrooms. The District currently uses 19 relocatable classrooms at various school sites throughout the District to provide additional interim capacity. A typical relocatable classroom can provide capacity for a full-size class of students. Current use of relocatable classrooms throughout the District is summarized in Table 2. Table 2 includes only those relocatable classrooms used for regular capacity purposes. The average size of a single relocatable classroom is approximately 896 square feet. See page 22 for total square footage by grade level. The District's relocatable classrooms have adequate useful remaining life and are evaluated regularly.

Table 2
Relocatable Classroom (Portable) Inventory

Elementary School	Relocatable Classrooms	Interim Capacity
English Crossing	2	40
Cougar Creek	4	80
Lakewood	10	200
SUBTOTAL	**16**	**320**

Middle School	Relocatable Classrooms	Interim Capacity
Lakewood Middle	3	78
SUBTOTAL	**3**	**78**

High School	Relocatable Classrooms	Interim Capacity
Lakewood High	0	0
SUBTOTAL	**0**	**0**

TOTAL	**19**	**398**

C. Support Facilities

In addition to schools, the District owns and operates additional facilities which provide operational support functions to the schools. An inventory of these facilities is provided in Table 3.

Table 3
Support Facility Inventory

Facility	Building Area (Square Feet)
Administration	1,384
Business and Operations	1,152
Storage	2,456
Bus Garage/Maintenance Shop	7,416
Stadium	14,304

The District is also a party to a cooperative agreement for use of the Marysville School District transportation facility (which is owned by the Marysville School District).

D. Land Inventory

The District does not own any sites which are developed for uses other than schools and/or which are leased to other parties.

E. Leased Facilities

The District does not lease any facilities.

SECTION 4
STUDENT ENROLLMENT PROJECTIONS

The District's October 1, 2025, reported enrollment was 2,731 HC students (2,651 FTE). Enrollment projections are most accurate for the initial years of the forecast period. Moving further into the future, more assumptions about economic conditions and demographic trends in the area affect the projection. Monitoring birth rates in Snohomish County and population growth for the area are essential yearly activities in the ongoing management of the capital facilities plan. In the event that enrollment growth slows, plans for new facilities can be delayed. It is much more difficult, however, to initiate new projects or speed projects up in the event enrollment growth exceeds the projection.

A. Six Year Enrollment Projections

Two enrollment forecasts were conducted for the District: an estimate by the Office of the Superintendent of Public Instruction (OSPI) based upon the cohort survival method; and a modified cohort enrollment forecast prepared by a demographer. The District also estimated enrollment based upon adopted Snohomish County population forecasts ("ratio method").

Based on the cohort survival methodology, a total of 3,166 students are expected to be enrolled in the District by 2031, a notable increase from the October 2025 enrollment levels. Importantly, the cohort survival method is not designed to anticipate fluctuations in development patterns. This deficiency is exacerbated by enrollment anomalies that occurred as a result of the COVID pandemic, particularly in the 2020-21 school year. Historically the OFM numbers and OSPI cohort percentages are lower than the District projections. This year, however, the OFM numbers align with District projections. See below and Appendix A-1.

Snohomish County provides OFM population-based enrollment projections for the District using OFM population forecasts as adopted by the County. The County provided the District with the estimated total population in the District by year. In 2025, the District's student enrollment constituted approximately 14.75% of the total population in the District. Assuming that between 2026 and 2031, the District's enrollment will continue to constitute 14.75% of the District's total population and using OFM/County data, OFM/County methodology projects a total enrollment of 2,991 students in 2031, or an approximately 9.52% increase.

The District obtained in October 2025 an updated enrollment forecast from a professional demographer, Educational Data Solutions LLC (the "EDS Report"). The EDS Report provides a low, middle and high estimate of projected students. Based on this analysis, and using the middle numbers, a total enrollment of 3,135 students, or 404 additional students, are expected by the 2031-32 school year. This projection is an increase of approximately 14.79% over 2025 enrollment. Growth is projected at all grade levels. The EDS Report forecast utilizes historic enrollment patterns, demographic and land use analysis based upon information from Snohomish County and the cities of Arlington and Marysville, census data, OFM forecasts, and Washington State Department of Health birth data. The detailed EDS Report is on file with the District and a grade level analysis is included in Appendix A-2.

The comparison of OSPI cohort, District projections, and OFM/County projected enrollments is contained in Table 4.

Table 4
Projected Student Enrollment (FTE)
2026-2031

Projection	Oct. 2025*	2026	2027	2028	2029	2030	2031	Change 2025-31	Percent Change 2025-31
OFM/County	**2,731**	**2,774**	**2,817**	**2,860**	**2,903**	**2,946**	**2,991**	**260**	**9.52%**
OSPI Cohort**	**2,731**	**2,774**	**2,867**	**2,932**	**3,016**	**3,096**	**3,166**	**435**	**15.93%**
District***	**2,731**	**2,826**	**2,902**	**2,970**	**3,031**	**3,089**	**3,135**	**404**	**14.79%**

* Actual reported enrollment, October 2025 (headcount)
**Based upon the cohort survival methodology; complete projections located at Appendix A..
***EDS Report; grade level projections located in Appendix A.

The District expects approximately 2,200 additional housing units (all types) to be added by 2032, with several apartment and townhome projects currently in the pipeline.

Given the District-specific detailed analysis contained in the FLO Analytics report, the District is relying on the projections in that report for purposes of planning for the District's needs during the six years of this plan period. The District plans to watch enrollment growth closely as new development continues. Future updates to the Plan will continue to revisit enrollment projections and methodologies.

B. 2044 Enrollment Projections

Student enrollment projections beyond 2031 are highly speculative. Using OFM/County data as a base, the District projects a 2044 student HC population of 3,553. This is based on the OFM/County data using total population as related to District enrollment.

Projected enrollment by grade span for the year 2044 is provided in Table 5. Again, these estimates are highly speculative and are used only for general planning purposes.

Table 5
Projected Student Enrollment
2044

Grade Span	HC Enrollment – October 2025	Projected Enrollment 2044*
Elementary (K-5)	1,200	1,562
Middle School (6-8)	676	879
High School (9-12)	855	1,112
TOTAL (K-12)	**2,731**	**3,553**

*Assumes average percentage per grade span remains constant between 2025 and 2044.

Note: Snohomish County Planning and Development Service provided the underlying data for the 2044 projections.

SECTION 5
CAPITAL FACILITIES NEEDS

The projected available student capacity was determined by subtracting projected FTE student enrollment from permanent school capacity (i.e. excluding portables) for each of the six years in the forecast period (2026-2031).

Capacity needs are expressed in terms of "unhoused students."

Projected future capacity needs are depicted on Table 6-A and are derived by applying the projected enrollment to the capacity existing in the 2025-26 school year. The method used to define future capacity needs assumes no new construction. For this reason, planned construction projects are not included at this point. This factor, as applicable, is added later (see Table 7).

This table shows actual space needs and the portion of those needs that are "growth related" for the years 2026-2031. Note that this chart can be misleading as it reads out growth-related capacity needs related to recent growth within the District.

Table 6-A*
Additional Capacity Needs***
2025-2031

Grade Span	2025	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Pct. Growth Related
Elementary (K-5)								
Total	50	122	137	134	162	181	198	
Growth Related	--	72	87	84	112	131	148	74.75%
Middle School (6-8)								
Total	0	0	0	33	60	68	56	
Growth Related	--	--	--	33	60	68	56	100%
High School (9-12)								
Total	5	20	78	99	106	137	179	
Growth Related	--	15	73	94	101	132	174	97.21%

*Please refer to Table 7 for capacity and projected enrollment information.
**Actual October 2025 Enrollment
***Additional "Growth Related Capacity Needs" equal the "Total" for each year less "deficiencies" existing as of 2025. Existing deficiencies as of 2025 include capacity needs related to recent growth from new development through that date.

By the end of the six-year forecast period (2031), additional permanent classroom capacity will be needed as follows:

Table 6-B
Unhoused Students

Grade Span	Unhoused Students /Growth Related in Parentheses)
Elementary (K-5)	198/(148)
Middle School (6-8)	56/(56)
High School (9-12)	179/(174)
TOTAL UNHOUSED (K-12)	433/(378)

Again, any planned construction projects are not included in the analysis in Table 6-B. In addition, it is not the District's policy to include relocatable classrooms when determining future capital facility needs; therefore interim capacity provided by relocatable classrooms is not included in Table 6-B. However, Table 6-C incorporates the District's current relocatable capacity (see Table 2) for purposes of identifying available capacity.

Table 6-C
Unhoused Students – Mitigated with Relocatables

Grade Span	2031 Unhoused Students /Growth Related in (Parentheses)	Relocatable Capacity
Elementary (K-5)	198/(148)	320
Middle School (6-8)	56/(56)	78
High School (9-12)	179/(174)	0
Total (K-12)	433/(378)	**398**

Importantly, Table 6-C does not include relocatable additions or adjustments that may be made to meet capacity needs. For example, the relocatable classrooms currently designated to serve elementary school needs could be used to serve high school capacity needs. Therefore, assuming no permanent capacity improvements are made, Table 6-C indicates that the District will have adequate interim capacity with the use of relocatable classrooms to house students at the elementary and middle school levels during this planning period but may need move portables to and/or purchase portables to address high school enrollment.

Projected permanent capacity needs are depicted in Table 7. They are derived by applying the District's projected number of students to the projected capacity. Planned improvements by the District through 2031 are included in Table 7 and more fully described in Table 8.

Table 7
Projected Student Capacity
2026-2031

Elementary School Surplus/Deficiency

	Oct 2025	2026	2027	2028	2029	2030	2031
Existing Capacity	1,150	1,150	1,150	1,150	1,150	1,150	1,477
Added Permanent Capacity						327^	
Total Permanent Capacity	1,150	1,150	1,150	1,150	1,150	1,477	1,477
Enrollment	1,200	1,272	1,287	1,286	1,312	1,331	1,348
Surplus (Deficiency)**	(50)	(122)	(137)	(136)	(162)	146	129

* Reported October 2025 FTE enrollment
** Does not include portable capacity
^Lakewood Elementary School addition (conversion of former LMS)

Middle School Surplus/Deficiency

	Oct 2025*	2026	2027	2028	2029	2030	2031
Existing Capacity	702	702	702	702	702	750	750
Added Permanent Capacity					48^		
Total Permanent Capacity	702	702	702	702	750	750	750
Enrollment	676	684	686	735	762	770	758
Surplus (Deficiency)**	26	18	16	(33)	(12)	(20)	(8)

* Reported October 2025 FTE enrollment
**Does not include portable capacity.
^New Lakewood Middle School opens with assumed capacity of approximately 750 students.

High School Surplus/Deficiency

	Oct 2025*	2026	2027	2028	2029	2030	2031
Existing Capacity	850	850	850	850	850	850	850
Added Permanent Capacity							
Total Permanent Capacity	850	850	850	850	850	850	850
Enrollment	855	870	928	949	956	987	1,029
Surplus (Deficiency)**	(5)	(20)	(78)	(99)	(106)	(137)	(179)

* Reported October 2025 FTE enrollment
**Does not include portable capacity

See Appendix A for complete breakdown of enrollment projections.
See Table 6-A for a comparison of additional capacity needs due to growth versus existing deficiencies.
Table 7 does not include existing, relocated, or added portable facilities.

SECTION 6
CAPITAL FACILITIES FINANCING PLAN

A. Planned Improvements

In March 2000, the voters passed a $14,258,664 bond issue for school construction and site acquisition. A new elementary school and a middle school addition were funded by that bond measure. In April 2014, the District's voters approved a $66,800,000 bond measure to fund a capacity addition at Lakewood High School, which opened in the fall of 2017. In the Spring of 2020, the District added a STEM lab and two classrooms at Lakewood Middle School.

Currently, the District plans, based on recommendations of the 2023 Citizens' Facility Advisory Committee, to request voter funding of a capital bond to build a new middle school. The new middle school is planned for construction on existing District property (existing fields/parking at Lakewood Elementary School). Following construction of the new middle school, the District will convert the existing Lakewood Middle School to additional classrooms and facility space at Lakewood Elementary School to provide additional K-5 capacity. Both facilities would provide capacity to serve growth. The District anticipates requesting voter approval during the 2027-28 school year, with construction complete in the 2029-30. Future updates to this CFP will identify updated plans and funding.

Based upon current needs, the District anticipates that it may need to consider the following acquisitions and/or improvements within the six years of this Plan.

Projects Adding Permanent/Temporary Capacity:

- New Lakewood Middle School construction;
- Conversion of existing LMS to added capacity at Lakewood Elementary School; and
- Acquisition and siting of portable facilities to accommodate growth needs.

Non-Capacity Adding Projects:

- Replacing roofs at 100 and 400 buildings of LMS;
- Replacing boilers at LES; and
- Updated systems at various facilities.

Other:

- Land acquisition for future sites.

In the event that planned construction projects do not fully address space needs for student growth and a reduction in interim student housing, the Board could consider various courses of action, including, but not limited to:

- Alternative scheduling options;
- Changes in the instructional model;
- Grade configuration changes;
- Increased class sizes; or
- Modified school calendar.

Funding for planned improvements is typically secured from a number of sources including voter approved bonds, State School Construction Assistance funds, and impact fees. Where applicable, the potential funding sources are discussed below.

B. Financing for Planned Improvements

1. General Obligation Bonds

Bonds are typically used to fund construction of new schools and other capital improvement projects. A 60% voter approval is required to approve the issuance of bonds. Bonds are then retired through collection of property taxes. In March 2000, District voters approved a $14,258,664 bond issue for school construction and site acquisition, which included funding of Cougar Creek Elementary School. In April 2014, the District's voters approved a $66,800,000 bond measure to fund improvements, including a capacity addition, at Lakewood High School. The District plans a capital bond during the 2027-28 school year to construct a new Lakewood Middle School. Future updates to the CFP will include any in process planning.

2. State School Construction Assistance

State School Construction Assistance funds come from the Common School Construction Fund and is administered by the Office of the Superintendent of Public Instruction (OSPI). The State deposits revenue from the sale of renewable resources from State school lands set aside by the Enabling Act of 1889 into the Common School Account. If these sources are insufficient to meet needs, the Legislature can appropriate General Obligation Bond funds or OSPI can prioritize projects for funding. School districts may qualify for State School Construction Assistance Program (SCAP) funds for specific capital projects based on a prioritization system. The District is eligible for State School Construction Assistance Program (SCAP) funds for certain projects at the 57.48% funding percentage level. The current Construction Cost Allowance, the maximum cost/square foot recognized for SCAP funding, is set in the legislature in the biennial budget and currently is $399.38/eligible square foot. The District anticipates eligibility for SCAP funding related to the new middle school project.

3. Impact Fees

Impact fees are a means of supplementing traditional funding sources for construction of public facilities needed to accommodate new development. School impact fees are generally collected by the permitting agency at the time plats are approved or building permits are issued.

4. Six Year Financing Plan

The Six-Year Financing Plan shown in Table 8 demonstrates how the District intends to fund new construction and improvements to school facilities for the years 2026-2031. Where applicable, potential financing components include a bond or capital levy, impact fees, and State School Construction Assistance Program funds. Projects and portions of projects which remedy existing deficiencies are not appropriate for impact fee funding. Thus, impact fees will not be used to finance projects or portions of projects which do not add capacity or which remedy existing deficiencies.

Table 8
Capital Facilities Plan

Improvements Adding Permanent Capacity (Costs in Millions)

Project	2026	2027	2028	2029	2030	2031	Total Cost	Bonds/ Levy/ Other Local	State Funds	Impact Fees
Elementary School				$6.0			$6.000	X	X	X
Middle School			$45.0	$40.0			$85.000	X	X	X
High School										
Portables (all grade levels)	$0.50		$0.50	$0.50	$0.50	$0.75	$2.750	X		X
Site Acquisition			$0.775				$0.775	X		X

Improvements Not Adding Capacity (Costs in Millions)

Project	2026	2027	2028	2029	2030	2031	Total Cost	Bonds/ Levy/ Other Local	State Funds	Impact Fees
Elementary										
				$0.60	$0.60		$1.200	X	X	
Middle School				$0.80	$0.70		$1.500	X	X	
High School										
Various Facilities (all grade levels)				$0.050	$0.050		$0.100	X		

SECTION 7
SCHOOL IMPACT FEES

The GMA authorizes jurisdictions to collect impact fees to supplement funding of additional public facilities needed to accommodate new development. Impact fees cannot be used for the operation, maintenance, repair, alteration, or replacement of existing capital facilities used to meet existing service demands.

A. School Impact Fees in Snohomish County

Snohomish County established a school impact fee program in November 1997, and amended the program in December 1999. This program requires school districts to prepare and adopt Capital Facilities Plans meeting the specifications of the GMA. Impact fees calculated in accordance with the formula, which are based on projected school facility costs necessitated by new growth and are contained in the District's CFP, become effective following County Council adoption of the District's CFP.

The Snohomish County Comprehensive Plan , which implements the GMA, sets certain conditions for school districts wishing to assess impact fees (see Appendix F of the Comprehensive Plan):

- The District must provide support data including: an explanation of the calculation methodology, a description of key variables and their computation, and definitions and sources of data for all inputs into the fee calculation.
- Such data must be accurate, reliable and statistically valid.
- Data must accurately reflect projected costs in the Six-Year Financing Plan.

In 2025, the Snohomish County Council adopted Ordinance 25-017 to implement requires of Engrossed Second Substitute Senate Bill 5258 (2023), requiring local jurisdictions to use bedroom count, square footage, or traffic count to "produce a proportionally lower impact fee for smaller housing units." Under Ordinance 25-017, school districts must calculate impact fees for single family detached, townhome/duplex, and multi-family stacked units using bedroom count categories that distinguish between small and large units.

B. Methodology and Variables Used to Calculate School Impact Fees

Impact fees are calculated utilizing the formula in the Snohomish County Impact Fee Ordinance. The resulting figures are based on the District's cost per dwelling unit to, as applicable, purchase land for school sites, make site improvements, construct schools, and purchase/install relocatable facilities that add interim capacity needed to serve new development.

- The Site Acquisition Cost, School Construction Cost, and Temporary/Portable Facility Cost factors are based on planned or actual costs of growth-related school capacity (required on-site/off-site improvements). Costs vary with each site and each facility. See Table 8, Finance Plan. The "Permanent Facility Square Footage" is used in combination with the "Temporary Facility Square Footage" to apportion the impact fee amounts between permanent and temporary capacity figures. A student factor (or student generation rate) is used to identify the average cost per dwelling unit by measuring the average number of students generated by each housing type. A description of the student factor methodology is contained in Appendix B. The District is using a "blended" student generation rate, based on all reported units within a dwelling type, and applying that rate for the "larger" units in that dwelling type category. Until local permit data systems are updated to allow accurate reporting of bedroom count by unit, the District assumes low student generation from "smaller" units" and a $0 impact fee.

- Where applicable, credits are applied in the formula to account for State School Construction Assistance funds to be reimbursed to the District and projected future property taxes to be paid by the dwelling unit. See page 18. The tax credit uses the 20-year general obligation bond rate from the Bond Buyer index, the District's current levy rate for bonds, and average assessed value of all residential dwelling units in the District (provided by Snohomish County) by dwelling unit type to determine the corresponding tax credit.

The costs of projects that do not add capacity are not included in the impact fee calculations. Furthermore, because the impact fee formula calculates a "cost per dwelling unit", an identical fee is generated regardless of whether the total new capacity project costs are used in the calculation or whether the District only uses the percentage of the total new capacity project costs allocated to the Districts growth-related needs, as demonstrated in Table 6-A. When applicable, the District uses the full project costs in the fee formula when calculating school impact fees. Furthermore, impact fees will not be used to address existing deficiencies. See Table 8 for a complete identification of funding sources.

The following projects are included in the impact fee calculation:

- A new Lakewood Middle School, with capacity for 750 students.
- Conversion of the old Lakewood Middle School as an addition to Lakewood Elementary School, with a net new student capacity figure of 327.

Please see Table 8 for relevant cost data.

FACTORS FOR ESTIMATED IMPACT FEE CALCULATIONS

Student Generation Factors – Single Family (3+ Bdrm)

Elementary	.206
Middle	.061
High	.121
Total	**.388**

Student Generation Factors – Townhomes (3+ Bdrm)

Elementary	.154
Middle	.079
High	.055
Total	**.288**

Student Generation Factors – Multi Family (2+ Bdrm)

Elementary	.113
Middle	.066
High	.050
Total	**.184**

Projected Student Capacity per Facility

Elementary Addition (new LES) – 327 net add
New Lakewood MS – 750 (50 net add)

Required Site Acreage per Facility

Facility Construction/Cost Average

Elementary Addition (new LES) - $6,000,000
New Middle School - $85,000,000

Permanent Facility Square Footage (LSD Inventory)

Elementary		131,047
Middle		79,945
High		169,000
Total	**96.0%**	**379,992**

Temporary Facility Square Footage (LSD Inventory)

Elementary		14,382
Middle		2,688
High		0
Total	**4.0%**	**17,070**

Total Facility Square Footage

Elementary		145,429
Middle		82,633
High		169,000
Total	**100.00%**	**397,062**

Average Site Cost/Acre

N/A

Temporary Facility Capacity

Capacity	20/26
Cost	$250,000

SCAP Credit (OSPI)

Current Eligible Cost Percentage	57.48%
Current Construction Cost Allocation	399.38

District Average Assessed Value (Snohomish Co.)

Single Family 3+Bdrm	$786,843
Single Family 2Bdrm/less	$511,015
Twn/Dup 3+Bdrm	$395,811
Twn/Dup 2Bdrm/less	$278,178
Multi-Family 2+Bdrm	$215,056
Multi-Family 1Bdrm/less	$154,822

SPI Square Footage per Student (WAC 392-343-035)

Elementary	90
Middle	108
High	130

Debt Service Tax Rate for Bonds (Snohomish Co.)

Current/$1,000	$0.8614

General Obligation Bond Interest Rate (Bond Buyer)

Bond Buyer Index (avg February 2026)	4.77%

Developer Provided Sites/Facilities

Value	0
Dwelling Units	0

C. Proposed Lakewood School District Impact Fee Schedule

Using the variables and formula described in subsection B, impact fees proposed for the District are summarized in Table 10. See also Appendix C. For purposes of the 2026 CFP, the District's school impact fees are calculated using a student generation rate based on all units in each category as current permit data is insufficient for purposes of distinguishing bedroom counts by unit. This "blended" student generation rate is applied to the "large" units in each category (single family detached, townhome/duplex, multi-family) to produce a cost per dwelling unit. The District is assuming a $0 fee for the smaller units. The District intends, as permit data allows, to calculate fees for both large and small units in future updates to this Capital Facilities Plan.

Table 9
School Impact Fees
Snohomish County, City of Arlington, City of Marysville*

Housing Type	Impact Fee Per Dwelling Unit
Single Family (3+ Bedroom)	$1,784
Single Family (2 or less Bedroom)	*No Data* - $0
Townhome/Duplex (3+ Bedroom)	$3,402
Townhomes/Duplex (2 or less Bedroom)	*No Data* - $0
Multi-Family (2+ Bedroom)	$3,092
Multi-Family (1 or less Bedroom)	*No Data* - $0

Table 9 reflects a 50% adjustment to the calculated fee as required by local ordinances.

APPENDIX A

POPULATION AND ENROLLMENT DATA

Table A-1

School Facilities and Organization
INFORMATION AND CONDITION OF SCHOOLS
Enrollment Projections (Report 1049)

Snohomish/Lakewood(31306)

	--- ACTUAL ENROLLMENTS ON OCTOBER 1st ---						AVERAGE %	--- PROJECTED ENROLLMENTS ---					
Grade	2020	2021	2022	2023	2024	2025	SURVIVAL	2026	2027	2028	2029	2030	2031
Kindergarten	128	189	194	164	175	182		192	197	203	209	214	220
Grade 1	191	156	190	213	178	193	110.19%	201	212	217	224	230	236
Grade 2	172	209	156	196	220	189	104.40%	201	210	221	227	234	240
Grade 3	184	188	209	174	203	231	105.88%	200	213	222	234	240	248
Grade 4	189	195	203	206	178	213	103.94%	240	208	221	231	243	249
Grade 5	181	208	184	229	206	192	105.01%	224	252	218	232	243	255
K-5 Sub-Total	1,045	1,145	1,136	1,182	1,160	1,200		1,258	1,292	1,302	1,357	1,404	1,448
Grade 6	176	194	222	193	241	221	106.26%	204	238	268	232	247	258
Grade 7	232	173	207	211	212	237	101.64%	225	207	242	272	236	251
Grade 8	216	217	170	212	216	218	99.87%	237	225	207	242	272	236
6-8 Sub-Total	624	584	599	616	669	676		666	670	717	746	755	745
Grade 9	229	216	230	186	228	216	104.58%	228	248	235	216	253	284
Grade 10	182	224	208	227	194	225	99.15%	214	226	246	233	214	251
Grade 11	208	188	226	190	229	188	98.66%	222	211	223	243	230	211
Grade 12	159	217	184	213	189	226	98.91%	186	220	209	221	240	227
9-12 Sub-Total	778	845	848	816	840	855		850	905	913	913	937	973
DISTRICT K-12 TOTAL	2,447	2,574	2,583	2,614	2,669	2,731		2,774	2,867	2,932	3,016	3,096	3,166

Notes: Specific subtotaling on this report will be driven by District Grade spans.

School Facilities and Organization *Printed Mar 17, 2026*

Table A-2

PROJECTED ENROLLMENT BY GRADE SPAN
(DISTRICT – EDUCATIONAL DATA SYSTEMS LLC)

Projection (Medium Range Recommended)

CDC Estim. ***Projected Births***

Birth Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
County Births	**9756**	**9855**	**9863**	**9849**	**9875**	**9861**	**9841**	**9843**	**9826**	**9817**
Pct of Cohort	2.01%	1.92%	1.94%	1.94%	1.98%	1.97%	1.96%	1.96%	1.96%	1.96%

	Oct-26	Oct-27	Oct-28	Oct-29	Oct-30	Oct-31	Oct-32	Oct-33	Oct-34	Oct-35
K	196	189	191	191	195	194	193	193	192	192
1	200	212	206	208	207	213	212	210	210	210
2	203	208	223	216	217	217	223	222	220	220
3	203	213	220	234	227	229	230	236	234	233
4	244	211	223	229	244	238	240	241	247	245
5	227	255	223	235	241	257	251	253	254	260
6	208	238	269	235	247	254	271	264	267	267
7	230	214	247	276	242	255	263	280	273	275
8	246	234	220	252	281	248	261	269	286	279
9	231	257	247	231	264	296	261	275	283	300
10	223	231	258	247	232	265	296	262	276	283
11	226	218	228	253	242	229	260	290	258	271
12	190	222	216	225	249	240	227	257	286	255
	2826	**2902**	**2970**	**3031**	**3089**	**3135**	**3187**	**3251**	**3285**	**3291**
	90	76	68	61	58	46	52	64	34	6
	3.3%	2.7%	2.4%	2.0%	1.9%	1.5%	1.7%	2.0%	1.0%	0.2%
Enrollment by Level										
K-5	1272	1287	1286	1312	1331	1348	1348	1354	1358	1360
6-8	684	686	735	762	770	758	795	813	825	822
9-12	870	928	949	956	987	1029	1044	1084	1102	1109

APPENDIX B

STUDENT GENERATION FACTOR REVIEW

Student Generation Rates for New Homes in the District

Based on New Housing Completed and Occupied Between 2019 and 2023

Lakewood School District

Student Generation Rates by Housing Type, Grade Level

Permit Years 2019-2023

9/15/25

Permit Type	Permit Subtype	Number of Units	Grade Level	Students Generated	SGR
MFR	Townhouse	0	K-5	0	0.000
			6-8	0	0.000
			9-12	0	0.000
		TWN Student Subtotal→		0	0.000
	Apartment	746	K-5	84	0.113
			6-8	49	0.066
			9-12	37	0.050
		APT Student Subtotal→		170	0.228
	All MFR	746	K-5	84	0.113
			6-8	49	0.066
			9-12	37	0.050
	MFR Totals →	**746**	**K-12**	**170**	**0.228**
SFR	All SFR	165	K-5	34	0.206
			6-8	10	0.061
			9-12	20	0.121
	SFR Totals →	**165**	**K-12**	**64**	**0.388**

Townhome/Duplex 3+ BR Rates: As noted in the chart above, the District does not have a reliable data set for purposes of calculating student generation rates for Townhome/Duplex units. For purposes of this year's Capital Facilities Plan, the District calculated Townhome/Duplex 3+ BR student generation rates using the countywide average of the corresponding rates published in the 2024 capital facilities plans (the last County-adopted set of plans) of the other school districts in Snohomish County who prepared their own rates for (a) townhome/duplex units; and (2) with grade levels aligned with the Lakewood School District.* These averages reflect recent development trends in Snohomish County. As a comparison to Snohomish County, King County has recognized countywide averages as a reasonable approach to calculating student generation rates when there is a lack of sufficient development data. See KCC 21A.06.1260.

The District is choosing to apply the 2024 calculated average* as an estimate of student generation from new Townhome/Duplex 3+ BR bedroom units within the Snohomish School District.

Townhome/Duplex 3+ BR Rates

	K-5	6-8	9-12
Arlington SD	0.208	0.104	0.083
Everett SD	0.136	0.041	0.058
Monroe SD	0.101	0.121	0.030
Northshore SD	0.171	0.050	0.048
Average	**0.154**	**0.079**	**0.055**

The resulting average student generation rates are as follows:

Townhome/Duplex 3+ BR Rates	**K-5**	**6-8**	**9-12**
	0.154	**0.079**	**0.055**

Student generation rates were not calculated for Townhome/Duplex units with two bedrooms or less as current data is insufficient for purposes of calculating a countywide average in Snohomish County. The District is assuming a $0 fee for Townhome/Duplex 2 BR or fewer units.

**Includes the Arlington, Everett, Monroe, and Northshore School Districts.*

APPENDIX C

SCHOOL IMPACT FEE CALCULATIONS

DISTRICT	Lakewood School District								
YEAR	2026								
School Site Acquisition Cost:									
((AcresxCost per Acre)/Facility Capacity)xStudent Generation Factor									
				Student	Student	Student			
	Facility	Cost/	Facility	Factor	Factor	Factor	Cost/	Cost/	Cost/
	Acreage	Acre	Capacity	SFR 3+	TH/Dplx 3+	MFR 2+	SFR 3+	TH/Dplx 3+	MFR 2+
Elementary	15.00	$ -	650	0.206	0.154	0.113	$0	$0	$0
Middle	20.00	$ -	750	0.061	0.079	0.066	$0	$0	$0
High	40.00	$ -	900	0.121	0.055	0.050	$0	$0	$0
						TOTAL	$0	$0	$0
School Construction Cost:									
((Facility Cost/Facility Capacity)xStudent Generation Factor)x(permanent/Total Sq Ft)									
				Student	Student	Student			
	%Perm/	Facility	Facility	Factor	Factor	Factor	Cost/	Cost/	Cost/
	Total Sq.Ft.	Cost	Capacity	SFR 3+	TH/Dplx 3+	MFR 2+	SFR 3+	TH/Dplx 3+	MFR 2+
Elementary	97.00%	$ 6,000,000	327	0.206	0.154	0.113	$3,666	$2,741	$2,011
Middle	97.00%	$ 85,000,000	750	0.061	0.079	0.066	$6,706	$8,685	$7,256
High	97.00%		900	0.121	0.055	0.050	$0	$0	$0
						TOTAL	$10,372	$11,426	$9,267
Temporary Facility Cost:									
((Facility Cost/Facility Capacity)xStudent Generation Factor)x(Temporary/Total Square Feet)									
				Student	Student	Student	Cost/	Cost/	Cost/
	%Temp/	Facility	Facility	Factor	Factor	Factor	SFR 3+	TH/Dplx 3+	MFR 2+
	Total Sq.Ft.	Cost	Size	SFR 3+	TH/Dplx 3+	MFR 2+			
Elementary	3.00%	$ -	25	0.206	0.154	0.113	$0	$0	$0
Middle	3.00%	$ -	30	0.061	0.079	0.066	$0	$0	$0
High	3.00%	$ -	32	0.121	0.055	0.050	$0	$0	$0
					TOTAL		$0	$0	$0
State School Construction Funding Assistance Credit:									
CCA X SPI Square Footage X District Funding Assistance % X Student Factor									
				Student	Student	Student			
	CCA	SPI	Funding	Factor	Factor	Factor	Cost/	Cost/	Cost/
		Footage	Asst %	SFR 3+	TH/Dplx 3+	MFR 2+	SFR 3+	TH/Dplx 3+	MFR 2+
Elementary	$ 399.38	90	0.00%	0.206	0.154	0.113	$0	$0	$0
Middle	$ 399.38	108	57.48%	0.061	0.079	0.066	$1,512	$1,959	$1,636
High	$ 399.38	130	0.00%	0.121	0.055	0.050	$0	$0	$0
					TOTAL		$1,512	$1,959	$1,636
Tax Payment Credit:							SFR 3+	TH/Dplx 3+	MFR 2+
Average Assessed Value							$786,843	$395,811	$215,056
Capital Bond Interest Rate							4.77%	4.77%	4.77%
Years Amortized							10	10	10
Property Tax Levy Rate							$0.86	$0.86	$0.86
	Tax Credit						$5,293	$2,662	$1,447
	Fee Summary:			Single	Townhome	Multi-			
				Family 3+	Duplex 3+	Family 2+			
	Site Acquistion Costs			$0	$0	$0			
	Permanent Facility Cost			$10,372	$11,426	$9,267			
	Temporary Facility Cost			$0	$0	$0			
	State SCFA Credit			($1,512)	($1,959)	($1,636)			
	Tax Payment Credit			($5,293)	($2,662)	($1,447)			
	FEE (AS CALCULATED)			$3,567	$6,805	$6,184			
	Fee (AS DISCOUNTED)			$1,784	$3,402	$3,092			

June 2nd, 2026

Angela Gemmer
Interim Community Development Director
City of Marysville
501 Delta Avenue
Marysville, WA 98270

Dear Ms. Gemmer:

Enclosed are the Determination of Non-Significance ("DNS") and the Environmental Checklist for the adoption of the Lakewood School District 2026 Six-Year Capital Facilities Plan.

The comment period on the DNS expires at 4:30 p.m. on June 17, 2026.

Sincerely,

Alex VanDuine
Director of Capital Projects and Facilities

Enclosures

DETERMINATION OF NONSIGNIFICANCE
Lakewood School District #306 2026 Six Year Capital Facilities Plan

Description of Proposal: This threshold determination analyzes the environmental impacts associated with the following actions, which are so closely related to each other that they are in effect a single course of action:

1. The adoption of the Lakewood School District's Capital Facilities Plan 2026-2031 by the Lakewood School District No. 306 for the purposes of planning for the facilities needs of the District; and

2. The proposed amendment of the Comprehensive Plans of Snohomish County and the cities of Arlington and Marysville to include the Lakewood School District's 2026 Capital Facilities Plan as part of the Capital Facilities Element of the Comprehensive Plans of those jurisdictions. The District will forward this request to the relevant jurisdictions for review and potential action.

Proponent: Lakewood School District No. 306

Location of the Proposal: The Lakewood School District includes an area of approximately 25 square miles. Parts of unincorporated Snohomish County and parts of the cities of Arlington and Marysville fall within the District's boundaries.

Lead Agency: Lakewood School District No. 306

The lead agency for this proposal has determined that the proposal does not have a probable significant adverse environmental impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after a review of the completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

It is the policy of the District that, when undertaking an action involving the exercise of substantive SEPA authority, the District shall consider, as appropriate under the circumstances, the ramifications of such action as to one or more of the factors listed in Lakewood School District Policy 6890, Substantive Authority.

This Determination of Nonsignificance (DNS) is issued under WAC 197-11-340(2). The lead agency will not act on this proposal for 14 days from the date of issue. Comments must be submitted by 4:30 p.m., June 17, 2026. The responsible official will reconsider the DNS based on timely comments and may retain, modify, or, if significant adverse impacts are likely, withdraw the DNS. If the DNS is retained, it will be final after the expiration of the comment deadline.

Responsible Official:	Dr. Erin Murphy Superintendent Lakewood School District No. 306
Telephone:	(360) 652-4500
Address:	Lakewood School District P.O. Box 220 North Lakewood, WA 98259-0220

You may provide comments regarding this determination in writing with receipt required by 4:30 p.m., June 17, 2026, to Dr. Erin Murphy, Superintendent, Lakewood School District P.O. Box 220, North Lakewood, WA 98259-0220.

Date of Issue: June 2nd, 2026
Date Published: June 2nd, 2026

SEPA[1] 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

Please adjust the format of this template as needed. 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 nonproject 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.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   The adoption of the Lakewood School District's (the "District") 2026 Capital Facilities Plan ("CFP") for the purposes of planning for the District's facilities needs. Adoption of the CFP is a nonproject proposal.

   The District prepares annual updates to the CFP in accordance with the Washington State Growth Management Act, and the codes of Snohomish County and the cities of Arlington and Marysville. The CFP is a nonproject planning document, covers a six-year planning period, and includes:

   • Future enrollment forecasts for each grade span (elementary, middle and high school).

   • An inventory of existing capital facilities owned by the District, showing the locations and capacities of those facilities

   • A forecast of the future needs for capital facilities and the proposed capacities of expanded or new capital facilities.

   • A six-year plan for financing capital facilities within projected funding capacities which identifies sources of public money for such purposes.

   • A calculation of school impact fees to be assessed pursuant to RCW 82.02

   The District's Board of Directors will review and consider approval and adoption of the 2026 CFP. If approved and adopted, the District will send the CFP to Snohomish County and the cities of Arlington and Marysville for consideration of inclusion into their respective Comprehensive Plans. A copy of the District's draft Capital Facilities Plan is available for review in the District's office.

2. **Name of applicant:**

   Lakewood School District No. 306

3. **Address and phone number of applicant and contact person:**

   Lakewood School District No. 306
   P.O. Box 220
   North Lakewood, WA 98259

   Contact Person:Alex VanDuine, Facilities Supervisor
   Telephone: (360) 652-4503 Ext 1030

4. **Date checklist prepared:**

   May 26, 2026

5. **Agency requesting checklist:**

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

Lakewood School District No. 306, acting as the lead agency for environmental review and SEPA compliance for this nonproject proposal.

6. **Proposed timing of schedule (including phasing, if applicable):**

   The District's 2026 CFP is scheduled to be considered for adoption by the District School Board on or about June 17, 2026. If the Board of Directors approves and adopts the 2026 CFP, it will be sent to Snohomish County and the cities of Arlington and Marysville for consideration of inclusion into the Capital Facilities Element of their respective Comprehensive Plans. The potential projects included in the CFP will be subject to project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   This is a nonproject planning action. The 2026 CFP includes required six-year enrollment projections and related school capacities to determine whether additional school capacity may be needed to accommodate enrollment growth from new development. During the six-year planning period, the District plans, based on recommendations of the 2023 Citizens' Facility Advisory Committee, to request voter funding of a capital bond to build a new middle school. The new middle school is planned for construction on existing District property (existing fields/parking at Lakewood Elementary School). Following construction of the new middle school, the District will convert the existing Lakewood Middle School to additional classrooms and facility space at Lakewood Elementary School to provide additional K-5 capacity. The District may also add portables at existing school sites.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   As applicable, all potential projects included in the 2026 CFP requiring threshold determinations will undergo environmental review at the time of formal proposal and process when full details of the projects are known and able to be analyzed.

   The following environmental information relates to planned projects included in the Capital Facilities Plan for which environmental review is complete: Not applicable.

   Information included in this environmental checklist is from the Capital Facilities Plan 2026, which is incorporated into this review.

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.**

   This is a nonproject action and addresses educational planning for the entirety of the Lakewood School District. There are no known applications covering the entire District.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

    As a non-project planning document, the 2026 CFP itself does not require permitting. The District anticipates that, following any Board approval and adoption of the CFP, its jurisdictions will consider incorporation of the 2026 CFP by reference in the Capital Facilities

Element of each jurisdiction's Comprehensive Plan to inform student enrollment capacity planning related to existing and planned residential development.

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.)

This is a non-project planning document. This proposal involves the adoption of a six-year Capital Facilities Plan (CFP) by the Lakewood School District to comply with the Washington State Growth Management Act (RCW 36.70A.070) and the codes of Snohomish County and the cities of Arlington and Marysville. The purpose of the CFP is to provide these jurisdictions with a description of enrollment projections and school capacities over the required six-year planning period 2026-2031 to determine whether future school facilities may be needed to accommodate growth from new development. If the Board of Directors approves and adopts the 2026 CFP, it will be sent to Snohomish County and the cities of Arlington and Marysville for consideration of inclusion into the Capital Facilities Element of their respective Comprehensive Plan. Potential projects included in the CFP will be subject to project-specific environmental review at the time of formal proposal and process when full details of the projects are known and able to be analyzed.

The District updates the Capital Facilities Plan on an annual basis and carefully monitors enrollment projections against capacity needs. If legally supportable, the District requests its local jurisdictions to collect impact fees on behalf of the District, with the CFP providing a basis for such collection.

Impact fees included in the CFP, if requested, are based on growth related construction projects. This year's CFP does not request school impact fees.

A copy of the 2026 CFP is available for review upon request to the District.

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 2026 CFP applies to educational planning within the Lakewood School District boundaries. The District boundaries include an area of approximately 25 square miles. Portions of unincorporated Snohomish County and the cities of Arlington and Marysville fall within the District's boundaries. The District's CFP contains a map of the District's boundaries. A detailed map of the District's boundaries can be viewed at the District's offices.

B.Environmental Elements

1. Earth

Find help answering earth questions[3]

a. **General description of the site:**

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

This is a non-project action. The geographic area comprising the Lakewood School District includes a variety of topographic land forms and gradients. Specific topographic characteristics of the sites at which potential projects included in the 2026 CFP are located will be identified during project-level environmental review at the appropriate time during formal proposal when project specifics are known and able to be analyzed.

b. **What is the steepest slope on the site (approximate percent slope)?**

N/A. See WAC 197-11-960.

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.**

N/A. See WAC 197-11-960.

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

This is a non-project action. Unstable soils may exist within the geographic area comprising the District. Specific soil limitations on individual sites of the potential projects included in the 2026 CFP will be identified during project-level environmental review at the appropriate time during formal proposal when project specifics are known and able to be analyzed.

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.**

N/A. See WAC 197-11-960.

f. **Could erosion occur because of clearing, construction, or use? If so, generally describe.**

This is a non-project action. It is possible that erosion could occur as a result of the construction of potential projects proposed in the 2026 CFP. The erosion impacts of the individual projects will be evaluated on a site-specific basis at the time of project-specific environmental review at the appropriate time during formal proposal when

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

project specifics are known and able to be analyzed. Individual projects will be subject to all local approval processes.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

N/A. See WAC 197-11-960.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

This is a non-project action. The erosion potential of the proposed projects included in the 2026 CFP and appropriate control measures will be addressed during project-specific environmental review at the appropriate time during formal proposal when project specifics are known and able to be analyzed. Relevant erosion reduction and control requirements will be met.

2. Air

Find help answering air questions[4]

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.

This is a non-project action. Various emissions, many construction-related, may result from individual projects proposed in the 2026 CFP. The air-quality impacts of each potential project will be evaluated during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Please see the Supplemental Sheet for Non-Project Actions.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

This is a non-project action. Any off-site sources of emissions or odor that may affect the individual projects proposed in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

This is a non-project action. The individual potential projects in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed and will be subject to local approval processes. Proposed measures will be identified at that time. The District will be required to comply with all applicable air regulations and air permit requirements.

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

3. Water

Find help answering water questions[5]

a. **Surface:**

Find help answering surface water questions[6]

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.**

   This is a non-project action. There is a network of surface water bodies in the geographic area comprising District. The surface water bodies that are in the immediate vicinity of the potential projects included in the 2026 CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. When necessary, the surface water regimes and flow patterns will be researched and incorporated into the designs of the individual projects.

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.**

   This is a non-project action. The potential projects included in the 2026 CFP may require work near the surface waters located within the District. Applicable local and/or state approval requirements will be satisfied.

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.**

   This is a non-project action. Information with respect to the placement or removal of fill and dredge material as a component of the potential projects included in the 2026 CFP will be provided during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   This is a non-project action. Any surface water withdrawals or diversions required in connection with the potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

---

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water

[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   This is a non-project action. The geographic area comprising the District includes 100-year floodplain areas. Review of potential projects within a 100-year floodplain included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

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.**

   This is a non-project action. Specific information regarding the discharge of waste materials that may be required as a result of the potential projects included in the 2026 CFP will be provided during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

b. **Ground:**
   Find help answering ground water questions[7]

   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 a general description, purpose, and approximate quantities if known.**

      This is a non-project action. Individual potential projects included in the 2026 CFP may impact groundwater resources. Those impacts will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to applicable local and/or state regulations.

   2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (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.**

      This is a non-project action. The discharge of waste material that may take place in connection with the potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

c. **Water Runoff (including stormwater):**

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

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.**

   This is a non-project action. Individual potential projects included in the 2026 CFP may have stormwater runoff consequences. Specific information regarding the stormwater impacts of each project will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to applicable local and/or state stormwater regulations.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   This is a non-project action. The potential projects included in the 2026 CFP may result in the discharge of waste materials into ground or surface waters. The specific impacts of each potential project on ground and surface waters will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to all applicable regulations regarding the discharge of waste materials into ground and surface waters.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   This is a non-project action. The specific impacts of each potential project on drainage patterns will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to regulations related to altering or diverting drainage patterns.

4. **Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

   This is a non-project action. Specific measures to reduce or control runoff impacts associated with the potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

4. Plants

Find help answering plants questions

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**

This is a non-project planning document. A variety of vegetative zones are located within the District. Inventories of the vegetation located on the sites of potential projects proposed in the 2026 CFP will be developed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

b. What kind and amount of vegetation will be removed or altered?

This is a non-project planning document. Some of the potential projects included in the 2026 CFP may require the removal or alteration of vegetation. The specific impacts on vegetation of the projects included in the CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

c. List threatened and endangered species known to be on or near the site.

This is a non-project planning document. The geographic area comprising the District may include threatened and endangered species. An inventory of species that have been observed on or near the sites of the potential projects proposed in the 2026 CFP will be developed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Investigation will include use of the Washington State Department of Fisheries and Wildlife's Priority Habitats and Specifies on the Web database.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

This is a non-project action. Measures to preserve or enhance vegetation at the sites of the potential projects included in the 2026 CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to applicable local landscaping requirements.

e. List all noxious weeds and invasive species known to be on or near the site.

This is a non-project action. Noxious weeds and invasive species observed on or near the sites of the potential projects proposed in the 2026 CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

5. Animals

Find help answering animal questions[8]

a. **List any birds and other animals that 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:**

This is a non-project planning document. An inventory of species that have been observed on or near the sites of the potential projects proposed in the 2026 CFP will be developed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

b. **List any threatened and endangered species known to be on or near the site.**

This is a non-project action. Inventories of threatened or endangered species known to be on or near the sites of the projects included in the 2026 CFP will be developed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Investigation will include use of the Washington State Department of Fisheries and Wildlife's Priority Habitats and Specifies on the Web database.

c. **Is the site part of a migration route? If so, explain.**

This is a non-project action. The impacts of the potential projects included in the 2026 CFP on migration routes will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

d. **Proposed measures to preserve or enhance wildlife, if any.**

This is a non-project action. Appropriate measures to preserve or enhance wildlife will be determined during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

e. **List any invasive animal species known to be on or near the site.**

This is a non-project action. Invasive animal species observed on or near the sites of potential projects proposed in the 2026 CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

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.**

This is a non-project action. The State's Office of the Superintendent of Public Instruction requires the completion of a life-cycle cost analysis of all heating, lighting, and insulation systems before it will permit specific school projects to proceed. The energy needs of the potential projects included in the 2026 CFP will be determined at the time of specific engineering and site design planning at the appropriate time when project details are known.

b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

This is a non-project action. The impacts of the potential projects included in the 2026 CFP on the solar potential of adjacent properties will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

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.**

This is a non-project action. Energy conservation measures proposed in connection with the potential projects included in the 2026 CFP will be considered during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

N/A. This is a non-project action.

1. **Describe any known or possible contamination at the site from present or past uses.**

   N/A. This is a non-project action.

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.**

[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou
[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

This is a non-project action. The potential projects included in the 2026 CFP will comply with all current codes, standards, rules and regulations. Individual projects will be subject to project-specific environmental review and local and/or state approval at the appropriate time during formal proposal when project details are known and able to be analyzed.

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.**

   This is a non-project action. Toxic and hazardous chemicals that may be stored or produced by the potential projects included in the 2026 CFP will be subject to project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Such projects will comply with all current codes, standards, rules and regulations related to hazardous materials.

4. **Describe special emergency services that might be required.**

   This is a non-project action. The need for special emergency services for the potential projects included in the 2026 CFP will be subject to project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   This is a non-project action. Individual potential projects included in the 2026 CFP will be subject to project-specific environmental review impacts for related environmental health hazards at the appropriate time during formal proposal when project details are known and able to be analyzed.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   This is a non-project action. A variety of noises from traffic, construction, residential, commercial and industrial areas exist within the District. The specific noise sources that may affect the potential projects included in the 2026 CFP will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

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)?**

   This is a non-project action. The potential projects included in the 2026 CFP may create typical construction noises that will exist on a short-term basis. The projects could increase construction-related traffic around the construction sites on a short-term basis. Because the projects will increase the capacity of the District's school facilities, the projects may increase traffic-related or operations-related noise on a

longer-term basis once the new facilities are constructed and opened. Specifics of noise level changes will be evaluated during project-specific review at the appropriate time during formal proposal when project details are known and able to be analyzed.

3. **Proposed measures to reduce or control noise impacts, if any:**

   This is a non-project action. The projected noise impacts of the potential projects included in the 2026 CFP will be evaluated and mitigated during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Each project will be subject to applicable local and/or state regulations.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

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.**

   This is a non-project action. There are a variety of land uses within the District, including residential, commercial, industrial, institutional, utility, open space, recreational, etc. Impacts to nearby or adjacent properties will be evaluated as part of the project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

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 because 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?**

   This is a non-project action. Identification of the use of sites intended for any projects included in the CFP as working farmlands or working forest land will be identified and described during project-level environmental review when appropriate. The proposed projects in the 2026 CFP do not involve sites used for working farmlands or working forest lands.

   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?**

      This is a non-project action. Any possible affects to surrounding farms or forest lands will be evaluated during project-specific environmental review at the appropriate during when project details are known and able to be analyzed.

c. **Describe any structures on the site.**

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

This is a non-project action. Any structures located on the proposed sites of the potential projects included in the 2026 CFP will be identified and described during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

d. Will any structures be demolished? If so, what?

This is a non-project action. Any structures that will be demolished as a result of the projects included in the CFP, if any, have been or will be identified during project-level environmental review when appropriate.

e. What is the current zoning classification of the site?

This is a non-project action and not specific to any site. There are a variety of zoning classifications throughout the District. Projects proposed in the 2026 Capital Facilities Plan are zoned under applicable zoning codes and identification of the proposed projects or sites does not in itself direct land uses or serve as a basis for project-specific approvals. Rather, site-specific zoning information and requirements for projects proposed for construction activity in the 2026 CFP will be evaluated during project-specific environmental review when appropriate. All sites for potential school capacity projects proposed in the 2026 CFP are currently zoned for the intended school purpose.

f. What is the current comprehensive plan designation of the site?

This is a non-project action. District boundaries span multiple jurisdictions and the District owns facilities or properties in the unincorporated areas of Snohomish County and the cities of Arlington and Marysville. The sites for the potential projects proposed in the 2026 CFP are located among these jurisdictions and subject to the respective codes and comprehensive plans. All sites for potential school capacity projects proposed in the 2026 CFP are permitted by the underlying comprehensive plan designations for the intended school purpose.

g. If applicable, what is the current shoreline master program designation of the site?

This is a non-project action. Shoreline master program designations of the sites for the potential projects included in the 2026 CFP will be identified during project-specific environmental review when appropriate.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

This is a non-project action. Any environmentally sensitive areas located on the sites of the potential projects included in the 2026 CFP will be identified during project-specific environmental review.

i. Approximately how many people would reside or work in the completed project?

This is a non-project action. The current Lakewood School District student enrollment for the 2025-26 school year is 2,731 students. Enrollment is expected to increase to approximately 3,135 students by the 2031-2032 school year. The District employs approximately 300 people.

j. **Approximately how many people would the completed project displace?**

This is a non-project action. It is not anticipated that any of the potential projects proposed in the 2026 CFP will displace any people from the sites. Final determination of any displacement caused by any potential project will be evaluated during project-specific environmental review at the appropriate time when project details are known and able to be analyzed.

k. **Proposed measures to avoid or reduce displacement impacts, if any.**

This is a non-project action. It is not anticipated that any of the potential projects proposed in the 2026 CFP will displace any people from the sites. Individual projects included in this CFP will be subject to project-specific environmental review and local approval when appropriate. Proposed mitigating measures will be determined at that time, if necessary.

l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

This is a non-project planning document. The purpose of a school district Capital Facilities Plan is to provide local jurisdictions with a six-year projection of enrollment and school capacity to determine the need for new school facilities to accommodate growth from new development, and to provide a basis for the assessment of school impact fees, if appropriate.

The 2026 CFP has been developed consistent with RCW 36.70A and RCW 82.02.020. If the Board of Directors approves and adopts the 2026 CFP it will be sent to Snohomish County and the cities of Arlington and Marysville for consideration of inclusion into the Capital Facilities Element of their respective Comprehensive Plan. Compatibility of individual projects included in the 2026 CFP with existing land uses and plans will be assessed during project-specific environmental and permit review.

m. **Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:**

This is a non-project action. The compatibility of the specific projects included in the Capital Facilities Plan with nearby agricultural and forest lands of long-term commercial significance has been or will be identified and described during project-level environmental review when appropriate.

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing

This is a non-project action. No housing units will be provided in connection with the completion of the potential projects included in the 2026 CFP.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

This is a non-project action. It is not anticipated that the potential projects included in the 2026 CFP will eliminate any housing units. The impacts of the potential projects included in the 2026 CFP on existing housing will be evaluated during project-specific environmental review at the appropriate time.

c. Proposed measures to reduce or control housing impacts, if any:

This is a non-project action. Measures to reduce or control any housing impacts caused by the potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time.

10. Aesthetics

Find help answering aesthetics questions[13]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

This is a non-project action. Related aesthetic impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review, when appropriate.

b. What views in the immediate vicinity would be altered or obstructed?

This is a non-project action. Related aesthetic impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review, when appropriate.

c. Proposed measures to reduce or control aesthetic impacts, if any:

This is a non-project action. Appropriate measures to reduce or control the aesthetic impacts of the potential projects included in the 2026 CFP will be determined on a project-specific basis, when appropriate.

11. Light and glare

Find help answering light and glare questions[14]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

This is a non-project action. The light or glare impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review when project details are known and able to be analyzed.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

This is a non-project action. The light or glare impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review when project details are known and able to be analyzed.

c. What existing off-site sources of light or glare may affect your proposal?

This is a non-project action. Off-site sources of light or glare that may affect the potential projects included in the 2026 CFP will be evaluated during project-specific environmental review when project details are known and able to be analyzed.

d. Proposed measures to reduce or control light and glare impacts, if any:

This is a non-project action. Proposed measures to mitigate the light or glare impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review when project details are known and able to be analyzed.

12. Recreation

Find help answering recreation questions

a. What designated and informal recreational opportunities are in the immediate vicinity?

This is a non-project action. There are a variety of formal and informal recreational facilities within the District boundaries. These include both District-owned facilities and other public and private recreational facilities.

b. Would the proposed project displace any existing recreational uses? If so, describe.

This is a non-project action. Proposed new school facilities and modernizations to existing school facilities included in the 2026 CFP may enhance recreational opportunities and uses. Specific recreational impacts of the potential projects included in the 2026 CFP will be addressed during project-specific environmental review when project details are known and able to be analyzed.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

This is a non-project action. Adverse recreational impacts of the potential projects included in the 2026 CFP will be subject to mitigation during project-specific environmental review. A school site usually provides recreational facilities to the community in the form of playfields and gymnasiums that may be used outside of school hours.

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

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? If so, specifically describe.**

   This is a non-project action. There are no known places or objects listed on, or proposed for, such registers on the sites of the potential projects included in the 2026 CFP. The existence of historic and cultural resources on or next to the sites will be addressed in more detail during project-specific environmental review.

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.**

   This is a non-project action. The geographic area comprising the District may include landmarks, features, or other evidence of Indian or historic use or occupation. An inventory of historical sites at or near the sites of the potential projects included in the 2026 CFP will be developed during project-specific environmental review. At a minimum, research will be conducted on the web using the Washington State Department of Archaeology & Historic Preservation's Washington Information System for Architectural and Archaeological Records Data (WISAARD) resource.

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.**

   This is a non-project action. Any landmarks, features, or other evidence of Indian or historic use or occupation, or material evidence, artifacts, or areas of cultural importance, on or near sites intended for any projects included in the Capital Facilities Plan have been or will be identified and described during project-level environmental review when appropriate. Appropriate methods will be proposed on a project-specific basis. At a minimum, research will be conducted on the web using the Washington State Department of Archaeology & Historic Preservation's Washington Information System for Architectural and Archaeological Records Data (WISAARD) resource.

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.**

   This is a non-project action. The impact on cultural or historic resources of the individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review when project details are known.

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

14. Transportation

Find help with answering transportation questions[16]

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 is a non-project action. The impact on public streets and highways of the individual, potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

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?**

This is a non-project action. The relationship between public transit and individual potential projects in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. District schools are regularly served by District transportation service (yellow bus).

c. **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).**

This is a non-project action. The need for new streets or roads, or improvements to existing streets and roads associated with individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

This is a non-project action. Use of water, rail or air transportation associated with individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

e. **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?**

This is a non-project action. The traffic impacts of individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

appropriate time during formal proposal when project details are known and able to be analyzed. Approved data models will be used to evaluate trips generated by individual projects.

f. **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.**

This is a non-project action. The traffic impacts of individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

g. **Proposed measures to reduce or control transportation impacts, if any:**

This is a non-project action. The mitigation of traffic impacts associated with individual potential projects included in the 2026 CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

15. Public services

Find help answering public service questions[17]

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.**

The District does not anticipate that the projects identified in the CFP or the CFP itself will significantly increase the need for public services.

b. **Proposed measures to reduce or control direct impacts on public services, if any.**

This is a non-project action. Any proposed new school facilities will be code compliant and constructed with automatic security systems, fire alarms, smoke alarms, heat sensors, and sprinkler systems consistent with local and/or state requirements.

16. Utilities

Find help answering utilities questions[18]

a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:**

This is a non-project action. Storm, power, and water are currently available to the sites of the potential projects included in the 2026 CFP. Other utilities are either available or the District will apply for approval of alternative sewage disposal systems/procedures. The types of utilities available at specific project sites will be addressed in detail during project-specific environmental review at the time of formal proposal when project details are fully known.

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services
[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

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.

This is a non-project action. Utility revisions and construction needs will be identified during project-specific environmental review when project details are fully known.

C.Signature

Find help about who should sign[19]

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.

X _____

Type name of signee: Alex VanDuine

Position and agency/organization: Director of Capital Project

Date submitted:

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

D.Supplemental sheet for nonproject actions

Find help for the nonproject actions worksheet[20]

Do not use this section 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.

APPLICANT/AGENCY ADDED NOTE: The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval of any particular use. To the extent the Capital Facilities Plan makes it more likely that school facilities will be constructed, some of these environmental impacts may be more likely. However, neither approval of the CFP itself nor its inclusion as a part of any jurisdiction's Comprehensive Plan Capital Facilities Element serves as the basis for approval of any potential project referenced in the CFP that may be proposed for action, nor does it direct a land use approval of any site referenced in the CFP.

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?**

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use. To the extent the Capital Facilities Plan makes it more likely that school facilities will be constructed, some of these environmental impacts may be more likely. Additional impermeable surfaces, such as roofs, access roads, and sidewalks could increase stormwater runoff, which could enter surface or ground waters. Heating systems, emergency generators, and other school equipment that is installed pursuant to the Capital Facilities Plan could result in air emissions. The projects included in the Capital Facilities Plan should not require the production, storage, or release of toxic or hazardous substances, with the possible exception of the storage of diesel fuel or gasoline for emergency generating equipment. The District does not anticipate a significant increase in the production of noise from its facilities, with the possible exception of noise production due to short-term construction activities or the presences of additional students/school operations on a site. Construction impacts related to noise and air would be short term and are not anticipated to be significant.

- **Proposed measures to avoid or reduce such increases are:**

[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

Proposed measures to mitigate any such increases described above have been or will be addressed during project-level environmental review when appropriate. Stormwater detention and runoff will meet applicable County and/or City requirements and may be subject to National Pollutant Discharge Elimination System ("NPDES") permitting requirements. Discharges to air will meet applicable air pollution control requirements. Fuel oil will be stored in accordance with local and state requirements.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use. The potential projects included in the 2026 CFP are not likely to generate significant impacts to plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

As needed, specific measures to protect and conserve plants, animals, and fish will be identified during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed. Applicable code and regulatory provisions protecting/conserving plants, animals, fish, or marine life will be followed.

