

FINAL

# KITSAP COUNTY ENVIRONMENTAL IMPACT STATEMENT 2024







August 2024

RE: Kitsap County 2024 Comprehensive Plan Update

Dear Reader:

Thank you for your interest in planning for Kitsap County's future.

Kitsap County is currently in the process of performing the periodic update of its Comprehensive Plan as required by the Washington State Growth Management Act (GMA). The Comprehensive Plan provides the framework and policy direction for managing land use and development during the 20-year planning period ending in 2044.

This document, prepared pursuant to the State Environmental Policy Act (SEPA), is the Final Environmental Impact Statement (FEIS) for the 2024 Comprehensive Plan Update. The Draft Environmental Impact Statement (DEIS) published December 15, 2023, evaluated three alternatives for achieving the objectives of the periodic update. The three alternatives are as follows:

- Alternative 1, "No Action"
- Alternative 2, "Compact Growth/Urban Center Focus"
- Alternative 3, "Dispersed Growth Focus"

The DEIS evaluated these three alternatives at a level of detail appropriate for a non-project proposal. The following topics were evaluated in the DEIS and included in this FEIS:

- Earth
- Air quality/Climate
- Water resources
- Plants and animals
- Land and shoreline use
- Relationship to plans and policies
- Population, housing, and employment
- Historical and cultural preservation
- Aesthetics
- Transportation
- Noise
- Public services and utilities

Agencies, affected tribes, and members of the public had an opportunity to comment on the DEIS between December 15, 2023 and January 31, 2024. Kitsap County received 88 separate letters or emails with a total of 526 separate specific comments during the comment period as well as additional comments during the public process described below. This FEIS contains a response to all comments as well as additional analysis and information to address questions and comments where appropriate and possible.

The Planning Commission and the Board of County Commissioners evaluated the alternatives and the public comments received during the comment period in spring of 2024. The Planning Commission held a public hearing on March 5, 2024, to solicit comments toward recommending a Preferred Alternative. The Planning Commission deliberated on March 26, 2024, and made a recommendation on a Preferred Alternative to the Board of County Commissioners.

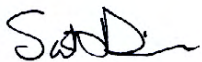
The Board of County Commissioners held a public hearing on the Planning Commission's recommendation as well as the three previously released Alternatives on April 8, 2024 (written record was held open until April 10, 2024). The Board began deliberation on April 17, 2024, and provided directions on a single Preferred Alternative (maps and major policies) on April 24, 2024. A summary of that Preferred Alternative as well as more detailed information on code, policy, and map changes and analysis of impacts is contained in this FEIS.

The County maintains a website for the 2024 Comprehensive Plan Update. The website includes a variety of information about the project, including ways to get involved. The website can be found at the following web address:

[https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate\\_2024.aspx](https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate_2024.aspx)

If you have any questions related to 2024 Comprehensive Plan Update, including the EIS process, please contact Colin Poff at (360) 337-5777.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Diener".

Scott Diener  
Kitsap County SEPA Responsible Official



# FACT SHEET

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## Project Title

Kitsap County 2024 Comprehensive Plan Update

## Potential Action & Alternatives

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan as required by the Washington State Growth Management Act (GMA). Objectives of the proposal include the following:

- Update the Comprehensive Plan to extend the planning horizon from 2036 to 2044;
- Reflect the most recent population and employment growth targets;
- Respond to changes in the community;
- Review existing policies;
- Write new policies that reflect the priorities of communities in unincorporated Kitsap County; and
- Confirm that local, state, and federal requirements are met.

Three alternatives for achieving the objectives of the periodic update were considered and evaluated in the Draft Environmental Impact Statement (DEIS). The three alternatives were as follows:

**Alternative 1, “No Action”:** Alternative 1 uses current land use, urban growth area (UGA) sizes and configurations, and zoning and development regulations. Generally, it does not accommodate future population and employment growth or document its environmental impacts or capital facility needs. Establishes baseline for environmental review and potential changes in action alternatives (Alternatives 2 and 3).

**Alternative 2, “Compact Growth/Urban Center Focus”:** Alternative 2 is based on meeting proposed population and employment distributions set by VISION 2050 and the Countywide Planning Policies (“bending the trend” of past growth patterns). This alternative:

- Targets growth around high-capacity transit facilities and routes.
- Focuses growth in multifamily and commercial zones, with an emphasis on the Silverdale Regional Growth Center and the Kingston and McWilliams/303 Countywide Centers, as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.
- Reduces pressure of growth on rural areas by keeping UGA boundaries limited.

- Proposes substantial increased housing diversity with an emphasis on new multifamily housing types (e.g., row houses, low-story multifamily, cottage housing).
- Encourages new residential and employment development to be constructed vertically in areas of infill or redevelopment.
- Proposes incentives and regulation revisions to promote these new development patterns.

**Alternative 3, “Dispersed Growth Focus”:** Alternative 3 is closer to past growth trends, housing, and employment types. Minor increased growth opportunities in rural areas. Some UGA expansions but, countywide, UGAs are generally stable. Proposes new policies and regulations that may reduce development potential in UGAs. Opportunities are provided in rural areas for additional rural housing and employment.

**Preferred Alternative:** The Preferred Alternative is based on Alternative 2, “Compact Growth”, with some revisions. These include reduction of UGA boundaries, incorporation of the potential Critical Areas Ordinance (CAO) amendments and tree canopy requirements, referral of all rural-to-rural reclassification requests to a 2025+ planning process, and removal of proposed SEPA exemption expansions..

This Final Environmental Impact Assessment (FEIS) describes the Preferred Alternative in detail and provides additional information regarding potential environmental impacts from the Preferred Alternative and associated mitigation measures.

## **Location**

The proposal applies to unincorporated Kitsap County only. Kitsap County has four incorporated cities: Bainbridge Island, Bremerton, Port Orchard, and Poulsbo. These cities are separately conducting their own periodic updates of their comprehensive plans. The comprehensive plans of these cities must be consistent with Kitsap County’s comprehensive plan. Kitsap County is coordinating with these cities as part of the periodic update process.

## **Proponent**

Kitsap County

## **Anticipated Date for Implementation**

December 2024

## **Lead Agency**

Kitsap County Department of Community Development

Mailing Address: 614 Division Street - MS36; Port Orchard, WA 98366

Office Address: 619 Division Street; Port Orchard, WA 98366

### **SEPA Responsible Official**

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### **Contact Person**

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### **Required Approvals**

- Washington State Department of Commerce notification process
- Recommendation by the Kitsap County Planning Commission
- Adoption by the Kitsap County Board of County Commissioners
- Puget Sound Regional Council certification

### **EIS Authors & Contributing Organizations**

The FEIS has been prepared under the direction of the Kitsap County Department of Community Development by the following organizations.

#### ***Principal Authors***

##### **Facet (formerly DCG/Watershed)**

Earth; Air Quality/Climate; Water Resources; Plants and Animals; Historical and Cultural Preservation; Noise

##### **LDC, Inc**

Public Services & Utilities

##### **MAKERS architecture and urban design, LLP**

Land and Shoreline Use; Relationship to Plans and Policies; Population, Housing & Employment; Aesthetics

**Transpo Group**

Transportation

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Air Quality/Climate

**ECONorthwest**

Land and Shoreline Use

**Kitsap County Department of Public Works**

Transportation

**Date of DEIS Issuance**

December 15, 2023

**Date DEIS Comments Due**

January 31, 2024

**Public Meetings & Hearings**

Planning Commission public hearing: March 5, 2024

Board of County Commissioners public hearing: April 8, 2024

**Date of Final Action**

Adoption by the Kitsap County Board of County Commissioners is scheduled for December 2024.

**Subsequent Environmental Documents**

This FEIS revises the DEIS as appropriate and responds to comments as required in WAC 197-11-560.

Phased review of the proposal pursuant to WAC 197-11-060(5) is anticipated. Phased review assists agencies and the public to focus on issues that are ready for decision and exclude from consideration issues already decided or not yet ready. In phased review, broader environmental documents, such as the EIS for this proposal, may be followed by narrower documents that incorporate prior general discussion by reference and concentrate solely on the issues specific to that phase of the proposal.

## **Location of Supporting Information**

A variety of information related to the update of the comprehensive plan can be at the following webpage:

[https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate\\_2024.aspx](https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate_2024.aspx)

## **EIS Availability**

The DEIS and FEIS are available to the public online at the following webpage:

[https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate\\_2024.aspx](https://www.kitsapgov.com/dcd/Pages/ComprehensivePlanUpdate_2024.aspx)

The FEIS is also available for review at the Kitsap County Community Development Department, located at 619 Division Street, Port Orchard, WA 98366.

The FEIS is available for purchase in multiple formats. Costs vary depending on the format requested. Please contact Colin Poff with Kitsap County for further information.



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# 1 SUMMARY

This chapter of the FEIS summarizes the content of Chapters 2 and 3 of the FEIS. The summary provided in this chapter is intended to be brief. Please see Chapters 2 and 3 for additional details.

## 1.1 PROPOSAL DESCRIPTION, OBJECTIVES, & LOCATION

### 1.1.1 Proposal Description

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan and development regulations as required by the Washington State GMA. The proponent is the Kitsap County Department of Community Development.

The periodic update must be completed by December 2024.

### 1.1.2 Objectives

Objectives of the proposal include the following:

- Update the Comprehensive Plan to extend the planning horizon from 2036 to 2044;
- Reflect the most recent population and employment growth targets;
- Respond to changes in the community;
- Review existing policies;
- Write new policies that reflect the priorities of communities in unincorporated Kitsap County; and
- Confirm that local, state, and federal requirements are met.

For this periodic update, key focus areas include the following:

- Housing affordability and availability;
- Regional centers framework, including the Silverdale Sub Area Plan;
- Climate change; and

- Equity and displacement.

### **1.1.3 Location**

The proposal applies to unincorporated Kitsap County only. Kitsap County has four incorporated cities: Bainbridge Island, Bremerton, Port Orchard, and Poulsbo. These cities are separately conducting periodic updates of their own comprehensive plans. The comprehensive plans of these cities must be consistent with Kitsap County's comprehensive plan. Kitsap County is coordinating with these cities as part of the periodic update process.

## **1.2 STATE ENVIRONMENTAL POLICY ACT (SEPA) ENVIRONMENTAL REVIEW**

### **1.2.1 Environmental Impact Statement Purpose & Process**

The adoption of comprehensive plans and development regulations are "actions" as defined under State Environmental Policy Act (SEPA). Therefore, local jurisdictions must comply with SEPA when adopting new or amended comprehensive plans and development regulations.

The Kitsap County Department of Community Development previously determined that this proposal is likely to have a significant adverse impact on the environment and that an environmental impact statement (EIS) will be prepared.

According to the SEPA Rules [Chapter 197-11 Washington Administrative Code (WAC)], the primary purpose of an EIS is to ensure that SEPA's policies are an integral part of the ongoing programs and actions of state and local government (WAC 197-11-400(1)). Moreover, an EIS is to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, which would avoid or minimize adverse impacts or enhance environmental quality (WAC 197-11-400(2)).

### **1.2.2 Public Participation**

Public participation is integral to the 2024 Comprehensive Plan Update. The County has provided numerous opportunities for the public to be involved in the process thus far.

Additional opportunities for public participation will be available during the remainder of the project.

Specific to the SEPA process, public review and comment began with EIS scoping. A 30-day comment period opened November 8, 2022, and closed December 8, 2022. Six written scoping comment letters were received during the comment period.

With issuance of the DEIS, agencies, affected Tribes, and members of the public were invited to provide comments during a second 45-day comment period.

The County considered comments on the DEIS prior to issuing this FEIS. This FEIS includes additional information and analysis in response to comments as appropriate to the greatest extent feasible. The County's response to all comments is included in Appendix E.

### **1.2.3 Level of Analysis**

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan as required by the GMA. Under SEPA, this proposal is considered a "non-project" proposal. As defined in WAC 197-11-774, "non-project" means "actions which are different or broader than a single site-specific project, such as plans, policies, and programs." For non-project proposals SEPA allows more flexibility in EIS preparation because "there is normally less detailed information available on their environmental impacts and on any subsequent project proposals." Further, for such proposals impacts and alternatives are to be discussed "in the level of detail appropriate to the scope of the non-project proposal and to the level of planning for the proposal." Site-specific analyses are not required (WAC 197-11-442).

#### **1.2.3.1 Phased Review**

Phased review of the proposal pursuant to WAC 197-11-060(5) is anticipated. In phased review, broader environmental documents, such as the EIS for this proposal, may be followed by narrower documents that incorporate prior general discussion by reference and concentrate solely on the issues specific to the phase of the proposal.

## ALTERNATIVES

Three alternatives for the periodic update were considered and evaluated in the DEIS:

- Alternative 1, “No Action”
- Alternative 2, “Compact Growth/Urban Center Focus”
- Alternative 3, “Dispersed Growth Focus”

Alternative 1, “No Action,” is required under SEPA. Alternative 1 represents the continued use and implementation of the existing comprehensive plan and development regulations. Alternatives 2 and 3 represent different potential options for achieving the objectives of the proposal.

Ultimately, the Board of County Commissioners (Board) selected a Preferred Alternative that is based on Alternative 2 but contains some map, policy, and code differences. The Preferred Alternative analyzed in this FEIS is within the range of alternatives analyzed in the DEIS as required by state SEPA rules ([WAC 197-11-655\(3\)\(b\)](#)).

### 1.2.4 Alternative 1, “No Action”

Alternative 1 used current land use, UGA sizes and configurations, and zoning and development regulations. Generally, it did not accommodate future population and employment growth. Alternative 1 established the baseline for environmental review and potential changes in action alternatives (Alternatives 2 and 3).

### 1.2.5 Alternative 2, “Compact Growth/Urban Center Focus”

Alternative 2 was based on meeting proposed population and employment distributions set by VISION 2050 and the Countywide Planning Policies (“bending the trend” of past growth patterns). This alternative:

- Targets growth around high-capacity transit facilities and routes.
- Focuses growth in multifamily and commercial zones, with an emphasis on the Silverdale Regional Growth Center and the Kingston and McWilliams/303 Countywide Centers, as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.
- Reduces pressure of growth on rural areas by keeping UGA boundaries limited.

- Proposes substantial increased housing diversity with an emphasis on new multifamily housing types (e.g., row houses, low-story multifamily, cottage housing).
- Encourages new residential and employment development to be constructed vertically in areas of infill or redevelopment.
- Proposes incentives and regulation revisions to promote these new development patterns.

### **1.2.6      Alternative 3, “Dispersed Growth Focus”**

Alternative 3 was closer to past growth trends, housing, and employment types. It included minor increased growth opportunities in rural areas. Some UGA expansions were proposed but, countywide, UGAs were generally stable. It proposed new policies and regulations that may reduce development potential in UGAs. Opportunities were provided in rural areas for additional rural housing and employment.

## **1.3    PREFERRED ALTERNATIVE**

In development of this recommendation, the Board considered the contents for the draft documents, all public comment received, the Planning Commission recommendation and staff feedback. Based on this review their direction on major policies, UGA boundaries and land use maps assumed the following:

- The Planning Commission recommendation, whose foundation was Alternative 2 (Compact Growth), is most in line with regional planning, GMA-consistency, and new Commerce requirements. It comes closest to addressing future growth including balancing population and housing needs and achieving employment targets. The Board used this Recommendation as the foundation for their direction.
- The Preferred Alternative will acknowledge CAO changes and their implications on developable land.
- Rural areas have substantial existing capacity well beyond 20-year forecast (2024-2044). While improving dramatically, our rural to urban development ratios are not yet meeting the target of 76% of new population growth in designated UGAs as established in policy UGA-5 of the adopted Kitsap Countywide Planning Policies (CPPs).
- Increasing housing diversity including missing middle (e.g., townhomes, duplexes, row, and cottage housing) and multifamily housing is a priority. This is a priority



primarily in urban centers but also throughout UGAs to improve housing accessibility and minimize racial disparities in housing.

- Commerce guidance based on recently passed (HB1220) provides direction on estimated housing need for the 2024-2044 planning horizon. These estimates are distributed by household income ranges based on percentage of Annual Median Income (AMI). The guidance also suggests certain housing types for these income levels (e.g., incomes 80% AMI and below generally require multifamily housing opportunities).
- Based on the Department of Commerce's HAPT tool outputs for Kitsap County, current zoning (No Action - Alternative 1) is significantly below its needed multifamily capacity and above its single-family, detached capacity.
- Requiring continued tree canopy be part of future development is a priority but also carries impacts on developable land.

Based on review of the draft documents, environmental analysis, public outreach and state and regional requirements, the Board of Commissioners directed the following findings for the Preferred Alternative:

- All rural-to-rural reclassification requests should be referred to a 2025+ planning process. This does not apply to any rural requests that requested to be included in UGAs. Such requests will be decided with the 2024 Comprehensive Plan adoption in December 2024. Details can be found in Appendix A, the Board of County Commissioners' Preferred Alternative summary.
- UGA expansions should be limited to those that increase housing diversity, provide industrial employment opportunities, include existing urban development, entitlements or services, and/or further annexation/incorporation goals.
- Multifamily and missing middle housing should be promoted through regulation revisions and incentives are necessary to promote housing diversity.
  - Maximum densities and heights should be increased, particularly in Regional and Countywide Centers.
  - Parking, lot size and lot dimension regulations should be revised.
  - Expedited permitting should be available to multifamily projects in the Centers.
- The Preferred Alternative will assess development limitations based on the environmental protections included in the March 8<sup>th</sup> Draft CAO. For example, the draft includes riparian buffer expansions along streams (both Fish and Non-Fish)

and their implications on urban development potential must be considered in land capacity.

- Tree canopy requirements should be established that strongly incentivize the retention of mature and/or significant trees.

Based on these findings, below are UGA and area-specific details regarding the Board direction on the Preferred Alternative. Please see the Exhibits in Appendix A for specific details on UGA boundaries and land use designations.

### Kingston UGA and Countywide Center

Action	Current (Alt 1)	PC Recommendation	Board Direction
<b>Kingston UGA - Exhibits A and B</b>			
Lindvog UGA Expansions	Rural Residential	Include in the UGA boundary as Urban Medium	Do not include the Urban Medium to the east of Lindvog Road in the UGA boundary.
Urban Medium along SR104	Rural Residential	Include in the UGA boundary as Urban Medium	Include in the UGA boundary as Urban Medium.
Arborwood Expansion - West	Rural Residential	Include the western portion of Arborwood in the UGA boundary as Urban Cluster	Include the western portion of Arborwood in the UGA boundary as Urban Cluster
Arborwood Expansion - East	Rural Residential	Do not include Urban Low along South Kingston Road, adjacent to Arborwood in the UGA.	Do not include Urban Low along South Kingston Road, adjacent to Arborwood in the UGA.
NK School District Expansion	Rural Protection	Urban Low (consistent with the remainder of the school property)	Include the northern portion of the NKSD property in the UGA boundary as Urban Low and remove the Urban Restricted on the north side of Barber Cut-Off Road.
Assumed Densities	UVC – 12 DU/acre C – 0 DU/acre UM – 12 DU/acre	UVC – 18 DU/acre C – 30 DU/acre UM – 20 DU/acre	UVC – 18 DU/acre C – 30 DU/acre UM – 20 DU/acre

Action	Current (Alt 1)	PC Recommendation	Board Direction
Density Ranges	UVC – 10-No Max C – 10-30 DU/acre UM – 10-18 DU/acre UL – 5-9 DU/acre	UVC – 10-No Max C – 19-No Max UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)	UVC – 10-No Max C – 19-No Max UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	UVC – 45 feet C – 35 feet UM – 45 feet	UVC – 45 feet C – 55 feet UM – 45 feet	UVC – 45 feet C – 55 feet UM – 45 feet
Center Boundary	No Boundary	See Map Below	See Map Below
Center Incentives	None	Expedited Permitting – Multifamily only	Expedited Permitting – Multifamily only
Storefront Zone	Not included	Not included	Not included
Transit Frequency	Current	30-minute frequency	30-minute frequency

## Poulsbo UGA

### UGA Boundary: Alternative 1

The Poulsbo UGA is associated with the City of Poulsbo. Kitsap has an inter-local agreement with the City to use its zoning and assumptions within its associated UGA. The City of Poulsbo is currently updating its Comprehensive Plan which will determine any changes to regulations within the UGA. The City has also supported no change to its UGA boundary as it has adequate capacity within its existing city limits.

See Exhibit C within Appendix A for additional details regarding the UGA boundary and composition.

## Silverdale UGA (Outside of Regional Center Boundary)

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Silverdale UGA (Outside the Regional Center) – Exhibit D</b>			
Silverdale Way Expansions	Rural Residential	Rural Residential	Remain Rural Residential outside of the UGA.
Assumed Densities	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 18 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 18 DU/acre
Density Ranges	C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre UL – 5-9 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet

## Silverdale Regional Center

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Silverdale Regional Center – Exhibit E</b>			
Ridgetop Property	Outside the Regional Center Boundary	Outside the Regional Center Boundary	Outside the Regional Center Boundary
Old Town area	Outside the Regional Center Boundary	Inside the Regional Center Boundary (for infrastructure and transit purposes)	Inside the Regional Center Boundary (for infrastructure and transit purposes)
Assumed Densities	RC – 10 DU/acre C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	RC – 35 DU/acre C – 30 DU/acre UH – 30 DU/acre UM – 20 DU/acre	RC – 35 DU/acre C – 30 DU/acre UH – 30 DU/acre UM – 20 DU/acre
Density Ranges	RC – 10-30 DU/acre C – 10-30 DU/acre	RC – 19-No Max DU C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre	RC – 19-No Max DU C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Silverdale Regional Center – Exhibit E</b>			
	UH – 19-30 DU/acre UM – 10-18 DU/acre UL - 5-9 DU/acre	UL/UCR – 5-9 DU/acre (14 for SFR attached only)	UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height (Base)	RC – 55/65 feet C – 55 feet UH – 55 feet UM – 45 feet Old Town – 35/45 feet	RC – 65/125 feet C – 55/85 feet UH – 55/85 feet UM – 45/85 feet Old Town – 35/45 feet	RC – 65/125 feet C – 55/85 feet UH – 55/85 feet UM – 45/85 feet Old Town – 35/45 feet
Center Boundary	Current Boundary	See Exhibit E	See Exhibit E
Center Incentives	None	Expedited Permitting – Multi-Family	Expedited Permitting – Multi-Family
Transit Frequency	Current	30-minute frequency	30-minute frequency

## Central Kitsap UGA

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Central Kitsap UGA/McWilliams Center – Exhibit F</b>			
Property East of Brownsville Hwy	Rural Commercial	Include within the UGA boundary as Commercial	Include within the UGA boundary as Commercial
Assumed Densities	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 15 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 15 DU/acre
Density Ranges	C – 10-30 an acre UH – 19-30 DU/acre UM – 10-18 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet UL - 5-9 DU/acre	C – 55 feet UH – 55 feet UM – 45 feet UL/UCR – 5-9 (14 for SFR attached only)	C – 55 feet UH – 55 feet UM – 45 feet UL/UCR – 5-9 (14 for SFR attached only)

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Central Kitsap UGA/McWilliams Center – Exhibit F</b>			
Center Boundary	None	See Exhibit G	See Exhibit G
Center Incentives	None	Expedited Permitting – Multifamily development	Expedited Permitting – Multifamily development
Association	Not associated with any city	Associated with the City of Bremerton	Associated with the City of Bremerton

## East Bremerton UGA

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>East Bremerton UGA – Exhibit H</b>			
Rozewood/ Fisher Plat Rezone	Urban Low	Urban Low (request for Urban Restricted or Rural Residential not included).	Urban Low (request for Urban Restricted or Rural Residential not included).
Assumed Densities	UM – 12 DU/acre UH – 22 DU/acre C – 0 DU/acre	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre
Density Ranges	C – 10-30 an acre UM – 10-18 DU/acre UH – 19-30 DU/acre UL – 5-9 DU/acre	C – 19-60 DU/acre UM – 10-30 DU/acre UH – 19-60 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)	C – 19-60 DU/acre UM – 10-30 DU/acre UH – 19-60 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet

## West Bremerton UGA

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>West Bremerton UGA – Exhibit I</b>			
Ueland Expansion	Rural Residential/Mineral Resource	Alternative 2 Expansion (only eastern portion)	Alternative 2 with the addition of eastern 80 acres from Alternative 3.
City of Bremerton Northern Expansion	Rural Residential	Urban Low (full Bremerton request included due to existing sewer service)	Include in UGA boundary: PC recommendation except most of the Urban Low area east of Chico Way. The Board requests additional outreach by Bremerton.
City of Bremerton Southern Expansion	Rural Residential	Urban Low (full Bremerton request included due to existing sewer service)	Include in the UGA boundary: northern private parcels as Urban Low. City-owned parcels as Parks. The Board requests additional outreach by Bremerton.
Assumed Densities	UM – 12 DU/acre C – 0 DU/acre	UM – 15 DU/acre C – 10 DU/acre	UM – 15 DU/acre C – 10 DU/acre
Density Ranges	C – 10-30 an acre UM – 10-18 DU/acre UL – 5-9 DU/acre	C – 19-60 DU/acre UM – 10-30 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)	C – 19-60 DU/acre UM – 10-30 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet

## Gorst UGA

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Gorst UGA – Exhibit J</b>			
Assumed Densities	C – 0 DU/acre	C – 10 DU/acre	C – 10 DU/acre
Density Ranges	C – 10-30 an acre UL – 5-9 DU/acre	C – 19-60 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)	C – 19-60 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 35 feet	C – 45 feet	C – 45 feet

## Puget Sound Industrial Center – Bremerton UGA

### UGA Boundary: Alternative 2 with Amendments

Added to Alternative 2:

- “L” Shaped property adjacent to the Olympic View Industrial Park on the northwest of the UGA as Industrial (IND).

Skokomish Tribe UGA Expansion – Not included in the UGA boundary and remains Rural Protection. While the Tribe is applying for federal status of this property which would allow sovereignty over its future development (Kitsap County code would not apply to this development), the expansion of the UGA boundary must be consistent with state statute and regional and countywide planning policies. The proposal for Commercial zoning adjacent to a PSRC-designated Manufacturing/Industrial Center with Industrial zoning is inconsistent with Comprehensive Plan’s draft goals for Commercial uses to be within compact urban communities with existing or future residential capacity.

See Exhibit K within Appendix A for additional details regarding the UGA boundary and composition.



## South Kitsap/Port Orchard UGA

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Port Orchard/South Kitsap UGA – Exhibit L</b>			
NW McCormick Expansion	Rural Protection	Rural Protection (not included in UGA due to single-family focus (UL))	Not included in the UGA. Rural Protection (not included in UGA due to single-family focus (UL)).
Yamamoto UGA Expansion	Rural Protection	Industrial	Not included in the UGA. Remains Rural Protection. Additional discussion with applicant and City of Port Orchard directed by Board.
Sidney Urban Medium Expansion	Rural Protection	Urban Medium	Not included in the UGA. Remains Rural Protection. Additional discussion with applicant and City of Port Orchard directed by Board.
Waters Rezone – Bethel	Urban Low	Commercial (to improve consistency with the rezoning of his adjacent northern properties)	Commercial (to improve consistency with the rezoning of his adjacent northern properties)
Assumed Densities	UM – 12 DU/acre UH – 22 DU/acre C – 0 DU/acre	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre (25 DU/acre on Bethel Corridor)	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre (25 DU/acre on Bethel Corridor)
Density Ranges	C – 10-30 an acre UH – 19-30 DU/acre UM – 10-18 DU/acre UL – 5-9 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet	C – 45 feet UH – 55 feet UM – 45 feet

## Rural Areas and Limited Areas of More Intensive Rural Development (LAMIRDs)

Policy	Current (Alt 1)	PC Recommendation	Board Direction
<b>Suquamish/Manchester LAMIRDs</b>			
Lot Aggregation for Non-Conforming Lots	Required based on existing property size.	No Change	No Change
Accessory Dwelling Units (Detached)	ACUP Required	Permitted	Permitted
<b>Rural</b>			
Rural Reclassification Requests	Current Zoning	No Rural-to-Rural rezones in 2024 (Referred to 2025 process)	No Rural-to-Rural rezones in 2024 (Referred to 2025 process)
Accessory Dwelling Units (Detached)	CUP Required	No Change	No Change

## Other Major Policy Proposals

Policy	Current (Alt 1)	Preferred Alternative	Board Direction
Greenhouse gases (GHG) Emission Targets	None	PSRC's Regional Targets	PSRC's VISION 2050 Regional Targets
Setbacks (UGAs)	Current	Reduced or removed	Reduced or removed
Lot Dimensions (UGAs)	Current	Reduced or removed	Reduced or removed
Lot Sizes (UGAs)	Current	Reduced or removed	Reduced or removed
Minimum Parking Reductions (Single-Family Development)	2.5 spaces per unit Garages do not count	2.5 spaces per unit Individual unit garages count 1 to requirement	2.5 spaces per unit Individual unit garages count 1 to requirement
Minimum Parking Reductions (Multifamily Development)	1.5 per unit + 0.5 per unit on street or set aside	Units with 1 or fewer bedrooms: 1 space per unit (minimum)	Units with 1 or fewer bedrooms: 1 space per unit (minimum)

Policy	Current (Alt 1)	Preferred Alternative	Board Direction
		Units with 2 or more bedrooms: 1.5 spaces per unit (minimum)	Units with 2 or more bedrooms: 1.5 spaces per unit (minimum)
Minimum Parking Reductions (Other)	No Change	High-Capacity Transit standards countywide	High-Capacity Transit standards countywide
<b>Tree Canopy Requirements</b>			
Tree requirements based on tree units per acre.	None	Included (based on a common # of units per acre)	Included (based on a common # of units per acre)
Retention of existing trees are incentivized with unit credits.	None	Included (larger tree in diameter are worth more credits)	Included (larger tree in diameter are worth more credits)
Tree units are required with subdivisions or large project approvals only.	None	Included (limited to development that is increasing density, intensity, or housing units)	Included (limited to development that is increasing density, intensity, or housing units)
Trees within critical area buffers and landscaping count towards these requirements.	None	Included (wetlands, streams, and their buffers, steep slopes, and landscaping)	Included (wetlands, streams, and their buffers, steep slopes, and landscaping)

## Future Public Process

Kitsap County will use the Preferred Alternative to complete staff draft documents including Comprehensive Plan, Capital Facilities Plan (CFP) and Development regulations for release by the end of August 2024.

Preliminary Alternative Selected	Draft Documents Released	Public Comment and Outreach for Draft Documents		Preferred Alternative Selected	Final Documents Released	Board Adoption of Plan
April 2023	December 15, 2023	December 15, 2023 - January 31, 2024	January - March 2024	April 2024	August 2024	December 2024
The County Board of Commissioners selected three preliminary land-use alternatives to review for environmental impacts.	Draft EIS, Comprehensive Plan Elements, Capital Facilities Plan, and Development Regulations released for public review.	Public comment period on the draft EIS.	<ul style="list-style-type: none"> <li>Outreach, including virtual/in person public meetings, community advisory council presentations.</li> <li>Briefings and work sessions with Board of County Commissioners and Planning Commission.</li> </ul>	The County Board of Commissioners will hold a public hearing to select a preferred alternative which will include aspects from one or all of the preliminary alternatives.	Final EIS, Comprehensive Plan Elements, Capital Facilities Plan, and Development Regulations released for public review.	The Board of County Commissioners will make a decision on the final version of the proposed Comprehensive Plan.

These documents will receive additional public outreach including additional hearings before the Planning Commission and Board of Commissioners culmination in adoption in December 2024.

Preferred Alternative maps for the UGAs can be found as exhibits in Appendix A of this FEIS as described above.

## 1.4 SUMMARY TABLES OF IMPACTS & MITIGATION MEASURES

For specific elements of the environment, Chapter 3 describes the affected environment, significant impacts, and mitigation measures. The tables below summarize the content of Chapter 3.

### Exhibit 1.5-1 Summary of impacts and mitigation—Earth

Earth (Section 3.1.1)
<b>Impacts Common to All Alternatives</b>
All alternatives will result in impacts to earth resources through development to meet population and employment growth but will offer protection of resources through the regulations of the County code, particularly the CAO and the Shoreline Master Program (SMP). Earth-related impacts will occur from development activities such as clearing, grading, erosion, and sedimentation, expanded areas of impervious surfaces, and increased chemical contamination. All of the alternatives have potential for chronic soil contamination as a result of development activities. Similarly, all of the alternatives will result in an increase in impervious surfaces, which can reduce the volume of water that infiltrates the soil and lead to increased runoff and decreased groundwater recharge. The degree and concentration of impacts of the alternatives will be based on how much growth actually occurs as allowed and whether the growth is focused on urban centers or spread across a larger geographic area.
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Alternative 1 will likely result in the lowest or slowest growth of the three alternatives by incorporating no changes from current growth allowances. Alternative 1 retains the focus on single-family residential development with limited accommodation of multifamily structures. The development activities associated with intensification activities can lead to soil compaction and subsequently loss of soil productivity by the expanding impervious surfaces, modifying soil structure, and increasing site contamination. Stormwater controls are intended to maintain stream flows in ranges consistent with the channels' ability to convey them and maintain native vegetation cover.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Intensification of development in current UGA boundaries and the limited UGA expansion areas would increase the extent of impervious surfaces and modify soil structures as a result of development activities. Alternative 2 encourages vertical development by increasing the maximum building height allowance, particularly within the Silverdale UGA. This allowance would reduce the impervious surface construction compared with low-rise development of similar capacity and could be considered a stormwater runoff mitigation or impact limitation strategy in densified areas.</p>
<i>Alternative 3, "Dispersed Growth Focus"</i>

Earth (Section 3.1.1)
<p>Impacts on Earth resources would be generally consistent with those of Alternative 1 and 2 but would be commensurate with the limited expanded areas of UGAs. Under Alternative 3, there are more expansions of UGA boundaries than Alternative 2, predominantly within Silverdale, Kingston, and Bremerton. The increases in UGAs would expand impervious surfaces and modify soil structures with development activities.</p>
<p><i>Preferred Alternative</i></p> <p>The impacts of growth in the Preferred Alternative would be most consistent with those in Alternative 2. The code changes associated with the Preferred Alternative would promote vertical development and serve a stormwater runoff mitigation or impact limitation strategy in existing urban areas. The deferral of all rural-to-rural rezones to a 2025+ process in the Preferred Alternative serves to lessen the impact on earth resources compared to especially Alternative 3.</p>
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Areas with geologic hazards are mapped to the extent practicable.</li> <li>• Development proposals will undergo technical review to ensure compliance with requirements for protection of public health, safety, and welfare by adhering to development standards.</li> <li>• Review of development proposals within the vicinity of geologically hazardous areas will require a geological assessment prepared by a licensed professional. Where a geotechnical report is required, the report will evaluate the site-specific conditions, analyze potential impacts on slope stability, and provide recommendations.</li> <li>• Kitsap County will encourage building sites to be located away from critical areas, such as steep slopes and landslide hazard areas, by requiring minimum buffer widths and building setbacks in the CAO.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• KCC Section 19.400.405 of the CAO defines geologically hazardous areas and outlines regulations for development standards for projects in or near the designated hazard areas.</li> <li>• WAC 365-190-030, WAC 365-190-120, WAC 365-190-080(4), and Revised Code of Washington (RCW) 36.70A.030 (9) define geologically hazardous areas and regulate development within these critical areas.</li> <li>• Federal National Pollution Discharge Elimination System (NPDES) regulations, as well as County stormwater drainage regulations (KCC Title 12), require stormwater pollution prevention plans and mitigation, including water quantity and water quality controls.</li> <li>• The development standards administered by the Kitsap County Department of Community Development require that all new construction be designed to withstand the ground motion effects specified in the most recent versions of the International Residential Code (IRC) and International Building Code (IBC) as adopted locally.</li> </ul>

Earth (Section 3.1.1)
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• Reducing UGA expansions in Moderate and High Geologic Hazard areas would reduce the potential number of persons or structures exposed to risk of damage due to geologic hazards.</li> <li>• Incorporating the recommended mitigation strategies in the 2019 Kitsap County Multi-Hazard Mitigation Plan (MHMP) for erosion, landslide, earthquake, and tsunami hazards.</li> </ul>
Significant Unavoidable Adverse Impacts
<p>All alternatives would allow for increased urbanization in the county. The corresponding increase in impervious surfaces and changes in hydrology would be correlated with the amount of growth-related development under each alternative. An overall increase in erosion and sedimentation is an unavoidable consequence of increased development activities to accommodate growth. Sediment leaving development sites can negatively impact nutrient balances and other water quality indicators in receiving waters, including lakes, wetlands, and streams. These impacts are likely to also affect the habitat of anadromous fish and other aquatic organisms negatively. A larger human population could also be at risk, depending on specific locations, from the adverse impacts of damage to buildings and infrastructure in the event of an earthquake, landslide, or tsunami.</p>

## Exhibit 1.5-2      Summary of impacts and mitigation—Air Quality/Climate

Air Quality/ Climate (Section 3.1.2)
Impacts Common to All Alternatives
<p>Air quality impacts associated with urban and rural development will occur under all the alternatives. Regional growth, building energy use, transportation volumes, and tree losses are projected to increase under all the considered alternatives. Building energy emission projections are based on net developable acres under each alternative. Fuel types for passenger vehicles are projected to shift from majority gasoline to majority electric vehicles (EVs) powered vehicles by 2044. Freight and service vehicles are also projected to increase EV use. Even with greater adoption of EV, Vehicle Miles Traveled (VMT) emissions increase under all alternatives. Increases in fuel burning are associated with several air quality pollutants, such as particulate matter, carbon monoxide (CO), nitrogen oxides (NO<sub>2</sub>) and sulfur oxides (SO<sub>2</sub>). Relative to 2019 GHG emissions will increase under all three alternatives. Existing air quality policies and regulations apply to all alternatives to manage and mitigate these impacts to the extent practicable.</p>
Impacts of Specific Alternatives
<p><i>Alternative 1, "No Action"</i></p> <p>Alternative 1 would not accommodate growth targets for housing or employment. Under Alternative 1 growth would progress under current zoning within current county and UGA boundaries. Building energy consumption emissions are lowest for Alternative 1, relative to Alternatives 2 and 3. GHG emissions resulting from transportation are represented using VMT.</p>

### Air Quality/ Climate (Section 3.1.2)

VMT under Alternative 1 is modeled at 680,015 MTCO<sub>2</sub>e by 2044, an 11% increase relative to 2019 values. Tree losses reduce carbon sequestration yielding increased GHG emissions. Difference in forested acreage among alternatives is nominal.

#### *Alternative 2, "Compact Growth/Urban Center Focus"*

Alternative 2 focuses growth within multifamily and commercial zones to accommodate growth with limited expansion of UGAs. Specifically, development is targeted in the Silverdale regional center and Kingston countywide center. UGA expansions under Alternative 2 would be associated with existing urban areas, including Bremerton, Port Orchard, and Poulsbo. The approach reduces development pressure on rural areas and provides opportunities for transit use within the urban centers. Under Alternative 2, GHG emissions resulting from building energy consumption are lower than projected for Alternative 3. These lower emissions coincide with greater housing capacity under Alternative 2, relative to Alternative 3. This employment capacity is higher than Alternative 1 and slightly lower than Alternative 3. Transportation impacts on GHG emissions, using the VMT metric, are slightly more than would be expected under the no action alternative. Cascadia's ICLEI LEARN C analysis projects a slight decrease in forested acres under Alternative 2 (Cascadia 2022).

#### *Alternative 3, "Dispersed Growth Focus"*

Alternative 3 is more dispersed than Alternatives 1 and 2. UGAs would expand in more areas under Alternative 3 relative to Alternative 2. This more dispersed growth option offers fewer opportunities for transit and increases growth pressure on rural areas. Alternative 3 is similar to Alternative 2 metrics for GHG emissions, while accommodating less housing and employment growth. Building energy GHG emissions are greatest for Alternative 3. Alternative 3 building energy emissions are 2.8% higher than Alternative 2. However, Alternative 2 accommodates 26% more housing than Alternative 3. Employment capacity is highest for Alternative 3, approximately 13% more than Alternative 2. Transportation impacts on GHG emissions, as measured by VMT, are highest for Alternative 3. Dispersed development under Alternative 3 would yield a slight increase in emissions relative to Alternatives 1 and 2. Alternative 3 VMT emissions are higher than Alternative 2. Under Alternative 3, Cascadia's ICLEI LEARN analysis projects a slight decrease in forested acres relative to Alternative 1 (Cascadia 2022).

#### *Preferred Alternative*

Some air quality concerns under the Preferred Alternative are similar to those identified for Alternative 2. Employment growth and associated commercial and industrial emissions would be concentrated in the Silverdale subarea, within additional growth in the Puget Sound Industrial Center, Central Kitsap, West Bremerton, Port Orchard and Kingston. A focus on public transit under the Preferred Alternative is expected to reduce vehicle miles traveled and mitigate population density increases and associated travel emissions. The Preferred Alternative features the highest levels of VMT and thus GHG emissions associated with transportation, with a 17.8 percent increase over the 2019 baseline. This is due to it accommodating the most population, housing and employment. Building energy



<b>Air Quality/ Climate (Section 3.1.2)</b>
emissions are lower than Alternative 3 but higher than Alternative 2. Emissions due to forest canopy loss are higher in the Preferred Alternative than in Alternative 1 but lower than both Alternatives 2 and 3.
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• The 2016 Kitsap County Comprehensive Plan provides goals and policies intended to preserve and protect the natural environment. Chapters 1 – Land Use, Chapter 3 – Environment, and 5 – Transportation, include goals and policies pertinent to air quality and climate change.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Clean Air Act (CAA) – a comprehensive federal law that regulates all sources of air emissions. The CAA is permitted and enforced by the United States (US) Environmental Protection Agency (EPA). The EPA establishes National Ambient Air Quality Standards (NAAQS) for common pollutants.</li> <li>• Ecology monitors and tracks NAAQS to ensure outdoor air pollutants meet federal and state air quality standards.</li> <li>• State Implementation Plan (SIP) provides tools to restore air quality and meet NAAQS when one or more pollutants are not in compliance. EPA reviews and approves SIP.</li> <li>• RCW 70A.15 – Washington Clean Air Act.</li> <li>• The Clean Energy Transformation Act (CETA) 2019. CETA commits Washington state to an electricity supply free of GHG emissions by 2045.</li> <li>• Puget Sound Clean Air Agency (PSCAA) Regulations. PSCAA administers air quality permits and registrations.</li> <li>• Washington State Department of Health (WDOH) – Shares Air Quality Index (AQI) data with the public. Provides public education on hazards, including wildfire smoke.</li> <li>• Climate Commitment Act (CCA). The CCA caps and reduces GHG emissions from Washington state’s largest emitting sources. Washington is working on policies to help achieve a 95% reduction in GHG emissions by 2050.</li> <li>• Puget Sound Regional Council (PSRC) Vision 2050.</li> <li>• Kitsap County Comprehensive Plan goals and policies as noted above.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• The county should consider public and private incentives to reduce use of fossil fuel energy sources. This may include working with the Washington State Renewable Energy System Incentive Program and regional partners, such as Puget Sound Energy.</li> <li>• Consider the cap-and-invest program under Washington’s CCA to motivate large industrial polluters to reduce emissions.</li> <li>• Invest in transit to reduce single occupancy vehicle (SOV) use and reduce VMT overall.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>

### Air Quality/ Climate (Section 3.1.2)

Regional growth under all alternatives increases energy needs and impacts forest canopy cover. GHG emissions will increase under all the alternatives. While the alternatives can manage that population growth to minimize GHG emissions as a priority, none of the alternatives eliminates a net increase over the next 20 years. Tree losses projected for the alternatives cannot be wholly avoided given net developable acres in the county. However, regulations to protect and replace significant trees can minimize this unavoidable impact.

## Exhibit 1.5-3 Summary of impacts and mitigation—Water Resources

### Water Resources (Section 3.1.3)

#### Impacts Common to All Alternatives

All alternatives would allow for development in various land use designations to accommodate anticipated population and employment growth. Each of the alternatives would allow for an overall increase in the population and total employed persons in Kitsap County. However, all alternatives must adhere to the policies and regulations to safeguard surface water and groundwater resources, as well as protect public health and safety from flood hazards. This includes adhering to increasingly restrictive requirements of the County's CAO as it is updated, including for example wider buffers for streams and increased protections for wetlands, and critical areas in general, including fish and wildlife conservation areas as identified and defined. Each alternative would allow for increased opportunities for development in UGAs and would allow for lower density development to continue to occur in rural areas. Consequently, all alternatives would indirectly affect ground and surface water resources through future development proposals. The creation of impervious surface areas and removal of forested areas associated with development activities in all alternatives will influence natural surface water systems (Booth et al. 2002). Since ground and surface waters are highly interrelated, ground water would likewise be affected.

#### Impacts of Specific Alternatives

##### *Alternative 1, "No Action"*

The increased impervious surface area associated with continued urban development under Alternative 1 is expected to reduce groundwater recharge area and so would likely affect water quality from nonpoint urban runoff and point source contamination. Impacts on water quality in rural areas are also assumed to be proportional to the number of residences served by onsite septic systems, which have the potential to produce higher loads of nutrients and bacteria. Water resources within UGAs are predicted to experience changes in watershed runoff processes, stream flow patterns, and stream water quality with increasing development.

##### *Alternative 2, "Compact Growth/Urban Center Focus"*

Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces due to development activities. Surface water impacts on streams under Alternative 2 would be greater in several basins and UGAs than those under Alternative 1 as a result of increased total impervious surface area in those basins. Impervious surfaces reduce

### Water Resources (Section 3.1.3)

infiltration and increase surface water runoff volumes. Increased runoff is due not only to reduced infiltration, but also a reduction in evapotranspiration. Increased runoff volumes may have the potential to affect aquatic life and stream channel form and processes even though peak flow rates may not be increased as controlled by detention. Under the Preferred Alternative, an additional 7,666 lineal feet of Type F stream habitat and 1,760 lineal feet of seasonal/perennial bearing stream habitat will be affected by the UGA expansion areas. Additionally, 3,338 lineal feet of fish bearing stream habitat will be affected by other upzoned areas under the Preferred Alternative. Water quality in riparian areas would be expected to decline in those areas where growth is greatest under Alternative 2 and the Preferred Alternative.

#### *Alternative 3, "Dispersed Growth Focus"*

The potential for surface water impacts would be proportionately greater in the areas providing greater levels of growth within the UGAs. Under Alternative 3, an additional 5,674 feet of non-fish bearing streams will be affected by the UGA expansion areas compared to Alternative 1. As a result, stream water quality would be expected to decline in those areas where growth is greatest under Alternative 3. Additionally, 17,936 feet of non-fish bearing waters would be affected by upzoned areas under this Alternative. Surface water impacts on streams would be generally greater under Alternative 3 than under Alternatives 1 and 2. The greatest impacts to those basins would be directly associated with the most extensive conversion to impervious surfaces. Under Alternative 3, increased riparian buffer widths are proposed compared to Alternative 1 and 2. Within the proposed UGA boundaries, approximately 508 acres would be encumbered by the increased stream buffers, compared to 245.5 acres that would be affected by the existing 50-foot buffers. This increase will improve protections compared to Alternative 1 and 2.

#### *Preferred Alternative*

The impacts of growth on water resources under the Preferred Alternative would be comparable to those in Alternative 2. In both cases, standards of no net loss for critical areas including streams and wetlands as well as other requirements of the CAO would apply, requiring impacts to those critical areas to be fully offset by mitigation. Where impacts are greater due to increased development density as allowed by the Preferred Alternative, mitigation would need to be commensurately greater as well to negate those impacts. The code changes associated with the Preferred Alternative would promote vertical development as a means of limiting the expansion of urban areas in order to prevent or slow the loss of rural areas. Stormwater runoff from densely urbanized areas requires intensive management according to the most recent, state-of-the-art stormwater engineering practices and manuals, likely along with additional mitigation, to prevent net impacts to water resources since all stormwater is inevitably released downstream, to water bodies outside those urban centers. The deferral of all rural-to-rural rezones to a 2025+ process in the Preferred Alternative will serve to lessen impacts on water resources (as well as on earth resources as stated above) compared to especially Alternative 3.

Water Resources (Section 3.1.3)
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <p>The Kitsap County Comprehensive Plan Chapter 3, Natural Environment, provides goals and policies intended to preserve and protect critical areas, water resources, and intact ecosystems.</p>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Critical Areas Regulations (KCC Title 19) identify and protect critical areas, including water resources like streams, wetlands, frequently flooded areas, and critical aquifer recharge areas (CARAs).</li> <li>• SMP (KCC Title 22) applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all Shorelines of the State.</li> <li>• The Kitsap Regional Shoreline Restoration Plan identifies several voluntary projects and programs to be implemented to improve shoreline functions over time.</li> <li>• The U.S. Army Corps of Engineers (Corps) regulates fill of wetlands through the federal Clean Water Act (CWA).</li> <li>• SEPA requires environmental review and consideration of potential adverse impacts of projects.</li> <li>• Ecology regulates water quality through general and individual water quality permits as well as Section 401 water quality certifications.</li> <li>• As a result of a 2008 Biological Opinion by the National Marine Fisheries Service (NMFS), the County must ensure that any proposals for development or redevelopment within floodplains will not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids.</li> <li>• Under SEPA, all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in planning and decision making.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• Follow the recommendations of the 2019 Kitsap County Multi-Hazard Mitigation Plan (MHMP) for flood mitigation strategies.</li> <li>• The final draft Water Resource Inventory Area (WRIA) 15 Watershed Restoration and Enhancement Plan (Ecology 2022a) addresses planned actions to offset the consumptive water use from the expected new permit-exempt wells to avoid negative impacts to groundwater recharge.</li> <li>• Consider instigating a fee-based septic system inspection, maintenance, and repair/remediation program that will inventory and document septic systems throughout the County to ensure that on-site septic systems are in good working order. Maintenance to include pumping as needed when inspections indicate.</li> <li>• Pursue grant funding to monitor surface water quality in watersheds with on-site septic to monitor pollution.</li> </ul>

Water Resources (Section 3.1.3)
<ul style="list-style-type: none"> <li>• Consider state, local, and tribal restoration plans to ensure salmon recovery is prioritized. These include the Chico Watershed Plan, Curley Creek Watershed Plan, and the Natural Resource Asset study.</li> <li>• Additional mitigation measures are recommended as needed to ensure adequate protection of anadromous fish including, but not limited to: <ul style="list-style-type: none"> <li>◦ Increased stormwater management requirements near riparian areas to increase the complexity of in-stream fish habitat;</li> <li>◦ Establish benches in floodways to accommodate additional flows; or</li> <li>◦ Construct or place habitat components that will create pools to provide shelter to salmonids and other anadromous fish.</li> </ul> </li> </ul>
Significant Unavoidable Adverse Impacts
<p>Impacts to both surface and ground water resources are expected, including increasing peak flows, channel incision, and reduced groundwater recharge, and may be unavoidable as new impervious surfaces are created and vegetation is removed with development activities. It is not possible to eliminate all impacts on surface water resources entirely under any of the alternatives. Some adverse impacts that may still occur include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Decreases in forestland and vegetative cover.</li> <li>• Increases in impervious surfaces.</li> <li>• Overall habitat degradation including erosion and sedimentation of streams and wetlands due to increased flow rates and volumes, resulting in the decline of nutrient balances, substrate quality, and habitat availability.</li> <li>• Decline and eventual loss of some stream and wetland functions for hydrology, water quality, and habitat.</li> <li>• Long-term cumulative reduction in groundwater recharge and associated discharge to streams.</li> </ul>

#### Exhibit 1.5-4      Summary of impacts and mitigation—Plants & Animals

Plants & Animals (Section 3.1.4)
Impacts Common to All Alternatives
<p>Population growth and upzoning will occur under each of the proposed action alternatives throughout the County. As a result, loss and/or fragmentation of habitat is expected to increase. The extent of impacts to plants and animals will depend on the location and intensity of development, habitat patch size, and connectivity across the landscape. Development would be primarily focused within UGAs under all alternatives. However, lower intensity development is still expected in rural areas. Critical areas, including streams and wetlands, would receive similar protection under each of the alternatives with some increased protections for riparian areas in Alternative 3.</p>
Impacts of Specific Alternatives

#### Plants & Animals (Section 3.1.4)

##### *Alternative 1, "No Action"*

Direct impacts on plants and animals from intensification of development are assumed to be proportional to the amount of impervious surface created in specific areas. Wildlife habitats are predicted to experience reduced habitat quantity and quality as a result of development activities. Impacts to intact habitat are expected to occur primarily where clearing is being conducted or impervious surfaces are being created. New development to accommodate growth is expected to result in loss of habitat and increased fragmentation. These actions would impact the overall quality of remaining habitat areas. Development of properties within or near environmentally critical areas could result in increased impacts to wetland, stream, and riparian habitat functions and values.

##### *Alternative 2, "Compact Growth/Urban Center Focus"*

Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces from increased development activities. These activities are expected to impact plant and animal species most in areas where undeveloped land is converted. Under Alternative 2, an additional 1,458 feet of non-fish bearing stream habitat will be affected by the UGA expansion areas and 1,477 feet of non-fish bearing stream habitat will be affected by upzoned areas under Alternative 2. Impacts to aquatic habitat are expected to be similar to impacts of water resources. The area of expanded UGA boundaries may result in increased conversion of riparian habitat and related habitat corridors, degraded habitat functions and values, and increased fragmentation. Quantity and quality of riparian areas would be expected to decline in those areas where growth is greatest under Alternative 2.

##### *Alternative 3, "Dispersed Growth Focus"*

Alternative 3 would provide for increased growth primarily through expansion of existing UGAs by approximately 1,082 acres overall. Expansion of UGA boundaries would occur in Kingston, Poulsbo, Silverdale, Port Orchard, Central Kitsap, and Bremerton. These changes allow for higher impervious surface coverage compared to the other alternatives, which may result in greater impacts on plants, animals, and related habitat.

An additional 5,674 feet of non-fish bearing stream habitat would be included in UGA expansion areas and 17,936 feet of non-fish bearing stream habitat would be included in upzoned areas compared to Alternative 1 (No Action). As a result, riparian habitats and related habitat corridors would be expected to decline in those areas where growth is highest under this alternative. The greatest impacts to plants and animals would be directly associated with the most extensive conversion of undeveloped habitat areas to impervious surfaces.

However, increased stream buffers are proposed in Alternative 3 compared to the other alternatives. Within the proposed UGA boundaries, approximately 508 acres would be encumbered by the increased stream buffers, compared to 245.5 acres that would be affected by the existing 50-foot buffers. This increase would improve protection for plants and animals by requiring greater buffer widths from development activities. Increased buffer widths provide additional functions for pollution removal and wildlife corridors for terrestrial habitats, in addition to increased protections of riparian and associated aquatic habitat.

### Plants & Animals (Section 3.1.4)

#### *Preferred Alternative*

The impacts of growth on plants and animals (wildlife) under the Preferred Alternative would also be comparable to those in Alternative 2. However, the Preferred Alternative allows even greater urban densities, which would result in less vegetation and the wildlife habitat it embodies per unit area than lower-density urban. Case in point, for a defined area, single-family housing with landscaped areas between the houses will provide more vegetation for habitat use by birds and other animals than would apartments and commercial development. The argument in favor of denser development is that it may require less area overall and so allow more retention of rural areas. With increased critical area buffers likely to be imposed according to CAO updates, increased development densities on remaining land may be needed to sufficiently allow for growth. Those increased buffer widths would allow for some vegetation and wildlife habitat retention in urban areas. As stated for water and earth resources, above, code changes associated with the Preferred Alternative would promote vertical development as a means of limiting the expansion of urban areas in order to prevent or slow the loss of rural areas, along with associated vegetation and wildlife habitat. Again, the deferral of all rural-to-rural rezones to a 2025+ process in the Preferred Alternative will serve to also lessen, or at least defer impacts on plants and animals.

#### **Mitigation Measures**

##### *Incorporated Plan Features*

*Kitsap County Comprehensive Plan* Chapter 3, Environment, provides goals and policies to generally preserve and protect critical areas and intact ecosystems.

##### *Applicable Regulations & Commitments*

- Critical Areas Regulations (KCC Title 19) identify and protect critical areas, including fish and wildlife conservation areas, streams, wetlands, frequently flooded areas, and CARAs.
- The SMP (KCC Title 22), updated in 2021, applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all Shorelines of the State.
- The Kitsap Regional Shoreline Restoration Plan identifies several voluntary projects and programs to be implemented to improve shoreline functions over time.
- The Corps regulates fill of wetlands through the Federal Clean Water Act.
- SEPA requires environmental review and consideration of potential adverse impacts of projects.
- Ecology regulates water quality through general and individual water quality permits as well as Section 401 water quality certifications to protect water quality.
- As a result of a 2008 Biological Opinion by the NMFS, the County must ensure that any proposals within floodplains not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids.
- Under SEPA, all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in both planning and decision making.

##### *Other Potential Mitigation Measures*



<b>Plants &amp; Animals (Section 3.1.4)</b>
<ul style="list-style-type: none"> <li>Public outreach and education measures could help mitigate the impact of population growth on plants and animals.</li> <li>The County could consider incorporating standards beyond the existing 2021 Kitsap County Stormwater Design Manual requirements by incorporating additional Best Management Practices (BMPs) for stormwater management near roadways to reduce the impacts on aquatic life from roadway runoff that contains 6ppd-quinone. Recommended BMPs to mitigate impacts from 6ppd-q are referenced in (Ecology 2022b).</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Future development activities to accommodate the expected growth in Kitsap County will generate unavoidable adverse impacts to native plant and animal species. By focusing development within UGAs, impacts will be minimized by reducing impacts to high functioning, intact habitats, but is unlikely to reduce landscape-scale impacts. Increased impervious surface area within a basin is expected to impact stream hydrology and water quality and quality. These watershed-level changes are likely to negatively impact listed and unlisted aquatic species. As native vegetation corridors are degraded by selective clearing, wildlife is consequently displaced, colonized by invasive plant species, reduced in size, and fragmented by development.</p>

## Exhibit 1.5-5 Summary of impacts and mitigation—Land and Shoreline Use

<b>Land and Shoreline Use (Section 3.2.1)</b>
<b>Impacts Common to All Alternatives</b>
<p>By 2044, Kitsap County is projected to add 28,825 people, 19,882 jobs, and need 14,497 housing units. Impacts common to all alternatives include conversion of undeveloped land for new residential, commercial, an/or industrial uses; increased intensity of use on developed parcels through redevelopment, or infill development on underutilized parcels; and land use compatibility issues resulting from the encroachment of new urban development patterns on current uses, often more rural in nature.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Maintains existing Comprehensive Plan land use designations, zoning, and UGA boundaries, which has a residential pattern that focuses on single-family residential, and a land use pattern defined by sprawl. Alternative 1 does not meet growth targets for population, housing, or employment. There are also no changes to Regional or Countywide Centers.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Emphasizes a more compact land use pattern that increases density to accommodate growth, specifically in urban centers, and focuses more on multifamily residential and densely clustered jobs in commercial zones. Alternative 2 meets projected housing needs and is very close to meeting employment targets. Additionally, the Silverdale Regional Center and Kingston</p>



<b>Land and Shoreline Use (Section 3.2.1)</b>
Countywide Center see significant zoning amendments and incentives to reduce barriers for multifamily and commercial development, which include greater allowed heights and densities.
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Emphasizes a more dispersed growth focus that is similar to the land use pattern of Alternative 1, which has a residential pattern that focuses on single-family residential, and a land use pattern defined by sprawl. Alternative 3 exceeds employment targets but does not meet the projected housing need target. There are limited changes to Regional and Countywide Centers under Alternative 3.</p>
<p><i>Preferred Alternative</i></p> <p>The Preferred Alternative largely adopts the land use changes and patterns of Alternative 2, with updates to capacity using the revised critical areas ordinance standards that result in reductions in the housing capacity compared to Alternative 2. There are land use changes associated with the Puget Sound Industrial Center – Bremerton that provide more employment capacity. The lack of rural-to-rural reclassifications in the Preferred Alternative reduces land use impacts from growth compared to what would have occurred under Alternative 3.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Compact development patterns seen in Alternative 2</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Kitsap County Code (KCC) Title 17 establishes development standards to reduce compatibility impacts and other measures regarding land use.</li> <li>• Potential changes to development regulations in Titles 16 and 17 may have a mitigating effect on land and shoreline use impacts. Please see the alternatives analysis for more information.</li> <li>• KCC Title 19, Critical Areas Regulations &amp; KCC Title 22 Kitsap County SMP.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
No significant unavoidable adverse impacts to land use patterns, compatibility, or urban form are expected under any alternative.