3. How would the proposal be likely to deplete energy or natural resources?

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use. Should the potential projects included in the 2026 CFP be constructed, they will require the consumption of energy.

- **Proposed measures to protect or conserve energy and natural resources are:**

  The potential projects included in the CFP will be constructed in accordance with applicable energy efficiency standards and requirements, and proposed measures needed to protect or conserve energy and natural resources have been or will be addressed during project-level environmental review when appropriate.

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?

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use and, as such, will not have an impact on these elements itself. Environmentally sensitive areas will be identified during project-specific environmental review and will be consistently addressed with local and/or state requirements.

- **Proposed measures to protect such resources or to avoid or reduce impacts are:**

  Updates of the CFP will be coordinated with Snohomish County and the cities of Arlington and Marysville, with at least one of the above jurisdictions being the lead

permitting agency for any project proposed in the CFP. Appropriate measures as identified in collaboration with regulatory agencies will be proposed during project-specific environmental review at the appropriate time of formal proposal when project details are known and able to be analyzed.

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?**

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use and, as such, does not in itself dictate certain shoreline and land uses. Any projects included within the CFP and subsequently proposed for project-specific review and permitting will be reviewed for compliance with existing plans.

- **Proposed measures to avoid or reduce shoreline and land use impacts are:**

  This 2026 CFP is a non-project planning document and does not in itself dictate certain shoreline and land uses. Any projects included within the CFP and subsequently proposed for project-specific review and permitting will be reviewed and conditioned appropriately to avoid or reduce land use impacts.

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use and, as such, does not itself create substantial new demands for transportation. The potential projects included in the CFP may create an increase in traffic near District facilities during the school year and during school start/end times. Impacts on transportation, public services, and utilities related to the potential projects included in the CFP will be addressed during project-specific environmental review at the appropriate time during formal proposal when project details are known and able to be analyzed.

- **Proposed measures to reduce or respond to such demand(s) are:**

  This 2026 CFP is a non-project planning document and, as such, does not itself create substantial new demands for transportation, public services, or utilities. Therefore, no measures to reduce or respond to such demands are proposed at this time. Any proposed measures to reduce demands on transportation, public services or utilities have been or would be done at the project-specific level. Requirements of the permitting jurisdiction would be complied with as a part of the project.

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

The 2026 CFP is an educational facilities non-project planning document and will not itself direct regulation or serve as the basis for approval any particular use and does not conflict with any laws or requirements for the protection of the environment. Specific projects included in the Capital Facilities Plan have been or will be reviewed under project-level environmental review requirements. The Washington Growth Management Act (the GMA)

outlines 15 broad goals, including adequate provision of necessary public facilities and services. Schools are among these necessary facilities and services. The Capital Facilities Plan satisfies the requirements of RCW 36.70A.070, and to identify additional school facilities necessary to meet the educational needs of the growing student populations anticipated in the District.

COMMUNITY DEVELOPMENT DEPARTMENT
501 Delta Avenue ◆ Marysville, WA 98270

MEMORANDUM

DATE: September 9, 2026

TO: Planning Commission

FROM: Angela Gemmer, Interim Community Development Director

SUBJECT: Critical Areas Ordinance Update

Exhibit 1: DRAFT Critical Areas Ordinance Amendments
Exhibit 2: Best Available Science prepared by FACET
Exhibit 3: Gap Analysis prepared by FACET
Exhibit 4: WDFW letter dated 7.13.26
Exhibit 5: WDFW letter dated 8.7.26
Exhibit 6: Tulalip Tribes letter dated 7.17.26
Exhibit 7: Department of Health email dated 8.21.26
Exhibit 8: Option 1a map – High Critical Area Buffer
Exhibit 9: Option 1a map – Medium Critical Area Buffer
Exhibit 10: Option 1a map – Low Critical Area Buffer
Exhibit 11: Option 1b map – High Critical Area Buffer
Exhibit 12: Option 1b map – Medium Critical Area Buffer
Exhibit 13: Option 1b map – Low Critical Area Buffer
Exhibit 14: Options 2 and 3 – Critical Area Buffer
Exhibit 15: Stream, Wetland, and Steep Slope Buffer Map

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State, including the City of Marysville (City), were required to develop policies and regulations to designate and protect critical areas. Critical areas are defined in the GMA and the Revised Code of Washington (RCW) 36.70A.030(5) to include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas. The GMA requires local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations.

The City's critical areas policies are currently contained in the Environmental Element chapter of the Marysville Comprehensive Plan (Comprehensive Plan). The City's critical areas regulations are currently codified in the Marysville Municipal Code (MMC), Title 22E, Chapter 22E.010 Critical Areas Management also referred to as the City's Critical Areas Ordinance (CAO).

An ongoing requirement of the GMA is for local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations. In accordance with the GMA, the City last completed a comprehensive update of its critical areas policies and regulations in 2004. The City's

critical areas policies and regulations were required to be updated by December 31, 2025. This includes the requirement to review and incorporate best available science (BAS). Any deviations from science-based recommendations should be identified, assessed and explained (Washington Administrative Code [WAC] 365-195-915). In addition, jurisdictions are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

To aid in the CAO update effort, the City had Facet, a critical areas consultant, conduct a BAS and gap analysis review of the City's code (see **Exhibits 2 and 3**). Staff has used this guidance to support the update of the CAO. An initial DRAFT of the CAO amendments was submitted to the Washington State Department of Commerce for review. Comments were provided from the Washington Department of Fish and Wildlife, the Tulalip Tribes and the Washington State Department of Health on that initial draft. Most of these comments, set forth in **Exhibits 4 – 7**, have been addressed; however, staff is coordinating with FACET to finalize the draft CAO amendments.

The following is an overview of key changes proposed to the CAO to ensure compliance with Washington State law and BAS.

Definitions

MMC 22A.020 Definitions

Several new definitions relating to critical areas are proposed to be added to MMC Chapter 22A.020 Definitions. The definitions include: channel migration zone, critical aquifer recharge area, fish and wildlife habitat areas, cumulative impacts, ecosystem functions, ecosystem services, ecosystem values, fish habitat, fish and wildlife habitat conservation areas, hazardous tree, no net loss, priority habitat, riparian management zone, waters of the state, and watershed plan.

Wetlands

MMC 22E.010.010

The general purpose and intent section has been updated to reflect the various critical area types designated in State law: wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, frequently flood areas, and critical aquifer recharge areas.

MMC 22E.010.060

A heading has been added for "identification and delineation" which describes the delineation of wetland boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplement. A term (five years) for how long wetland delineations are valid for has been added. The current version of the wetland rating system for Washington State has been added along with the current Ecology publication number.

MMC 22E.010.080

The exemption from wetland regulations section is amended to indicate that restoration including invasive species removal and planting of native plants that would otherwise not require a permit may be approved on a case-by-case basis.

MMC 22E.010.100

The wetland buffer areas includes language that the standard buffer widths assume that the buffer is planted with native plans appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform necessary functions, the buffer must be planted to provide an appropriate plant community of shall be widened to ensure that adequate buffer functions are provided.

The Department of Ecology provides three different approaches to establishing buffers:

Option 1 provides wetland buffers that are based on the Category of wetland (I – IV) and the habitat score assigned to the wetland. Category I and II wetlands with high habitat scores (between 8 and 9 points) have the greatest buffer, while Category V wetlands with low habitat scores have the smallest buffer. If the mitigation measures in Table 2 below are implemented and a habitat corridor is provided, then the buffers shown in Option 1, Table 1 may be used. If a habitat corridor and the mitigation measures in Table 2 are not implemented, than the buffers must be increased as shown in Table 3 below.

Option 2 establishes buffers based on the category of wetland and the adjacent land use with the most intensive land uses such as commercial, industrial, and most residential having the largest buffers and resource lands having the smallest buffers.

Option 3 establishes buffers based solely on the wetland category as shown in the table below.

Among these options, Option 1 appears to be best balance of critical area protections, the sensitivity of the habitat, and preservation of land capacity so is recommended by staff and option reflected in the attached DRAFT code amendments.

Accompanying Option 1, the code is amended to include a more comprehensive list of mitigation measures (e.g., fencing off the critical area, directing lights away from the critical area, etc.) than was previously provided in code.

MMC 22E.010.100 is also amended to include stricter language for when buffer widths must be increased, and to clarify that trail widths should be 5 feet wide in most instances with 10 foot trails allowed for multi-purpose trails.

Option 1

Table 1. Wetland buffer width requirements, in feet, if Table 2 is implemented and a habitat corridor is provided

Category of wetland	Habitat score 3-5 points (corridor not required)	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I or II: Based on rating of wetland functions (and not listed below)	75	110	225	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	225	190
Category I: Interdunal	NA	NA	225	NA
Category I: Forested	75	110	225	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category II: Interdunal	NA	NA	NA	110
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	110
Category III: All types except interdunal	60	110	225	NA
Category III: Interdunal	NA	NA	NA	60
Category IV: All types	40	40	40	NA

Table 2. Impact minimization measures

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Lights	• Parking lots • Commercial/Industrial • Residential • Recreation (e.g., athletic fields) • Agricultural buildings	• Direct lights away from wetland • Only use lighting where necessary for public safety and keep lights off when not needed • Use motion-activated lights • Use full cut-off filters to cover light bulbs and direct light only where needed • Limit use of blue-white colored lights in favor of red-amber hues • Use lower-intensity LED lighting • Dim light to the lowest acceptable intensity
Noise	• Commercial • Industrial • Recreation (e.g., athletic fields, bleachers, etc.) • Residential • Agriculture	• Locate activity that generates noise away from wetland • Construct a fence to reduce noise impacts on adjacent wetland and buffer • Plant a strip of dense shrub vegetation adjacent to wetland buffer
Toxic runoff	• Parking lots • Roads • Commercial/industrial • Residential areas • Application of pesticides • Landscaping • Agriculture	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft. of wetland • Apply integrated pest management (These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.)
Stormwater runoff	• Parking lots • Roads • Residential areas • Commercial/industrial • Recreation • Landscaping/lawns • Other impermeable surfaces, compacted soil, etc.	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized or sheet flow from lawns that directly enters the buffer • Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns
Pets and human disturbance	• Residential areas • Recreation	• Use privacy fencing • Plant dense native vegetation to delineate buffer edge and to discourage disturbance • Place wetland and its buffer in a separate tract • Place signs around the wetland buffer every 50-200 ft., and for subdivisions place signs at the back of each residential lot • When platting new subdivisions, locate greenbelts, stormwater facilities, and other lower-intensity uses adjacent to wetland buffers
Dust	• Tilled fields • Roads	• Use best management practices to control dust

Table 3. Wetland buffer width requirements, in feet, for applicants not providing a habitat corridor or implementing measures in Table 2

Category of wetland	Habitat score 3-5 points	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I & II: Based on rating of wetland functions (and not listed below)	100	150	300	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	300	250
Category I: Interdunal	NA	NA	300	NA
Category I: Forested	100	150	300	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	200
Category II: Interdunal	NA	NA	NA	150
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category III: All types except interdunal	80	150	300	NA
Category III: Interdunal	NA	NA	NA	80
Category IV	NA	NA	NA	50

Option 2

Table 1. Width of buffers, in feet, needed to protect wetlands from impacts of proposed land uses (used with Table 2)

Category of wetland	Land use with low impact*	Land use with moderate impact*	Land use with high impact*
I	150	225	300
II	150	225	300
III	75	110	150
IV	25	40	50

Level of impact from proposed land use	Types of land use
High	• Commercial • Urban • Industrial • Institutional • Mixed-use developments • Residential (more than 1 unit/acre) • Roads: federal and state highways, including on-ramps and exits, state routes, and other roads associated with high-impact land uses • Railroads • Agriculture with high-intensity activities (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling, raising and maintaining animals, etc.)

Level of impact from proposed land use	Types of land use
	• Open/recreational space with high-intensity uses (golf courses, ball fields, etc.) • Solar farms (utility scale)
Moderate	• Residential (1 unit/acre or less) • Roads: Forest Service roads and roads associated with moderate-impact land uses • Open/recreational space with moderate-intensity uses (parks with paved trails or playgrounds, biking, jogging, etc.) • Agriculture with moderate-intensity uses (orchards, hay fields, light or rotational grazing, etc.) • Utility corridor or right-of-way used by one or more utilities and including access/maintenance road • Wind farm
Low	• Natural resource lands (forestry/silviculture–cutting of trees only, not land clearing and removing stumps) • Open/recreational space with low-intensity uses (unpaved trails, hiking, birdwatching, etc.) • Utility corridor without a maintenance road and little or no vegetation management • Cell tower

Option 3

Table 1. Wetland buffer width requirements, in feet, based solely on wetland category

Category of wetland	Buffer width
I	300
II	300
III	150
IV	50

MMC 22E.010.120

This section is amended to provide ensure that wetland mitigation, re-creation, etc. ratios are clear and consistent with State requirements.

MMC 22E.010.130

This section is renamed from wetland mitigation banks to programmatic mitigation consistent with the more general term that is used for third-party sponsors' mitigation such as mitigation banks and fee-in-lieu programs. This section is also amended to indicate that documentation must be provided for how credit needs were calculated.

MMC 22E.010.140

Currently, wetland mitigation plans are a two phase mitigation plan that is proposed to be consolidated into a single phase for clarity and ease of administration.

MMC 22E.010.160

The wetland monitoring program and contingency plan section is amended to reduce the times when monitoring reports must be submitted and clarifies when adjustments to the monitoring period can be made.

Fish and Wildlife Habitat Areas

MMC 22E.010.210

This code section provides a description of the different stream types: Type S, Type F, Type Np, and Type Ns. The current definition of these stream types does not completely align with State law and are proposed to be amended to provide better alignment.

MMC 22E.010.220

The fish and wildlife habitat area buffers outlined in this section are not proposed to be changed; however, are now organized better in the table so that it is clear which buffer applies to each stream type.

This section is also amended to:

- Clarify that trail widths should be 5 feet wide in most instances with 10 foot trails allowed for multi-purpose trails; and

- Direct reasonable use buffer width variance to the Hearing Examiner for alterations to Category I wetlands, for complex matters as determined by the Community Development Director, and as otherwise required by code.

MMC 22E.010.260

The fish and wildlife habitat monitoring language is amended to eliminate a provision regarding reducing the security amount in proportion to the work completed and to note that the monitoring period may be extended if needed to ensure that project performance standards are met.

Critical Aquifer Recharge Areas

With this CAO update, critical aquifer recharge areas (CARAs) must be designated and protected pursuant to the Growth Management Act (Chapter 36.70A RCW) to safeguard the public health, safety and welfare and to protect groundwater resources. CARAs are land areas that contain hydrogeologic conditions that facilitate aquifer recharge and/or transmission of contaminants to an underlying aquifer. Some may also have recharging effects on streams, lakes, and wetlands that provide critical fish and wildlife habitat. Factors considered in the identification of critical aquifer recharge areas include depth to water table, presence of highly permeable soils (Group A hydrologic soils), presence of flat terrain, and the presence of more permeable surficial geology.

Proposed standards regulating critical aquifer recharge areas are set forth in proposed MMC Sections 22E.010.320 through 22E.010.400.

Geologic Hazard Areas

Changes to the geologic hazard areas section are limited and include:

- A cross-reference to Chapter 22A.020 Definitions; and
- Incorporating third-party peer review requirements in the geologic hazard areas alteration and setbacks sections.

Conclusion

Staff respectfully request that the Planning Commission review the DRAFT Critical Areas Ordinance amendments, ask questions, and provide feedback at the September 9th Planning Commission work session. After the work session, Staff respectfully requests that a Public Hearing be set for September 22nd to consider the Critical Areas Ordinance amendments.

22A.020.040 "C" definitions. "Channel Migration Zone" means the area within which a river or stream channel is likely to move laterally over a specified period due to natural processes.

22A.020.040 "C" definitions. "Critical Aquifer Recharge Areas" means those land areas that contain hydrogeologic conditions that facilitate aquifer recharge and/or transmission of contaminants to an underlying aquifer. Some may also have recharging effects on streams, lakes, and wetlands that provide critical fish and wildlife habitat. Factors considered in the identification of critical aquifer recharge areas include depth to water table, presence of highly permeable soils (Group A hydrologic soils), presence of flat terrain, and the presence of more permeable surficial geology.

22A.020.050 "C" definitions. "Cumulative impacts" means the combined, incremental effects of human activity on critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other actions in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

22A.020.060 "E" definitions. "Ecosystem functions" means the products, physical and biological conditions, and environmental qualities of an ecosystem that result from interactions among ecosystem processes and ecosystem structures. Ecosystem functions include, but are not limited to, sequestered carbon, attenuated peak streamflows, aquifer water level, reduced pollutant concentrations in surface and groundwaters, cool summer in-stream water temperatures, and fish and wildlife habitats.

22A.020.060 "E" definitions. "Ecosystem services" are the benefits that the public enjoys as a result of natural processes and biological diversity.

22A.020.060 "E definitions. "Ecosystem values" are the cultural, social, economic, and ecological benefits attributed to ecosystem functions.

22A.020.070 "F" definitions. "Fish habitat" means habitat, which is used by fish life at any life stage at any time of the year including potential habitat likely to be used by fish life, which could reasonably be recovered by restoration or management and includes off-channel habitat.

22A.020.070 "F" definitions. "Fish and wildlife habitat conservation areas" means areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Counties and cities may also designate locally important habitats and species.

22A.020.090 "H" Definitions. "Hazardous tree" means a tree that is diseased or has significant structural defects that are likely to lead to failure.

22A.020.150 "N" Definitions. "No Net Loss" means the finding that proposed activities or development would not alter or modify the physical limits of an existing critical area or their buffers or result in an overall reduction in ecosystem functions and values within critical areas and their buffers.

22A.020.170 "P" Definitions. "Priority habitat" means a habitat type with unique or significant value to many species. An area identified and mapped as priority habitat has one or more of the following attributes: comparatively high fish and wildlife density, comparatively high fish and wildlife habitat diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, important fish and wildlife movement corridors, limited availability, high vulnerability to habitat alternation, and unique or dependent species.

22A.020.170 "P" Definitions. "Priority habitat" means fish and wildlife habitat species requiring protective measures and/or management actions to ensure their survival. A species identified and mapped as priority species fit one or more of the following criteria: State-listed candidate species, vulnerable aggregations, and species of recreational, commercial, and/or Tribal importance.

22A.020.190 "R" Definitions. "Riparian management zone" or "RMZ" means that area that has the potential to provide full riparian functions, which for non-forest zones is defined as the greater of the outermost point of the riparian vegetative community or the pollution removal function at 100 feet.

22A.020.240 "W" Definitions. "Waters of the state" means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington.

22A.020.250 "W" Definitions. "Watershed plan" means a plan developed by federal, tribal, state, and/or local government agencies and/or appropriate non-governmental organizations, in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancements, and preservation. A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans may also identify priority sites for aquatic restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, and wetland management plans.

Chapter 22E.010
CRITICAL AREAS MANAGEMENT

Sections:

Article I. General Introduction

22E.010.010 General purpose and intent.
22E.010.020 General applicability of these regulations.
22E.010.030 General relationship of regulation of one type of critical area protection to other regulations.
22E.010.040 Best available science.

Article II. Wetlands

22E.010.050 Applicability to wetlands.
22E.010.060 Wetland rating and classification.
22E.010.070 Regulated activities in wetlands.
22E.010.080 Exemptions to wetland regulations.
22E.010.090 Wetland inventory maps.
22E.010.100 Wetland buffer areas.
22E.010.110 Wetland alteration and mitigation.
22E.010.120 Wetland mitigation standards and criteria.
22E.010.130 Wetland mitigation banks.
22E.010.140 Wetland mitigation plan requirements.
22E.010.150 Performance standards for wetland mitigation planning.
22E.010.160 Wetland monitoring program and contingency plan.

Article III. Fish and Wildlife Habitat Areas

22E.010.170 Fish and wildlife habitat conservation areas designated.
22E.010.180 Regulated activities in habitats.
22E.010.190 Exemptions from fish and wildlife regulations.
22E.010.200 Fish and wildlife habitat inventory maps.
22E.010.210 Classification of fish and wildlife habitat areas.
22E.010.220 Fish and wildlife habitat buffer areas.
22E.010.230 Fish and wildlife habitat alteration and mitigation.
22E.010.240 Fish and wildlife mitigation standards, criteria and plan requirements.
22E.010.250 Fish and wildlife habitat performance standards and incentives.
22E.010.260 Fish and wildlife habitat monitoring program and contingency plan.

Article IV. Geologic Hazard Areas

22E.010.270 Applicability to geologic hazards.
22E.010.280 Geologic hazard inventory map.
22E.010.290 Alteration of geologic hazard areas and development limitations.
22E.010.300 Setbacks from geologic hazards.
22E.010.310 Geologic hazard performance standards.

Article V. Critical Aquifer Recharge Areas

22E.010.320 Applicability to Critical Aquifer Recharge Areas.
22E.010.330 Designation and Classification.
22E.010.340 Submittal requirements.
22E.010.350 Substantive requirements.
22E.010.360 Uses and Activities.
22E.010.370 Underground Injection Control (UIC) Wells.
22E.010.380 Exemptions
22E.010.390 Relationship to Other Regulations.
22E.010.400 Rulemaking Authority.

Article VI. General Information

22E.010.~~320~~410 General exemptions.
22E.010.~~330~~420 Permit process and application requirements.
22E.010.~~340~~430 Selection of qualified scientific professional and city review of report.
22E.010.~~350~~440 Land divisions.
22E.010.~~360~~450 On-site density transfer for critical areas.
22E.010.~~370~~460 Fencing and signage requirements.
22E.010.~~380~~470 Building setbacks.
22E.010.~~390~~ 480 General procedural provisions.
22E.010.~~400~~490 Penalties and enforcement.
22E.010.~~410~~500 General savings provisions – Reasonable use determination.
22E.010.~~420~~510 No special duty created.

Article I. General Introduction

22E.010.010 General purpose and intent.

(1) The city of Marysville finds that critical areas perform many important biological and physical functions that benefit the city of Marysville and its residents, with the exception of geologic hazard areas which may pose a threat to human safety or to public and private property. Specifically, the functions they perform include but are not limited to the following by type:

(a) Wetlands. Helping to maintain water quality; storing and conveying storm water and flood water; recharging ground water; providing important fish and wildlife habitat; and serving as areas for recreation, education and scientific study and aesthetic appreciation; ~~and~~

(b) Fish and Wildlife Habitat Areas. Maintaining species diversity and genetic diversity; providing opportunities for food, cover, nesting, breeding and movement for fish and wildlife; serving as areas for recreation, education, and scientific study and aesthetic appreciation; helping to maintain air and water quality; controlling erosion; and providing neighborhood separation and visual diversity within urban areas~~.~~; and

(c) Geologic Hazard Areas. Providing variation in topography, vegetative buffers, and visual relief;

(d) Frequently flood areas; and

(e) Critical aquifer recharge areas. Designating and protecting critical aquifer recharge areas (CARAs) pursuant to the Growth Management Act (Chapter 36.70A RCW) to safeguard the public health, safety and welfare and to protect groundwater resources. CARAs contribute to the recharge of aquifers, springs, and/or wells, and are susceptible to contamination through infiltration of pollutants through the soil.

In addition, certain portions of the city of Marysville are characterized by geologic hazards that pose a risk to public and private property, to human life and safety and to the natural systems that make up the environment of the city of Marysville. These lands are affected by natural processes that make them susceptible to landslides, seismic activity and severe erosion. Protection of critical areas and regulation of geologic hazards are, therefore, necessary to protect the public health, safety and general welfare.

(2) These regulations of the city of Marysville critical areas ordinance contain standards, guidelines, criteria and requirements intended to identify, analyze and mitigate potential impacts to the city of Marysville's critical areas and to enhance and restore them where possible. The intent of these regulations is to avoid impacts where such avoidance is feasible and reasonable. In appropriate circumstances, impacts to critical areas resulting from regulated activities may be minimized, rectified, reduced or compensated for, consistent with the requirements of these regulations. The city of Marysville's overall goal shall be to protect the functions and values of critical areas and protect the people, public and private property, and natural ecosystems.

(3) It is the further intent of these regulations to:

(a) Implement the goals and policies of the city of Marysville comprehensive plan, including those pertaining to natural features and environmental protection; aesthetics and community character; providing adequate housing and infrastructure; providing opportunities for economic development; creating a balanced transportation system; ensuring adequate public facilities; and achieving a mix of land use types and densities consistent with the city of Marysville's land use plan;

(b) Serve as a basis for exercise of the city of Marysville's substantive authority under the State Environmental Policy Act (SEPA) and the city of Marysville's SEPA rules;

(c) Comply with the requirements of the Growth Management Act (Chapter 36.70A RCW) and its implementing rules, and through the application of the best available science, in accordance with WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals;

(d) Coordinate environmental review and permitting of proposals to avoid duplication and delay.

(4) The city of Marysville further finds that Snohomish County has identified and mapped some portions of the city of Marysville based on topographic, geologic, hydrologic, and habitat characteristics where the conditions indicate that critical areas are believed to exist. There is, however, a need for additional study and mapping to verify that such conditions do, in fact, prevail and to identify other areas that are potentially geologic hazards. Such mapping will enable the city of Marysville to provide notice to the public of the potential presence of critical areas or the risks associated with developing lands subject to geologic hazards. However, the boundaries of the critical areas and geologic hazard areas displayed on these maps are approximate and are not intended to be used for individual site assessment. Where differences occur between what is illustrated on these maps and site conditions, the actual presence or absence of environmentally critical areas or geologic hazard areas on the site shall control. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.020 General applicability of these regulations.

(1) The provisions of these regulations shall apply to any activity that potentially affects critical areas or their established buffers unless otherwise exempt. Any action taken pursuant to this title shall result in equivalent or greater functions and values of the critical areas associated with the proposed action, as determined by the best available science and as provided in this chapter. All actions and developments shall be designed and constructed in accordance with the priority sequencing outlined in MMC 22E.010.110 and 22E.010.230 to avoid, minimize, and restore all adverse impacts. Applicants must first demonstrate an inability to avoid or reduce impacts before restoration and compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions and values of critical areas unless otherwise permitted by a reasonable use determination under MMC 22E.010.~~410~~500.

(2) To avoid duplication, the following permits and approvals shall be subject to and coordinated with the requirements of these regulations: clearing and grading; subdivision or short subdivision; building permit; planned unit development; shoreline substantial development; variance; conditional use permit; other permits leading to the development or alteration of land; and rezones and other nonproject actions if not combined with another development permit. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.030 General relationship of regulation of one type of critical area protection to other regulations.

These regulations shall apply as an overlay and in addition to zoning, land use and other regulations, including critical areas regulations, established by the city of Marysville.

(1) Areas characterized as a critical area may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some critical areas. For example, some

landslide hazard areas (e.g., steep slopes) adjacent to wetlands may be regulated by buffering requirements according to the wetland management provisions of this chapter. Also, wetlands, for example, may be defined and regulated according to the wetland and habitat management provisions of this chapter. In the event of any conflict between regulations for particular critical areas in this chapter, those regulations which provide greater protection to environmentally critical areas shall apply.

(2) These critical area regulations shall apply as an overlay and in addition to zoning, land use, and other regulations established by the city of Marysville. In the event of any conflict between these regulations and any other regulations of the city of Marysville, the regulations which provide greater protection to environmentally critical areas shall apply.

(3) Compliance with the provisions of this title does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The applicant is responsible for complying with these requirements, apart from the process established in this title. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.040 Best available science.

(1) Criteria for Best Available Science. The best available science is that scientific information applicable to the critical area prepared by local, state or federal natural resource agencies, a qualified scientific professional, or a team of qualified scientific professionals that is consistent with criteria established in WAC 365-195-900 through 365-195-925, as amended.

(2) Protection of Functions and Value and Fish Usage. Critical area studies and decisions to alter critical areas shall rely on the best available science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat, such as salmon and bull trout.

(3) Lack of Scientific Information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area leading to uncertainty about the risk to critical area function or permitting an alteration of or impact to the critical area, the city shall:

(a) Take a “precautionary or no-risk approach” that strictly limits development and land use activities until the uncertainty is sufficiently resolved; and

(b) Require application of an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and nonregulatory actions protect the critical area. An adaptive management program is a formal and deliberative scientific approach to taking action and obtaining information in the face of uncertainty. To effectively implement an adaptive management program, the city hereby commits to:

(i) Address funding for the research component of the adaptive management program;

(ii) Change course based on the results and interpretation of new information that resolves uncertainties; and

(iii) Commit to the appropriate timeframe and scale necessary to reliably evaluate regulatory and nonregulatory actions affecting protection of critical areas and anadromous fisheries. (Ord. 2852 § 10 (Exh. A), 2011).

Article II. Wetlands

22E.010.050 Applicability to wetlands.

(1) See MMC 22E.010.020 for general applicability.

(2) Nonproject actions such as rezones shall be required to perform a wetland determination as defined by these regulations. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.060 Wetland rating and classification.

(1) Classification and Delineation. The classification and delineation of wetlands shall be determined by using the current approved federal wetland delineation manual and the applicable regional supplements.

(a) Wetland delineations are valid for five (5) years from the date that the delineation is confirmed by the City.

(2) Classification. Wetlands shall be classified as Category I, II, III, or IV using the Washington State Department of Ecology's Wetland Rating System for Western Washington~~:~~, 2014 Update Version 2.0, Publication No. ~~14-06-029~~ 23-06-009, or as amended hereafter. ~~Wetland delineations shall be determined by using the current approved federal wetland delineation manual and applicable regional supplements.~~

(2) Sources used to identify designated wetlands include, but are not limited to:

(a) United States Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory.

(b) Areas identified as hydric soils, soils with significant soil inclusions and "wet spots" with the United States Department of Agriculture/Soil Conservation Service Soil Survey for Snohomish County.

(c) Washington State Department of Natural Resources, Geographic Information System, Hydrography and Soils Survey Layers.

(d) City of Marysville critical areas inventory maps. (Ord. 3073 § 1, 2017; Ord. 2852 § 10 (Exh. A), 2011).

22E.010.070 Regulated activities in wetlands.

The following activities within a wetland and its associated buffer, or outside a wetland or buffer but potentially affecting the wetland or buffer, shall be regulated pursuant to the standards of this chapter:

(1) Removing, excavating, disturbing or dredging soil, sand, gravel, minerals, organic matter or materials of any kind;

(2) Dumping, discharging or filling with any material;

(3) Draining, flooding or disturbing the water level or water table;

(4) Driving pilings or placing obstructions;

(5) Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure;

(6) Construction of any on-site sewage disposal system, or other underground facilities, except exempted activities;

(7) Destroying or altering vegetation through clearing, harvesting, shading or planting vegetation that would alter the character of a wetland;

(8) Activities that result in significant changes in water temperature, physical or chemical characteristics of wetland water sources, including water quantity and quality, soil flow, or natural contours, and pollutants;

(9) Any other activity potentially affecting a wetland or wetland buffer not otherwise exempt from the provisions of this chapter; and

(10) Work to maintain wetlands intentionally created from nonwetland areas as mitigation for wetland impacts. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.080 Exemptions to wetland regulations.

(1) See MMC 22E.010.~~320~~410 for general exemptions to all critical areas.

(2) The following activities shall be exempt from the provisions of this chapter related to wetlands and their buffers, provided they are conducted using best management practices on wetlands:

(a) Activities involving artificially created wetlands intentionally created from nonwetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features, except wetlands created as mitigation.

(b) Work in wetlands created after July 1, 1990, that were unintentionally created as a result of road, street, or highway construction.

(c) In addition, the director may waive compliance with wetland buffer and compensation requirements for the fill of a Class IV wetland no greater than one-tenth of an acre in size if all the following criteria are met:

(i) The wetland is not contiguous with a freshwater or estuarine system and is not considered part of a mosaic wetland complex;

(ii) Standing water is not present in sufficient amounts to support breeding amphibians;

(iii) Species listed as federal endangered, threatened, and candidate species, or listed by the state as endangered, threatened, and sensitive species, or essential habitat for those species, are not present;

(iv) Some form of mitigation is provided for the hydrologic and water quality functions; for example, storm water treatment or landscaping or other mitigation; and

(v) A wetland assessment prepared by a qualified professional, demonstrating the waiver criteria are met.

(vi) The determination to waive requirements shall be reviewed through the city's SEPA review process as established in Chapter 22E.030 MMC.

(d) Restoration including invasive species removal and planting of native plants that would otherwise not require a permit may be approved on a case-by-case basis.

(3) Notwithstanding the exemption provided by MMC 22E.010.~~320~~410 and by this chapter, any otherwise exempt activities occurring in or near wetlands shall comply with the intent of these standards and shall consider on-site alternatives that avoid or minimize potential wetland impacts. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.090 Wetland inventory maps.

The approximate location and extent of wetlands within the city of Marysville's planning area are shown on the critical areas maps adopted as part of this chapter. These maps shall be used as a general guide only for the assistance of property owners and the public; boundaries are

generalized. The actual category, extent and boundaries of wetlands shall be determined in the field by a qualified scientific professional according to the procedures, definitions and criteria established by this chapter and Chapter 22A.020 MMC. In the event of any conflict between the wetland location or designation shown on the city of Marysville wetland areas maps and the criteria or standards of this chapter, the criteria and standards resulting from the field investigation shall control. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.100 Wetland buffer areas.

(1) The establishment of wetland buffer areas shall be required for all development proposals and activities adjacent to wetlands to protect the integrity, function and value of the wetland. Buffers shall consist of an undisturbed area of native vegetation established to protect the functions and values of the wetland. Buffers shall be determined in conjunction with considerations of wetland category and quality, approved wetland alterations and required mitigation measures. Buffers are not intended to be established or to function independently of the wetland they are established to protect; the establishment of a buffer shall not operate to prevent a use or activity that would otherwise be permitted, as set forth in MMC 22E.010.080, subsections (7) and (8) of this section, and MMC 22E.010.~~320~~410, in the wetland subject to mitigation.

(2) Buffers shall be measured from the wetland edge as delineated and marked in the field using the wetland delineation methods defined in Chapter 22A.020 MMC. Required buffer widths shall reflect the sensitivity of the wetland and its category and intensity of human activity proposed to be conducted near the wetland.

(3) Standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer shall either be planted to create the appropriate plant community or the buffer shallbe widened to ensure that adequate buffer functions are provided.

(4) Where existing buffer area plantings provide minimal vegetative cover and cannot provide the minimum water quality or habitat functions, buffer enhancement shall be required. Where buffer enhancement is required, a plan shall be prepared that includes plant densities not less than five feet on center for shrubs and 10 feet on center for trees. Monitoring and maintenance of plants shall be required in accordance with MMC 22E.010.160, Wetland monitoring program and contingency plan. Existing buffer vegetation is considered “inadequate” and will require enhancement through additional native plantings and removal of nonnative plants when:

(a) Nonnative or invasive plant species provide the dominant cover;

(b) Vegetation is lacking due to disturbance, and wetland resources could be adversely affected; or

(c) Enhancement plantings in the buffer could significantly improve buffer functions.

~~(5)~~~~(4)~~ The following buffer widths are established as minimum targets. All buffer widths shall be measured from the wetland boundary as surveyed in the field. If, according to the buffer mitigation plan, the buffer is not sufficient to protect the wetland, the city shall require larger buffers where it is necessary to protect wetland functions based on site-specific characteristics. As an alternative to the buffer width being based on wetland category, the buffer width for Category I wetlands may be established according to the "Buffer Alternative 3" methodology contained in the Department of Ecology's document titled "Freshwater Wetlands in Washington State, Volume 2: Managing and Protecting Wetlands, Appendix 8C." Buffer Alternative 3 establishes buffer widths based on wetland category, intensity of impacts, and wetland functions or special characteristics.

Standard Wetland Buffer Widths without General Mitigation Measures

Wetland Category	**Wetland Type**	**Buffer Widths (feet)**		
		Habitat Function Scores		
		3 -5	6 – 7	8 – 9
I	All including forested except those listed below.	100	150	300
I	Bogs	250	300	
I	Ebey Slough	200		
	North and south shore of Ebey Slough between the western city limits, at approximately I-5 and 47th Avenue NE	50		
II	All except estuarine	100	150	300
II	Estuarine	150		
III		80	150	300
IV		50		

Reduced Wetland Buffers when General Mitigation Measures are Applied

DRAFT

Wetland Category	Wetland Type	Buffer Widths (feet)		
		Habitat Function Scores		
I	All including forested except those listed below.	75	110	225
I	Bogs	190	225	
I	Ebey Slough	75	100	
	North and south shore of Ebey Slough between the western city limits at approximately I-5 and 47th Avenue NE	25		
II	All except estuarine	75	100	225
II	Estuarine	75	100	
III		60	100	225
IV		40		

~~**Wetland Buffer Widths**~~

~~Wetland Category~~	~~Buffer Width~~
~~Category I~~	~~125 feet~~
~~Ebey Slough~~	~~100 feet~~
~~North and south shore of Ebey Slough between the western city limits, at approximately I-5 and 47th Avenue NE~~	~~25 feet~~
~~Category II~~	~~100 feet~~
~~Category III~~	~~75 feet~~
~~Category IV~~	~~35 feet~~

~~(5)~~(6) Buffer widths may be modified by averaging buffer widths as set forth herein:

(a) Buffer width averaging shall be allowed only where the applicant demonstrates to the community development department that the averaging will not impair or reduce the habitat, water quality purification and enhancement, storm water detention, ground water recharge, shoreline protection and erosion protection and other functions of the wetland and buffer, that lower-intensity land uses would be located adjacent to areas where buffer width is reduced, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging;

(b) Buffer reductions may be allowed for wetlands; provided, that the applicant demonstrates the proposal meets criteria in subsections (5)(b)(i) through (iii) and either (iv) or (v) of this section. Buffer width reduction proposals that meet the criteria as determined by the director shall be reduced by no more than 25 percent of the required buffer and shall not be less than 25 feet in width.

(i) The buffer area meets buffer area planting requirements in subsection (3) of this section and MMC 22E.010.150 and has less than 15 percent slopes; and

(ii) A site-specific evaluation and documentation of buffer adequacy is based on consideration of the best available science as described in MMC 22E.010.040; and

(iii) Buffer width averaging as outlined in subsection (5)(a) of this section is not being utilized; and either

(iv) The subject property is separated from the wetland by preexisting, intervening, and lawfully created structures, public roads, or other substantial preexisting intervening improvements; and the intervening structures, public roads, or other substantial improvements are found to separate the subject upland property from the wetland due to their height or width, preventing or impairing the delivery of buffer functions to the wetland, in which cases the reduced buffer width shall reflect the buffer functions that can be delivered to the wetland; or

(v) The wetland scores four points or less for wildlife habitat in accordance with the rating system applied in MMC 22E.010.060, and mitigation is provided based on MMC 22E.010.150, 22E.010.~~370~~460, and Table 2 of this section, when determined appropriate based on the evaluation criteria in subsection (5)(b)(ii) of this section.

Table 2. Mitigation Measures

Disturbance	Activities That May Cause Disturbance	Measures to Minimize Impacts
Lights	Parking lots, warehouses, manufacturing, high density residential	Direct lights away from wetland

Table 2. Mitigation Measures

Disturbance	Activities That May Cause Disturbance	Measures to Minimize Impacts
Noise	Manufacturing, high density residential	Place activity away from wetland
Pets and Humans	Residential areas	Landscaping to delineate buffer edge and to discourage disturbance of wildlife by humans and pets
Dust	Tilled fields	Best management practices for dust control

(c) Notwithstanding the reductions permitted in subsections (5)(a) and (b) of this section, buffer widths shall not be reduced by more than 25 percent of the required buffer.

~~(6)~~(7) The buffer width stated in subsection (4) of this section ~~may~~ must be increased by 25 percent unless the increase is determined unnecessary by a qualified scientific professional and as reviewed and accepted by the community development director:

(a) When the qualified scientific professional determines, based upon a site-specific wetland analysis, that for Category III and IV wetlands the habitat value equals or exceeds five points, and for Category II wetlands the habitat value equals or exceeds eight points; or

(b) When the adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts; or

(c) When the standard buffer has minimal or degraded vegetative cover that cannot be improved through enhancement; or

(d) When the minimum buffer for a wetland extends into an area with a slope of greater than 25 percent, the buffer shall be the greater of:

(i) The minimum buffer for that particular wetland; or

(ii) Twenty-five feet beyond the point where the slope becomes 25 percent or less.

~~(7)~~(8)The community development director may authorize the following low impact uses and activities, provided they are consistent with the purpose and function of the wetland buffer and do not detract from its integrity: viewing platforms and interpretive signage; uses permitted within the buffer shall be located in the outer 25 percent of the buffer.

~~(8)~~(9) Trails and Open Space. For walkways and trails, and associated open space in critical buffers located on public property, or on private property where easements or agreements have been granted for such purposes, all of the following criteria shall be met:

(a) The trail, walkway, and associated open space shall be consistent with the comprehensive parks, recreation, and open space master plan. The city may allow private trails as part of the approval of a site plan, subdivision or other land use permit approvals.

(b) Trails and walkways shall be located in the outer 25 percent of the buffer, i.e., the portion of the buffer that is farther away from the critical area. Exceptions to this requirement may be made for trail segments connecting to existing trails where an alternate alignment is not practical and where public access points to water bodies are spaced periodically along the trail.

(c) Enhancement of the buffer area is required where trails are located in the buffer. Where enhancement of the buffer area adjacent to a trail is not feasible due to existing high quality vegetation, additional buffer area or other mitigation may be required.

(d) Trail widths shall be a maximum width of 10 feet for multi-purpose trails and 5 feet for recreational pathways. Trails shall be constructed of permeable materials; provided, that impervious materials may be allowed if pavement is required for handicapped or emergency access, or safety, or is a designated nonmotorized transportation route or makes a connection to an already dedicated trail, or reduces potential for other environmental impacts.

~~(9)~~(10) Utilities may be allowed in wetlands or wetland buffers if limited to the pipelines, cables, wires and support structures of utility facilities within utility corridors when the following standards are met:

(a) There is no alternative location with less adverse impact on the critical area and critical area buffer;

(b) New utility corridors are not located over habitat used for salmonid rearing or spawning or by a species listed in MMC 22E.010.170(1)(a) unless the department determines that there is no other feasible crossing site;

(c) To the maximum extent practical utility corridors are located so that:

(i) The width is minimized;

(ii) The removal of trees is minimized;

(iii) An additional, contiguous and undisturbed wetland buffer, equal in area to the disturbed critical area buffer area including any allowed maintenance roads, is provided to protect the wetland;

(d) To the maximum extent practical, access for maintenance is at limited access points into the critical area buffer rather than by a parallel maintenance road. If a parallel maintenance road is necessary, the following standards are met:

(i) To the maximum extent practical the width of the maintenance road is minimized and in no event greater than 15 feet; and

(ii) The location of the maintenance road is contiguous to the utility corridor on the side of the utility corridor farthest from the critical area;

(e) The utility corridor or facility will not adversely impact the overall wetland hydrology;

(f) The utility corridor serves multiple purposes and properties to the maximum extent practical;

(g) Bridges or other construction techniques that do not disturb the wetlands are used to the maximum extent practical;

(h) Bored, drilled or other trenchless crossing is laterally constructed under a wetland; provided, that the activity does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist shall be conducted to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column could be disturbed.

~~(10)~~(11) Storm water management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of wetland buffers only if they will have no negative effect on the functions and purpose the buffers serve for the wetland or on the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated beneficial uses.

~~(11)~~(12) For subdivisions and short subdivisions, the applicable wetland and associated buffer requirements for any development or redevelopment of uses specifically identified in, and approved as part of, the original subdivision or short subdivision application shall be those requirements in effect at the time that the complete subdivision or short subdivision application was filed; provided, that for subdivisions this provision shall be limited to final plats reviewed and approved under Ordinance No. 1928, “Sensitive Areas,” adopted December 14, 1992, or as amended at the time of final plat approval. However, at the discretion of the community development director a buffer enhancement plan may be required in accordance with subsection (3) of this section if the wetland or buffer has become degraded or is currently not functioning or if the wetland and/or buffer may be negatively affected by the proposed new development.

~~(12)~~(13) Minor additions or alterations, such as decks and minor additions less than 120 square feet, interior remodels, or tenant improvements which have no impact on the wetland or wetland buffer, are exempt from the buffer enhancement requirements.

~~(13)~~(14) Required buffers shall not deny all reasonable use of property. A variance from buffer width requirements may be granted by the hearing examiner for the city of Marysville upon showing by the applicant that:

(a) There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties and which support the granting of a variance from buffer width requirements; and

(b) Such buffer width variance is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question; and

(c) The granting of such buffer width variance will not be materially detrimental to the public welfare or injurious to the property or improvement; and

(d) The granting of the buffer width variance will not materially affect the subject wetland.

(e) Best available science, as set forth in MMC 22E.010.040, shall be taken into consideration in the granting of a buffer width variance. (Ord. 3073 § 2, 2017; Ord. 2852 § 10 (Exh. A), 2011).

22E.010.110 Wetland alteration and mitigation.

(1) All adverse impacts to wetland functions and values shall be mitigated. Mitigation actions by an applicant or property owner shall occur in the following priority sequence:

(a) Avoiding the impact altogether by not taking a certain action or parts of actions;

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(d) Reducing or eliminating the impact over time by preservation and maintenance operations;

(e) Compensating for the impact by replacing or providing substitute resources or environments;

(f) Monitoring the impact and taking appropriate corrective measures.

(2) Where impacts cannot be avoided, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. These shall include consideration of alternative site plans and building layouts or reductions in the density or scope of the proposal.

(3) Alteration of wetlands or their buffers may be permitted ~~by the community development department~~ subject to the following criteria:

(a) Category I Wetlands. Alterations of Category I wetlands shall be avoided, subject to the reasonable use provisions of these regulations.

(b) Category II Wetlands.

(i) Any proposed alteration and mitigation shall comply with requirements of this section, MMC 22E.010.120, and 22E.010.140 through 22E.010.160; and

(ii) No net loss of wetland function and value will occur due to the alteration.

(c) Category III and IV Wetlands.

(i) The proposed mitigation complies with the requirements of this section and MMC 22E.010.140 through 22E.010.160; and

(ii) Where enhancement is proposed, replacement ratios comply with the requirements of MMC 22E.010.120(3). (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.120 Wetland mitigation standards and criteria.

(1) Location and Timing of Mitigation.

(a) Restoration, creation, or enhancement actions should be undertaken on or adjacent to the site, or where restoration or enhancement of a former wetland is proposed, within the same watershed. Replacement in-kind of the impacted wetland is preferred for creation, restoration, or enhancement actions. The city may accept or recommend restoration, creation, or enhancement which is off-site and/or out-of-kind, if the applicant can demonstrate that on-site or in-kind restoration, creation, or enhancement is infeasible due to constraints such as parcel size or wetland type or that a wetland of a different type or location is justified based on regional needs or functions;

(b) Whether occurring on-site or off-site, the mitigation project shall occur near an adequate water supply with a hydrologic connection to the wetland to ensure a successful wetlands development or restoration;

(c) Any agreed-upon proposal shall be completed before initiation of other permitted activities, unless a phased or concurrent schedule has been approved by the community development department;

(d) Wetland acreage replacement ratios shall be as specified in subsection (3) of this section.

(2) Mitigation Performance Standards.

(a) Adverse impacts to wetland functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence identified in MMC 22E.010.110(1). Proposals which include less preferred or compensatory mitigation shall demonstrate that:

(i) All feasible and reasonable measures will be taken to reduce impacts and losses to the original wetland;

(ii) No overall net loss will occur in wetland functions, values and acreage; and

(iii) The restored, created or enhanced wetland will be as persistent and sustainable as the wetland it replaces.

(3) Wetland Replacement Ratios.

(a) Where wetland alterations are permitted by this chapter, the applicant shall restore or create equivalent areas of wetlands in order to compensate for wetland losses. Equivalent areas shall be determined according to acreage, function, category, location, timing factors, and projected success of restoration or creation.

(b) Where wetland creation is proposed, all required buffers for the creation site shall be located on the proposed creation site. Properties adjacent to or abutting wetland creation projects shall not be responsible for providing any additional buffer requirements.

(c) The following acreage replacement ratios shall be used as targets. The community development department may vary these standards if the applicant can demonstrate and the community development department agrees that the variation will provide adequate compensation for lost wetland area, functions and values, or if other circumstances as determined by the community development department justify the variation:

Wetland Mitigation Ratios

Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only	Reestablishment or Creation (R/C) and Rehabilitation (RH)	Reestablishment or Creation (R/C) and Enhancement (E)	Enhancement Only
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I Based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Bog	Not considered possible	6:1 Rehabilitation of a bog	R/C Not considered possible	R/C Not considered possible	Case-by-case
Category I Estuarine	Case-by-case	6:1 Rehabilitation	Case-by-case	Case-by-case	Case-by-case
Category II Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine	Case-by-case	Case-by-case	Case-by-case
All other category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
All category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1

DRAFT

All category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1

Creation = The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevation that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Reestablishment = The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Activities could also involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Reestablishment results in a gain in wetland acres.

Rehabilitation = The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic function of a degraded wetland. Activities could involve breaching a dike or reconnecting wetland to a floodplain or returning tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Enhancement = The manipulation of the physical, chemical or biological characteristics of a wetland site to heighten, intensify or improve functions or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or habitat. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying the site elevation or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

~~Category and Type of Wetland~~	~~Re-Establishment or Creation~~	~~Rehabilitation~~	~~Re-Establishment or Creation (R/C) and Enhancement (E)~~	~~Enhancement Only~~
~~Category I~~	~~-~~	~~-~~	~~-~~	~~-~~
~~Forested~~	~~6:1~~	~~12:1~~	~~1:1 R/C and 10:1 E~~	~~24:1~~

~~Based on Score for Functions~~	~~4:1~~	~~8:1~~	~~1:1 R/C and 6:1 E~~	~~16:1~~
~~Estuarine~~	~~Case by Case~~	~~6:1 Rehabilitation of an Estuarine Wetland~~	~~Case by Case~~	~~Case by Case~~
~~Bog~~	~~Irreplaceable – Avoidance Required~~	~~6:1 Rehabilitation of a Bog~~	~~Case by Case~~	~~Case by Case~~
~~Natural Heritage~~	~~Irreplaceable – Avoidance Required~~	~~6:1 Rehabilitation of a Natural Heritage Site~~	~~Case by Case~~	~~Case by Case~~
~~Category II~~	-	-	-	-
~~Estuarine~~	~~Case by Case~~	~~4:1~~	~~Case by Case~~	~~Case by Case~~
~~All Other~~	~~3:1~~	~~8:1~~	~~1:1 R/C and 4:1 E~~	~~12:1~~
~~Category III~~	~~2:1~~	~~4:1~~	~~1:1 R/C and 2:1 E~~	~~8:1~~
~~Category IV~~	~~1.5:1~~	~~3:1~~	~~1:1 R/C and 2:1 E~~	~~6:1~~

DRAFT

~~Creation = The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevation that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.~~

~~Re-Establishment = The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.~~

~~Rehabilitation = The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic function of a degraded wetland. Activities could involve breaching a dike or reconnecting wetland to a floodplain or returning tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.~~

~~Enhancement = The manipulation of the physical, chemical or biological characteristics of a wetland site to heighten, intensify or improve functions or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or habitat. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying the site elevation or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.~~

(d) The qualified scientific professional in the wetlands report may, where feasible, recommend that restored or created wetlands shall be a higher wetland category than the altered wetland.

(4) The community development director may increase the ratios under the following circumstances:

(a) Uncertainty exists as to the probable success of the proposed restoration or creation;

(b) A significant period of time will elapse between impact and replication of wetland functions;

(c) Proposed mitigation will result in a lower category of wetland or reduced functions relative to the wetland being impacted; or

(d) The impact was an unauthorized impact. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.130 ~~Wetland~~ Programmatic mitigation ~~banks~~.

Programmatic mitigation consists of approved third-party sponsors' mitigation such as mitigation banks and fee-in-lieu programs. Wetland mitigation banks are a site where wetlands are restored, created, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

(1) Credits from a wetland bank may be approved for use as compensation for unavoidable impacts to wetlands when:

(a) The bank is certified under Chapter 173-700 WAC;

(b) The community development director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and

(c) The proposed use of credits is consistent with the terms and conditions of the bank's certification.

(2) Replacement ratios for projects using bank credits shall be consistent with the terms and conditions of the bank's certification.

(3) Third-party mitigation credits shall be documented in a bank use plan that shows how credit needs were calculated.

~~(3)~~ (4) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one adjacent drainage basin for specific wetland functions. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.140 Wetland mitigation plan requirements.

Where it is determined by the city that compensatory wetland mitigation is required or appropriate, a mitigation plan shall be prepared. The purpose of the plan is to prescribe mitigation to compensate for impacts to the wetland functions, values and acreage as a result of the proposed action. This plan shall consider the chemical, physical, and biological impacts on the wetland system using a recognized wetlands assessment methodology and best professional judgment. The mitigation plan shall be prepared in two phases, a preliminary phase and a detailed phase.

(1) Preliminary Plan – Standards and Criteria. The applicant shall prepare a preliminary mitigation plan for submission to the community development department at the time of application filing. The preliminary mitigation plan shall include the following components and shall be consistent with the standards in MMC 22E.010.120:

(a) A clear statement of the objectives of the mitigation. The goals of the mitigation plan should be stated in terms of the new wetland functions and values compared to the functions and values of the original wetland. Objectives should include qualitative and quantitative standards for success of the project, including:

(i) Hydrologic characteristics (water depths, water quality, hydroperiod/hydrocycle characteristics, flood storage capacity);

(ii) Vegetative characteristics (community types, species composition, density, and spacing);

(iii) Faunal characteristics; and

(iv) Final topographic elevations;

(b) An ecological assessment of the wetlands values and wetland buffers that will be lost as a result of the activities, and of the replacement wetlands and buffers, including but not limited to the following:

(i) Acreage of project;

(ii) Existing functions and values;

(iii) Sizes of wetlands, wetland buffers, and areas to be altered;

(iv) Vegetative characteristics, including community type, area coverage, species composition and density;

(v) Habitat type(s) to be enhanced, restored, or created;

(c) A statement of the location, elevation, and hydrology of the new site, including the following:

(i) Relationship of the project to the watershed and existing water bodies;

(ii) Topography of site using one-foot contour intervals;

(iii) Water level data, including depth and duration of seasonally high water table;

(iv) Water flow patterns;

(v) Estimated amounts of grading, filling and excavation, including a description of imported soils;

(vi) Water pollution mitigation measures during construction;

(vii) Aerial coverage of planted areas to open water areas (if any open water is to be present); and

(viii) Appropriate buffers;

~~(d) A conceptual planting plan.~~

~~(2) Prior to final development approval, a final plan consistent with the standards in MMC 22E.010.160 shall be submitted. In addition to information contained within the preliminary plan, the detailed plan will contain:~~

~~(a)~~ (d) A detailed planting plan, describing what will be planted, and where and when the planting will occur, as follows:

(i) Soils and substrate characteristics;

(ii) Specify substrate stockpiling techniques;

(iii) Planting instructions, including species, stock type and size, density or spacing of plants, and water and nutrient requirements; and

(iv) Dates for beginning and completion of mitigation project, and sequence of construction activities;

~~(b)~~ (e) A monitoring and maintenance plan, consistent with MMC 22E.010.160:

(i) Specify procedures for monitoring and site maintenance; and

(ii) Submit monitoring reports to the community development department as outlined in MMC 22E.010.160(2)(d)(i) through (vi); and

~~(b)~~ (f) A contingency plan, consistent with these regulations~~;~~.

(2) Prior to final development approval, the following shall be submitted:

~~(d)~~ (a) A detailed budget for implementation of the mitigation plan, including monitoring, maintenance and contingency phases; and

~~(e)~~ (b) A guarantee, in the form of a bond or other security device in a form acceptable to the city attorney, assuring that the work will be performed as planned and approved, consistent with MMC 22E.010.160(2). (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.150 Performance standards for wetland mitigation planning.

(1) The following performance standards shall be incorporated into mitigation plans submitted to the city of Marysville:

(a) Use native plants (not introduced or foreign species);

(b) Use plants adaptable to a broad range of water depths;

(c) Plants should be commercially available or available from local sources;

(d) Plant species high in food and cover value for fish and wildlife;

(e) Plant mostly perennial species;

(f) Avoid committing significant areas of site to species that have questionable potential for successful establishment;

(g) Plant selection must be approved by a qualified scientific professional;

(h) Planting densities and placement of plants should be determined by the qualified scientific professional and shown on the design plans;

(i) The wetland (excluding the buffer area) should not contain more than 60 percent open water as measured at the seasonal high water mark;

(j) Minimum buffer widths as outlined in MMC 22E.010.100;

(k) The planting plan must be approved by the city's community development director or consultant;

(l) Stockpiling should be confined to upland areas and contract specifications should limit stockpile durations to less than four weeks;

(m) Planting instructions which describe proper placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;

(n) Apply controlled-release fertilizer at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process) and with consideration of runoff and a type that will minimize impacts beyond the area intended;

(o) Install an irrigation system, if necessary, for initial establishment period as determined by the planning director or their designated official;

(p) Buffers shall be surveyed, staked, and fenced prior to any construction work, including grading and clearing, that may take place on the site. Permanent fencing is required pursuant to MMC 22E.010.~~370~~460;

(q) Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction; and

(r) Construction specifications and methods must be approved by a qualified scientific professional and the community development department.

(2) The following additional standards shall apply to wetland creation sites:

(a) Water depth is not to exceed six and one-half feet (two meters);

(b) The grade or slope that water flows through the wetland is not to exceed six percent;

(c) Slopes within the wetland basin and the buffer zone should not be steeper than a three to one ratio (horizontal to vertical).

(3) On completion of construction, the wetland mitigation project must be signed off, to indicate that the construction has been completed as planned, by the applicant's qualified scientific professional and the community development department. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.160 Wetland monitoring program and contingency plan.

(1) A monitoring program shall be implemented to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met.

(2) A contingency plan shall be established for compensation in the event that the mitigation project is inadequate or fails. Security for performance in accordance with Chapter 22G.040 MMC is required for performance, monitoring and maintenance in accordance with the terms of the mitigation agreement. The security for performance shall be for a period of five years; however, the monitoring period may be extended, if needed, until project performance standards are met~~, but the community development department may agree to reduce the security in phases in proportion to work successfully completed over the duration of the security~~.

(a) During monitoring, use scientific procedures for establishing the success or failure of the project;

(b) For vegetation determinations, permanent sampling points shall be established;

(c) Vegetative success equals 80 percent survival of planted trees and shrubs and 80 percent cover of desirable understory or emergent species;

(d) Submit monitoring reports on the current status of the mitigation project to the community development department. The reports are to be prepared by a qualified scientific professional and reviewed by the community development department and should include monitoring information on wildlife, vegetation, water quality, water flow, storm water storage and conveyance, and existing or potential degradation, and shall be produced on the following schedule:

(i) At time of construction;

~~(ii) Thirty days after planting;~~

~~(iii) Early in the growing season of the first year;~~

(ii)~~(iv)~~ End of the growing season of first year;

(iii)~~(v)~~ Twice the second year; and

(iv)~~(vi)~~ Annually thereafter;

(e) Monitor for ~~between three and~~ five growing seasons; however, the monitoring period may be reduced to three years on minor projects if performance standards are fully met after three years~~, depending on the complexity of the wetland system~~. The time period will be determined and specified in writing prior to the implementation of the site plan. The monitoring period will start after an as-built report is submitted and approved by the City;

(f) If necessary, correct for failures in the mitigation project;

(g) Replace dead or undesirable vegetation with appropriate plantings, based on the approved planting plan or MMC 22E.010.150;

(h) Repair damages caused by erosion, settling or other geomorphological processes;

(i) Redesign mitigation project (if necessary) and implement the new design; and

(j) Correction procedures shall be approved by a qualified scientific professional and the community development department. (Ord. 2852 § 10 (Exh. A), 2011).

Article III. Fish and Wildlife Habitat Areas

22E.010.170 Fish and wildlife habitat conservation areas designated.

While not all of the below-listed critical habitat areas exist in the city of Marysville, these regulations provide for the protection of the following fish and wildlife habitat conservation areas:

(1) Primary fish and wildlife habitat conservation areas shall include the following:

(a) Habitats with federally designated endangered, threatened, and candidate species and state designated endangered, threatened, and sensitive species which have a primary association as defined in Chapter 22A.020 MMC. Federally designated endangered, threatened and candidate species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington State Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (State Endangered Species) and 232-12-011 (State Threatened and Sensitive Species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

(b) State designated priority habitats and areas that are associated with state designated endangered, threatened, and sensitive species in subsection (1)(a) of this section. Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional state, or a specific structural element. Priority habitats and species are identified by the Department of Fish and Wildlife.

(c) Naturally occurring ponds under 20 acres or not less than 0.50 acres (lakes greater than 20 acres are covered under shoreline regulations).

(d) Lakes, ponds, streams and rivers planted with game fish by a governmental or tribal entity.

(e) State natural area preserves and natural resource conservation areas.

(f) Areas of rare plant species and high quality ecosystems as documented by the State Department of Natural Resources Heritage Program.

(g) Land that provides essential connections between habitat blocks and open space and that is designated by the State Department of Fish and Wildlife as a priority habitat in association with state endangered, threatened, or sensitive species in subsection (1)(a) of this section.