## Exhibit 1.5-6      Summary of impacts and mitigation—Relationship to Plans and Policies

<b>Relationship to Plans and Policies (Section 3.2.2)</b>
<b>Impacts Common to All Alternatives</b>
All alternatives have some level of consistency with the GMA, VISION 2050, and Kitsap CPPs.
<b>Impacts of Specific Alternatives</b>
<i>Alternative 1, "No Action"</i>

<b>Relationship to Plans and Policies (Section 3.2.2)</b>
Impacts on policy consistency under Alternative 1 would be similar to the existing pattern described under impacts common to all alternatives, as there are no policy changes under Alternative 1.
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Proposed policy changes include expansion of multifamily tax exemption (MFTE) areas, expedited permitting, reduced parking minimums, a tree replacement standard, increased transit service to at least 30-minute frequency in Silverdale Regional Center and Kingston UGA, and meeting PSRC's GHG emission targets.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Proposed policy changes include a tree retention standard, increasing buffers to 100 feet for seasonal / perennial streams, removing lot aggregation requirement for Suquamish and Manchester LAMIRDs, and creating a storefront zone that requires vertically integrated mixed-use buildings in the Kingston UGA.</p>
<p><i>Preferred Alternative</i></p> <p>The inclusion of the new critical areas ordinance standards in the Preferred Alternative increases consistency with plans and policies. Multifamily tax exemption is not included in the Preferred Alternative because under the County's current policy determination, the County is not eligible to implement an MFTE program at this time. Otherwise, policy and plan consistency is similar to Alternative 2.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• The proposed policy changes in the Preferred Alternative would increase consistency with other plans, policies, and state requirements. Please see the alternatives analysis in this FEIS for more information.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Submittal of proposed Comprehensive Plan to Washington Department of Commerce for review.</li> <li>• Ensure consistency with CPPs.</li> <li>• The County will confirm the adequacy of public urban services in UGA expansion areas with its CFP before formally amending UGA boundaries.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
With implementation of mitigation measures, no significant unavoidable adverse impacts are anticipated regarding future plan consistency under any of the alternatives.

## Exhibit 1.5-7      Summary of impacts and mitigation—Population, Housing and Employment

Population, Housing & Employment (Section 3.2.3)
Impacts Common to All Alternatives
<p>All three alternatives assume an increase in population and employment over the planning period but differ in their assumed intensity and location of development. Alternatives range from adding about 14% to 21% to the county's population. About 85% of the new population would occur in cities and UGAs, while about 15% would occur in Rural areas.</p>
Impacts of Specific Alternatives
<p><i>Alternative 1, "No Action"</i></p> <p>Alternative 1 anticipates 2,761 fewer people than the 2044 growth target. Alternative 1 is expected to produce an additional 9,090 housing units, with only about 1,800 of those units expected to serve households with median family incomes of 0% to 50% of AMI. This does not meet the housing need target. Alternative 1 also falls 7,097 jobs short of the growth target for 2044.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Alternative 2 would bring 8,714 more people to Kitsap County than the growth target has set for 2044. Alternative 2 projects to develop 14,684 housing units, which meets the housing need target, and produces about an even split of housing that serves lower income households and middle to upper class income households. Alternative 2 gets close, but also falls short by 959 jobs, of achieving the employment target set for 2044.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Alternative 3 would add an additional 632 people living in unincorporated Kitsap County beyond the 2044 growth targets. Alternative 3 does not produce as much housing as Alternative 2 but does produce about 1,700 more housing units than Alternative 1 does. Alternative 3 also produces about 1,600 more housing units than Alternative 1 for households earning 0% to 50% median family income (MFI), but still only produces half of what is needed by 2044. Alternative 3 is the only alternative that meets the 2044 employment target, generating 1,157 more jobs than the target.</p>
<p><i>Preferred Alternative</i></p> <p>Under the Preferred Alternative, there would be an additional 6,416 people living in Kitsap County than the 2044 Growth Target had set. The Preferred Alternative does not produce as much housing as Alternative 2 but does produce about 3,636 more housing units than Alternative 1 does and 551 more housing units than Alternative 3. The Preferred Alternative produces 1,269 fewer housing units than the 2044 new housing need. With an expansion to the Puget Sound Industrial Center – Bremerton included in the Preferred Alternative, it is only barely shy of the employment target overall.</p>

Population, Housing & Employment (Section 3.2.3)
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Alternative 2 will allow limited expansions of UGA areas with the expansions focusing on increasing job growth and employment opportunities.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>Zoning code requirements throughout unincorporated Kitsap County will see a reduction in regulatory barriers to development under Alternative 2.</li> <li>Expansion of MFTE zones and other affordable housing incentives under Alternative 2 could help support development of housing that serves households earning 0% to 50% of AMI.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>For UGAs that show capacities greater than the population or employment targets, UGA boundaries should be decreased, where possible.</li> <li>Alternatively, or in combination with UGA reductions, a different mix of densities or land uses may assist the achievement of population and employment allocations.</li> <li>The County could work with KRCC and cities to reallocate population from undersized UGAs to oversized ones.</li> <li>Where the County has already applied reasonable measures (e.g., upzones or other incentives), the County could consider limited UGA expansions.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>This population, housing, and employment growth will cause impacts on the natural and built environment and the demand for public services. Each of these topics is addressed in the appropriate sections of this FEIS.</p>

#### Exhibit 1.5-8      Summary of impacts and mitigation—Historical & Cultural Preservation

Historical & Cultural Preservation (Section 3.2.4)
<b>Impacts Common to All Alternatives</b>
<p>Future development under all the alternatives may affect known or potential historic sites. Archaeological sites tend to be concentrated in the vicinity of waterways, shorelines, and river valleys. These areas are anticipated to be subject to development pressures under all alternatives. Unidentified prehistoric and historic sites and historic/cultural artifacts present throughout the area could be disturbed by future development. Historic and archaeological sites located in UGAs are likely to have the highest potential of disturbance during development activities as these areas are likely to have the most intensive development.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Residential and employment-related growth would be focused within existing UGA boundaries. This could create additional incentives to develop or redevelop in UGAs, particularly those with</p>

#### Historical & Cultural Preservation (Section 3.2.4)

zoning designations that allow for higher densities or a broad variety of land uses. Therefore, potential impacts on cultural resources may be higher within UGAs than rural areas. However, new residential growth is anticipated to occur in rural areas as well and may potentially impact cultural resources.

##### *Alternative 2, "Compact Growth/Urban Center Focus"*

Alternative 2 would accommodate the greatest amount of residential growth of the three alternatives. Alternative 2 would focus residential growth within UGAs and centers. A focus on infill rather than UGA expansion minimizes potential disturbances. Most development would be focused within the Silverdale Regional Center and the Kingston Countywide Center. Alternative 2 includes approximately 464 acres of UGA expansion. The expansion of UGAs under Alternative 2 would lead to a greater potential for impacts on cultural resources than Alternative 1. Several locally significant historic and archaeological sites could potentially be affected by development pressure associated with the expansion of UGA boundaries. Since archaeological sites are likely to be located within the vicinity of shorelines and water bodies as outlined above, areas of expansion of UGAs near or adjacent to shorelines may have greater impacts on archaeological resources. Alternative 2 proposes expansion of urban areas near or adjacent to shorelines in almost every UGA.

##### *Alternative 3, "Dispersed Growth Focus"*

Alternative 3 includes approximately 1,049 acres of UGA expansion. Accordingly, potential impacts on cultural resources are anticipated to be greater than for Alternatives 1 and 2 since the area for greater density of development would be the largest of three alternatives. Alternative 3 is expected to accommodate growth primarily with the expanded UGAs, predominantly within Silverdale, Kingston, and Bremerton. There is expected to be less variety in housing types under Alternative 3 than Alternative 2 due to a focus on single-family residential development. This alternative would include greater potential for lower density and widespread urban development throughout the various UGAs. Alternative 3 also includes changes to the density allowances within the Suquamish Limited Area of More Intense Rural Development (LAMIRD), which may preclude Tribal social, economic, or cultural goals. Of the three alternatives, Alternative 3 would have the most potential to affect cultural resources. Overall, UGA expansion in proximity to water bodies would be greater under Alternative 3 than under any alternative, which as a result would create a greater potential impact on cultural resources.

##### *Preferred Alternative*

The expansion of UGAs under the Preferred Alternative would lead to a greater potential for impacts on cultural resources than Alternative 1. Several locally significant historic and archaeological sites could potentially be affected by development pressure associated with the expansion of UGA boundaries. Since archaeological sites are likely to be located within the vicinity of shorelines and water bodies as outlined above, areas of expansion of UGAs near or adjacent to shorelines may have greater impacts on archaeological resources. The rural areas are allocated the same growth in Alternative 2 as in Alternative 1.

Historical & Cultural Preservation (Section 3.2.4)
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Goals and policies in the Kitsap County Comprehensive Plan encourage a coordinated approach to identification and preservation of historical and archaeologically significant sites and structures throughout the county.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>The County has an existing agreement with Department of Archaeology and Historic Preservation under Kitsap County Contract KC 442-07.</li> <li>The County will continue to implement the requirements of Port Gamble Historic Rural Town (KCC 17.321B) to ensure that development maintains and enhances the defining and essential characteristics of the town.</li> <li>The County will continue to implement the Open Space Plan (KCC 18.12) that allows for tax relief for eligible properties as an incentive to preserve archaeological and historical sites under the Open Space Act (Chapter 84.34 RCW).</li> <li>The County will continue to implement the policies and regulations of the SMP (Title 22), which requires Tribal historic preservation officers (THPOs) for tribes with jurisdiction the opportunity to review and comment on all development proposals in the Kitsap County shoreline jurisdiction (KC 442-07).</li> <li>If archaeological resources are uncovered during excavation, developers and property owners must immediately stop work and notify Kitsap County, the Department of Archaeology and Historic Preservation, and affected Indian tribes. Uncovered sites shall require a site inspection by a professional archaeologist in coordination with the affected tribe(s). Tribal historic preservation officers shall be provided the opportunity to evaluate and comment on cultural resources evaluations conducted by the professional archaeologist. Further, work shall not recommence until authorized by the Department of Archaeology and Historic Preservation through an archaeological excavation and removal permit, which may condition development permits pursuant to KC 442-07.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>A process could be developed that further improves the partnership with the Tribes, the Coroner's Office, Department of Archaeology and Historic Preservation (DAHP), and other entities.</li> <li>The County could consider establishing a historic review board as a strategy to better preserve cultural and historical sites.</li> </ul>
Significant Unavoidable Adverse Impacts
<p>Expected development to accommodate growth within Kitsap County may increase development pressure in proximity to cultural resources sites. Future development activities have the potential to impact undiscovered sites as well as documented sites. However, with consistent application of federal, state, and local laws, significant unavoidable adverse impacts to cultural resources are not anticipated.</p>

## Exhibit 1.5-9 Summary of impacts and mitigation—Aesthetics

Aesthetics (Section 3.2.5)
Impacts Common to All Alternatives
<p>Future growth and development will include a wider variety of housing types that include more infill midrise buildings, ADUs, and middle housing types (duplexes, townhomes, etc.). Increased density and intensity of development raises the potential for shade and shadow impacts on adjacent land uses, sidewalks, and plazas. There could also be spillover light and glare impacts in rural areas due to increased traffic and household security lighting from neighboring properties.</p>
Impacts of Specific Alternatives
<p><i>Alternative 1, "No Action"</i> Similar to what is described in impacts common to all alternatives.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i> The Kingston UGA, McWilliams/303 Center, and South Kitsap/Bethel Commercial area see increased allowed height of 10 – 20 feet to their commercial areas. For most of the UGA shadow and light impacts would not increase significantly over Alternative 1. Mixed-use areas in the subarea would likely become more pedestrian oriented over time and have an increase in pedestrian lighting, street trees, street furniture, and access to improved transit.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i> Similar density ranges and impacts to height, bulk, and scale under Alternative 1, but density is spread out and distributed more broadly across the County's UGAs than is the case in the more focused and intense density found in Alternative 2. Shadow and light impacts would not increase significantly over Alternative 1. Silverdale Regional Center would see an expansion of UGA boundaries and changes in land use designations but would not see changes in allowed densities and maximum heights range from 45 feet to 65 feet. The Kingston Countywide Center would see height increases in its high intensity commercial areas to 55 feet and a mixed-use requirement in a new storefront overlay zone in downtown Kingston.</p>
<p><i>Preferred Alternative</i> The aesthetics of the Preferred Alternative are similar to those of Alternative 2 above. Height increases are focused in urban centers. This focused approach will limit aesthetic changes while meeting GMA and Commerce requirements for housing and employment. Improved transit is expected to be paired with pedestrian access improvements as well.</p>
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Managing urban tree canopy.</li> <li>• Reduce residential parking requirements</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Proposed changes to Title 17 regulations for the Silverdale Regional Center, Kingston UGA, McWilliams Center, and South Kitsap/Bethel commercial areas would change bulk requirements in those areas as described above.</li> </ul>



<b>Aesthetics (Section 3.2.5)</b>
<i>Other Potential Mitigation Measures</i> <ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Over time, additional growth and development will occur in Kitsap County, and a generalized increase in development intensity, height, bulk, and scale is expected under all alternatives—this gradual conversion of low-intensity uses to higher intensity development patterns is unavoidable and an expected characteristic of urban population and employment growth. No significant unavoidable adverse impacts to land use patterns, compatibility, or urban form are expected under any alternative.</p>

#### **Exhibit 1.5-10      Summary of impacts and mitigation—Transportation**

<b>Transportation (Section 3.2.6)</b>
<b>Impacts Common to All Alternatives</b>
<p>Generally, each alternative results in similar levels of transportation impact. In total, the number of VMT is expected to increase between 72% and 86% during the PM peak hour between now and 2044. The County's current roadway level of service (LOS) standard is measured on a roadway segment Volume-to-Capacity (V/C) ratio. Each alternative results in approximately 130 lane-miles of county roadway being below LOS. While a list of projects has been compiled to address each roadway impact, other options for construction will likely be considered to address these impacts. Additionally, none of the alternatives results in more than 15% of the County's lane-miles being below LOS standard, meaning concurrency has not been exceeded, and mitigation is not required. This suggests that without any transportation system improvements the County would still meet the LOS concurrency standard. However, the county is likely to focus transportation investments to improve non-motorized travel options (which will result in lower VMT due to mode shift) and prioritize safety investments.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>The traffic forecasts associated with Alternative 1 result in a 72% increase in vehicle traffic during the PM peak period between 2020 and 2044. This increase in traffic results in approximately 129 lane-miles of County roadway operating below LOS standard. Approximately 56% of these deficiencies are in the North-Central county, and the remaining 44% are in the South county. Build-out of the proposed land use Alternative 1 is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15% for either the north-central region or the south region.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>The traffic forecasts associated with Alternative 2 result in a 85% increase in vehicle traffic during the PM peak period between 2020 and 2044. This increase in traffic results in approximately 134 lane-miles of County roadway operating below LOS standard. Approximately 58% of these deficiencies are in the North-Central county, and the remaining</p>



<b>Transportation (Section 3.2.6)</b>
42%are in the South county. Build-out of the proposed land use in Alternative 2 is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15%for either the north-central region or the south region.
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>The traffic forecasts associated with Alternative 3 result in a 78% increase in vehicle traffic during the PM peak period between 2020 and 2044, the largest across the preliminary alternatives but smaller than the Preferred Alternative. This increase in traffic results in approximately 137 lane-miles of County roadway operating below LOS standard. Approximately 57%of these deficiencies are in the North-Central county, and the remaining 43%are in the South county. Build-out of the proposed land use in Alternative 3 is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15%for either the north-central region or the south region.</p>
<p><i>Preferred Alternative</i></p> <p>The traffic forecasts associated with the Preferred Alternative result in an 86 percent increase in vehicle traffic during the PM peak period between 2020 and 2044, larger than any of the alternatives. This is due to slight changes in land use density in specific areas between the alternatives. This results in approximately 142 lane-miles of County roadway operating below LOS standard. Approximately 52 percent of these deficiencies are in the North and Central county, and the remaining 48 percent are in the South county area. Build-out of the Preferred Alternative is not expected to exceed the 15% concurrency standard for either region.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Goals and Policies within the Comprehensive Plan place additional emphasis on prioritizing expanding the non-motorized transportation system and improving transportation safety.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>Kitsap County Concurrency Ordinance (KCC 22.04) – defines transportation concurrency and establishing the process for measuring LOS. The County may consider changing how it measures LOS and concurrency to place further emphasis on all modes of travel.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
None.

#### Exhibit 1.5-11 Summary of impacts and mitigation—Noise

<b>Noise (Section 3.2.7)</b>
<b>Impacts Common to All Alternatives</b>
Changes in traffic volumes will increase noise disturbances under all scenarios. Single-family residential construction will continue under all alternatives, resulting in project-specific

<b>Noise (Section 3.2.7)</b>
construction noise impacts. Ambient noise levels will be affected based on changes in population density related to zoning and land use changes.
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Construction noise levels will be most affected in existing UGAs, with less in the rural areas. Ambient noise levels will increase less than under Alternatives 2 and 3. Vehicle-related noise increases will be significant along major corridors but will increase the least as compared to the other alternatives.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Construction noise impacts would be the greatest under Alternative 2 but primarily focused in the modified UGAs, particularly Silverdale and Central Kitsap subareas. Ambient noise levels would rise in the UGAs, while remaining relatively stable in the rural areas. Noise levels along new or expanded bus routes and transit centers within the UGA will increase the most under this alternative.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Construction noise would be greater than under Alternative 1 but less than Alternative 2. Ambient noise levels will increase slightly across all areas, but the changes would likely be more perceptible in rural areas where smaller changes in density can have greater realized noise effects. Traffic-generated noise will increase the most along major commuter routes into and out of the UGAs, resulting from both increased automobile and bus traffic along major traffic corridors.</p>
<p><i>Preferred Alternative</i></p> <p>Noise impacts under the Preferred Alternative are similar to those under Alternative 2. Under this compact growth approach, noise impacts from construction, traffic, and dense land use would be most notable in the urban centers. Increased building heights and housing diversity are expected to increase density and associated noise levels. Employment growth under the Preferred Alternative would be greatest in the Silverdale Subarea. Other employment growth will be concentrated in the Puget Sound Industrial Area, Central Kitsap, West Bremerton, Port Orchard, and Kingston. Traffic noise increases may be mitigated somewhat by investments in public transit and housing near employment centers.</p>
<b>Mitigation Measures</b>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Kitsap County Noise Ordinance (KCC 10.28) and the associated Environmental designation for noise abatement (EDNAs) will regulate the levels of acceptable noise disturbances based on land use type.</li> <li>• Highway noise is regulated under WAC 173-62.</li> <li>• Federal noise abatement criteria are adopted by Washington Department of Transportation (WSDOT) and are applied by the Federal Highway Administration (FHWA) for projects receiving federal funding.</li> </ul>
<i>Other Potential Mitigation Measures</i>

<b>Noise (Section 3.2.7)</b>
<ul style="list-style-type: none"> <li>Project-specific construction activities will be required to maintain standard construction best practices, including limiting the hours of construction noise in accordance with local regulations.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
Construction-generated noise will increase, but the extent, location, and duration will vary based on the selected alternative and will be highly associated with project-specific development. Ambient noise levels will increase under all alternatives but will be most realized in urban areas that are more sensitive to changes.

## Exhibit 1.5-12 Summary of impacts and mitigation—Public Buildings

<b>Public Buildings (Section 3.3.1)</b>
<b>Impacts Common to All Alternatives</b>
All alternatives described in this FEIS will accommodate a certain level of growth and development. Along with this level of growth there is expected to be an equal increase in demand for public building space. Increased demand would result in the need for different strategies to increase the amount of public building space.
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>The level of demand for services at administrative buildings, courthouses, maintenance facilities, and community centers would be consistent with past planning at a countywide level.</p> <p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>This alternative would benefit from the strategic location of amenities such as community centers to serve a population that would be seeking community gatherings and recreation.</p> <p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>The sizing and location of maintenance facilities and community centers is more sensitive to location. Such facilities would be addressed in the space needs analysis.</p> <p><i>Preferred Alternative</i></p> <p>All alternatives will have an impact on the existing administrative buildings, courthouses, maintenance facilities, and community centers. But the greatest impact will be on maintenance facilities, which will need to either upgrade or retrofit their existing services to meet the anticipated needs of the population.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Policies in the Capital Facilities Element establish LOS standards for community centers, County buildings, and courts and require the County to apply these standards to its annual budget and Capital Improvement Program.</li> <li>The Preferred Alternative updates the CFP for the 20-year planning period 2024-2044.</li> </ul> <p><i>Applicable Regulations &amp; Commitments</i></p>

<b>Public Buildings (Section 3.3.1)</b>
<ul style="list-style-type: none"> <li>With added development and population, tax revenues to the County would increase and could contribute to funding of additional or expanded facilities and associated staffing needs.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>To address future deficiencies, the County could adjust its LOS standards to reflect the likely service levels in 2044, given estimated population growth and planned facilities.</li> <li>If determining impact fees for parks and recreation facilities, the County could ensure that impacts on community centers are reflected in the calculations of impact fees.</li> <li>Alternative 2 focuses growth in specific zones and locations. A strategy to plan community spaces around these zones would help address future deficiencies.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Demand for public services will increase under all studied alternatives. With advanced planning, no significant unavoidable adverse impacts on public buildings are anticipated within the range of alternatives reviewed.</p>

#### Exhibit 1.5-13      Summary of impacts and mitigation—Fire Protection

<b>Fire Protection (Section 3.3.2)</b>
<b>Impacts Common to All Alternatives</b>
<p>New development and population growth will result in an increased demand for emergency response to fire, rescue, and emergency medical services (EMS). This increased demand will require fire districts to increase their emergency response capabilities concurrent with growth to maintain service levels. All growth alternatives will create challenges for fire districts to maintain service levels.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>The level of demand for services at fire protection facilities would be consistent with past planning at a countywide level.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Will create challenges with larger and more complex buildings to protect along with increased traffic congestion.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>With UGA expansion, fire protection services will be challenged by increased emergency response travel times or will otherwise require the development of new fire departments closer to expanded UGA areas.</p>

<b>Fire Protection (Section 3.3.2)</b>
<p><i>Preferred Alternative</i></p> <p>This approach may lead to increased traffic congestion, affecting Fire Protection Services response times, although the critical areas ordinance will limit impacts related to travel times by restricting the amount of developable land.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Under the CFP, the county fire and rescue districts will continue to improve fire protection efficiency by focusing on eliminating overlapping responsibilities and system inefficiencies, as well as coordinating service provision with population growth.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• New development would be required to meet city and County codes, as well as International Fire Code and IBC regulations, regarding the provision of fire hydrants, fire flow, alarm systems, sprinklers, and emergency vehicle access.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• Kitsap County adoption of ordinance allowing fire departments to implement impact fees per RCW 82.02</li> <li>• Kitsap County adoption of minimum road and driveway standards</li> <li>• Expanded fire and EMS could be provided concurrent with new development</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Future population growth and development will continue to increase the need for fire protection/EMS services under any studied alternative. With implementation of the abovementioned mitigation measures, significant, unavoidable adverse impacts are not anticipated.</p>

#### **Exhibit 1.5-14      Summary of impacts and mitigation—Law Enforcement**

<b>Law Enforcement (Section 3.3.3)</b>
<b>Impacts Common to All Alternatives</b>
<p>Lack of staff currently means a small number of patrol deputies are responsible for very large geographic areas within their patrol areas and current growth has created an increased demand for services and degradation in patrol response time</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>The level of demand for law enforcement facilities would be consistent with past planning at a countywide level.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Increased concentrations of population and employment could allow for greater efficiency of service in urban areas, although this focused growth may increase the need for law enforcement services including parking and traffic enforcement.</p>

<b>Law Enforcement (Section 3.3.3)</b>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>The further growth of Silverdale and its potential incorporation would have an effect on service levels as revenues are diverted to the new city and development concentrations expand beyond the current UGA boundary.</p>
<p><i>Preferred Alternative</i></p> <p>While a larger population will lead to more crime and service demands, increased density also enhances service efficiency and can be mitigated through increased walkability and community-centered development. However, UGA expansions could increase response travel times.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• A comprehensive study of predicted law enforcement services and facilities, including impacts on the corrections services could be conducted to provide an evaluation of potential deficits and the needed resources to meet future demand.</li> <li>• Future incorporation of Silverdale would likely result in contracting for services to the new city but would also provide a funding source that could provide the LOS the new city requires.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• The Sheriff's Office and facilities are maintained primarily through the County's general fund, which is funded through sales and property tax revenue. The increased tax base associated with increased population and development would increase tax revenues and bonding potential.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• Staffing will need to be increased as the population increases. Urban areas may be annexed or incorporated. In this case, responsibility for law enforcement services in these areas would be absorbed by the cities.</li> <li>• Future regionalization of law enforcement services is also a potential pathway for delivering services to county and city residents.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Future population growth and development will continue to increase the need for law enforcement services and facilities under all alternatives. An appropriate assessment of current and future needs should be conducted to provide the framework of needs. The county can then use that tool to determine a course of action and potential adverse impacts on law enforcement services, including the need for future corrections facility needs.</p>

## Exhibit 1.5-15 Summary of impacts and mitigation—Parks and Recreation

<b>Parks and Recreation (Section 3.3.4)</b>
<b>Impacts Common to All Alternatives</b>
All alternatives would result in an increased demand for park and recreation facilities and enhancement of existing facilities.
<b>Impacts of Specific Alternatives</b>
<i>Alternative 1, "No Action"</i> The level of demand is consistent with past planning countywide.
<i>Alternative 2, "Compact Growth/Urban Center Focus"</i> Increased densities would allow for easier planning of outdoor leisure facilities such as playgrounds, picnic shelters, nature centers, and community centers. At the same time, existing park facilities in areas with higher growth allocations may become overburdened.
<i>Alternative 3, "Dispersed Growth Focus"</i> Natural resource areas, trails, and shoreline access may see more use compared to alternatives 1 and 2 due to the rural nature of those facilities. The adoption of the 2024 Parks, Recreation, and Open Space (PROS) plan may find more specific impacts to these facilities
<i>Preferred Alternative</i> It aims to enhance leisure facilities and increase access to more natural areas, trails, and shorelines, though it may overburden existing facilities.
<b>Mitigation Measures</b>
<i>Incorporated Plan Features</i> <ul style="list-style-type: none"> <li>• Improve the connectivity of parks, trails, and open space systems, particularly in proximity to population and job centers, to encourage recreation use when appropriate.</li> <li>• Develop active or outdoor leisure facilities usable in multiple seasons for a variety of activities.</li> </ul>
<i>Applicable Regulations &amp; Commitments</i> <ul style="list-style-type: none"> <li>• Impact fees are applied to all new housing developments. Fees could be reassessed to reflect increased costs of land for park acquisition or increased impacts within areas of significant intensification.</li> </ul>
<i>Other Potential Mitigation Measures</i> <ul style="list-style-type: none"> <li>• The County could consider allowing public use of undeveloped or partially developed parkland in or near urban areas.</li> <li>• The County could consider joint use of facilities for parks and recreation purposes such as school athletic fields and playgrounds.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
Neighborhoods surrounding existing, new, or expanded parks would experience more activity in the form of vehicles and pedestrians. Costs for acquiring parks will rise with the increased demand for urban land.