(h) Streams as defined and classified in Chapter 22A.020 MMC.

(i) Riparian management zones as defined in MMC 22A.020.190.

(j) Wildlife habitat corridors.

(2) Habitats and species of local importance are those identified by the city, including but not limited to those habitats and species that, due to their population status or sensitivity to habitat manipulation, warrant protection. Habitats may include a seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

(a) Designation Process. The city shall accept and consider nomination for habitat areas and species to be designated as locally important on an annual basis.

(b) Habitats and species to be designated shall exhibit at least one of the criteria in subsections (2)(b)(i) through (iii) of this section and shall meet criteria in subsections (2)(b)(iv) and (v) of this section.

(i) Local populations of native species are in danger of extirpation based on existing trends, including:

(A) Local populations of native species that are likely to become endangered; or

(B) Local populations of native species that are vulnerable or declining; or

(ii) The species or habitat has recreation, commercial, game, tribal, or other special value; or

(iii) Long-term persistence of a species is dependent on the protection, maintenance, and/or restoration of the nominated habitat; and

(iv) Protection by other county, state, or federal policies, laws, regulations, or nonregulatory tools is not adequate to prevent degradation of the species or habitat in the city; and

(v) Without protection, there is a likelihood that the species or habitat will be diminished over the long term.

(c) Areas nominated to protect a particular habitat or species must represent high-quality native habitat or habitat that either has a high potential to recover to a suitable condition and is of limited availability or provides landscape connectivity which contributes to the designated species or habitat's preservation.

(d) Habitats and species may be nominated for designation by any resident of Marysville.

(e) The petition to nominate an area or a species to this category shall contain all of the following:

(i) A completed SEPA environmental checklist;

(ii) A written statement using best available science to show that nomination criteria in subsections (2)(b) and (c) of this section are met;

(iii) A written proposal including specific and relevant protection regulations that meet the goals of this chapter. Management strategies must be supported by the best available science, and where restoration of habitat is proposed, a specific plan for restoration must be provided;

(iv) Demonstration of relevant, feasible management strategies that are effective and within the scope of this chapter;

(v) Provision of species habitat location(s) on a map that works in concert with other city maps;

(vi) An economic impact (cost/benefit) analysis of proposal;

(vii) Documentation of public notice methods that the petitioner(s) have used. Examples of reasonable methods are:

(A) Posting the property;

(B) Publishing a paid advertisement in a newspaper or newsletter of circulation in the general area of the proposal, where interested persons may review information on the proposal. Information in the notice must contain a description of the proposal, general location of the affected area and where comments on the proposal may be sent;

(C) Notification to public or private groups in the affected area that may have an interest in the petition;

(D) News media articles that have been published concerning the proposal;

(E) Notices placed at public buildings or bulletin boards in the affected area;

(F) Mailing of informational flyers to property owners within the affected area;

(viii) Signatures of all petitioners.

(f) The community development director shall determine whether the nomination proposal is complete and, if complete, shall evaluate it according to the characteristics enumerated in subsection (2)(b) of this section and make a recommendation to the planning commission based on those findings.

(g) The planning commission shall hold a public hearing for proposals found to be complete and make a recommendation to the city council based on the characteristics enumerated in subsection (2)(b) of this section.

(h) Following the recommendation of the planning commission, the city council may hold an additional public hearing and shall determine whether to designate a habitat or species of local importance.

(i) Approved nominations will be subject to the provisions of this title. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.180 Regulated activities in habitats.

The following activities within a habitat and its associated buffer as set forth in MMC 22E.010.220, or outside a habitat or buffer but with the potential of adversely affecting the habitat or buffer, shall be regulated pursuant to the standards of this chapter:

(1) Removing, excavating, disturbing or dredging soil, sand, gravel, minerals, organic matter or materials of any kind.

(2) Dumping, discharging or filling with any material.

(3) Draining, flooding or disturbing the water level or water table.

(4) Driving piling or placing obstructions.

(5) Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure.

(6) Construction of any on-site sewage disposal system, or other underground facilities, except exempted activities.

(7) Destroying or altering habitat vegetation through clearing, harvesting, shading or planting vegetation that would alter the character of a habitat or buffer, the shade and protection for a stream, or that is a source of food or habitat for fish or game.

(8) Activities that result in significant changes in water temperature, physical or chemical characteristics of water sources, including water quantity and quality, soil flow, natural ground contours, or pollutants.

(9) Relocation of the natural course of the stream, or modification of the flow characteristics thereof.

(10) Any other activity potentially affecting a habitat or habitat buffer not otherwise exempt from the provisions of this chapter. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.190 Exemptions from fish and wildlife regulations.

(1) See MMC 22E.010.~~320~~410 for general exemptions to all critical areas.

(2) The following activities shall be exempt from the provisions of this chapter related to fish and wildlife habitat provided they are conducted using best management practices and result in no net loss of ecosystem functions and values:

(a) Activities involving artificially created habitat, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities such as ponds, and landscape features, except for habitat areas created as mitigation and artificially created habitats used by salmonid fish;

(b) Prior to the effective date of the ordinance codified in this chapter, all commercial and industrial uses, developments, and activities which exist within the stream buffers shall be allowed to continue in existence, and to be repaired, maintained and remodeled as provided in Chapter 22C.100 MMC, Nonconforming Situations.

(3) No private or public entity shall undertake exempt activities as listed in this section prior to providing the city written notification of the entity's intent to proceed with an exempt activity. The city shall verbally confirm whether or not the activity is exempt and where needed provide written authorization within 30 days of receipt of the written notice.

(4) In case of any questions as to whether a particular activity is exempt under provisions of this section, the community development department's determination shall prevail and be determinative.

(5) Notwithstanding the exemption provided by this section, any otherwise exempt activities occurring in or near critical habitat areas shall comply with the intent of these standards and shall consider on-site alternatives that avoid or minimize potential habitat impacts. Exempt

activities shall use reasonable methods (i.e., best management practices) to avoid potential impacts to fish and wildlife habitat. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.200 Fish and wildlife habitat inventory maps.

(1) The approximate location and extent of habitat areas within the city of Marysville's planning area are shown on the maps adopted as part of this chapter. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent and boundaries of habitat areas shall be determined by a qualified scientific professional according to the procedures, definitions and criteria established by this chapter. In the event of any conflict between the habitat location or type shown on the city's fish and wildlife conservation areas maps and the criteria or standards of this chapter, the criteria and standards resulting from the field investigation shall control.

(2) The following maps, as amended, are ~~hereby~~ adopted for the purpose set forth in subsection (1) of this section:

(a) City of Marysville Fish and Wildlife Conservation Areas Map;

(b) Washington State Department of Fish and Wildlife Priority Habitat and Species Maps;

(c) Washington State Department of Natural Resources, Official Water Type Reference Maps, as amended;

(d) Washington State Department of Natural Resources Natural Heritage Program mapping data;

(e) Washington State Department of Natural Resources State Natural Area Preserves and Natural Resources Conservation Area Maps;

(f) Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;

(g) Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors Reports published by the Washington Conservation Commission;

(h) Washington State Department of Natural Resources Puget Sound Intertidal Habitat Inventory Maps; and

(i) Washington State Department of Natural Resources Shorezone Inventory or Northwest Straits Commission – Snohomish County Marine Resources Committee Inventory. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.210 Classification of fish and wildlife habitat areas.

(1) Streams. Streams shall be classified according to the stream type system as provided in WAC 222-16-030, Stream Classification System, as amended.

(a) Type S Stream. Those streams, within their ordinary high water mark, as inventoried as "shorelines of the state" under Chapter 90.58 RCW and the rules promulgated pursuant ~~thereto~~ to chapter 90.58 RCW, including periodically inundated areas of associated wetlands.

(b) Type F Stream. Those stream segments within the ordinary high water mark, including periodically inundated areas of their associated wetlands, ~~that are~~ not classified as Type S streams, and which are demonstrated or provisionally presumed to be used by salmonid fish. Stream segments which have a width of two feet or greater at the ordinary high water mark and have a gradient of 16 percent or less for basins less than or equal to 50 acres in size, or have a gradient of 20 percent or less for basins greater than 50 acres in size, are provisionally presumed to be used by salmonid fish. A provisional presumption of salmonid fish use may be refuted at the discretion of the community development director where any of the following conditions are met:

(i) It is demonstrated to the satisfaction of the city that the stream segment in question is upstream of a complete, permanent, natural fish passage barrier, above which no stream section exhibits perennial flow;

(ii) It is demonstrated to the satisfaction of the city that the stream segment in question has confirmed, long-term, naturally occurring water quality parameters incapable of supporting salmonid fish;

(iii) Sufficient information about a geomorphic region is available to support a departure from the characteristics described above for the presumption of salmonid fish use, as determined in consultation with the Washington State Department of Fish and Wildlife, the Department of Ecology, affected tribes, or others;

(iv) The Washington State Department of Fish and Wildlife has issued a hydraulic project approval pursuant to RCW 77.55.100, which includes a determination that the stream segment in question is not used by salmonid fish;

(v) No salmonid fish are discovered in the stream segment in question during a stream survey conducted according to the protocol provided in the Washington Forest Practices Board Manual, Section 13, Guidelines for Determining Fish Use for the Purpose of Typing Waters under WAC 222-16-031; provided, that no unnatural fish passage barriers have been present downstream of said stream segment over a period of at least two years.

(c) Type Np Stream. Those stream segments within the ordinary high water mark that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. ~~and are not Type S or Type F streams. However, for the purpose of classification, Type Np streams include intermittent dry portions of the channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations (see Washington Forest Practices Board Manual, Section 23), then said point shall be determined by a qualified professional selected or approved by the city.~~

(d) Type Ns Stream. Those stream segments within the ordinary high water mark that are not Type S, Type F, or Type Np streams. These ~~include~~ are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall ~~that~~ and are not located downstream from any Type Np stream ~~segment~~. Type Ns streams must be physically connected by an above-ground channel system to Type S, F, or Np streams. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.220 Fish and wildlife habitat buffer areas.

(1) The establishment of buffer areas shall be required for regulated activities in or adjacent to habitat areas. Buffers shall consist of an undisturbed area of native vegetation established to protect the integrity, functions and values of the affected habitat. Activities within buffers should not result in any net loss of the functions and values associated with streams and their buffers.

(a) The following buffer widths are established:

Streams	**Buffer**
Type S and Quilceda Creek	200 feet
Ebey Slough	100 feet
North and south shore of Ebey Slough between the western city limits, at approximately I-5 and 47th Avenue NE	25 feet
Type F	150 feet
Gissberg Twin Lakes	Lake setbacks correspond to City park boundaries
Type Np	100 feet

Type Ns	50 feet

~~Streams~~	~~Buffer~~
~~Type S~~ ~~Quilceda Creek~~ ~~Ebey Slough~~ ~~Except in the following location: north and south shore of Ebey Slough between the western city limits and 47th Ave. NE~~	~~200 feet~~ ~~100 feet~~ ~~25 feet~~
~~Type F~~ ~~Gissberg Twin Lakes~~	~~150 feet~~ ~~Lake setbacks correspond to county park boundaries~~
~~Type Np~~	~~100 feet~~
~~Type Ns~~	~~50 feet~~

(b) Federal, State, and Local Habitats and Species. ~~(i)~~ Except for waters subject to subsection (1)(a) of this section, ~~and bald eagles subject to subsection (1)(b)(ii) of this section,~~ the establishment of buffer areas may be required for regulated activities in or adjacent to federal, state, and local species and habitat areas as designated pursuant to MMC 22E.010.170 and 22E.010.210. Buffers shall consist of an undisturbed area of native vegetation established to protect the integrity, functions and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby. Buffers shall be determined by the department based on information in the biological/habitat report, a habitat management plan approved by the Department of Fish and Wildlife supplemented by its own investigations, the intensity and design of the proposed use, and adjacent uses and activities. Buffers are not intended to be established or to function independently of the habitat they are established to protect. Buffers shall be measured from the edge of the habitat area.

~~(ii) Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292).~~

(2) Where existing buffer area plantings provide minimal vegetative cover and cannot provide the minimum water quality or habitat functions, buffer enhancement shall be required. Where buffer enhancement is required, a plan shall be prepared that includes plant densities that are not less than five feet on center for shrubs and 10 feet on center for trees. Monitoring and maintenance of plants shall be required in accordance with MMC 22E.010.260. Existing buffer

vegetation is considered “inadequate” and will require enhancement through additional native plantings and removal of nonnative plants when:

(a) Nonnative or invasive plant species provide the dominate cover;

(b) Vegetation is lacking due to disturbance and stream resources could be adversely affected; or

(c) Enhancement planting in the buffer could significantly improve buffer functions. If, according to the buffer enhancement plan, additional buffer mitigation is not sufficient to protect the habitat, the city shall require larger buffers where it is necessary to protect habitat functions based on site-specific characteristics.

(3) Measurement of Riparian Management Zones ~~Buffers~~.

(a) Riparian Management Zones (RMZs)~~Stream Buffers~~. All RMZs ~~buffers~~ shall be measured from the outer edge of the channel migration zone (CMZ). If no CMZ is present, buffers shall be measured from the ordinary high water mark as identified in the field or, if that cannot be determined, from the top of the bank. In braided channels and alluvial fans, the ordinary high water mark or the top of the bank as defined in MMC 22A.020.210 shall be determined so as to include the entire stream feature;

(b) Combination Buffers. Any stream adjoined by a wetland or other adjacent habitat area shall have the buffer which applies to the wetland or other habitat area unless the stream buffer requirements are more expansive.

(4) Buffer widths may be modified by averaging buffer widths as set forth herein:

(a) Buffer width averaging shall be allowed only where the applicant demonstrates to the community development department that the averaging will not impair or reduce habitat, water quality purification and enhancement, storm water detention, ground water recharge, shoreline protection and erosion protection and other functions of the stream and buffer, that lower intensity land uses would be located adjacent to areas where buffer width is reduced, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging;

(b) Notwithstanding the reductions permitted in subsection (4)(a) of this section, buffer widths shall not be reduced by more than 25 percent of the required buffer.

(5) The buffer width stated in subsection (1) of this section shall be increased in the following circumstances:

(a) When the adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse habitat impacts; or

(b) When the standard buffer has minimal or degraded vegetative cover that cannot be improved through enhancement; or

(c) When the minimum buffer for a habitat extends into an area with a slope of greater than 25 percent, the buffer shall be the greater of:

(i) The minimum buffer for that particular habitat; or

(ii) Twenty-five feet beyond the point where the slope becomes 25 percent or less.

(6) The community development director may authorize the following low impact uses and activities within the buffer depending on the sensitivity of the habitat involved, provided they are consistent with the purpose and function of the habitat buffer and do not detract from its integrity. To the extent reasonably practicable, examples of uses and activities which may be permitted in appropriate cases include pedestrian trails, viewing platforms, interpretive signage, utility easements and the installation of underground utilities pursuant to best management practices. Uses permitted within the buffer shall be located in the outer 25 percent of the buffer.

(7) Trails and Open Space. For walkways and trails, associated open space in critical buffers located on public property, or on private property where easements or agreements have been granted for such purposes all of the following criteria shall be met:

(a) The trail, walkway, and associated open space shall be consistent with the comprehensive parks, recreation, and open space master plan. The city may allow private trails as part of the approval of a site plan, subdivision or other land use permit approvals.

(b) Trails and walkways shall be located in the outer 25 percent of the buffer, i.e., the portion of the buffer that is farther away from the critical area. Exceptions to this requirement may be made for:

(i) Trail segments connecting to existing trails where an alternate alignment is not practical. Public access points to water bodies spaced periodically along the trail.

(c) Enhancement of the buffer area is required where trails are located in the buffer. Where enhancement of the buffer area adjacent to a trail is not feasible due to existing high quality vegetation, additional buffer area or other mitigation may be required.

(d) Trail widths shall be a maximum width of 10 feet for multi-purpose trails and 5 feet for recreational pathways. Trails shall be constructed of permeable materials; provided, that impervious materials may be allowed if pavement is required for handicapped or emergency access, or safety, or is a designated nonmotorized transportation route or makes a connection to an already dedicated trail, or reduces potential for other environmental impacts.

(8) Allowed Activity – Utilities in Streams. New utility lines and facilities may be permitted to cross water bodies in accordance with an approved supplemental stream/lake study, if they comply with the following criteria:

(a) Fish and wildlife habitat areas shall be avoided to the maximum extent possible; and

(b) The utility is designed consistent with one or more of the following methods:

(i) Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body and channel migration zone; or

(ii) The utilities shall cross at an angle greater than 60 degrees to the centerline of the channel in streams perpendicular to the channel centerline; or

(iii) Crossings shall be contained within the footprint of an existing road or utility crossing; and

(c) New utility routes shall avoid paralleling the stream or following a down-valley course near the channel; and

(d) The utility installation shall not increase or decrease the natural rate of shore migration or channel migration; and

(e) Seasonal work windows are determined and made a condition of approval; and

(f) Mitigation criteria of MMC 22E.010.240 are met.

(g) No net loss of ecosystem functions and values is met.

(9) Storm water management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of buffers only if they will have no negative effect on the functions and purpose the buffers serve for the fish and wildlife habitat areas. Storm water detention ponds shall not be allowed in fish and wildlife habitat areas or their required buffers.

(10) For subdivisions and short subdivisions, the applicable wetland and associated buffer requirements for any development or redevelopment of uses specifically identified in, and approved as part of, the original subdivision or short subdivision application shall be those requirements in effect at the time that the complete subdivision or short subdivision application was filed; provided, that for subdivisions this provision shall be limited to final plats reviewed and approved under Ordinance 1928, “Sensitive Areas,” adopted December 14, 1992, or as amended at the time of final plat approval. However, at the discretion of the community development director a buffer enhancement plan may be required in accordance with subsection (2) of this section if the wetland or buffer has become degraded or is currently not

functioning or if the wetland and/or buffer may be negatively affected by the proposed new development.

(11) Minor additions or alterations such as decks and small additions less than 120 square feet, interior remodels, or tenant improvements which have no impact on the habitat or buffer shall be exempt from the buffer enhancement requirements.

(12) Required buffers shall not deny all reasonable use of property. A variance from buffer width requirements may be granted by the hearing examiner for alterations to Category I wetlands, complex matters as determined by the community development director, or as otherwise required by this code or by the community development director~~city of Marysville~~ upon a showing by the applicant that:

(a) There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties and which support the granting of a variance from the buffer width requirements; and

(b) Such buffer width variance is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question; and

(c) The granting of such buffer width variance will not be materially detrimental to the public welfare or injurious to the property or improvement; and

(d) The granting of the buffer width variance will not materially affect the subject habitat area; and

(e) If a variance application for stream buffers is merged with a pending shoreline development permit application, the applicant shall pay the city a single fee equal to the amount of the shoreline permit; and

(f) No variance from stream buffers shall be granted which is inconsistent with the policies of the Shoreline Management Act of the state of Washington and the master program of the city of Marysville.

(g) Best available science, as set forth in MMC 22E.010.040, shall be taken into consideration in the granting of a buffer width variance.

(h) The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, including, but not limited to, segregating or dividing the property in a manner that created an undevelopable condition, or exacerbating an existing condition to such a degree that reasonable economic use is no longer possible under the terms of this chapter.

(i) No reasonable use application shall be approved if the city can demonstrate, by a preponderance of the evidence, that the applicant had actual or constructive knowledge of existing conditions, at any time prior to the applicant's acquisition of the subject property, that would significantly lessen the applicant's distinct, investment-backed expectations in acquiring the subject property.

22E.010.230 Fish and wildlife habitat alteration and mitigation.

After careful consideration of the potential impacts and a determination that impacts are unavoidable, unavoidable impacts to streams, associated fish buffers and wildlife habitat not exempt under MMC 22E.010.190, granted a variance under MMC 22E.010.220, or meeting the criteria for a reasonable use exception in MMC 22E.010.410 shall be mitigated as follows:

(1) Adverse impacts to habitat functions and values shall be mitigated to achieve no net loss of ecosystem functions and values ~~the extent feasible and reasonable~~. Mitigation actions by an applicant or property owner shall occur in the following preferred sequence:

(a) Avoiding the impact altogether by not taking a certain action or parts of actions~~;~~. To demonstrate that avoidance has been adequately assessed, the applicant must address the following considerations as applicable:

(i) Alternative lot or building locations on the property;

(ii) Adjustments to the project footprint and orientation;

(iii) Modification of non-critical area setbacks, where feasible, as a first option before encroaching into critical areas or their buffers; and

(iv) Multi-story design or alternate building design.

(b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(d) Reducing or eliminating the impact over time by preservation and maintenance operations;

(e) Compensating for the impact by replacing or providing substitute resources or environments;

(f) Monitoring the impact and taking appropriate corrective measures in accordance with MMC 22E.010.260.

(2) Where impacts cannot be avoided, the applicant or property owner shall implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and implementation of the performance standards listed in MMC 22E.010.250.

(3) Alteration of habitats and their buffers may be permitted by the community development department subject to the following standards:

(a) Type S and F Streams. Alterations of Type S streams shall be avoided, subject to the reasonable use provisions of this chapter and conformance with the city of Marysville shoreline management master program. Access to the shoreline will be permitted for water-dependent and water-oriented uses subject to the mitigation sequence referred to in subsections (1) and (2) of this section;

(b) Type F, Np and Ns Streams. Alterations of Type F, Np and Ns streams may be permitted; provided, that the applicant mitigates adverse impacts consistent with the performance standards and other requirements of this chapter; and provided, that no overall net loss will occur in stream functions and fish habitat;

(c) Relocation of a stream may occur only when it is part of an approved mitigation or rehabilitation plan, and will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.240 Fish and wildlife mitigation standards, criteria and plan requirements.

(1) Location and Timing of Mitigation.

(a) Mitigation shall be provided on-site, except where on-site mitigation is not scientifically feasible or practical due to physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on-site.

(b) When mitigation cannot be provided on-site, mitigation shall be provided in the immediate vicinity of and within the same watershed as the permitted activity on property owned or controlled by the applicant, where practical and beneficial to the fish and wildlife habitat resources. When possible, this means within the same watershed as the location of the proposed project.

(c) In-kind mitigation, as defined in Chapter 22A.020 MMC, shall be provided, except when the applicant demonstrates and the community development department concurs that

greater functional and habitat value can be achieved through out-of-kind mitigation, as defined in Chapter 22A.020 MMC.

(d) Only when it is determined by the community development department that subsections (1)(a), (b), and (c) of this section are inappropriate or impractical shall off-site, out-of-kind mitigation be considered.

(e) Any agreed-upon proposal shall be completed before initiation of other permitted activities, unless a phased or concurrent schedule has been approved by the community development department. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.250 Fish and wildlife habitat performance standards and incentives.

(1) The habitat performance standards and criteria contained in this section shall be incorporated into plans submitted for regulated activities. It is recognized that in specific situations, all the listed standards may not apply or be feasible to implement or individual standards may conflict, in which case the standard(s) most protective of the environment shall apply.

(a) Consider habitat in site planning and design;

(b) Locate buildings and structures in a manner that preserves and minimizes adverse impacts to important habitat areas;

(c) Integrate retained habitat into open space and landscaping;

(d) Where possible, consolidate habitat and vegetated open space in contiguous blocks;

(e) Locate habitat contiguous to other habitat areas, open space or landscaped areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas and allows movement of wildlife;

(f) Use native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;

(g) Emphasize heterogeneity and structural diversity of vegetation in landscaping, and food-producing plants beneficial to wildlife and fish;

(h) Remove and control any noxious or undesirable species of plants and animals;

(i) Preserve significant trees and snags, preferably in groups, consistent with achieving the objectives of these standards;

(j) Buffers shall be surveyed, staked, and fenced with erosion control and/or clearing limits fencing prior to any construction work, including grading and clearing, that may take place on the site; and

(k) Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction.

(l) Remove fish barriers, where appropriate.

(m) Replace culverts to improve fish passage.

(n) Provide instream habitat enhancement to improve aquatic habitat functions.

(2) A landscape plan shall be submitted consistent with the requirements, goals, and standards of this chapter. The plan shall reflect the report prepared pursuant to MMC 22E.010.~~330~~420.

~~(3) As an incentive to encourage preservation of secondary and tertiary habitat, as those terms are defined in these regulations, the net amount of landscaping required by the city of Marysville may be reduced by 0.25 acres for each one acre of secondary or tertiary habitat and buffer preserved on the site; however, that amount cannot exceed 50 percent of the amount of required landscaping. The reduction shall be calculated on the basis of square feet of habitat preserved or enhanced and square feet of landscaping required. Habitat and habitat buffer that is enhanced by the applicant may also qualify for this reduction. Preservation of secondary or tertiary habitat shall be assured by the execution of an easement or other protective device acceptable to the city of Marysville. (Ord. 2852 § 10 (Exh. A), 2011).~~

22E.010.260 Fish and wildlife habitat monitoring program and contingency plan.

(1) A monitoring program shall be implemented to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met.

(2) A contingency plan shall be established for compensation in the event that the mitigation project is inadequate or fails. Security for performance in accordance with Chapter 22G.040 MMC is required for performance, monitoring and maintenance in accordance with the terms of the contingency plan. The security for performance shall be for a period of five years~~, but the community development director may agree to reduce the security in phases in proportion to work successfully completed over the duration of the security.~~; however, the monitoring period may be extended, if needed, until project performance standards are met.

(3) The monitoring program shall consist of the following:

(a) During monitoring, best available scientific procedures shall be used as the method of establishing the success or failure of the project;

(b) For vegetation determinations, permanent sampling points shall be established;

(c) For measurement purposes, vegetative success shall equal 80 percent survival of planted trees and shrubs and 80 percent cover of desirable understory or emergent species;

(d) Monitoring reports shall be submitted on the current status of the mitigation project to the community development department. The reports shall be prepared by a qualified scientific professional and reviewed by the city, shall to the extent applicable include monitoring information on wildlife, vegetation, water quality, water flow, storm water storage and conveyance, and existing or potential degradation, and shall be produced on the following schedule:

(i) At time of construction;

(ii) Thirty days after planting;

(iii) Early in the growing season of the first year;

(iv) End of the growing season of first year;

(v) Twice the second year; and

(vi) Annually thereafter;

(e) Monitoring shall occur over three, four, or five growing seasons, depending on the complexity of the fish and wildlife habitat system. The monitoring period will be determined by the community development department and specified in writing prior to the implementation of the site plan;

(f) The applicant shall, if necessary, correct for failures in the mitigation project;

(g) The applicant shall replace dead or undesirable vegetation with appropriate plantings, based on the approved planting plan or MMC 22E.010.150;

(h) The applicant shall repair damage caused by erosion, settling, or other geomorphological processes;

(i) Correction procedures shall be approved by a qualified scientific professional and the community development department; and

(j) In the event of failure of the mitigation project, the applicant shall redesign the project and implement the new design. (Ord. 2852 § 10 (Exh. A), 2011).

Article IV. Geologic Hazard Areas

22E.010.270 Applicability to geologic hazards.

(1) The provisions of this section shall apply to any activity that occurs in, on or within 300 feet of (as indicated on the geologic hazard maps), or potentially affects, a geologic hazard area as defined in MMC 22A.020.080 and subject to this chapter unless otherwise exempt. These activities may include, but are not limited to, the following:

(a) Removing, excavating, disturbing or dredging soil, sand, gravel, minerals, organic matter or materials of any kind;

(b) Dumping, discharging or filling with any material;

(c) Driving pilings or placing obstructions;

(d) Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure;

(e) Construction of any on-site sewage disposal system, or other underground facilities, except exempted activities;

(f) Draining, flooding, or disturbing the water level or water table, or changing the flow of water through the site;

(g) Destroying or altering vegetation through clearing or harvesting; and

(h) Any other activity potentially affecting a geologic hazard area or its setback not otherwise exempt from the provisions of this section.

(2) To avoid duplication, the following permits and approvals shall be subject to and coordinated with the requirements of this section: clearing and grading; subdivision or short subdivision; building permit; planned unit development; shoreline substantial development; variance; conditional use permit; other permits leading to the development or alteration of land; and rezones. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.280 Geologic hazard inventory map.

The approximate location and extent of geologic hazard areas within the city of Marysville's planning area are shown on the critical areas maps adopted as part of this chapter. These maps should be used as a general guide only for the assistance of property owners and as

information for the public. They are intended to indicate where potentially hazardous conditions are believed to exist. Boundaries are generalized; field investigation and analysis by a qualified scientific professional is required to confirm the actual presence or absence of a critical area. In the event of any conflict between the location, designation or classification of geologic hazard area shown on the city of Marysville's geologic hazard areas maps and criteria or standards of this chapter, the criteria and standards resulting from the field investigation shall prevail. (Ord. 2989 § 1, 2015; Ord. 2852 § 10 (Exh. A), 2011).

22E.010.290 Alteration of geologic hazard areas and development limitations.

(1) The city of Marysville may approve, condition or deny proposals as appropriate based on the degree to which significant risks posed by critical hazard areas to public and private property and to public health safety can be mitigated. The objective of mitigation measures shall be to render a site containing a critical geologic hazard site as safe as one not containing such hazard or to develop a structure that will tolerate the hazard. Enforceable guarantees shall be required where appropriate. Conditions may include limitations of proposed uses, modification of density, alteration of site layout and other appropriate changes to the proposal. Where potential impacts cannot be effectively mitigated, or where the risk to public health, safety and welfare, public or private property, or important natural resources is significant notwithstanding mitigation, the proposal shall be denied.

(2) Assurances required of the applicant and the qualified scientific professional for geologic hazard areas may at the discretion of the community development director include:

(a) A letter from the geotechnical engineer or geologist who prepared the required studies stating that the risk of damage from the proposal, both on-site and off-site, is minimal subject to the conditions set forth in the report, that the proposal will not increase the risk of occurrence of the geologic hazard, and that measures to eliminate or reduce risks have been incorporated into its recommendations; or

(b) A letter from the applicant, or the owner of the property if not the applicant, stating its understanding and acceptance of any risk of injury or damage associated with development of the site and agreeing to notify any future purchasers of the site, portions of the site, or structures located on the site of the geologic hazard; or

(c) A legally enforceable agreement, which shall be recorded as a covenant and noted on the face of the deed or plat, and executed in a form satisfactory to the city of Marysville, acknowledging that the site is located in a geologic hazard area; the risks associated with development of such site; and a waiver and release of any and all claims of the owner(s), their directors, employees, successors or assigns against the city of Marysville for any loss, damage or injury, whether direct or indirect, arising out of issuance of development permits for the proposal.

(3) When alteration of a geologic hazard area is proposed, the city of Marysville at the discretion of the community development director and/or city engineer may require third-party peer review by a qualified geotechnical engineer as selected and approved by the City.

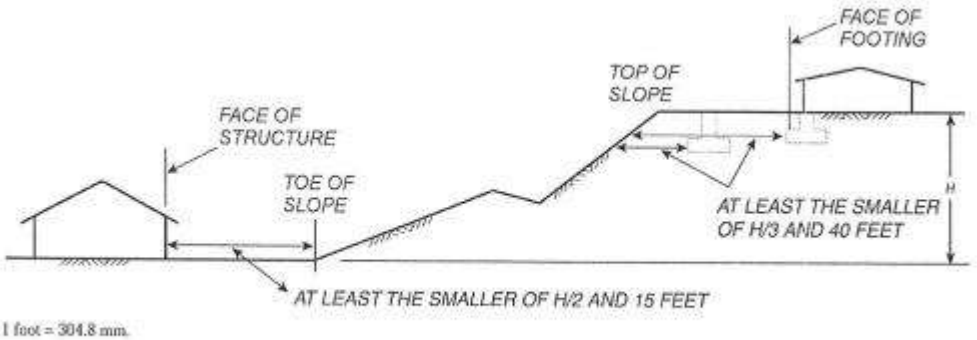
~~(3)~~(4)When alteration of a geologic hazard area is approved, the city of Marysville at the discretion of the community development director and/or city engineer may require security for performance or security for maintenance in accordance with the standards of Chapter 22G.040 MMC. (Ord. 2852 § 10 (Exh. A), 2011).

22E.010.300 Setbacks from geologic hazards.

(1) A setback shall be established per a site specific geological hazard report and/or Chapter 18 of the International Building Code (IBC), or as amended from the edge of any geologic hazard area that is not approved for alteration pursuant to these regulations. The setback shall consist of an undisturbed area of natural vegetation; if the site has previously been disturbed, the setback area shall be revegetated pursuant to an approved planting plan.

(2) Required setbacks shall be approved by the community development director and/or city engineer, or his or her representative, and shall reflect the sensitivity of the geologic hazard area and the types and density of uses and activities proposed on or adjacent to the geologic hazard area. Established setbacks shall be measured from the horizontal plane from a vertical line established at the edge of the geologically hazardous area limits (both from top and toe of slope). The community development director or his or her representative shall consider the recommendations contained in any technical report prepared by the applicant's geotechnical engineer. Building and structures shall be set back 10 feet from the edge of the setback.

(a) Setbacks for moderate to high landslide areas and moderate to high erosion areas shall be measured as recommended by the geotechnical report for the subject property, or as established in Chapter 18 of the International Building Code (IBC), or as amended, as follows:



For SI: 1 foot = 304.8 mm.

FIGURE 1808.7.1
FOUNDATION CLEARANCES FROM SLOPES

Formula:

1. Top of slope: Height of slope (H) divided by 3 plus 40 feet;

2. Toe of slope: Height of slope (H) divided by 2 plus 15 feet.

In the event that a specific setback buffer is not recommended in the geological studies, the setback buffer shall be based upon the standards set forth in Chapter 18 of the International Building Code (IBC), or as amended or as otherwise approved by the director.

(b) If the geological study recommends setback buffers that are less than the standard buffers that would result from application of Chapter 18 IBC, the specific rationale and basis for the reduced buffers shall be clearly articulated in the geological assessment.

(c) The city may require larger setback buffer widths under any of the following circumstances:

(i) The land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse impacts.

(ii) The area has a severe risk of slope failure or down slope stormwater drainage impacts.

(iii) The increased buffer is necessary to protect public health and safety and welfare based upon findings and recommendations of the geotechnical study.

(d) To verify setback recommendations, the city of Marysville at the discretion of the community development director and/or city engineer may require third-party peer review by a qualified geotechnical engineer as selected and approved by the City.

22E.010.310 Geologic hazard performance standards.

(1) The following standards shall be implemented in all proposals occurring in or adjacent to geologic hazard areas:

(a) Geotechnical studies shall be prepared to identify and evaluate potential hazards and to formulate mitigation measures;

(b) Construction methods will reduce or not adversely affect geologic hazards;

(c) Site planning should minimize disruption of existing topography and natural vegetation;

(d) Disturbed areas should be replanted as soon as feasible pursuant to a previously approved landscape plan;

(e) Unless otherwise permitted as part of an approved alteration, the setback buffers required by this subsection shall be maintained in native vegetation to provide additional soil stability and erosion control. If the buffer area has been cleared, it shall be planted with native vegetation in conjunction with any proposed development activity;

(f) Use of retaining walls that allow maintenance of existing natural slope areas is preferred over graded slopes;

(g) Setbacks shall be surveyed, staked, and fenced with erosion control and/or clearing limits fencing prior to any construction work, including grading and clearing, that may take place on the site;

(h) Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction;

(i) A master drainage plan should be prepared for large projects;

(j) Undevelopable geologic hazard areas larger than one-half acre should be placed in a separate tract;

(k) A monitoring program should be prepared for construction activities permitted in geologic hazard areas;

(l) Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion;

(m) The proposal will not adversely impact other critical areas; and

(n) At the discretion of the community development director, peer review of geotechnical reports may be required prior to locating a critical facility within a geologic hazard area.

(2) Required setbacks shall not deny all reasonable use of property. A variance from setback width requirements may be granted by the city of Marysville upon a showing:

(a) There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties and which support the granting of a variance from the setback requirements; and

(b) Such setback with variance is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question; and

(c) The granting of such setback width variance will not be materially detrimental to the public welfare or injurious to the property or improvement. (Ord. 2989 § 3, 2015; Ord. 2852 § 10 (Exh. A), 2011).

Article V Critical Aquifer Recharge Areas

22E.010.320 Applicability to Critical Aquifer Recharge Areas.

(1) The provisions of this section shall apply to all critical aquifer recharge areas (CARAs) including sole source aquifers, Group A wellhead protection areas as identified and defined by the Washington State Department of Health, and areas sensitive to groundwater contamination. These areas contribute to the recharge of aquifers, springs, and/or wells, and are susceptible to contamination through infiltration of pollutants through the soil. This section applies to the following activities:

(a) Development proposals requiring land use applications.
(b) Building permits.
(c) Any other use or activity with the potential to harm water quality or water quantity within critical aquifer recharge areas.

22E.010.330 Designation and Classification.

(1) Critical aquifer recharge areas or CARAs are defined in MMC 22A.020.040.
(2) CARAs are classified based on the following criteria:
(a) Sole source aquifers designated by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act of 1974 (Public Law 93-523).
(b) Areas within the 10-year travel zone of Group A wellhead protection areas, determined in accordance with delineation methodologies specified by the Washington Department of Health under authority of Chapter 246-290 WAC.
(c) Areas of high, medium, and low sensitivity to groundwater contamination, based on depth to groundwater and in accordance with the Ground-Water System and Ground-Water Quality in Western Snohomish County, Washington (United States Geological Survey, Water Resources Investigations, Report No. 96-4312, 1997).
(d) Those areas with a hydrologic soil group rating of “A” according to the most recent NRCS soil survey for the area, as designated and mapped in the Web Soil Survey and as may be periodically amended by NRCS.
(e) Only CARAs meeting the criteria of subsections (2)(c) and (2)(d) of this section are identified in Marysville. Future designations may occur.
(3) Mapping resources referenced in this chapter are advisory only and are subject to evaluation by a qualified scientific professional. Final designations shall be based on site conditions and other available data.

22E.010.340 Submittal requirements.

The submittal requirements of this section shall be in addition to the requirements of Articles II and III of this chapter, as applicable.

(1) The location, size, and type of critical aquifer recharge area shall be depicted on the site plan and maps within the critical areas report, as applicable.
(2) A hydrogeologic assessment is required for any of the following:
  (a) Any proposal that does not meet the nonendangerment standard in WAC 173-218-080, 173-218-090, or 173-218-100 when proposed within a CARA.
  (b) Any use or activity proposed within a hydrologic soil group rating of "A" pursuant to MMC 22E.010.330(2)(d) or as identified in a soils report prepared by a qualified professional.
  (c) Any use or activity proposed within a CARA not identified in MMC 22E.010.360 and the Department determines there is potential for harm or impairment to water quality within the CARA.
(3) The hydrogeologic assessment shall be prepared by a qualified professional such as a geologist, hydrogeologist, or engineering geologist, licensed in Washington State, with experience preparing hydrogeologic assessments. The hydrogeologic assessment shall contain the following information:
  (a) Surface location of all CARAs located on site or immediately adjacent to the site, and the permeability of the unsaturated zone.
  (b) Groundwater depth, flow direction, and gradient, based on best available information.
  (c) Location of and data for wells and springs within one-quarter mile of the site.
  (d) Location of and data for surface waters within one-quarter mile of the site.
  (e) Historic water quality data for the area that will be affected by the proposed use or activity, compiled for at least the previous five-year period.
  (f) Narrative describing the effects of the proposed project on the groundwater quality and quantity, including:
    i. Predictive evaluation of groundwater withdrawal effects on nearby wells and surface water features.
    ii. Predictive evaluation of contaminant transport based on potential releases to groundwater.
    iii. Recharge potential of the site including permeability and transmissivity.
    iv. If water use is proposed for the development activity, a description of the groundwater source of water to the site or a letter from an approved water purveyor stating the ability to provide water to the site.
  (g) Best management practices relevant to the proposed activity or use.
  (h) Monitoring provisions for groundwater quality and quantity.
  (i) A spill plan identifying equipment and structures that could fail, resulting in an impact to the CARA. Spill plans shall include provisions for regular inspection, repair, and replacement of structures and equipment with the potential to fail, and a remediation plan for if cleanup is necessary.

DRAFT

(j) An assessment of how the development activity meets the protection standards of MMC 22E.010.350.
(k) If impacts to CARAs are identified, identify and provide an analysis of alternatives by which such impacts could be avoided or prevented.
(l) Recommendations for implementation and operation of activities, including size limitations, monitoring, reporting and best management practices (BMP).
(m) An evaluation of potential nitrate and nitrite impacts on the aquifer, including cumulative impacts of adjacent or surrounding developments and activities, and provide recommendations for monitoring and BMP of nitrate and nitrite generating activities.
(n) Any other information necessary to demonstrate compliance with this chapter.

22E.010.350 Substantive requirements.

In addition to the substantive requirements in Article II, the following requirements shall apply to critical aquifer recharge areas:

(1) The project proponent shall make all reasonable efforts to avoid and minimize impacts to critical aquifer recharge areas pursuant to the requirements of this section, in the following sequential order of preference:
  (a) Avoiding impacts altogether by not taking a certain action or parts of an action.
  (b) Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation, using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts.
  (c) When avoidance is not possible, mitigation for the impacts to the critical aquifer recharge area.
(2) Any activity or use specifically listed in MMC 22E.010.360 shall comply with the best management practices and mitigation plan identified in the hydrogeologic assessment, when required.
(3) All development activities shall comply with the groundwater quality standards contained in Chapter 173-200 WAC and Chapter 90.48 RCW.
(4) Where the Department determines that a use or activity not specifically listed in MMC 22E.010.360 has the potential to harm water quality or quantity within CARAs, the applicant shall provide all submittal requirements of MMC 22E.010.340 and apply best management practices and all known and available reasonable technology appropriate to protect CARAs.
(5) Proposed developments shall not cause contaminants to enter the aquifer or significantly reduce the recharging of the aquifer and shall comply with the water source protection requirements and recommendations of the U.S. Environmental Protection Agency, Washington State Department of Health, Washington State Department of Ecology, and Snohomish County Health Department.
(6) Underground facilities for storing hazardous substances shall be designed to prevent releases due to corrosion or structural failure for the operational life of the tank.
(7) Above-ground facilities for storing hazardous substances shall be designed to prevent accidental release, shall have a primary containment enclosing or underlying the tank,

DRAFT

and shall have a secondary containment built into the tank structure or consisting of an external dike.

(8) Abandoned wells shall be decommissioned to comply with Federal and State standards.

(9) The uses and activities listed in MMC 22E.010.360 shall be conditioned as necessary to protect CARAs in accordance with the applicable State and Federal regulations and to the extent that a City approval is required for said uses.

22E.010.360 Uses and Activities.

(1) Level 1 CARAs are those with low sensitivity as described in MMC 22E.010.330(2)(c).

(2) Level 2 CARAs are those with medium or high sensitivity as described in MMC 22E.010.330(2)(c).

(3) No sole source aquifers or Group A wellhead protection areas are in Marysville. If information is obtained that causes the City to designate sole source aquifers or Group A wellhead protection areas, they will be a separate level of CARA with different requirements than those in Table 3.

(4) Permitted uses and activities shall be subject to the substantive requirements of MMC 22E.010.350.

Table 3 Groundwater-Impacting Uses and Activities

Use/Activity	Level 1 CARAs	Level 2 CARAs	Applicable Statute/Regulation or Guidance
Animal feedlots, animal feeding operations/concentrated animal feeding operations	Prohibited	Prohibited	Ch. 173-216 WAC; Ch. 173-220 WAC; 40 CFR Parts 122, 123, and 412
Automobile washing facilities	With conditions	With conditions	Ch. 173-216 WAC, Best Management Practices for Vehicle and Equipment Discharges (Washington Dept. of Ecology Pub. No. WQ-R-95-56, or latest edition)
Chemical treatment, storage and disposal facilities	Prohibited	Prohibited	Ch. 173-303 WAC
Dangerous waste	Prohibited	Prohibited	Ch. 70.105 RCW; Ch. 173-303 WAC; Snohomish County Board of Health Ordinances
Dry cleaning using chlorinated solvents	Allowed	Prohibited	
Junk yards and salvage yards	Prohibited	Prohibited	Ch. 173-304 WAC; Ch. 173-350 WAC; Ch. 173-351 WAC; Best

			Management Practices for Vehicle and Metal Recyclers (Washington State Dept. of Ecology Pub. No. 94-146, or latest edition)
Solid waste handling and recycling facilities, landfills, outdoor storage facilities, and outdoor recycling centers, including those for hazardous or dangerous waste, electronic waste, contaminated soil or dredged materials, municipal waste, special waste, wood waste, or demolition waste	Prohibited	Prohibited	Ch. 173-304 WAC; Ch. 173-350 WAC; Ch. 173-351 WAC
Storage, processing, or disposal of radioactive substances, except for medical equipment or materials that are used within a medical facility, and medical waste as defined in RCW 70.99.020 that is generated within a medical facility and held for proper disposal	Prohibited	Prohibited	
Mining of metals and hard rock	With conditions	Prohibited	
Pesticide, herbicide, and fertilizer storage and use, except when stored according to manufacturer's label instructions	Prohibited	Prohibited	Ch. 15.54 RCW; Ch. 17.21 RCW; Chs. 16-200 through 16-232 WAC
Reclaimed water for groundwater recharge	Allowed	Allowed	Ch. 90.46 RCW; Ch. 173-218 WAC
Petroleum processing and recycling facilities	Prohibited	Prohibited	40 CFR Part 443 (paving and roofing materials); 40 CFR Part 419 (effluent guidelines); Ch. 70A.224 RCW (used oil recycling); Ch. 90.56 RCW (spill prevention)
Sawmills	With conditions	With conditions	Ch. 173-303 WAC; Ch. 173-304 WAC; Industrial Stormwater General Permit Implementation Manual for Log Yards (Washington Dept. of Ecology Pub. No. 04-10-031, or latest edition)
Storage tanks, above ground	Allowed	With conditions	WAC 173-303-640

Storage tanks, below ground	With conditions	With conditions	Ch. 173-360A WAC; Ch. 90.76 RCW; RCW 43.131.394
Surface mining	Prohibited	Prohibited	Ch. 332-18 WAC
Underground injection control wells (Class II and V only; all others are prohibited)	With conditions[1]	Prohibited	WAC 173-218-040
Wastewater application to land surface	With conditions	With conditions	Ch. 173-216 WAC; Ch. 173-200 WAC
Wood treatment facilities occurring over permeable surfaces, natural or manmade	With conditions	Prohibited	
Wrecking yards	Prohibited	Prohibited	

1Class II UIC wells are subject to MMC 22E.010.370.

22E.010.370 Underground Injection Control (UIC) Wells.

(1) Underground injection control wells shall be conditioned as necessary to protect CARAs in accordance with the applicable State and Federal regulations and recommendations from an approved hydrogeologic report required pursuant to SMC 14.265.030.

B. Water reuse projects for reclaimed water and stormwater are regulated in accordance with the adopted water, sewer, or stormwater comprehensive plans that have been approved by the Departments of Ecology and Health. Where allowed, underground injection control wells shall be subject to City review and approval and shall comply with the requirements of Chapters 173-200 and 173-218 WAC and the Marysville Municipal Code. For all proposals that include infiltration or injection of stormwater, unless waived by the City and the local water purveyor, a hydrogeologic assessment shall be submitted that includes an analysis to assess the risks to the specific aquifer and viability of the proposed infiltration and/or UIC. The report shall meet the requirements described in MMC 22E.010.340 and Chapter 173-218 WAC.

C. Underground injection control wells designed in conjunction with stormwater handling facilities shall conform to the City's adopted stormwater manual. For all proposals that include infiltration or injection of stormwater, unless waived by the City and the local water purveyor, a hydrogeologic assessment shall be submitted that includes an analysis to assess the risks to the specific aquifer and viability of the proposed infiltration and/or UIC. The report shall meet the requirements described in MMC 22E.010.340 and Chapter 173-218 WAC.

22E.010.380 Exemptions

In addition to the exemptions listed in MMC 22E.010.080, the following developments shall be exempt from this chapter:

DRAFT

(1) Construction of structures, improvements, and additions of less than 2,000 square feet of total site impervious surface area, which do not increase the risk to the critical area from hazardous substances.

(2) Development of parks, recreation facilities, or conservation areas that do not increase the risk to the critical area from hazardous substances.

22E.010.390 Relationship to Other Regulations.

Protection of critical aquifer recharge areas located within shorelines of the State, as defined in Chapter 90.58 RCW, shall be accomplished through compliance with the provisions of this chapter. Nothing in this section shall be construed to be inconsistent with RCW 36.70A.480.

22E.010.400 Rulemaking Authority.

The Director shall have the authority to adopt administrative rules to implement the provisions of this chapter. Rulemaking authority shall include, but is not limited to, the adoption of best management practices for the protection of critical aquifer recharge areas.

Article V. General Information

22E.010.410~~320~~ General exemptions.

The following activities shall be exempt from the provisions of this chapter provided they are conducted using best management practices and result in not net loss of ecological functions and values:

(1) Existing and ongoing agricultural activities, as defined in Chapter 22A.020 MMC, and any lands designated long-term commercially significant agricultural lands. Any expansion of existing and ongoing agricultural activities is subject to review and compliance with this chapter;

(2) Maintenance, operation and reconstruction of existing roads, streets, utilities and associated structures; provided, that reconstruction of any structures may not increase the impervious area;

(3) Normal maintenance, repair and reconstruction of residential or commercial structures; provided, that reconstruction of any structures may not increase the previous floor area;

(4) Site investigative work and studies necessary for preparing land use applications, including soils tests, water quality studies, wildlife studies and similar tests and investigations; provided, that any disturbance of critical areas shall be the minimum necessary to carry out the work or studies;

(5) Educational activities, scientific research, and outdoor recreational activities that will not have a significant effect on the habitat area;

(6) Public agency emergency activities necessary to prevent an immediate threat to public health, safety or property;

(7) Prior to the effective date of the ordinance codified in this chapter, any of the following activities that have met all conditions of approval in a timely manner and are consistent with the reasonable use provisions of this chapter:

(a) Complete applications as defined by the appropriate ordinance or by city policy;

(b) Approved plats; and

(c) Development of legally created lots which have been recorded with Snohomish County, provided they were reviewed and approved under Ordinance No. 1928, "Sensitive Areas," adopted December 14, 1992, or as amended at the time of final plat approval; and

(8) Minor activities not mentioned above and determined by the community development department to pose minimal risk to the public health, safety, general welfare and critical area functions.

22E.010.420~~330~~ Permit process and application requirements.

(1) Preapplication Conference. All applicants are encouraged to meet with the community development director of the city of Marysville or his or her representative prior to submitting an application subject to these regulations. The purpose of this meeting shall be to discuss the city of Marysville's critical areas requirements, process and procedures; to review any conceptual site plans prepared by the applicant; to discuss appropriate investigative techniques and methodology; to identify potential impacts and mitigation measures; and to familiarize the applicant with state and federal programs, particularly those pertaining to wetlands. Such conference shall be for the convenience of the applicant and any recommendations shall not be binding on the applicant or the city of Marysville.

(2) Application Requirements. The information required by this section should be coordinated with reporting requirements required by this section for any other critical areas located on the site.

(a) Prior to the issuance of a SEPA threshold determination for a proposal, a wetland determination, wetland delineation report, or fish and wildlife habitat report must be submitted to the city of Marysville for review upon request of the community development director due to inclusion of a portion or all of a site on the habitat or wetland inventory maps prepared by Snohomish County Tomorrow. The purpose of the report is to determine the extent and function of wetlands, and the extent, type, function

and value of wildlife habitat on any site where regulated activities are proposed. The report will also be used by the city of Marysville to determine the appropriate wetland, or the sensitivity and appropriate classification of the habitat, appropriate buffering requirements, and potential impacts of proposed activities;

(b) In addition, wetland boundaries must be staked and flagged in the field by a qualified scientific professional employing the Washington State Wetlands Identification and Delineation Manual methodology. Field flagging must be distinguishable from other survey flagging on the site. The field flagging must be accompanied by a wetland delineation report;

(c) Applicants for activities within geologic hazard areas shall conduct technical studies to: evaluate the actual presence of geologic conditions giving rise to geologic hazards; determine the appropriate hazard category, according to the classification of potential hazards in these regulations; evaluate the safety and appropriateness of proposed activities; and recommend appropriate construction practices, monitoring programs and other mitigation measures required to ensure achievement of the purpose and intent of these regulations. The format of any required reports shall be determined by the city of Marysville;

(d) The report of any critical area shall include the following information:

(i) Vicinity map;

(ii) A map showing:

(A) Site boundary, property lines, and roads;

(B) Internal property lines, rights-of-way, easements, etc.;

(C) Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;

(D) Contours at the smallest readily available intervals, preferably at five-foot intervals; and

(E) For large (50 acres or larger) or complex projects with wetlands or habitat areas, an aerial photo with overlays displaying the site boundaries and wetland delineation or habitat area(s) may be required. Generally, an orthophotograph at a scale of one inch equals 400 feet or greater (such as one inch equals 200 feet) should be used. If an orthophotograph is not available, the center of a small scale (e.g., one inch equals 2,000 feet) aerial photograph enlarged to one inch equals 400 feet may be used;

(iii) The report for any critical area must describe:

(A) Locational information including legal description and address;

(B) All natural and manmade features within 150 feet of the site boundary;

(C) General site conditions including topography, acreage, and water bodies or wetlands; and

(D) Identification of any areas that have previously been disturbed or degraded by human activity or natural processes;

(e) In addition to the general report requirements, a report on wetlands shall include the following information:

(i) Delineated wetland boundary;

(ii) The wetland boundary must be accurately drawn at an appropriate engineering scale such that information shown is not cramped or illegible. The drawing shall be prepared by a surveyor. Generally, a scale of one foot equals 40 feet or greater (such as one inch equals 20 feet) should be used. Existing features must be distinguished from proposed features;

(iii) Site designated on the wetlands areas maps prepared for Snohomish County Tomorrow, July 1991;

(iv) Hydrologic mapping showing patterns of water movement into, through, and out of the site area;

(v) Location of all test holes and vegetation sample sites, numbered to correspond with flagging in the field and field data sheets;

(vi) Field data sheets from the federal manual, numbered to correspond with sample site locations as staked and flagged in the field; and describing:

(vii) Specific descriptions of plant communities, soils and hydrology;

(viii) A summary of existing wetland function and value; and

(ix) A summary of proposed wetland and buffer alterations, impacts, and the need for the alterations as proposed. Potential impacts may include but are not limited to loss of flood storage potential, loss of wildlife habitat, expected decreases in species diversity or quantity, changes in water quality, increases in human intrusion, and impacts on associated wetland or water resources.

If alteration of a Category I, II, III, or VI wetland is proposed, a wetland mitigation plan is required according to the standards of MMC 22E.010.150;

(f) In addition to the general report requirements, a report on fish and wildlife habitats shall include the following information. The level of detail contained in the report shall generally reflect the size and complexity of the proposal and the function and value of the habitat. The community development department may require field studies at the applicant's expense in appropriate cases:

(i) A map of vegetative cover types, reflecting the general boundaries of different plant communities on the site;

(ii) A description of the species typically associated with the cover types, including an identification of any critical wildlife species that might be expected to be found;

(iii) The results of searches of DNB's Natural Heritage and WDFW's Nongame Data System databases, if available; and

(iv) Additional information on species occurrence available from the city of Marysville or Snohomish County; and describing:

(v) The layers, diversity and variety of habitat found on the site;

(vi) Identification of edges between habitat types and any species commonly associated with that habitat;

(vii) The location of any migration or movement corridors;

(viii) A narrative summary of existing habitat functions and values; and

(ix) A summary of proposed habitat and buffer alterations, impacts and mitigation. Potential impacts may include but are not limited to clearing of vegetation, fragmentation of wildlife habitat, expected decreases in species diversity or quantity, changes in water quality, increases in human intrusion, and impacts on wetlands or water resources;

(g) In addition to the general report requirements, a report on geologic hazards shall include the following information:

(i) A characterization of soils, geology and drainage;

(ii) A characterization of ground water conditions including the presence of any public or private wells in the immediate vicinity; and

(iii) An analysis of proposed clearing, grading and construction activities, including construction scheduling; potential direct and indirect, on-site and off-site impacts from the development; and proposed mitigation measures, including any special construction techniques, monitoring or inspection program, erosion or sedimentation programs (during and after construction), and surface water management controls.

In order to determine the geologic hazard classification project, applicants shall also include in their report to the city of Marysville a description prepared by a qualified scientific professional that reviews the site history and results of a surface reconnaissance. The purpose of these regulations is to require a level of study and analysis commensurate with potential risks associated with geologic hazards on particular sites and for particular proposals.

Depending on the particular geologic hazard, geologic, hydrologic, and topographic studies may be required. The appropriate report(s) and level of analysis shall be determined using the following guidelines:

(A) Moderate Landslide Hazard Areas.

1. Review site history and available information;

2. Conduct a surface reconnaissance of the site and adjacent areas; and

3. Conduct subsurface exploration if indicated by subsections (2)(g)(iii)(A)(1) and (2) of this section as determined by the applicant's qualified scientific professional and the city;

(B) High Landslide Hazard Areas.

1. Review site history and available information;

2. Conduct a surface reconnaissance of the site and adjacent areas;

3. Conduct subsurface exploration suitable to the site and proposal to assess geohydrologic conditions;

4. Recommend surface water management controls during construction and operation;

5. Proposed construction scheduling; and

6. Recommendations for site monitoring and inspection during construction;

(C) Very High Landslide Hazard Areas.

1. Development is prohibited in these areas;

(D) Moderate and High Erosion Hazard Areas.

1. Review site history and available information;

2. Conduct a surface reconnaissance of the site and adjacent areas; and

3. Identify surface water management, erosion and sediment controls appropriate to the site and proposal;

(E) Seismic Hazard Areas.

1. For one- and two-story single-family structures, conduct an evaluation of site response and liquefaction potential based on the performance of similar structures under similar foundation conditions; and

2. For all other proposals, conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to provide a site coefficient (S) for use in the static lateral force procedure described in the International Building Code.

(3) Permit Process. This section is not intended to create a separate permit process for development proposals. To the extent possible, the city of Marysville shall consolidate and integrate the review and processing of critical area-related aspects of proposals with other land use and environmental considerations and approvals.

22E.010.~~340~~430 Selection of qualified scientific professional and city review of report.

For the purposes of this chapter, qualified scientific professionals not licensed by the state of Washington for the activities they are to perform in evaluation of critical areas shall be reviewed by and their names appear on an approved list prepared by the city of Marysville.

(1) Biannually, the city shall advertise requests for qualifications for qualified scientific professionals for each area established by this chapter: wetlands, fish habitat areas/streams, wildlife habitat areas, and geologic hazard areas. The community development director shall establish a panel to review the firm and individual's qualifications and references. Each qualified scientific professional shall have completed at least a four-year degree program and meet the minimum requirements contained within Chapter 22A.020 MMC, Definitions. The panel shall recommend to the community development director the list of consultants, as selected by the panel, that are qualified to evaluate each type of critical area identified in this

chapter. There shall be a minimum of 12 qualified scientific professionals for each of the three categories. The list shall be adopted within 60 days of the adoption of the ordinance codified in this chapter and 60 days of January 1st biannually thereafter.

(2) The adopted lists of qualified scientific professionals shall be available at the community development department.

(3) Reports meeting the criteria as required by this chapter, submitted by a qualified scientific professional included on the adopted list, should be accepted by the city of Marysville. However, the city retains the right to have a separate review of the reports, and at its discretion may retain a qualified scientific professional at the city's expense to review and confirm the applicant's reports, studies, and plans. Applicants may choose to use other consultants which they feel meet the definition of qualified scientific professionals given; however, the city retains the right to have a separate review of their reports, and at its discretion may retain a qualified scientific professional at the applicant's expense to review and confirm the applicant's reports, studies, and plans.

22E.010.~~350~~440 Land divisions.

All proposed divisions of land which include regulated critical areas shall comply with the following procedures and development standards:

(1) New lots shall contain at least one building site, including access, that is suitable for development and is not within the regulated critical area or its associated buffer or setback.

(2) A regulated critical area and its associated buffer or setback shall be placed in a separate tract on which development is prohibited, protected by execution of an easement given to the city of Marysville, or dedicated to the city of Marysville at the discretion of the city of Marysville. The location and limitations associated with the critical area and its associated buffer or setback shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the Snohomish County auditor.

22E.010.~~360~~450 On-site density transfer for critical areas.

(1) An owner of a residential site or property containing critical areas may be permitted to transfer the density attributable to the critical area and associated buffer area or setback to another noncritical portion of the same site or property, subject to the limitations of this section and other applicable regulations. In the case of streams, only the density attributable to the buffer may be transferred.

(2) Up to 100 percent of the density that could be achieved on the critical area and buffer portion of the site, excluding stream channels, can be transferred to the noncritical area portion, subject to:

(a) The density limitations of the underlying zone must be applied;

(b) Lots in the neighborhood residential zones, and single-family and middle housing in multifamily zones, are permitted to have 50 percent building coverage, 65 percent impervious coverage, a 4,000-square-foot minimum lot size, and a 40-foot lot width to accommodate the transfers in density;

(c) The noncritical, nonbuffer portion of the site is not constrained by another environmentally critical area regulated by this code.

(3) An on-site density transfer shall meet the requirements and follow the procedures of Chapter 22G.090 MMC, Subdivisions and Short Subdivisions.

22E.010.~~370~~460 Fencing and signage requirements.