## Exhibit 1.5-16 Summary of impacts and mitigation—Schools

Schools (Section 3.3.5)
Impacts Common to All Alternatives
<p>All alternatives will result in an increase in projected school enrollment. The alternatives will affect school districts by increasing residential development and consequently the number of students enrolled within the four school districts serving the unincorporated county. Based on where population growth would occur and the demographics of the population within the unincorporated county, each school district will be affected differently. Impacts will generally be higher at schools serving the more urbanized area located within UGAs.</p>
Impacts of Specific Alternatives
<p><i>Alternative 1, "No Action"</i> See impacts common to All Alternatives section.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i> The most impactful alternative is alternative 2, which focuses growth in multifamily and commercial zones with an emphasis on the Silverdale Regional Center and Kingston Countywide Center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo. The school districts serving these communities are already overburdened and without planned increases in school facilities, intensive growth in these areas could lead to overcrowding of schools.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i> See impacts common to All Alternatives section.</p>
<p><i>Preferred Alternative</i> While promoting multifamily missing middle housing will help meet housing capacity needs, it will strain existing schools, leading to the use of temporary structures like portables to accommodate increased enrollment.</p>
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Alternatives 2 and 3 amend the CFP to address the new 2024-2044 planning period.</li> <li>• The County's regular review of the CFP in coordination with the school districts should allow for ongoing long-range planning for educational services.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• School districts are required to plan for growth over time by regularly updating their six-year capital improvement program.</li> <li>• Adopted school impact mitigation fees would be collected for new residential development.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• To address enrollment changes on an ongoing basis, prior to reaching the level of demand that would necessitate construction of a new facility, districts can use portable classrooms to temporarily meet growth demands. Portables can be funded by impact fees paid by residential developers.</li> </ul>



- The County and school districts could work together to identify potential sites for new school development in areas where higher amounts of growth are planned.

#### **Significant Unavoidable Adverse Impacts**

The demand for school services and facilities will increase as new development occurs and the number of families with school-aged children increases. Land developed or set aside for school facilities would be generally unavailable for other uses. Without a significant redevelopment to existing schools or planned development of new schools, the schools which are near or above capacity will become overcrowded.

### **Exhibit 1.5-17 Summary of impacts and mitigation—Solid Waste**

<b>Solid Waste (Section 3.3.6)</b>
<b>Impacts Common to All Alternatives</b>
The additional population capacity accommodated by the alternatives would increase demand for additional solid waste capacity. The degree of need would vary among the alternatives based on population and the capacity of existing solid waste facilities. The County, through contracts with private haulers, will continue to be able to provide solid waste management for an increased population regardless of the alternative ultimately chosen. The CFP conducted within this Comprehensive Plan will allow the County to better anticipate funding needs and sources for future solid waste disposal facilities.
<b>Impacts of Specific Alternatives</b>
<i>Alternative 1, "No Action"</i> The existing LOS for solid waste is calculated on estimated countywide population and the average per capita generation rates for solid waste and recycling. The rates used in Exhibit 3.3.6.2-1 located in Chapter 3 were taken from the Ecology, 2018 Recycling and Disposal Numbers for Kitsap County, 2021. If the generation rates from this plan are carried forward from 2022 to 2044, the tons of solid waste and recycling generated per year would be lowest in Alternative 1
<i>Alternative 2, "Compact Growth/Urban Center Focus"</i> If the generation rates from this plan are carried forward in 2022 and 2044, the tons of solid waste and recycling generated per year would be highest with Alternative 2.
<i>Alternative 3, "Dispersed Growth Focus"</i> If the generation rates from this plan are carried forward in 2022 and 2044, the tons of solid waste and recycling generated per year would be between rates generated by alternative 1 and 2.
<i>Preferred Alternative</i> This compact growth approach will enhance the efficiency of Solid Waste Services by utilizing existing facilities, reducing the need for new processing facilities, and minimizing impacts related to providing curbside pickup services.
<b>Mitigation Measures</b>
<i>Incorporated Plan Features</i>

<b>Solid Waste (Section 3.3.6)</b>
<ul style="list-style-type: none"> <li>Focusing growth in existing UGAs and cities where solid waste services already exist would reduce impacts related to providing curbside pickup for added population and promote more curbside customers. There would also be less need for additional solid waste handling facilities. Alternative 2 would have the most compact UGAs of the alternatives.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>Coordination and monitoring at transfer facilities and other facilities would be ongoing to ensure adequate solid waste capacity. Service levels for curbside collection as outlined in the CFP would continue or improve to encourage recycling.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>Based on available landfill capacity at the County's current contracted landfill location, a new or extended contract could be enacted to provide landfill capacity well beyond the 2044 planning horizon.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
<p>Future population growth and development would continue to increase the amount of solid waste generated in the county under any alternative. Regular monitoring of capacity and demand at solid waste facilities will be conducted routinely as needed to address any capacity challenges.</p>

#### Exhibit 1.5-18 Summary of impacts and mitigation—Wastewater/Sewer

<b>Wastewater/Sewer (Section 3.3.7)</b>
<b>Impacts Common to All Alternatives</b>
<p>Under any of the UGA alternatives, additional sanitary sewer service would be necessary to serve increased demand. Construction of new sewer treatment facilities would have potential to result in impacts to both the natural and built environment. These impacts would be addressed at the project level at the time of project implementation.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Capital improvement projects will continue as planned if no action is taken to allocate growth in a certain area or change UGA boundaries.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Encouraging development within existing urban centers and reduced unincorporated UGAs, as promoted under Alternative 2, will minimize impacts on service providers to extend their services to cover larger areas.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Alternative 3 provides for lesser expansions in some locations and greater expansions in others which may increase the demand for service locationally and reduce it in others.</p>
<p><i>Preferred Alternative</i></p> <p>This approach reduces the need for service providers to extend coverage to more areas, but they must still anticipate increased demand within their current service areas.</p>

Wastewater/Sewer (Section 3.3.7)
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• The Draft CFP proposes improvements associated with studied alternatives.</li> <li>• The Comprehensive Plan Capital Facilities Element (CFE) and CFP establish LOS for County-owned and non-County-owned sanitary sewer systems and require agencies to “determine what capital improvements are needed in order to achieve and maintain the standards for existing and future populations.” This element is updated with Alternatives 2 and 3.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Pursuant to Chapter 58.17.110 RCW, local governments must review plat applications to ensure that adequate provisions are made for a variety of public facilities, including “sanitary wastes.”</li> <li>• Pursuant to Chapter 16.12 KCC, the County Engineer and County Health Officer provide their respective recommendations as to the adequacy of proposed sewage disposal systems. The hearing examiner then determines whether a proposal includes appropriate provisions for “sanitary wastes” and other public and private facilities and improvements.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• The County could continue pursuing opportunities for water reclamation.</li> </ul>
Significant Unavoidable Adverse Impacts
<p>With advance planning, implementation, and update of capital facility plans no less than every six years, as well as review of development permits in terms of system impacts, no significant unavoidable adverse wastewater impacts are anticipated within the range of alternatives reviewed.</p>

## Exhibit 1.5-19 Summary of impacts and mitigation—Stormwater

Stormwater (Section 3.3.8)
Impacts Common to All Alternatives
Under all alternatives, additional stormwater drainage systems would be needed to manage increased stormwater runoff resulting from new development and added impervious surfaces such as roads and driveways.
Impacts of Specific Alternatives
<p><i>Alternative 1, "No Action"</i></p> <p>Alternative 1 would likely result in increased levels of urbanization, adding impervious surfaces and the need for stormwater drainage and treatment facilities in more areas of the county.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Alternative 2 would result in an increased and focused growth within existing boundaries and could create a greater need for upgrading and retrofitting existing drainage systems compared to Alternatives 1 and 3.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Alternative 3 would result in an increase in UGA boundaries and associated development, impervious surface area, and associated stormwater runoff, and could potentially create a greater need for upgrades to existing drainage systems within expanded UGA boundaries compared to Alternatives 1 and 2.</p>
<p><i>Preferred Alternative</i></p> <p>This will necessitate upgrading and retrofitting existing drainage systems to handle increased stormwater runoff, and while urban expansions are limited under the preferred alternative, service providers must consider potential upgrades for any boundary expansions.</p>
Mitigation Measures
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>The Land Use and Natural Systems Elements of the Comprehensive Plan include goals for mitigating erosion, sedimentation, and stormwater runoff problems related to land clearing, grading, and development. Alternatives 2 and 3 update the County's Capital Facility Plan, incorporating a 6-year Capital Improvement Plan (CIP) for stormwater projects. This planning process helps to ensure that the County maintains compliance with the stormwater LOS.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>The County has adopted regulations to protect against stormwater impacts of new development (Title 12 KCC). These regulations require all new development to meet specific performance standards before receiving approval. Kitsap County Code addressing clearing and grading, critical areas, and flood hazard areas also direct how stormwater mitigation will be implemented.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>Measures to reduce impacts of these alternatives to natural systems and public/private property will be achieved through planning policies, goals, and permit conditions, as described below.</li> </ul>

### Stormwater (Section 3.3.8)

#### Significant Unavoidable Adverse Impacts

With advanced planning, review of development applications, and implementation of mitigation measures sufficient to counter all adverse impacts, there will be no net unavoidable adverse impacts to regulated critical areas from any of the three alternatives. Even though sufficient mitigation measures are required to be implemented to fully compensate for lost habitat functions, there still could and likely would be some changes to existing stormwater runoff patterns. This could alter flow conditions downstream of the planning areas and could potentially aggravate existing downstream flooding and erosion problems regardless of in-place mitigation measures resulting in no net adverse impacts.

## Exhibit 1.5-20 Summary of impacts and mitigation—Water Supply

### Water Supply (Section 3.3.9)

#### Impacts Common to All Alternatives

Data and modeling indicate that Kitsap County has adequate water resources to meet the need for water supply of expected population growth and allocation under all three alternatives, although water may need to be delivered to serve areas of lesser supply, or greater population in the future. Kitsap PUD has been working on developing regional supply and transmission for over 20 years in order to support the County in complying with the GMA. Some of the sources needed have been identified and are certificated, and some are in the process of being approved currently, with more to follow as needed. In terms of resource cost analysis, greater densities should provide a lower cost of service, and lesser densities, such as the majority of Kitsap PUD's rural service area, should be a higher cost of service. With that said, most of the infrastructure is already in place to support the existing UGA boundaries (Alternative 1), with developers covering the cost of future infrastructure needs. If UGA boundaries are greatly expanded (Alternatives 2 and especially 3), there may be a need for more regional infrastructure in the future.

The WRIA 15 Watershed Restoration and Enhancement Plan (not yet formally adopted) projects that there will be 2,430 new permit exempt wells in unincorporated Kitsap County (non-Bainbridge Island) between 2018 and 2038, with a total approximate annual consumptive use of 334.4 acre-feet.

#### Impacts of Specific Alternatives

##### *Alternative 1, "No Action"*

Operating costs are increased for Kitsap PUD customers as additional low-density infrastructure is constructed, but it is the best way to manage water resources responsibly if growth is required. Most of the infrastructure is already in place to support the existing UGA boundaries.

##### *Alternative 2, "Compact Growth/Urban Center Focus"*

<b>Water Supply (Section 3.3.9)</b>
<p>Greater concentrations of population and employment growth within the UGAs, particularly in Alternative 2, would minimize impacts on service providers by lessening the need for lateral expansion of distribution systems. There may be a need for more regional infrastructure in the future to support UGA expansion. Most of the infrastructure is already in place to support the existing or minimally changed UGA boundaries.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i> There may be a need for more regional infrastructure in the future to support UGA expansion.</p>
<p><i>Preferred Alternative</i> This concentrated development will minimally impact the water system by reducing the need for expansion and distribution, and it will not increase operational costs; however, regional infrastructure will still be needed to support potential UGA expansion.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>• Capital Facilities policies promote coordination with non-County facility providers, such as cities and special purpose districts, to support and be consistent with the future land use patterns identified in the County's Comprehensive Plan.</li> <li>• The Capital Facilities Chapter consolidates water provider capital plan information to help coordinate multi-jurisdictional planning efforts. This would be updated with Alternatives 2 and 3.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>• Pursuant to RCW 58.17.110, local authorities must review plat applications to see that adequate provisions are made for a variety of public facilities, including potable water.</li> <li>• Pursuant to KCC Chapter 16.12, the County Engineer and County Health Officer provide their respective recommendations as to the adequacy of the proposed water supply systems. The hearing examiner then determines whether a proposal includes appropriate provisions for "water supplies" and other public and private facilities and improvements.</li> <li>• Water supply facilities for new development and public water system expansions must be designed to meet, at a minimum, the fire flow levels specified in WAC 246-293-640, the Uniform Fire Code, and KCC Title 14. In addition, utilities must develop their capital improvement program to meet these fire flow objectives in consultation with the appropriate local fire authorities.</li> <li>• In accordance with state and local regulations, the Kitsap Health District performs assessments of proposed and existing water supplies for adequacy and potability.</li> <li>• Pursuant to Chapter 70.116 RCW and Chapter 246-293 WAC, the KPUD coordinates with local water purveyors to evaluate and determine critical water supply service areas and undertake orderly and efficient public water system planning.</li> <li>• Continued conservation and leak detection programs of the Water Purveyors of Kitsap County (WATERPAK) would help to reduce demand.</li> <li>• The Coordinated Water System Plan for Kitsap County promotes regional water supply and transmission improvements.</li> </ul>

<b>Water Supply (Section 3.3.9)</b>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>• Water systems should increase the size of piping, install additional looping to increase water pressure for fire flow, and/or increase frequency of hydrant placement to meet fire flow requirements.</li> <li>• Water providers and County planners should continue to consult early in plan update processes to coordinate land use with future water supply needs, particularly in urban infill areas designated for higher densities.</li> <li>• The County should review and revise landscaping codes as necessary to encourage use of drought tolerant plantings and reduce demand for water.</li> <li>• The County should encourage the use of rainwater retention systems in new and existing development to reduce water demand for landscaping needs.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
All alternatives would increase demand for water services. However, with coordination of capital and land use planning, significant unavoidable adverse impacts are not anticipated.

#### **Exhibit 1.5-21      Summary of impacts and mitigation—Energy & Telecommunications**

<b>Energy &amp; Telecommunications (Section 3.3.10)</b>
<b>Impacts Common to All Alternatives</b>
<p>Cascade Natural Gas (CNG) would increase its service connections upon customer request. Additional facilities would be constructed only when existing systems capacity has been maximized.</p> <p>Puget Sound Energy (PSE) would use forecasts for future electricity need based on 20-year OFM population projections to accommodate increased growth.</p> <p>The telephone, cable, and cellular service companies would increase their service connections upon customer request.</p>
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>Alternative 1 maintains current densities and UGA boundaries, which may result in more service extensions/expansions than alternative 2, which focuses on compact growth.</p>
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>More population growth in UGAs leads to more demand for energy and telecommunications services in those areas. Expanding or retrofitting the existing services in these areas may be required to accommodate the focused population growth. Focused growth and higher densities allow for higher efficiency of service for natural gas, electricity, and telecommunications.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Dispersed population growth in the county would result in the highest infrastructure cost of the three alternatives due to the demand of service expansions and extensions. Anywhere</p>

<b>Energy &amp; Telecommunications (Section 3.3.10)</b>
there is focused growth centers will allow for more efficient services for natural gas, electricity, and telecommunications.
<p><i>Preferred Alternative</i></p> <p>While this approach will increase demand for energy and telecommunications, it will also allow for higher efficiency of services through expanded or retrofitted existing systems; however, infrastructure costs are expected to rise with UGA expansion, though development within the UGA will be limited.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Alternative 2 focuses growth and concentrates densities, allowing for improved efficiency of service for natural gas, electricity, and telecommunications.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>Development of future energy resources, transmission facilities, and other facilities will be consistent with federal and state laws, the Northwest Power Planning Council, WUTC, and other laws and agencies regulating utilities.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>Continue to encourage site design that emphasizes tree retention and planting, as well as optimizes solar access, to moderate temperatures and reduces energy consumption. Encourage energy conservation through provider-sponsored programs and building codes.</li> <li>Continue to encourage co-location of telecommunications facilities and undergrounding of utilities (in urbanized areas) to minimize aesthetic and land use impacts of utility corridors and in rural areas to minimize aesthetic and environmental impacts.</li> <li>Continue to encourage appropriate landscaping and stealth design of telecommunication facilities to minimize their visual impacts on their surroundings.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
Population and employment growth under all alternatives will increase demands for energy and telecommunications that in turn will increase the need for additional facilities.

## Exhibit 1.5-22      Summary of impacts and mitigation—Libraries

<b>Libraries (Section 3.3.11)</b>
<b>Impacts Common to All Alternatives</b>
Because the population increase in Kitsap County is similar under all three alternatives, countywide LOS, both in terms of facility space and collection items per capita, is similar under all alternatives. However, because the location of growth would be different under each alternative, local impacts to library space are possible.
<b>Impacts of Specific Alternatives</b>
<p><i>Alternative 1, "No Action"</i></p> <p>As population increases in Kitsap County, so will the demand for library resources and services. Facilities may have to be expanded or new facilities may have to be built. Additional staffing,</p>



<b>Libraries (Section 3.3.11)</b>
library materials, technological resources, and other services could be required to meet growing demand. Areas where more population growth would occur could experience higher localized demand for additional library resources.
<p><i>Alternative 2, "Compact Growth/Urban Center Focus"</i></p> <p>Alternative 2 would concentrate population growth in smaller more compact urban areas, where people may find easier access to library services. This also means that without new or expanded libraries in these locations, they will be heavily impacted compared to other libraries.</p>
<p><i>Alternative 3, "Dispersed Growth Focus"</i></p> <p>Alternative 3 would disperse population growth which may increase the barriers to library access due to longer travel times to the nearest library. This will not affect digital library users. New library branches may need to be planned as growth occurs, which would increase capital and operating costs for libraries.</p>
<p><i>Preferred Alternative</i></p> <p>Increased development within the UGA will improve access to library services but may strain existing libraries due to population growth. Potential UGA expansion could necessitate additional library branches.</p>
<b>Mitigation Measures</b>
<p><i>Incorporated Plan Features</i></p> <ul style="list-style-type: none"> <li>Alternative 2 would concentrate population growth in smaller more compact urban areas, where people may find easier access to library services.</li> </ul>
<p><i>Applicable Regulations &amp; Commitments</i></p> <ul style="list-style-type: none"> <li>With added development and population, property tax revenues and revenues from library levies will increase and could contribute to funding of additional circulating materials.</li> <li>The newly expanded Kingston library branch and new Silverdale library will help serve demand from projected population growth, especially in the Kingston and Silverdale subareas.</li> </ul>
<p><i>Other Potential Mitigation Measures</i></p> <ul style="list-style-type: none"> <li>With the opening of the new Silverdale Library branch, impacts stemming from increasing density in the Silverdale Subarea are unlikely to be significant. Regular capacity studies will determine the need for future expansion.</li> </ul>
<b>Significant Unavoidable Adverse Impacts</b>
As population increases in the County, the demand for library services is likely to increase, both countywide and particularly in areas with the highest population growth. With advanced coordination between the Library District, County, and municipalities, significant, unavoidable, adverse impacts are not anticipated.

## 2 ALTERNATIVES

This chapter describes the proposal and alternative courses of action.

### 2.1 PROPOSAL DESCRIPTION, OBJECTIVES & LOCATION

#### 2.1.1 Proposal Description

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan and development regulations as required by the GMA . The proponent is the Kitsap County Department of Community Development.

The Comprehensive Plan is the centerpiece of planning for unincorporated Kitsap County. It expresses the community's vision of itself and the community it aspires to become. The Comprehensive Plan provides the framework and policy direction for managing land use and development during the 20-year planning period. Development regulations are the controls placed on development or land use activities.

The periodic update must be completed by December 31, 2024. The County's most recent periodic update was completed in 2016.

#### 2.1.2 Objectives

Objectives of the proposal include the following:

- Update the Comprehensive Plan to extend the planning horizon from 2036 to 2044;
- Reflect the most recent population and employment growth targets;
- Respond to changes in the community;
- Review existing policies;
- Write new policies that reflect the priorities of communities in unincorporated Kitsap County; and
- Confirm that local, state, and federal requirements are met.

For this periodic update, key focus areas include the following:

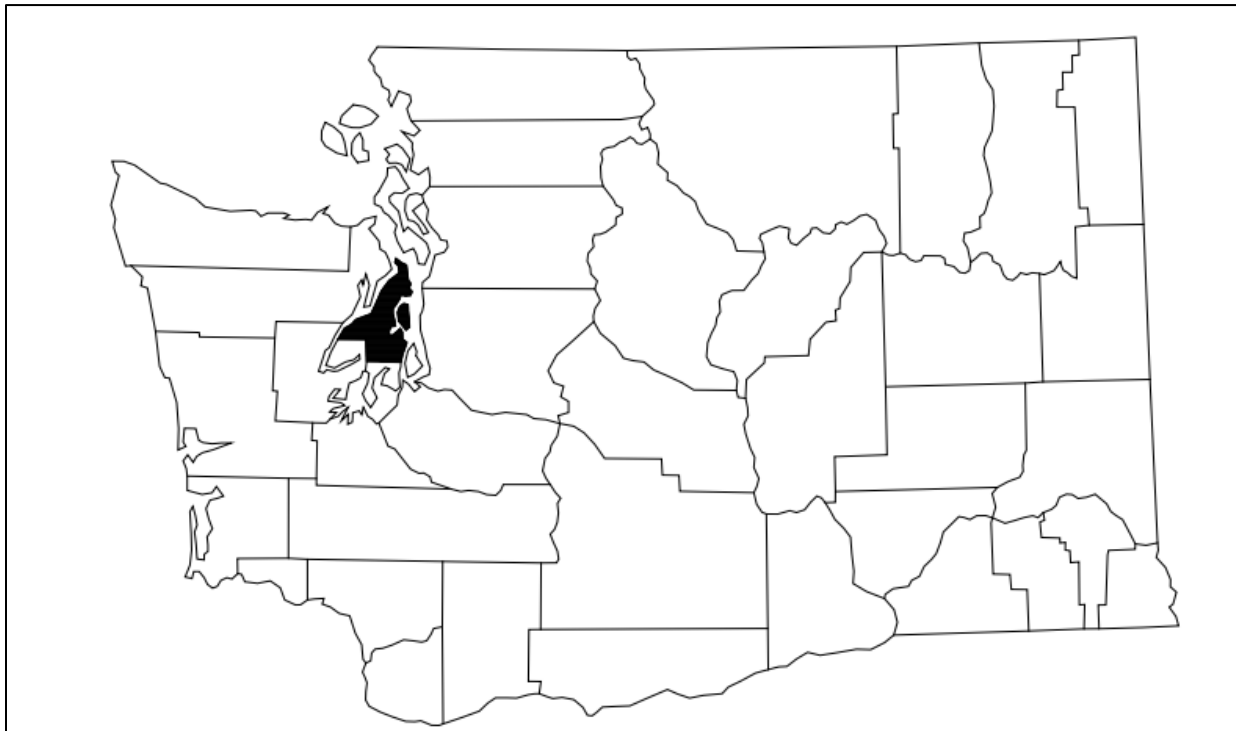
- Housing affordability and availability

- Regional centers framework, including the Silverdale Sub Area Plan
- Climate change
- Equity and displacement

### 2.1.3 Location

Kitsap County is located in the Puget Sound region of western Washington (see Exhibit 2.1.3-1). The county lies in the eastern portion of the Olympic Peninsula and includes the Kitsap Peninsula as well as Bainbridge Island.

**Exhibit 2.1.3-1 Location of Kitsap County**



*Note: Kitsap County, shown in black.*

*Source: Washington State OFM.*

The proposal applies to unincorporated Kitsap County only. The county is home to four incorporated cities: Bainbridge Island, Bremerton, Port Orchard, and Poulsbo (see planning jurisdictions map in Exhibit 2.3-1). These cities are separately conducting periodic updates of their own comprehensive plans. The comprehensive plans of these cities must be

consistent with Kitsap County's comprehensive plan. Kitsap County is coordinating with these cities as part of the periodic update process.

## **2.2 PROPOSAL CONTEXT**

### **2.2.1 Planning Framework**

#### **2.2.1.1 Growth Management Act (GMA)**

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan as required by the GMA. The GMA, first adopted in 1990, addresses ways to accommodate growth. The GMA requires the state's fastest-growing counties and cities, including Kitsap County and the cities within it, to have comprehensive plans and development regulations that guide future growth. Kitsap County adopted its first GMA-compliant comprehensive plan in 1999.

Further, certain counties and cities, including Kitsap County and the cities within it, are required to conduct periodic updates of their comprehensive plan and development regulations. The GMA requires these counties and cities to review their comprehensive plan and development regulations to bring them up to date with any relevant changes in the GMA or recent case law and to respond to changes in land use and population growth.

Periodic updates take place according to a schedule set forth in the GMA. Kitsap County previously had periodic updates due in 2006 and 2016. The County is now conducting its third periodic update, which is due by December 2024.

#### **2.2.1.2 Multicounty Planning Policies / VISION 2050**

Kitsap County participates in the Puget Sound Regional Council (PSRC). PSRC develops policies and coordinates decisions about regional growth, transportation, and economic development planning within King, Pierce, Snohomish, and Kitsap counties. PSRC is composed of nearly 100 members, including the four counties, cities and towns, ports, state and local transportation agencies, and Tribal governments within the region.

VISION 2050 is PSRC's shared plan for moving toward a sustainable future in the region. VISION 2050's multicounty planning policies, actions, and regional growth strategy guide how and where the region grows through 2050. VISION 2050 was adopted by PSRC in 2020. VISION 2050's predecessor, Vision 2040, was adopted in 2008.

State law requires PSRC to review and certify participating counties' local comprehensive plans, including Kitsap County's.

### **2.2.1.3 Countywide Planning Policies (CPPs)**

The GMA requires certain counties, including Kitsap County, to have CPPs. CPPs establish a countywide framework from which county and city comprehensive plans are developed and adopted and ensures that city and county comprehensive plans are consistent with each other.

The Kitsap CPPs cover a range of topics, including the following:

- Countywide growth patterns
- UGAs
- Centers of growth
- Rural land use and development patterns
- Natural environment
- Contiguous, compatible, and orderly development
- Public capital facilities and essential public facilities
- Transportation
- Housing
- Economic development
- Coordination with Tribal and the federal governments.

The Kitsap Regional Coordinating Council (KRCC) adopted a full update of the Kitsap CPPs in 2021 and adopted an amendment to the CPPs in 2023. These contained population, employment, and housing targets through 2044 that are used in this FEIS.

## **2.2.2 SEPA Environmental Review**

### **2.2.2.1 Environmental Impact Statement Purpose & Process**

The adoption of comprehensive plans and development regulations are “actions” as defined under SEPA. Therefore, local jurisdictions must comply with SEPA when adopting new or amended comprehensive plans and development regulations.

The Kitsap County Department of Community Development previously determined that this proposal is likely to have a significant adverse impact on the environment and that an environmental impact statement (EIS) will be prepared.

According to SEPA Rules (Chapter 197-11 WAC), the primary purpose of an EIS is to ensure that SEPA's policies are an integral part of the ongoing programs and actions of state and local government (WAC 197-11-400(1)). Moreover, an EIS is to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, which would avoid or minimize adverse impacts or enhance environmental quality (WAC 197-11-400(2)).

The SEPA Handbook (Ecology 2018), describes the main steps in the EIS process as follows. With issuance of this Draft EIS, the first three of the steps have been completed.

1. Conducting "scoping," which initiates participation by the public, tribes, and other agencies and provides an opportunity to comment on the proposal's alternatives, impacts, and potential mitigation measures to be analyzed in the EIS;
2. Preparing the DEIS, which analyzes the probable impacts of a proposal and reasonable alternatives, and may include studies, modeling, etc.;
3. Issuing the DEIS for review and comment by the public, other agencies, and the tribes;
4. Preparing the FEIS, which includes analyzing and responding to all comments received on the DEIS, and may include additional studies and modeling to evaluate probable impacts not adequately analyzed in the DEIS;
5. Issuing the FEIS; and
6. Using the EIS information in decision-making.

### **2.2.2.2 Public Participation**

Public participation is integral to the 2024 Comprehensive Plan Update. The County has provided several opportunities for the public to be involved in the process so far. These opportunities include, but are not limited to, the following:

- Virtual public meetings hosted by the County
- In-person open houses
- Community presentations hosted by community groups
- Email notifications, including project announcements, information about outreach events, and other public participation opportunities

- Continual ability to provide project comments via email (at [compplan@kitsap.gov](mailto:compplan@kitsap.gov))
- Continual ability to provide comments via the Comprehensive Plan website (at [kcowa.us/compplan](http://kcowa.us/compplan))

Additional opportunities for public participation will be available during the remainder of the project.

Specific to the SEPA process, public review and comment began with EIS scoping. A 30-day comment period opened November 8, 2022, and closed December 8, 2022. Six written scoping comment letters were received during the comment period.

With issuance of this DEIS, agencies, affected Tribes, and members of the public are invited to provide comments during a second 45-day comment period (see the cover letter or fact sheet at the beginning of this document for details on how to provide comments).

The County will consider comments on the DEIS prior to issuing a FEIS. The FEIS will include responses to comments.

### **2.2.2.3 Level of Analysis**

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan as required by the GMA. Under SEPA, this proposal is considered a “non-project” proposal. As defined in WAC 197-11-774, “non-project” means “actions which are different or broader than a single site-specific project, such as plans, policies, and programs.” For non-project proposals SEPA allows more flexibility in EIS preparation because “there is normally less detailed information available on their environmental impacts and on any subsequent project proposals.” Further, for such proposals impacts and alternatives are to be discussed “in the level of detail appropriate to the scope of the non-project proposal and to the level of planning for the proposal.” Site-specific analyses are not required (WAC 197-11-442).

### **2.2.2.4 Phased Review**

Phased review of the proposal pursuant to WAC 197-11-060(5) is anticipated. In phased review, broader environmental documents, such as the EIS for this proposal, may be followed by narrower documents that incorporate prior general discussion by reference and concentrate solely on the issues specific to the phase of the proposal. Phased review assists agencies and the public to focus on issues that are ready for decision and exclude from consideration issues already decided or not yet ready.

### **2.2.2.5 Prior Environmental Reviews**

Kitsap County adopted its first GMA-compliant comprehensive plan in 1999. The County subsequently conducted periodic updates of its comprehensive plan and development regulations that were due in 2006 and 2016. Environmental reviews pursuant to SEPA were conducted for the original plan and the later updates. The environmental reviews conducted for these prior efforts are relevant to the current update as they helped establish the conditions that currently exist in the county.

## **2.3 DESCRIPTION OF THE PROPOSAL AREA**

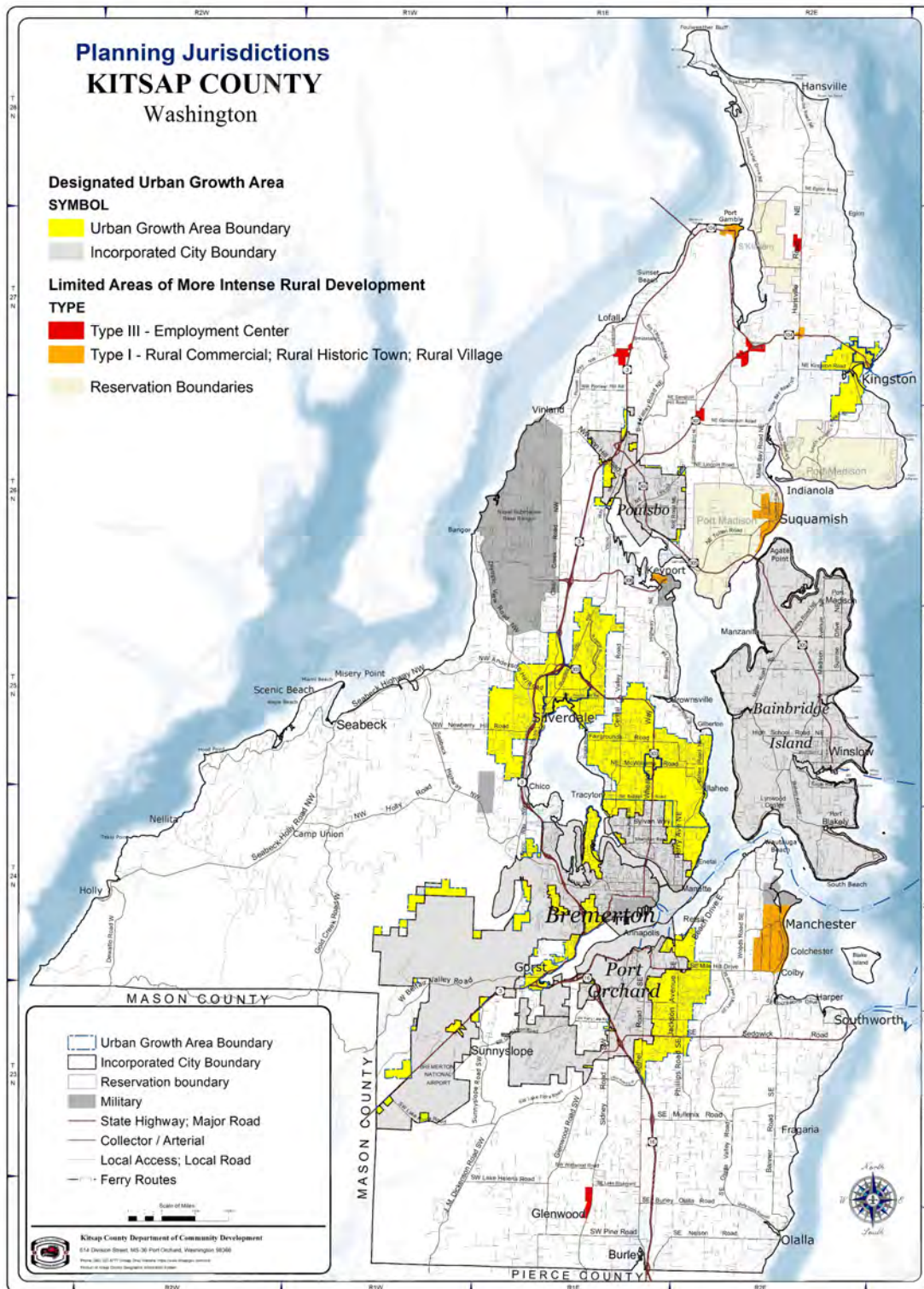
Kitsap county encompasses approximately 395 square miles of land (Washington State OFM 2020). Kitsap's unincorporated population in 2022 was 181,784.

This proposal applies to unincorporated Kitsap county only. Kitsap county has four incorporated cities: Bainbridge Island, Bremerton, Port Orchard, and Poulsbo (see planning jurisdictions map in Exhibit 2.3-1 on the following page). These cities are separately conducting periodic updates of their own comprehensive plans.

Unincorporated Kitsap county encompasses approximately 319 square miles of land (Washington State OFM 2020). The population of unincorporated Kitsap County in 2020 was 179,719.



Exhibit 2.3-1 Kitsap County Planning Jurisdictions map



### 2.3.1 Urban Growth Areas (UGAs)

The unincorporated county includes urban growth areas, or UGAs. UGAs are areas where urban growth is encouraged. Depending on the alternative, UGAs in the unincorporated county may or may not be recognized for future annexation by cities within the county.

UGAs currently recognized for future annexation by a city within the county include the following:

- Bremerton UGA: Bremerton East UGA, Bremerton West UGA, Gorst UGA
- Port Orchard UGA
- Poulsbo Urban Transition Area (UTA)

UGAs not currently recognized for future annexation by a city within the county include the following:

- Central Kitsap UGA (not currently associated with any city but associates with Bremerton in Alternative 2)
- Kingston UGA
- Silverdale UGA

The Kingston and Silverdale UGAs are anticipated to incorporate and become their own cities at some point within the 2044 planning horizon.

### 2.3.2 Centers

Kitsap County participates in the PSRC. VISION 2050 is PSRC's shared plan for moving toward a sustainable future in the region. VISION 2050 emphasizes the development of centers throughout the region in its approach to growth management. Kitsap county includes a variety of centers designated in accordance with the PSRC's Regional Centers Framework.

According to VISION 2050, Regional Growth Centers are locations characterized by compact, pedestrian-oriented development, with a mix of office, commercial, civic, entertainment, and residential uses. Regional Growth Centers are envisioned as major focal points of higher-density population and employment, served with efficient multimodal transportation infrastructure and services. There are two types of Regional Growth Centers, Metro and Urban, each with its own designation criteria and growth

expectations. Metro Regional Growth Centers are the densest and most connected places in the region and are expected to accommodate higher levels of growth. The county has two Regional Growth Centers:

- Bremerton, designated as a Regional Growth Center – Metro
- Silverdale, designated as a Regional Growth Center – Urban

According to VISION 2050, Regional Manufacturing/Industrial Centers are existing employment areas with intensive, concentrated manufacturing and industrial land uses that cannot be easily mixed with other activities. Regional Manufacturing/Industrial Centers are intended to continue to accommodate a significant amount of regional employment. The county has one Regional Manufacturing/Industrial Center:

- Puget Sound Industrial Center – Bremerton

Kitsap County also includes several Countywide Centers. Countywide Centers serve important roles as places for concentrating jobs, housing, shopping, and recreational opportunities. Countywide Centers are expected to accommodate new population and employment growth. Countywide Centers in unincorporated Kitsap county include:

- Kingston
- McWilliams/303

Further, Kitsap County military installations are recognized under the Regional Centers Framework. Military installations in unincorporated Kitsap county include:

- Naval Base Kitsap – Bangor, designated as a Major Installation
- Naval Base Kitsap – Keyport, designated as a Smaller Installation

## 2.4 ALTERNATIVES

The proposal is to perform the periodic update of the Kitsap County Comprehensive Plan as required by the Washington State GMA. Objectives of the proposal are described above in Section 2.1.2.

Three preliminary alternatives for the periodic update were evaluated in the DEIS:

- Alternative 1, “No Action”

- Alternative 2, “Compact Growth/Urban Center Focus”
- Alternative 3, “Dispersed Growth Focus”

Alternative 1, “No Action,” is required under SEPA. Alternative 1 represents the continued use and implementation of the existing comprehensive plan and development regulations. Alternatives 2 and 3 represent different potential options for achieving the objectives of the proposal.

Ultimately, the Board of County Commissioners (Board) selected a preferred alternative. The Board was not limited to selecting the alternatives exactly as set forth in the DEIS and selected an alternative that combines various features of the alternatives set forth in the DEIS. The selected alternative is within the range of alternatives addressed by the DEIS (WAC 197-11-655(3)(b)).

The remainder of this section provides more detail on each of the three alternatives evaluated in the DEIS.

## **2.4.1      Alternative 1, “No Action”**

Alternative 1 uses current land use, UGA sizes and configurations, zoning, and development regulations. Generally, it does not accommodate future population and employment growth. Alternative 1 establishes the baseline for environmental review and potential changes in action alternatives (Alternatives 2 and 3).

**Growth Accommodation:** Does not meet growth targets for population, housing, or employment.

**Reclassification Requests:** None.

**UGA Boundaries:** Unchanged.

**Urban Center Development:** Unchanged. No incentives included.

**Rural Rezones:** None.

**Housing Diversity:** Remains focused on single-family residential. Limited multifamily opportunities or incentives.

**Environment/Climate Change Policies:** Unchanged.

## 2.4.2 Alternative 2, “Compact Growth/Urban Center Focus”

Alternative 2 is based on meeting proposed population and employment distributions set by VISION 2050 and the CPPs (“bending the trend” of past growth patterns). This alternative:

- Targets growth around high-capacity transit facilities and routes.
- Focuses growth in multifamily and commercial zones, with an emphasis on the Silverdale Regional Growth Center and the Kingston Countywide Center, as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.
- Reduces pressure of growth on rural areas by keeping UGA boundaries limited.
- Proposes substantial increased housing diversity with an emphasis on new multifamily housing types (e.g., row houses, low-story multifamily, cottage housing).
- Encourages new residential and employment development to be constructed vertically in areas of infill or redevelopment.
- Proposes incentives and regulation revisions to promote these new development patterns.

**Growth Accommodation:** Exceeds population growth targets to meet housing need based on Washington State Department of Commerce guidance. Generally, meets employment targets (959 jobs short).

**Reclassification Requests:** Includes reclassification requests increasing housing diversity opportunities, facilitating urban service expansions to existing UGAs, and/or upzoning in existing UGA boundaries.

**UGA Boundaries:** Limited expansions to accommodate growth, specifically employment and increased housing diversity.

**Urban Center Development:** Significant incentives and regulation amendments for multifamily development in multifamily and commercial zones. Special emphasis given to Silverdale and Kingston centers. Greater planned densities, heights, and employment intensities.

**Rural Rezones:** Only those that promote limited rural employment opportunities.

**Housing Diversity:** Residential options significantly increased through incentives for multifamily housing and removing unnecessary regulatory barriers to middle housing types.

**Environment/Climate Change Additions:** Sets GHG emissions targets consistent with VISION 2050. Includes tree canopy replacement requirement for urban areas.

**Kingston Countywide Center:** Does not require commercial on the ground floor of multifamily development.

### 2.4.3 Alternative 3, “Dispersed Growth Focus”

Alternative 3 is closer to past growth trends, housing, and employment types. Minor increased growth opportunities in rural areas. Some UGA expansions but, countywide, UGAs are generally stable. Proposes new policies and regulations that may reduce development potential in UGAs. Opportunities are provided in rural areas for additional rural housing and employment.

**Growth Accommodation:** Exceeds employment targets and accommodates less population growth than Alternative 2.

**Reclassification Requests:** Includes most requests except those that are GMA-non-compliant (e.g., urban zones in rural areas, one-acre zoning, etc.).

**UGA Boundaries:** More expansions than Alternative 2 to accommodate growth, predominantly in Silverdale, Kingston, and Bremerton.

**Urban Center Development:** Unchanged. No new incentives or regulatory revisions.

**Rural Rezones:** As proposed in reclassification requests. Type 1 LAMIRDs (Manchester, Suquamish, and Keyport) have additional development capacity based on platted lot pattern.

**Housing Diversity:** Single-family focused. Limited multifamily opportunities or incentives.

**Environment/Climate Change Additions:** Tree retention requirements for development in urban areas. Expanded buffers along non-fish streams.

**Kingston Countywide Center:** Requires commercial space on the ground floor of multifamily development.



## 2.5 COMPARISON OF ALTERNATIVES

This section compares key aspects of the alternatives.

### 2.5.1 Major Policy Revisions

Exhibit 2.5.1-1, below, provides an at-a-glance comparison of the major policy revisions proposed under Alternatives 2 and 3 and the Preferred Alternative (Alternative 1, as the no-action alternative, has no associated policy revisions). Exhibits referenced in the table follow the table.

**Exhibit 2.5.1-1 Major policy revisions of Alternatives 2 and 3 and the Preferred Alternative**

Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<b>Kingston UGA</b>				
Assumed Densities	UVC – 12 DU/acre C – 0 DU/acre UM – 12 DU/acre	UVC – 18 DU/acre C – 30 DU/acre UM – 20 DU/acre	UVC – 12 DU/acre C – 0 DU/acre UM – 12 DU/acre	UVC – 18 DU/acre C – 30 DU/acre UM – 20 DU/acre
Density Ranges	UVC – 10-No Max C – 10-30 DU/acre UM – 10-18 DU/acre	UVC – 10-No Max C – 19-No Max DU UM – 10-30 DU/acre	UVC – 10-No Max C – 10-30 DU/acre UM – 10-18 DU/acre	UVC – 10-No Max C – 19-No Max UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	UVC – 45 feet C – 35 feet UM – 45 feet	UVC – 45 feet C – 50 feet UM – 45 feet	UVC – 55 feet C – 55 feet UM – 45 feet	UVC – 45 feet C – 55 feet UM – 45 feet
Center Boundary	No Boundary	See Exhibit 2.5.1-2	See Exhibit 2.5.1-2	See Map Below
Center Incentives	None	MFTE and Expedited Permitting	None	Expedited Permitting – Multifamily only
Storefront Zone	Not included	Not included	See Exhibit 2.5.1-3 (Mixed Use required)	Not included

Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
Transit Frequency	Current	30-minute frequency	Current	30-minute frequency
<b>Silverdale Center</b>				
Assumed Densities	RC – 10 DU/acre C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	RC – 35 DU/acre C – 30 DU/acre UH – 30 DU/acre UM – 20 DU/acre	RC – 10 DU/acre C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	RC – 35 DU/acre C – 30 DU/acre UH – 30 DU/acre UM – 20 DU/acre
Density Ranges	RC – 10-30 DU/acre C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre	RC – 19-No Max DU C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre	RC – 10-30 DU/acre C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre	RC – 19-No Max DU C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	RC – 55/65 feet C – 55 feet UH – 55 feet UM – 45 feet	RC – 65 feet C – 55 feet UH – 55 feet UM – 45 feet	RC – 55/65 feet C – 55 feet UH – 55 feet UM – 45 feet	RC – 65/125 feet C – 55/85 feet UH – 55/85 feet UM – 45/85 feet Old Town – 35/45 feet
Center Boundary	Current Boundary	See Exhibit 2.5.1-4	Current Boundary	See Exhibit E in Appendix A
Center Incentives	None	MFTE and Expedited Permitting	None	Expedited Permitting – Multi-Family
Transit Frequency	Current	30-minute frequency	Current	30-minute frequency
<b>Silverdale UGA</b>				
Assumed Densities	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre UL – 6 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 18 DU/acre UL – 6 DU/acre	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre UL – 6 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 18 DU/acre



Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
Density Ranges	C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre	C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre UL/UCR – 5-9 DU/acre (14 for SFR attached only)
Maximum Structure Height	C – 55 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet
<b>Central Kitsap UGA/McWilliams Center</b>				
Assumed Densities	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 15 DU/acre	C – 0 DU/acre UH – 22 DU/acre UM – 12 DU/acre	C – 30 DU/acre UH – 30 DU/acre UM – 15 DU/acre
Density Ranges	C – 10-30 an acre UH – 19-30 DU/acre UM – 10-18 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre	C – 10-30 DU/acre UH – 19-30 DU/acre UM – 10-18 DU/acre	C – 19-60 DU/acre UH – 19-60 DU/acre UM – 10-30 DU/acre
Maximum Structure Height	C – 35 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet	C – 35 feet UH – 55 feet UM – 45 feet	C – 55 feet UH – 55 feet UM – 45 feet UL/UCR – 5- 9 (14 for SFR attached only)
Center Boundary	Current Boundary	See Exhibit 2.5.1-5	Current Boundary	See Exhibit G of Appendix A
Center Incentives	None	MFTE and Expedited Permitting	None	Expedited Permitting – Multifamily development
<b>South Kitsap/Bethel Commercial</b>				
Assumed Densities	C – 0 DU/acre	C – 25 DU/acre	C – 0 DU/acre	C – 25 DU/acre
Density Ranges	C – 19-30 DU/acre	C – 19-60 DU/acre	C – 19-30 DU/acre	C – 19-60 DU/acre

Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
Maximum Building Height	C – 35 feet	C – 45 feet	C – 35 feet	C – 45 feet
<b>Rest of UGAs</b>				
Assumed Densities	UM – 12 DU/acre UH – 22 DU/acre C – 0 DU/acre	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre	UM – 12 DU/acre UH – 22 DU/acre C – 0 DU/acre	UM – 15 DU/acre UH – 25 DU/acre C – 10 DU/acre
Density Ranges	UL/UCR – 5-9 DU/acre UM – 10-18 DU/acre UH – 19-30 DU/acre C – 19-30 DU/acre	UL/UCR – 5-9 DU/acre (14 attached only) UM – 10-30 DU/acre UH – 19-60 DU/acre C – 19-60 DU/acre	UL/UCR – 5-9 DU/acre UM – 10-18 DU/acre UH – 19-30 DU/acre C – 19-30 DU/acre	C – 19-60 DU/acre UM – 10-30 DU/acre UH – 19-60 DU/acre UL – 5-9 DU/acre (14 for SFR attached only)
<b>Countywide</b>				
Tree Replacement	Not Included	Included for urban areas (see * below)	Not Included	Consistent with the Board's direction, the County is proposing tree protection regulations based on tree density requirements by land use zone where tree density may be achieved through tree retention, replacement, or a combination of both. Tree canopy requirements would only apply to

Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
				subdivision of land or single family and multi-family development creating four (4) or more developable lots or units in unincorporated urban growth areas.
Tree Retention	Not Included	Not Included	Included for urban areas (see ** below)	See Tree Replacement above.
GHG Emission Targets	None	PSRC's Targets	None	PSRC's VISION 2050 Target for Puget Sound region – Reduce GHG emissions to 80% below 1990 levels by 2050.
Increased Stream Buffers	No Change (50-foot buffers)	No Change (50-foot buffers)	Non-Fish increased (100-foot buffers)	Buffers increased in draft CAO. Type F stream buffers are proposed to increase from 150 to 200 feet. Type Np and Ns streams are proposed to each increase from 50 feet to 100 feet. There is a proposed Alternative UGA Buffer for Type F streams of 150

Policy	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
				feet and Type Np/Ns streams of 75 feet within UGAs. This would only apply to a subset of projects and land uses that meet a specific criteria.
Parking Reductions (SF)	2.5 spaces per unit Garages do not count	2.5 spaces per unit Individual unit garages count 1 to requirement	2.5 spaces per unit Garages do not count	2.5 spaces per unit Individual unit garages count 1 to requirement
Parking Reductions (MF)	1.5 per unit + 0.5 per unit on street or set aside	Units with 1 or fewer bedrooms: 1 space per unit Units with 2 or more bedrooms: 1.5 spaces per unit	1.5 per unit + 0.5 per unit on street or set aside	Units with 1 or fewer bedrooms: 1 space per unit Units with 2 or more bedrooms: 1.5 spaces per unit
Parking Reductions (Comm)	No Change	High-Capacity Transit standards countywide	No Change	High-Capacity Transit standards countywide
<b>Suquamish/Manchester LAMIRD</b>				
Lot Aggregation	No Change	No Change	Lot Aggregation requirement removed	No Change
Accessory Dwelling Units (Detached)	ACUP Required	ACUP Required	Permitted Outright	Permitted Outright
<b>Rural</b>				
Accessory Dwelling Units (Detached)	CUP Required	CUP Required	Permitted Outright	CUP Required

## Tree Canopy Requirements by Alternative

### Alternative 1: No Action

Source: Kitsap County Department of Community Development

### Alternative 2 Tree Replacement Proposal:

Source: Kitsap County Department of Community Development

Under Alternative 2, tree canopy requirements would be based on tree density per unit/acre. Tree density is used to calculate the number of required replacement trees within a certain land use zone. Example Tree Unit Credit Table included below from Pierce County Code (PCC) 18J.15.030.

Urban Low Density Residential (UR, GB, UL, UCR) = 30 tree units/acre

Urban Medium/High Density Residential (UM, UH) = 10 tree units/acre

Tree Category	Tree Unit Credit
Existing Tree 1" to 6" d.b.h.	1.0 tree unit per tree retained
Existing Tree > 6" ≤ 12" d.b.h.	1.5 tree units per tree retained
Existing Tree > 12" ≤ 18" d.b.h.	2.0 tree units per tree retained
Existing Tree > 18" ≤ 24" d.b.h.	2.5 tree units per tree retained
Existing Tree > 24" d.b.h.	3.0 tree units per tree retained
Significant Tree < 24" d.b.h.	2.5 tree units per tree retained
Significant Tree ≥ 24" d.b.h.	3.0 tree units per tree retained
Legacy Tree	10 tree units per tree retained
Replacement Tree – 2-1 Seedling (1)	0.25 tree units per tree planted
Replacement Tree – Coniferous ≥ 4' in height, Deciduous ≥ 1.5" caliper	0.75 tree units per tree planted

**Alternative 3 Tree Retention Proposal:**

Source: Kitsap County Community Development Department

Under Alternative 3, tree canopy requirements would be based on the percent of total tree canopy per gross acre. Required tree canopy calculation is then used to calculate the number of trees to be retained on the lot within a certain land use zone.

Urban Low Density Residential (UR, GB, UL, UCR) = 25%/gross acre

Urban Medium/High Density Residential (UVC, UM, UH) = 15%/gross acre

Commercial (UVC, NC, C, RC, LIC) = 10%/gross acre

Industrial = 10%/gross acre

**Preferred Alternative: Tree Canopy Requirements**

Source: Draft tree regulations developed in collaboration by Kitsap County Community Development Department and Facet (formerly DCG/Watershed).

Consistent with the Board's direction, the Preferred Alternative proposes tree regulations that include the following components:

- Tree requirements based on tree units per acre and are scaled by Land Use Zone.
- Incentivize retention of existing trees and gives more credit for larger diameter trees.
- Applicable to subdivision of land, or large project approvals for single- and multi-family housing developments.
- Trees within critical area buffers and landscaping count toward tree density credit requirements.
- Density credit requirements can be met through both retention and replacement of trees.

In addition to major policy revisions in the above table, the County will consider other changes including:

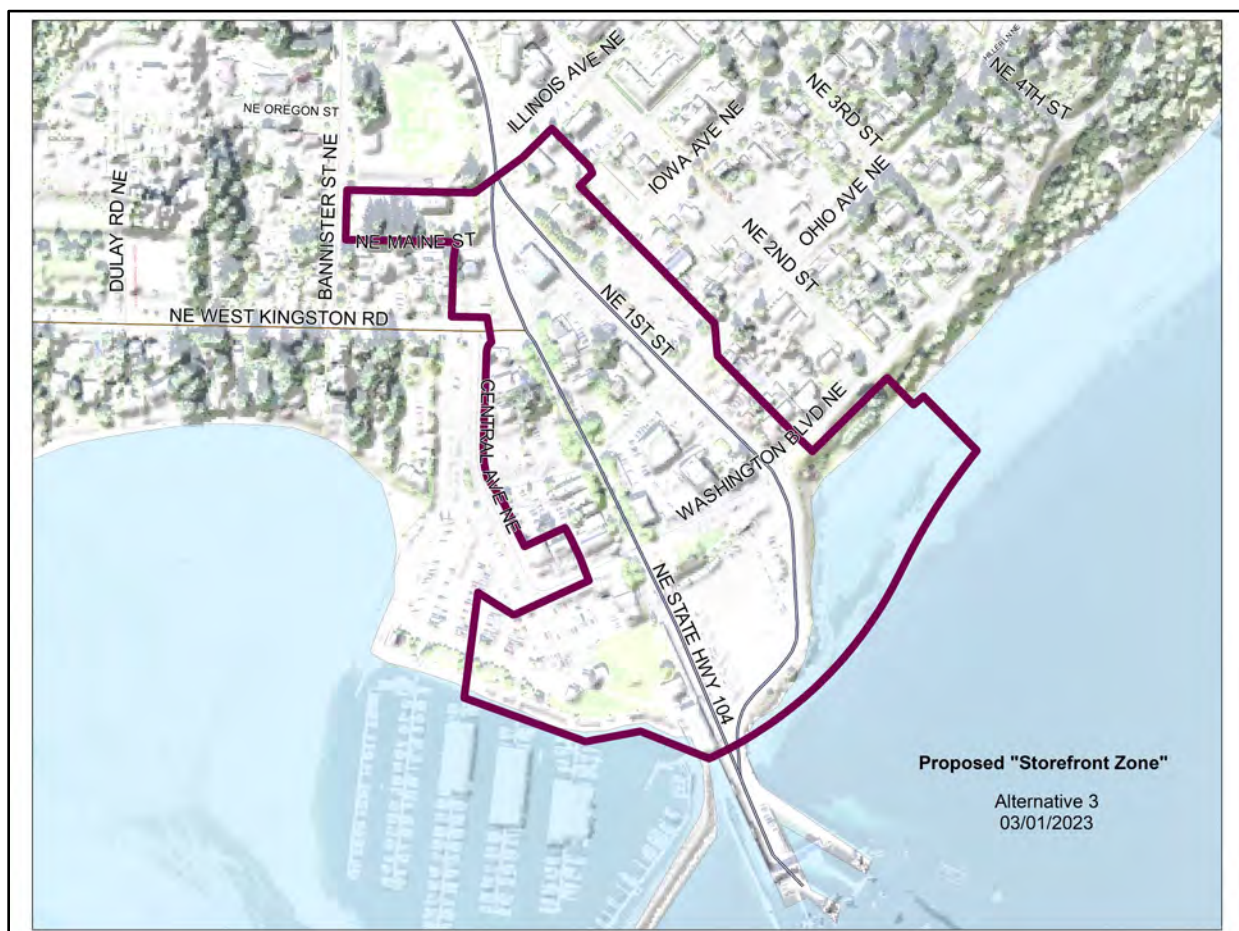
- Reduce certain residential setbacks and standardize setbacks for various residential zones. Allow zero side setbacks for attached housing.
- Eliminate lot area and lot length/width requirements for urban residential zones.
- Replace the existing Performance Based Development (PBD) code with a new Planned Unit Development (PUD) code.
- Require frontage improvements with all development in UGAs.
- Increase SEPA flexible thresholds for residential development in all UGAs. Further increase SEPA flexible thresholds in Centers: Silverdale, Kingston, and McWilliams/303.

- Update standards for Accessory Dwelling Units in urban areas consistent with new state legislation.
- C-PACER program for multifamily and commercial development in UGAs.