Wetland fencing and signage adjacent to a regulated wetland or stream corridor shall be required. Two-rail fencing shall be constructed with pressure treated posts and rails and cemented into the ground with either cedar or treated rails. Alternative materials may be used subject to approval by the city. Signs designating the presence of an environmentally sensitive area shall be posted along the buffer boundary. The signs shall be posted at a minimum rate of one every 100 lineal feet.

22E.010.~~380~~470 Building setbacks.

Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the building setback area:

(1) Landscaping;

(2) Uncovered decks;

(3) Building overhangs, if such overhangs do not extend more than 18 inches into the setback area; and

(4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to water quality regulations as adopted.

22E.010.~~390~~480 General procedural provisions.

(1) Interpretation and Conflicts. Any question regarding interpretation of these regulations shall be resolved pursuant to the procedures set forth in Chapter 22G.060 MMC, relating to the hearing examiner.

(2) Appeals from Permit Decisions. Appeals from permit decisions shall be governed by the procedures set forth in Chapter 22G.060 MMC, relating to the hearing examiner.

22E.010.~~400~~490 Penalties and enforcement.

Penalty and enforcement provided in this section shall not be deemed exclusive, and the city may pursue any remedy or relief it deems appropriate.

(1) Any person, firm, corporation, or association or any agent thereof who violates any of the provisions of this chapter shall be punishable as set forth in MMC 4.02.040(3)(g). It shall be a separate offense for each and every day or portion thereof during which any violation of any provisions of this chapter is committed.

(2) Any person, firm, corporation, or association or any agent thereof who violates any of the provisions of this chapter shall be liable for all damages to public or private property arising from such violation, including the cost of restoring the affected area to an equivalent or improved condition prior to the violation occurring. If an equivalent condition cannot be provided, the violator shall be subject to a fine in an amount equal to the value of the damage to the environmentally critical area, determined using best available methods of calculating the value of vegetation, land, and water resources.

(3) Restoration shall include, but not be limited to, the replacement of all improperly removed groundcover with species similar to those which were removed or other approved species such that the biological and habitat values will be replaced, improper fill removed, and slope stabilized. Studies by the qualified experts shall be submitted to determine the conditions which were likely to exist on the lot prior to the illegal alteration.

(4) Restoration shall also include installation and maintenance of interim and emergency erosion control measures until such time as the restored groundcover and vegetation reach sufficient maturation to function in compliance with the performance standards adopted by the city.

(5) The city shall stop work on any existing permits and halt the issuance of any or all future permits or approvals for any activity which violates the provisions of this chapter until the property is fully restored in compliance with this chapter and all penalties are paid.

(6) Notwithstanding the other provisions provided in this chapter, anything done contrary to the provisions of this chapter or the failure to comply with the provisions of this chapter shall be and the same is hereby declared to be a public nuisance.

The city is authorized to apply to any court of competent jurisdiction, for any such court, upon hearing and for cause shown, may grant a preliminary, temporary or permanent injunction restraining any person, firm, and/or corporation from violating any of the provisions of this

chapter and compelling compliance with the provisions thereof. The violator shall comply with the injunction and pay all cost incurred by the city in seeking the injunction.

22E.010.~~410~~500 General savings provisions – Reasonable use determination.

(1) The standards and regulations of this section are not intended, and shall not be construed or applied in a manner, to deny all reasonable economic use of private property. If an applicant demonstrates to the satisfaction of the city of Marysville that strict application of these standards and the utilization of cluster techniques, planned unit development, and transfer of development rights would deny all reasonable economic use of its property, development may be permitted subject to appropriate conditions, derived from this chapter, as determined by the community development director.

(2) An applicant for relief from strict application of these standards shall demonstrate the following:

(a) That no reasonable use with less impact on the critical area and buffer or setback is feasible and reasonable; and

(b) That there is no feasible and reasonable on-site alternative to the activities proposed, considering possible changes in site layout, reductions in density and similar factors; and

(c) That the proposed activities, as conditioned, will result in the minimum possible impacts to critical area and buffer or setback; and

(d) That all reasonable mitigation measures have been implemented or assured; and

(e) That all provisions of the city's regulations allowing density transfer on-site and off-site have been considered; and

(f) That the inability to derive reasonable economic use is not the result of the applicant's actions.

22E.010.~~420~~510 No special duty created.

(1) It is the purpose of this chapter to provide for the health, welfare, and safety of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this chapter. No provision or term used in this chapter is intended to impose any duty whatsoever upon the city or any of its officers, agents, or employees, for whom the implementation or enforcement of this chapter shall be discretionary and not mandatory.

(2) Nothing contained in this chapter is intended to be, nor shall be, construed to create or form the basis for any liability on the part of the city or its officers, agents, and employees for any injury or damage resulting from the failure of any premises to abate a nuisance or to comply with the provisions of this chapter or be a reason or a consequence of any inspection, notice or order, in connection with the implementation or enforcement of this chapter, or by reason of any action of the city related in any manner to enforcement of this chapter by its officers, agents or employees.

DRAFT

FACET
Formerly DCG / Watershed

Best Available Science Review

Marysville Critical Areas Ordinance Update

DECEMBER 6, 2024

Prepared for:

Haylie Miller, Community Development Director
City of Marysville
501 Delta Avenue
Marysville, WA 98270

Facet Reference: 2404.0351.00

Prepared by:

Nell Lund
Senior Ecologist / Principal of Natural Resources
nlund@facetnw.com

Dan Nickel
Principal of Planning / Executive Vice President
dnickel@facetnw.com

Sam Payne
Ecologist / Wildlife Biologist
spayne@facetnw.com

FACET

Kirkland Office
750 6th Street S
Kirkland, WA 98033
425.822.5242

The information contained in this report is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, state, and federal regulatory authorities. No other warranty, expressed or implied, is made.

Table of Contents

1. Introduction **1**

2. Wetlands **2**

2.1 Definition 2

2.2 Wetlands in Marysville 2

2.3 Functions and Values 5

2.4 Key Protection Strategies 5

2.4.1 Wetland Identification and Classification 5

2.4.2 Wetland Buffers 6

2.4.3 Mitigation 7

2.5 Climate Change Impacts & Mitigation 9

2.5.1 Strategies to Manage Climate Change Impacts on Wetlands 10

3. Critical Aquifer Recharge Areas (CARAs) **10**

3.1 Definition 10

3.2 CARAs in Marysville 11

3.3 Functions and Values 12

3.3.1 Water Quality 12

3.3.2 Water Quantity 13

3.4 Key Protection Strategies 14

3.5 Climate Change Impacts & Mitigation 15

3.5.1 Strategies to Manage Climate Change Impacts to CARAs 15

4. Fish and Wildlife Habitat Conservation Areas (FWHCAs) **16**

4.1 Definition 16

4.2 FWHCAs in Marysville 17

4.2.1 Aquatic Areas 17

4.2.2 Listed Species 20

4.2.3 Other FWHCAs 22

4.3 Functions and Values 23

4.4 Key Protection Strategies 23

4.4.1 Streams, Lakes and Ponds, and Riparian Areas 23

4.4.2 Endangered, Threatened, or Sensitive Species and Species of Local Importance 28

4.5 Climate Change Impacts & Mitigation 29

4.5.1 Strategies to manage climate change impacts to FWHCAs 30

5. Geologically Hazardous Areas **31**

5.1 Definitions 31

5.1.1 Erosion Hazard Areas 31
5.1.2 Landslide Hazard Areas 32
5.1.3 Seismic Hazard Areas 32
5.1.4 Other Hazard Areas 32
5.2 Hazard Characterization 32
5.2.1 Erosion Hazard Areas 32
5.2.2 Landslide Hazard Areas 33
5.2.3 Seismic Hazard Areas 35
5.3 Key Protection Strategies 36
5.4 Climate Change Impacts and Mitigation 37
5.4.1 Management Recommendations for Climate Change Impacts 38
6. Frequently Flooded Areas 39
6.1 Definitions 39
6.2 FFAs in Marysville 39
6.3 Functions and Values 41
6.4 Key Protection Strategies 42
6.5 Climate Change Impacts & Mitigation 43
6.5.1 Strategies to Manage Climate Change Impacts to FFAs 43
References 45

APPENDIX A: Wetland Buffer Width Recommendations

List of Figures

Figure 1. Mapped wetlands in Marysville, reproduced from City of Marysville 2024-2044 Comprehensive Plan. 4
Figure 2. CARAs mapped in Snohomish County. 11
Figure 3. Streams mapped in Marysville, reproduced from City of Marysville 2024-2024 Comprehensive Plan. 19
Figure 4. The "FEMAT Curves": a conceptual model of the contributions of key riparian ecosystem functions which influence aquatic ecosystems by distance and cumulative effectiveness. Tree height refers to the average relative height of the site potential tree heigt (reproduced from FEMAT 1993). 25
Figure 5. Marysville geologic hazards map (Marysville 2024b). 34
Figure 6. Snohomish County Liquefaction Susceptibility (reproduced from Palmer et al. 2004). 36
Figure 7. Frequently flooded areas in south Marysville, screenshot recorded from FEMA's National Flood Hazard Layer (NFHL) Viewer on 9/6/2024. 40
Figure 8. Frequently flooded areas in central Marysville, screenshot recorded from FEMA's National Flood Hazard Layer (NFHL) Viewer on 9/6/2024. 41

List of Tables

Table 1. List of waterbodies present in Marysville. Fish and salmonid presence determined by city mapping resources, Statewide Washington Integrated Fish Distribution (SWIFD), Snohomish County PDS Map Portal, and FPAMT; fish presence is noted if indicated on any resource. Salmonid presence is based on SWIFD. List includes only named waterbodies identified on resource maps, tributaries to mainstem not listed. Marysville sewage lagoon also omitted from this summary, although it is mapped as gradient accessible for salmonids. 17
Table 2. List of WDFW-designated priority species which occur in Snohomish County. Not all species have range overlap with Marysville city limits. 20
Table 3. Range of Effective Buffer Widths for Each Applicable Riparian Function. 26

1. Introduction

This review of the best available science (BAS) was compiled to support Marysville's Critical Areas Ordinance (CAO) update. As a requirement of the Washington State Growth Management Act (GMA) cities and counties must "include the 'best available science' (BAS) when developing policies and development regulations to protect the functions and values of critical areas and must give 'special consideration' to conservation or protection measures necessary to preserve or enhance anadromous fisheries[1]" [Washington Administrative Code (WAC 365-195-900)]. Regulated critical areas include wetlands, aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas [Revised Code of Washington (RCW) 36.70A.030 and Marysville Municipal Code (MMC) 22E.010].

BAS means the current and best available information that follows a valid scientific process as specified in WAC 365-195-900 through WAC 365-195-925. Characteristics of a valid scientific process include peer review, standardized methods, logical conclusions and reasonable inferences, quantitative analysis, proper context, and references. Common sources of scientific information include research, monitoring, inventory, modeling, assessment, and synthesis (WAC 365-195-905). BAS literature reviews are a synthesis of the current scientific body of knowledge, and only resources that meet these requirements are included as reference materials for this BAS.

The BAS review is a resource for critical area management but is not intended to provide definitive answers for all policy and regulatory decisions. Policy and regulations should incorporate BAS but also necessitate decision-making processes based on societal values. Additionally, ecological systems are highly complex, and the scientific body of knowledge is constantly evolving with the advancement of new research and technology. Despite these advancements, there are limits to the current state of science and certain topics may not be fully understood. Where there is scientific disagreement in the literature about a particular subject, this review presents a range of potential ideas or findings. In accordance with WAC 365-195-920, decision-makers may opt for a precautionary, or no-risk approach, when scientific information is incomplete.

As of July 2023, with passage of Washington HB 1181: Climate Change in Local Comprehensive Planning, the GMA requires jurisdictions to incorporate and evaluate the effects of climate change in long-range planning. Climate change is anticipated to have a profound influence on natural systems and inclusion of these topics allows decision-makers to respond by incorporating climate resilience into policies and regulations.

This BAS review serves as a reference for Marysville for planned CAO updates, a component of comprehensive updates to the MMC Title 22, Unified Development Code. Following the establishment of this BAS review, a gap analysis will be developed to identify current shortcomings and provide recommendations on critical area regulation updates.

[1] Anadromous refers to fish or fish species that spend portions of their life cycle in both fresh and salt waters, entering fresh water from the ocean to spawn.

Marysville last completed a BAS review in 2004. Much of the science foundational to critical areas has not changed during this period and is still largely valid. Other Washington State agency literature provides comprehensive BAS reviews for specific critical areas including wetlands and riparian ecosystems. Specifically, the Department of Ecology (Ecology) produced *Wetlands in Washington State Volume 1: A Synthesis of the Science* in 2005 and the Washington Department of Fish and Wildlife (WDFW) produced *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* in 2020. This report expands on topics from these documents but is not intended to repeat information already provided in these public resources.

2. Wetlands

2.1 Definition

Scientists have worked to develop a wetland definition based on scientifically defensible criteria since interest in managing and protecting wetland resources scaled up in the 1950s. When the Clean Water Act of 1977 (CWA) was signed into law, a definition was agreed upon and applied consistently at a national scale. It is defined as follows (33 CFR § 328.3):

> *Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

Washington State also has a wetlands definition that is similar to the CWA but includes certain exceptions for artificial wetlands. It is defined in WAC 365-190-030(22) as follows:

> *'Wetland' or 'wetlands' means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate conversion of wetlands, if permitted by the county or city.*

The Marysville definition of a wetland is substantially similar to the Washington State definition.

2.2 Wetlands in Marysville

Inventoried wetlands in Marysville are shown in the City's critical areas map (Figure 1). This map depicts the larger inventoried wetlands, although other smaller wetlands are likely also distributed throughout the City. Site-specific studies are necessary to determine the presence or absence of wetlands for

individual properties. Other resources such as the Snohomish County Planning and Development Services (PDS) Map Portal and National Wetland Inventory also provide modeled estimates of wetland locations.

Wetlands typically occur in topographic depressions, stream corridors, lake fringes, the base of slopes, and estuarine environments. In Marysville, wetlands are mapped along the corridors of streams such as Quilceda Creek, Allen Creek, and along the estuarine areas off Ebey slough. Mapped wetlands also occur in depressions and King Lake.

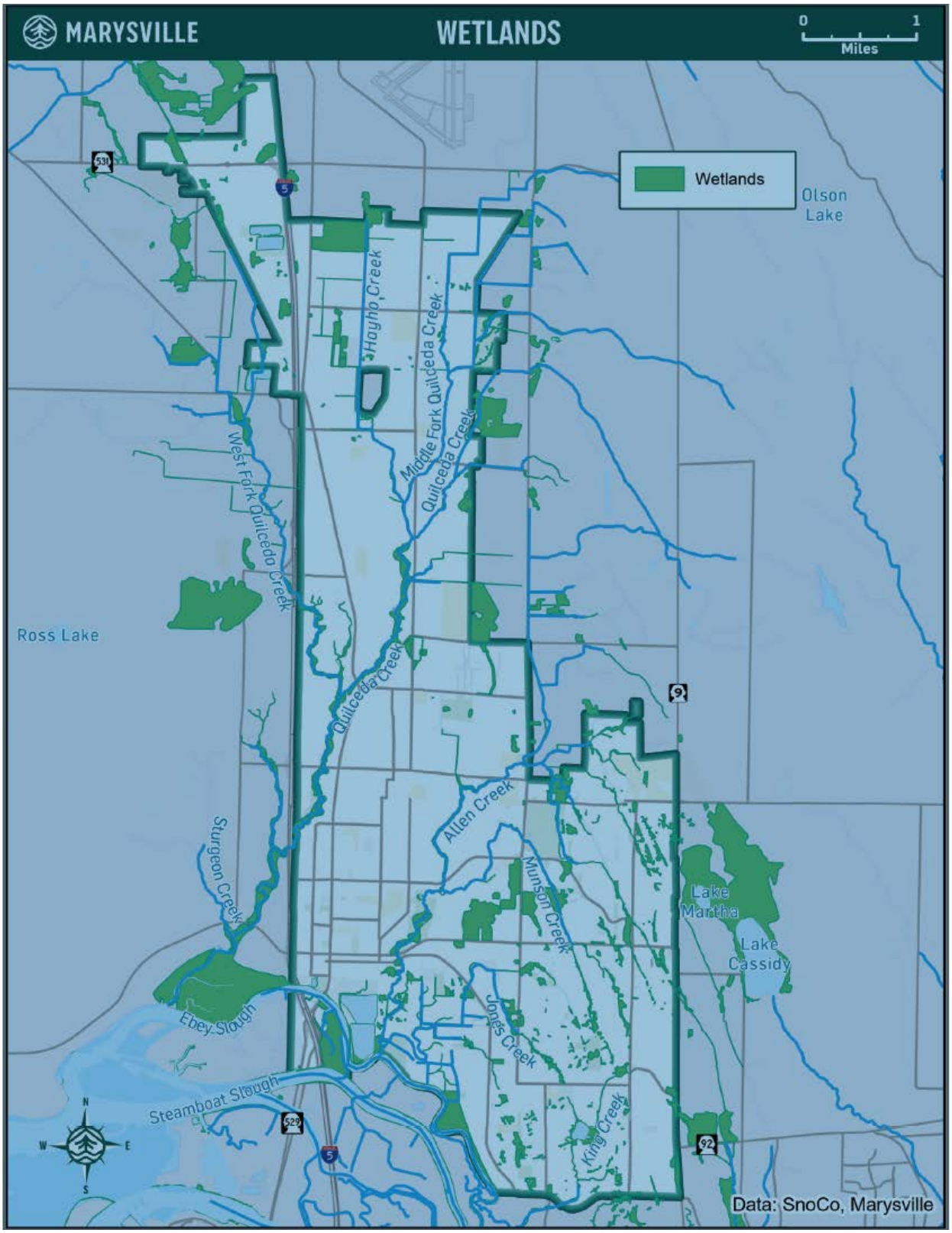


Figure 1. Mapped wetlands in Marysville, reproduced from City of Marysville 2024-2044 Comprehensive Plan.

Wetlands in Marysville require buffers in accordance with Marysville Municipal Code (MMC) 22E.010.100 Wetland Buffer Areas. Buffer widths range from 125 feet for Category I wetland to 35 feet for Category IV wetland. Wetlands surrounding Ebey Slough also have unique buffers that are 25 feet or 100 feet depending on the location.

2.3 Functions and Values

The 2004 Marysville BAS report referenced the draft version of Ecology's 2005 Wetlands in Washington State, Volume 1: Synthesis of the Science publication (Sheldon et al. 2005). Although new publications supplement and expand on that BAS document, it is still a fundamental summary of wetland functions and values, including water quality, hydrologic functions, trophic structure, and wildlife habitat. Therefore, topics covered previously are not restated in this review.

One notable update is the wetland classification system. For regulatory purposes in Washington, wetland functions and values are typically categorized in a rating system. The most widely accepted rating system, the *Washington State Wetland Rating System for Western Washington: 2014 Update, version 2*, was developed by Ecology and is the regional standard by all regulating agencies (Hruby and Yahnke 2023). This rating system is a rapid assessment tool that evaluates wetland functions in the categories of water quality, hydrology, and habitat, among a framework of three dimensions of site potential, landscape potential, and societal value (Hruby and Yahnke 2023).

2.4 Key Protection Strategies

Wetlands are protected through government regulations at the local, state, and federal levels, with each independently requiring impact avoidance, minimization, and mitigation. Effective wetland protection strategies include regulatory protocols to identify and classify wetlands, assign buffer widths, and require impact avoidance and compensatory mitigation for any wetland or buffer impacts. Additionally, the preservation of local and landscape-scale corridors can be protected by establishing corridor protection regulations for developments near wetlands.

2.4.1 Wetland Identification and Classification

To protect wetlands, they must first be identified by a qualified professional. The nationwide standard for wetland delineations is the 1987 Corps of Engineers (Corps) *Wetlands Delineation Manual* with the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region Version 2.0* (Regional Supplement). The Regional Supplement provides greater detail on determining the presence or absence of wetlands specific to the land resource regions.

The *Ecology Wetland Rating System for Western Washington* was first issued in 2004, annotated in 2006, revised in 2014, and annotated in 2023. One major change during the 2014 update provided intermediate categories for each assessed function, scoring to a high, medium, or low ranking. These were thought to better reflect the coarseness of the tool. Additional clarifications were added to the rating system guidance in Version 2 to incorporate annotations from the prior version (Hruby and Yahnke 2023).

The jurisdictional status of a wetland can vary depending on the government agency and the regulations under consideration. For example, the CWA only applies to wetlands that meet specific criteria regarding connectivity to Waters of the U.S. and does not apply to isolated wetlands. Local and state wetland regulations are more broadly encompassing, but generally exclude artificially created stormwater features, for example.

2.4.2 Wetland Buffers

Wetlands in Washington are protected from surrounding land uses through buffer requirements based on recommendations from Ecology. Similar to wetlands, buffers also provide functions that have ecological, sociological, and economic benefits. Wetland buffer functions include moderation of stormwater inputs, sediment removal, pollutant abatement, microclimate, habitat for wetland-dependent fauna, habitat connectivity, and disturbance screening (Sheldon et al. 2005). Buffer functions vary depending on a wide variety of factors such as the vegetation community, gradient, soil conditions, and adjacent land use intensity (Sheldon et al. 2005). The synthesis includes a discussion of the topics of buffer widths relative to water quality functions, hydrologic maintenance, wildlife habitat, and disturbance barrier effectiveness. Due to the similarity of processes and functions, studies on stream buffer widths were compiled into the synthesis (Sheldon et al. 2005). Foundational science related to buffer efficacy has not substantially changed.

In 2013 Ecology issued an update to the 2005 Synthesis of Science specific to wetland buffers, titled *Update on Wetland Buffers: The State of the Science* (Ecology Publication 13-06-011). General conclusions of the update touch on hydrologic, water quality, and wildlife habitat buffer functions. Although new literature on long-term effectiveness of buffers attenuating surface water flow is lacking, a logical inference that buffers protect hydrologic functions for some wetland types is made. Water quality functions are provided through several wetland mechanisms such as pollutant removal through interactions of groundwater flows, soil, and deep-rooted plants. Wetlands slow runoff, allowing time for pollutants to be removed. Sheet flow across well vegetated generally flat (less than 5 percent) buffer yields the most effective water quality. Although some sediment removal is provided by relatively narrow buffers (16 to 66 feet) fine sediment removal requires much wider, densely vegetated buffers. Removal of dissolved nutrients, such as nitrogen and phosphorus, requires long retention times and dense vegetation. Buffer width studies to support wildlife life history and breeding are ongoing. The literature unequivocally supports maintaining connectivity between wetlands to support viable populations of wetland-dependent species, including birds and amphibians. Current research indicates that buffers alone will not prevent many wildlife population declines, a broader approach is needed. Wetland buffer widths also correlate with plant biodiversity, including sensitive plants. The literature consistently documents greater habitat functions with greater buffer widths (Hruby 2013).

BUFFER APPROACHES

Ecology provides guidance for wetland buffers framed around several alternatives in *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands– Protecting and Managing Wetlands, Appendix 8-C* (Granger 2005, modified 2018) and 2022 Ecology *Guidance for Critical Area Ordinance Updates*. Both guidance documents provide similar but slightly differing approaches, and both are considered to be consistent with BAS at this time.

Current Ecology wetland guidance documents outline the following primary factors to consider when determining buffer widths (ECY 2022):

- The wetland type and the functions needing protection (buffers filter sediment, excess nutrients, and toxics; screen noise and light; provide forage, nesting, or resting habitat for wetland-dependent species; etc.),
- The types of adjacent land use and their expected impacts, and
- The characteristics of the buffer area (slope, soils, vegetation)

Three wetland buffer alternatives are presented in the current Ecology guidance for CAO updates. See Appendix A of this report, for a detailed summary.

As buffer determination options are reviewed, it is important to note that, "Ecology's buffer width recommendations are based on the assumption that the buffer area is well vegetated with native species appropriate to the ecoregion" (ECY 2022). Those buffer options are:

- **Option 1.** Width based on wetland category and habitat score, if minimization measures are applied, and a habitat corridor is provided. If a habitat corridor is not provided or minimization measures are not implemented, then buffer width requirements increase. Modified buffers should be not less than 75 percent of the otherwise required buffer. Since it considers a wider range of environmental metrics, Option 1 has the most granularity and is more adaptive to site-specific considerations of individual sites.
- **Option 2.** Width based on wetland category and modified by the intensity of the impacts from proposed land use. Option 2 decreases regulatory flexibility and eliminates buffer averaging and reduction provisions through the application of corridors and minimization measures.
- **Option 3.** Width based on wetland category only. Option 3 is the least flexible and simplest to administer.

2.4.3 Mitigation

MITIGATION SEQUENCING

Mitigation sequencing is the structured process of avoiding, minimizing, and mitigating all impacts to a particular resource. Marysville has incorporated mitigation sequencing into existing wetland regulations, according to MMC 22E.010.230). This is consistent with federal directives to achieve no net loss of wetland functions and values. Mitigation sequencing is also required by the 2008 Wetlands Compensatory Mitigation Rule issued by the U.S. Environmental Protection Agency (2008) and WAC 197-11-768. Per current Ecology guidance for CAO updates, mitigation sequencing must be applied in the following order (ECY 2022):

> *Avoiding the impact altogether by not taking a certain action or parts of an action;*
>
> *Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;*
>
> *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*
>
> *Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;*

Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

Monitoring the impact and taking appropriate corrective measures.

COMPENSATORY MITIGATION

Compensatory mitigation may be achieved through a programmatic approach or an approved permittee-responsible mitigation (PRM) plan. Programmatic approaches utilize third-party sponsors to obtain mitigation credits, such as a mitigation bank or in-lieu fee (ILF) program. PRM is an applicant-managed mitigation project. PRM is typically developed and implemented concurrently with wetland impacts, but it may be done in advance. Mitigation banks are state-certified to ensure ecological function replacement is achieved. ILF programs collect fees and apply the funds to restoration projects within the service area. The Corps and Ecology review and approve ILF programs. Whereas, PRM applicants must complete installation, site maintenance, monitoring, and adaptive management as needed to achieve approved mitigation plan goals and performance standards (ECY 2021b).

Ecology's recommendations for mitigation ratios for projects in Western Washington depend on the wetland category and type of mitigation action (Granger 2005, Modified 2008). Mitigation ratios for direct wetland impacts are increased to account for temporal losses (ECY 2022). When applying advanced mitigation, the Ecology-recommended ratios account for the wetland category and proposed mitigation actions (ECY 2021b).

To address ecological priorities in Washington State's watersheds, Ecology has developed additional guidance and tools for applicants, including details on using a watershed approach for mitigation site selection and the credit-debit method (Hruby 2012; Hruby et al. 2009). The credit-debit method is a system to calculate mitigation credits needed for a given project. Credit calculations can be used to determine compensation when utilizing ion-site mitigation, a mitigation bank, or an in-lieu fee program. Depending on specific site conditions, this may result in less or more mitigation than would be required under a set traditional mitigation ratio guidance (Hruby 2012).

Compensatory wetland mitigation methods in order of preference are (ECY 2021b):

1) Restoration: Re-establishment,
2) Restoration: Rehabilitation-hydrologic processes restored,
3) Creation (establishment),
4) Preservation, and
5) Enhancement

Preservation and enhancement-only mitigation are least preferred since they do not directly replace wetland area,. Ecology prefers to see preservation or enhancement in combination with a method that replaces lost wetland area, such as wetland creation or re-establishment (ECY 2021b).

Ecology recommends applying at least a one-to-one ratio to buffer impacts (ECY 2022). A ratio greater than 1:1 may be required to replace all lost critical area functions. Ecology also recommends evaluating indirect wetland impacts to determine appropriate compensatory mitigation (ECY 2021b).

MONITORING

Evaluations of wetland mitigation outcomes found that most wetland mitigation does not fully replace impacted functions and falls short of the goal of no net loss (Johnson et al. 2002; ECY 2008). The goal of no net loss of wetland function cannot be achieved through mitigation alone but may be met through several factors, including adequate monitoring and maintenance and appropriate performance standards. Compensatory mitigation sites typically require performance standard monitoring for a 3- to 10-year period, to ensure that implemented sites provide the functions which were planned. There are few studies of long-term compliance with performance standards, and one assessment found a reduction in site compliance 8 to 20 years following installation (Van den Bosch and Matthews 2017). NRC (2001) identifies factors that reduce the risk of mitigation failure, such as detailed functional assessment, high success standards, detailed mitigation plans, larger bonds with up-to-date market values, high replacement ratios, and greater expertise.

2.5 Climate Change Impacts & Mitigation

Climate change is predicted to significantly impact wetland ecosystems by altering hydrology, reducing biodiversity, disrupting carbon storage, modifying community composition, and increasing rates of disease (Aukema et al. 2017; Burkett and Kusler 2000; Lee et al. 2015). Altered hydrology and precipitation patterns from climate change can result in earlier drawdowns of wetlands during droughts, a process that will likely result in wetland loss where hydrologic conditions are significant and modify community composition (Lee et al. 2015). Wetlands may also experience greater polarity in seasonal water levels with increased ponding during wet seasons and decreased water levels during dry seasons (Halabisky 2017). Sea level rise is also expected to change the landscape of coastal wetlands, resulting in wetland loss, spatiotemporal changes to coastal wetland distribution, and shifts in community composition resulting from disturbance, climate change effects, and elevated salinity (Burkett and Kusler 2000). Climate change impacts on biodiversity are discussed in Section 4.5. and are caused by a wide range of effects that modify habitats from historic baselines and reduce biodiversity (Aukema et al. 2017). Furthermore, warming effects may result in a disruption of carbon storage, by reducing storage rates or even reverting some wetlands from carbon sinks to carbon sources, particularly in boreal peatlands (Burkett and Kusler 2000).

Wetlands also provide functions that assist in the mediation of climate change impacts. Wetlands and wetland buffers, like riparian corridors, support a shaded and cool microclimate that provides refuge for wildlife from higher temperatures as well as wildlife corridors at a local or landscape scale (ASWM 2015). Additionally, wetlands help offset climate change through carbon storage by protecting the remineralization of organic stocks and sequestering greenhouse gas emissions (Gallagher et al. 2022). Carbon stocks in undisturbed wetlands are approximately twice as high as carbon storage in wetlands disturbed by human-driven land use changes. However, it is uncertain whether this is a causal relationship or influenced by patterns of human settlement in avoiding the wettest sites which are challenging to develop (Nahlik & Fennessy 2016). Bogs and peatlands are important carbon sinks that could release hundreds of years of stored carbon if disturbed (Nahlik & Fennessy 2016).

Although wetlands are dynamic by nature, the ability to adapt to change is limited. Alterations in stormwater runoff conditions and changes to seasonal wetland hydrologic cycles can reduce the ability

of wetland soil bacteria and plants to retain, process, and sequester pollutants (EPA 2015). Climate change is impacting native plant species distribution; adaptive potential and climate tolerance for native plant species are a subject of ongoing research (Vose et al. 2012).

2.5.1 Strategies to Manage Climate Change Impacts on Wetlands

- Continue to encourage and incentivize direct wetland impact avoidance to maintain existing carbon storage.
- Continue to regulate wetland buffers to encourage and require width retention/limitations and enhancement with native vegetation. Both voluntary and required restoration planting should be paired with monitoring and maintenance that allows for dry-season irrigation and adaptive management.
- Continue to manage and regulate stormwater infrastructure to avoid and minimize discharges of untreated runoff to wetlands.
- Apply increased protections to bog wetlands and associated buffers to prevent stormwater impacts that could change pH and alter sensitive plant communities.
- Consider assisted migration for seed selection of native plants from locations that are better adapted to future climate conditions.

3. Critical Aquifer Recharge Areas (CARAs)

3.1 Definition

Critical aquifer recharge areas (CARAs) are defined in the Washington Administrative Code (WAC) 365-190-030 in the following quote.

> *Critical aquifer recharge areas are areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.*

Marysville does not currently have a definition, or any regulations related to CARAs. Following this is a description of fundamental aquifer processes and terminology.

Groundwater is water that exists underground in the saturated pore spaces of soil and rock. The upper surface of the saturated zone is referred to as the *water table*. An aquifer is a geologic formation that readily transmits groundwater to wells or springs above ground. According to WAC 173-150-030, an aquifer is defined as "any geologic formation that will yield water to a well or other withdrawal works in sufficient quantity for beneficial use." Aquifer recharge occurs when water infiltrates the ground and percolates to an aquifer. An unconfined aquifer is an aquifer that has no aquitard (a geologic formation that does not readily transmit water) or aquiclude (a geologic formation that does not allow for the transmission of water) between the water and the ground surface. A confined aquifer is a deeper aquifer that is separated from the surface and is under hydrostatic pressure resulting from impervious material both above and below the aquifer. Groundwater recharge areas are characterized by

decreasing hydraulic head with depth (direction of groundwater movement is downward). Groundwater discharge areas are characterized by increasing hydraulic head with depth (direction of groundwater movement is upward, towards the surface) (Driscoll 1986; Winter 1998).

Ecology considers *aquifers used for potable water* as those with existing wells and their protection area, a sole-source aquifer, those planned to be used for potable water in the future, and aquifers otherwise identified as an important supply (ECY 2021a). Maintenance of potable water uses, and potential uses of aquifers require the management of water quality and quantity, which is covered in the following section.

3.2 CARAs in Marysville

Marysville does not currently host any publicly available maps or resources to identify the location of CARAs. However, resources are provided by Snohomish County including a map produced during a 2023 critical areas ordinance update (Figure 2). Nearly all of Marysville is designated as a high, moderate, or low sensitivity CARA. No sole source aquifers are indicated. Additionally, Marysville contains several wellhead protection areas and Group A public water supplies.

Surface geology in Marysville is primarily composed of three units including Pleistocene continental glacial drift, Pleistocene continental glacial till, and Quaternary alluvium (Marysville 2024a).

The City of Marysville's drinking water supply is sourced from Spada and Chaplain Lake Reservoirs in the Cascade Mountains, watersheds, springs, and several deep wells.

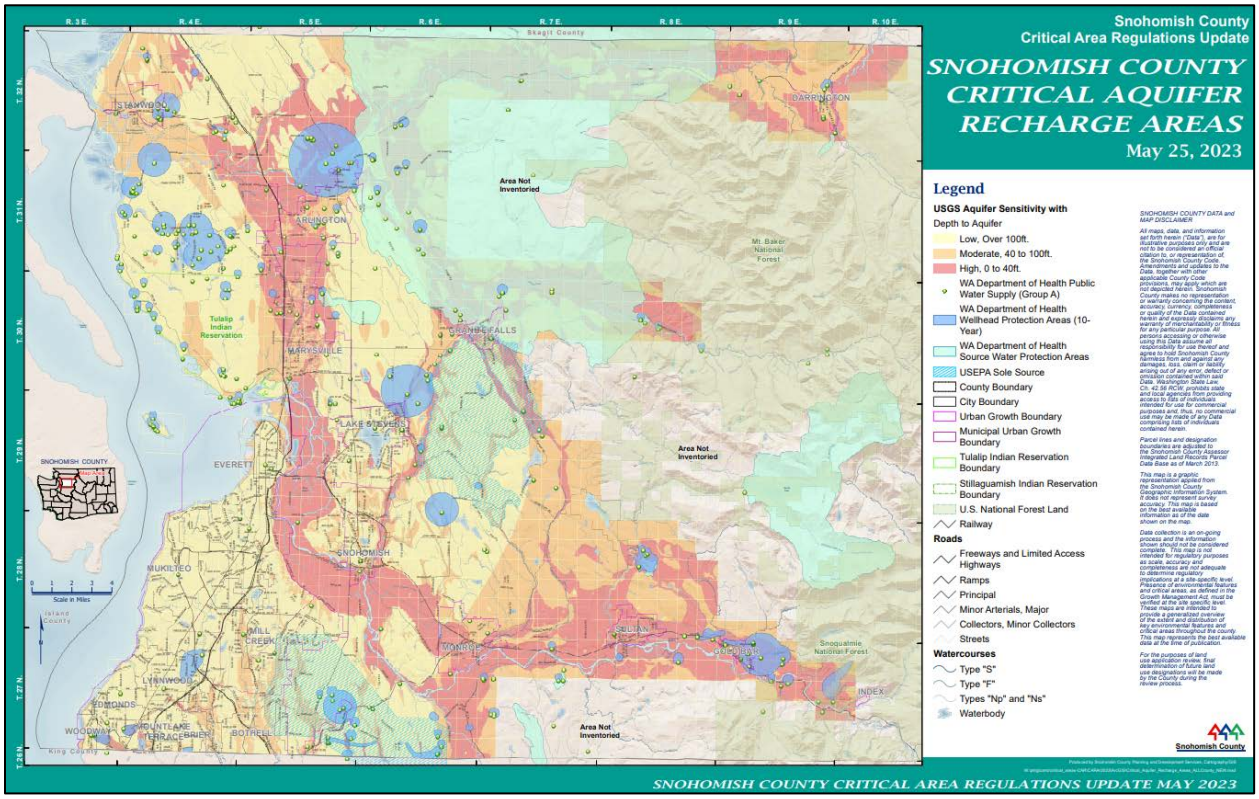


Figure 2. CARAs mapped in Snohomish County.

3.3 Functions and Values

The goal of establishing CARAs is to protect the functions and values of a community's drinking water by preventing pollution and maintaining supply. RCW 36.70A.172 requires counties and cities to incorporate BAS in developing policies and development regulations to protect the functions and values of critical areas. Counties and cities are also required to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries (ECY 2021a). Since groundwater is an important component of stream flow, it is necessary to maintain the groundwater supply for streams to protect salmon and other anadromous species. Groundwater conditions can also influence geologic hazards, including landslide hazards and erosion hazards.

3.3.1 Water Quality

While aquifer recharge areas serve to replenish groundwater supplies, they can also serve as a conduit for the introduction of contaminants to groundwater. Vulnerability to public water supply is primarily influenced by two main factors, the history of contamination loading and hydrogeologic susceptibility of the aquifer (WDOH 2017).

Contamination loading refers to the quantity and types of pollutants present in an area, including exposure concentration, frequency, and chemical composition. Together, susceptibility and loading potential determine the vulnerability of an aquifer. To be considered vulnerable, an aquifer would need to be both susceptible and have significant contamination loading. For example, a highly susceptible aquifer may have a low vulnerability if the land use within the area is primarily open space, since there is minimal contamination loading. Likewise, an industrial site with multiple leaking storage containers may not create significant vulnerability if it is separated from the nearest aquifer by several hundred feet of dense glacially compressed clay.

Aquifer susceptibility refers to how easily water and pollutants can move from the surface through the ground to reach the underlying aquifer. There are many factors which influence susceptibility including the following (Eberts et al. 2013; ECY 2021a):

1. Characteristics of the vadose zone[2] including depth to watertable and travel time. Travel time is influenced by hydrogeologogical factors including material composition and preferential flow paths
2. Permeability
3. Infiltration rate
4. Chemical retardation
5. Adsorption
6. Hydraulic conductivity
7. Hydrologic and pressure gradients
8. Groundwater flow direction

[2] The vadose zone is the region of the Earth between the land's surface and the water table, where soil or rock pores are partially filled with air and water. It's also known as the unsaturated zone or zone of aeration.

9. Groundwater flow rate

Permeability of the vadose zone can be estimated from soil and geologic mapping. The Washington Department of Natural Resources has an interactive web-based geologic map of the state which provides some insight into the permeability of the vadose zone[3]. Depth to an aquifer of a site can also be estimated by examining existing public data such as well logs in the vicinity. Well logs are available at the Ecology website[4]. Using nearby well data alone may be insufficient. Aquifers are managed and monitored by local water purveyors, in this case, Snohomish County Public Utility District (PUD).

3.3.2 Water Quantity

Potable water and groundwater-dependent, landscape-scale ecological processes are both supported by groundwater quantity and can be influenced by land use and human activities. This section provides a description of hydrologic processes in aquifers related to water quantity and the effects of human activities on these resources.

The quantity of water available in an aquifer is a balance between recharge, storage, and discharge. Aquifers have discrete recharge and discharge areas. Since groundwater movement is the result of downward gravitational forces, the location of recharge areas in aquifers is typically at a higher elevation than its discharge areas. This is not universal because subsurface conditions may result in groundwater flow and hydrologic gradients do not always reflect surficial topography (Driscoll 1986). Aquifer recharge can originate from rainfall, snowmelt, lakes, rivers, streams, or wetlands. Aquifer discharge occurs when water leaves the aquifer and is discharged to surface water. These areas can include seeps, springs, wetlands, streams, lakes, estuaries, and shorelines. Extraction from wells or by other means is also considered an aquifer discharge.

Land use and development typically alter the dynamics of aquifer recharge within a basin. For example, replacing forests with buildings, roads, driveways, lawns, and even pastures typically reduces the recharge to underlying aquifers, while simultaneously increasing the peak runoff rates to streams. In rare instances, however, some land uses can increase recharge rates. For example, if homes in an area receive water from a river or lake and discharge that water into septic systems, the result can be an increase in recharge to the underlying aquifer, and one that has potential for introducing contaminants (Dunne & Leopold 1978; Winter 1998).

Agricultural, residential, commercial, and/or industrial development may result in alterations to the natural hydrologic cycle by stripping vegetative cover, removing, and destroying native soil structure, modifying surface drainage patterns, and adding impervious and nearly impervious surfaces, such as roads and other compacted soils. The root zone is an important factor to consider because evaporation and transpiration of water by plants reduces the water available for groundwater recharge and can account for much or most of the rainfall during some months (Shao et al. 2019). Loss of water in stream channels and riparian areas due to water withdrawal and consumptive use of water from streams, rivers and aquifers further reduces groundwater recharge (ECY 2021a).

[3] https://fortress.wa.gov/dnr/geology/?Site=wigm

[4] https://appswr.ecology.wa.gov/wellconstruction/map/WCLSWebMap/WellConstructionMapSearch.aspx

Observed groundwater declines are primarily a result of changes in groundwater recharge and well water withdrawals. The Hirst Decision (*Whatcom County vs. Hirst*) is a 2016 landmark case where the Washington State Supreme Court ruled that water is not legally available if a new well would impact a protected river or stream, or an existing senior water right. In response, Ecology collaborated with local partners to develop watershed plans and implement Streamflow Restoration Act (RCW 90.94) in the affected WRIAs. Marysville is located in the Snohomish Water Resource Inventory Area, WRIA 7. WRIA 7 is subject to the instream flow rule of WAC 173-507. In general, these regulations seek to balance consumptive water rights with the maintenance of base stream flows necessary to support fish, particularly anadromous fish.

The Watershed Planning Act (ESHB 2514) is also applicable to CARAs in Washington State. This legislation, created in 1998, encourages voluntary planning by local governments, citizens, and tribes for water supply and use, water quality, and habitat at the Water Resource Inventory Area (WRIA) or multi-WRIA level. Grants are available to conduct assessments of water resources and develop goals and objectives for future water resource management.

3.4 Key Protection Strategies

Key protection strategies for CARAs are based on identifying and protecting CARAs through regulations and educational community outreach. Current 2021 Ecology CARA Guidance recommends the following eight steps to characterize and protect CARAs in a local community (ECY 2021a).

1. *Identify where groundwater resources are located.*
2. *Analyze the susceptibility of the natural setting where groundwater occurs.*
3. *Inventory existing potential sources of groundwater contamination.*
4. *Classify the relative vulnerability of groundwater to contamination events.*
5. *Designate areas that are most at risk to contamination events.*
6. *Protect by minimizing activities and conditions that pose contamination risks.*
7. *Ensure that contamination prevention plans and best management practices (BMPs) are implemented and followed. Review BMPs for infiltration designs with water quality treatment. Stormwater control usually affects the vadose zone and seasonal water tables with low risk to deeper water supply aquifers. Some exceptions are those glacial outwash plains with extensive deposits of coarse gravels near the surface.*
8. *Manage groundwater withdrawals and recharge impacts to maintain availability for drinking water sources and maintain stream base flow from groundwater to support in-stream flows, especially for salmon-bearing streams.*

Watershed planning is recommended to maintain in-stream flow as required by the 2018 Streamflow Restoration Act and for water supply planning under the 1998 Watershed Planning Act (Ecology 2021a).

3.5 Climate Change Impacts & Mitigation

Climate change impacts groundwater quality and quantity, which are influenced by regional trends as summarized below. Changes to surface water inputs can alter the timing, frequency, and duration of surface water presence and are projected to alter hydrologic patterns that can affect interactions with groundwater.

- Changes in precipitation levels in summers may reduce ground surface saturation during the growing season (Mauger et al. 2019). Higher temperatures will also increase the rate of evaporation in surface waters. This will likely reduce wetland areas and the groundwater recharge they provide during the dry season. This can influence streams, wetlands, and other surface waters impacted by groundwater in addition to anthropogenic consumption.
- Wildfires will introduce more particulates and contaminants into the environment, which settle on surface water and infiltrate into groundwater (Burton et al. 2016; Mansilha et al. 2020).
- Increased winter flooding increases the likelihood of overwhelming stormwater treatment facilities and flooding roads. This results in transporting contaminants into surface water, including local streams and wetlands that can infiltrate and contaminate aquifers (Mauger et al. 2019).
- Rising sea levels increase the potential for saltwater intrusion into coastal aquifers (Mauger et al. 2015).
- Demand for aquifers may increase as crops require greater levels of groundwater consumption to compensate for changes in precipitation levels.

Altered patterns of precipitation resulting from climate change are projected to include earlier peak stream flows, increased frequency, and extent of flooding, and reduced summer flows (Mauger et al. 2015). Groundwater is believed to be more resilient to the effects of climate change relative to surface water resources (HDR 2019). The primary stressors to aquifers are changes in the timing and amount of groundwater recharge, and increased pressure to use groundwater as surface water conditions change. Ecology recommends focusing on water conservation as a strategy to plan for climate change impacts (ECY 2021a).

Other stressors on CARAs that may require further study include reclaimed water use and temporary construction dewatering. Ecology recommends that jurisdictions conduct a multi-year infiltration study (ECY 2021a). Population growth also presents challenges for protecting CARAs as land use intensity increases (ECY 2021a). For example, multi-year droughts can increase reliance on groundwater sources, lead to reductions in groundwater tables, aquifer depletion, and potentially result in saltwater intrusion (Asinas et al. 2022).

3.5.1 Strategies to Manage Climate Change Impacts to CARAs

- Manage stormwater to maintain groundwater recharge in CARAs. Utilize a 20-year planning horizon to manage supply and demand given climate trends and projections (Asinas et al. 2022).
- Design stormwater systems to better mimic natural systems and mitigate some of the functions lost elsewhere in the landscape due to changes in surface and groundwater

inputs. For example, the use of roadside bioswales may be expanded. Stormwater treatment capacity may be increased as needed to protect water quality and manage water quantity.

- Planning and implementing flood mitigation strategies can reduce the likelihood of contaminated runoff events.
- Preserve open space and concentrate urban development away from CARAs.
- If necessary, strengthen regulatory protection of CARAs. For example, the City may review the CARA mapping, determine the areas of highest risk to drinking water, and prioritize protection of those areas. The City can reduce the risk of groundwater contamination by prohibiting land uses that are high-risk within high-priority areas. Public outreach education on best management practices (BMPs) for spills and leaks can also be improved.
- Maintain updated CARA maps and classifications.
- Review regulatory requirements for reclaimed water use and temporary dewatering during construction to ensure adequate protections are in place. This may involve additional City-specific studies.
- Continue to modify public outreach efforts to educate residents about best practices in CARAs and promote water conservation and water use efficiency programs.
- Promote and incentivize low-impact development, specifically infiltration of clean runoff to support aquifer recharge.
- Balance growth and development with the preservation and restoration of open spaces and native vegetation tracts.

4. Fish and Wildlife Habitat Conservation Areas (FWHCAs)

4.1 Definition

Washington State defines fish and wildlife conservation as "land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created" (WAC 365-190-130). Fish and Wildlife Habitat Conservation Areas (FWHCAs) are lands designated for this conservation action and are defined under WAC 365-190.130

(a) Areas where endangered, threatened, and sensitive species have a primary association;
(b) Habitats and species of local importance, as determined locally;
(c) Commercial and recreational shellfish areas;
(d) Kelp and eelgrass beds; herring, smelt, and other forage fish spawning areas;
(e) Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;

(f) Waters of the state;
(g) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and
(h) State natural area preserves, natural resource conservation areas, and state wildlife areas.

FWHCAs are further designated under MMC 22E.010.170(2) to include habitats and species of local importance. A nomination and review process is established that requires a demonstration of declining populations, sensitivity to habitat manipulation, or commercial or game value or other special value, such as public appeal, along with management strategies and species location maps that would go through a city review process. There are no designated species or habitats of local importance at this time.

4.2 FWHCAs in Marysville

4.2.1 Aquatic Areas

Marysville is situated in the Snohomish Water Resource Inventory Area (WRIA 7), and overlays two subwatersheds including the Quilceda Creek Watershed (HUC 171100110204) and Snohomish River - Frontal Possession Sound Watershed (HUC 171100110203). A list of waterbodies inventoried in Marysville is provided below in Table 1. Streams and classifications in the City of Marysville is provided in Figure 3.

Table 1. List of waterbodies present in Marysville. Fish and salmonid presence determined by city mapping resources, Statewide Washington Integrated Fish Distribution (SWIFD), Snohomish County PDS Map Portal, and FPAMT; fish presence is noted if indicated on any resource. Salmonid presence is based on SWIFD. List includes only named waterbodies identified on resource maps, tributaries to mainstem not listed. Marysville sewage lagoon is omitted from this summary; however, it is mapped as gradient accessible for salmonids.

Category	Waterbody	Type	Salmonid Presence
Marine/Estuarine	Ebey Slough	Type S	Documented Chinook, coho, chum, pink, sockeye, steelhead, and cutthroat trout, and presumed presence of other salmonids
	Steamboat Slough	Type S	Documented Chinook, coho, chum, pink, sockeye, steelhead, and cutthroat trout, and presumed presence of other salmonids
	Qwuloolt Estuary	Type S	Documented Chinook, coho, bull trout/Dolly Varden, and cutthroat trout, and presumed presence of other salmonids
Lakes	None inventoried		
Ponds (<20 acres)	King Lake	Type F[1,2]	None documented, modeled gradient accessible for certain salmonids
	Gissberg Twin Lakes	Type F[1]	None documented, presumed, or modeled
Streams	Quilceda Creek	Type S until approaching the intersection of 51st Ave NE and 122nd Pl NE, then Type F throughout city; minor tributaries mapped as not regulated[1]	Documented Chinook, coho, chum, steelhead, bull trout/Dolly Varden, and cutthroat trout in lower reach, modeled gradient accessible for coho and other salmonids throughout much of the basin

Category	Waterbody	Type	Salmonid Presence
	Allen Creek	Type F to minor headwater tributaries[1,2]	Documented Chinook, coho, bull trout/Dolly Varden, and cutthroat trout in lower reach, modeled gradient accessible for coho and other salmonids throughout much of the basin
	Jones Creek	Type F to headwaters except minor tributaries[2]	Documented coho and cutthroat trout in lower reach, modeled gradient accessible or presumed present for other salmonids throughout much of the basin
	King Creek	Type F throughout basin except for a segment of the southern tributary[1,2]	Documented coho and cutthroat trout in lower reach, modeled gradient accessible for coho and other salmonids throughout basin except southern tributary

1-DNR FPAMT
2-Marysville Maps
3-Snohomish County PDS

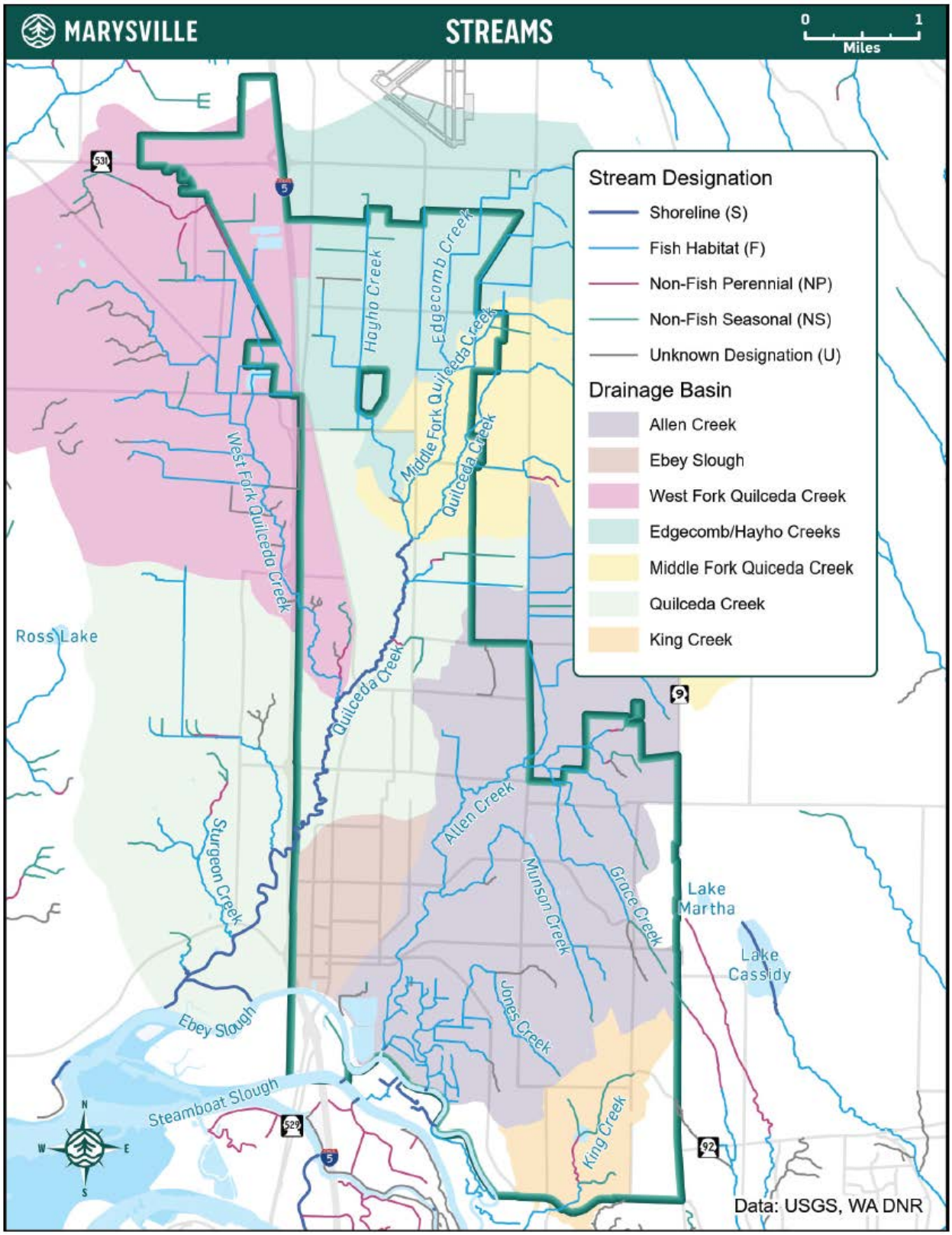


Figure 3. Streams mapped in Marysville, reproduced from City of Marysville 2024-2024 Comprehensive Plan.

4.2.2 Listed Species

WDFW lists priority habitats and species (PHS) by county. Table 2 includes a summary of the Snohomish County PHS list, which also includes all state and federally listed species. Many of the species included in this list are unlikely to be present in an urban area such as Marysville, though even rare species may be found infrequently. As WDFW notes, habitats and species can change over time as distributions expand or contract.

Table 2. List of WDFW-designated priority species which occur in Snohomish County. Not all species have range overlap with Marysville city limits.

	Species/ Habitats	State Status	Federal Status
Habitats	Biodiversity Areas & Corridors		
	Herbaceous Balds		
	Old-Growth/Mature Forest		
	Oregon White Oak Woodlands		
	Riparian		
	Freshwater Wetlands & Fresh Deepwater		
	Instream		
	Puget Sound Nearshore		
	Caves		
	Cliffs		
	Snags and Logs		
	Talus		
Fishes	Pacific Lamprey		
	River Lamprey	Candidate	
	Olympic Mudminnow	Sensitive	
	Pacific Herring		
	Longfin Smelt		
	Surfsmelt		
	Bull Trout/ Dolly Varden	Candidate *	Threatened
	Chinook Salmon		Threatened (Upper Columbia Spring run is endangered)
	Chum Salmon		Threatened
	Coastal Res./ Searun Cutthroat		
	Coho Salmon		Threatened – Lower Columbia
	Kokanee		
	Pink Salmon		
	Rainbow Trout/ Steelhead/ Inland Redband Trout	Candidate	Threatened
	Sockeye Salmon		Threatened – Ozette Lake

	Species/ Habitats	State Status	Federal Status
	Endangered – Snake River"		
	Pacific Cod		
	Pacific Hake		
	Walleye Pollock		
	Black Rockfish		
	Bocaccio Rockfish		Endangered
	Brown Rockfish		
	Canary Rockfish		Threatened
	Copper Rockfish		
	Greenstriped Rockfish		
	Quillback Rockfish		
	Redstripe Rockfish		
	Yelloweye Rockfish		Threatened
	Lingcod		
	Pacific Sand Lance		
	English Sole		
	Rock sole		
Amphibians	Oregon Spotted Frog	Endangered	Threatened
	Western Toad	Candidate	
Birds	Common Loon	Sensitive	
	Marbled Murrelet	Endangered	Threatened
	Western grebe	Candidate	
	W WA nonbreeding concentrations of: Loons, Grebes, Cormorants, Fulmar, Shearwaters, Storm-petrels, Alcids		
	W WA breeding concentrations of: Cormorants, Storm-petrels, Terns, Alcids		
	Great Blue Heron		
	Western High Arctic Brandt		
	Cavity-nesting ducks: Wood Duck, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Hooded Merganser		
	Western Washington nonbreeding concentrations of: Barrow's Goldeneye, Common Goldeneye, Bufflehead		
	Harlequin Duck		
	Snow Goose		
	Trumpeter Swan		
	Tundra Swan		
	Waterfowl Concentrations		
	Golden Eagle	Candidate	
	Northern Goshawk	Candidate	
	Sooty Grouse		
	W WA nonbreeding concentrations of: Charadriidae, Scolopacidae, Phalaropodidae		

	Species/ Habitats	State Status	Federal Status
	Band-tailed Pigeon		
	Yellow-billed Cuckoo	Endangered	Threatened
	Northern Spotted Owl	Endangered	Threatened
	Vaux's Swift		
	Black-backed Woodpecker	Candidate	
	Oregon Vesper Sparrow	Endangered	
Mammals	Dall's Porpoise		
	Gray Whale	Sensitive	Endangered
	Harbor Seal		
	Orca (Killer Whale)	Endangered	Endangered
	Harbor Porpoise	Candidate	
	Roosting Concentrations of: Big-brown Bat, Myotis bats, Pallid Bat		
	Townsend's Big-eared Bat	Candidate	
	Keen's Myotis	Candidate	
	Cascade Red Fox	Endangered	
	Fisher	Endangered	
	Grizzly Bear	Endangered	Threatened
	Lynx	Threatened	Threatened
	Marten		
	Wolverine	Candidate	Threatened
	Columbian Black-tailed Deer		
	Mountain Goat		
	Elk		
Invertebrates	Pacific Geoduck		
	Butter Clam		
	Native Littleneck Clam		
	Manila (Japanese) Littleneck Clam		
	Olympia Oyster		
	Pacific Oyster		
	Dungeness Crab		
	Pandalid shrimp (Pandalidae)		
	Beller's Ground Beetle	Candidate	
	Western Bumble Bee	Candidate	Candidate
	Johnson's Hairstreak	Candidate	

4.2.3 Other FWHCAs

There are no commercial or recreational shellfish areas, species of local importance, forage fish spawning, seagrass or kelp beds, state natural area preserves, natural resource conservation areas, or state wildlife areas which are inventoried or mapped within Marysville.

4.3 Functions and Values

FWHCA functions include the biological, chemical, and physical processes that affect wildlife. Since wildlife may include all species, from the largest megafauna to microorganisms, these functions encompass a complex web of interacting ecological processes. At the highest level, FWHCAs provide wildlife with suitable habitat. This section discusses functions of FWHCAs most relevant to wildlife and habitat management, with a focus on streams and riparian areas. Functions of certain habitat areas are also considered if relevant to a particular societal value other than wildlife.

FWHCA values are the range of societal, economic, and ecological benefits provided by these lands and the wildlife that may inhabit them. These include *indirect values* that include non-consumptive uses such as recreation, tourism, scientific research, option values (valuing future opportunities), and intrinsic existence values (Chardonnet et al., 2002). They also include *direct values*, the consumptive and productive uses, such as commercial harvest, hunting, timber, and firewood (Chardonnet et al., 2002). These values represent diverse public interests and attitudes toward wildlife issues which change over time (Teel & Manfredo, 2010).

There have been advancements in the fields of ecology, ichthyology, and wildlife science since the previous Marysville BAS report was completed in 2004, though much of the foundational research on functions and values is still valid. Therefore, topics covered previously are not covered in this review.