**Exhibit 2.5.1-2      Kingston UGA Countywide Center boundary under Alternatives 2 and 3**

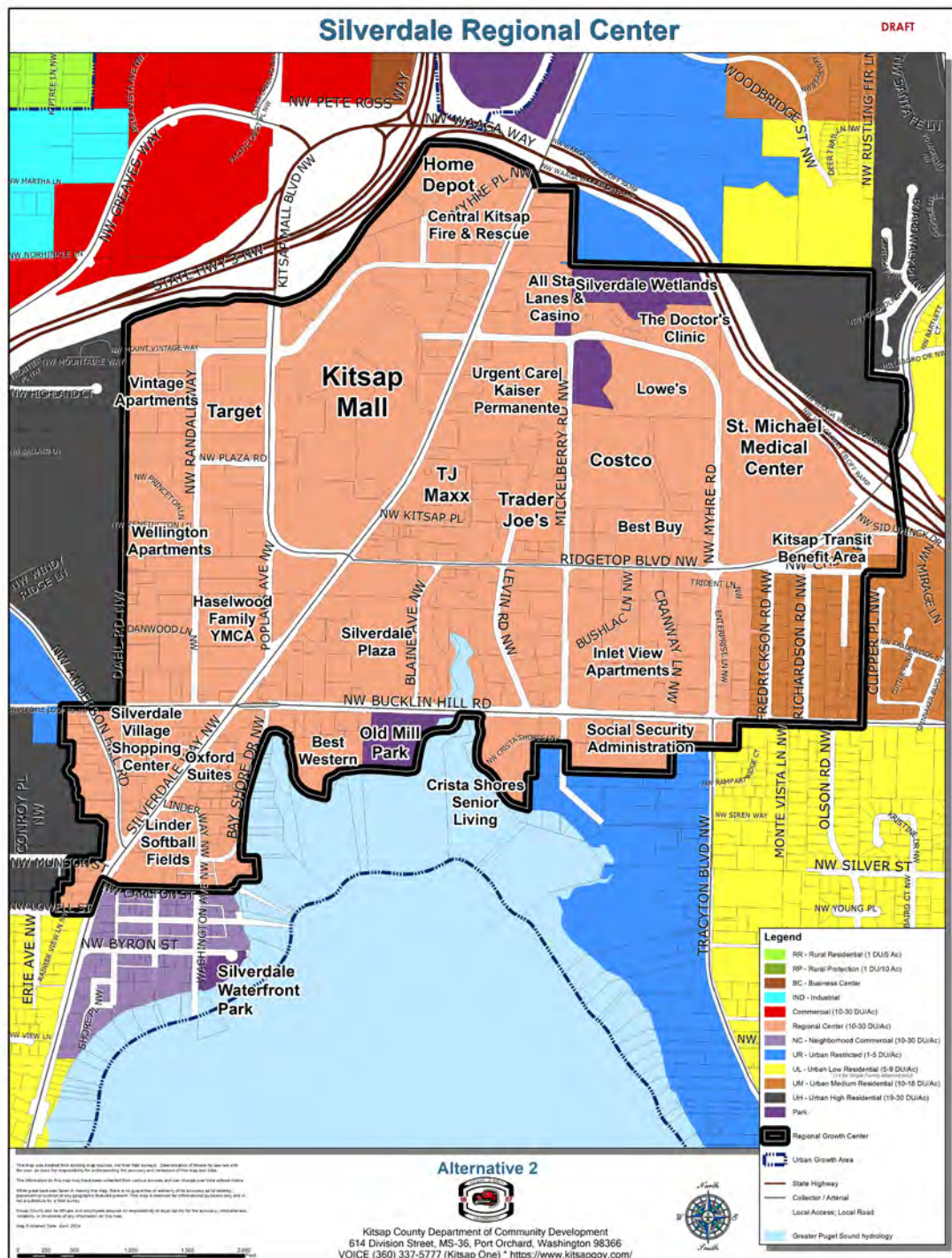
*Boundaries can be found in the [online Story Map](#) developed as part of the comp plan update/EIS*

**Exhibit 2.5.1-3      Kingston storefront zone under Alternative 3**





**Exhibit 2.5.1-4 Silverdale Regional Growth Center boundary under Alternative 2**



Boundaries can be found in the online Story Map developed as part of the comp plan update/EIS



[illegible]

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## 2.5.2 Reclassification Requests

In addition to changes proposed by the County as part of the periodic update process, Alternatives 2 and 3 also reflect reclassification requests submitted by other parties. As part of the periodic update process, Kitsap County solicited reclassification requests for property land use/zoning changes. The County received 76 such requests. Kitsap County initiated some land use reclassification proposals in addition to the 76 requests submitted by other parties to meet revised state and regional planning goals and local circumstances.

County staff reviewed the reclassification requests and categorized them as follows:

1. Requests that fit the “Compact Growth/Urban Center Focus” of Alternative 2
2. Requests that fit the “Dispersed Growth Focus” of Alternative 3
3. Requests that did not fit Alternative 2 or 3 because the change was inconsistent with GMA or other requirements.

A table of the reclassification requests is included in Appendix C.

## 2.5.3 Population & Employment Growth Targets & Capacity

In October 2022, the KRCC adopted growth targets for population and employment through the year 2044 (see Exhibits 2.5.3-1 and 2.5.3-2, below). The growth targets are consistent with GMA and PSRC’s Vision 2050 regional plan. The Kitsap County Board of County Commissioners adopted the growth targets in January 2023. These targets have been updated to 2022 based on historic growth rates for direct comparison to land capacity calculations.

**Exhibit 2.5.3-1 Population growth targets**

Jurisdiction	2020 Population (US Census)	2022-2044 Population Growth	2044 Population Target
Bremerton UGA	10,105	2,544	12,649
Silverdale	19,675	9,442	29,117
Kingston	2,435	3,121	5,556
Port Orchard UGA	15,370	3,486	18,856

Poulsbo UGA	528	1,054	1,582
Central Kitsap UGA	24,741	4,787	29,528
Rural	106,865	4,391	111,256

#### Exhibit 2.5.3-2 Employment growth targets

Jurisdiction	2020 Employment (US Census)*	2022-2044 Employment Growth	2044 Employment Target
Bremerton UGA	1,401	2,454	3,855
Silverdale	13,281	11,023	24,304
Kingston	1,077	1,343	2,420
Port Orchard UGA	2,683	1,429	4,112
Poulsbo UGA	78	103	181
Central Kitsap UGA	3,985	1,380	5,365
Rural	22,896	2,150	25,046

\* Represents all employment including jobs covered and not covered under the WA State Unemployment Insurance Program. Represents uniformed military personnel assigned to major regional installations (per VISION 2050). In the City of Bremerton, 7,982 of 44,083 jobs in 2020 are held by military personnel. In the Rural Areas, 3,100 of the 22,896 jobs in 2020 are held by military personnel.

To assess the extent to which each of the three alternatives could accommodate the population and employment growth targets for unincorporated areas of the county, County staff conducted a land capacity analysis. Exhibits 2.5.3-3, 2.5.3-4, and 2.5.3-5, below, show the results of the land capacity analysis for the amount of population and employment growth that could be accommodated under each alternative, including the preferred alternative, as well as the capacity of each alternative relative to housing target allocations by income bracket. Note that the base year for population and employment growth numbers were adjusted from 2020 to 2022 to account for growth that has already occurred.

### Exhibit 2.5.3-3 Population capacity of alternatives

Location	2022-2044 Population Growth	Alternative 1 Capacity	Alternative 2 Capacity	Alternative 3 Capacity	Preferred Alternative
Bremerton UGA	2,544	2,260	2,810	2,219	2,491
Silverdale UGA	9,442	7,962	15,549	11,846	14,563
Kingston UGA	3,121	2,375	3,952	3,227	3,271
Port Orchard UGA	3,486	3,547	3,967	2,615	3,643
Poulsbo UGA	1,054	974	974	1,021	922
Central Kitsap UGA	4,787	4,555	5,896	4,138	5,611
Rural	4,391	4,391	4,391	4,391	4,391
<b>Total</b>	<b>28,825</b>	<b>26,064</b>	<b>37,539</b>	<b>29,457</b>	<b>34,892</b>

Note: Locations with a shortfall in capacity to accommodate anticipated growth shown in red.

### Exhibit 2.5.3-4 Employment capacity of alternatives

Location	2022-2044 Employment Growth	Alternative 1 Capacity	Alternative 2 Capacity	Alternative 3 Capacity	Preferred Alternative Capacity
Bremerton UGA	2,454	1,449	1,616	1,911	1,841
Puget Sound Industrial Center <sup>1</sup>		802	802	2,537	2,081
Silverdale UGA	11,023	5,055	10,847	10,455	10,391
Kingston UGA	1,343	523	906	782	801
Port Orchard UGA	1,429	1,217	1,184	1,765	1,106
Poulsbo UGA	103	90	90	90	90
Central Kitsap UGA	1,380	1,499	1,329	1,349	1,276
Rural	2,150	2,150	2,150	2,150	2,150
<b>Total</b>	<b>19,882</b>	<b>12,785</b>	<b>18,924</b>	<b>21,039</b>	<b>19,736</b>

Note: Locations with a shortfall in capacity to accommodate anticipated growth shown in red.

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<sup>1</sup> Puget Sound Industrial Center employment is included in the employment growth target for the Bremerton UGA. The alternatives show East and West Bremerton together and show PSIC separately to better show the locational and quantitative differences in employment capacity among the DEIS alternatives and the preferred alternative.

**Exhibit 2.5.3-5 Housing capacity of alternatives**

UGA	Housing Need 2044	Housing Type Accommodating	Zones Focused	Alt 1 Capacity	Alt 2 Capacity	Alt 3 Capacity	Preferred Alt Capacity
0-30%	2,768	Low-Rise Multifamily, Mid-Rise Multifamily, ADUs	RC, C, UVC, NC, UH, UM	2,046	7,962	3,717	7,175
0-30% PSH	1,214	Low-Rise Multifamily, Mid-Rise Multifamily, ADUs	RC, C, UVC, NC, UH, UM				
31%-50%	2,376	Low-Rise Multifamily, Mid-Rise Multifamily, ADUs	RC, C, UVC, NC, UH, UM				
51%-80%	1,996	Low-Rise Multifamily, Mid-Rise Multifamily, ADUs	RC, C, UVC, NC, UH, UM, UCR, UL, UR, GB				
<b>Sub-Total</b>	<b>8,354</b>	<b>Low-Rise Multifamily, Mid-Rise Multifamily, ADUs</b>					
81%-100%	1,028	-Moderate Density	UCR, UL, UR, GB	1,148	2,108	1,979	1,874
101%-120%	1,012	-Moderate Density	UCR, UL, UR, GB				
<b>Sub-Total</b>	<b>2,040</b>	<b>Moderate Density</b>					
>120%	4,103	-Low Density	UCR, UL, UR, GB	6,398	5,140	6,981	4,179
<b>Sub-Total</b>	<b>4,103</b>	<b>Low Density</b>					
<b>Total</b>	<b>14,497</b>			<b>9,592</b>	<b>15,210</b>	<b>12,677</b>	<b>13,228</b>
Emergency Housing	612	Facility	RC, C, UVC, NC, I	612	612	612	Sufficient Capacity

## **2.5.4 Urban Growth Areas (UGAs)**

The unincorporated county includes UGAs. UGAs are areas where urban growth is encouraged. Kitsap County designates UGAs as required by the GMA .

Alternatives 2 and 3 as well as the Preferred Alternative would affect the boundaries and sizes of existing UGAs. For changes in UGA boundaries, see the maps in Appendix A. Exhibit 2.5.4-1, below, shows the changes in UGA sizes that would result under Alternatives 2 and 3 and the Preferred Alternative. In comparison to Alternative 2, Alternative 3 would more than double the total size of unincorporated UGAs. The Preferred Alternative includes slightly more UGA expansions than Alternative 2 but well within the range studied in the DEIS.

**Exhibit 2.5.4-1 UGA size changes of alternatives**

UGA	Alternative 1 (Existing Conditions)	Net Change in Acres under Alternative 2	Net Change in Acres under Alternative 3	Net Change in Acres under Preferred Alternative (relative to Alt 1)
Bremerton UGA	3,484.24	+ 344.26	+ 508.82	+351.7
<i>Bremerton East UGA</i>	<i>1,199.52</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Bremerton West UGA</i>	<i>1,658.32</i>	<i>+ 344.26</i>	<i>+ 508.82</i>	<i>+351.7</i>
<i>Gorst UGA</i>	<i>333.22</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Puget Sound Industrial Center - Bremerton</i>	<i>254.04</i>	<i>-0.04</i>	<i>+263.75</i>	<i>+181</i>
Central Kitsap UGA	5,639.50	+1.58	+ 24.67	+1.79
Kingston UGA	1,235.73	+ 73.06 <sup>A</sup>	+ 228.58 <sup>B</sup>	+40.81
Port Orchard UGA	3,161.40	- 18.22 <sup>C</sup>	- 0.48 <sup>D</sup>	-53.35
Poulsbo UTA	410.03	+ 16.62	+ 26.21	0
Silverdale UGA	5,779.22	+ 47.52	+ 333.13	0
<b>Total</b>	<b>19,671.00</b>	<b>+ 464.78</b>	<b>+ 1,384.68</b>	<b>+575.3</b>

<sup>A</sup> Reflects net change of 78.29 acres of expansion, 5.15 acres of retraction

<sup>B</sup> Reflects net change of 233.97 acres of expansion, 5.15 acres of retraction

<sup>C</sup> Reflects net change of 29.63 acres of expansion, 47.52 acres of retraction

<sup>D</sup> Reflects net change of 47.08 acres of expansion, 47.52 acres of retraction

## 2.5.5 Zoning

Alternatives 2 and 3 would affect the boundaries and sizes of existing unincorporated county zoning designations. For changes in zoning designation boundaries, see the maps in Appendix B. Exhibit 2.5.5-1, below, shows the changes in the sizes of unincorporated zoning designations that would result under Alternatives 2 and 3.

Zoning designations are coded throughout this section in the following manner consistent with the Comprehensive Plan codes for zoning. Dwelling Unit (DU) per acre (Ac) is listed when specified.

BC-Business Center	P-Park
BP-Business Park	RC-Regional Center (10-30 DU/Ac)
C-Commercial (10-30 DU/Ac)	RL-Residential Low <sup>A</sup>
FRL-Forest Resource Lands	RCO-Rural Commercial
GB-Greenbelt (1-4 DU/Ac)	REC-Rural Employment Center
IND-Industrial	RHTC-Rural Historic Town Commercial
KVC-Keyport Village Commercial	RHTR-Rural Historic Town Residential
KVLR-Keyport Village Low Residential	RHTW-Rural Historic Town Waterfront
KVR-Keyport Village Residential	RI-Rural Industrial
LI-Light Industrial	RP-Rural Protection (1 DU/10 Ac)
LIC-Low Intensity Commercial	RR-Rural Residential (1 DU/5 Ac)
MVC-Manchester Village Commercial	RW-Rural Wooded (1 DU/20 Ac)
MVLR-Manchester Village Low Residential	SVC-Suquamish Village Commercial
MVR-Manchester Village Residential	SVLR-Suquamish Village Low Residential
MRO/FRL-Mineral Resource/Forest Resource Lands	SVR-Suquamish Village Residential
MRO/IND-Mineral Resource/Industrial	TTEC-Twelve Trees Employment Center
MRO/RP-Mineral Resource/Rural Protection	UCR-Urban Cluster Residential (5-9 DU/Ac)
MRO/RR-Mineral Resource/Rural Residential	UH-Urban High Residential (19-30 DU/Ac)
MRO/RW-Mineral Resource/Rural Wooded	UL-Urban Low Residential (5-9 DU/Ac)
NC-Neighborhood Commercial	UM-Urban Medium Residential (10-18 DU/Ac)
	UR-Urban Restricted (1-5 DU/Ac)
	UVC-Urban Village Center (min 10 DU/Ac)



Under Alternative 2, the three zoning designations that would have the largest increase in size would be:

- C (10-30 DU/Ac) +130.5 acres
- UL (5-9 DU/Ac) +82.0 acres
- UM (10-18 DU/Ac) +70.5 acres

Under Alternative 2, the three zoning designations that would have the largest decrease in size would be:

- RR (1 DU/5 Ac) -271.8 acres
- RP (1 DU/10 Ac) -62.7 acres
- MRO/RP -47.9 acres

Under Alternative 3, the three zoning designations that would have the largest increase in size would be:

- UL +321.4 acres
- UR (1-5 DU/Ac) +269.4 acres
- IND +248.8 acres

Under Alternative 3, the three zoning designations that would have the largest decrease in size would be:

- RW (1 DU/20 Ac) -934.0 acres
- RP (1 DU/10 Ac) -386.6 acres
- MRO/RP -141.2 acres

Under the Preferred Alternative, the three zoning designations that would have the largest increase in size would be:

- IND – 181 acres
- UL – 141.6 acres
- MRO/IND – 127.54 acres

Under the Preferred Alternative, the three zoning designations that would have the largest decrease in size would be:

- RP (1 DU/10 Ac) – 245.64 acres
- RR (1 DU/5 Ac) – 160.89 acres
- UL – 119.54 acres

Please note that Urban Low (UL) appears in both the largest increases and largest decreases sections. These are not net calculations, so the fact that UL appears in both lists means that there were significant rezones TO and FROM UL.

**Exhibit 2.5.5-1 Zoning changes of alternatives**

Zone Abbreviation	Zone	Acres in Alternative 1	Acres in Alternative 2	Acres in Alternative 3	Acres in Preferred Alternative
BC	Business Center	197.6	204.5	204.5	204.5
BP	Business Park	5.4	0 <sup>A</sup>	0 <sup>A</sup>	0 <sup>A</sup>
C	Commercial (10-30 DU/Ac)	1,178.1	1,308.5	1,358.8	1,309.3
FRL	Forest Resource Lands	2,669.6	2,630.1	2,630.1	2,630.1
GB	Greenbelt (1-4 DU/Ac)	546.0	546.0	546.0	546.0
IND	Industrial	638.4	654.8	887.2	820.7
KVC	Keyport Village Commercial	10.9	10.9	10.9	10.9
KVLR	Keyport Village Low Residential	37.5	37.5	37.5	37.5
KVR	Keyport Village Residential	27.1	27.1	27.1	27.1
LI	Light Industrial	35.8	35.8	35.8	35.8
LIC	Low Intensity Commercial	73.8	73.8	73.8	73.8
MVC	Manchester Village Commercial	8.5	8.5	8.5	8.5
MVLR	Manchester Village Low Residential	629.7	629.7	629.7	629.7

Zone Abbreviation	Zone	Acres in Alternative 1	Acres in Alternative 2	Acres in Alternative 3	Acres in Preferred Alternative
MVR	Manchester Village Residential	489.4	489.4	489.4	489.4
MRO/FRL	Mineral Resource/Forest Resource Lands	94.8	94.8	94.8	94.8
MRO/IND	Mineral Resource/Industrial	225.3	265.3	358.6	345.0
MRO/RP	Mineral Resource/Rural Protection	250.0	202.2	108.8	122.5
MRO/RR	Mineral Resource/Rural Residential	764.1	764.1	764.1	764.1
MRO/RW	Mineral Resource/Rural Wooded	1,390.0	1,390.0	1,380.5	1,390.0
NC	Neighborhood Commercial	245.0	245.8	262.7	247.3
P	Park	11,358.5	11,348.4	11,348.4	11,385.9
RC	Regional Center (10-30 DU/Ac)	702.2	702.2	696.9	702.2
RL	Residential Low <sup>A</sup>	374.1	374.1	383.9	374.1
RCO	Rural Commercial	225.7	237.0	266.2	257.9
REC	Rural Employment Center	403.0	403.0	403.0	403.0
RHTC	Rural Historic Town Commercial	14.3	14.3	14.3	14.3
RHTR	Rural Historic Town Residential	80.3	80.3	80.3	80.3
RHTW	Rural Historic Town Waterfront	55.0	55.0	55.0	55.0
RI	Rural Industrial	158.7	178.9	164.1	158.0
RP	Rural Protection (1 DU/10 Ac)	31,112.8	31,050.1	30,726.1	30,901.0
RR	Rural Residential (1 DU/5 Ac)	86,237.7	85,965.9	86,411.6	86,082.4

Zone Abbreviation	Zone	Acres in Alternative 1	Acres in Alternative 2	Acres in Alternative 3	Acres in Preferred Alternative
RW	Rural Wooded (1 DU/20 Ac)	43,987.9	43,077.2	42,163.9	43,077.2
SVC	Suquamish Village Commercial	3.2	3.2	3.2	3.2
SVLR	Suquamish Village Low Residential	143.9	143.9	143.9	143.9
SVR	Suquamish Village Residential	231.8	231.8	231.8	231.8
TTEC	Twelve Trees Employment Center	113.4	113.4	113.4	113.4
UCR	Urban Cluster Residential (5-9 DU/Ac)	472.4	504.0	504.0	504.0
UH	Urban High Residential (19-30 DU/Ac)	558.4	554.5	559.2	554.5
UL	Urban Low Residential (5-9 DU/Ac)	9,376.4	9,458.3	9,697.8	9,316.0
UM	Urban Medium Residential (10-18 DU/Ac)	1,110.3	1,180.8	1,198.2	1,150.3
UR	Urban Restricted (1-5 DU/Ac)	2,598.2	2,646.3	2,867.6	2,646.4
UVC	Urban Village Center (min 10 DU/Ac)	58.3	62.3	62.3	79.9

**Notes:**

\* Zoning designations that would increase in size shown in green. Zoning designations that would decrease in size shown in red.

<sup>A</sup> The BP zone is only applied to one parcel currently. Under Alternatives 2 and 3, this parcel would be rezoned to BC, which would have the effect of eliminating the BP zone.

<sup>B</sup> Per City of Poulsbo Municipal Code.

## 2.5.6 Comprehensive Plan Amendments

Key objectives of the proposal include reviewing and revising the goals and policies in the existing Comprehensive Plan. Under Alternative 1, “No Action,” the existing Comprehensive Plan would remain unchanged. Under Alternative 2, “Compact Growth/Urban Center Focus,” and Alternative 3, “Dispersed Growth Focus,” a variety of updates would be made to the Comprehensive Plan. The Preferred Alternative includes the elements as drafted under Alternatives 2 and 3.

Exhibit 2.5.6-1, below, compares the elements included in the Comprehensive Plan under Alternative 1 and Alternatives 2 and 3 and the Preferred Alternative. The exhibit also identifies key updates that would be made to Comprehensive Plan elements under Alternatives 2 and 3 and the Preferred Alternative.

**Exhibit 2.5.6-1 Comparison of Comprehensive Plan elements under alternatives**

<b>Alternative 1: Elements</b>	<b>Alternatives 2 and 3 and Preferred Alternative: Elements and Key Updates</b>
Introduction	Introduction
Land Use	Land Use
Economic Development	Economic Development
Environment	Environment
Housing and Human Services	Housing
Transportation	Transportation
Parks, Recreation and Open Space	Parks, Recreation, and Open Space
Capital Facilities and Utilities	Capital Facilities and Utilities
Subarea Plans	Climate Change
Neighborhood Plans	Subarea Plans
Glossary	Neighborhood Plans
Appendices	Appendices

## 2.5.7 Capital Facilities Plan (CFP)

Under GMA, identifying current capital facility needs, future needs to serve planned growth, and how to fund these needs are essential planning activities.

Under Alternative 1, “No Action,” the existing CFP would remain unchanged. Under Alternative 2, the Preferred Alternative, “Compact Growth/Urban Center Focus,” and Alternative 3, “Dispersed Growth Focus,” an updated CFP would apply.

### **2.5.8 Development Regulation Amendments**

As defined in the GMA, "development regulations" or "regulation" means the controls placed on development or land use activities by a county or city, including, but not limited to, zoning ordinances, CAOs, SMPs, official controls, planned unit development (PUD) ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto. A local jurisdiction planning under the GMA must have development regulations consistent with the comprehensive plan.

The County is proposing a variety of amendments to development regulations as part of the proposal. Key updates to development regulations are shown in Exhibit 2.5.1-1.

## **2.6 BENEFITS & DISADVANTAGES OF DELAYING THE PROPOSED ACTION**

SEPA requires that a DEIS discuss the benefits and disadvantages of reserving for some future time the implementation of the proposal, as compared with possible approval at this time. Particular attention should be given to the possibility of foreclosing future options by implementing the proposal (WAC 197-11-440(5)(vii)).

An overriding benefit of implementing the proposal at this time is compliance with the schedule for GMA periodic updates set forth by the Washington State Legislature in RCW 36.70A.130. Under this schedule, Kitsap County must complete its periodic update by December 2024.

Conversely, a disadvantage of delaying the proposal is GMA noncompliance status. To be eligible for grants and loans from certain state infrastructure programs, a local jurisdiction must be up to date with the requirements of the GMA, including the periodic update requirements.

## **3 AFFECTED ENVIRONMENT, SIGNIFICANT IMPACTS & MITIGATION MEASURES**

This section of the FEIS describes the existing environment that may be affected by the proposal, analyzes impacts of the alternatives, and discusses potential mitigation measures.

### **3.1 NATURAL ENVIRONMENT**

#### **3.1.1 Earth**

Earth resources consist of geologic features and related processes, including but not limited to, soil, slope and channel erosion, landslides, seismic events (including tsunamis and high wave hazards), and volcanic hazards. Geologic conditions can limit development in certain instances, particularly near geologically hazardous areas. Soil and slope disturbances caused by development activities can exacerbate geologic hazards. Development activities within or adjacent to geologically hazardous areas may require mitigation measures to prevent environmental impacts and damage to infrastructure, as well as to protect health and safety.

##### **3.1.1.1 Earth – Affected Environment**

Kitsap County is located on the northern Kitsap Peninsula surrounded by shorelines associated with Puget Sound and Hood Canal. Unincorporated Kitsap County includes approximately 216 miles of marine shorelines with associated steep bluffs or low-bank shorelines. The coastline extends along bays and inlets with small estuaries that are connected to inland streams or rivers that empty into Puget Sound and Hood Canal (Kitsap County 2010). Elevations vary across the county but are mostly within the range of 100-400 feet above sea level. Exceptions to this include Green Mountain and Gold Mountain in the southwestern portion of the county, which have elevations of 1,639 and 1,761 feet above sea level, respectively.

#### **Climate**

Kitsap County experiences a mild climate with relatively little seasonal temperature variation year-round. The moderating effects of Puget Sound and the Pacific Ocean influence the area. Summers are typically warm and dry, with average temperature ranges of 70-80°F during the day and 50-60°F at night. Winters are cool and wet, with

temperatures rarely falling below freezing. During the winter, the average temperature ranges from 40–50°F during the day and 30–40°F at night.

As referenced in the *State of Knowledge: Climate Change in Puget Sound* report, the Puget Sound region, which includes Kitsap County, has seen changes to average seasonal precipitation over time (Mauger et al. 2015). Annual precipitation varies across Kitsap County ranging from 30 to 65 inches annually (NOAA 2024). However, Kitsap County has experienced increases in spring precipitation, declines in summer precipitation, and shifts in winter precipitation from snow to rain since the patterns exhibited in 1950. Overall, the Puget Sound lowlands have experienced warmer air temperatures since 1895. The regional average temperature has increased by approximately 1.3°F between 1895 and 2014 in all seasons except for spring (Mauger et al. 2015). All but six of the warmest years on record have occurred between 1980 and 2014. Climate change is anticipated to contribute to more frequent warmer nights and a longer frost-free season in the Puget Sound (Kitsap's Climate Change Resiliency Assessment 2020).

The Olympic Mountains create a rain shadow effect that helps shield the region, including Kitsap County, from heavy precipitation events. This effect contributes to geographic variation in precipitation that occurs throughout the county. On average, 80% of the region's precipitation falls between October and March, with July being the driest month and December the wettest. Strong winds and heavy rains associated with winter storms have the potential to damage trees, buildings, utility lines, and can result in flood events.

## Geology

Repeated glaciation has shaped the Kitsap Peninsula and Puget Sound region through the process of erosion and deposition over the last two million years (Haugerud 2009). Stream and glacial erosion of Pleistocene fill in the Puget Sound basin produced a landscape of primarily broad glacial drift plains and gently rolling hills separated by long valleys across the county (Sceva 1957). The resulting ridges and valleys were generally formed parallel to the direction of the ice melt in the north to south orientation.

The geology in Kitsap County is a variety of glacial and glaciofluvial deposits overlying consolidated bedrock. Most of the surface sediments date back to the Pleistocene period, except for sparse Tertiary igneous and sedimentary exposures (Deeter 1979). The most recent glaciation occurring in the Pleistocene epoch of the Quaternary Period left behind more than 3,000 feet of unconsolidated deposits in the Puget Lowland (Jones et al. 1996). To the west of Bremerton, the Green Mountain-Gold Mountain area is one of the few areas in that county that is underlain with basalt bedrock that resisted glaciation (Garling et al. 1965).

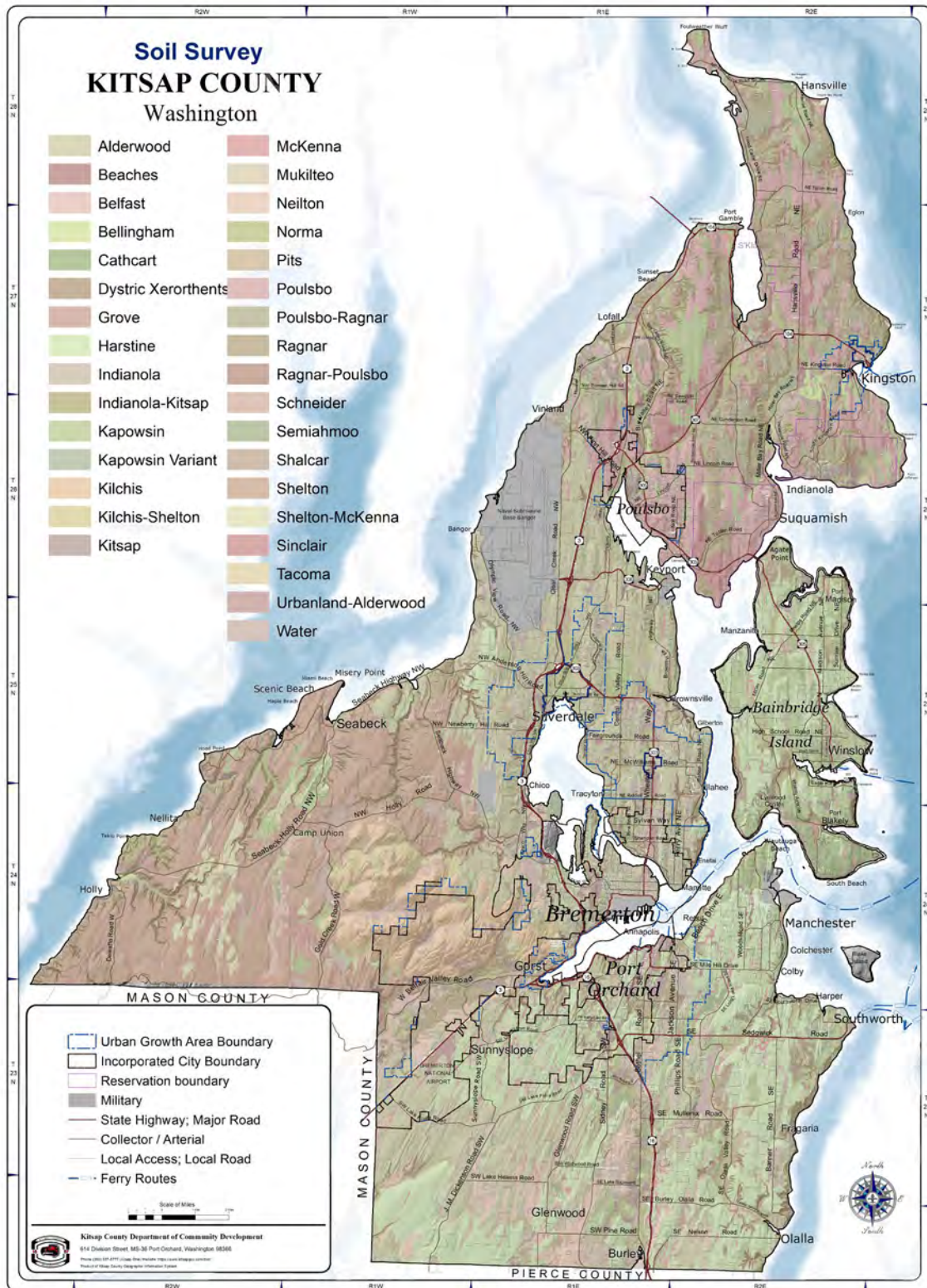


As shown in the Kitsap County Soil Survey map (Exhibit 3.1.1-1), soils found within the county include a complex variety of silt, sand, clay, and gravel deposits. The county contains several lakes and ponds with no surface inlets or outlets that were formed from remnants of ice left from the receding glaciers and are referred to as kettle lakes. The county is characterized by long, high bluff marine shorelines that are susceptible to erosion from constant wave action. The ongoing erosion processes can create steep, unstable conditions for shoreline properties but is critical to beach building processes. Transported sediment is deposited in the intertidal area creating tidal mud and sand flats along the shoreline that are vital nearshore marine habitats (Kinney et al. 2015). Intact sediment supply from feeder bluffs is an important element for coastal resilience against sea level rise (Johannessen et al. 2014).