4.4 Key Protection Strategies

4.4.1 Streams, Lakes[5] and Ponds, and Riparian Areas

WATER TYPE CLASSIFICATION

Aquatic areas are classified so that they can be managed and regulated based on their characteristics, fish use, and functions. Characteristics common to water typing systema are flow volume, fish use and accessibility, seasonality, and presence of salmonids. The Department of Natural Resources (WDNR) is encouraging all jurisdictions within the State to adopt the permanent water typing system upon completion of fish habitat water type mapping. The permanent system provides four stream classes: Type S (Waters of the State), Type F (fish habitat present), Type Np (non-fish habitat stream with perennial flow), and Ns (non-fish habitat stream with seasonal flow). The water typing system is detailed in WAC 222-16-030.

RIPARIAN MANAGEMENT ZONES

In 2020, the Washington Department of Fish and Wildlife developed BAS guidance for the protection of riparian areas (Rentz et al. 2020). The guidance emphasizes a shift in terminology and framework from the concept of "*stream buffers*" to "*riparian management zones*" (RMZs). A RMZ is defined as "*…a scientifically based description of the area adjacent to rivers and streams that has the potential to provide*

[5] Lakes 20-acres or larger are regulated separately under the Shoreline Master Program, therefore discussed BAS is focused on lakes smaller than this threshold.

full function based on the SPTH [site potential tree height] conceptual framework." Further, a RMZ is recommended to be regulated as a fish and wildlife habitat conservation area itself to protect its fundamental value, rather than as a buffer for rivers and streams (Rentz et al. 2020). Stream buffers are established in local critical areas ordinances based on BAS and are intended to protect streams but may or may not provide full riparian function or a close approximation of them. To achieve full riparian function, the guidance recommends that RMZs be considered a delineable, regulatory critical area and that the guidance be applied to all streams and rivers, regardless of size and type.

Washington Department of Fish and Wildlife's current recommendations for establishing RMZ widths are based primarily on the site potential tree height framework. The site potential tree height is defined as "*…the average maximum height of the tallest dominant [6] trees (200 years) for a given site class.*" Exceptions may occur where the site potential tree height is less than 100 feet, in which case the agency recommends assigning an RMZ width of 100 feet at a minimum to provide adequate biofiltration and infiltration of runoff for water quality protection from most pollutants, but also in consideration of other habitat-related factors including shade and wood recruitment. A 100-foot-wide riparian buffer is estimated to achieve 95% pollution removal and approximately 85% surface nitrogen (Rentz et al. 2020). Washington Department of Fish and Wildlife recommends measuring RMZ widths from the outer edge of the channel migration zone, where present, or from the ordinary high-water mark where a channel migration zone is not present.

To apply their methodology, Washington Department of Fish and Wildlife has developed a web-based mapping tool for use in determining site potential tree height based on the 200-year site index. Modeled site potential tree heights (SPTH) range from 75-231 feet. Where site potential tree height is 100 feet or more, the agency recommends that RMZ widths are equal to the site potential tree height (Rentz et al. 2020). The SPTH model is based on the width at which the site can achieve full riparian functions, given site soils and dominant tree heights after 200 years of growth. Riparian vegetation provides direct and apparent benefits to streams, such as shading and large woody debris recruitment.

Acknowledging that establishing functional RMZs using the recommended methods may not be practical in many developed areas, Washington Department of Fish and Wildlife recommends effective watershed management, preservation, and protection, resulting in nearly full restoration of riparian ecosystem habitat functions as is feasible within existing constraints. Washington Department of Fish and Wildlife RMZ establishment and management recommendations are detailed in their *Riparian Ecosystems, Volume 2: Management Recommendations* document (Rentz et al. 2020). Examples of watershed-scale approaches include considering stormwater management adjacent to pollution generating impervious surfaces and prioritizing the replacement of impassable culverts on fish-bearing streams.

A graphical representation of the Forest Ecosystem Management Assessment Team (FEMAT) Curves are shown in Figure 4, which are considered in WDFW's recommendations for establishing the dimensions of RMZs (Rentz et al. 2020). The figure depicts the effectiveness of several functions based on buffer width from the edge of a stream. SPTH is a practical buffer dimension because it is large enough to protect nearly all riparian functions, and further increases yield diminishing returns.

[6] Dominant trees are those which extend above the normal level of the forest canopy.

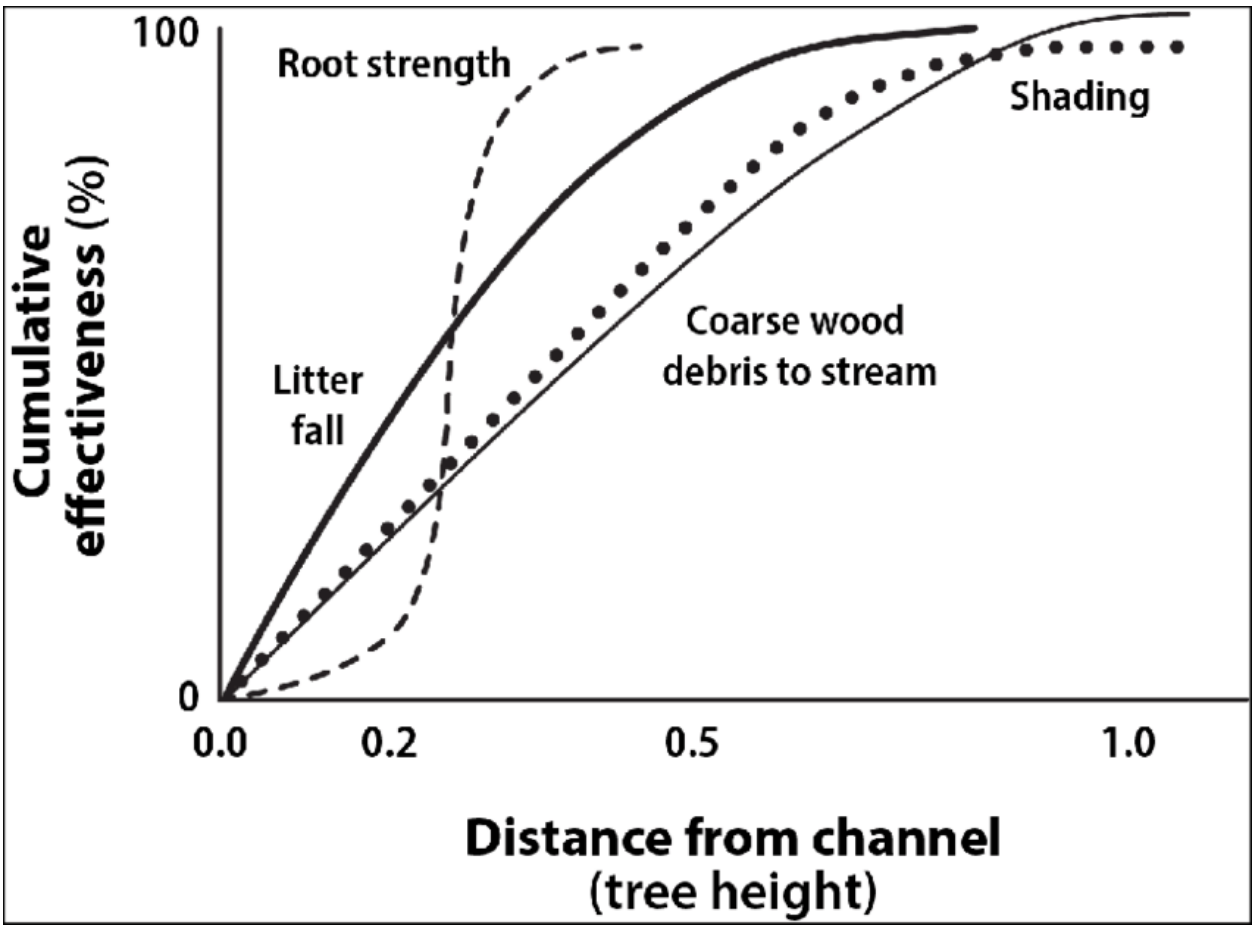


Figure 4. The "FEMAT Curves": a conceptual model of the contributions of key riparian ecosystem functions which influence aquatic ecosystems by distance and cumulative effectiveness. Tree height refers to the average relative height of the site potential tree height (reproduced from FEMAT 1993).

Many of the scientific studies that examine the functions and values associated with riparian areas have been conducted in forested environments. However, there are fundamental differences between forested, agricultural, and urban areas, including land use and hydrology. Riparian studies often do not account for the contribution of engineering and public works projects, such as surface-water detention facilities, which can supplement natural riparian function in urban settings.

BAS-based literature points to a range of recommended management measures and buffer considerations to help maintain habitat functions for fish and wildlife. Effective methods to reduce impacts from urbanization and manage associated runoff can include the following:

- Limiting development densities and impervious surface coverage;
- Limiting vegetation clearing and retaining forest cover;
- Concentrating impact activities, particularly roads and pollutant sources, away from watercourses;

- Limiting the total area of roads and requiring joint use of new access roads;
- Protecting vegetation and limiting development on or near hydrologic source areas;
- Maintaining densely vegetated riparian buffers with native trees, shrubs, and groundcover species;
- Low impact development (LID);
- Municipal stormwater treatment;
- Public education.

In an analysis of riparian zone ordinances, Wenger and Fowler (2000) support using approaches that allow some flexibility in how policies are implemented on a parcel scale. Whereas variable-width policies provide greater flexibility and adaptability to address site-specific conditions, it is noted that fixed buffer widths are more easily established, require less scientific knowledge to implement, and generally require less time and money to administer (Castelle et al. 1994). Thus, although stream and riparian conservation measures should be based on BAS, some level of policy interpretation must be made by a local jurisdiction.

If fixed-width buffers are implemented, buffers should be sufficiently wide to ensure that riparian buffers are effective under a range of variable conditions. The ranges of effective buffer widths (as outlined in each subsection) based on each function that were previously discussed are summarized below in Table 3.

Table 3. Range of Effective Buffer Widths for Each Applicable Riparian Function.

Function	Range of Effective Buffer Widths	Notes
Water quality: sediment	4-30 m (13-98 feet), up to 120 m (394 feet) for fine sediment	Filtration is widely variable depending on slope and soils.
Water quality: nutrients	Subsurface flow: not dependent on buffer width Surface flow: 15-131 m (49-430 feet)	In addition to buffer width, the rate of nutrient removal is dependent on infiltration, soil composition, and climate. Filtration capacity decreases with increasing loads, so best management practices that reduce nutrient loading will improve riparian function.
Water quality: metals	NA- Appropriate buffer width not established	Stormwater system improvements to slow and infiltrate runoff could help reduce metals entering aquatic systems.
Water quality: pathogens	NA- Appropriate buffer width not established	Minimizing the density of septic systems, maximizing the distance of septic systems from aquatic resource areas, and promoting pet waste

Function	Range of Effective Buffer Widths	Notes
		management will help limit the transport of pathogens to aquatic systems.
Water quality: herbicides	6-18 m (20-59 feet)	Best management practices during application of herbicides and pesticides can help limit leeching to groundwater.
Water quality: pharmaceuticals	NA- Appropriate buffer width not established	Best management practices for disposal of pharmaceuticals may limit potential impacts.
Water quality: stream temperature	10-30 m (33-98 feet)	Leaf cover is more closely related to stream temperature than buffer width.
Bank Stabilization	10-30 m (33-98 feet)	Beyond 98 feet from the stream, buffers have little effect on bank stability.
Microclimate	(10-45 m) 33-150 feet	Most microclimate changes occur within 10-45 m (33 to 150 feet) from the edge, but microclimate effects extend over 240 m (790 feet) from the forest edge[7].
Invertebrates and Detritus	30 m (98 feet)	Areas with 10 m (33 ft) buffers exhibit changes in invertebrate community composition.
Wildlife Habitat	100 to 600 feet	Minimum width for supporting habitat varies among taxa, guides, and species. Functions include both corridor (travel and migration) and support of lifecycle stages, including breeding.
In-stream Habitat (large woody debris – LWD)	18-50 m (59 to 164 feet)	Although most LWD is recruited from the area adjacent to the stream, tree-fall from beyond 1 SPTH may affect LWD loading.

To achieve improved water quality in the City's streams, small lakes, and ponds, riparian buffer areas should be utilized effectively to provide both biofiltration of stormwater runoff and protection from adjacent land uses. Both goals can be achieved by providing dense, well-rooted vegetated buffer areas.

Biofiltration swales, created wetlands, and infiltration opportunities for specific stormwater runoff discharges can be utilized to intercept runoff before it reaches stream channels. Stormwater runoff that is conveyed through stream buffers in pipes or ditch-like channels and discharged directly to stream channels "short circuits" or bypasses buffer areas and receives little water quality treatment via biofiltration. In areas where stormwater flows untreated through riparian buffer areas, the buffer is underutilized and is prevented from providing the intended or potential biofiltration function.

[7] Microclimate changes include physical changes including temperature and hydroperiods. Microclimate effects include disturbances to riparian vegetation and dispersal of fauna and insects.

FEMA FLOODPLAIN HABITAT ASSESSMENTS

In 2008, the National Marine Fisheries Service (NMFS) issued a Biological Opinion under Section 7 of the Endangered Species Act, which found that the implementation of the National Flood Insurance Program (NFIP) in the Puget Sound region jeopardized the continued existence of federally threatened salmonids and resident killer whales. As a result, NMFS established Reasonable and Prudent Alternatives to ensure that development within the Special Flood Hazard Area (100-year floodplain), floodway, Channel Migration Zone (CMZ), and riparian buffer zone do not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids. Because the NFIP is implemented by the Federal Emergency Management Agency (FEMA) through participation by local jurisdictions that adopt and enforce floodplain management ordinances, FEMA has delegated responsibility to the local jurisdictions to ensure that development does not adversely affect listed species. Projects within FEMA-designated floodplains are required to prepare habitat assessments to ascertain their potential effects on federally-listed endangered species. In particular, floodplain storage volumes may not be decreased nor base flood level elevations increased.

4.4.2 Endangered, Threatened, or Sensitive Species and Species of Local Importance

Effective BAS-based strategies can be applied to protect all Federal and State endangered or threatened species and WDFW-identified Priority Species and Habitats (PHS). WDFW, United States Fish and Wildlife Service (USFWS), and NMFS provide information on species-specific management recommendations for certain species that can be used to guide management at the city level or site level. The amount of information available for each regulated species is variable, with some highly researched and others lacking in information and management guidelines. Where species-specific management recommendations are available from WDFW guidance documents, these should be followed or adapted to local regulations. Examples are Management Recommendations for Washington's Priority Species; Invertebrates (Larsen et al. 1995); amphibians and reptiles (Larsen 1997); Birds (Larsen et al. 2012); and mammals (WDFW 2010). General recommendations for management strategies to protect terrestrial habitat are listed below.

GENERAL TERRESTRIAL HABITAT MANAGEMENT RECOMMENDATIONS

- Existing high quality habitats should be retained because habitat loss is one of the most important factors influencing biodiversity and loss of species (Beninde et al. 2015).
- Generally, plan development to minimize fragmentation of native habitat, particularly large, intact habitat areas. Where large forest stands exist, manage for forest-interior species and avoid fragmentation (Diffendorfer et al. 1995; Donnelly and Marzluff 2004; Mason et al. 2007; Orrock and Danielson 2005; Pardini et al. 2005;).
- Manage agricultural development to limit fragmentation and edge effects. Preserve vegetative structural diversity whenever possible in agricultural areas by retaining hedge rows and areas of native vegetation.
- Protect priority habitats that have a primary association with an ESA-listed species or species of local importance by continuing to regulate for adherence to WDFW management recommendations and other applicable regulatory requirements.

- Control invasive species where needed on a site- and species-specific basis. Address invasive species specifically addressed in areas where environmental conditions tend to promote infestation, including created edges, roadways, and riparian zones where they are contiguous with developed areas that may act as a seed source (McKinney 2002; Olden et al. 2004; Pimentel et al. 2005).
- Maintain or provide habitat connectivity with vegetated corridors between habitat patches (Gilbert-Norton et al. 2010).
- Protect, maintain, and promote habitat features such as snags and downed wood (Blewett and Marzluff 2005).
- Manage for increased native vegetative cover in landscaping and discourage lawns (Nelson and Nelson 2001).
- Plan habitat areas away from roads (Fahrig et al. 1995, Lehtinen et al. 1999).
- Promote buffers of adequate width to support wildlife guilds[8] in adjacent habitat (Ficetola et al. 2009, Semlitsch and Bodie 2003, Crawford and Semlitsch 2007).
- Identify existing habitat patches and corridors and maintain connectivity with vegetated corridors to limit fragmentation and edge habitat (Gillies et al. 2008, Gilbert-Norton et al. 2010). Preserve habitat patches of at least moderate size 35 ha (86 ac) within developed areas (Kissling and Garton 2008). In Marysville, habitats of this size are generally only occur in riparian corridors and estuarine habitats.
- Promote restoration of FWHCAs, buffers, and other management zones through critical area regulations and public outreach. Encourage stewardship on a parcel by parcel and city-wide scale.

4.5 Climate Change Impacts & Mitigation

Climate change is predicted to result in significant and irreversible impacts to fish and wildlife, and their habitats. Global change is anticipated to result in habitat loss and modification through temperature changes, sea level rise, ocean acidification, extreme weather events, changes in precipitation, biological invasions, food web disruptions, and disease (Lyons et al. 2022; Nagelkerken 2023). The range of effects on fish and wildlife depend on species specific interactions and may include range shifts, phenological shifts, changes to morphology and behavior, biodiversity loss, and extinction (Sattar et al. 2021). The cumulative impacts of these factors to wildlife are anticipated to result in loss of biodiversity and increases to extinction rates (Sattar et al. 2021).

Changes in temperatures and seasonal precipitation patterns are projected to place additional stressors on FWHCAs. Some loss of riparian vegetation is anticipated due to the stresses of climate change, primarily warmer and drier summers. A reduction in riparian vegetation potentially triggers a cascading effect. A decrease in riparian vegetation would decrease shading, increase stream temperature, decrease detrital inputs, reduce available habitat structure, and reduce stream bank stability. Changes in seasonal hydrologic cycles may increase frequency and magnitude of flash runoff events, mobilize greater volumes of sediments and pollutants into streams, and reduce groundwater recharge that

[8] A wildlife guild is a group of species that share similar ecological niches and overlap in their foraging behaviors, diets, and use of substrates.

supports base stream flows in summer. FWHCA Functions and Values, and instream habitats are particularly negatively impacted by excess sediment discharge and deposition.

Hot dry summers are projected to reduce stream flow volumes and increase instream temperatures. This stressor is compounded by extreme precipitation events, flooding, and erosion. All these stressors reduce instream habitat quality and stress salmonid populations, including Chinook salmon, the preferred food source for Orca whales. Global warming poses a threat to freshwater fish habitat (Crozier et al. 2008).

4.5.1 Strategies to manage climate change impacts to FWHCAs

The following actions or policies have been developed for other local jurisdictions in coordination with the University of Washington Climate Impacts Group and are potential strategies that Marysville could use to reduce negative climate change impacts on FWHCAs (Redmond 2022).

- Promote retention of trees and forests and maintain tree replacement and reforestation requirements.
- Encourage and incentivize enhancement and restoration of native forest patches throughout the City, particularly where connectivity to one or more FWHCAs is identified. Both voluntary and required restoration planting should be paired with monitoring and maintenance that allows for dry season irrigation and adaptive management.
- Consider assisted migration for seed selection of native plants from locations that are better adapted to future climate conditions.
- Manage stormwater infrastructure to avoid and minimize discharges of increased and/or untreated runoff to streams and thereby offset the anticipated increase in intensive rainfall events. Promote the use of LIDs as a tool to effectively manage stormwater for minimal downstream impacts.
- Update and maintain regulations for habitats and species of local importance. This may include adding mapping resources to help identify the locations of potential habitats and species requiring protection and management.
- Prioritize protection of streams and riparian corridors to reduce the stresses of climate change on native fish species and anadromous fish, such as chinook salmon.
- Identify and protect cold water refugia in waterbodies.
- Conduct vulnerability assessments and climate action plans.

5. Geologically Hazardous Areas

Geologically hazardous areas are defined similarly by Washington State and Marysville as follows:

> Washington State Definition*: areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns" (WAC 365-190-030)*
>
> Marysville Definition*: lands or areas characterized by geologic, hydrologic, and topographic conditions that render them susceptible to potentially significant or severe risk of landslides, erosion, or seismic activity.*

The four main geologically hazardous areas recognized in the GMA are erosion hazard areas, landslide hazard areas, seismic hazard areas, and areas subject to other geologic events such as coal mine hazards and volcanic hazards (RCW 36.70A.030; WAC 365-190-120). Marysville provides regulations for certain types of geologically hazardous areas in MMC 22E.010.270-310.

The purpose of regulating activities in geologically hazardous areas is to protect the public from potential risks. Geologic events may occur in hazardous areas that can result in property damage, injury, and the loss of life. The type of land use and development in these areas influences the level of risk and may, in some cases, increase the potential for a hazardous event. There is public interest in regulating these areas because a geologic event occurring on one property can impact large surrounding areas. It is important to identify where such hazard areas are located to ensure that activities and development in those areas are managed for safety and stability.

Although the general protective approach is to avoid disturbing geologic hazard areas, WAC § 365-190-080(4) states "Some geological hazards can be mitigated by engineering, design, or modified construction or mining practices so that risks to health and safety are acceptable".

5.1 Definitions

5.1.1 Erosion Hazard Areas

Erosion hazard areas are defined by Marysville as "…lands or areas that, based on a combination of slope inclination and the characteristics of the underlying soils, are susceptible to varying degrees of risk of erosion. Erosion hazard areas are classified as low hazard, moderate hazard, and high hazard, based on the following criteria" (MMC 22A.020.060).

> *(1) Low Hazard. Areas sloping less than 15 percent.*
> *(2) Moderate Hazard. Areas sloping between 15 and 40 percent and underlain by soils that consist predominantly of silt, clay, bedrock or glacial till.*
> *(3) High Hazard. Areas sloping between 15 and 40 percent that are underlain by soils consisting largely of sand and gravel, and all areas sloping more steeply than 40 percent.*

Steep slopes are mapped by Marysville on in city mapping resources (Marysville 2024b).

5.1.2 Landslide Hazard Areas

Marysville defines landslide hazard areas as "…areas that, due to a combination of slope inclination and relative soil permeability, are susceptible to varying degrees of risk of landsliding. Landslide hazard areas are classified as Classes I through IV based on the degree of risk as follows" (MMC 22A.020.130):

> *(1) Low Hazard. Areas with slopes of less than 15 percent*
> *(2) Moderate Hazard. Areas with slopes of between 15 and 40 percent and that are underlain by soils that consist largely of sand, gravel, bedrock or glacial till.*
> *(3) High Hazard. Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay, and all areas sloping more steeply than 40 percent.*
> *(4) Very High Hazard. Areas with slopes over 40 percent and areas of known mappable landslide deposits.*

Steep slopes are mapped by Marysville on in city mapping resources (Marysville 2024b).

5.1.3 Seismic Hazard Areas

Seismic hazard areas are defined by Marysville as "…areas that, due to a combination of soil and ground water conditions, are subject to severe risk of ground shaking, subsidence, or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow ground water table, and are typically located on the floors of river valleys. Seismic hazard areas are classified as follows" (MMC 22A.020.200):

> *(1) Low Hazard. Areas underlain by dense soils or bedrock.*
> *(2) High Hazard. Areas underlain by soft or loose saturated soils.*

5.1.4 Other Hazard Areas

No other geologically hazardous areas are mapped in the City of Marysville in the WA Geologic Information Portal.

5.2 Hazard Characterization

5.2.1 Erosion Hazard Areas

Erosion hazard areas present risks to infrastructure, the environment, and public safety. For example, erosion may undermine the foundation of buildings or other structures and increase the risk of landslides which threaten property and human life. There is also a direct link between erosion and impacts to other aquatic critical areas including streams, ponds, and wetlands (Dubois et al. 2018).

Erosion and landslides are natural processes that contribute sediment, rocks, and large woody debris to streams and other waterbodies. The introduction of periodic pulses or chronic turbidity and suspended solids associated with erosion has been demonstrated to harm certain types of aquatic life, particularly salmonids (Bash et al. 2001). This can occur from activities such as clearing vegetation and the creation

of new impervious surfaces, which can introduce sediments and pollutants to natural waterways (Booth 1991).

The stability of erosion hazard areas is influenced by the vegetation composition, structure, and cover. Vegetation reduces erosion through rainwater interception and by anchoring soils within root networks (Booth et al. 2002; Naiman and Decamps 1997). In cleared areas, rainfall tends to concentrate in small channels, and sediment can be mobilized as the water gains depth, volume, and increased flow. Small channels or rills can eventually develop into gullies in these types of exposed soils.

5.2.2 Landslide Hazard Areas

Landslides are difficult to predict because bluff geology, sediment composition, topography, and hydrology all influence risk of failure. Steeper slopes are more prone to failure due to increased gravitational stresses (Shipman 2004). Certain land use modifications and development activities have the potential to increase the likelihood of landslides to occur, such as vegetation removal and the creation of new impervious surfaces. In addition to anchoring sediments, the process of evapotranspiration by plants transforms groundwater into atmospheric vapor and intercepts rainwater (Schmidt et al. 2001; Watson and Burnett 1995). The anchoring and hydrologic functions of vegetation lower the risk of slope failure and shallow-rapid landslides (Schmidt, et al., 2001).

Marysville has developed a high slope percentage map that can be used to infer landslide hazards (Figure 5). The Washington Department of Natural Resources (WDNR) Geologic Information Portal provides mapping for historic landslide areas.

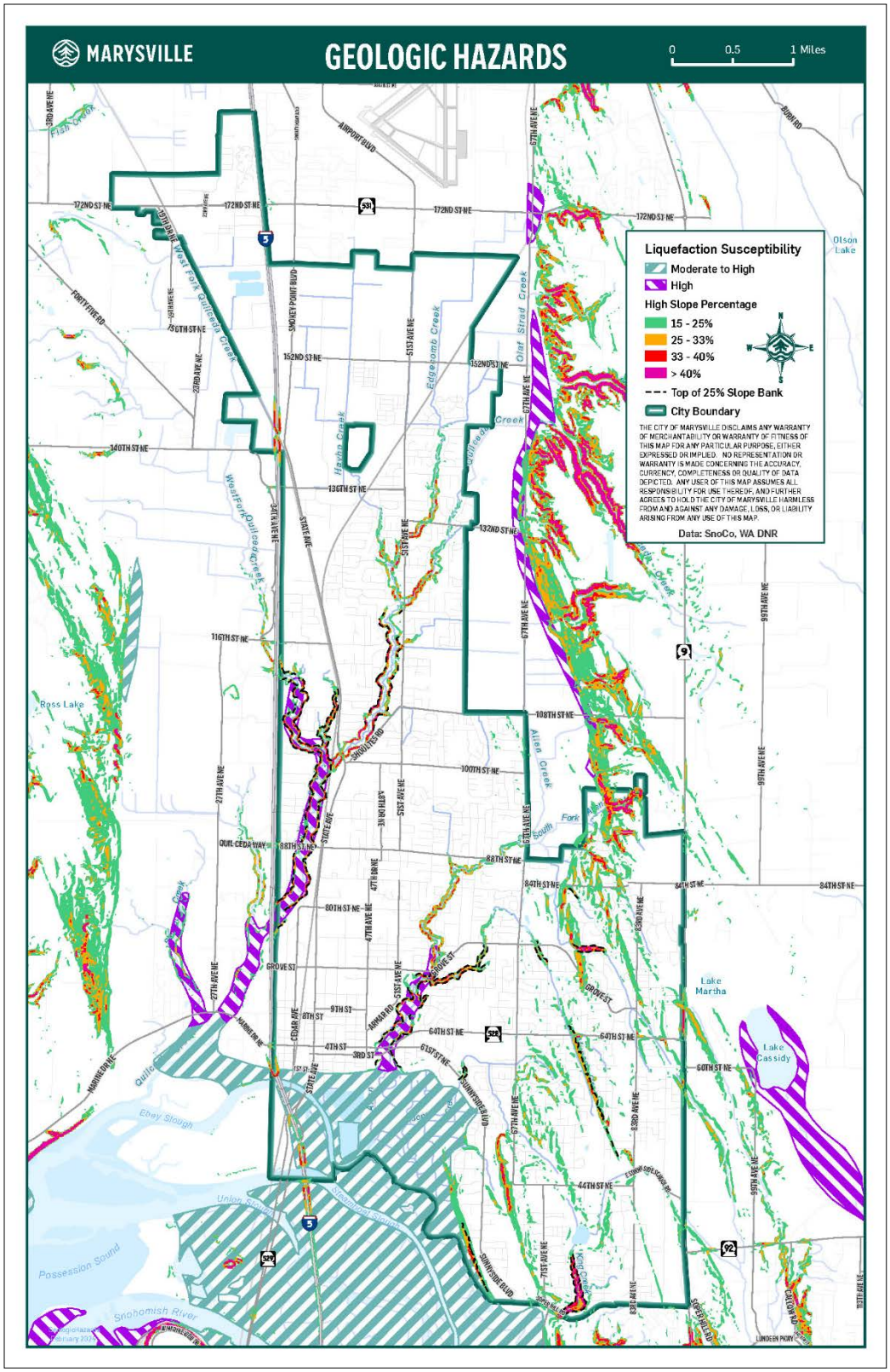


Figure 5. Marysville geologic hazards map (Marysville 2024b).

Alluvial fans are triangle shaped deposits of sediment which occur when mountainous areas approach topographically flatter areas. They are included in the concept of landslide hazard areas although they also share characteristics of flood hazard areas due to the associated risks include debris flows, flash floods, mudflows, and outburst floods. These types of flows are extremely dangerous even in small levels because of the destructive nature of swiftly moving large debris and floodwaters. The risk of flash floods and debris flows increases following wildfires due to changing hydrologic characteristics in landscapes with bare soils and lacking vegetation (WALERT 2023). Washington Department of Natural Resources (WDNR) Geologic Information Portal provides mapping for alluvial fan areas.

5.2.3 Seismic Hazard Areas

Seismic hazard areas are areas subject to damage resulting from earthquake-induced landslides, seismic ground shaking, dynamic settlement, fault rupture, soil liquefaction, or flooding caused by tsunamis and seiches. Seismic hazards are identified in WDNR Geologic Information Portal[9]. The WDNR Geologic Information Portal contains information projecting the Cascadia, Seattle, and Tacoma Seismic Scenarios which include Marysville in the study area. Areas which have a moderate to high susceptibility to liquefaction are depicted in a map created by Marysville (Marysville 2024b).

Marysville is located in an area of high seismic activity, as are all areas of Western Washington (Cooper 2006). There are between 1,000-2,000 earthquakes which occur annually between Washington and Oregon, although most are small and fewer than 25% are perceptible (Cooper 2006; McCrumb et al. 1989). The probability of occurrence and risk of earthquakes depends on location, and seismic hazard areas have been mapped to identify areas with the greatest risk.

Secondary hazards associated with seismic events include liquefaction of the soil, rockfall, landsliding, dam failure, levee failure, and tsunamis or seiches. Liquefaction hazard areas within Snohomish County are mapped by the Washington Department of Natural Resources (Figure 6), in addition to seismic site class and seismic design categories. Nearly all areas of Snohomish have some level of seismic risk, even outside of designated critical areas. Liquefaction susceptibility is also mapped by Marysville, as shown in Figure 5.

[9] https://geologyportal.dnr.wa.gov/

CRITICAL AREAS MAP 5

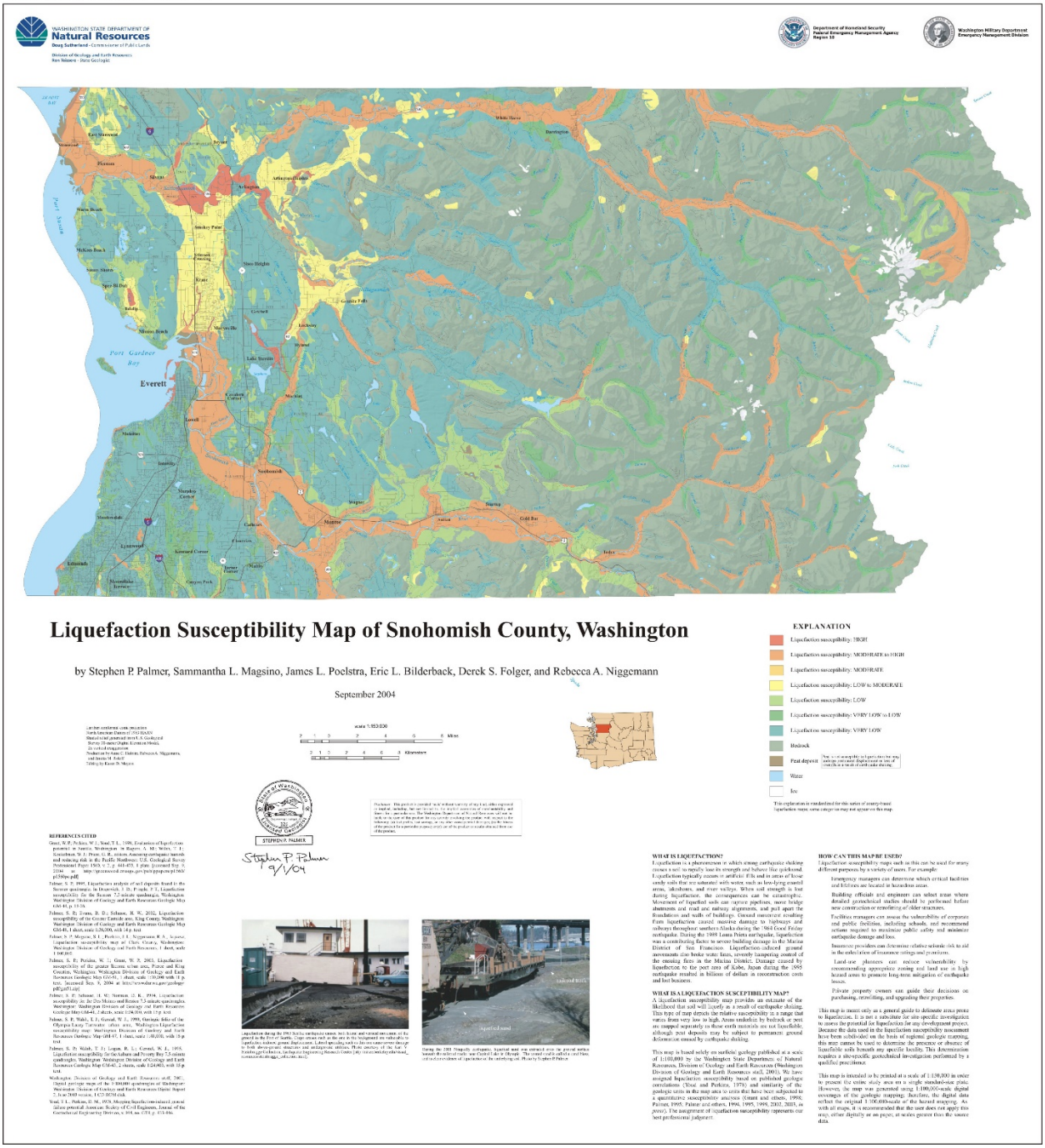


Figure 6. Snohomish County Liquefaction Susceptibility (reproduced from Palmer et al. 2004).

5.3 Key Protection Strategies

The primary goal of protection measures for geologic hazards is to protect people and property. This may occur through emergency response and early warning system and risk management through planning and development considerations. Risks can be minimized by limiting occupancy and development in geologic hazard areas. This risk of development in geologic hazard areas is typically

evaluated with classification systems to inform site development restrictions and requirements. One method to manage risk is the protection of buffers around geologic hazard areas to restrict development in hazard areas. For development in erosion hazard or landslide hazard area, design and construction standards are necessary to prevent the development from reducing slope stability and ensuring that development is resilient to potential hazards. Any such development in the hazard area or its buffer should be evaluated on a site-specific basis by a licensed geotechnical engineer or engineering geologist to ensure hazard mitigation is adequate. Methods used in site studies should adhere to best professional standards and include subsurface exploration and testing of soils at an appropriate frequency across the site, as necessary.

Additional protection strategies were identified by the SR-530 Landslide Commission following the Oso mudslide that occurred in March 2014. Recommendations from the commission include integrating and funding Washington's emergency management system, supporting a statewide landslide hazard and risk mapping program, establishing a geologic hazards resilience institute, conducting landslide investigations, and advancing public awareness of geologic hazards. Integrating Washington's emergency management system would bring together, "the Governor's office, the [state] Legislature, tribes, county and municipal government, first responders, transportation agencies, non-government support agencies, the private sector, and members of the public" (SR 530 Landslide Commission 2014). To improve landslide hazard and risk mapping, collaboration among agencies and landowners is recommended along with risk prioritization, utilization of lidar mapping and GIS database tools.

Per the SR-530 Landslide Commission's 2014 findings, updates to critical area regulations are recommended to better identify and regulate land uses in geologic hazard areas. This may include requiring geologic risk assessments as part of subdivision permit application reviews, slope-density regulations, conservation easements, and grading ordinances. Slope-density calculation is a method for determining the number of allowable development units of subdivisions with geological hazards. Usually the steeper the slope, the fewer the number of units permitted.

Seismic hazards can be managed by applying earthquake-resistant building standards to at-risk areas. The Washington State Building Code (WAC 51-50) offers guidance from the 2018 International Existing Building Code with amendments specific to the State, including several directly related to seismic standards.

5.4 Climate Change Impacts and Mitigation

Geologically hazardous areas, particularly erosion hazard areas, and landslide hazard areas, are anticipated to be influenced by climate change. Climate change models project warmer, drier summers, and increased precipitation in other seasons (Dalton et al. 2013). Extreme precipitation events modeled by the UW Climate Impacts Group are expected to increase in intensity and frequency (Mauger et al. 2021). Increased magnitude and frequency of rain events can lead to over-saturated soils and contribute to slope instability in hazard areas. Consequentially, geologic hazard risks are anticipated to increase because rainfall intensity and duration are known indicators of landslide events (Chleborad 2006; WDNR 2020). Additionally, the severity and frequency of wildfire is expected to increase, heightening susceptibility to erosion and landslide hazards (Mauger et al. 2015).

Changing climate is also anticipated to affect vegetation community composition and native plant mortality due to shifts in plant hardiness zones and species ranges (Lenoir & Svenning 2015). Existing species assemblages, canopy types, and root systems may be disrupted and displaced by invasive species. Although plant provenance is not the only indicator of a plants capability to stabilize slopes, opportunistic invasive plants often have shallow root systems and short lifespans that are less effective at anchoring soils than native counterparts. Himalayan blackberry, for example, is a wide spread invasive plant likely to displace lost plants and has shallow root system and can cause soil erosion by preventing the establishment of native counterparts (Gaire 2015). High levels of plant diversity also generally improve soil stability by combining multiple forms of root architecture (Ghestem et al. 2014).

5.4.1 Management Recommendations for Climate Change Impacts

- Encourage or require climate-informed design for development and infrastructure in or near geologic hazard areas (WDNR 2020).
- Require appropriate surface and ground water management practices for development near coastal bluffs.
- Encourage utilization of soft shore protection strategies.
- Identify and prioritize geologic hazards within the City, then update mapping as needed using current practices such as LiDAR and GIS database tools.
- Keep in communication with the governor's office to ensure Marysville is included in statewide collaborative efforts to manage geologic hazard areas.
- Manage vegetation for climate resilience and slope stability.

6. Frequently Flooded Areas

6.1 Definitions

Frequently flooded areas (FFAs) are floodplains and flood prone areas that pose a risk to public safety. FFAs also serve important habitat functions for fish and wildlife. FFAs are defined in WAC 365-190-030(8) as follows:

> *Frequently flooded areas" are lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface.*

Marysville does not currently regulate FFAs as critical areas, and therefore, has no current definition. Flood management is instead regulated under MMC Chapter 22E.020.

6.2 FFAs in Marysville

FEMA floodway and floodplain mapping shows a 100-year floodplain along Quilceda Creek, Allen Creek, and the Snohomish River estuarine environment (Figure 7 and 8). Frequently flooded areas do not include other flooding and drainage issues associated with areas outside of the defined frequently flooded areas.

The flood zones in Quilceda Creek and Allen Creek are located within confined ravines, and with some exceptions are not typically overlapping developed lands. Similarly, much of the estuarine floodplains associated with the Snohomish River overlap with undeveloped land. This floodplain also includes some developed areas including primarily industrial lands, some residences, and other infrastructure such as roads and bridges.

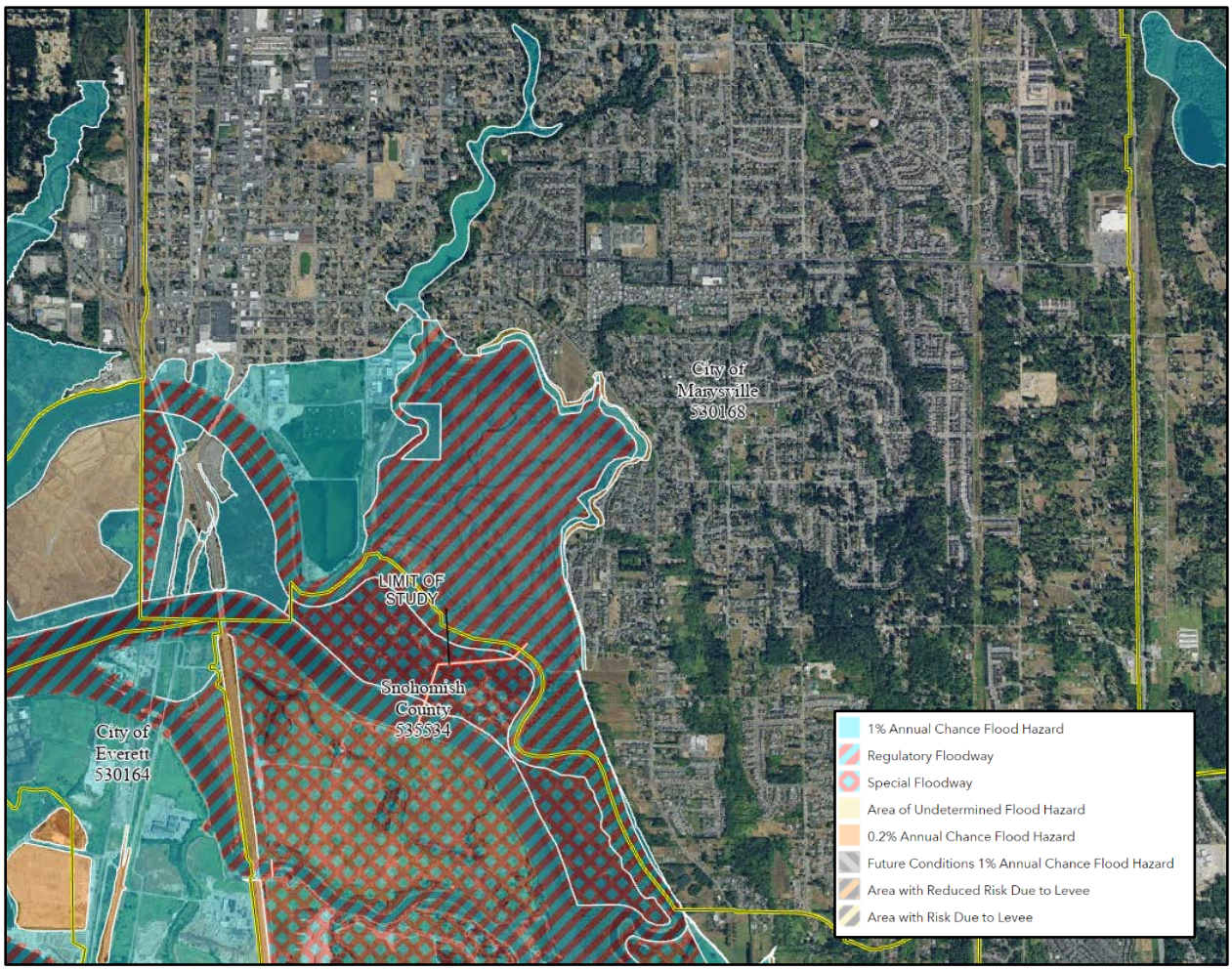


Figure 7. Frequently flooded areas in south Marysville, screenshot recorded from FEMA's National Flood Hazard Layer (NFHL) Viewer on 9/6/2024.

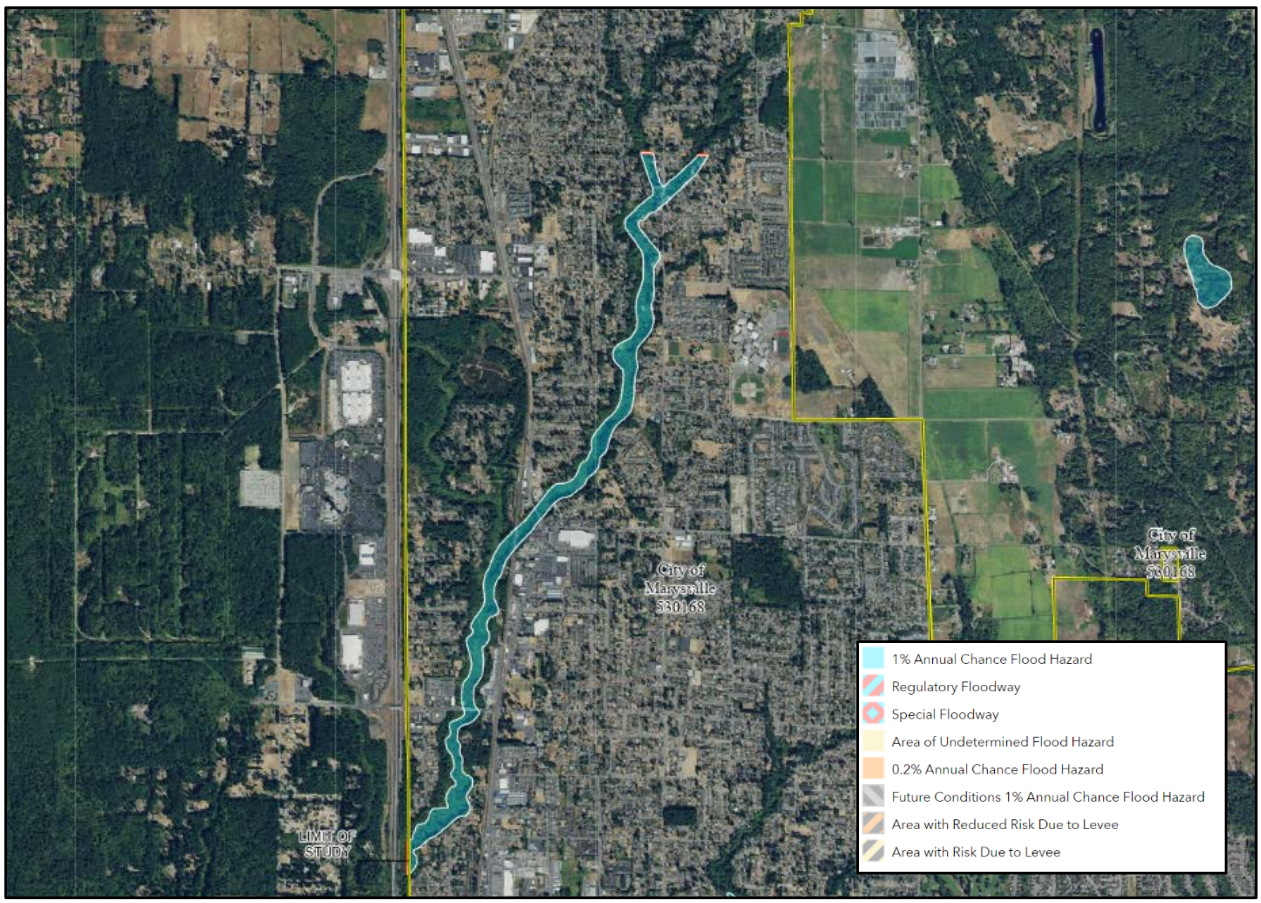


Figure 8. Frequently flooded areas in central Marysville, screenshot recorded from FEMA's National Flood Hazard Layer (NFHL) Viewer on 9/6/2024.

6.3 Functions and Values

Floods are regularly occurring weather events that can result in destruction of property and loss of life but are also responsible ecological processes that sustain river systems. Floods typically occur following large storm events but may also result from a collapse of impounded water, such as from a dam or levee failure, or beaver activity. FFAs are dynamic and ecologically productive environments that provide important habitats for fish and wildlife and floodplain storage that alleviates downstream flood zone impacts. These processes overlap with many of the functions of Fish and Wildlife Conservation Areas (FWHCAs) as discussed in Section 4, so this section briefly summarizes processes and functions as they relate to floodplain dynamics.

Dynamic hydrologic processes, including the mobilization of large woody debris and other allochthonous inputs, can be critical to the maintenance of fish and wildlife habitat (Naiman & Decamps 1997; Petts et al. 2005). High-flow channels carved into floodplains provide important habitat for a variety of fish species and create areas of refuge from the high-velocity flows. Streams overtop their banks during periods of high flow and deposit sediment load, cumulatively forming a flood plain (Dunne and Leopold 1978; Knighton 1998). Floodplains also provide storage of floodwaters that can reduce the severity of other areas in the watershed and contribute to infiltration and aquifer recharge.

Streams are often modified to protect development from destructive floods, typically in the form of channel straightening and armoring. These modifications can cause rivers to become disconnected from their natural floodplains and associated wetlands (Booth 1990). Other land use changes associated with urbanization such as impervious surfaces and deforestation also influence floodplains by increasing the magnitude and frequency of floods (Booth et al. 2002). In landscape-level assessments, patterns of urban development, particularly impervious surface area and distribution, have been demonstrated to influence watershed functions (Alberti et al. 2006). Among these are stream channel downcutting, a process associated with watersheds that have frequent and short duration high peak flows, that further disconnects floodplains, increases in-stream erosion, and deposits sediment in downstream environments leading to blocked culverts (Booth 1990).

Flooding can result in significant economic costs from damaged homes and infrastructure, business disruption, and loss of life. Floodplains have been used for agriculture, residential development, and urbanization for centuries because the geographic locations tend to be well-suited for development during periods between floods. The proximity of development to rivers and large water bodies, and advantages in travel, transport, and discharge of waste, otherwise provide ideal settlement locations. Dikes, levees, and associated floodplain fill have been a historically common approach to protecting development, which has consequentially worsened flood impacts to some downstream areas and sometimes failed to protect the areas that were intended. Altered river dynamics, including sediment and large woody debris accumulation as well as increased flows associated with upstream land use changes, has overwhelmed some aging flood control works that have not been maintained or improved. The human and societal costs of flooding have increased over time as the population and infrastructure in floodplains has increased and from climate change.

6.4 Key Protection Strategies

Floodplain protection strategies serve the dual purpose of protecting property and infrastructure, and the ecological integrity of streams and watersheds. In 1991, Snohomish County developed a Comprehensive Flood Control Management Plan (CFCMP) for the Snohomish River. A CFCMP is a planning document that presents information about existing streams, rivers, land uses, and regulations related to flood hazards, identifies goals for flood hazard reduction consistent with the needs of residents, businesses, and neighboring jurisdictions, and identifies flood hazards, evaluates alternative solutions, and recommends future projects or program modifications to address these hazards, and lastly certification from the Emergency Management Division of the Washington State Military Department / local emergency management organization (ECY 2021a). Snohomish County has also developed a hazard mitigation plan to review and manage natural hazards, most recently updated in 2020 (Ecology and Environment 2020).

One of the primary strategies to reduce hazards associated with frequently flooded areas is to restrict development in mapped floodplains. Marysville has adopted and codified regulations in MCC Chapter 22E.020 to enforce flood damage prevention as a part of the Unified Development Code.

Floodplain management is generally based on a no-adverse-impact strategy (ASFPM 2003). This approach requires floodplain property owners to ensure that their land use does not adversely affect flood storage or flood risk for others, including risks of flow velocities and erosion. This is commonly

achieved by requiring no net increase in flood elevations. This approach protects natural floodplain processes and encourages restoration, such as reconnecting side channels and reducing armoring.

6.5 Climate Change Impacts & Mitigation

Climate change in the Pacific Northwest is anticipated to result in wetter autumns and winters and drier summers (Mote and Salathe 2010). Climate change models predict that the frequency of atmospheric rivers, which contribute to severe deluges in rainwater and other extreme weather events, will become more frequent and severe (Mauger & Kennard 2017; Salathe et al. 2014). Greater flood risks are predicted as a result of the increased precipitation paired with the increased frequency and intensity of extreme weather events (ECY 2021a). The resulting increase in floodwater elevation and expansion of floods to new areas is a risk to property and public safety. Stream channel migration can also drastically alter flood risks and migration dynamics are expected to shift as a result of climate change (Mauger and Kennard 2017). Climate change can also influence flooding in coastal areas due to sea level rise, high tides, storm surges and waves (Mauger and Kennard 2017).

Extreme floods impose both positive and negative effects on stream health. Impacts include physical trauma and stress to aquatic organisms, displacement or stranding, erosion and sedimentation, loss of vegetation, pollution, disruptions to food webs and spawning, and disrupted migration. As a result, extreme floods have been documented to reduce fish densities (Milner et al. 2013). However, some studies show that fish assemblages are resilient to the effects of floods at a basin scale and recover quickly (George et al. 2015). Potential positive effects include the creation of new habitats and nutrient redistribution (Peters et al. 2015).

6.5.1 Strategies to Manage Climate Change Impacts to FFAs

The Washington Silver Jackets is an interagency group that was formed in 2010 to plan and manage flood risks. This group works to develop improved estimates of future flooding, develop resources for local planners, build capacity and coordinate on resiliency, improve public engagement, and coordinate floodplain management goals (Mauger & Kennard, 2017). The University of Washington Climate Impacts Group has collaborated with the Washington Silver Jackets to integrate climate change predictions and impacts into flood management planning efforts. This resulted in the development of the report: *Integrating Climate Resilience in Flood Risk Management: a Work Plan for the Washington Silver Jackets Team* which provides a framework for strategic management (Mauger & Kennard 2017). The following strategies have been developed to manage floodplains for climate change.

- Develop improved estimates of future flood impacts (Mauger & Kennard 2017).
- Develop resources for local planners (Mauger & Kennard 2017).
- Build capacity and coordination on resiliant floodplain management (Mauger & Kennard 2017).
- Improve public engagement (Mauger & Kennard 2017).
- Coordinate floodplain goals and mangement (Mauger & Kennard 2017).
- Maintain and update CFHMP and SMP to support stormwater management, salmonid habitat, and streamflow planning (ECY 2021a).

- Implement and enforece Marysville and Washington State laws and policies regarding flood prevention during permitting and development.
- Encourage and incentivize floodplain restoration actions to restore floodplain connectivity to streams and wetlands and protect or restore riparian corridors to maintain microclimate.
- Utilize the FEMA Climate Resiliency approach to support flood hazard management planning and follow grant funding opportunities.
- Refine topographic floodplain analysis to identify potential changes in floodplain extent

References

Alberti, M., Booth, D., Hill, K., Coburn, B., Avolio, C., Coe, S., & Spirandelli, D. (2006). The impact of urban patterns on aquatic ecosystems: An empirical analysis in Puget lowland sub-basins. Landscape and Urban Planning, 80, 345-361.

ASFPM. (2003). No adverse impact: A toolkit for common sense floodplain management. Madison, WI: Association of State Floodplain Managers (ASFPM).

Asinas, E., Raymond, C., & Mehta, A. (2022). Integrating climate resilience into Washington State water system planning. University of Washington Climate Impacts Group, Seattle, WA. From https://doi.org/10.6069/ PS0E-M345 [doi.org]

ASWM. (2015). Wetlands and climate change: Considerations for wetland program managers. Association of State Wetland Managers (ASWM). From https://www.nawm.org/pdf_lib/wetlands_and_climate_change_consideratons_for_wetland_program_managers_0715.pdf

Aukema JE, Pricope NG, Husak GJ, Lopez-Carr D (2017) Biodiversity Areas under Threat: Overlap of Climate Change and Population Pressures on the World's Biodiversity Priorities. PLoS ONE 12(1): e0170615. https://doi.org/10.1371/journal.pone.0170615

Beninde, J., Veith, M., & Hochkirch, A. (2015). Biodiversity in cities needs space: a meta-analysis of factors determining intra-urban biodiversity variation. Ecology Letters, 18(6), 581–592. doi:10.1111/ele.12427

Blewett, C. M., & Marzluff, J. M. (2005). Effects of urban sprawl on snags and the abundance and productivity of cavity-nesting birds. The Condor, 107(3), 678-693.

Booth, D. (1990). Stream-channel incision following drainage-basin urbanization. Water Resources Bulletin-American Water Resources Association, 26 (3), 407-417.

Booth, D. (1991). Urbanization and the natural drainage system impacts, solutions, and prognoses. The Northwest Environmental Journal, 7(1), 93-118.

Booth, D., Hartley, D., & Jackson, R. (2002). Forest cover, impervious surface area, and the mitigation of stormwater impacts. American Water Resources Association, 38 (3), 835-845.

Burkett, V., & Kusler, J. (2000). Climate change: potential impacts and interactions in wetlands of the United States. JAWRA Journal of the American Water Resources Association, 36(2), 313–320. doi:10.1111/j.1752-1688.2000.tb04270.x

Burton CA, Hoefen TM, Plumlee GS, Baumberger KL, Backlin AR, Gallegos E, et al. (2016) Trace Elements in Stormflow, Ash, and Burned Soil following the 2009 Station Fire in Southern California. PLoS ONE 11(5): e0153372. https://doi.org/10.1371/journal.pone.0153372

Castelle, A., Johnson, A., & Conolly, C. (1994). Wetlands and Stream Buffer Size Requirements - A Review. Journal of Environmental Quality, 23, 878-882.

Chardonnet, P., Des Clers, B., Fischer, J., Gerhold, R., Jori, F., & Lamarque, F. (2002). The value of wildlife. OIE Revue Scientifique et Technique, 21(1), 15–51. https://doi.org/10.20506/rst.21.1.1323

Chleborad, A. (2006). Modeling and analysis of the 1949 Narrows Landslide, Tacoma, Washington. Environmental & Engineering Geoscience, xxxi (3), 305-327. From https://doi.org/10.2113/gseegeosci.xxxi.3.305

Crawford, J. A., & Semlitsch, R. D. (2007). Estimation of core terrestrial habitat for stream-breeding salamanders and delineation of riparian buffers for protection of biodiversity. *Conservation Biology*, *21*(1), 152-158.

Crozier, L. G., Zabel, R. W., & Hamlet, A. F. (2008). Predicting differential effects of climate change at the population level with life-cycle models of spring Chinook salmon. *Global Change Biology*, *14*(2), 236-249.

Dalton, M., Mote, P., & Snover, A. (2013). Climate change in the northwest-implications for our landscape. Washington DC: Island Press. From https://cig.uw.edu/wp-content/uploads/sites/2/2020/12/daltonetal678.pdf

Diffendorfer, J. E., Gaines, M. S., & Holt, R. D. (1995). Habitat fragmentation and movements of three small mammals (sigmodon, microtus, and peromyscus) ecological archives e076-002. *Ecology*, *76*(3), 827-839.

Donnelly, R., & Marzluff, J. M. (2004). Importance of reserve size and landscape context to urban bird conservation. *Conservation biology*, *18*(3), 733-745.

Driscoll, F. G. (1986). Groundwater and wells. Second edition. St. Paul, MN, MN: Johnson Division.

Dubois, N., Saulnier-Talbot, É., Mills, K., Gell, P., Battarbee, R., Bennion, H., ... & Valero-Garcés, B. (2018). First human impacts and responses of aquatic systems: A review of palaeolimnological records from around the world. The Anthropocene Review, 5(1), 28-68.

Dunne, T., & Leopold, L. (1978). Water in Environmental Planning. San Francisco, CA: W.H. Freeman.

Eberts, S.M., Thomas, M.A., and Jagucki, M.L. (2013). The quality of our Nation's waters—Factors affecting public-supply-well vulnerability to contamination—Understanding observed water quality and anticipating future water quality: U.S. Geological Survey Circular 1385, 120 p. Available online at https://pubs.usgs.gov/circ/1385/.

Ecology and Environment, Inc. 2020. Snohomish County 2020 Hazard Mitigation Plan.

Fahrig, L., Pedlar, J. H., Pope, S. E., Taylor, P. D., & Wegner, J. F. (1995). Effect of road traffic on amphibian density. *Biological conservation*, *73*(3), 177-182.

Ficetola, G. F., Padoa-Schioppa, & De Bernardi, F. (2009). Influence of landscape elements in riparian buffers on the conservation of semiaquatic amphibians. Conservation Biology, 23(1), 114-123.

Gaire, R., Astley, C., Upadhyaya, M. K., Clements, D. R., & Bargen, M. (2015). The biology of Canadian weeds. 154. Himalayan blackberry. Canadian Journal of Plant Science, 95(3), 557-570.

Gallagher, J. B., Zhang, K., & Chuan, C. H. (2022). A re-evaluation of wetland carbon sink mitigation concepts and measurements: a diagenetic solution. Wetlands, 42(3), 23.

George, S. D., Baldigo, B. P., Smith, A. J., & Robinson, G. R. (2015). Effects of extreme floods on trout populations and fish communities in a C atskill M ountain river. Freshwater Biology, 60(12), 2511-2522.

Ghestem M, Cao K, Ma W, Rowe N, Leclerc R, Gadenne C, et al. (2014) A Framework for Identifying Plant Species to Be Used as 'Ecological Engineers' for Fixing Soil on Unstable Slopes. PLoS ONE 9(8): e95876. https://doi.org/10.1371/journal.pone.0095876

Gilbert-Norton, L. Y. N. N. E., Wilson, R., Stevens, J. R., & Beard, K. H. (2010). A meta-analytic review of corridor effectiveness. Conservation biology, 24(3), 660-668.

Gillies, C. S., & St. Clair, C. C. (2008). Riparian corridors enhance movement of a forest specialist bird in fragmented tropical forest. Proceedings of the National Academy of Sciences, 105(50), 19774-19779.

Granger, T., Hruby, T., McMillan, A., Peters, D., Rubey, J., Sheldon, D., . . . Stockdale, E. (2005). Wetlands in Washington State-Ecology publication #05-06-008. Washington State Department of Ecology (WDOE). From https://apps.ecology.wa.gov/publications/documents/0506008.pdf

Halabisky, M. (2017). Reconstructing the past and modeling the future of wetland dynamics under climate change (Dissertation). Seattle, WA: University of Washington.

HDR, Inc. (2019). Technical Morandum-Final: To: Austin Melcher, Washington State Department of Ecology, Water Resources Program.

Hruby, T., Harper, K., & Stanley, S. (2009). Selecting Wetland Mitigation Sites Using a Watershed Approach. Publication No. 09-06-032. . Olympia, WA: Washington State Department of Ecology (WDOE).

Hruby, T. (2012). Calculating credit and debits for compensatory mitigation in wetlands of Western Washington, Final report. Publication no. 10-06-011. Olympia, WA: Washington State Department of Ecology (WDOE).

Hruby, T. (2013). Update on Wetland Buffers: The State of the Science. Final Report. Publication No. 13-06-011. Olympia, WA: Washington State Department of Ecology (WDOE).

Hruby, T., & Yahnke, A. (2023). Washington State Wetland Rating System for Western Washington: 2014 Update (Version 2). Publication #23-06-009. Washington Department of Ecology.

Johnston, N., Bird, S., Hogan, D., & MacIsaac, E. (2011). Mechanisms and source distances for the input of large woody debris to forested streams in British Columbia, Canada. Canadian Journal of Forest Research, 41, 2231-2246.

Kissling, M. L., & Garton, E. O. (2008). Forested buffer strips and breeding bird communities in southeast Alaska. The Journal of Wildlife Management, 72(3), 674-681.

Knighton, D. (1998). Fluvial forms and processes: A new perspective. New York: Oxford University Press.

Larsen, E.M., E. Rodrick, and R. Milner. (1995). Management Recommendations for Washington's Priority Species, Volume I: Invertebrates Washington Department of Fish and Wildlife, Olympia. 82pp.

Larsen, E. M. (1997). Management recommendations for Washington's priority species, Volume III: Amphibians and Reptiles. Wash. Dept. Fish and Wildl., Olympia. 122pp.

Larsen, E., Azerrad, J.M., Nordstrom, N. (2012). Management recommendations for Washington's priority species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia, Washington, USA.

Lee, S., LeDee, O., -Y, Ryan ME, Hamlet AF, Palen, W., WJ, Lawler, J., & JJ, Halabisky, M. (2015). Projecting the hydrologic impacts of climate change on montane wetlands. Montane Wetlands. PLoS ONE, 10(9): e0136385. doi:https://doi.org/10.1371/journal.pone.0136385

Lehtinen, R. M., Galatowitsch, S. M., & Tester, J. R. (1999). Consequences of habitat loss and fragmentation for wetland amphibian assemblages. Wetlands, 19, 1-12.

Lenoir, J., & Svenning, J. C. (2015). Climate-related range shifts–a global multidimensional synthesis and new research directions. Ecography, 38(1), 15-28.

Lyons, M., LeDee, O., and Boyles, R. (2022). Effects of Climate Change on Fish and Wildlife Species in the United States. USGS. Open-File Report 2021-1104.

Mansilha, C., Melo, A., Martins, Z. E., Ferreira, I. M., Pereira, A. M., & Espinha Marques, J. (2020). Wildfire effects on groundwater quality from springs connected to small public supply systems in a peri-urban forest area (Braga Region, NW Portugal). Water, 12(4), 1146.

Marysville. 2019. Critical Areas Map. https://www.marysvillewa.gov/326/Maps

Marysville. 2024a. Geology Map. https://www.marysvillewa.gov/326/Maps

Marysville. 2024b. Geologic Hazards Map. https://www.marysvillewa.gov/326/Maps

Mason, J., Moorman, C., Hess, G., & Sinclair, K. (2007). Designing suburban greenways to provide habitat for forest-breeding birds. Landscape and Urban Planning, 80(1-2), 153-164.

Mauger, G. S., Casola, J. H., Morgan, H. A., Strauch, R. L., Jones, B., Curry, B., . . . Snover, A. K. (2015). State of knowledge: Climate change in Puget Sound. Seattle, WA: Climate Impacts Group, University of Washington. Retrieved April 24, 2024 from https://doi.org/10.7915/CIG93777D

Mauger, G., & Kennard, H. (2017). Integrating climate resilience in flood risk management: A work plan for the Washington Silver Jackets. Report prepared for FEMA. ,Seattle, WA: Climate Impacts Group, University of Washington. From doi:10.7915/CIG7MP4WZ

Mauger, G. S., & Won, J. S. (2019). Expanding the ensemble of precipitation projections for King County. Report prepared for the King County Department of Natural Resources. Climate Impacts Group, University of Washington, Seattle.

Mauger, G., Morgan, H., & Won, J. (2021). Projected changes in extreme precipitation web tool. Seattle, WA: University of Washington, Climate Impacts Group. From https:/doi.org/10.6069/79CV-4233

McCrumb D.R., Galaster R.W., West D.O., Cross R.S., Ludwin R.S., Hancock, W.E., Mann L.V. (1989). Tectonics, Seismicity, and Engineering Seismology in Washington. In Galaster, R.W., Chariman. Engineering Geology in Washington. Division of Geology and Earth Resources, Washington Department of Natural Resources, Bulletin 78, v. 1, pp. 97- 120.

McKinney, M. L. (2002). Urbanization, biodiversity, and conservation: the impacts of urbanization on native species are poorly studied, but educating a highly urbanized human population about these impacts can greatly improve species conservation in all ecosystems. Bioscience, 52(10), 883-890.

Milner, A. M., Robertson, A. L., McDermott, M. J., Klaar, M. J., & Brown, L. E. (2013). Major flood disturbance alters river ecosystem evolution. Nature Climate Change, 3(2), 137-141.

Mote, P. W., & Salathe Jr., E. P. (2010). Future climate in the Pacific Northwest. Climate Change, 102, 29-50. From https://doi.org/10.1007/s10584-010-9848-z

Nagelkerken, I., Allan, B. J., Booth, D. J., Donelson, J. M., Edgar, G. J., Ravasi, T., ... & Mellin, C. (2023). The effects of climate change on the ecology of fishes. PLOS Climate, 2(8), e0000258.

Nahlik, A., & Fennessy, M. (2016). Carbon storage in US wetlands. Nature Communications, 7 (13835). From https://doi.org/10.1038/ncomms13835

Naiman, R. J., & Decamps, H. (1997, November). The ecology of interfaces: Riparian zones. Annual Review of Ecology, Evolution and Systematics, 28, 621-658. From https://doi.org/10.1146/annurev.ecolsys.28.1.621

Nelson, G. S., & Nelson, S. M. (2001). Bird and butterfly communities associated with two types of urban riparian areas. *Urban Ecosystems*, *5*, 95-108.

Olden, J. D., Poff, N. L., Douglas, M. R., Douglas, M. E., & Fausch, K. D. (2004). Ecological and evolutionary consequences of biotic homogenization. Trends in ecology & evolution, 19(1), 18-24.

Orrock, J. L., & Danielson, B. J. (2005). Patch shape, connectivity, and foraging by oldfield mice (Peromyscus polionotus). Journal of Mammalogy, 86(3), 569-575.

Palmer, S., Magsino, S., Poelstra, J., Bilderback, E., Folger, D., Niggemann, R. (2004). Liquefaction susceptibility map of Snohomish County, Washington. Department of Natural Resources, Division of Geology and Earth Resources.

Pardini, R., de Souza, S. M., Braga-Neto, R., & Metzger, J. P. (2005). The role of forest structure, fragment size and corridors in maintaining small mammal abundance and diversity in an Atlantic forest landscape. Biological conservation, 124(2), 253-266.

Peters, D. L., Caissie, D., Monk, W. A., Rood, S. B., & St-Hilaire, A. (2015). An ecological perspective on floods in Canada. Canadian Water Resources Journal / Revue Canadienne Des Ressources Hydriques, 41(1–2), 288–306. https://doi.org/10.1080/07011784.2015.1070694

Petts, G., Gurnell, A., Edwards, P. J., & Petts, G. E. (2005, September). Effects of deposited wood on biocomplexity of river corridors. Frontiers in Ecology and the Environment. From https://doi.org/10.1890/1540-9295(2005)003[0377:EODWOB]2.0.CO;2

Pimentel, D., Zuniga, R., & Morrison, D. (2005). Update on the environmental and economic costs associated with alien-invasive species in the United States. Ecological economics, 52(3), 273-288.

Semlitsch, R. D., & Bodie, J. R. (2003). Biological criteria for buffer zones around wetlands and riparian habitats for amphibians and reptiles. Conservation biology, 17(5), 1219-1228.

SR 530 Landslide Commission. 2014. The SR 530 Landslide Commission Final Report.

Rentz, R., A. Windrope, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program, Washington Department of Fish and Wildlife, Olympia.

Salathe, E., Hamlet, A., Mass, C., Lee, S., Stumbaugh, M., & Steed, R. (2014). Estimates of twenty-first century flood risk in the Pacific Northwest based on regional climate model simulations. From https://doi.org/10.1175/JHM-D-13-0137.1

Sattar, Q., Maqbool, M. E., Ehsan, R., Akhtar, S., Sattar, Q., Maqbool, M. E., ... & Akhtar, S. (2021). Review on climate change and its effect on wildlife and ecosystem. Open Journal of Environmental Biology, 6(1), 008-014.

Schmidt, K., Roering, J., Stock, J., Dietrich, W., Montgomery, D., & Schaub, T. (2001, October). The variability of root coehesion as an influence on shallow landslide susceptibility in the Oregon Coast Range. Canadian Geotechnical Journal, 38, 995-1024. From https://doi.org/10.1139/t01-031

Shao, J., Bingcheng, S., & Jiming, J. (2019). Rooting depth and extreme precipitation regulate groundwater recharge in the thick unsaturated zone: A case study. Advances in Hydrogeology: Trend, Model, Methodology and Concepts, 11, 1232. From https://doi.org/10.3390/w11061232

Sheldon, D., Hruby, P., Johnson, P., Harper, K., McMillan, A., Granger, T., . . . Stockdale, E. (2005). Wetlands in Washington State, Vol. 1: A synthesis of the science. Olympia, WA: Washington State Department of Ecology (WDOE).

Shipman, H. (2004). Coastal bluffs and sea cliffs on Puget Sound, Washington. In: Formation, evolution, and stability of coastal cliffs – status and trends. Hampton M, Griggs G (eds) Professional Paper 1693,. U.S. Geological Survey.

Teel, T.L., & Manfredo, M. (2010). Understanding the diversity of public interests in wildlife conservation. Teel, T. L., & Manfredo, M. J. (2010). Understanding the diversity of public interests in wildlife conservation. Conservation Biology, 24(1), 128–139. https://doi.org/10.1111/j.1523-1739.2009.01374.x

U.S. Environmental Protection Agency (U.S. EPA). (2015). Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=296414

Van den Bosch, K., & Matthews, J. W. (2017). An assessment of long-term compliance with performance standards in compensatory mitigation wetlands. Environmental management, 59, 546-556.

Vose, J., Peterson, D., & Patel-Weynard, T. (2012). Effects of climatic variability and change on forest ecosystems: A comprehensive science synthesis for the U.S. Forest Sector (General technical report PNW-GTR-870). Portland, OR: United States Department of Agriculture (USDA) Forest Service, Pacific Northwest Research Station.

Watson, I., & Burnett, A. (1995). Hydrology: An environmental approach. Boca Raton, FL: CRC Press, Inc.

Washington Department of Ecology (ECY). (2021a). Critical aquifer recharge areas guidance-Publication 05-10-028. Washington Department of Ecology (ECY). From https://apps.ecology.wa.gov/publications/documents/0510028.pdf

Washington Department of Ecology (ECY). (2021b). Wetland mitigation in Washington State part 1 – Agency policies and guidance; Version 2. (Publication No. 21-06-003). Washington State Department of Ecology (ECY), U.S. Army Corps of Engineers Seattle District, and Environmental Protection Agency Region 10.

Washington Department of Ecology (ECY). (2022). DRAFT wetland guidance for critical areas ordinance (CAO) updates, Western and Eastern Washington (Publication No. 22-06-005). Olympia, WA: Washington State Department of Ecology (ECY).

Washington Department of Fish and Wildlife (WDFW). (2010). Management Recommendations for Washington's Priority Species, Volume V: Mammals (IN PROGRESS)

Washington Department of Health (WDOH). (2017). Washington State wellhead protection program guidance document. WDOH (Washington State Department of Health). From https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs//331-018.pdf

Washington Department of Natural Resources (WDNR). (2020). Safeguarding out lands, waters, and communities: DNR's plan for climate resilience. Washington State Department of Natural Resources (WDNR).

Washington Geological Survey's Wildfire-Associated Landslide Emergency Response Team (WALERT). 2023. Wildfire-Associated Debris Flows: Debris Flows after Wildfires. Washington Department of Natural Resources. Accessed 07/02/2024. https://www.dnr.wa.gov/wildfire-debris-flows#debris-flows-after-wildfires.

Wenger, S. J., & Fowler, L. (2000). Protecting stream and river corridors: creating effective local riprian buffer ordinances.

Winter, T. H. (1998). Ground water and surface water a single resource. U.S. Geological Survey Circular 1139. Denver, CO.

APPENDIX A: Ecology's Wetland Buffer Width Recommendations

Appendix C. Buffer Approaches for Western Washington

Option 1

Table 1. Wetland buffer width requirements, in feet, if Table 2 is implemented and a habitat corridor is provided

Category of wetland	Habitat score 3-5 points (corridor not required)	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I or II: Based on rating of wetland functions (and not listed below)	75	110	225	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	225	190
Category I: Interdunal	NA	NA	225	NA
Category I: Forested	75	110	225	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category II: Interdunal	NA	NA	NA	110
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	110
Category III: All types except interdunal	60	110	225	NA
Category III: Interdunal	NA	NA	NA	60
Category IV: All types	40	40	40	NA

Impact minimization measures

Developments that produce the listed disturbances and are requesting a buffer reduction are required to address the disturbance through the use of applicable minimization measures.

This is not a complete list of measures, nor is every example measure required. Though not every measure is required, all effort should be made to implement as many measures as possible. Regulatory staff should determine, in coordination with the applicant, which measures are applicable and practicable.

Table 2. Impact minimization measures

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Lights	• Parking lots • Commercial/Industrial • Residential • Recreation (e.g., athletic fields) • Agricultural buildings	• Direct lights away from wetland • Only use lighting where necessary for public safety and keep lights off when not needed • Use motion-activated lights • Use full cut-off filters to cover light bulbs and direct light only where needed • Limit use of blue-white colored lights in favor of red-amber hues • Use lower-intensity LED lighting • Dim light to the lowest acceptable intensity
Noise	• Commercial • Industrial • Recreation (e.g., athletic fields, bleachers, etc.) • Residential • Agriculture	• Locate activity that generates noise away from wetland • Construct a fence to reduce noise impacts on adjacent wetland and buffer • Plant a strip of dense shrub vegetation adjacent to wetland buffer
Toxic runoff	• Parking lots • Roads • Commercial/industrial • Residential areas • Application of pesticides • Landscaping • Agriculture	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft. of wetland • Apply integrated pest management (These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.)

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Stormwater runoff	• Parking lots • Roads • Residential areas • Commercial/industrial • Recreation • Landscaping/lawns • Other impermeable surfaces, compacted soil, etc.	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized or sheet flow from lawns that directly enters the buffer • Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns
Pets and human disturbance	• Residential areas • Recreation	• Use privacy fencing • Plant dense native vegetation to delineate buffer edge and to discourage disturbance • Place wetland and its buffer in a separate tract • Place signs around the wetland buffer every 50-200 ft., and for subdivisions place signs at the back of each residential lot • When platting new subdivisions, locate greenbelts, stormwater facilities, and other lower-intensity uses adjacent to wetland buffers
Dust	• Tilled fields • Roads	• Use best management practices to control dust

Table 3. Wetland buffer width requirements, in feet, for applicants not providing a habitat corridor or implementing measures in Table 2

Category of wetland	Habitat score 3-5 points	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I & II: Based on rating of wetland functions (and not listed below)	100	150	300	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	300	250
Category I: Interdunal	NA	NA	300	NA
Category I: Forested	100	150	300	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	200
Category II: Interdunal	NA	NA	NA	150
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category III: All types except interdunal	80	150	300	NA
Category III: Interdunal	NA	NA	NA	80
Category IV	NA	NA	NA	50

Conditions for implementing Tables 1, 2, and 3

1. Wetlands that score 6 points or more for habitat function: the buffers in Table 1 can be used only if all of the following criteria are met:

a. A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and:

i. A legally protected, relatively undisturbed and vegetated area (e.g., Priority Habitats, compensatory mitigation sites, wildlife areas/refuges, national, county, and state parks where they have management plans with identified areas designated as Natural, Natural Forest, or Natural Area Preserve, or

ii. An area that is the site of a Watershed Project identified within, and fully consistent with, a Watershed Plan as defined by RCW 89-08-460, or

iii. An area where development is prohibited according to the provisions of the local shoreline master program, or

iv. An area with equivalent habitat quality that has conservation status in perpetuity, in consultation with WDFW.

b. The corridor is permanently protected for the entire distance between the wetland and the shoreline or legally protected area by a conservation easement, deed restriction, or other legal site protection mechanisms.

c. Presence or absence of the shoreline or Priority Habitat must be confirmed by a qualified biologist or shoreline Administrator.

d. The measures in Table 2 are implemented, as applicable, to minimize the impacts of the adjacent land uses.

2. For wetlands that score 5 or fewer habitat points, only the measures in Table 2 are required for the use of the buffers in Table 1.

3. If an applicant does not apply the mitigation measures in Table 2 or is unable to provide a protected corridor, then the buffers in Table 3 shall be used.

4. The buffer widths in Tables 1 and 3 assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer must either be planted to create the appropriate native plant community or be widened to ensure that the buffer provides adequate functions to protect the wetland.

Note: An expanded table with graduated buffer widths based on habitat score is also outlined in the July 2018 Appendix 8-C[76] of *Wetlands in Washington State, Volume 2*. This is an approach that assigns unique buffer widths to each habitat score in seven increments. It is a gradual increase in buffer width with each point. Compared to Option 1, this avoids a marked increase in buffer width resulting from an increase of one point in the habitat score.

Option 2

Table 1. Width of buffers, in feet, needed to protect wetlands from impacts of proposed land uses (used with Table 2)

Category of wetland	Land use with low impact*	Land use with moderate impact*	Land use with high impact*
I	150	225	300
II	150	225	300
III	75	110	150
IV	25	40	50

*See Table 2 below for types of land uses that can result in low, moderate, and high levels of impacts to wetlands

Table 2. Levels of impacts from proposed land use types

[Local governments are encouraged to ensure the uses in this table match the uses specified in their development and land use regulations and are consistent with the principles in this example.]

Level of impact from proposed land use	Types of land use
High	• Commercial • Urban • Industrial • Institutional • Mixed-use developments • Residential (more than 1 unit/acre) • Roads: federal and state highways, including on-ramps and exits, state routes, and other roads associated with high-impact land uses • Railroads • Agriculture with high-intensity activities (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling, raising and maintaining animals, etc.)

[76] https://apps.ecology.wa.gov/publications/parts/0506008part3.pdf

Level of impact from proposed land use	Types of land use
	• Open/recreational space with high-intensity uses (golf courses, ball fields, etc.) • Solar farms (utility scale)
Moderate	• Residential (1 unit/acre or less) • Roads: Forest Service roads and roads associated with moderate-impact land uses • Open/recreational space with moderate-intensity uses (parks with paved trails or playgrounds, biking, jogging, etc.) • Agriculture with moderate-intensity uses (orchards, hay fields, light or rotational grazing, etc.) • Utility corridor or right-of-way used by one or more utilities and including access/maintenance road • Wind farm
Low	• Natural resource lands (forestry/silviculture–cutting of trees only, not land clearing and removing stumps) • Open/recreational space with low-intensity uses (unpaved trails, hiking, birdwatching, etc.) • Utility corridor without a maintenance road and little or no vegetation management • Cell tower

Option 3

Table 1. Wetland buffer width requirements, in feet, based solely on wetland category

Category of wetland	Buffer width
I	300
II	300
III	150
IV	50

page intentionally left blank

FACET

Formerly DCG/Watershed

Critical Areas Ordinance Gap Analysis

Marysville Municipal Code, CAO Update

CHAPTER 22E.010 CRITICAL AREAS MANAGEMENT

DECEMBER 6, 2024

Prepared for:

Haylie Miller, Community Development Director
City of Marysville
501 Delta Avenue
Marysville, WA 98270

Facet Number: 2404.0351.00

Prepared by:

Nell Lund
Senior Ecologist / Principal of Natural Resources
nlund@facetnw.com

Dan Nickel
Director of Environmental Planning / Executive Vice President
dnickel@facetnw.com

Sam Payne
Ecologist / Wildlife Biologist
spayne@facetnw.com

FACET

Kirkland Office
750 6th Street S
Kirkland, WA 98033
425.822.5242

The information contained in this report is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, state and federal regulatory authorities. No other warranty, expressed or implied, is made.

Table of Contents

1. Introduction **1**

2. Article 1. General Introduction (22E.010.010 – 040) **2**

2.1 General purpose and intent (22E.010.010) 2

3. Article II. Wetlands (22E.010.050 – 160) **2**

3.1 Wetland rating and classification (22E.010.060) 4

Wetland Identification 4

Rating System 4

3.2 Regulated activities in wetlands (22E.010.070) 4

3.3 Exemptions to wetland regulations (22E.010.080) 4

3.4 Wetland buffer areas (22E.010.100) 4

Native Vegetation Requirement 4

Buffer Widths 5

Buffer Averaging 5

Buffer Reductions 6

Buffer Increases 6

Trails 6

Previously Established Buffers 6

Disconnected Buffers 7

3.5 Wetland alteration and mitigation (22E.010.110) 7

3.6 Wetland mitigation standards and criteria (22E.010.120) 7

Credit-Debit Method 7

Mitigation Ratios 7

3.7 Wetland mitigation banks (22E.010.130) 7

3.8 Wetland mitigation plan requirements (22E.010.140) 8

3.9 Performance standards for wetland mitigation planning (22E.010.150) 8

3.10 Wetland monitoring program and contingency plan (22E.010.160) 8

4. Article III. Fish and Wildlife Habitat Areas (22E.010.170 – 260) **8**

4.1 Fish and wildlife habitat conservation areas designated (22E.010.170) 10

FWHCA Definition 10

FWHCA Designations 10

4.2 Fish and wildlife habitat inventory maps (22E.010.200) 10

4.3 Classification of fish and wildlife habitat areas (22E.010.210) 10

Stream Type Classification 10

Presumption of Type F Streams 11

4.4 Fish and wildlife habitat buffer areas (22E.010.220) 11

Stream Buffers and Riparian Management Zones 11
Federal, State, and Local Habitats and Species 15
Bald Eagle Management 15
Native Vegetation Requirement 15
Measurement of Buffers 15
Buffer Averaging 15
Buffer Reductions 15
Buffer Increases 15
Disconnected Buffers 16
Trails 16
Previously Established Buffers 16
4.5 Fish and wildlife habitat alteration and mitigation (22E.010.230) 16
Shorelines of the State 16
Alteration of FWHCAs and Buffers 16
4.6 Fish and wildlife habitat monitoring program and contingency plan (22E.010.260) 16
5. Article IV. Geologic Hazard Areas (22E.010.270 – 310) 17
5.1 Applicability to geologic hazards (22E.010.270) 17
5.2 Alteration of geologic hazard areas and development limitations (22E.010.290) 17
5.3 Setbacks from geologic hazards (22E.010.300) 17
6. Article V. General Information (22E.010.320 – 420) 18
6.1 General exemptions (22E.010.320) 19
6.2 Permit process and application requirements (22E.010.330) 19
Wetland Boundary Markers and Manual [22E.010.330(2)(b)] 19
Application Requirements [22E.010.330(2)] 19
6.3 Selection of qualified scientific professional and city review of report (22E.010.340) 19
7. Critical Aquifer Recharge Areas 20
8. Frequently Flooded Areas 20
8.1 Critical Areas Management (22E.010) 22
8.2 Penalties for noncompliance (MMC 22E.020.040) 22
8.3 Appeal Board (MMC 22E.020.110) 22
8.4 NFIP Compliance (MMC 22E.020.XXX) 22

Tables

Table 1. General Introduction review summary 2

Table 2. Wetlands review summary....3
Table 3. Fish and wildlife habitat areas review summary....9
Table 4. Geologic Hazard Areas review summary....17
Table 5. General Information review summary....18
Table 6. General Information review summary....20

Appendices

APPENDIX A. Ecology's Wetland Buffer Width Recommendations

APPENDIX B. Critical Aquifer Recharge Areas Guidance – Code Examples from Ecology Publication 05-10-028

1. Introduction

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State, including the City of Marysville (City), were required to develop policies and regulations to designate and protect critical areas. Critical areas are defined in the GMA and the Revised Code of Washington (RCW) 36.70A.030(5) to include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas. The GMA requires local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations.

An ongoing requirement of the GMA is for local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations. In accordance with the GMA, the City last completed a comprehensive update of its critical areas policies and regulations in 2004. The City is now required to update its critical areas policies and regulations by December 31, 2025. This includes the requirement to review and incorporate best available science (BAS). Any deviations from science-based recommendations should be identified, assessed and explained (Washington Administrative Code [WAC] 365-195-915). In addition, jurisdictions are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries. A BAS review for this code update is summarized in the *Marysville Critical Area Ordinance Update, DRAFT Best Available Science Review* (Facet October 2024).

The City's critical areas policies are currently contained in the Environmental Element chapter of the Marysville Comprehensive Plan (Comprehensive Plan). The City's critical areas regulations are currently codified in the Marysville Municipal Code (MMC), Title 22E, Chapter 22E.010 Critical Areas Management.

This gap analysis is a review of the current critical areas regulations with evaluation of gaps in consistency between the existing regulations and BAS or the GMA. This analysis also includes recommendations for improvements to general aspects of the critical areas ordinance (CAO) such as clarity, consistency, and ease of use. The primary intention of this gap analysis is to help guide the update of the City's critical areas policies and regulations.

Recommendations for updating the City's existing critical area regulations are provided in Sections 2 through 7. Sections 2 and 6 address the general provisions that are applicable to all critical areas; Sections 3 through 5 address the different types of critical areas covered by the GMA, according to how they are organized in the current code. Section 7 addresses critical area regulations not presently in the code that may need to be added. To highlight findings of the gap analysis, a Code review summary table is provided at the beginning of each section. Where a potential gap is identified, subsections provide further discussion.

2. Article 1. General Introduction (22E.010.010 – 040)

This section addresses code sections that are applicable to all types of critical areas. This includes MMC 22E.010.010 through MMC 22E.010.040. A summary of recommended updates is provided in Table 1.

Table 1. General Introduction review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.010	General purpose and intent	Include all critical area types in purpose and intent.	Consistency with GMA
22E.010.020	General applicability of these regulations	None	
22E.010.030	General relationship of regulations of one type of critical area protection to other regulations	None	
22E.010.040	Best available science	None	

2.1 General purpose and intent (22E.010.010)

We recommend this section recognize all critical areas types as designated by the GMA. These include wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, frequently flooded areas, and critical aquifer recharge areas.

3. Article II. Wetlands (22E.010.050 – 160)

This section addresses code sections that are applicable to wetland critical areas as located in MMC 22E.010.050 through MMC 22E.010.160. A summary of recommended updates is provided in Table 2.

Table 2. Wetlands review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.050	Applicability to wetlands	None	
22E.010.060	Wetland rating and classification	1. Add wetland identification best practices. 2. Revise wetland rating system to most recent iteration	1. Consistency with BAS 2. Consistency with BAS
22E.010.070	Regulated activities in wetlands	None	
22E.010.080	Exemptions to wetland regulations	Consider exemptions for other limited low impact site activity	Regulatory flexibility
22E.010.090	Wetland inventory maps	None	
22E.010.100	Wetland buffer areas	Specify native vegetation requirement, revise buffer widths, review buffer averaging allowances, consider removing buffer reduction allowances, specify trail width allowances, consider updates to previously established buffers, address disconnected buffers	Consistency with BAS, clarification of ambiguity
22E.010.110	Wetland alteration and mitigation	Reconsider allowances for wetland alteration	Consistency with BAS
22E.010.120	Wetland mitigation standards and criteria	Update mitigation ratios and consider including the Debit-Credit Method	Consistency with BAS
22E.010.130	Wetland mitigation banks	Consider updating to include other programmatic mitigation options	Consistency with BAS
22E.010.140	Wetland mitigation plan requirements	Review and simplify content requirements / phasing	Clarity
22E.010.150	Performance standards for wetland mitigation planning	Review and update performance standards as needed	Consistency with BAS and mitigation design standards
22E.010.160	Wetland monitoring program and contingency plan	Update performance standard requirements	Consistency with BAS and standard monitoring protocols

3.1 Wetland rating and classification (22E.010.060)

Wetland Identification

The wetlands section could be clarified by having a section heading for "identification and delineation" which describes that delineation of wetland boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplement. This section could also include information on how long wetland delineations are valid (typically five years).

Rating System

A new version of the wetland rating system was released since the code was last revised. The current version of the wetland rating system is the Washington State Wetland Rating System for Western Washington: 2014 Update, Version 2.0 (Hruby & Yahnke 2023). The current Ecology publication number is 23-06-009. We recommend updating this publication reference.

3.2 Regulated activities in wetlands (22E.010.070)

No updates required.

3.3 Exemptions to wetland regulations (22E.010.080)

Exemptions may be considered for restoration including invasive species removal and planting of native plants that would otherwise not require a permit.

3.4 Wetland buffer areas (22E.010.100)

Native Vegetation Requirement

It is recommended that standard thresholds for native vegetation requirements be provided with additional detail and clarity so they can be consistently applied and interpreted. BAS buffer recommendations are based on the assumption that the buffer is well vegetated with native species appropriate to the ecoregion. This is not currently stated in the Code. If the buffer does not consist of vegetation adequate to provide the necessary protection, then either the buffer area should be planted or the buffer width should be increased. Ecology suggests the following language be added in the description of required standard buffer widths to ensure a buffer condition that is adequate to protect the wetland resource:

> *The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.*

Buffer Widths

The most recent Ecology buffer guidance is the *2022 Wetland Guidance for Critical Areas Ordinance (CAO) Updates*. Our correspondence with Ecology confirms that the 2022 guidance does not supersede the Freshwater Wetlands in Washington State, Volume 2: Managing and Protecting Wetlands, Appendix 8C (updated 2018) and both are considered valid as BAS. However, there are differences in the buffer width frameworks in each of the systems. First is a distinction of terminology, since the 2018 guidance refers to *buffer alternatives* and the 2022 guidance refers to *buffer options*. Hereafter, *2018 buffer alternatives* refer to Ecology (2018), *2022 buffer options* refer to Ecology (2022).

Marysville uses a buffer classification system similar to 2018 Buffer Alternative 1 (the equivalent of Buffer Option 3), in addition to two specific wetland areas that have unique buffers. However, the City's buffer widths are considerably lower than Ecology's recommendations.

The most current wetland buffer guidance from Ecology is the 2022 *Wetland Guidance for Critical Areas Ordinance (CAO) Updates. The* 2022 buffer options are provided in Appendix A for your reference. Ecology's preferred option (Option 1) considers wetland category and habitat score when assigning buffer widths. Those standard widths can be reduced when applicable minimization measures and potential habitat corridor are applied. The criteria for determining if a habitat corridor is available for a given site is detailed in the Ecology model ordinance, which is part of the 2022 publication.

It is recommended that Marysville review standard buffers to better align with Ecology recommendations and BAS. This can be considered in a landscape scale, meaning that approaches may be considered if protections which adequately protect wetlands in aggregate. For example, where wetlands, streams and frequently flooded areas overlap, the most encumbering buffer would apply. Concurrently, the City may want to review and update allowances for existing legally established developments, including additions and modifications to those developments.

Marysville also allows applicants to utilize 2018 Buffer Alternative 3 from Ecology's Appendix 8C, in lieu of standard buffers. In addition to wetland categories, this alternative also considers habitat score and impact intensity in determining the buffer width. This would benefit applicants by allowing a smaller buffer in certain infrequent circumstances where low impact projects are proposed. In addition to ensuring that buffers align with BAS, it is recommended that Marysville consider which buffer alternative is best suited for the city.

It is also recommended that Marysville confirm the rating of wetlands with unique buffers in Ebey slough to ensure that the prescribed buffers are aligned with BAS. Marysville also provides unique buffers for wetlands associated with Ebey slough that varies from 100-feet to 25-feet by location. It is recommended that the descriptions of these areas be updated to reduce ambiguity of the covered geographic extent. A map could be included to illustrate the regulatory break along 47th Avenue NE.

Buffer Averaging

The buffer averaging regulations in MMC 22E.010.100(5)(a) imposes no restrictions on the minimum width of a buffer. It is recommended that Marysville consider the model wetland regulations of the

2022 *Wetland Guidance for Critical Areas Ordinance (CAO) Updates*, and adopt similar criteria. This would limit buffer reductions at any given point to maintain a minimum width.

Buffer Reductions

The buffer reductions regulations in MMC 22E.010.100(5)(b) allow for limited buffer reductions. According to MMC 22E.010.100(5)(b)(v), buffer reductions are only allowed for wetlands with a habitat score of four or less. This would apply only to a limited subset of wetlands with low habitat score. This should be reconsidered in parallel with buffer width updates since the appropriateness of buffer reductions may depend on the chosen buffer width alternative. Ecology recommendations and current BAS do not support buffer reductions. Consider removing the buffer reduction provision and creating a permitted alterations list, as necessary.

Buffer Increases

The buffer reductions regulations in MMC 22E.010.100(6) provides for buffer increases under certain conditions, such as when wetlands have certain habitat scores, areas with erosion concerns, buffers have inadequate vegetation cover, or areas with steep slopes. It is recommended that the operative term "may be increased" be replaced with a statement that is less ambiguous, such as "must be increased unless the increase is determined unnecessary by a qualified professional and as reviewed and accepted by the development director".

If the intent of this section is to account for habitat score in buffer width determinations, Marysville may consider using a buffer alternative that considers habitat score.

Marysville requires buffer increases on slopes 25% or greater is required to 25 feet beyond the point where the slope becomes 25 percent or less. Ecology (2018) recommends that buffers are increased by 50% on areas with slopes greater than 30%. Both of these methods increase buffers on slopes and the degree of protection depends on the site-specific circumstances. The wider the slope, the more protection that the current code provides, whereas the Ecology recommendations would be more protective on smaller slopes. In practice, both methods are reasonable in our opinion to meet the intent of increase buffer width requirements on steep slopes.

Trails

It is recommended that allowed trail widths depend on their use in MMC 22E.010.100(8). The 10-foot allowed width may be suitable for a multipurpose trail, but wider than necessary for a recreational pathway.

Previously Established Buffers

MMC 22E.010.100(11) has a provision that would maintain previously established buffers when recorded in prior subdivisions. The City may want to review and update the 1992 ordinance referenced in this code section.

Disconnected Buffers

Additionally, Ecology recommends adding a code provision to address functionally disconnected buffers. These are buffer areas that are functionally separated from the wetland by legally established roads or other significant development. Clear direction should be provided for practical application of buffers.

3.5 Wetland alteration and mitigation (22E.010.110)

MMC 22E.020.110(3) states that alterations to wetlands and wetland buffers may be allowed when properly mitigated, except for Category I wetlands which are prohibited. This offers wide latitude for impacts to wetlands and buffers in a manner that is inconsistent with the recommendations for critical areas ordinances in Ecology (2022). It is recommended that such alterations be routed through a variance or reasonable use exception and assessed by a hearing examiner rather than administrative channels, and be limited to circumstances that allow reasonable use of the property.

3.6 Wetland mitigation standards and criteria (22E.010.120)

Credit-Debit Method

Ecology encourages allowing the use of the Credit-Debit Method described in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of [Western Washington (Ecology Publication #10-06-011). In addition to the existing mitigation ratios, Marysville may consider an option of utilizing this method.

Mitigation Ratios

The mitigation ratios in the MMC 22E.010.120(3) are similar to Ecology's 2018 recommendations, with several noted differences. Specifically, the ratios for *re-establishment or creation (R/C) and enhancement* differ from the recommendations and instead match the Ecology's recommendations for *re-establishment or creation (R/C) and rehabilitation*. Additionally, the rehabilitation ratio is higher than the 6:1 recommendation for Category II wetlands. It is recommended that Marysville revise the table to match either recommendations in Ecology (2018) or Ecology (2022).

3.7 Wetland mitigation banks (22E.010.130)

Consider updating to the more general term, programmatic mitigation. Programmatic mitigation consists of approved third-party sponsors mitigation such as mitigation banks and fee in-lieu programs. Approved options can be described under that heading.

Also, third-party mitigation credits needed should be documented in a bank use plan to document how credit needs were calculated.

3.8 Wetland mitigation plan requirements (22E.010.140)

The current two phase mitigation plan requirements could be simplified for clarity and ease of administration. Recommend having a single set of requirements for permit-level plan sets. If applicants want preliminary feedback on their mitigation approach, that could be done by sharing a conceptual plan at a pre-application meeting.

3.9 Performance standards for wetland mitigation planning (22E.010.150)

It is recommended that the mitigation site performance standards be reviewed and updated during code revisions. Consider incorporating best practices from 2021 Ecology publication *Wetland Mitigation in Washington State: Part 1 - Agency Policies and Guidance* and *Wetland Mitigation in Washington State: Part 2 - Developing Mitigation Plans*. For example, "use of plants adaptable to a broad range of water depths" should be replaced with "use plants that are adapted to the hydrologic site conditions," or similar. Also recommend updating performance standards to include requirements for invasive species and wetland hydrology (for creation projects).

Several of the code provisions in this section refer to installation and maintenance procedures rather than performance standards. Performance standards are metrics used to gauge the performance of a mitigation site to determine if goals and objectives are realized (Ecology 2021a). This section could be revised for clarity and alignment with current best practices.

3.10 Wetland monitoring program and contingency plan (22E.010.160)

Recommend detailing that a monitoring period starts after an as-built report is submitted and approved by the City. Additionally, the number of monitoring events may be reduced in the first year as is typically standard.

The three to five growing season language is unusual. The City may want to retain this flexibility for applicants with various site conditions. However, the language could be strengthened by referring to monitoring years and stating that monitoring is required either for the approved monitoring period or until project performance standards are met, whichever is greater.

4. Article III. Fish and Wildlife Habitat Areas (22E.010.170 – 260)

This section addresses code sections that are applicable to fish and wildlife habitat conservation areas (FWHCAs) as located in MMC 22E.010.170 through MMC 22E.010.260. A summary of recommended updates is provided in Table 4.

Table 3. Fish and wildlife habitat areas review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.170	Fish and wildlife habitat conservation areas designated	Provide a FHWCA definition	Consistency with GMA
22E.010.180	Regulated activities in habitats	None	
22E.010.190	Exemptions from fish and wildlife regulations	None	
22E.010.200	Fish and wildlife habitat inventory maps	Revise resource map list	Consistency with BAS and available data
22E.010.210	Classification of fish and wildlife habitat areas	Consider revising stream type classifications to be consistent with state definitions	Consistency with BAS and state agencies
22E.010.220	Fish and wildlife habitat buffer areas	Review SPTH-based riparian management zone recommendations, updates to species/habitat management, bald eagle management, native vegetation requirement, measurement of buffers, buffer averaging, buffer reductions, buffer increases, trails, previously established buffers and buffer setbacks	Consistency with BAS and state agencies
22E.010.230	Fish and wildlife habitat alteration and mitigation	Limit regulations to Shorelines of the State and reconsider allowances for wetland alteration	Consistency with BAS, code organization
22E.010.240	Fish and wildlife mitigation standards, criteria and plan requirements	None	
22E.010.250	Fish and wildlife habitat performance standards and incentives		
22E.010.260	Fish and wildlife habitat monitoring program and contingency plan	The recommendations in the wetland section also apply to FWHCAs	Consistency with BAS and standard monitoring protocols

4.1 Fish and wildlife habitat conservation areas designated (22E.010.170)

FWHCA Definition

The MMC does not have a definitions section of *Title 22 Unified Development Code*, under which critical areas regulations are contained. All definitions are located under MMC 22A.020 – Administration, Definitions. The code refers to FWHCA designations, but does not define fish and wildlife habitat conservation areas. We recommend that Marysville include a definition that matches WAC 365-190-030(6).

FWHCA Designations

FWHCA designations do not match WAC 365-190-130 verbatim but capture the necessary elements and adapt it to local considerations. It is advised that if there is a process of designating species of local importance as FWHCAs that they also be designated as FWHCAs in MMC 22E.010.170(1).

4.2 Fish and wildlife habitat inventory maps (22E.010.200)

Commercial and recreational shellfish areas are not classified as FWHCAs per MMC 22E.010.170. However, the Washington State Department of Health Annual Inventory of Shellfish Harvest Areas map in listed under MMC 22E.010.200(2)(f). City of Marysville may choose to keep or remove reference to shellfish maps. In general, the list of maps may be updated to include the most recent resources maps, such as the Statewide Washington Integrated Fish Distribution map and federal agency maps of threatened and endangered species.

4.3 Classification of fish and wildlife habitat areas (22E.010.210)

Stream Type Classification

The MMC adopts the stream type system in WAC 222-16-30 by reference, but then goes on to reiterate the system using a different language than the WAC. Although the language is similar, clear differences are noted and it is unclear which would prevail based on the language of the code. The most important difference is that Type F streams in WAC 222-16-30 are streams 'presumed to be used by salmonid fish.' For consistency with BAS and other state agency definitions, it is recommended that the stream type refer to WAC 222-16-30 and fish habitat, rather than emphasizing salmonids.

The City also needs to consider current BAS, including WDFW's site potential tree height (SPTH) model. The SPTH model relies on soil mapping to determine the dominant tree species. It does not use the water typing system. This is summarized in Section 4.4 below.

Presumption of Type F Streams

The MMC 22E.010.210(1)(b) provides conditions when the presumption of Type F streams can be refuted. These conditions are less restrictive than otherwise required to demonstrate a lack of fish presence to other state agencies such as WDFW. We recommend that they be revised and offer the following critiques:

1. A stream may be determined not to be Type F according to MMC 22E.010.210(1)(b)(i) if it is above a natural total barrier to fish passage. A stream above a barrier can contain fish if connected to a permanent waterbody that contains fish such as a wetland, pond, or lake with a seasonal or perennial discharge.
2. Recommend removing the water quality parameters option to refute a Type F stream classification [MMC 22E.010.210(1)(b)(ii)]. No such method is applied by other state agencies, nor are salmonid presence used to determine stream types per WAC 222-16-30. Additionally, Ecology actively monitors and develops water quality improvement programs for degraded waters not meeting 303(d) parameters.
3. Recommend removing the geomorphic assessment option to refute a Type F stream classification [MMC 22E.010.210(1)(b)(iii)]. No such method is applied by other state agencies, nor are salmonid presence used to determine stream types per WAC 222-16-30.
4. If the Type F stream criteria is updated to match WAC 222-16-031, then provision MMC 22E.010.210(1)(b)(iv) would no longer apply. Recommend deletion.
5. For streams determined not to be Type F according to MMC 22E.010.210(1)(b)(v) via a stream survey conducted according to the protocol provided in the Washington Forest Practices Board Manual, Section 13, Guidelines for Determining Fish Use for the Purpose of Typing Waters, it is recommended that the study and protocols be either reviewed by state agencies or local subject matter experts to ensure compliance with the required methods.

4.4 Fish and wildlife habitat buffer areas (22E.010.220)

Stream Buffers and Riparian Management Zones

In 2020, the WDFW published new guidance for the protection of riparian areas (Quinn et al. 2020). The guidance emphasizes a shift in terminology from the concept of "*stream buffers*" to "*riparian management zones*" (RMZs). An RMZ is defined as "*…a scientifically based description of the area adjacent to rivers and streams that has the potential to provide full function based on the SPTH [site potential tree height] conceptual framework*." Further, an RMZ is recommended to be regulated as a fish and wildlife habitat conservation area itself to protect its inherent value, rather than as just a buffer for rivers and streams (Rentz et al. 2020). Stream buffers are established in local critical areas ordinances based on the best available science and are intended to protect streams but may or may not provide full riparian function. To achieve full riparian function, the WDFW guidance recommends that RMZs be considered a delineable, regulatory critical area and that the guidance be applied to all streams and rivers, regardless of size and type.

Site Potential Tree Height (SPTH)

WDFW's current recommendations for establishing RMZ widths are based primarily on a site potential tree height framework, which does not use the DNR water typing system. The site potential tree height is defined as "*…the average maximum height of the tallest dominant trees (200 years or more) for a given site class.*" WDFW refers to this as $SPTH_{200}$. Exceptions may occur where the site potential tree height is less than 100 feet, in which case the agency recommends assigning an RMZ width of 100 feet at a minimum to provide adequate biofiltration and infiltration of runoff for water quality protection from most pollutants, but also in consideration of other habitat-related factors including shade and wood recruitment. A 100-foot-wide buffer is estimated to achieve 95% pollution removal and approximately 85% removal of surface nitrogen (Rentz et al. 2020). WDFW recommends measuring RMZ widths from the outer edge of the channel migration zone, where present, or from the ordinary high-water mark where a channel migration zone is not present.

Riparian management zones or buffers that vary by location may present practical challenges for implementation and have considerations in equity. To analyze the potential range of $SPTH_{200}$ in Marysville, we conducted a review of the data available from the WDFW Site Potential Tree Height Mapping Tool, as described below. All overlaps were removed so only polygons with the greatest SPTH in each area were included. The WDFW SPTH dataset is not inclusive of all lands in Marysville but is believed to be representative. The mean $SPTH_{200}$ in Marysville is 179 ft; with a minimum of 94 ft, a first quartile of 105 ft, a median of 227 ft, a third quartile of 235 ft, and a maximum of 239 (Figure 1).

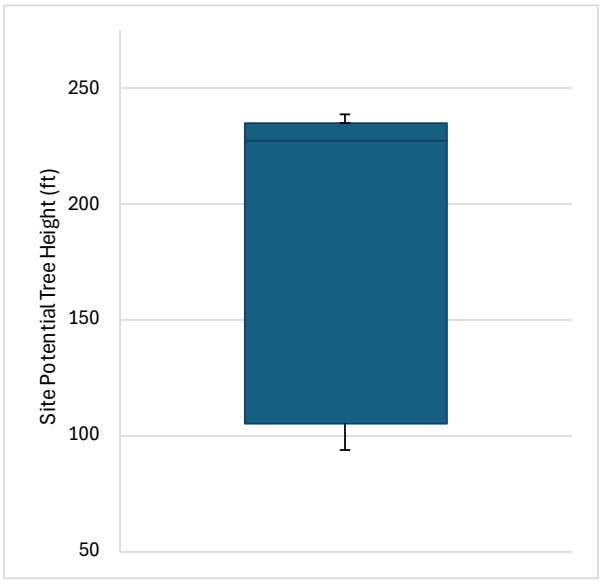


Figure 1. Box plot of $SPTH_{200}$ distribution in Marysville (WDFW $SPTH_{200}$ Mapping Tool data accessed 6/18/24).

As a part of the CAO update, we recommend that Marysville consider whether to follow WDFW recommended RMZ approach to stream classifications and buffer widths, including whether to

incorporate the $SPTH_{200}$ Mapping Tool as part of stream buffer protection standards. This includes consideration of extending the buffer from the ordinary high water mark (OHWM) or channel migration zone, whichever is greater, to align with the RMZ buffer recommendations in Rentz et al. (2020). Current BAS on water quality buffer functions must also be considered. We recommend reviewing water quality buffer functions along with stormwater management regulations. The City must review the BAS-based recommendations and determine the best regulatory approach for Marysville.

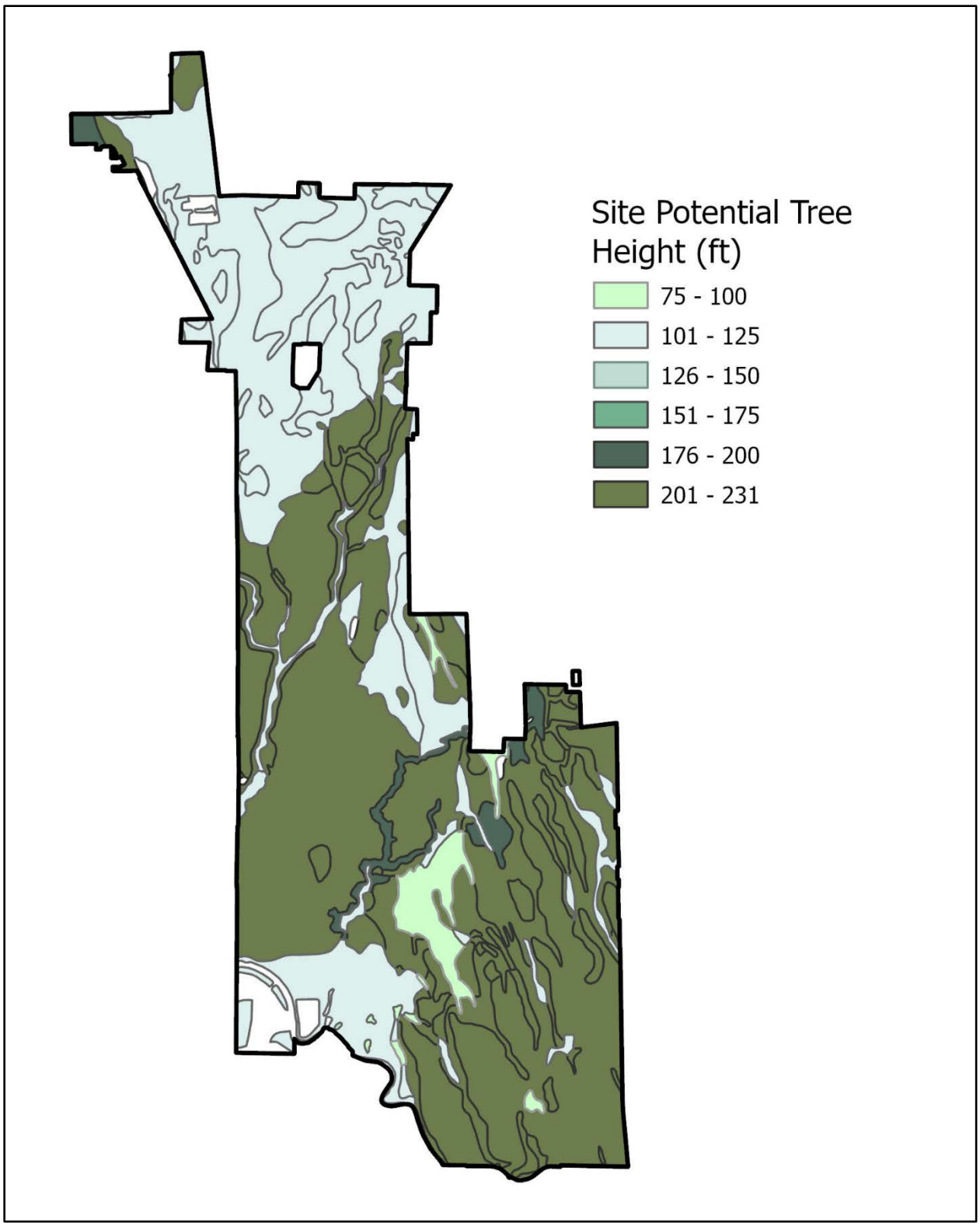


Figure 2. Map of $SPTH_{200}$ distribution in Marysville (WDFW $SPTH_{200}$ Mapping Tool data accessed 6/18/24).

Federal, State, and Local Habitats and Species

Regarding buffers for habitats and species, it is recommended that Marysville retain authority to determine a buffer rather than rely on information provided in applicant provided biological/habitat reports, either through its own expertise or third-party review. WDFW may not be able to provide a habitat management plan in all circumstances, and there is no comprehensive management recommended for all listed species for site-specific management. Additionally, management does not need to be limited to the establishment of buffers. For instance, a habitat management plan may also include minimization and conservation measures, habitat retention, mitigation, or corridors in lieu or in addition to buffers depending on the specific species.

Bald Eagle Management

The MCC requires that bald eagles be protected according to the Washington State Bald Eagle Protection Rules in WAC 232-12-292. These are now codified in WAC 220-610-100, but only apply when bald eagles are listed as threatened or endangered. Bald eagles have been delisted from both state and federal endangered and threatened species lists, so this requirement in the MMC would no longer be applicable. However, bald eagles are still federally regulated through the Bald and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act of 1918. These regulations prevent 'take' and also require permits for activities within a certain distance of nest trees. This may be updated by repealing this code or considering alternative regulations. These may include requiring an applicant to obtain an eagle permit from the United States Fish and Wildlife Service (USFWS) for approval or a project within 660 feet of a nest tree.

Native Vegetation Requirement

Similar to wetland buffers, it is recommended that MMC 22E.010.220(2) be clarified to further define the native vegetation standard requirements.

Measurement of Buffers

Recommend referencing the definition of top-of-bank [MMC 22A.020.210] for clarity.

Buffer Averaging

The buffer averaging regulations in MMC 22E.010.220(4)(a) imposes no restrictions on the minimum width of a buffer. It is recommended that Marysville consider the model wetland regulations of the 2022 *Wetland Guidance for Critical Areas Ordinance (CAO) Updates* and adopt similar criteria.

Buffer Reductions

Current BAS does not support buffer reductions. Consider removing the buffer reduction provision and creating a permitted alterations list, as necessary.

Buffer Increases

The recommendations for wetland buffer increases also apply to stream buffers.

Disconnected Buffers

Consider adding a code provision to address functionally disconnected stream buffers for consistency with wetland buffer recommendations. These are buffer areas that are functionally separated from the stream by legally established roads or other significant development.

Trails

The recommendations for trails in wetland buffer also apply to stream buffers.

Previously Established Buffers

The recommendations for previously established buffers in the wetlands section also apply to stream buffers.

4.5 Fish and wildlife habitat alteration and mitigation (22E.010.230)

Shorelines of the State

Shorelines of the State are managed according to MMC 22E.050 Shoreline Master Program (SMP). It is recommended that the critical areas code not include regulations specific to Type S waters which are regulated according to the SMP.

Alteration of FWHCAs and Buffers

MMC 22E.020.230 provides standard mitigation sequencing criteria. However, for the alteration of habitats and buffers that may be permitted by the community development department subject to standards, further review is recommended for consistency with BAS. These alterations may be more appropriately routed through a variance or reasonable use exception and assessed by a hearing examiner rather than administrative channels.

4.6 Fish and wildlife habitat monitoring program and contingency plan (22E.010.260)

The recommendations for wetland monitoring program and contingency plan (MMC 22E.010.160) also apply to FWHCAs.

5. Article IV. Geologic Hazard Areas (22E.010.270 – 310)

This section addresses code sections that are applicable to geologically hazardous areas, as located in MMC 22E.010.270 through MMC 22E.010.310. A summary of recommended updates is provided in Table 5.

Table 4. Geologic Hazard Areas review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.270	Applicability to geologic hazards	Consider revising the definition of geologic hazard areas to match state definitions.	Consistency with BAS and GMA
22E.010.280	Geologic hazard inventory map	None	
22E.010.290	Alteration of geologic hazard areas and development limitations	None	
22E.010.300	Setbacks from geologic hazards		
22E.010.310	Geologic hazard performance standards	None	

5.1 Applicability to geologic hazards (22E.010.270)

The geologic hazard areas code article does not provide a description or designation of the various types of regulated geologic hazard areas. To add clarity, this section may either list geologic hazard areas or cross-reference the definition (MMC 22A.020.080). The definition of geologic hazard areas should be reviewed for consistency with WAC 365-190-030 and 365-190-120.

5.2 Alteration of geologic hazard areas and development limitations (22E.010.290)

Consider adding a third-party peer review by a qualified geotechnical engineer of the City's choosing and approved by the City.

5.3 Setbacks from geologic hazards (22E.010.300)

Consider adding a third-party peer review by a qualified geotechnical engineer of the City's choosing and approved by the City to verify setback recommendations.

6. Article V. General Information (22E.010.320 – 420)

This section addresses general provisions applicable to all types of critical areas. This includes MMC 22E.010.320 through MMC 22E.010.420 A summary of recommended updates is provided in Table 6.

Table 5. General Information review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.320	General exemptions	Provide regulations for nonconforming land uses	Clarify relation to other titles in the MMC
22E.010.330	Permit process and application requirements	Review and update information to be consistent with available resource, methods, and the standard city review processes	Consistency with BAS and city administration
22E.010.340	Selection of qualified scientific professional and city review of report	Reconsider the qualified consultant list and administrative implications	Verification of application materials
22E.010.350	Land divisions	None	
22E.010.360	On-site density transfer for critical areas	None	
22E.010.370	Fencing and signage requirements	None	
22E.010.380	Building setbacks	None	
22E.010.390	General procedural provisions	None	
22E.010.400	Penalties and enforcement	None	
22E.010.410	General savings provisions-Reasonable use determination	None	

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010.420	No special duty created	None	

6.1 General exemptions (22E.010.320)

No updates required for general exemptions. However, this section or similar may be used to incorporate nonconforming structure and land use regulations. Nonconforming situations are addressed under a different title in MMC 22C.100, and therefore, it is not clear that they would apply to Title *22E Environmental Standards*. In consideration of critical areas buffers, regulations for nonconforming situations could be reconsidered as an approach for additional flexibility.

6.2 Permit process and application requirements (22E.010.330)

Wetland Boundary Markers and Manual [22E.010.330(2)(b)]

Wetland delineation markers often consist of flagging tape or pin flags. Therefore, we recommend removing a requirement for boundaries to be staked in the field. Wetland determination methods are specified in another section of the critical areas code so the additional references to outdated delineation manuals should be removed or updated for consistency.

Application Requirements [22E.010.330(2)]

It is recommended that the application requirements be reviewed to ensure they are consistent with the city review process, natural resource data sources, and applicable methods.

6.3 Selection of qualified scientific professional and city review of report (22E.010.340)

The City may want to rely on the qualified professional definitions under MMC 22A.020.080 and require credentials to accompany reports for each critical area type rather than maintain a City-approved list. Additionally, if the City-approved list of professionals is discontinued, then third-party review may become the standard report review process. Peer review is typical in scientific disciplines. Recommend updating who is responsible for third-party review expenses to align with any changes to this section.

7. Critical Aquifer Recharge Areas

MMC 22E.010 – Critical Areas Management does not contain a critical aquifer recharge areas (CARA) section. Recommend adding a CARA regulations section to Chapter 22E.010 to regulate aquifer areas in the City. Ecology's recommended CARA code content and BAS-based examples from their 2021 publication are provided in Appendix B of this report (Ecology 2021b). Additionally, Skagit County CARA regulations under SCC 14.24-300 – 340 can be referenced. CARA regulations typically cover intent, designations, prohibited activities, and clear reporting requirements.

8. Frequently Flooded Areas

This section addresses code sections that are applicable to frequently flooded areas. MMC 22E.010 – Critical Areas Management does not contain a frequently flooded areas section, instead these regulations are located in MMC Chapter 22E.020 - Floodplain Management. We recommend reviewing the code structure and current administration before considering any changes. A summary of recommended updates to both chapters is provided in Table 6.

Table 6. General Information review summary.

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.010	Critical Areas Management	Recommend recognizing these as critical areas and either referencing the Floodplain Management code or incorporating said code into the critical areas code	Consistency with GMA
22E.020.010	Statement of purpose	None	
22E.020.020	Lands to which this chapter applies	None	
22E.020.030	Basis for establishing the areas of special flood hazard	None	
22E.020.040	Penalties for noncompliance	Update penalties.	Account for inflation.
22E.020.050	Abrogation and greater restrictions	None	
22E.020.060	Interpretation	None	

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.020.070	Warning and disclaimer of liability	None	
22E.020.080	Establishment of development permit	None	
22E.020.090	Designation of the building official	None	
22E.020.100	Duties and responsibilities of building official	None	
22E.020.110	Appeal board	Consider removing allowances for variances in floodplain elevation standards	
22E.020.120	Conditions for variances	None	
22E.020.130	General standards	None	
22E.020.140	Review of building permits	None	
22E.020.150	AE and A1-30 zones with base flood elevations but no floodways	None	
22E.020.160	Changes to special flood hazard area (SFHA)	None	
22E.020.170	Specific standards	None	
22E.020.180	Encroachment	None	
22E.020.190	Enclosed area below the lowest floor	None	
22E.020.200	Manufactured homes	None	
22E.020.210	Recreational vehicles	None	
22E.020.220	Appurtenant structures	None	
22E.020.230	Floodways	None	
22E.020.240	Critical facility	None	
22E.020.250	General requirements for other development	None	
22E.020.260	Severability	None	

Code Section	Title	Review Comment & Recommendations	Reason for Recommendation
22E.020.XXX	NFIP Compliance – FEMA Habitat Assessment	Section not currently included, recommend added.	BAS, Administration.