## Soils

The soils present in Kitsap County have been classified in the Soil Survey of Kitsap County Area, Washington (2016) by the US Department of Agriculture's Natural Resources Conservation Service (NRCS). The present soil deposits are primarily derived from glacial till, and advanced and recessional outwash (Frans et al. 2016). The most predominant soil type within the county is Alderwood gravelly sandy loam, a moderately deep soil with a depth up to 39 inches. This soil is primarily found in the uplands with a slope gradient from 0% to 30%. Alderwood gravelly sandy loam is considered moderately well-drained with permeability ranging from 0.0 to 0.6 inches per hour. Categorized as a Hydrologic Group B soil, Alderwood gravelly sandy loam has a winter (January-March) water table depth of approximately 18 to 37 inches (NRCS 2024). Below this layer lies unweathered glacial till with low permeability. Alternatively, soils derived from glacial outwash are considered excessively well drained with high permeability and increased vertical drainage. Areas with excessively well drained soil types are not typically suitable for wetland or stream habitats. Wetland soils are frequently or periodically inundated and possess characteristics of both oxidized upland soils and reduced aquatic soils that vary depending on spatial or temporal location (Mobilian and Craft 2021).

### Exhibit 3.1.1-1 Kitsap County Soil Survey map



## **Geologic Hazards**

Geologic hazard areas are susceptible to erosion, landslides, debris or mudflows, or other significant geologic events. Given the risks associated with geologic hazard areas, development within the vicinity of these designated critical areas typically requires additional site-specific analysis by a qualified professional and may not be suitable for commercial, industrial, or residential development depending on the findings. Most steep, unstable slopes within the county are located on high-bluff shoreline parcels. Development within the vicinity of steep, unstable slopes may be expensive or prohibited in certain areas pursuant to the Kitsap County CAO (KCC 19.400). CAO regulations are based on the protection of property and minimization of human health and safety risks.

The CAO divides the regulations into two categories: Areas of High Geologic Hazard and Areas of Moderate Geologic Hazard. These classifications are determined by several factors including degree of the slope, presence of active or historic landslides, and risk of liquefaction. Currently, there are approximately 3,145 acres of High Geological Hazard and 60,100 acres of Moderate Geological Hazard located within unincorporated Kitsap County [(Kitsap County Geographic Information System (GIS))], representing approximately 29% of the unincorporated county area. Soil classifications published by the NRCS identify areas that have highly or potentially highly erodible soils, or soils subject to liquefaction during seismic events. These areas are delineated in the Kitsap County Geologically Hazardous Maps for Erosion Hazards, Seismic Hazards, and Landslide Hazards (Exhibit 3.1.1.1-2 through 3.1.1.1-4).

### ***Erosion & Landslide Hazards***

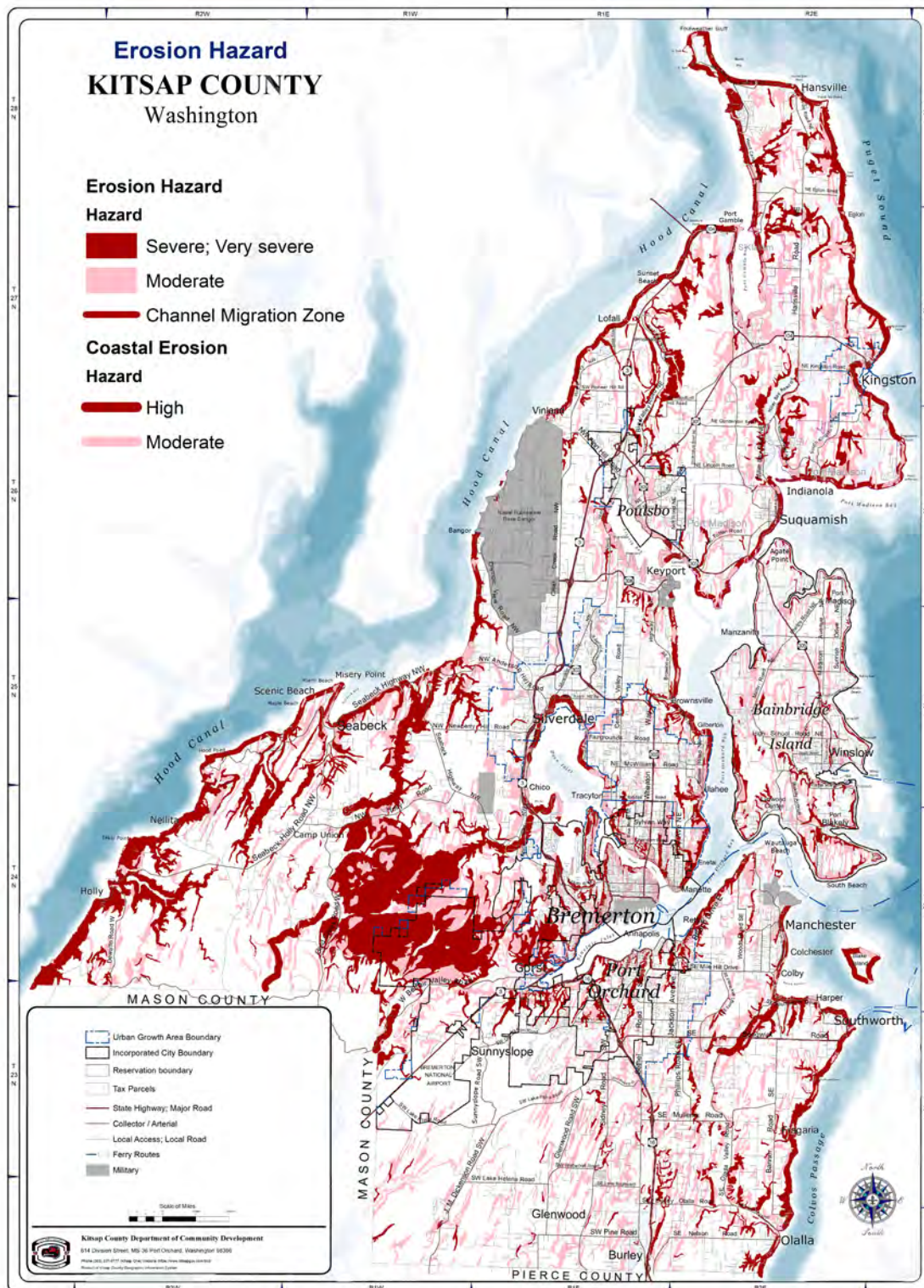
Kitsap County is subject to erosion and landslide hazards from year-round weather-related events, including wind, rain, storms, and flooding [Federal Emergency Management Agency (FEMA) Risk Report Kitsap County 2015]. Erosion hazard areas include soils susceptible to severe surface erosion, which can cause downslope movement of silt and sediment. Slopes with minimal vegetation are at an increased risk for erosion hazards. Channel erosion can occur along the banks of streams with steep slopes and high flow velocities.

Erosion and landslide hazard areas are defined and regulated in the Kitsap County CAO (KCC 19.400) within the geologically hazardous area section. The development standards in this section are based on the protection of life, safety, and property. Development within the vicinity of a geologically hazardous area, including landslide and erosion hazard areas, may be permitted based on the site-specific analysis contained within a geotechnical or geologic report prepared by a geotechnical engineer, licensed geologist, or designated qualified professional. Several specific locations of the County have been identified as at risk of landslide hazards including Rolling Bay Walk, Crystal Springs Drive, Rockaway Beach,

Fort Ward Hill, Prospect Point, Kingston Bluff, Suquamish Bluff, Hood Canal Bluff, and Lower Wheaton Way Canyon (Kitsap County MHMP 2019).

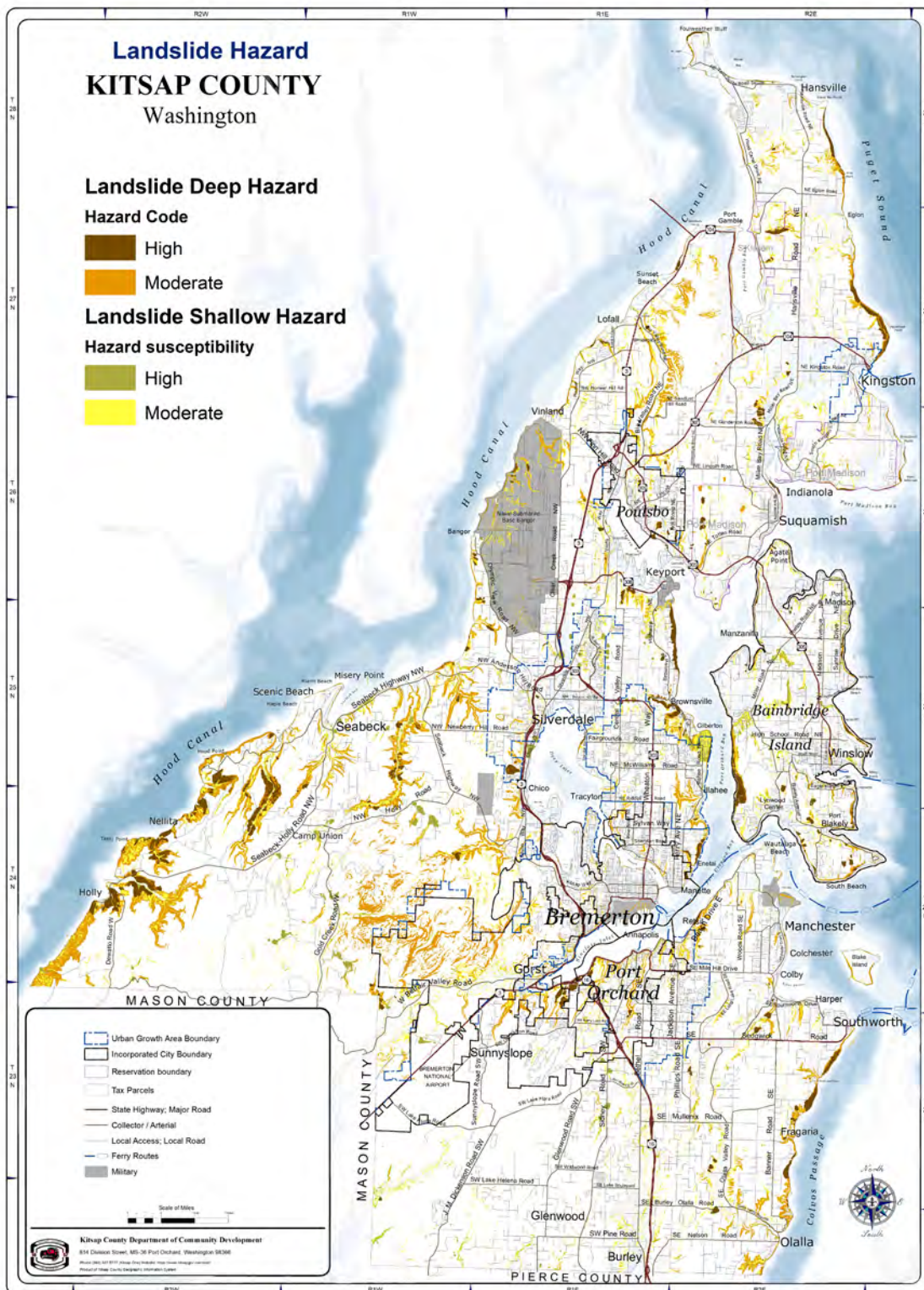


### Exhibit 3.1.1.1-2 Geologically Hazardous map – Erosion hazards





### Exhibit 3.1.1.1-3 Geologically Hazardous map – Landslide hazards



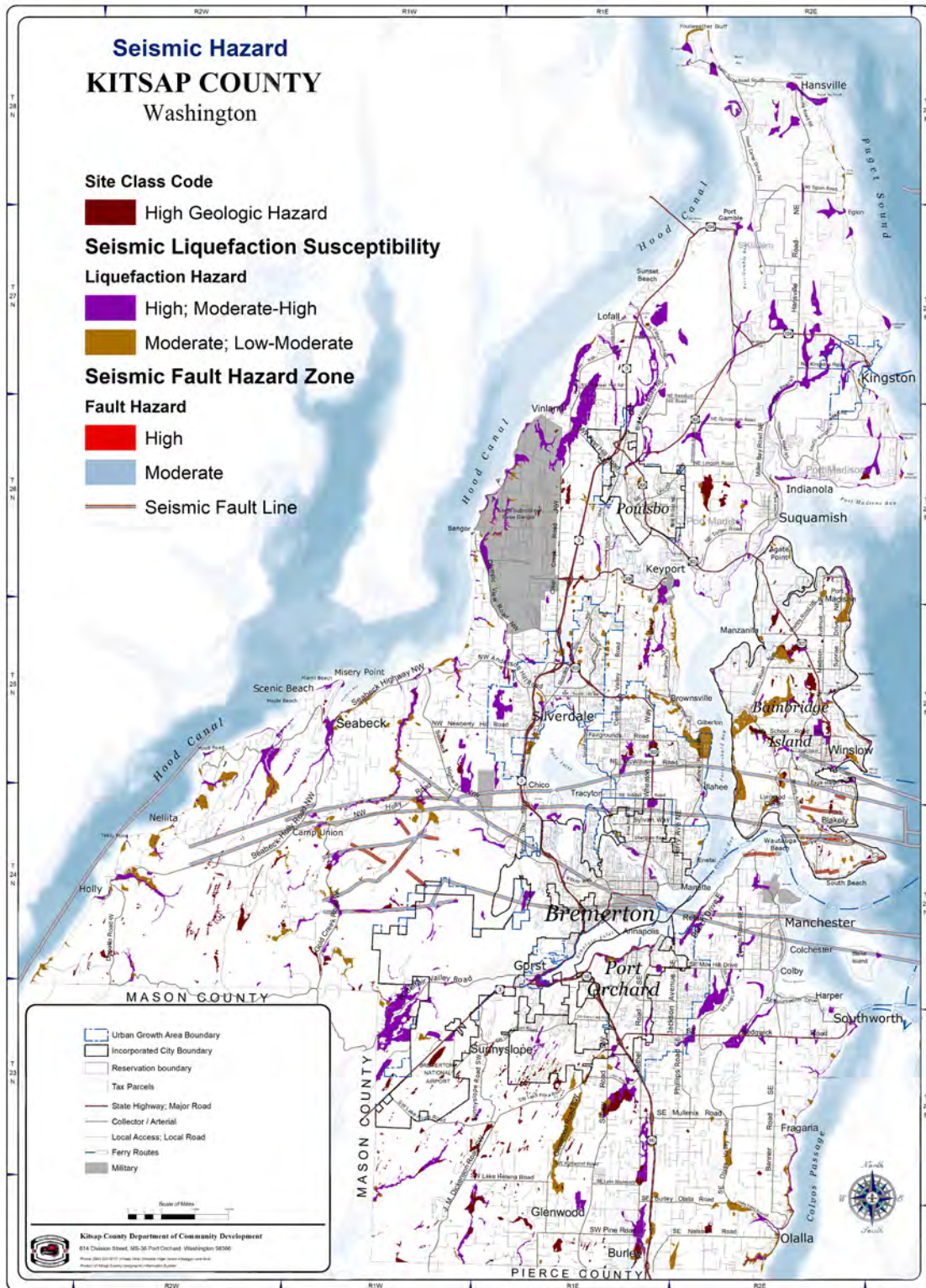
### ***Seismic Hazards***

Washington State is located at a convergent boundary (subduction zone) between the North America and Juan de Fuca tectonic plates, making the area subject to earthquakes and related seismic hazards. One of the major fault zones, the Seattle fault zone, begins in Kitsap County and runs east across Bainbridge Island and Puget Sound. This fault zone would affect all portions of the county in the occurrence of a seismic event (Kitsap County MHMP 2019). The Seattle fault zone is considered recently active with a high probability of producing a seismic event. A seismic event would be capable of causing strong ground shaking and ground rupture. An event of this nature could result in significant seismic-related hazards depending on the size and location. The location of known, active fault zones, including the Seattle fault zone, are shown in the Kitsap County Seismic Hazards map (Exhibit 3.1.1.1-3).

Seismic Risk Zones are classified on a scale from zero to four, with four being the highest risk. The Puget Lowland, which includes Kitsap County, is classed as a Seismic Risk Zone 3. The largest of the recorded earthquakes in the region were the magnitude 7.1 Olympia earthquake in 1949, followed by the magnitude 6.8 Nisqually earthquake in 2001. The Nisqually earthquake was the most recent earthquake to cause significant damage to Kitsap County, causing minor to moderate damage to approximately 750 residents (FEMA Risk Report Kitsap County 2015). The duration of these high magnitude earthquakes varied with the strongest shaking during the 1949 Olympia earthquake lasting about 20 seconds and 40 seconds during the 2001 Nisqually earthquake.



Exhibit 3.1.1.1-4 Geologically Hazardous map – Seismic hazards





## Silverdale Subarea

Approximately one-sixth of the landscape within the Silverdale subarea is designated as a geologic hazard area, with most of this area classified as Moderate Hazard Areas (see Figure 3.1.1.1-2). Erodible soils are found along the Dyes Inlet and some creek drainage corridors, while hydric soils are primarily found in the drainage corridors associated with Clear Creek, Strawberry Creek, Steele Creek, and Barker Creek.

## Summary

Key points of the affected environment include the following:

- Kitsap County lies within a seismically active area. Certain conditions are expected to increase the risk of seismic damage, particularly in areas of slope instability, slopes greater than 40%, and soils with a high potential for differential settlement and/or liquefaction.
- About 29% of the unincorporated county is classified as a high or moderate geologic hazard area. The degree of geologic hazards is based on factors such as degree of slope, presence of landslides, or areas that are prone to liquefaction.

### 3.1.1.2 Earth – Impacts

Impacts are mainly associated with two patterns of growth: the infilling or intensification of UGAs and the limited expansion of UGA boundaries, predominantly in Silverdale, Kingston, and Bremerton.

## Impacts Common to All Alternatives

All alternatives described in this FEIS will accommodate a certain level of growth and development based largely on the land use designations and zoning. The development will be constructed within individual parcels on land within unincorporated Kitsap County at varying degrees of density. All alternatives will result in impacts to earth resources through development to meet population and employment growth over time but will offer protection of resources through the regulations of the County code, particularly the CAO and SMP. Review procedures will also ensure adequate public health and safety measures are in place.

The assigned land use designations and zoning classifications do not generate impacts on earth resources themselves. Earth-related impacts will occur from disturbances related to development activities such as clearing, grading, erosion and sedimentation, expanded areas of impervious surfaces and other reduced-infiltration areas, and increased chemical contamination. The degree of impacts of the alternatives will be based on whether the growth is focused on urban centers or spread across a larger geographic area.

Development that is spread across a greater area may have increased impacts on critical areas, including geologic hazards.

Most construction activities will result in removal or modification of plant cover, especially tree and forest canopy, except in certain cases of redevelopment or restoration. All alternatives include development to accommodate the projected growth that will result in a reduction of plant cover and increased area of impervious surfaces, primarily related to roofs and pavements. A reduction of plant cover causes negative impacts on evapotranspiration within a plant community and is likely to increase the risk of soil disturbances. Soil disturbances can lead to subsequent issues with erosion, compaction, removal, and contamination. Loss of soil matter has the potential to increase the risk of erosion and related geologic hazards, including landslides. When grading activities expose the mineral soil to precipitation or surface water, water that may have been held by organic material becomes available to erode the mineral soil. Eroded soil particles that are transited off-site or into streams can result in negative impacts to water quality, channel conditions, and aquatic habitat.

These erosion processes may also cause impacts to County-owned drainage infrastructure through the deposition of sediment, creating additional earth impacts. Soils in developed areas are subject to compaction and disruption of the soil structure. The overall soil structure is critical to maintaining natural drainage processes and supporting native vegetation communities. These soils are also prone to contamination by petroleum spills, fertilizers, and industrial wastes. Soil compaction from development activities causes sealing of the soil surface, which alters soil drainage and precludes any other soil uses. Areas with compacted soil and impervious surfaces can create additional surface water runoff, which can lead to increased downstream flooding, erosion, water quality problems, and aquatic habitat degradation. Long-term loss of soil productivity is a subsequent effect of any of these impacts. Compacted soil, or areas covered by impervious surfaces, allows for less stormwater infiltration into the ground and may cause impacts to groundwater recharge.

All alternatives would permit development that is at risk of some degree of geologic hazards, particularly from landslides, earthquakes, and tsunamis. Landslides have occurred in Kitsap County for decades. Landslides occur along coastal bluffs and river valleys often within pre-existing deep-seated landslide deposits. Significant events may cause loss of land, injury, death, and damage to structures.

Major earthquakes could cause damage to buildings, utilities, roads, dams, and other essential facilities caused by ground shaking and related subsequent seismic hazards. As described in the FEMA Risk Assessment (2015), Kitsap County's building losses are

estimated to be \$7.1 billion, representing a 46% loss ratio (dollar losses/total building value), in the event of a Seattle Fault 7.2 magnitude earthquake. Essential facilities and infrastructure are also anticipated to lose function immediately after an event. New buildings located within Seismic Zone 3, which includes all of Puget Sound, are required to be designed to withstand major earthquakes of a 7.5 magnitude. However, it is anticipated that earthquakes caused by subduction plate stress can reach a magnitude greater than 8.0 (Kitsap County MHMP 2019).

Geologic hazards are generally mapped for the County. Erosion and landslide hazard areas may not be mapped in all areas, but provisions in the County CAO require development standards, including mitigation sequencing, during the review of projects proposals and require site-specific analysis by a licensed engineer or geologist to evaluate risks and protect public health and safety.

### **Impacts of Alternative 1, “No Action”**

Of the three alternatives, Alternative 1 accommodates growth at the lowest level since it incorporates no changes from current development regulations. This alternative would rely upon intensification of development within the current UGA boundaries to accommodate the increased projected population and employment. Alternative 1 retains the focus on single-family residential development with limited accommodation of multifamily structures. The development activities associated with intensification activities can lead to soil compaction and subsequently loss of soil productivity by the expanding impervious surfaces, modifying soil structure, and increasing site contamination, as referenced in Impacts Common to All Alternatives, above. Impervious surfaces can reduce the volume of water that infiltrates the soil, which leads to increased runoff and elevated stream flows due to storm events but even lower than already low summertime dry season flows due to decreased groundwater recharge. Stormwater controls are intended to maintain stream flows in ranges whereby elevated rates of bank erosion are prevented such that streambanks retain and support native vegetation cover. Ranges would be set by flow controls to not increase the number or intensity of erosive, channel-forming flow events, but should not entirely eliminate such events either. However, stormwater runoff from impervious areas in highly urbanized watersheds requires large stormwater management facilities to maintain water quantity and quality.

While intensification of existing development may reduce opportunities for soil erosion by centralizing impacts, it increases the erosion potential on remaining pervious soils by modifying vegetation. Development of vacant land may reduce existing open space and subsequently diminish the functions and values of riparian and wetland habitat. However, the CAO will require mitigation sequencing to avoid and minimize impacts to the maximum

extent practicable. As such, developments under Alternative 1 are expected to be adequately protected from geologic hazards under existing CAO regulations.

All UGAs under Alternative 1 contain areas of High Geologic Hazard, Moderate Geologic Hazard, and hydric soils that could be subject to liquefaction during seismic events. Mapped fault lines occur within existing unincorporated UGA boundaries trending from Bainbridge Island through Central Kitsap and along the southwest and northern border of Silverdale. Additional growth could result in increased exposure to geologic hazards. Expanded development in susceptible low coastal areas could expose a greater number of people to increased risk from tsunamis.

### ***Silverdale Subarea***

Most of the expected population growth is anticipated to be infilled in the Silverdale UGA under Alternative 1. Within the Silverdale UGA, potential impacts associated with geologic hazards and hydric soils under Alternative 1 would be consistent with the impacts across the county. Increased development would lead to loss of vegetative cover and increased risk of soil disturbance. Increased impervious surface areas would alter drainage, reduce groundwater recharge, and increase surface water runoff. Development within geologically hazardous areas would be limited by compliance with the CAO.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

The impacts to earth resources would be similar to those experienced with Alternative 1 but will include impacts commensurate with the limited expanded UGAs. Alternative 2 focuses growth primarily within multifamily and commercial zones. Most of the development is anticipated to be within the Silverdale regional center and Kingston countywide center, as well as the associated UGAs of Bremerton, Port Orchard, and Poulsbo. This alternative reduces pressure of growth on rural areas by keeping UGA boundaries limited. New residential and employment development is encouraged to be constructed vertically in areas of infill or redevelopment under this alternative. Intensification of development in current UGA boundaries and the limited UGA expansion areas would increase the extent of impervious surfaces, modify soil structures, and allow potential for chronic soil contamination as a result of development activities. This alternative also encourages vertical development by increasing the maximum building height allowance, particularly within the Silverdale Center. This allowance would reduce the impervious surface construction compared with low-rise development of similar capacity and could be considered a stormwater runoff mitigation strategy in densified areas.

Under this Alternative, an additional 94 acres of mapped High Geologic Hazard areas would be included in the areas of limited expanded UGAs. 159 acres of additional mapped Moderate Geologic Hazards areas would also be included within the UGA expansions under Alternative 2. All UGAs under Alternative 2 contain areas of High Geologic Hazard, areas of Moderate Geologic Hazard, and areas of hydric soils that could be subject to liquefaction during seismic events along mapped fault lines. Proposed UGA expansions in the Bremerton UGA would occur in the vicinity of mapped fault lines. Areas with hydric soil are more prone to liquefaction and may experience greater damage during larger regional earthquakes.

### ***Silverdale Subarea***

Under Alternative 2, (mapped Moderate Geologic Hazard Areas and mapped hydric soils would be included in the proposed UGA expansion. Encouragement of vertical construction by increasing the allowable maximum building height in the Commercial Zoning District will reduce the impervious surface area associated with development to accommodate growth and could be considered a mitigation technique for stormwater management.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Impacts on Earth resources would be generally consistent with those of Alternative 1 and 2 but would be commensurate with the limited expanded areas of UGAs. Under Alternative 3, there are more expansions of UGA boundaries than Alternative 2, predominantly within Silverdale, Kingston, and Bremerton. The increases in UGAs would expand impervious surfaces, modify soil structures, and allow potential for chronic contamination of soils associated with development activities. However, overall Alternative 3 accommodates less population growth than Alternative 2. Alternative 3 would include an additional 195 acres of mapped High Geologic Hazard Areas that would be included within expanded UGA boundaries. 480 acres of mapped Moderate Geologic Hazard would also be included in the UGA boundaries. Subsequently, there would be greater potential for impacts from geologic hazards under Alternative 3. The anticipated growth-related development within the Bremerton UGA under Alternative 3 is likely to experience increased seismic hazards associated with the fault line present throughout central Kitsap County. New policies and regulations may reduce development potential in UGAs in this alternative. Alternative 3 would also include opportunities in the rural areas for additional rural housing and employment. This approach of dispersed growth may increase the number of buildings at risk from geologic hazards by development to accommodate growth in rural areas. Accordingly, the risk under Alternative 3 would be greater than those under Alternatives 1 and 2.

### ***Silverdale Subarea***

The impacts of Alternative 3 would be similar to those in Alternative 2, with additional areas of (high and moderate geologic hazards and hydric soils will be added to the Silverdale UGA expansion areas. Impacts associated with geologic hazards and hydric soils would be commensurate to the growth-related development. Increased development activities would lead to loss of vegetative cover, increased risk of soil disturbance, changes in hydrology, reduced groundwater recharge, and increased surface water runoff. However, all development within geologically hazardous areas would be subject to the policies and regulations of the amended CAO to protect public health and safety and minimize impacts.