8.1 Critical Areas Management (22E.010)

Frequently flooded areas are not designed or regulated as critical areas. Recommend recognizing these as critical areas and either referencing the Floodplain Management code or incorporating said code into the critical areas code.

8.2 Penalties for noncompliance (MMC 22E.020.040)

Current penalties limit fines to $1,000 or imprisonment for no more than 90 days. Recommend reviewing and updating penalties. Fine limit may be adjusted to reflect inflation and ensure financial incentives are adequate.

8.3 Appeal Board (MMC 22E.020.110)

It is stated in MMC 22E.020.110(5) that "the only condition under which a variance from elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level…" Although the circumstances for variances are already very limited, development below the base flood elevation level presents a hazard to current and future landowners of a property. Recommend reviewing and potentially removing this consideration for variances.

8.4 NFIP Compliance (MMC 22E.020.XXX)

In 2008, the National Marine Fisheries Service (NMFS) issued a Biological Opinion under Section 7 of the Endangered Species Act, which found that the implementation of the National Flood Insurance Program (NFIP) in the Puget Sound region jeopardized the continued existence of federally threatened salmonids and resident killer whales. As a result, NMFS established Reasonable and Prudent Alternatives to ensure that development within the Special Flood Hazard Area (100-year floodplain), floodway, Channel Migration Zone (CMZ), and riparian buffer zone do not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids. Because the NFIP is implemented by the Federal Emergency Management Agency (FEMA) through participation by local jurisdictions that adopt and enforce floodplain management ordinances, FEMA has delegated responsibility to the local jurisdictions to ensure that development does not adversely affect listed species.

Projects within FEMA-designated floodplains are required to prepare habitat assessments to ascertain their potential effects on federally-listed endangered species. In particular, floodplain storage volumes may not be decreased nor base flood level elevations increased.

It is recommended that Marysville include FEMA habitat assessment requirements to this code section. FEMA offers two alternatives to meeting the ESA requirements including (1) prohibition of all development in the floodway and other areas, (2) a permit-by-permit basis for ESA compliance.

References

ECY (Washington State Department of Ecology). 2018. July 2018 Modifications for Habitat Score Ranges. Modified from Wetlands Guidance for CAO Updates: Western Washington Version. Ecology Publication No. 16-06-001.

ECY (Washington State Department of Ecology). 2021a. Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance. Ecology Publication No. 21-06-003.

ECY (Washington State Department of Ecology). 2021b. Critical Aquifer Recharge Areas Guidance. Revised March 2021. Ecology Publication No. 05-10-028.

ECY (Washington State Department of Ecology). 2022. October 2022, Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Western and Eastern Washington. Ecology Publication No. 22-06-014.

Facet. 2024. October 2024. DRAFT Best Available Science Review Marysville Critical Area Ordinance Update.

Granger, T., Hruby, T., McMillan, A., Peters, D., Rubey J., Sheldon, D., Stanley, S., Stockdale, E. 2005. Wetlands in Washington State, Volume 2 – Guidance for Protecting and Managing Wetlands. Washington State Department of Ecology Publication No. 05-06-008.

Hruby, T. and Yahnke, A. 2023. Washington State Wetland Rating System for Western Washington: 2014 Update, Version 2. Washington State Department of Ecology Publication No. 23-06-009. Olympia, Washington.

Quinn, T., G.F. Wilhere, and K.L. Krueger, technical editors. 2020. Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications. Habitat Program, Washington Department of Fish and Wildlife, Olympia, Washington.

Rentz, R., A. Windrope, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program, Washington Department of Fish and Wildlife, Olympia.

.

APPENDIX A. Ecology's Wetland Buffer Width Recommendations

Appendix C. Buffer Approaches for Western Washington

Option 1

Table 1. Wetland buffer width requirements, in feet, if Table 2 is implemented and a habitat corridor is provided

Category of wetland	Habitat score 3-5 points (corridor not required)	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I or II: Based on rating of wetland functions (and not listed below)	75	110	225	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	225	190
Category I: Interdunal	NA	NA	225	NA
Category I: Forested	75	110	225	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category II: Interdunal	NA	NA	NA	110
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	110
Category III: All types except interdunal	60	110	225	NA
Category III: Interdunal	NA	NA	NA	60
Category IV: All types	40	40	40	NA

Impact minimization measures

Developments that produce the listed disturbances and are requesting a buffer reduction are required to address the disturbance through the use of applicable minimization measures.

This is not a complete list of measures, nor is every example measure required. Though not every measure is required, all effort should be made to implement as many measures as possible. Regulatory staff should determine, in coordination with the applicant, which measures are applicable and practicable.

Table 2. Impact minimization measures

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Lights	• Parking lots • Commercial/Industrial • Residential • Recreation (e.g., athletic fields) • Agricultural buildings	• Direct lights away from wetland • Only use lighting where necessary for public safety and keep lights off when not needed • Use motion-activated lights • Use full cut-off filters to cover light bulbs and direct light only where needed • Limit use of blue-white colored lights in favor of red-amber hues • Use lower-intensity LED lighting • Dim light to the lowest acceptable intensity
Noise	• Commercial • Industrial • Recreation (e.g., athletic fields, bleachers, etc.) • Residential • Agriculture	• Locate activity that generates noise away from wetland • Construct a fence to reduce noise impacts on adjacent wetland and buffer • Plant a strip of dense shrub vegetation adjacent to wetland buffer
Toxic runoff	• Parking lots • Roads • Commercial/industrial • Residential areas • Application of pesticides • Landscaping • Agriculture	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft. of wetland • Apply integrated pest management (These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.)

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Stormwater runoff	• Parking lots • Roads • Residential areas • Commercial/industrial • Recreation • Landscaping/lawns • Other impermeable surfaces, compacted soil, etc.	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized or sheet flow from lawns that directly enters the buffer • Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns
Pets and human disturbance	• Residential areas • Recreation	• Use privacy fencing • Plant dense native vegetation to delineate buffer edge and to discourage disturbance • Place wetland and its buffer in a separate tract • Place signs around the wetland buffer every 50-200 ft., and for subdivisions place signs at the back of each residential lot • When platting new subdivisions, locate greenbelts, stormwater facilities, and other lower-intensity uses adjacent to wetland buffers
Dust	• Tilled fields • Roads	• Use best management practices to control dust

Table 3. Wetland buffer width requirements, in feet, for applicants not providing a habitat corridor or implementing measures in Table 2

Category of wetland	Habitat score 3-5 points	Habitat score 6-7 points	Habitat score 8-9 points	Buffer width based on special characteristics
Category I & II: Based on rating of wetland functions (and not listed below)	100	150	300	NA
Category I: Bogs and Wetlands of High Conservation Value	NA	NA	300	250
Category I: Interdunal	NA	NA	300	NA
Category I: Forested	100	150	300	NA
Category I: Estuarine and wetlands in coastal lagoons	NA	NA	NA	200
Category II: Interdunal	NA	NA	NA	150
Category II: Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
Category III: All types except interdunal	80	150	300	NA
Category III: Interdunal	NA	NA	NA	80
Category IV	NA	NA	NA	50

Conditions for implementing Tables 1, 2, and 3

1. Wetlands that score 6 points or more for habitat function: the buffers in Table 1 can be used only if all of the following criteria are met:

a. A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and:

i. A legally protected, relatively undisturbed and vegetated area (e.g., Priority Habitats, compensatory mitigation sites, wildlife areas/refuges, national, county, and state parks where they have management plans with identified areas designated as Natural, Natural Forest, or Natural Area Preserve, or

ii. An area that is the site of a Watershed Project identified within, and fully consistent with, a Watershed Plan as defined by RCW 89-08-460, or

iii. An area where development is prohibited according to the provisions of the local shoreline master program, or

iv. An area with equivalent habitat quality that has conservation status in perpetuity, in consultation with WDFW.

b. The corridor is permanently protected for the entire distance between the wetland and the shoreline or legally protected area by a conservation easement, deed restriction, or other legal site protection mechanisms.

c. Presence or absence of the shoreline or Priority Habitat must be confirmed by a qualified biologist or shoreline Administrator.

d. The measures in Table 2 are implemented, as applicable, to minimize the impacts of the adjacent land uses.

2. For wetlands that score 5 or fewer habitat points, only the measures in Table 2 are required for the use of the buffers in Table 1.

3. If an applicant does not apply the mitigation measures in Table 2 or is unable to provide a protected corridor, then the buffers in Table 3 shall be used.

4. The buffer widths in Tables 1 and 3 assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer must either be planted to create the appropriate native plant community or be widened to ensure that the buffer provides adequate functions to protect the wetland.

Note: An expanded table with graduated buffer widths based on habitat score is also outlined in the July 2018 Appendix 8-C[76] of *Wetlands in Washington State, Volume 2*. This is an approach that assigns unique buffer widths to each habitat score in seven increments. It is a gradual increase in buffer width with each point. Compared to Option 1, this avoids a marked increase in buffer width resulting from an increase of one point in the habitat score.

Option 2

Table 1. Width of buffers, in feet, needed to protect wetlands from impacts of proposed land uses (used with Table 2)

Category of wetland	Land use with low impact*	Land use with moderate impact*	Land use with high impact*
I	150	225	300
II	150	225	300
III	75	110	150
IV	25	40	50

*See Table 2 below for types of land uses that can result in low, moderate, and high levels of impacts to wetlands

Table 2. Levels of impacts from proposed land use types

[Local governments are encouraged to ensure the uses in this table match the uses specified in their development and land use regulations and are consistent with the principles in this example.]

Level of impact from proposed land use	Types of land use
High	• Commercial • Urban • Industrial • Institutional • Mixed-use developments • Residential (more than 1 unit/acre) • Roads: federal and state highways, including on-ramps and exits, state routes, and other roads associated with high-impact land uses • Railroads • Agriculture with high-intensity activities (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling, raising and maintaining animals, etc.)

[76] https://apps.ecology.wa.gov/publications/parts/0506008part3.pdf

Level of impact from proposed land use	Types of land use
	• Open/recreational space with high-intensity uses (golf courses, ball fields, etc.) • Solar farms (utility scale)
Moderate	• Residential (1 unit/acre or less) • Roads: Forest Service roads and roads associated with moderate-impact land uses • Open/recreational space with moderate-intensity uses (parks with paved trails or playgrounds, biking, jogging, etc.) • Agriculture with moderate-intensity uses (orchards, hay fields, light or rotational grazing, etc.) • Utility corridor or right-of-way used by one or more utilities and including access/maintenance road • Wind farm
Low	• Natural resource lands (forestry/silviculture–cutting of trees only, not land clearing and removing stumps) • Open/recreational space with low-intensity uses (unpaved trails, hiking, birdwatching, etc.) • Utility corridor without a maintenance road and little or no vegetation management • Cell tower

Option 3

Table 1. Wetland buffer width requirements, in feet, based solely on wetland category

Category of wetland	Buffer width
I	300
II	300
III	150
IV	50

page intentionally left blank

APPENDIX B. Critical Aquifer Recharge Areas Guidance – Code Examples from Ecology Publication 05-10-028

Appendix C: Code Examples

Integrated programs

The City of Vancouver deserves special mention because the City's Water Resource Protection Program[198] is an outstanding example of program integration to protect rivers, lakes, streams, and groundwater.

The City of Issaquah is an outstanding example of gaining efficiencies and good outcomes by integrating programs - See Appendix A.

Authority to Act and to Inspect

- Benton County has given themselves authority to prevent contamination of critical aquifer recharge areas. Benton County's critical aquifer recharge area ordinance Chapter 15.06[199] requires that:

  (a) The applicant shows that the proposed activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely affect the recharging of the aquifer;

  (b) The applicant provides evidence that the proposed water source is physically and legally available and meets drinking water standards.

  (c) Groundwater uses, withdrawals, and recharge must be consistent with RCW 90.44.050[200] (permit to withdraw groundwater) and with applicable rules adopted pursuant to RCW 90.22[201] (minimum instream flows) and RCW 90.54[202] (Water Resources Act of 1971) when making decisions under RCW 19.27.097[203] (evidence of adequate water supply) and RCW 58.17.110[204] (Approval or disapproval of subdivision).

- The City of Vancouver explicitly prohibits polluting discharges into the water resources of the city (Chapter 14.6 Water Resources Protection[205], Section 14.26.117). Section 14.26.145 on Enforcement gives the City authority to enforce, and explicitly lays out what the City may do in case of violations.

---

198 https://www.cityofvancouver.us/publicworks/page/water-resources-protection-program
199 https://www.co.benton.wa.us/files/documents/CH1506BCC148013709092718PM.pdf
200 https://apps.leg.wa.gov/RCW/default.aspx?cite=90.44.050
201 https://apps.leg.wa.gov/RCW/default.aspx?cite=90.22
202 https://apps.leg.wa.gov/RCW/default.aspx?cite=90.54
203 https://apps.leg.wa.gov/RCW/default.aspx?cite=19.27.097
204 https://app.leg.wa.gov/rcw/default.aspx?cite=58.17.110
205 http://www.cityofvancouver.us/sites/default/files/fileattachments/public_works/page/1033/finalwrpordinancerevised2016.pdf

Having the authority to enforce in case of a polluting discharge to water resources allows the City to stop a pollution event, or prevent an imminent discharge. This goes beyond requiring pollution prevention at the permitting stage, and allows the City to respond after a permit has been issued.

The City of Vancouver Water Resources Protection ordinance also has code for owner/operators to inspect their facilities to prevent contaminated discharges, and for the city to inspect.

Allowed, permitted with conditions, and prohibited uses

Table 24.10-1 in Chapter 24.10.020[206] of the Thurston County code lists land use activities that are allowed without a permit, permitted with conditions, or are prohibited, depending on the category of Critical Aquifer Recharge Areas. The table links to applicable standards for land use activities. Here is a partial excerpt (see the ordinance[207] for the full table):

RESTRICTED USES AND ACTIVITIES	AQUIFER RECHARGE AREA CATEGORY				
	I			II	III
	Wellhead Protection Areas		Other CARA I		
	1-year time of travel zone	5- and 10-year time of travel zones			
Abandoned wells (decommissioning of wells) (TCC 24.10.040)	A	A	A	A	A
Asphalt plants/cement and concrete plants (TCC 24.10.070)	X	X	X	P	P
Boat refinishing	P	P	P	P	P
Cemeteries (TCC 24.10.090)	X	P	P	P	P
Chemical manufacturing/processing, mixing and remanufacturing (TCC 24.10.100)	X	X	X	P	P
Chemical storage facilities (not including fuel) (TCC 24.10.100)	X	P	P	P	P

Figure 14: Image of Table 24.10-1. Prohibited and Restricted Uses and Activities Within Critical Aquifer Recharge Areas

LEGEND:

A = Allowed without a critical area permit, subject to requirements of this title

206 https://library.municode.com/wa/thurston_county/codes/code_of_ordinances?nodeId=TIT24CRAR_CH24.10CRAQREAR_24.10.020STREPRUS

207 https://library.municode.com/wa/thurston_county/codes/code_of_ordinances?nodeId=TIT24CRAR_CH24.10CRAQREAR_24.10.020STREPRUS

P = Permitted, subject to critical area permit and requirements of this title

X = Prohibited

X/P = As determined by the approval authority, small scale uses or those using nonhazardous materials may be permitted when the quantity, nature of materials processed and mitigation methods are determined to contain no significant risk to groundwater.

Section 11.20.075 of Spokane County's critical aquifer recharge area ordinance[208] includes a similar type of table.

[208] https://library.municode.com/wa/spokane_county/codes/code_of_ordinances?nodeId=TIT11EN_CH11.20CRAR_11.20.075CRAQREAR

Critical Materials

City of Spokane Critical and Hazardous Materials List Information[209] guide sheet.

City of Spokane Business & Development Resources[210] – The Critical and Hazardous Materials topic includes the following resources:

- Critical and Hazardous Materials List Application[211] (PDF 25 KB)
- Critical and Hazardous Materials List Information[212] (PDF 22 KB)
- Critical Materials Handbook[213] (PDF 908 KB)
- Critical Materials List[214] (PDF 29 KB)
- Hazardous Materials Inventory[215] (PDF 32 KB)

Nonpoint Ordinance

- Article VI – Rules and regulations of the Thurston County Board of Health governing nonpoint source pollution[216].

Reports

- Spokane County Section 11.20.075 – Critical aquifer recharge areas[217], has a section on procedures for when a hydrogeologic report or study is required. This section is quite good, and provides for an important alternative:

---

[209] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-hazardous-materials-list-information.pdf
[210] https://my.spokanecity.org/business/resources/
[211] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-hazardous-materials-list-application.pdf
[212] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-hazardous-materials-list-information.pdf
[213] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-materials-handbook.pdf
[214] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/critical-materials-list.pdf
[215] https://static.spokanecity.org/documents/business/resources/guidesheets/hazardousmaterials/hazardous-materials-inventory.pdf
[216] https://www.co.thurston.wa.us/health/ehadm/pdf/Article_VI.pdf
[217] https://library.municode.com/wa/spokane_county/codes/code_of_ordinances?nodeId=TIT11EN_CH11.20CRAR_11.20.075CRAQREAR

> An applicant may elect to meet the appropriate performance standards in lieu of preparing a hydrogeologic report if the environmental services director or hearing examiner finds the performance standards provide adequate aquifer protection.

- City of Redmond (King County), Zoning Code (RMC title 21), Appendix 1. – Critical Areas Reporting Requirements[218] details critical aquifer recharge areas reporting. The following paragraph provides a good example of an objectives statement:

> A critical aquifer recharge area report must be submitted to the City. The purpose of the report is to evaluate the actual presence of geologic conditions giving rise to the critical aquifer recharge area; determine the appropriate wellhead protection zone; evaluate the safety and appropriateness of proposed activities; and recommend appropriate construction practices, monitoring programs, and other mitigation measures required to ensure achievement of the purpose and intent of these regulations. The information required by this report should be coordinated with the study and reporting requirements for any other critical areas located on the site.

Incentives

The Clark County Critical Aquifer Recharge Areas Ordinance, Title 40.410[219], includes incentives for using best management practices to avoid having to provide additional geologic and hydrologic characteristics of the property:

> Incentives
>
> Best Management Practices (BMPs). Individuals who implement BMPs to safeguard groundwater may not be required to provide additional geologic and hydrologic characteristics of the subject property, pursuant to Sections 40.410.030(B) and (C). Individuals shall implement the Washington Department of Ecology's Stormwater, Water Quality, Hazardous Waste, Wetland, and Solid Waste Programs BMPs; Chapter 13.26A; and BMPs from the Washington Departments of Health, Agriculture, Transportation, and State Conservation District Office.

[218] http://online.encodeplus.com/regs/redmond-wa/doc-viewer.aspx?secid=2017#secid-4221
[219] https://www.codepublishing.com/WA/ClarkCounty/?comp-ClarkCounty40/ClarkCounty40410/ClarkCounty40410.html

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
North Puget Sound • Region 4 • 16018 Mill Creek Blvd., Mill Creek, WA 98012-1296
Telephone: (425) 775-1311 • Fax: (425) 338-1066

July 13, 2026

City of Marysville
Angela Gemmer, Planning Manager
501 Delta Avenue
Marysville, WA 98270

RE: PlanView Case ID 2022-C-330, WDFW's comment letter for the currently proposed amendments to Marysville's Critical Area Ordinance, Chapter 22E.010

Dear Angela Gemmer and members of the Planning Commission,

On behalf of the Washington Department of Fish and Wildlife (WDFW), thank you for the opportunity to offer comments on Marysville's draft Critical Area Ordinance (CAO) amendments as part of the current periodic update. Within the State of Washington's land use decision-making framework, WDFW is considered a technical advisor for the habitat needs of fish and wildlife and routinely provides input into the implications of land use decisions.

We provide these comments and recommendations in keeping with our legislative mandate to preserve, protect, and perpetuate fish and wildlife and their habitats for the benefit of future generations – a mission we can only accomplish in partnership with local jurisdictions.

Decisions made by the City of Marysville are of particular importance to the long-term health of the lower Snohomish River watershed and the recovery of salmon populations throughout the region. The city is situated adjacent to a network of salmon-bearing rivers, streams, sloughs, and floodplain habitats that provide important migration, rearing, and refuge habitat for multiple salmonid species, including ESA-listed Chinook salmon. Land use decisions affecting stormwater management, riparian condition, floodplain connectivity, and water quality within Marysville have consequences that extend well beyond the city's boundaries, influencing habitat conditions downstream in the Snohomish estuary and throughout Puget Sound. As a result, adopting critical area regulations consistent with the best available science (BAS) is an important component of regional salmon recovery efforts.

The city's most recently proposed CAO draft establishes standard stream buffers that do not include WDFW's new BAS and management recommendations. According to WDFW's BAS,

stream buffers (also referred to as riparian management zones, or RMZs) should vary based on site-specific conditions. *Riparian Ecosystems, Volume 2* defines a RMZ as the area capable of providing **the full range of riparian functions and values**, and highlights that those functions extend laterally from the waterbody to at least one *Site-Potential Tree Height at 200 years* ($SPTH_{200yr}$). WDFW developed a suite of resources, such as the SPTH mapping tool, used to estimate probable RMZ widths, which can be confirmed through field delineations following WDFW's field delineation guidance document. According to WDFW's BAS, RMZ widths range from 105 to 227 feet, depending on location within the city. Adopting the city's proposed buffer widths could risk the loss of valuable ecosystem functions and values that salmonids depend on.

For example, the currently proposed 100-foot buffer for Type Np streams does not align with WDFW's BAS because even when fully vegetated, this width primarily addresses pollutant removal (~95% efficiency for phosphorus, sediment, and many pesticides and ~85% for surface nitrogen), and does **not** ensure full protection of all ecosystem functions and values, such as temperature regulation during summer, recruitment of large wood that forms pools and refugia, and maintenance of hydraulic complexity. These latter functions accrue over wider lateral distances and are tied to mature forest structure. This distinction should inform the evaluation of all proposed buffer widths.

For these reasons, WDFW respectfully recommends that the city revise the proposed CAO to align with site-potential tree height–based RMZs and associated management guidance to ensure consistency with BAS. Notably, local jurisdictions such as Arlington, Mill Creek, and Shoreline have adopted SPTH-based riparian management frameworks consistent with WDFW's recommendations. In addition, the recent Snohomish County CAO appeal underscores the legal vulnerability of static buffer approaches; in that case, the Growth Management Hearings Board rejected the county's reliance on fixed-width buffers where they were not adequately supported by BAS and did not ensure protection of all riparian functions and values.

Given Marysville's pivotal role in the Snohomish watershed, aligning local regulations with scientifically supported riparian protections is essential not only to meet regional salmon recovery objectives but also to fulfill the city's responsibility under the GMA to designate and protect critical areas for present and future generations.

Sincerely,

Morgan Krueger

Morgan Krueger, Regional Land Use Lead (Morgan.Krueger@dfw.wa.gov)

CC:
Marian Berejikian, Land Use Conservation and Policy Planner (Marian.Berejikian@dfw.wa.gov)
Marcus Reaves, Regional Habitat Program Manager (Marcus.Reaves@dfw.wa.gov)
Kirk Lakey, Assistant Regional Habitat Program Manager (Kirk.Lakey@dfw.wa.gov)
Ryan Shaw, Habitat Biologist (Ryan.Shaw@dfw.wa.gov)

Jeff Aken, WA Department of Commerce (Jeff.Aken@dfw.wa.gov)

State of Washington
Department of Fish and Wildlife, Region 4
Region 4 information: 16018 Mill Creek Blvd, Mill Creek, WA 98012 | phone: (425)-775-1311

August 7, 2026

City of Marysville
Angela Gemmer, Planning Manager
501 Delta Avenue
Marysville, WA 98270

RE: PlanView Case ID 2022-C-330, WDFW's comment letter for the currently proposed amendments to Marysville's Critical Area Ordinance, Chapter 22E.010

Dear Angela Gemmer,

On behalf of the Washington Department of Fish and Wildlife (WDFW), thank you for the opportunity to offer comments on Marysville's draft Critical Area Ordinance (CAO) amendments as part of the current periodic update. Within the State of Washington's land use decision-making framework, WDFW is considered a technical advisor for the habitat needs of fish and wildlife and routinely provides input into the implications of land use decisions.

We provide these comments and recommendations in keeping with our legislative mandate to preserve, protect, and perpetuate fish and wildlife and their habitats for the benefit of future generations – a mission we can only accomplish in partnership with local jurisdictions.

Table 1. Recommended changes to proposed code language.

Policy Number	Policy Language (with WDFW suggestions in red)	WDFW Comment
22A.020.040 Definitions	"Channel Migration Zone" means the area within which a river channel is likely to move laterally over a specified period (e.g., 100 years).	Local governments should identify and limit development within Channel Migration Zones (CMZs)(WAC 173-26-221). Identifying CMZs guides development away from high-risk areas and minimizes flood hazard exposure. CMZs are critical for maintaining the dynamic processes that support riparian ecosystems. Without addressing CMZs, the CAO may fail to fully protect the

		functional riparian areas that naturally shift over time. We encourage the city to incorporate this CMZ definition as well as delineate riparian management zones (RMZs) from the edge of the CMZ if present. For further information, please see the WA Department of Ecology's (DOE) informational webpage as well as WDFW's *Riparian Ecosystems, Volume 2: Management Recommendations.*
22A.020.040 Definitions	"Cumulative impacts" means the combined, incremental effects of human activity on critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other actions in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.	We recommend incorporating the Department of Ecology's (2022) definition for cumulative impacts. Including this definition helps ensure consistent interpretation and supports more accurate permitting decisions by recognizing how individual actions collectively affect critical area functions over time.
22A.020.060 Definitions	"Ecosystem functions" are the products, physical and biological conditions, and environmental qualities of an ecosystem that result from interactions among ecosystem processes and ecosystem structures. Ecosystem functions include, but are not limited to, sequestered carbon, attenuated peak streamflows, aquifer water level, reduced pollutant concentrations in surface and groundwaters, cool summer in-stream water temperatures, and fish and wildlife habitats.	Ecosystem functions and values should be defined separately, as they represent two distinct ecosystem attributes. We recommend using the definitions found in WAC 365-196-210 (14) and WAC 365-196-210 (15).
22A.020.060 Definitions	"Ecosystem services" are the benefits that the public enjoys as a result of natural processes and biological diversity (RCW 76.09.020).	Natural water infiltration and attenuation processes help retain, cool, and filter water. Protecting and restoring natural assets is often more cost-effective than engineered solutions. See FEMA's guide *Building Community Resilience with Nature-based Solutions*, as well as software to track these resources from Natural Capital Project. See Kitsap County's approach to quantifying

		ecosystem services through their Kitsap Natural Resource Asset Management Project.
22A.020.060 Definitions	"Ecosystem values" are the cultural, social, economic, and ecological benefits attributed to ecosystem functions.	See comment above.
22A.020.070 Definitions	"Fish habitat" or "habitat that supports fish life" means habitat, which is used by fish life at any life stage at any time of the year including potential habitat likely to be used by fish life, which could reasonably be recovered by restoration or management and includes off-channel habitat.	We recommend that the city include the WAC 220-660-030(52) definition of "fish habitat" to ensure consistency with state regulations and provide comprehensive protection of aquatic ecosystems.
22A.020.090 Definitions	"Hazard tree" is considered a threat to life, property, or public safety. Due to their high habitat value, hazard tree removal shall not adversely affect ecosystem functions to the extent practicable, encourage the creation of snags (Priority Habitat features) rather than complete tree removal, involve an avoidance and minimization of damage to remaining trees and vegetation, and require a qualified arborist to evaluate requests for hazard tree removal.	If not defined elsewhere, we recommend including a 'Hazard Tree' definition within this chapter.
22A.020.130 Definitions	"Low Impact Development (LID)" is a stormwater and land use management strategy that strives to mimic natural hydrologic conditions by emphasizing the pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration.	The current definitions section includes "Wetland, low impact use." We suggest incorporating a definition for Low Impact Development to more fully acknowledge it's use as a broader developmental tool and not necessarily tied to wetlands.
22A.020.140 Definitions	"Monitoring and Adaptive Management" means the process of monitoring and improving permits, regulations, and programs to ensure the protection of critical areas.	This definition comes from the Department of Commerce. Jurisdictions are encouraged to design a Monitoring and Adaptive Management program to: - Collect information on CAO effectiveness, - Evaluate the potential for exemptions and variances to cumulatively affect critical area functions across your jurisdiction, and

		- Improve permit implementation. See Commerce's Critical Areas Handbook, Chapter 7.
22A.020.150 Definitions	"No Net Loss of Critical Areas" refers to the actions taken to achieve and ensure no overall reduction in existing ecosystem functions and values or the natural systems constituting the protected critical areas. This may involve fully offsetting any unavoidable impacts to critical area functions and values pursuant to the Growth Management Act, WAC 365-196-830 'Protection of critical areas,' or as amended.	Ensuring that there is no net loss of all functions and values of all critical area types is a fundamental requirement of the Growth Management Act (GMA) (WAC 365-190-080, 365-196-830). It is the standard against which the adequacy of critical areas protections must be evaluated and measured. We recommend incorporating its definition and referencing this standard throughout Chapter 22E.010.
22A.020.160 Definitions	"Open space land" means (a) any land area so designated by an official comprehensive land use plan adopted by any city or county and zoned accordingly; or (b) any land area, the preservation of which in its present use would (i) conserve and enhance natural or scenic resources, or (ii) protect streams or water supply, or...	We recommend incorporating the definition found in RCW 84.34.020 for open space land within this section, as these spaces are mentioned throughout Chapter 22E.010.
22A.020.170 Definitions	~~"Priority species" or "priority wildlife species" means wildlife species of concern due to their population status and sensitivity to habitat alteration as identified by the Washington State Department of Wildlife.~~ "Priority Habitat" means a habitat type with unique or significant value to many species. An area identified and mapped as priority habitat has one or more of the following attributes: comparatively high fish and wildlife density, comparatively high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, important fish and wildlife movement corridors, limited	We'd recommend the adjacent definition for 'Priority Habitat' be added here, taken from WDFW's Priority Habitats and Species List. Priority *habitats* and *species* are two distinct concepts that are represented through WDFW's Priority Habitats and Species Program (PHS). The Washington Administrative Code (WAC) refers to PHS in sections dealing with CAOs, Shoreline Master Programs (SMPs), and the Essential Facilities Siting Evaluation Council. The state supreme court has held that PHS is a valid source of best available science for the Growth Management Act.

	availability, high vulnerability to habitat alteration, and unique or dependent species.	
22A.020.170 Definitions	"Priority Species" are fish and wildlife species requiring protective measures and/or management actions to ensure their survival. A species identified and mapped as priority species fit one or more of the following criteria: State-listed candidate species, vulnerable aggregations, and Species of recreational, commercial, and/or Tribal importance.	See comments above.
22A.020.190 Definitions	"Riparian management zone" (RMZ) means the area that has the potential to provide full riparian functions. In many forested regions of the state, this area occurs within one 200-year site-potential tree height measured from the edge of the stream channel. In situations where a CMZ is present, this occurs within one site potential tree height measured from the edges of the CMZ. In non-forest zones, the RMZ is defined by the greater of the outermost point of the riparian vegetative community or the pollution removal function, at 100 feet.	We suggest adding 'Riparian Management Zone' as its own definition to replace outdated 'stream buffer' terminology. This is especially important when considering RMZs as a type of critical area and not buffers to critical areas. For further related management recommendations, see WDFW's *Riparian Ecosystems, Volume 2: Management Recommendations.*
22A.020.200 Definitions	"Streams" means water contained within a channel, either perennial or intermittent, and classified according to locally appropriate stream classification system based on WAC 222-16-030...	WAC 222-16-030 is used to classify streams for Forest Practices under the Forest Practices Board. These stream determinations are used for temporary impacts associated with Forest Practices in forested areas and are not designed to be used for regulations for urban or permanent impacts. WDFW's BAS finds that all streams are important for ecosystem services and salmon recovery, regardless of whether or not they are fish bearing. If identifying streams by fish-bearing status is helpful for other city purposes, such as prioritizing restoration efforts or identifying culvert requirements, we recommend clarifying the use of the classification systems.

22A.020.240 Definitions	"Waters of the state" means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington.	See RCW 90.48.020.
22A.020.240 Definitions	"Watershed Plan" means a plan developed by federal, tribal, state, and/or local government agencies and/or appropriate non-governmental organizations, in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation. A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans may also identify priority sites for aquatic resource restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, and wetland management plans.	Including a definition for "Watershed Plan" provides clarity when referencing locally or regionally adopted plans that guide aquatic resource restoration and protection. It helps ensure consistency in implementation, supports landscape-scale planning, and allows jurisdictions to align CAO decisions, such as mitigation, restoration priorities, and buffer considerations, with established, stakeholder-informed watershed efforts. This definition also acknowledges the role of collaborative, science-based planning in achieving long-term ecological outcomes.
22E.010.040 Best available science Page 5	(2) Protection of Functions and Value and Fish Usage. Critical area studies and decisions to alter critical areas shall rely on the best available science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat, such as salmon and bull trout.	To protect riparian areas, we strongly recommend that the County utilize WDFW's best available science (BAS) and management recommendations related to riparian ecosystems. Protecting **all streams** regardless of fish presence, employing RMZs to replace outdated 'stream buffer' terminology, and utilizing site-specific characteristics to determine RMZ widths (Site Potential Tree Height at 200 years, or $SPTH_{200yr}$) are all integral to ensure no net loss of ecosystem functions and values. See RMZ widths via WDFW's mapping resource. Many jurisdictions have worked with WDFW during their CAO updates to incorporate this new BAS.
22E.010.170 Fish and wildlife habitat	(1) ~~Primary f~~Fish and wildlife habitat conservation areas shall include the following:	No net loss of ecosystem functions and values is required for all critical areas under the GMA (WAC 365-190-080, 365-196-830). No net loss is the standard against which the adequacy of critical

conservation areas designated Page 31		areas protections must be evaluated and measured. Distinguishing a hierarchy for critical area protections (e.g. Primary, secondary, etc.) may not align with GMA standards.
22E.010.170 Fish and wildlife habitat conservation areas designated Page 32	(h) Streams as defined and classified in Chapter 22A.020 MMC.	See comments for 22A.020 Definitions "Stream" above.
22E.010.170 Fish and wildlife habitat conservation areas designated Page 32	i. Riparian Management Zones	We appreciate the designation of WDFW's Priority Habitats and Species within this section and suggest the adjacent addition to align with new BAS (*Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* (2020)). As an example, see how the city of Anacortes incorporated WDFW's BAS within this section: FWHCAs.
22E.010.170 Fish and wildlife habitat conservation areas designated Page 32	j. Wildlife Habitat Corridors	We recommend designating wildlife habitat corridors here. WAC 365-196-335 states, "Each county or city planning under the [growth management] act must identify open space corridors within and between urban growth areas. They must include lands useful for recreation, wildlife habitat, trails, and connection of critical areas as defined in RCW 36.70A.030." If a method for identifying wildlife habitat corridors has not yet been established, the resources below may be helpful: - Page 72-82 of WDFW's new Washington Habitat Connectivity Action Plan (2025) and mapping resource. - Integrating Wildlife Habitat Connectivity Into Local Government Planning guidance to establish clear development standards within these areas. - Renton has a 4-3-110 URBAN SEPARATOR OVERLAY that provides regulations (such as permanent low-density) to provide for open space corridors in designated areas. -The city of Sammamish (21.03.020 Environmentally Critical Areas) and the city of Duvall (14.42.350 - Fish and wildlife habitat conservation areas—Habitat corridors) have specific sections detailing developmental standards in wildlife habitat corridor areas.

		- See the Bellingham wildlife corridor analysis as an example methodology for mapping these corridors at the local level.
22E.010.190 Exemptions from fish and wildlife regulations Page 35	(2) The following activities shall be exempt from the provisions of this chapter related to fish and wildlife habitat provided they are conducted using best management practices and result in no net loss of ecosystem functions and values:	All activities, including those listed as exempt, must meet the no net loss of ecological functions and values standard through application of the mitigation sequence, as required by WAC 365-196-830, WAC 365-190-080, and WAC 197-11-768. To ensure consistent application, we recommend stating at the beginning of the exemptions section (or each relevant section) that exempt activities are still subject to no net loss. Exempt activities should be able to avoid impacts; if they cannot, a detailed mitigation plan should be provided demonstrating how no net loss will be achieved.
22E.010.200 Fish and wildlife habitat inventory maps Page 36	(2) The following maps, as amended, are hereby adopted for the purpose set forth in subsection (1) of this section:	We recommend including the adjacent language. Maps are often updated as new information becomes available. It is important to ensure the latest version of all maps listed in this section is utilized.
22E.010.210 Fish and wildlife habitat inventory maps Page 37	(1) Streams. Streams shall be classified according to the stream type system as provided in WAC 222-16-030, Stream Classification System, as amended.	As described in comments for 22A.020.200 Definitions "Stream" above, WAC 222-16-030 is used to classify streams for Forest Practices under the Forest Practices Board. These stream determinations are used for temporary impacts associated with Forest Practices in forested areas and are not designed to be used for regulations for urban or permanent impacts. WDFW's BAS finds that all streams are important for ecosystem services and salmon recovery, regardless of whether or not they are fish bearing. If identifying streams by fish-bearing status is helpful for other city purposes, such as prioritizing restoration efforts or identifying culvert requirements, we recommend clarifying the use of the classification systems.
22E.010.220 Fish and wildlife habitat buffer areas. Page 38	(a) The following buffer widths are established:	This table establishes fixed stream buffer widths based primarily on fish-bearing status and development intensity, resulting in relatively narrow buffers in some highly developed areas. Riparian Management Zones provide critical ecological functions including filtering pollutants, regulating stream temperature, stabilizing banks, and reducing flood risks. To meet WDFW's current best available science standards and management recommendations (released in 2020), we recommend the utilization of WDFW's Site

		Potential Tree Height at 200 years ($SPTH_{200}$) to measure RMZ widths (see WDFW's mapping tool and field delineation guidance). This methodology uses site-specific characteristics to determine protection measures. To reduce pollutants from entering streams, RMZs should be a minimum 100 feet wide and fully vegetated. The buffer widths shown in 22E.010.220 do not reach WDFW's minimum standards. Meeting RMZ standards is especially critical in highly developed areas like Marysville, where elevated levels of impervious surface contribute to increased stormwater runoff and water quality degradation. The importance of addressing water quality concerns is demonstrated by the listing of many water bodies within the city, including sections of Ebey Slough, Jones Creek, and Allen Creek within Ecology's 303(d) list, which outlines a trend of continued degraded biological integrity over time under the federal Clean Water Act.
22E.010.220 Fish and wildlife habitat buffer areas. Page 39	(b) Federal, State, and Local Habitats and Species. (i) Except for waters subject to subsection (1)(a) of this section~~, and bald eagles subject to subsection (1)(b)(ii) of this section,~~... ... ~~(ii) Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292)~~...	The WA state Bald Eagle Protection Act no longer exists. The Town is welcome to develop regulations regarding species of local importance, as per outlined in GMA regarding "local species of importance." Please see WDFW's summary of management changes.
22E.010.220 Fish and wildlife habitat buffer areas. Page 40	(3) Measurement of ~~Buffers~~ Riparian Management Zones. (a) ~~Stream Buffers~~ Riparian Management Zones (RMZs). All ~~buffers~~ RMZs shall be measured from the outer edge of the channel migration zone (CMZ). If no CMZ is present, buffers shall be measured from the ordinary high water mark as identified in the field or, if that cannot be determined, from the top of the bank. In braided channels and alluvial fans, the ordinary high water mark or the top of the bank as defined in MMC 22A.020.210 shall be determined	CMZs are critical for maintaining dynamic processes that support riparian ecosystems. Without addressing CMZs, this section may fail to fully protect the functional riparian areas that naturally shift over time. We encourage the city to delineate RMZs from the edge of the CMZ if present. For further information, please see the WA Department of Ecology's informational webpage as well as WDFW's *Riparian Ecosystems, Volume 2: Management Recommendations.*

	so as to include the entire stream feature;	
22E.010.220 Fish and wildlife habitat buffer areas. Page 40	(4) Buffer widths may be modified by averaging buffer widths as set forth herein: (a) Buffer width averaging shall be allowed only where the applicant demonstrates to the community development department that the averaging will not impair or reduce habitat, water quality purification and enhancement, storm water detention, ground water recharge, shoreline protection and erosion protection and other functions of the stream and buffer, that lower intensity land uses would be located adjacent to areas where buffer width is reduced, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; (b) Notwithstanding the reductions permitted in subsection (4)(a) of this section, buffer widths shall not be reduced by more than 25 percent of the required buffer.	RMZ widths are established based on the specific ecological functions they are intended to maintain. These functions are directly dependent on the width, continuity, and quality of riparian vegetation. Any reduction in RMZ width results in a measurable loss of habitat function and ecological integrity. Adding the lost width onto a different area of the buffer will not likely result in equal functions and values. That said, limited buffer averaging may be consistent with no net loss standards if it is confined to areas that no longer provide ecological function, such as existing impervious surfaces. In all cases, no portion of any RMZ should be reduced below 100 feet, as this is the minimum width necessary to sustain the pollution removal function identified in WDFW's BAS. Alternatively, we recommend looking at the city of Edmond's 'Interrupted stream or wetland buffer' language, which states "Development Proposals within Interrupted Stream or Wetland Buffers. Adjacent areas that may be physically separated from a stream or wetland due to existing, legally established structures or paved areas may be exempted from the prescribed buffer widths if proven scientifically to be functionally isolated from the stream or wetland. The director will require the applicant to provide a site assessment and functional analysis documentation report by a qualified critical area consultant that demonstrates the interrupted buffer area is functionally isolated, and evaluates the hydrologic, geologic, and/or biological habitat connection potential and the extent and permanence of the physical separation."
22E.010.220 Fish and wildlife habitat buffer areas. Page 41	(8) Allowed Activity – Utilities in Streams. New utility lines and facilities may be permitted to cross water bodies in accordance with an approved supplemental stream/lake study, if they comply with the following criteria:	All activities must meet the no net loss of ecological functions and values standard through application of the mitigation sequence, as required by WAC 365-196-830, WAC 365-190-080, and WAC 197-11-768.

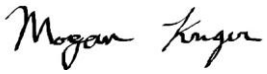
	(g) No net loss of ecosystem functions and values is met.	
22E.010.220 Fish and wildlife habitat buffer areas. Page 43	(12) Required buffers shall not deny all reasonable use of property... ...(h) The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, including, but not limited to, segregating or dividing the property in a manner that created an undevelopable condition, or exacerbating an existing condition to such a degree that reasonable economic use is no longer possible under the terms of this chapter. (i) No reasonable use application shall be approved if the city can demonstrate, by a preponderance of the evidence, that the applicant had actual or constructive knowledge of existing conditions, at any time prior to the applicant's acquisition of the subject property, that would significantly lessen the applicant's distinct, investment-backed expectations in acquiring the subject property.	The additions in red are commonly found within reasonable use exception sections throughout neighboring jurisdictions. This language is taken directly from the city of Kent's CAO.
22E.010.230 Fish and wildlife habitat alteration and mitigation. Page 44	(1) Adverse impacts to habitat functions and values shall be mitigated to achieve no net loss of ecosystem functions and values ~~the extent feasible and reasonable~~. Mitigation actions by an applicant or property owner shall occur in the following preferred sequence:	All activities, including those listed as exempt, must meet the no net loss of ecological functions and values standard through application of the mitigation sequence, as required by WAC 365-196-830, WAC 365-190-080, and WAC 197-11-768. Additionally, the mitigation sequence is required for decisions regarding **all** critical area types and should be more clearly applied across the entire chapter. We recommend moving this out of the Fish and Wildlife Habitat Conservations Areas (FWHCA) section and moving it to General Provisions section.
22E.010.230 Fish and wildlife habitat alteration and mitigation.	(2) Where impacts cannot be avoided, the applicant or property owner shall implement other appropriate mitigation actions in	Either within this section or within 22E.010.250 Fish and wildlife habitat performance standards and incentives, we recommend specifying what the applicant must demonstrate to comply with

Page 44	compliance with the intent, standards and criteria of this section. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and implementation of the performance standards listed in MMC 22E.010.250.	avoidance of impacts before moving to other steps within the mitigation sequence. Language may include: To demonstrate that avoidance has been adequately assessed, the applicant must, at a minimum, address the following considerations where applicable: (A) Alternative building locations on the property; (B) Adjustments to the project footprint and orientation; (C) Modification of non-critical area setbacks, where feasible, as a first option before encroaching into critical areas or their buffers; (D) Multi-story design or alternate building design.
22E.010.250 Fish and wildlife habitat performance standards and incentives. Page 45	General comment.	The City should consider incorporating restoration-focused provisions within its FWHCAs regulations. For example, the City of Redmond's code identifies restoration actions such as fish barrier removal, culvert replacement to improve fish passage, and instream habitat enhancement as mechanisms to improve aquatic habitat functions.
22E.010.250 Fish and wildlife habitat performance standards and incentives. Page 46	~~(3) As an incentive to encourage preservation of secondary and tertiary habitat, as those terms are defined in these regulations, the net amount of landscaping required by the city of Marysville may be reduced by 0.25 acres for each one acre of secondary or tertiary habitat and buffer preserved on the site; however, that amount cannot exceed 50 percent of the amount of required landscaping...~~	There is no mention elsewhere within this chapter regarding secondary or tertiary habitats. As mentioned previously, all critical area types must adhere to no net loss of ecosystem functions and values, as required under the GMA (WAC 365-190-080, 365-196-830). No net loss is the standard against which the adequacy of critical areas protections must be evaluated and measured. Distinguishing a hierarchy for critical area protections (e.g. Primary, secondary, etc.) may not align with GMA standards.
22E.010.320 General exemptions. Page 53	The following activities shall be exempt from the provisions of this chapter provided they are conducted using best management practices and result in no net loss of ecological functions and values: (1) Existing and ongoing agricultural activities, as defined in Chapter 22A.020 MMC, and any	All activities, including those listed as exempt, must meet the no net loss of ecological functions and values standard through application of the mitigation sequence, as required by WAC 365-196-830, WAC 365-190-080, and WAC 197-11-768. To ensure consistent application, we recommend stating at the beginning of the exemptions section (or each relevant section) that exempt activities are still subject to no net loss. Exempt activities

	lands designated long-term commercially significant agricultural lands. Any expansion of existing and ongoing agricultural activities is subject to review and compliance with this chapter;	should be able to avoid impacts; if they cannot, a detailed mitigation plan should be provided demonstrating how no net loss will be achieved. Additionally, WAC 365-196-830 states, "(c) Local governments shall not broadly exempt agricultural activities from their critical areas regulations." We recommend the adjacent addition to align this section with state requirements. Typically, existing and ongoing agricultural activities are allowed, but expansion, new clearing, drainage modification, or new structures within critical areas or buffers shall be regulated to achieve no net loss of ecological functions and values, consistent with this chapter.
22E.010.410 General savings provisions – Reasonable use determination. Page 64	General comments	We recommend consolidating this chapter and applying one reasonable use section to all critical area types. Much of this section is repeated within the FWHCAs section. Additionally, see comments regarding additional language suggested to be included within this section (comments for 22E.010.220 Fish and wildlife habitat buffer areas. Page 43).

Thank you for taking the time to consider our recommendations to better reflect the best available science for fish and wildlife habitats and ecosystems. We value the relationship we have with your jurisdiction and the opportunity to work collaboratively with you throughout this periodic update cycle. If you have any questions or need our technical assistance or resources at any time during this process, please don't hesitate to contact me.

Sincerely,



Morgan Krueger, Regional Land Use Lead (Morgan.Krueger@dfw.wa.gov)

CC:
Marian Berejikian, Land Use Conservation and Policy Planner (Marian.Berejikian@dfw.wa.gov)
Marcus Reaves, Regional Habitat Program Manager (Marcus.Reaves@dfw.wa.gov)
Kirk Lakey, Assistant Regional Habitat Program Manager (Kirk.Lakey@dfw.wa.gov)
Ryan Shaw, Habitat Biologist (Ryan.Shaw@dfw.wa.gov)
Jeff Aken, WA Department of Commerce (Jeff.Aken@dfw.wa.gov)

Natural Resources Department
Environmental Division
6406 Marine DR NW
Tulalip, WA 98271

July 17, 2026

Angela Gemmer | Interim CD Director
City of Marysville | Community Development Department

Re: Critical Areas Ordinance Update

The Tulalip Tribes ("Tulalip") is a federally recognized Indian tribe comprised of the Snohomish, Snoqualmie, Skykomish people and allied tribes and bands headquartered on the Tulalip Indian Reservation. The Tulalip Indian Reservation was established pursuant to the Treaty of Point Elliott on January 22, 1855 (12 Stat. 927) (the "Treaty") and Executive Order of December 23, 1873. Through the Treaty, Tulalip reserved its immemorial right to fish throughout its historical grounds—denoted as "Usual and Accustomed grounds and stations" in the Treaty. Tulalip's Treaty rights and resources are integral to supporting the tribal economy, and furthermore play a vital role in ensuring the health, welfare, and cultural ways of life of the tribe and tribal community.

The Tulalip Tribes appreciates the opportunity to engage with the City of Marysville regarding its 2026
critical areas ordinance update. Our natural resources are of paramount importance to us, and we strive to maintain, restore, and protect ecological processes in our watersheds wherever possible. We believe that with any regulations pertaining to environmentally sensitive areas, especially wetlands, riparian corridors, and other critical areas adjacent to or within fish-bearing waters, special care must be taken to maintain or restore the natural environment, to allow these processes to continue. Marysville's regulations pertaining to these sensitive areas are a key component to the protections we rely on for the health and productivity of our shared natural resources. It is within this context that we offer the following suggestions to ensure a clear and robust ordinance:

Regarding General Relationships – It may be worth noting in Section MMC 22E.010.030 and elsewhere as applicable that compatibility with the Shoreline Management Act (RCW 90.58) should be considered. The process of SMA Rulemaking is currently underway, and changes may affect the City's Shoreline Management Plan and Critical Areas Ordinance. We would recommend reviewing the current draft of the updated SMA, available from Dept. of Ecology, to determine if Marysville's critical areas ordinance and/or SMP may need to be further aligned.

6406 Marine DR NW
Tulalip, WA 98271
360-716-4617

Regarding functionally disconnected buffers - We recommend adding language in section MMC 22E.010.100(6)(b)(iv) to clarify and strengthen buffer area protections. Often buffers are degraded or encumbered by existing development. Marysville's regulations allow these pre-developed areas to be essentially considered lost, and therefore new development on top of the degraded part of the buffer zone is permissible. We believe that existing structures, surfaces, or roadways should only be allowed to stay if they will continue to be used as originally intended. If project proponents do not intend to retain the existing structure or roadway in a buffer zone, effectively implementing a "change of use", new development must adhere to current critical areas regulations, and the buffer "zone" (ie. entire standard buffer width) should be restored to a functioning buffer.

Regarding Riparian Management Zones – The science is always advancing, and there's a general trend of discovering time and again that our environmental protections are still not robust enough. Local Governments are beginning to realize that they need to increase their standard buffer widths, or better yet, adopt WDF&W's Riparian Management Zone guidance[1] in order to remain in compliance with BAS policy. This guidance represents current best available science, and recommends basing buffer widths on "site potential tree height", rather than a fixed width. We recommend the City of Marysville consider this guidance first on sites where BAS suggests a wider buffer than the standard is appropriate. In fact, this approach is better aligned with MMC 22E.010.040(3)(a): *Take a "precautionary or no-risk approach" that strictly limits development and land use activities until the uncertainty is sufficiently resolved.*

Regarding Penalties & Enforcement – Chapter MMC 22E.010.400(2) states that *Any person, firm, corporation, or association or any agent thereof who violates any of the provisions of this chapter shall be liable for all damages to public or private property arising from such violation, including the cost of restoring the affected area to an equivalent or improved condition prior to the violation occurring. If an equivalent condition cannot be provided, the violator shall be subject to a fine in an amount equal to the value of the damage to the environmentally critical area, determined using best available methods of calculating the value of vegetation, land, and water resources.*

We agree with this regulation, but believe it falls short of capturing the value of lost natural resources. For example, an unpermitted barrier over a creek may result in a measurable decline in upstream salmon production and rearing opportunity. This loss represents both cultural and economic loss to tribes. Fines should equal the value of the damage to vegetation, land, water resources, and to fisheries.

6406 Marine DR NW
Tulalip, WA 98271
360-716-4617

Regarding Reasonable Use – Pursuant to Chapter MMC 22E.010.410(2), certain criteria must be met in order to qualify for the reasonable use exception. Among these criteria should also be language clearly stating that the owner of the subject property must not have purchased the property after critical areas regulations were put in place that ultimately encumbered the property beyond reasonable economic use without this exception. Without this added language, it may introduce a loophole that results in unwarranted development in critical areas.

Conclusion - The Tulalip Tribes appreciates The City of Marysville's willingness to engage with us in order to ensure the City's critical areas regulations adequately protect our treaty-reserved rights and interests, and our shared natural resources. Thank you for considering our concerns.

Todd Gray
Environmental Protection Ecologist
The Tulalip Tribes | Natural Resources Dept.
360-716-4620 toddgray@tulaliptribes-nsn.gov

References:

1. Windrope, A., T. Rentz, K. Folkerrts, and J. Azerrad. 2020. **Riparian Ecosystems, Volume 2:** Management Recommendations. Page 80. Habitat Program, Washington Department of Fish and Wildlife, Olympia, WA. https://apps.ecology.wa.gov/publications/documents/0506008.pdf

6406 Marine DR NW
Tulalip, WA 98271
360-716-4617

Angela Gemmer

From: Johnson, Deborah L (DOH) <deborah.johnson@doh.wa.gov>
Sent: Friday, August 21, 2026 11:32 AM
To: Angela Gemmer
Cc: Aken, Jeff (COM)
Subject: [External!] City of Marysville CAO update (Commerce ID#2026-S-13049)

Follow Up Flag: Follow up
Flag Status: Flagged

You don't often get email from deborah.johnson@doh.wa.gov. Learn why this is important

[CAUTION:] This email originated from outside the City of Marysville. **Do not click links or open attachments** unless you recognize the sender and know the content is safe. Contact helpdesk if you have any concerns or questions.

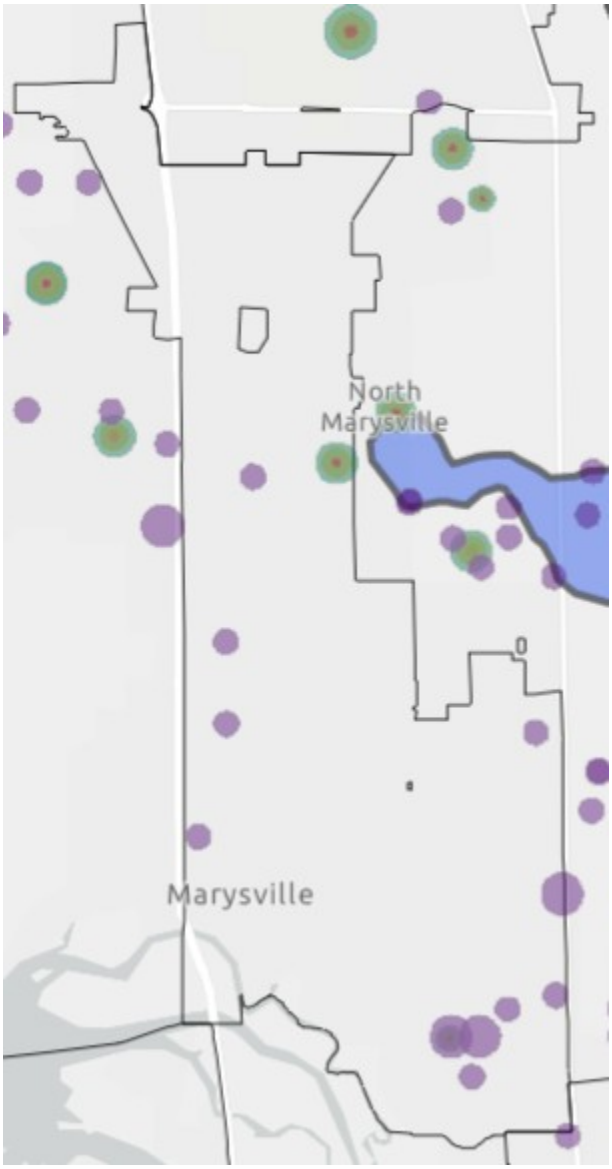
Hi Angela,
I'd begun reviewing Marysville's draft critical areas ordinance submitted to Commerce for 60-day review, but I encountered a question.

DOH review is limited to the general standards & critical aquifer recharge areas (CARAs). The City's current code doesn't include CARAs. This has been included in the draft in a single spot, p. 2 under general purpose & intent. However, I don't see that any designation, classification, or protections have been added. I'm wondering if maybe an early, incomplete version was accidently uploaded?

Relating to the types of CARAs listed in WAC 365-190-100, it does appear that Marysville has at least some. It isn't located in an EPA-designated sole source aquifer, but it is overlain either fully or partially by several wellhead protection areas associated with its own drinking water system, including:
AGB920 Highway Well 9
Sunnyside Well #1R BAM419/#2/Sunnyside Wellfield

In addition, there are two wellhead protection areas associated with non-City systems:
Ottercrest Estates Water System AGB946 WELL 1
Donnas Mini Market Water System AGB910 Well 1 (small portion)

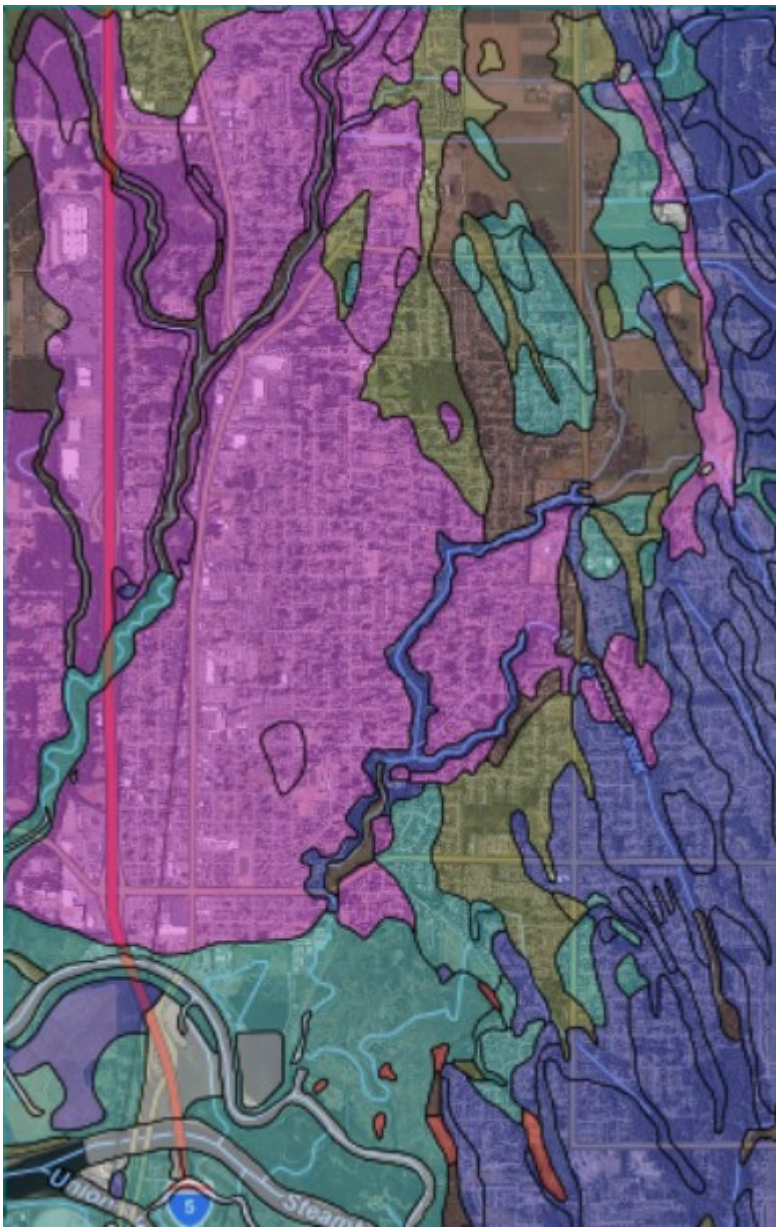
(scroll down, continued below)



Source:
https://experience.arcgis.com/experience/9dc3fd45206d450f828ebd7ed9cdf7be#data_s=id%3AdataSource_1-19d91b9c362-layer-13-18ecdb05976-layer-5%3A22272

Additionally, it appears that Marysville has a fairly good extent of Group A hydrologic soils having high infiltration, according to the NRCS hydrologic soils group layer. I will sometimes recommend this to jurisdictions having little or no BAS. The City might have other BAS I'm not aware of. (I might not have captured the entire city here, but this clip gives you an idea- fuchsia color.)

(scroll down, continued below)



Source: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Description — Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are ass
infiltration when the soils are not protected by vegetation, are thoroughly wet,

The soils in the United States are assigned to four groups (A, B, C, and D) and
follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thorou
drained sands or gravelly sands. These soils have a high rate of water transmi

###

In case this was an accidental upload of an older draft, it would be great if you could please replace it with the correct version. Or, if not, could you please clarify the intent relating to CARAs?

Thank you,

Deborah Johnson
Wellhead Protection Program Coordinator
Office of Drinking Water
Environmental Public Health Division
deborah.johnson@doh.wa.gov
doh.wa.gov | 253-433-4054

Option 1a High - Critical Area Buffers (3224 acres)*

Delineated Wetland

- Category I - 225' Buffer
- Category II - 225' Buffer
- Category III - 225' Buffer
- Category IV - 40' Buffer
- City Limits
- Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

MARYSVILLE

CRITICAL AREA BUFFERS OPTION 1a - HIGH HABITAT SCORE (8-9 POINTS)

Option 1a Medium - Critical Area Buffers (1927.3 acres)*

Delineated Wetland

Category I - 110' Buffer

Category II - 110' Buffer

Category III - 110' Buffer

Category IV - 40' Buffer

City Limits

Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

MARYSVILLE CRITICAL AREA BUFFERS OPTION 1a - MEDIUM HABITAT SCORE (6-7 POINTS)

CRITICAL AREA BUFFERS OPTION 1a - LOW HABITAT SCORE (3-5 POINTS)

MARYSVILLE

Option 1a Low - Critical Area Buffers
(1461.4 acres)*

Delineated Wetland
- Category I - 75' Buffer
- Category II - 75' Buffer
- Category III - 60' Buffer
- Category IV - 40' Buffer
- City Limits
- Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

Tulalip Reservation

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

CRITICAL AREA BUFFERS OPTION 1b - HIGH HABITAT SCORE (8-9 POINTS)

MARYSVILLE

Option 1b High - Critical Area Buffers (4079.2 acres)*

Delineated Wetland

- Category I - 300' Buffer
- Category II - 300' Buffer
- Category III - 300' Buffer
- Category IV - 50' Buffer

- City Limits
- Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

Tulalip Reservation

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

Option 1b Medium - Critical Area Buffers (2386.5 acres)*

Delineated Wetland

Category I - 150' Buffer

Category II - 150' Buffer

Category III - 150' Buffer

Category IV - 50' Buffer

City Limits

Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

MARYSVILLE CRITICAL AREA BUFFERS OPTION 1b - MEDIUM HABITAT SCORE (6-7 POINTS)

Option 1b Low - Critical Area Buffers (1720.4 acres)*

Delineated Wetland

- Category I - 100' Buffer
- Category II - 100' Buffer
- Category III - 80' Buffer
- Category IV - 50' Buffer
- City Limits
- Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

Tulalip Reservation

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

MARYSVILLE

CRITICAL AREA BUFFERS OPTION 1b - LOW HABITAT SCORE (3-5 POINTS)

CRITICAL AREA BUFFERS OPTION 2 AND OPTION 3

MARYSVILLE

Option 2 and 3 - Critical Area Buffers (3234.8 acres)*

Delineated Wetland

- Category I - 300' Buffer
- Category II - 300' Buffer
- Category III - 150' Buffer
- Category IV - 50' Buffer
- City Limits
- Urban Growth Boundary

* Acreage includes mapped critical wetlands and associated buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-11
July 2026

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

Tulalip Reservation

Wetland, Stream, or Water Body Avoidance Area (2,428 acres)*

Top of Slope 25' Buffer (2.7 acres)

Wetland, Stream, or Water Body Critical Area

City Limits

* Acreage includes both the mapped features and associated avoidance buffers

0 0.25 0.5 0.75 1 Miles

Map: CD26-12
August 2026

The City of Marysville makes no warranty, either express or implied, concerning the accuracy, currency, completeness or quality of data depicted, and expressly disclaims any warranty of merchantability or warranty of fitness of this data for any particular purpose. Any user of this data assumes all responsibility for use thereof, and further agrees to hold the City of Marysville harmless from any loss, damage, or liability arising from any use of this data.

MARYSVILLE

STREAM, WATER BODY, AND WETLAND CRITICAL AREAS WITH BUFFERS

Agenda Bill

AGENDA ITEM NO. 3.

DATE: September 9, 2026

SUBMITTED BY: Angela Gemmer, Planning Manager

PRESENTED BY: Angela Gemmer, Planning Manager

ITEM TYPE: Discussion Item

AGENDA SECTION: New Business

SUBJECT:
Limited Commercial in Cascade Industrial Center

SUGGESTED ACTION:
Recommended Motion: I move to set a Public Hearing for September 22nd on the limited commercial in the Cascade Industrial Center.

SUMMARY:
Community Development Department staff were approached with a development proposal for a hotel, convention center, gas station and convenience store, and retail within the Cascade Industrial Center on a Light Industrial zoned property. Many local manufacturing-industrial centers allow for limited commercial and supportive services to serve businesses and workers with their immediate needs. Staff anticipates that similar limited commercial and supportive services would be beneficial within the CIC. Attached are proposed amendments to MMC 22C.020.060 Permitted uses and 22C.020.070 Permitted uses - Development conditions to allow for limited commercial and supportive services (see attached memo for additional details).

ATTACHMENTS:
Memo re. Limited Commercial in CIC and E1, E2 Letter to City, E3 Land Use - Site Plan, E4 PowerPoint, E5 Convenience Retail and Gas, E6 Letter of Support, E7 CIC map properties under 6 acres

COMMUNITY DEVELOPMENT DEPARTMENT
501 Delta Avenue ◆ Marysville, WA 98270

MEMORANDUM

DATE: September 9, 2026

TO: Economic Development Committee

FROM: Angela Gemmer, Interim CD Director

SUBJECT: Limited service/retail uses in Cascade Industrial Center

ECC: Emily Morgan, Interim Planning Manager

EXHIBITS

Exhibit 1 DRAFT code amendment
Exhibit 2 Letter from Lee & Associates re. proposal
Exhibit 3 Site plan of proposal
Exhibit 4 Overview of proposal from proponent
Exhibit 5 Examples of services within regional business parks
Exhibit 6 Letter of support from NorthPoint Development
Exhibit 7 Map showing 6-acre parcels abutting roads within the LI, LI-GC, and GC zones

SUMMARY

In the spring, Community Development Department staff were approached with a development proposal for an approximately 5.72-acre site located at 5013 152nd Street NE (APN 31053300100100) within the Cascade Industrial Center (CIC), which is zoned Light Industrial (LI) (see **Exhibits 2 – 4**). The proposal consists of a(n):

- Four-story, 85-room hotel with pool;
- 11,500 square foot convention center;
- 10,500 square foot convenience store with six, standard gas station pumps; and
- 7,000 square foot retail space, which would be divided into different tenant spaces.

The proponent indicates that allowing these uses within the CIC will enable prospective workers, business owners, and visitors to conveniently access retail and fuel services without the need to travel to Smokey Point Boulevard or the City of Arlington (see **Exhibit 2**). Allowing for limited retail, dining, and fuel services within the CIC would also minimize traffic heading to Smokey Point Boulevard or Arlington and promote productivity by reducing travel time to access these goods and services. Comparable industrial centers such as Bothell's Canyon Park and Everett's South Everett-Paine Field Industrial Park have small areas of convenience retail, dining, and fuel services within their industrial parks to serve those working and visiting their industrial areas (see **Exhibit 5**). The hotel could serve prospective investment interests, businesses, and workers interested in locating within the CIC, while the convention center could support training, business expos, and similar programming within the CIC.

Currently, MMC 22C.020.060, Permitted uses, allows for some of these proposed uses within the LI zone and either limits or prohibits other of these uses as detailed in the table below.

Use	Is the use permitted?	Restrictions on Use
Hotel	Yes	Hotels/motels are prohibited within Arlington Airport Inner Safety Zones (ISZ) 2, 3, and 4. Hotels/motels that are proposed to locate within Arlington Airport Protection Subdistricts B and C shall be required to coordinate with the Arlington Municipal Airport to ensure that height, glare, and other aspects of the hotels/motels are compatible with air traffic and airport operations.
Convention center	Only with CD Director determination	Currently, this is not a listed use in the permitted uses matrices but could potentially be authorized as a commercial accessory use.
Convenience store with gas station	No	Only allowed in the LI zone along State Avenue/Smokey Point Boulevard.
Retail	Primarily not	Most retail uses allowed in the LI zone are limited to uses directly related to industrial or manufacturing activities unless the property is located along State Avenue/Smokey Point Boulevard, where a broader range of uses is allowed.
Eating and drinking places	Yes	Limited to 4,000 square feet in the Light Industrial Zone.

Many of the uses that are listed in the table above were limited or prohibited during the City's pursuit of Puget Sound Regional Council's Manufacturing Industrial Center designation. PSRC's Regional Centers Framework requires that 75 percent of a manufacturing/industrial center be zoned for "core industrial uses".[1] Currently, over 80.6 percent (1,352.3 acres) of land within the CIC has a Light Industrial zoning designation, and 7.7 percent (141.36 acres) has a Light Industrial with General Commercial Overlay designation, which allows for both commercial and industrial uses. Based on our current zoning for the CIC, allowing limited service and retail uses in the CIC to support industrial uses would not compromise the City's Manufacturing Industrial Center designation.

Staff briefed the Economic Development Committee on this proposal, which expressed support for limited retail and services to support future industrial uses within the CIC. To allow for the uses outlined above, staff has drafted amendments to MMC 22C.020.060, Permitted uses and 22C.020.070, Permitted uses – Development conditions that would allow the following if adopted as proposed:

- Department and variety stores, food stores, gasoline service stations, eating and drinking places, and drug stores on existing 6-acre or smaller lots located at the intersection of existing or future Principal, Minor or Collector Arterials as designated in the City's Engineering Design and Development Standards (see **Exhibit 7** for properties under 6 acres abutting roads[2]). To be eligible, the lot must be under 6 acres

[1] Core industrial uses are zoning designations dominated by traditional industrial land uses such as manufacturing, transportation, warehousing and freight terminals. Commercial uses within core industrial zones shall be strictly limited.

[2] Currently Exhibit 7 shows properties that are 6 acres or less that abut roads. This map is being updated to not include properties in the GC and LI-GC zone since those zones already allow for the uses that are proposed in this

upon the effective date the ordinance adopting the amendments. The cumulative square footage of eating and drinking places is limited to 8,000 square feet.

- Convention centers as an accessory use to a hotel with a limitation that in the LI zone, convention centers must not exceed 15,000 square feet.

Staff has the following questions for the Planning Commission:

- Typically, restaurants are limited to 4,000 square feet in the LI zone. Is a cumulative allowance of 8,000 square feet for restaurants acceptable for properties at arterial intersections, or should the allowance be more or less?
- The code is proposed to be amended to allow convention centers as an accessory use to a hotel with convention centers limited to 15,000 square feet in the LI zone. Is this limitation acceptable?

Community Development staff respectfully request that the Planning Commission review the proposed code amendments, ask questions, and provide feedback at the September 9, 2026 Planning Commission meeting. Staff respectfully requests that the Planning Commission set a Public Hearing for September 22, 2026.

memo and to only show properties within the LI zone that are at the intersection of existing or future Principal, Minor or Collector Arterials.

Exhibit 1

§ 22C.020.060 **Permitted uses.**

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Residential Land Uses											
Dwelling Units, Types:											
Townhouse					P6	P					
Multiple-family	C4	P4, C5		P4, C5	P4, P6	P					
Manufactured home	P7	P7		P7		P7	P7	P7	P7		
Mobile home	P7	P7	P7	P7	P7	P7	P7	P7	P7		
Recreational vehicle	P7	P7		P7		P7	P7	P7	P7		
Tiny house or tiny house on wheels	P7	P7		P7		P7	P7	P7	P7		
Senior citizen assisted	P					C					P
Caretaker's quarters (3)	P	P	P	P	P	P	P	P	P	P	P
Group Residences:											
Adult family home (70)	P	P	P	P	P	P					P
Convalescent, nursing, retirement	C	P			P	P					P
Residential care facility	P	P			P	P	P70	P70	P70	P70	P
Master planned senior community (10)						C					C
Enhanced services facility (77)		P		P		P					
Transitional housing facilities (79)	P	P	P	P		P	P	P			
Permanent supportive housing (79)	P	P	P	P		P	P	P			
Emergency housing (80)	P, C	P, C	P, C	P, C		P, C	P, C	P, C			
Emergency shelters – Indoor (80)	P, C	P, C	P, C	P, C		P, C	P, C	P, C			
Accessory Uses:											
Home occupation (2)	P8	P8, P9	P8, P9	P8, P9	P8, P9	P8, P9	P8, P9	P9	P9		
Temporary Lodging:											
Hotel/motel (82)	P	P	P	P	P	P	P75	P75			

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Bed and breakfast guesthouse (1)											
Bed and breakfast inn (1)	P	P	P	P			P				
Recreation/Cultural Land Uses											
Park/Recreation:											
Park	P11	P	P	P	P	P	P	P	P	P11	P
Marina					P				P	C	P
Dock and boathouse, private, noncommercial					P				P	P16	P
Boat launch, commercial or public					P				P		P
Boat launch, noncommercial or private					P				P	P17	P
Community center	P	P	P	P	P	P	P	P	P	P	P
Amusement/Entertainment:											
Theater		P	P	P	P	P	P				
Theater, drive-in				C			C				
Amusement and recreation services		P18	P18	P18	P18	P19	P	P	C		
Sports club	P	P	P	P	P	P	P	P	P		
Golf facility (13)		P	P	P			P	P	P	C	
Shooting range (14)				P15			P15	P15			
Outdoor performance center				C			C	C		C	C
Riding academy							P	P		C	
Cultural:											
Library, museum and art gallery	P	P	P	P	P	P	P	P	P	C	P
Church, synagogue and temple	P	P	P	P	P	P	P	P	P		P
Dancing, music and art center		P	P	P	P	P	P			C	P
General Services Land Uses											
Personal Services:											
General personal service	P	P	P	P	P	P	P	P	P		
Dry cleaning plant		P	P				P	P	P		
Dry cleaning pick-up station and retail service	P	P	P	P	P	P25	P	P76	P		
Funeral home/crematory		P	P	P	P	P26	P	P76	P		

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Cemetery, columbarium or mausoleum	P24	P24	P24	P24, C20			P	P	P		
Day care I	P70	P70	P70	P70	P70	P70	P70	P21, 70	P70	P70	P70
Day care II	P	P	P	P	P	P	P	P21			
Veterinary clinic	P	P	P	P	P	P	P	P76	P		
Automotive repair and service	P22	C, P28	C, P28	P			P	P	P		
Electric vehicle (EV) charging station (64)	P	P	P	P	P	P	P	P	P	P	P
EV rapid charging station (65), (66)	P	P	P	P	P67	P67	P	P	P		
EV battery exchange station				P			P	P	P		
Miscellaneous repair		P	P	P			P	P	P		
Social services		P	P	P	P	P	P				P
Kennel, commercial and exhibitor/breeding (71)		P	P	P			P	P	P		
Pet daycare (71), (72)		P	P	P	P	P	P	P76	P		
Civic, social and fraternal association		P	P	P	P	C	P		P		P
Club (community, country, yacht, etc.)									P		P
Health Services:											
Medical/dental clinic	P	P	P	P	P	P	P				P
Hospital		P	P	P	P	C	P				C
Miscellaneous health	P68	P68	P68	P68	P68	P68	P68				P68
Supervised drug consumption facility											
Education Services:											
Elementary, middle/junior high, and senior high (including public, private and parochial)		C	C	C	C	C	P	P	C		C
Commercial school	P	P	P		P	P27					C
School district support facility	C	P	P	P	P	P	P	P	P		P
Vocational school		P	P	P	P	P27	P				P
Government/Business Service Land Uses											
Government Services:											

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Public agency office	P	P	P	P	P	P	P	P	P		P
Public utility yard				P			P	P			P
Public safety facilities, including police and fire	P29	P	P	P	P	P	P	P			P
Utility facility	P	P	P	P		C	P	P	P		P
Private storm water management facility	P	P	P	P	P	P	P	P	P		P
Public storm water management facility	P	P	P	P	P	P	P	P	P		P
Business Services:											
Contractors' office and storage yard				P30	P30	P30	P	P	P		
Interim recycling facility		P23	P23	P23			P	P			P
Taxi stands		P	P	P			P	P	P		
Trucking and courier service		P31	P31	P31			P	P	P		
Warehousing and wholesale trade				P			P	P	P		
Mini-storage (36)		C78		C78			C78	P76	P		
Freight and cargo service				P			P	P	P		
Cold storage warehousing							P	P	P		
General business service and office	P	P	P	P	P	P30	P	P	P		
Commercial vehicle storage							P	P	P		
Professional office	P	P	P	P	P	P	P	P			
Miscellaneous equipment rental		P30, 37	P30, 37	C38		P30, 37	P	P	P		
Automotive rental and leasing				P			P	P	P		
Automotive parking	P	P	P	P	P	P	P	P	P		
Research, development and testing				P			P	P	P		
Heavy equipment and truck repair							P	P	P		
Automobile holding yard				C			P	P	P		
Commercial/industrial accessory uses (73)	P39, 40	P39	P39	P39	P39, 40	P39, 40	P	P	P		
Adult facility									P33		
Factory-built commercial building (35)	P	P	P	P	P		P	P	P		

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Wireless communication facility (32)	P, C	P, C	P, C	P, C	P, C	P, C	P, C	P, C	P, C		P, C
State-Licensed Marijuana Facilities:											
Marijuana cooperative (69)											
Marijuana processing facility – Indoor only (69)											
Marijuana production facility – Indoor only (69)											
Marijuana retail facility (69)											
Retail/Wholesale Land Uses											
Building, hardware and garden materials	P47	P	P	P	P	P47	P	P76	P		
Forest products sales		P	P	P			P	P			
Department and variety stores	P	P	P	P	P	P	P	P76, 81			
Food stores	P	P	P	P	P	P45	P	P76, 81			
Agricultural crop sales		P	P	P		C	P	P76			
Storage/retail sales, livestock feed								P76	P		
Motor vehicle and boat dealers		P	P	P			P	P	P		
Motorcycle dealers		P	P	P	P49		P	P	P		
Gasoline service stations	P	P	P	P	P		P	P76, 81	P		
Eating and drinking places	P41	P	P	P	P	P46	P	P46, 81	P		
Drugstores	P	P	P	P	P	P	P	P76, 81	P		
Liquor stores		P	P	P			P				
Used goods: antiques/secondhand shops		P	P	P	P	P	P				
Sporting goods and related stores		P	P	P	P	P	P				
Book, stationery, video and art supply stores	P	P	P	P	P	P	P				
Jewelry stores		P	P	P	P	P	P				
Hobby, toy, game shops	P	P	P	P	P	P	P				

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Photographic and electronic shops	P	P	P	P	P	P	P				
Fabric and craft shops	P	P	P	P	P	P	P				
Fuel dealers				P43			P43	P43	P43		
Florist shops	P	P	P	P	P	P	P				
Pet shops	P	P	P	P	P	P	P				
Tire stores		P	P	P	P		P	P76	P		
Bulk retail		P	P	P			P	P76			
Auction houses				P42			P42	P76			
Truck and heavy equipment dealers								P	P		
Mobile home and RV dealers				C			P	P	P		
Retail stores similar to those otherwise named on this list	P	P	P	P	P	P48	P	P44, 76, 81	P44		
Automobile wrecking yards							C	C	P		
Manufacturing Land Uses											
Food and kindred products		P50, 52	P50, 52	P50			P50	P50	P		
Winery/brewery		P53	P53	P	P53	P53	P	P	P		
Textile mill products							P	P	P		
Apparel and other textile products				C			P	P	P		
Wood products, except furniture				P			P	P	P		
Furniture and fixtures				P			P	P	P		
Paper and allied products							P	P	P		
Printing and publishing	P51	P51	P51	P		P51	P	P	P		
Chemicals and allied products							C	C	C		
Petroleum refining and related industries							C	C	C		
Rubber and misc. plastics products							P	P	P		
Leather and leather goods							C	C	C		
Stone, clay, glass and concrete products							P	P	P		
Primary metal industries							C	C	P		
Fabricated metal products				C			P	P	P		

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Industrial and commercial machinery							C	C	P		
Heavy machinery and equipment							C	C	P		
Computer and office equipment				C			P	P			
Electronic and other electric equipment				C			P	P			
Railroad equipment							C	C	P		
Miscellaneous light manufacturing				P54, 74	P54		P	P	P		
Motor vehicle and bicycle manufacturing							C	C	P		
Aircraft, ship and boat building							C	C	P		
Tire retreading							C	C	P		
Movie production/distribution				P			P	P			
Resource Land Uses											
Agriculture:											
Growing and harvesting crops							P	P	P	P	
Raising livestock and small animals							P	P	P	P	
Greenhouse or nursery, wholesale and retail				P			P	P	P	C	
Farm product processing							P	P	P		
Forestry:											
Growing and harvesting forest products							P	P			
Forest research							P	P			
Wood waste recycling and storage							C	C	C		
Fish and Wildlife Management:											
Hatchery/fish preserve (55)							P	P	P	C	
Aquaculture (55)							P	P	P	C	
Wildlife shelters	C	C	C							P	
Mineral:											
Processing of minerals							P	P	P		

Specific Land Use	NB	CB	CB-WR	GC	DTC	MU (63)	LI-GC	LI	GI	REC	P/I
Asphalt paving mixtures and block							P	P	P		
Regional Land Uses											
Jail		C	C	C			C	C			
Regional storm water management facility		C	C	C	C		C	C	C		P
Public agency animal control facility				C			P	P	P		C
Public agency training facility		C56	C56	C56		C56	C56	C57			C57
Nonhydro-electric generation facility	C	C	C	C			C	C	C		C
Energy resource recovery facility							C	C			
Soil recycling/incineration facility							C	C	C		
Solid waste recycling									C		C
Transfer station							C	C	C		C
Wastewater treatment facility							C	C	C		C
Transit bus base				C			P	P			C
Transit park and pool lot	P	P	P	P	P	P	P	P	P		P
Transit park and ride lot	P	P	P	P	P	P	P	P	P		C
School bus base	C	C	C	C			P	P			C58
Racetrack	C59	C59	C59	C			P	P			
Fairground							P	P	P		C
Zoo/wildlife exhibit		C	C	C							C
Stadium/arena				C			C	C	P		C
College/university	C	P	P	P	P	P	P	P	P		C
Secure community transition facility									C60		
Opiate substitution treatment program facilities		P61, 62	P61, 62	P61, 62	P61, 62		P62	P62	P62		

§ 22C.020.070 **Permitted uses – Development conditions.**

(1)

Bed and breakfast guesthouses and inns are subject to the requirements and standards contained in Chapter **22C.210** MMC, Bed and Breakfasts.

(2)

Home occupations are subject to the requirements and standards contained in Chapter **22C.190** MMC, Home Occupations.

(3)

Limited to one dwelling unit for the purposes of providing on-site service and security of a commercial or industrial business. Caretaker's quarters are subject to the provisions set forth in Chapter **22C.110** MMC, entitled "Temporary Uses."

(4)

All units must be located above a street-level commercial use; provided, that in the community business (CB) zone within Lakewood neighborhood planning area 11, a horizontal mixed use project may be proposed through a development agreement approved by city council.

(5)

Twenty percent of the units, but no more than two total units, may be located on the street level of a commercial use, if conditional use permit approval is obtained and the units are designed exclusively for ADA accessibility. The street-level units shall be designed so that the units are not located on the street front and primary access is towards the rear of the building.

(6)

Reserved.

(7)

Manufactured homes, mobile homes, recreational vehicles, and tiny houses with wheels are only allowed in existing mobile/manufactured home parks.

(8)

Home occupations are limited to home office uses in multifamily dwellings. No signage is permitted in townhouse or multifamily dwellings.

(9)

Permitted in a legal nonconforming or conforming residential structure.

(10)

Subject to Chapter **22C.220** MMC, Master Planned Senior Communities.

(11)

The following conditions and limitations shall apply, where appropriate:

(a)

Parks are permitted in residential and mixed use zones when reviewed as part of a subdivision or multiple-family development proposal; otherwise, a conditional use permit is required;

(b)

Lighting for structures and fields shall be directed away from residential areas; and

(c)

Structures or service yards shall maintain a minimum distance of 50 feet from property lines adjoining residential zones.

(12)

Reserved.

(13)

Golf Facility.

(a)

Structures, driving ranges and lighted areas shall maintain a minimum distance of 50 feet from property lines adjoining residential zones.

(b)

Restaurants are permitted as an accessory use to a golf course.

(14)

Shooting Range.

(a)

Structures and ranges shall maintain a minimum distance of 50 feet from property lines adjoining residential zones;

(b)

Ranges shall be designed to prevent stray or ricocheting projectiles or pellets from leaving the property; and

(c)

Site plans shall include safety features of the range; provisions for reducing noise produced on the firing line; and elevations of the range showing target area, backdrops or butts.

(15)

Only in an enclosed building.

(16)

Dock and Boathouse, Private, Noncommercial.

(a)

The height of any covered overwater structure shall not exceed 20 feet as measured from the line of ordinary high water;

(b)

The total roof area of covered, overwater structures shall not exceed 1,000 square feet;

(c)

The entirety of such structures shall have not greater than 50 percent of the width of the lot at the natural shoreline upon which it is located;

(d)

No overwater structure shall extend beyond the average length of all preexisting over-water structures along the same shoreline and within 300 feet of the parcel on which proposed. Where no such preexisting structures exist within 300 feet, the pier length shall not exceed 50 feet;

(e)

Structures permitted hereunder shall not be used as a dwelling; and

(f)

Covered structures are subject to a minimum setback of five feet from any side lot line or extension thereof. No setback from adjacent properties is required for any uncovered structure, and no setback from water is required for any structure permitted hereunder.

(17)

Boat Launch, Noncommercial or Private.

(a)

The city may regulate, among other factors, required launching depth, and length of docks and piers;

(b)

Safety buoys shall be installed and maintained separating boating activities from other water-oriented recreation and uses where this is reasonably required for public safety, welfare and health; and

(c)

All site improvements for boat launch facilities shall comply with all other requirements of the zone in which they are located.

(18)

Excluding racetrack operation.

(19)

Amusement and recreation services shall be a permitted use if they are located within an enclosed building, or a conditional use if located outside. In both instances they would be subject to the exclusion of a racetrack operation similar to other commercial zones.

(20)

Structures shall maintain a minimum distance of 100 feet from property lines adjoining residential zones.

(21)

Permitted as an accessory use; see MMC § **22A.020.020**, the definition of "Accessory use, commercial/industrial."

(22)

Only as an accessory to a gasoline service station; see retail and wholesale permitted use table in MMC § **22C.020.060**.

(23)

All processing and storage of material shall be within enclosed buildings and excluding yard waste processing.

(24)

Limited to columbariums accessory to a church; provided, that existing required landscaping and parking are not reduced.

(25)

Drive-through service windows in excess of one lane are prohibited in Planning Area 1.

(26)

Limited to columbariums accessory to a church; provided, that existing required landscaping and parking are not reduced.

(27)

All instruction must be within an enclosed structure.

(28)

Car washes shall be permitted as an accessory use to a gasoline service station.

(29)

Public Safety Facilities, Including Police and Fire.

(a)

All buildings and structures shall maintain a minimum distance of 20 feet from property lines adjoining residential zones;

(b)

Any buildings from which fire-fighting equipment emerges onto a street shall maintain a distance of 35 feet from such street.

(30)

Outdoor storage of materials or vehicles must be accessory to the primary building area and located to the rear of buildings. Outdoor storage is subject to an approved landscape plan that provides for effective screening of storage, so that it is not visible from public right-of-way or neighboring properties.

(31)

Limited to self-service household moving truck or trailer rental accessory to a gasoline service station.

(32)

All WCFs and modifications to WCFs are subject to Chapter **22C.250** MMC including but not limited to the siting hierarchy, MMC § **22C.250.060**. WCFs may be a permitted use or a CUP may be required subject to MMC § **22C.250.040**.

(33)
Subject to the conditions and requirements listed in Chapter **22C.030** MMC.
(34)
Reserved.
(35)
A factory-built commercial building may be used for commercial purposes subject to the following requirements:
(a)
A factory-built commercial building must be inspected at least two times at the factory by the State Building and Electrical Inspector during the construction process, and must receive a state approval stamp certifying that it meets all requirements of the International Building and Electrical Codes. At the building site, the city building official will conduct foundation, plumbing and final inspections; and
(b)
A factory-built commercial building cannot be attached to a metal frame allowing it to be mobile. All structures must be placed on a permanent, poured-in-place foundation. The foundation shall be structurally engineered to meet the requirements set forth in Chapter 16 of the International Building Code.
(36)
Mini-storage facilities are subject to the development standards outlined in Chapter **22C.170** MMC.
(37)
Except heavy equipment.
(38)
With outdoor storage and heavy equipment.
(39)
Incidental assembly shall be permitted; provided, it is limited to less than 20 percent of the square footage of the site excluding parking.
(40)
Light industrial uses may be permitted; provided, there is no outdoor storage of materials, products or vehicles.
(41)
Excluding drinking places such as taverns and bars and adult entertainment facilities.
(42)
Excluding vehicle and livestock auctions.
(43)
If the total storage capacity exceeds 6,000 gallons, a conditional use permit is required.
(44)
The retail sale of products manufactured on site shall be permitted; provided, that not more than 20 percent of the constructed floor area in any such development may be devoted to such retail use.
(45)
Limited to 5,000 square feet or less.
(46)
Eating and Drinking Places.
(a)
Limited to 4,000 square feet or less in the light industrial zone except as provided in footnote 81.

(b)
Drive-through service windows in excess of one lane are prohibited in Planning Area 1.
(c)
Taverns, bars, lounges, etc., are required to obtain a conditional use permit in the mixed use zone.
(47)
Limited to hardware and garden supply stores.
(48)
Limited to convenience retail, such as video, and personal and household items.
(49)
Provided there is no outdoor storage and/or display of any materials, products or vehicles.
(50)
Except slaughterhouses.
(51)
Limited to photocopying and printing services offered to the general public.
(52)
Limited to less than 10 employees.
(53)
In conjunction with an eating and drinking establishment.
(54)
Provided there is no outdoor storage and/or display of any materials, products or vehicles.
(55)
May be further subject to the provisions of city of Marysville shoreline management program.
(56)
Except weapons armories and outdoor shooting ranges.
(57)
Except outdoor shooting ranges.
(58)
Only in conjunction with an existing or proposed school.
(59)
Except racing of motorized vehicles.
(60)
Limited to land located along east side of 47th Avenue NE alignment, in the east half of the northeast quarter of Section 33, Township 30N, Range 5E, W.M., and in the northeast quarter of the southeast quarter of Section 33, Township 30N, Range 5E, W.M.
(61)
Opiate substitution treatment program facilities permitted within commercial zones are subject to Chapter **22G.070** MMC, Siting Process for Essential Public Facilities.
(62)
Opiate substitution treatment program facilities, as defined in MMC § **22A.020.160**, are subject to the standards set forth below:
(a)
Shall not be established within 300 feet of an existing school, public playground, public park, residential housing area, child care facility, or actual place of regular worship established prior to the proposed treatment facility.
(b)
Hours of operation shall be restricted to no earlier than 6:00 a.m. and no later than 7:00 p.m. daily.
(c)

The owners and operators of the facility shall be required to take positive ongoing measures to preclude loitering in the vicinity of the facility.

(63)

Permitted uses include Whiskey Ridge zones.

(64)

Level 1 and Level 2 charging only.

(65)

The term "rapid" is used interchangeably with Level 3 and fast charging.

(66)

Rapid (Level 3) charging stations are required to comply with the design and landscaping standards outlined in MMC § **22C.020.265**.

(67)

Rapid (Level 3) charging stations are required to be placed within a parking garage.

(68)

Excepting "marijuana (cannabis) dispensaries," "marijuana (cannabis) collective gardens," and "marijuana cooperatives" as those terms are defined or described in this code and/or under state law; such facilities and/or uses are prohibited in all zoning districts of the city of Marysville.

(69)

No person or entity may produce, grow, manufacture, process, accept donations for, give away, or sell marijuana concentrates, marijuana-infused products, or usable marijuana within commercial, industrial, recreation, and public institution zones in the city. Provided, activities in strict compliance with RCW **69.51A.210** and **69.51A.260** are not a violation of the Marysville Municipal Code.

(70)

Permitted within existing legal nonconforming single-family residences.

(71)

Subject to the requirements set forth in MMC § **10.04.460**.

(72)

Pet daycares are restricted to indoor facilities with limited, supervised access to an outdoor fenced yard. Overnight boarding may be permitted as a limited, incidental use. Both outdoor access and overnight boarding privileges may be revoked or modified if the facility is not able to comply with the noise standards set forth in WAC **173-60-040**.

(73)

Shipping/cargo and similar storage containers may be installed on commercial or industrial properties provided they are screened from public view pursuant to MMC § **22C.120.160**, Screening and impact abatement.

(74)

Tanks, generators, and other machinery which does not generate nuisance noise may be located in the service/loading area. Truck service/loading areas shall not face the public street and shall be screened from the public street.

(75)

Hotels/motels are prohibited within Arlington Airport Inner Safety Zones (ISZ) 2, 3, and 4. Hotels/motels that are proposed to locate within Arlington Airport Protection Subdistricts B and C shall be required to coordinate with the Arlington Municipal Airport to ensure that height, glare, and other aspects of the hotels/motels are compatible with air traffic and airport operations.

(76)

Use limited to properties that have property frontage along State Avenue/Smokey Point Boulevard.

(77)
Enhanced services facilities (ESFs) are permitted when the building is located within the area depicted in MMC § **22C.280.050**, **Figure 1**. In the GC and CB zones, ESFs shall be located in a building in which the ESF is located above a permitted ground floor commercial use. See Chapter **22C.280** MMC for enhanced services facility regulations.
(78)
Mini-storage facilities may be allowed in the CB and GC zones as a conditional use on property located east of Interstate 5, north of 100th Street, and west of 47th Avenue NE, subject to the following conditions:
(a)
The property does not have direct frontage on an arterial street.
(b)
Vehicular access to the property is limited by physical constraints, such as railroad tracks, proximity to congested public street intersections where turning movements are restricted, or other physical barriers that limit convenient vehicular access for higher-traffic-generating uses such as retail or office.
(c)
Buildings shall be located a minimum of 150 feet from the nearest arterial street or interstate highway right-of-way.
(79)
An operations plan, to mitigate potential impacts on the surrounding community, must be provided by the sponsor and/or property owner at the time of application. The operations plan must address the following elements to the satisfaction of the city:
(a)
Name and contact information for key staff;
(b)
Roles and responsibilities of key staff;
(c)
Site/facility management, including a security and emergency plan;
(d)
Site/facility maintenance;
(e)
Occupancy policies, including resident responsibilities and a code of conduct that address, at a minimum, the use or sale of alcohol and illegal drugs, threatening or unsafe behavior, and weapon possession;
(f)
Provision of human and social services, including staffing plan and outcome measures;
(g)
Outreach with surrounding property owners and residents and ongoing good neighbor policy;
(h)
Procedures for maintaining accurate and complete records; and
(i)
Additional information as requested by the community development director to ensure current best practices for permanent supportive housing and transitional housing facilities are used.
(80)
All facilities are subject to the regulations set forth in Chapter **22C.290** MMC, Emergency Housing and Shelters. Facilities with 30 or more residents require a conditional use permit.

(81)
Permitted on existing 6-acre or smaller lots located at the intersection of existing or future Principal, Minor or Collector Arterials as designated in the City's Engineering Design and Development Standards. To be eligible, the lot must be under 6 acres upon the effective date of Ordinance [insert ordinance number] which was adopted on [insert date]. The cumulative square footage of eating and drinking places is limited to 8,000 square feet.
(82)
Convention centers are allowed as an accessory use to a hotel provided that in the LI zone, convention centers must not exceed 15,000 square feet.

February 9, 2026

Angela Gemmer, Planning Manager
Community Development Department
City of Marysville
501 Delta Avenue
Marysville, WA 98270

RE: Land Use Amendment Request: Cascade District
Formal Letter to the City of Marysville Planning Department

Dear Angela,

I would like to express my sincere appreciation for your continued dedication to the thoughtful planning and growth of the Cascade District. I am writing to formally request the consideration of a land use amendment to allow for small convenience retail, including auto fuel and ancillary retail services, within select locations of the Cascade District, which is currently zoned primarily for industrial uses.

This amendment would address an important need for the district's industrial and manufacturing businesses, particularly those located near the southeast border. Employees and visitors in this area currently lack convenient access to essential retail and fuel services, often requiring travel outside the district. This situation not only reduces productivity but also contributes to unnecessary traffic congestion on surrounding roads.

The proposed Gas Convenience Store and small retail/food facilities would occupy a portion of a 4.5-acre site being proposed. The remainder is being proposed as a small hotel and meeting spaces for business and is currently allowed in the Cascade zone. These amenities would directly support the workforce and visiting business partners, providing much-needed accommodation and gathering areas while maintaining the district's industrial character.

Allowing limited convenience retail and fuel services would help alleviate traffic congestion by reducing the need for employees to leave the district for necessities. Moreover, similar developments in South Everett's industrial market and the Bothell Technology areas have proven successful, enhancing both competitiveness and attractiveness for businesses in those areas.

We respectfully advocate for the targeted inclusion of these uses to strengthen the Cascade District's appeal to current and prospective employers. By improving access to retail and fuel, we can better support our industrial community and help the district remain a premier location

O 425-454-4242 F 206-267-1457
170 120th Avenue NE, Suite 203 Bellevue, WA 98005

for manufacturing and business investment. In addition, we have spoken to three largest landholders, Williams Family, North Point Dev, and Mark Moet, all of whom support this use and proposal, and collectively represent over 600 acres.

To further illustrate the vision for this amendment, I have attached several pages featuring examples of facilities that exemplify the proposed type of gas convenience store and small convenience retail. These examples showcase establishments that successfully accommodate a range of lunch options and essential conveniences tailored to the needs of local workers. The attached materials highlight layouts, service offerings, and design elements that integrate seamlessly into industrial districts while providing quick, accessible solutions for employees and visitors. Reviewing these examples may offer valuable insights into how similar amenities could be adapted to benefit the Cascade District and support its workforce. Thank you for your consideration of this request. I am happy to provide additional information or participate in further discussion at your convenience.

Sincerely,

Richard A Peterson

Richard Peterson Bio:

Richard Peterson is a seasoned commercial real estate broker with more than 45 years of experience serving the Seattle metropolitan area. He has built his career specializing in industrial land development, assisting developers and property owners in Kent, Redmond, South Everett, and most recently in Marysville and Arlington. Over the past decade, Richard has worked closely with the city of Marysville, contributing to zoning overlay initiatives, revising parking requirements within the Cascade Industrial District, and supporting the planning and construction of speculative industrial developments. His efforts have been instrumental in the completion of eight new industrial projects in Marysville and Arlington over the last six years.

O 425-454-4242 F 206-267-1457
170 120th Avenue NE, Suite 203 Bellevue, WA 98005

Parcel #31053300101800
Light Industrial

Parcel #31053300100200
Light Industrial

Parcel #31053300101700
Light Industrial

Parcel #31053400200600
Light Industrial

Parcel #31053300101300
R18 Multi-Family Medium

Trash Enclosure

Convention Center
(11,500 SF)

Breezeway/Entry

Hotel
4-story, Pool
85 room

Retail
(7,000 SF)

C-Store
(10,500 SF)

Trash Enclosures

Trash Enclosure

Phase II
Phase I

42'-8"
212'-10"
171'-9"
235'-10"
116'-0"
93'-6"
93'-2"
92'-7"
120'-9"

51st Ave NE

152nd St NE

N

1" = 30'

0 30 60 90 120

Property:

5013 152nd St. NE
Marysville, WA 98271

Parcel # 31053300100100
Zoning: Light Industrial (LI)

Project Details:

Phase I:
17,500 SF Convenience Store and gas station with attached retail units

Phase II:
51,000 SF Hotel
11,500 SF Convention Center

Proposal of amenity to the S.E.C. of the Cascade District

Convenience Store + Automobile Gas + Small and Retail

Providing the opportunity to get want you need

Quickly and Easily with out driving too far ,

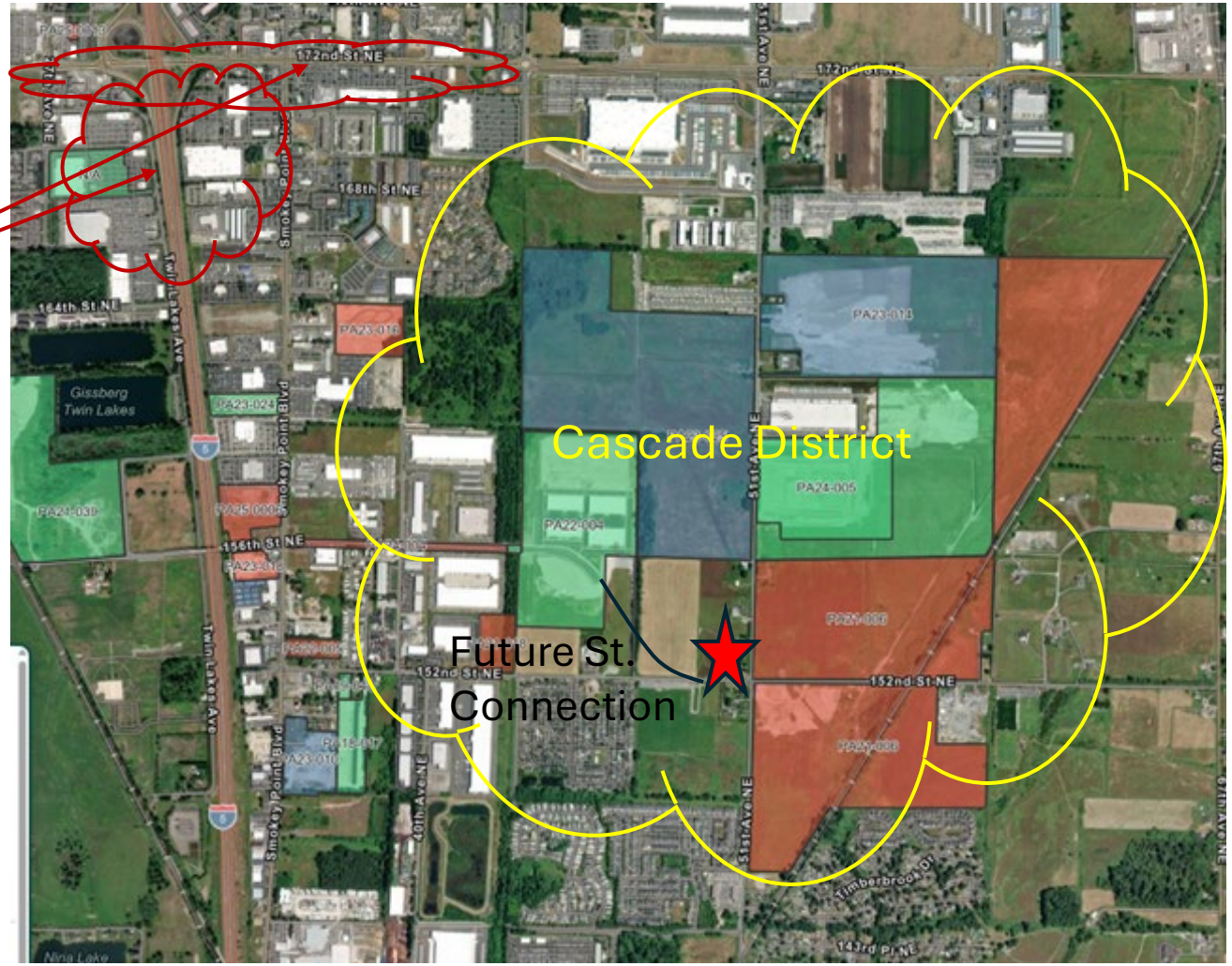
Reducing the traffic on Smokey Point Blvd. & 172nd Street Arterials

Proposed Location of Convenience Retail

Existing Gas & Food Opportunities

As Manufacturing and Warehousing Business Park Projects build out, The Cascade District would have approximately 9,000 new employees estimated by dividing 9,000,0000 sq. ft . by 1 car per 1,000 sq ft of building area.

Providing some basic services within the Cascade district provide the amenities make the area more attractive to users!



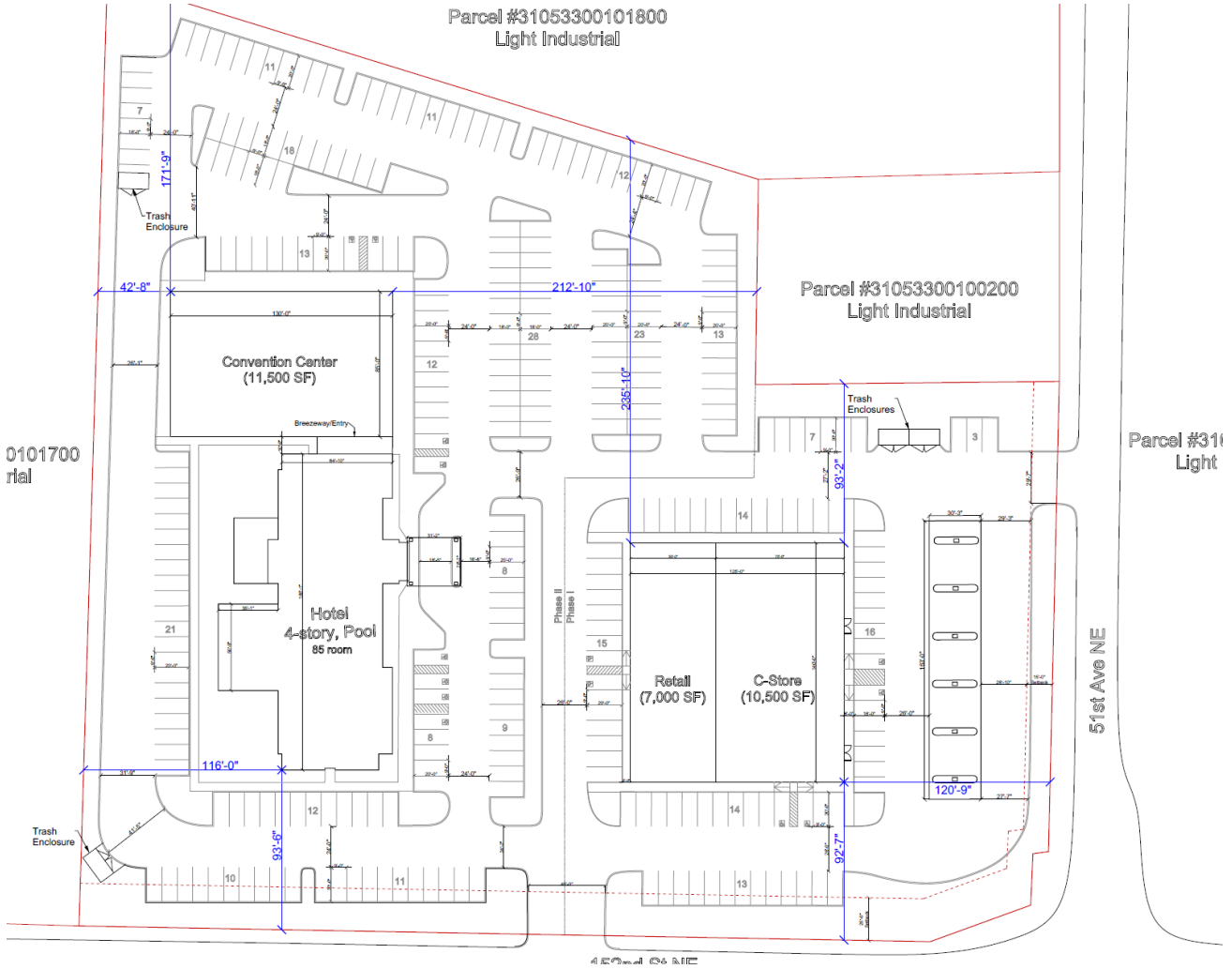
Conceptual Proposed Plan

7,000 s.f. multi tenant retail non-drive thru down lunch options, e.g. Thai restaurant, Jersy Mikes, sandwich or coffee shops hair cutting etc. 4-6 Tenants. (Phase 1)

C-Store with Gas. Six fuel islands and a up to a 10,000 s.f. convenience store provides grab and go food, Consumer goods, candy, snacks, basic common food staples milk, eggs etc. medications and other typical C-store goods. (Phase 1)

85-room Hotel (55,000s.f.) and attached Meeting Spaces (11,000 sq ft.) use currently allowed in the Cascade Zone. (Phase two)

Total site area approx.



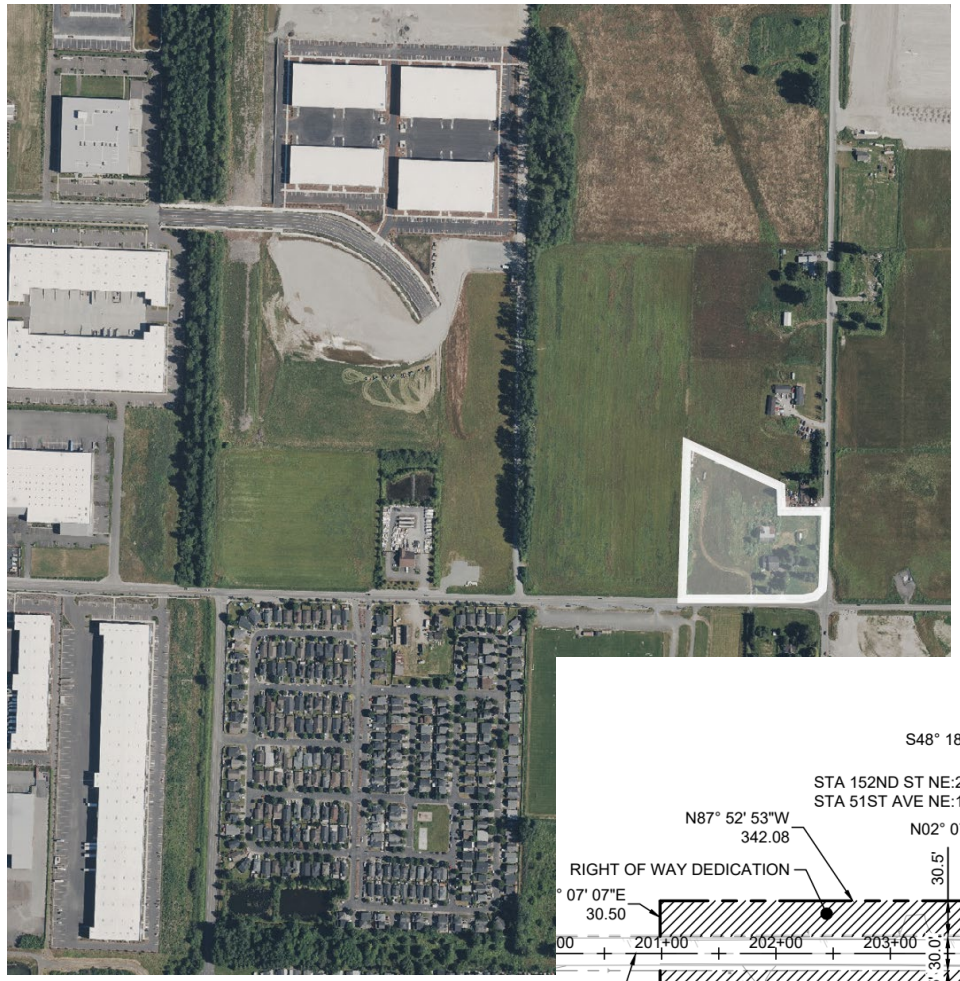
Site Area 5.7 acres

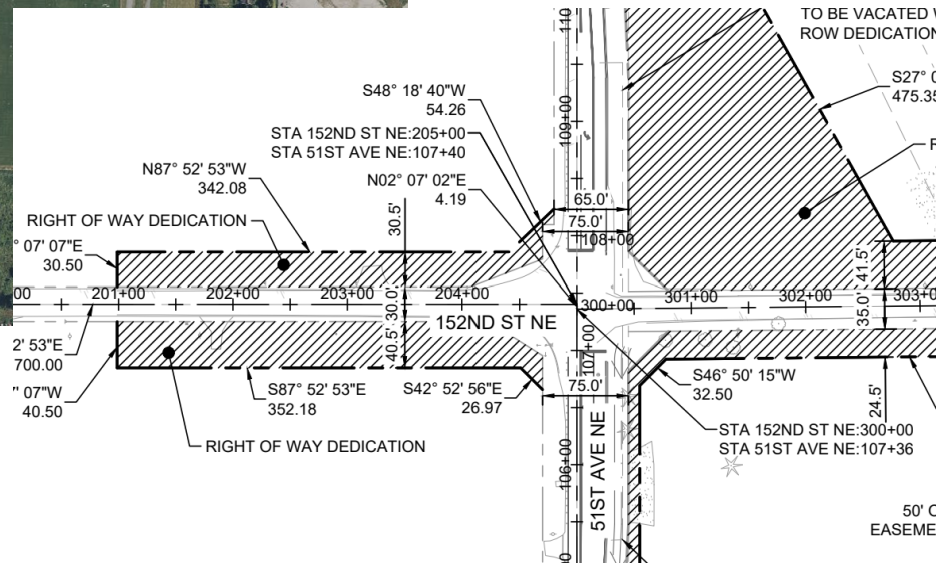
before dedications

The Property is located at the N.W.C. of the 152nd and 51st Street intersection. Which is about to be developed into a fully.

Owner is cooperating with the city and Northpoint in dedicating the needed right of way.

Moving forward with the proposed use would allow this site to be developed sooner and complete additional improvements to this intersection, curb and sidewalks on 152nd street and a half street, right turn lane for 51st street as required.





Local Business Park Examples

Convenience Store + Automobile Gas + Small and Retail

Providing the opportunity to get want you need

with out driving too far

Paine Field Industrial Area

Small Connivence & Eateries for Seawy Center/ Paine Field Market

<u>Building A 8,000 sq . Ft.</u>
Pickle time deli & Market
Shake and go
Nails
Tokyo Teriyaki

<u>Building B 6,400 sq. ft.</u>
Thai valley
Henery Donuts
Subway

<u>Building C 4,800 sq. ft.</u>
Coffee shop
Butter and spice
Tangles Spa & Salon

Gas and Conveinece
well received and valuable assets to the Paine field Everett Industrial Market

Canyon Park

McDonalds, Starbucks, Bamboo Garden Restaurants, and Extended Stay America convinces for the business near by.

North Creek

Auntie’s Kitchen
Country Inn and Suites
Modoo Banjeom
Dandy Dogs

NorthPoint DEVELOPMENT

February 16, 2026

Angela Gemmer

Planning Manager

City of Marysville – Community Development Department

501 Delta Avenue

Marysville, WA 98270

Re: Support for Convenience Retail, Fuel, and Small-Format Commercial Amenities in the Cascade District

Dear Angela,

I am writing to express NorthPoint Development's strong support for the proposed land use amendment that would allow convenience retail, fuel services, and limited ancillary commercial uses within targeted locations of the Cascade Industrial District.

NorthPoint currently controls approximately 300 acres of industrial land in and around this district, and we continue to invest heavily in the long-term success of Marysville's employment base. Our tenants, including major users such as Tesla and Pepsi, along with future prospective clients consistently express a need for nearby amenities that support their workforce.

Introducing a modest, well-planned node of convenience retail and fuel services will have a direct and immediate positive impact on the district. Similar developments in other industrial areas have demonstrated clear success in supporting workforce needs and strengthening long-term competitiveness.

Beyond serving existing users, these amenities will play an important strategic role in attracting new industrial tenants. The industrial market in this region has softened significantly, and users today are more selective about where they locate. Modern employers place a high value on access to workforce-supporting services.

For these reasons, NorthPoint respectfully requests the City's favorable consideration of this amendment. We believe this proposal is both measured and essential, and that it will directly benefit current and future employers who rely on the Cascade District to operate efficiently and remain competitive.

Thank you for your continued partnership and thoughtful stewardship of this important employment center.

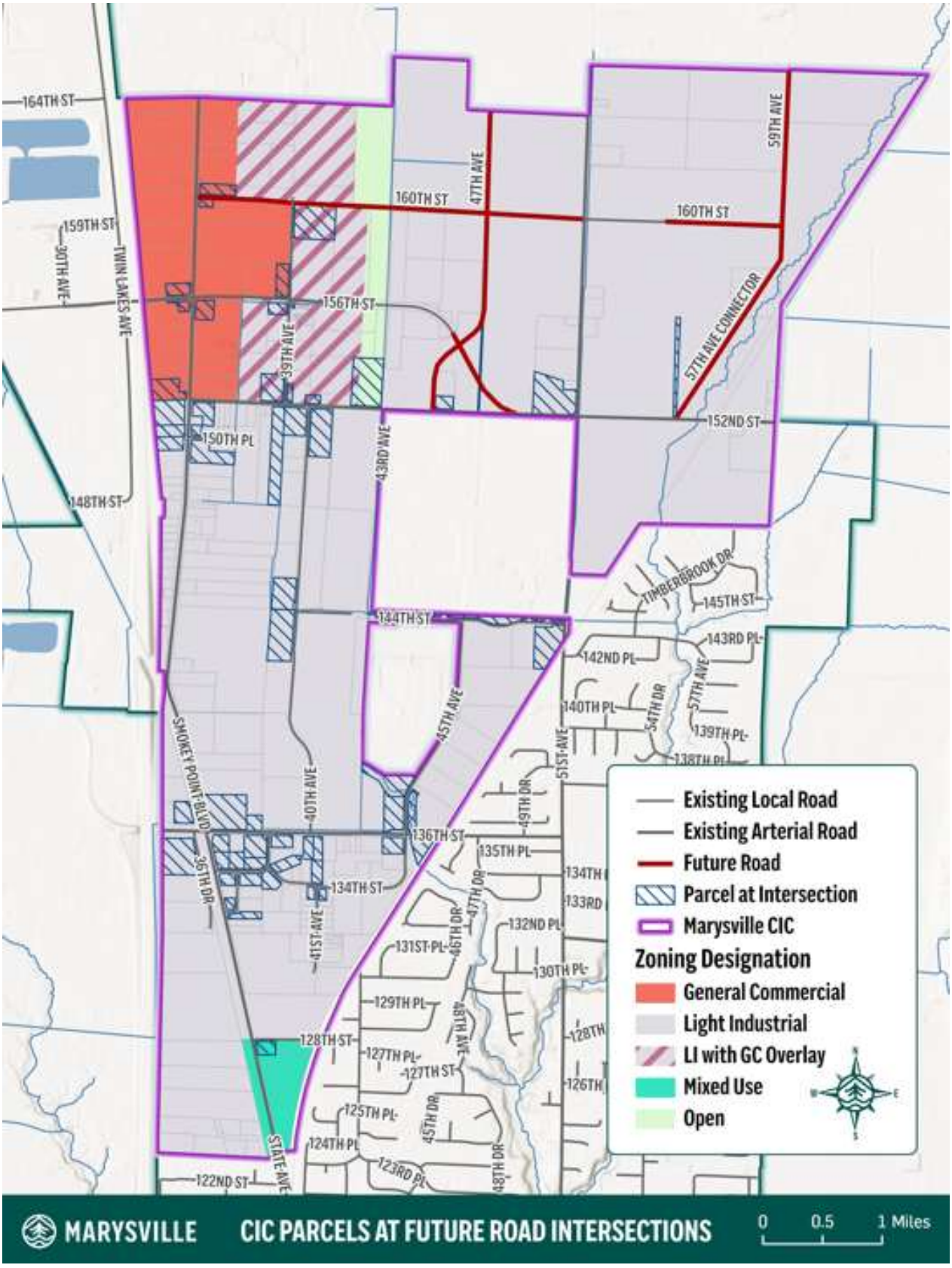
NorthPoint™ DEVELOPMENT

Sincerely,

Andrew Burrer

Executive Vice President of Operations

NorthPoint Development


164TH ST
159TH ST
30TH AVE
TWIN LAKES AVE
160TH ST
47TH AVE
160TH ST
59TH AVE
57TH AVE CONNECTOR
156TH ST
39TH AVE
152ND ST
150TH PL
43RD AVE
148TH ST
TIMBERBROOK DR
145TH ST
144TH ST
143RD PL
142ND PL
57TH AVE
54TH DR
140TH PL
139TH PL
138TH PL
45TH AVE
SMOKEY POINT BLVD
40TH AVE
51ST AVE
49TH DR
136TH ST
135TH PL
36TH DR
134TH ST
47TH DR
41ST AVE
46TH DR
132ND PL
131ST PL
130TH PL
129TH PL
48TH AVE
128TH ST
127TH PL
127TH ST
125TH PL
45TH DR
124TH PL
123RD PL
48TH DR
122ND ST
STATE AVE
Existing Local Road
Existing Arterial Road
Future Road
Parcel at Intersection
Marysville CIC
Zoning Designation
General Commercial
Light Industrial
LI with GC Overlay
Mixed Use
Open
MARYSVILLE
CIC PARCELS AT FUTURE ROAD INTERSECTIONS
0
0.5
1 Miles