### **Impacts of the Preferred Alternative**

The impacts to earth resources of the Preferred Alternative would be similar to those experienced with Alternative 2 but will include impacts commensurate with the limited expanded UGAs. The Preferred Alternative focuses growth primarily within multifamily and commercial and industrial zones. Most of the development is anticipated to be within the Silverdale regional center and Kingston countywide center, as well as the associated UGAs of Bremerton, Port Orchard, and Poulsbo. This alternative reduces pressure of growth on rural areas by keeping UGA boundaries limited. Notably, the Preferred Alternative contains 575.3 acres of UGA expansions countywide, around 111 acres more than Alternative 2 and substantially less than Alternative 3. New residential and employment development is encouraged to be constructed vertically in areas of infill or redevelopment under this alternative. Intensification of development in current UGA boundaries and the limited UGA expansion areas would increase the extent of impervious surfaces, modify soil structures, and allow potential for chronic soil contamination as a result of development activities. This alternative also encourages vertical development by increasing the maximum building height allowance, particularly within the Silverdale Center. This allowance would reduce the impervious surface construction compared with low-rise development of similar capacity and could be considered a stormwater runoff mitigation strategy in densified areas.

Under the Preferred Alternative, an additional 114.1 acres of mapped High Geologic Hazard areas would be included in the areas of limited expanded UGAs. 193.4 acres of additional mapped Areas of Concern areas would also be included within the UGA expansions under the Preferred Alternative. All UGAs under the Preferred Alternative contain areas of High Geologic Hazard, areas of Moderate Geologic Hazard, and areas of hydric soils that could be subject to liquefaction during seismic events along mapped fault lines. Proposed UGA expansions in the Bremerton UGA would occur in the vicinity of mapped fault lines. Areas with hydric soil are more prone to liquefaction and may experience greater damage during larger regional earthquakes.

### ***Silverdale Subarea***

Under the Preferred Alternative, no UGA expansions are included for Silverdale, which limits the earth resources risk of growth in the subarea. Intensification of development in the Preferred Alternative, particularly the proposed rezones from Urban Restricted and Urban Low to more dense and intensive residential zones, would allow for an increase in impervious surfaces, modification of soil structures, and potentially chronic soil contamination. As with Alternative 2, encouragement of vertical construction by increasing the allowable maximum building height in the Commercial Zoning District will reduce the impervious surface area associated with development to accommodate growth and could be considered a mitigation technique for stormwater management.

#### **3.1.1.3 Earth – Mitigation Measures**

##### **Incorporated Plan Features**

All alternatives would include regulations and policies that would avoid, reduce, or minimize potential impacts in geologic hazard areas. These policies are summarized below.

- Areas with geologic hazards are mapped to the extent practicable. Development will be located in a manner that avoids hazards, protects public health and safety, and minimizes potential impacts on the natural environment and on shorelines and related processes.
- Development proposals will undergo technical review to ensure compliance with requirements for protection of public health, safety, and welfare by adhering to development standards. Review of development proposals within the vicinity of geologically hazardous areas will require a geotechnical report prepared by a licensed professional to evaluate the site-specific conditions, analyze potential impacts on slope stability, and provide recommendations.
- Kitsap County will encourage building sites to be located away from critical areas, such as steep slopes and landslide hazard areas, by requiring minimum buffer widths and building setbacks in the CAO. Most geologic hazards may be avoided or minimized by locating developments outside of the mapped areas, or by implementing mitigation measures through engineered design standards, particularly for areas at risk of earthquakes or slope failures. Some development may occur within these hazard areas when demonstrated that the risks have been reduced to an acceptably low level or are mitigated through special design measures.

## Applicable Regulations and Commitments

- KCC Section 19.400.405 of the CAO defines geologically hazardous areas and outlines regulations for development standards for projects in or near the designated hazard areas. This designation includes areas of high and moderate geologic hazards.
- Federal National Pollution Discharge Elimination System (NPDES) regulations, as well as County stormwater drainage regulations (KCC Title 12), require stormwater pollution prevention plans and mitigation, including water quantity and water quality controls. All development must adhere to the standards contained within the 2021 Kitsap County Stormwater Design Manual, or as amended.
- The development standards administered by the Kitsap County Department of Community Development require that all new construction be designed to withstand the ground motion effects specified in the most recent versions of the International Residential Code (IRC) and International Building Code (IBC) as adopted locally. The IRC and IBC specifications have been designed for a ground level acceleration of an earthquake that has a 1-in-2,475 chance of occurring each year as mapped by the US Geological Survey's (USGS) National Earthquake Hazards Reduction Program. Areas with increased risk of seismic activity include steep, unstable slopes, and areas with high susceptibility for liquefaction, cycle softening or differential settlement, including hydric soils and loose saturated sands. Building in areas within increased risk of seismic activity typically involves special design requirements to mitigate hazards associated with earthquakes.

## Other Potential Mitigation Measures

- Reducing UGA expansions in Moderate and High Geologic Hazard areas would reduce the potential number of persons or structures exposed to risk of damage due to geologic hazards.
- The Kitsap County MHMP (2019) includes the following mitigation strategies for erosion and landslide hazards:
  - Coordinate with State agencies to identify new funding streams and technical assistance to support local planning and LIDAR maintenance efforts.
  - Utilize Public Access Television to educate on the causes of erosion and how to mitigate further erosion.



- To mitigate the impacts of earthquake hazards, the following strategies are recommendations from the Kitsap County MHMP (2019):
  - Promote public seismic risk retrofit for residential sector to include educational workshops on foundation bolting, tie downs, and necessary bracing actions.
  - Develop a three-mile vehicle width recreation trail from Jarstad Park near Gorst to the Kitsap Lake area.
  - Develop a plan to address resiliency and redundancy, including identifying gaps in the transportation network.
  - Mitigate for Agate Passage Bridge closure by utilizing maritime alternatives to move passengers and freight.
- To reduce impacts associated with tsunami hazards, the Kitsap County MHMP (2019) includes the following mitigation strategies:
  - Develop a plan to address resiliency and redundancy, including identifying gaps in the transportation network.
  - Mitigate for Agate Passage Bridge closure by utilizing maritime alternatives to move passengers and freight.
  - Public warning and education regarding tsunami hazards.
  - Provide public outreach and education regarding the potential impact of tsunamis and high waves on Kitsap County using maps and information from historical and simulated events.
  - Conduct a tabletop exercise to simulate a large-scale debris removal effort associated with a significant earthquake-tsunami event to assess the current state of readiness to respond to such a need.
  - Develop informational brochures to be placed at waterfront businesses to educate and inform visitors and tourists. Brochures should focus on being non-threatening and informative in nature.
  - Design and schedule a series of workshops to train local waterfront facilities and businesses in the development of appropriate evacuation plans.

#### **3.1.1.4 Earth – Significant Unavoidable Adverse Impacts**

All alternatives would result in increased urbanization in the county. The corresponding increase in impervious surfaces and changes in hydrology would be correlated with the amount of growth-related development under each alternative. An overall increase in erosion and sedimentation is an unavoidable consequence of increased development activities to accommodate growth. Sediment leaving development sites can negatively impact nutrient balances and other water quality indicators in receiving waters, including lakes, wetlands, and streams. These impacts are likely to also affect the habitat of anadromous fish and other aquatic organisms negatively in these waters. A larger population could also be at risk, depending on specific locations, from the adverse impacts of damage to buildings and infrastructure in the event of an earthquake, landslide, or tsunami. However, significant unavoidable impacts to earth resources are not anticipated provided that the above-referenced mitigation sequencing measures are implemented to the extent possible.

#### **3.1.2 Air Quality/Climate**

Air quality and GHG emissions countywide and regionally are the focus of this section. GHG emissions are a common metric used to project and manage the rate of anthropogenic climate change. Current conditions, projected changes in future years, and potential mitigation measures under each alternative are described below.

Climate change risks in Kitsap County include coastal flooding and erosion, saltwater intrusion, overloaded stormwater infrastructure, increased landslides, changes in vegetation cover, disruptions to ecological processes, wildfire smoke, extreme heat events, and the increased presence of invasive species and diseases. Changes to seasonal precipitation, including snowpack, are projected to reduce hydropower's reliability in the energy sources available to the county.

These climate changes are linked to biophysical impacts and impacts to economic and social systems. Businesses and industries related to natural resources are put at risk by climate change. Disruptions to energy, air quality, and infrastructure also have cost implications. Anticipated economic impacts of climate change in Kitsap County can be managed through preemptive adaptation and mitigation strategies (Kitsap County et al. 2020).

Regional growth is expected to increase air pollution emissions. Significant air quality impacts and mitigation measures are reviewed for each alternative. The determination of

significance is based on the *Memorandum: Kitsap County Climate Change Baseline Assessment* (Kitsap County 2020) and the 2019 *Puget Sound Regional Emissions Analysis* (Cascadia 2022).

### **3.1.2.1 Air Quality/Climate – Affected Environment**

Kitsap county, located on the Kitsap Peninsula, is surrounded by Puget Sound, Hood Canal, and several inlets and ports. Kitsap County conducted a baseline GHG emissions study in 2019. This baseline study will be used to determine progress toward the PSRC goal of reducing GHG emissions by 80% below 1990 levels by 2050.

GHG emissions countywide in 2019 were 3.2 million metric tons of CO<sub>2</sub> (MTCO<sub>2e</sub>). The largest GHG emissions sources were building electricity (36%), road transportation (19%), and tree loss (17%).

Global Forest Watch data formed the basis for the tree canopy baseline for the GHG emissions modeling. WDFW high resolution change detection data are available and can serve as a baseline for future analysis as it is higher resolution, but at the county-wide scale, these data sources are equally sufficient.

The largest GHG emission sources in 2050 are projected to be from tree loss, natural gas, mobile sources, and solid waste disposal (Cascadia 2022).

### **Regulatory Overview**

Air quality is regulated at the local, state, and federal levels. Locally, Kitsap County, air quality regulations include performance standards in the zoning code (KCC Title 17) that require certain commercial, business, and industrial uses to have smoke and particulate matter emissions that meet standards approved by the Puget Sound Air Pollution Control Authority.

Federal air quality regulation is based on the 1970 Clean Air Act. The EPA established national air quality standards and provides guidance and assistance to assist state planning (EPA 2024).

States are responsible for developing enforceable implementation plans to meet standards. In Washington State, the Puget Sound Clean Air Agency (PSCAA) has jurisdiction in western Washington counties, including Kitsap County. PSCAA regulations are used to manage air quality and permit activities with potential impacts (EPA 2024).

### ***Particulate Matter (PM<sub>10</sub> & PM<sub>2.5</sub>)***

PSCAA regulates emissions, including particulate matter. Particulate matter emissions are generated by refuse-burning equipment, fuel-burning equipment, and equipment uses in manufacturing (EPA 2024).

### ***Ozone***

The EPA issues and enforces rules to phase out production of ozone-depleting chemicals, and ensure proper recycling, disposal, and labeling of those chemicals (EPA 2024). Ozone-depleting substances are regulated as Class I and Class II controlled substances. Class I substances, like chlorofluorocarbons, have generally been phased out in the US (EPA 2024).

### ***Carbon Monoxide***

Carbon monoxide (CO) is a colorless, odorless gas that is released when something is burned. Common CO sources are vehicles, like cars, trucks, and machinery outdoors, and leaky or unvented appliances indoors. High levels of CO reduce the oxygen-carrying capacity of blood and can cause death. CO outdoors is regulated under the CAA. National Ambient Air Quality Standards (NAAQS) specify the maximum amount of CO that can be present in outdoor air (EPA 2024).

### ***Lead***

Lead emissions can be caused by metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers. EPA regulatory work to remove lead from motor vehicle gasoline has significantly reduced this pollutant from the air. NAAQS for lead pollution set standards for the maximum amount of lead in outdoor air (EPA 2024). PSCAA monitoring of lead has been discontinued due to low levels.

### ***Nitrogen Oxides & Sulfur Oxides***

Nitrogen oxides (NO<sub>2</sub>) are a group of highly reactive gases. NO<sub>2</sub> forms from emissions generated when burning fossil fuels. Sulfur dioxide (SO<sub>2</sub>) sources are from fossil fuel combustion at power plants and other industrial facilities. These gases can harm the human respiratory system. The EPA's national and regional rules use NAAQS to help reduce NO<sub>2</sub> and SO<sub>2</sub> emissions. When a site does not meet NAAQS, then a state implementation plan is required. A state implementation plan requires air quality monitoring and modeling, emission inventories, emission control strategies, contingency measures, and documentation of rules and policies to attain and maintain the NAAQS (EPA 2024).

## Regional Emissions

A regional emissions assessment was completed using 2019 data. Carbon impacts were inventoried and measured in two different ways, consumption-based and geography-based. Consumption-based emissions are from food consumption, production, and transport of goods and services, vehicle productions and regional travel. Geography-based consumption emissions are from local agricultural activities, powering and heating our buildings, and travel within our region.

GHG emissions countywide in 2019 were 3.2 MTCO<sub>2</sub>e. This is roughly 12 MTCO<sub>2</sub>e per capita.

Inventories show an increasing trend in GHG emissions. GHG emissions increased 16% from 2015 to 2019. Per capita GHG emissions increased 11% over that same time span. The largest GHG emissions sources include building electricity (~34%), road transportation (~18%), and tree loss (~15%). Emissions increases from 2015 to 2019 are primarily attributed to tree loss, electricity fuel mix, and population growth.

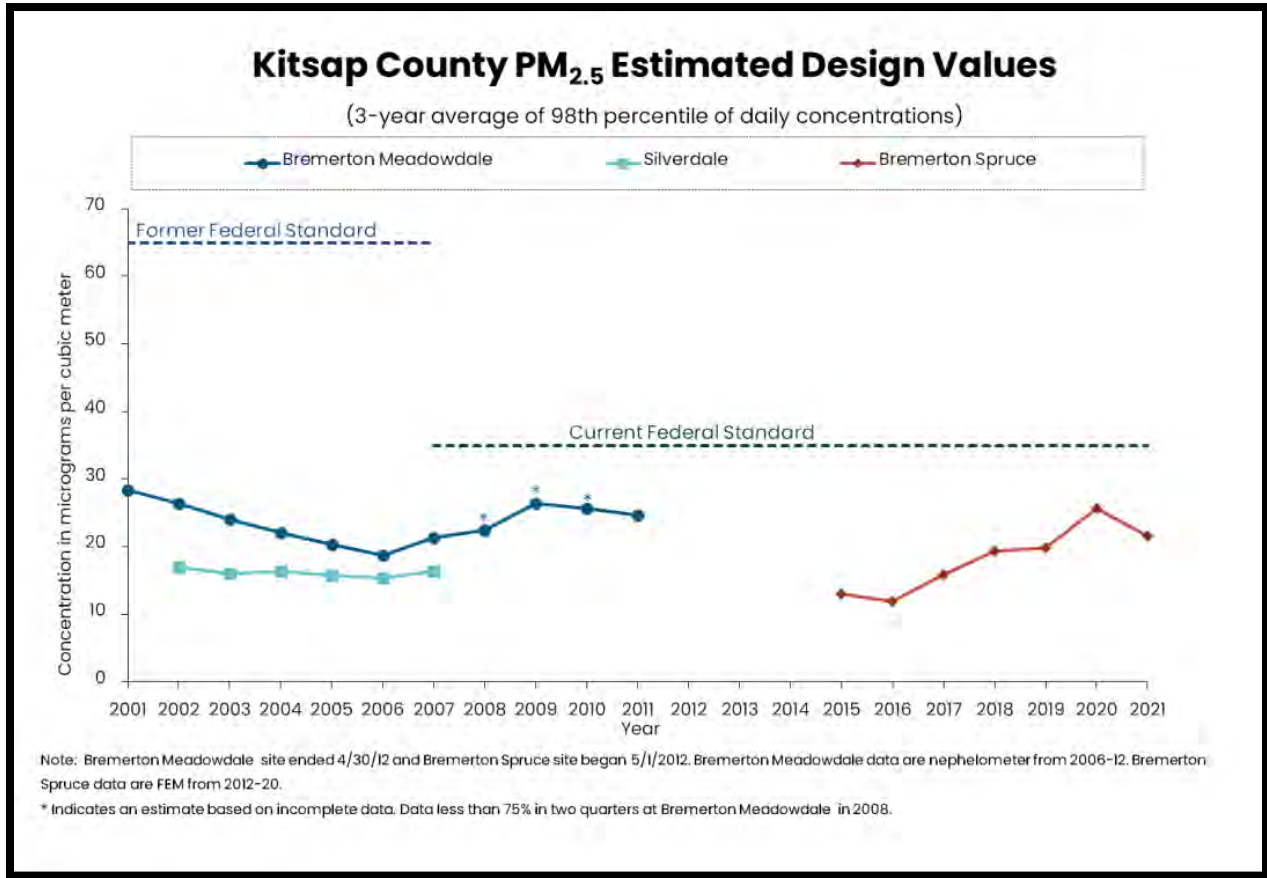
## Regional Air Quality Monitoring Data

PSCAA and Ecology monitor regional air quality at the county level. 2021 monitoring data for Kitsap county is summarized in this section based on the PSCAA's 2021 Air Quality Data Summary, issued August 2022.

The AQI for Kitsap County was good for 98.4% of 2021. 1.4% of that year was moderate, and 0.3% of the year was unhealthy for sensitive groups. The highest AQI was 113, which is lower than surrounding counties in western Washington.

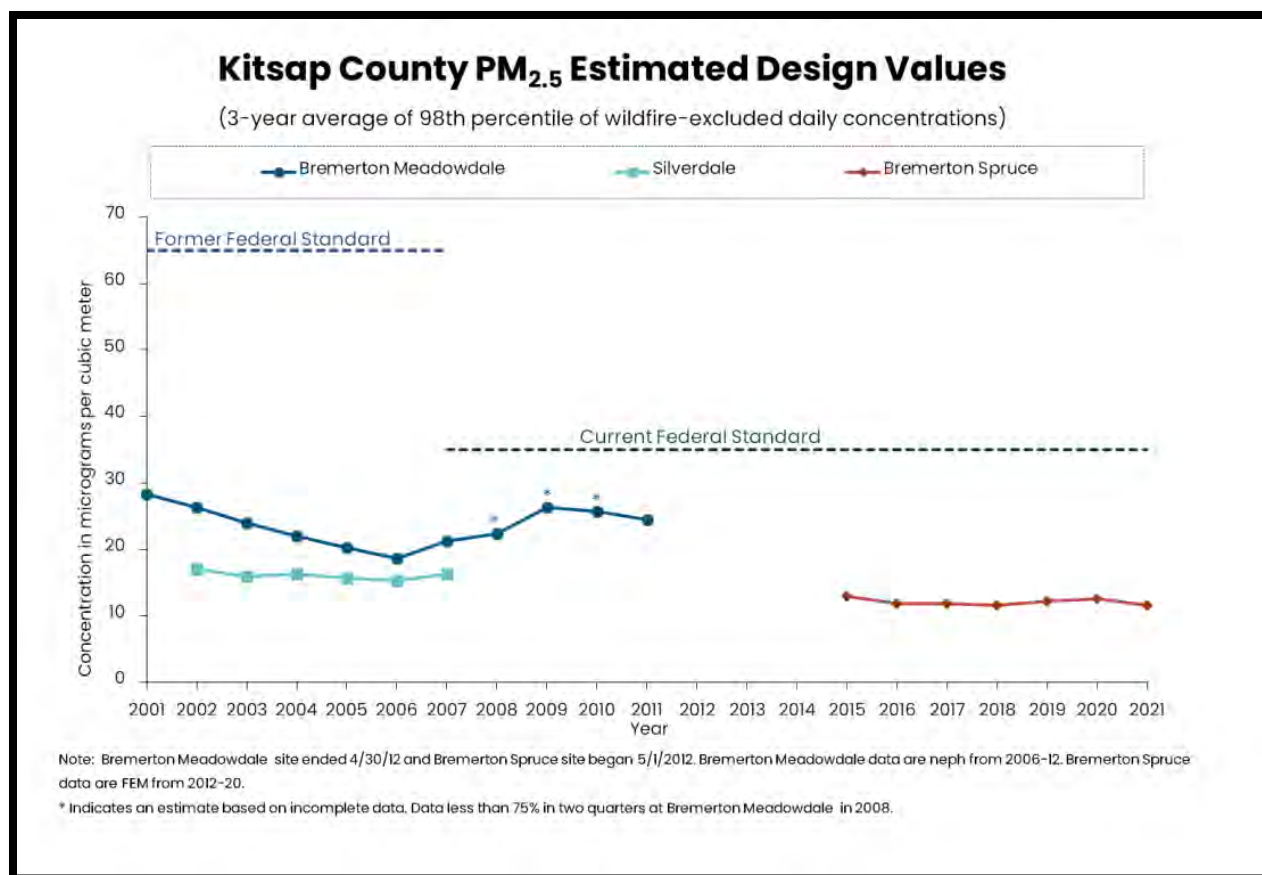
Particulate matter is monitored based on size. Particulate matter is matter with a diameter of 10 microns or less (PM<sub>10</sub>). Fine particulate matter has a diameter of 2.5 microns (PM<sub>2.5</sub>). The main source of particulate matter is combustion sources. Fine particulate matter (PM<sub>2.5</sub>) pollution sources include wood burning, vehicles and industry. Ultrafine particulate matter (UFP) are those particles that have a diameter of 0.1 micron or less. UFP are not currently monitored, but PSCAA is considering adding this technology to their monitoring network. Particulate matter data are summarized by daily values and by daily values with wildfire-impacted days removed. All Kitsap county particulate matter data for 2021 was below current federal standards (Exhibits 3.1.2.1-1 and 3.1.2.1-2, below).

### Exhibit 3.1.2.1-1 Daily PM<sub>2.5</sub> estimated design values for Kitsap county



Source: PSCAA 2021 Air Quality Data Summary.

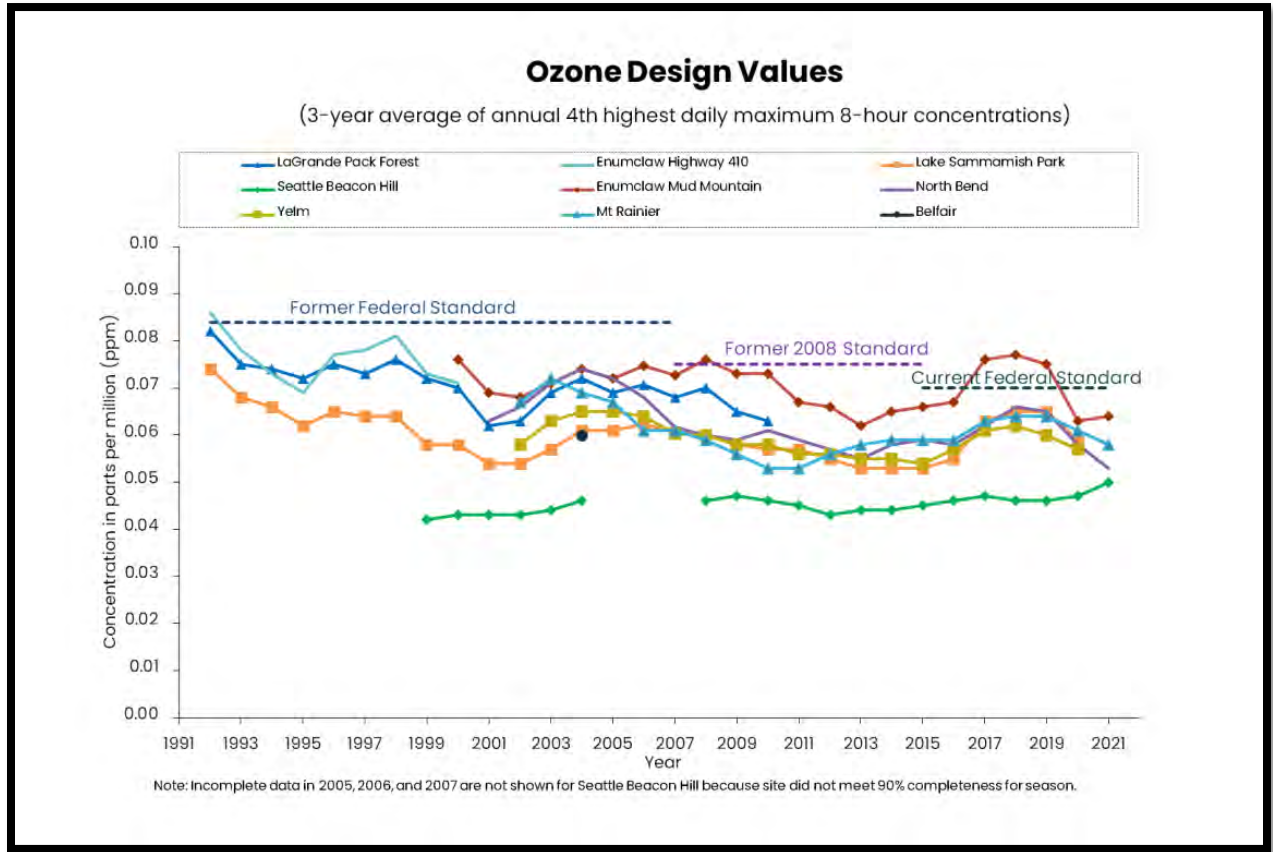
### Exhibit 3.1.2.1-2 Daily PM<sub>2.5</sub> estimated design values for Kitsap county with wildfire-impacted days removed



Source: PSCAA 2021 Air Quality Data Summary.

Ozone is a summertime pollution issue in our region. It is not linked to a direct emission, but rather is formed when photochemicals react with sunlight. Precursors to ozone include volatile organic compounds and NO<sub>2</sub>. While ozone in the upper atmosphere protects us from harmful ultraviolet rays, ozone in the lower atmosphere is unhealthy and has respiratory impacts to health. The EPA's 2015 8-hour standard for ozone is 0.070 ppm. The highest value in the 2021 data set for Puget Sound region is 0.064 ppm, below the federal threshold (Exhibits 3.1.2-3 and 3.1.2-4, below).

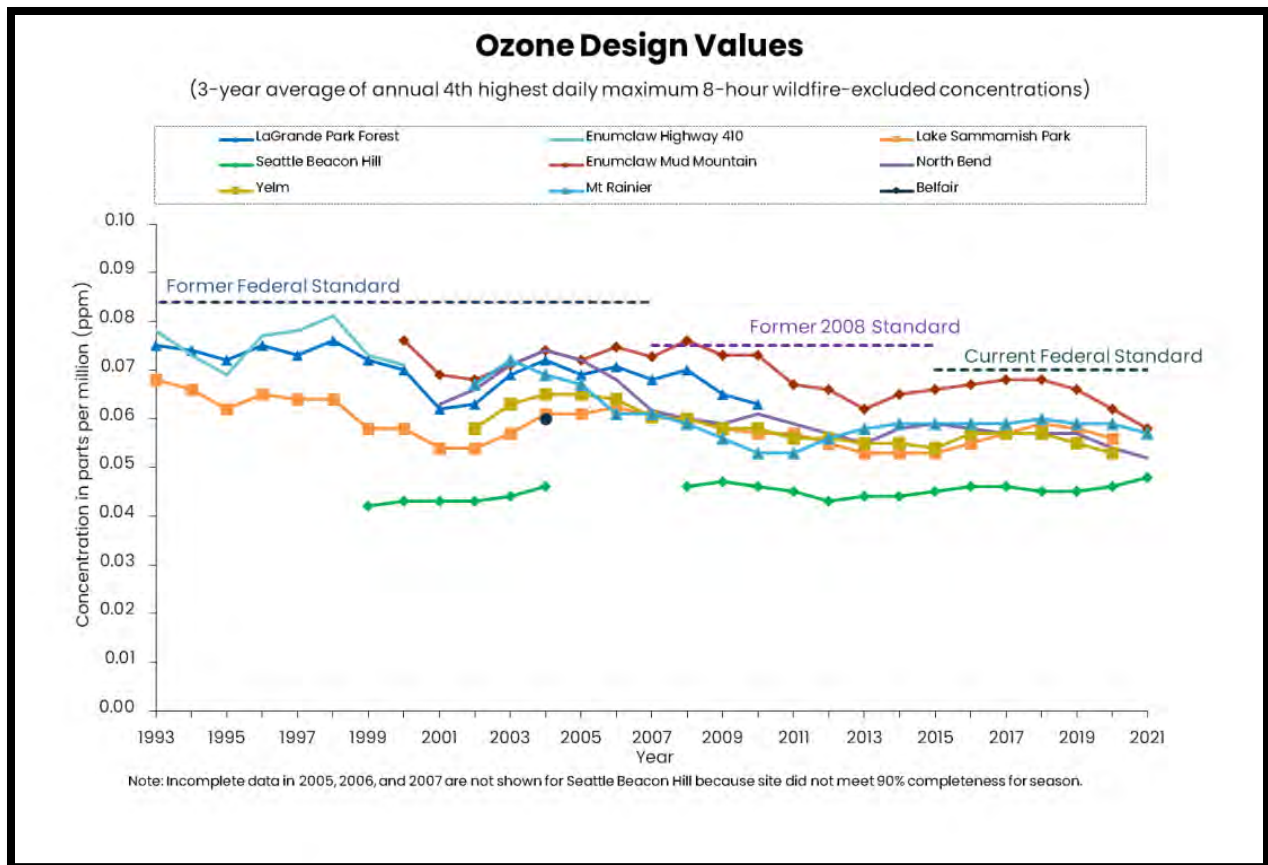
### Exhibit 3.1.2.1-3 Ozone for Puget Sound region



Source: PSCAA 2021 Air Quality Data Summary.



### Exhibit 3.1.2.1-4 Ozone for Puget Sound region with wildfire-impacted days removed

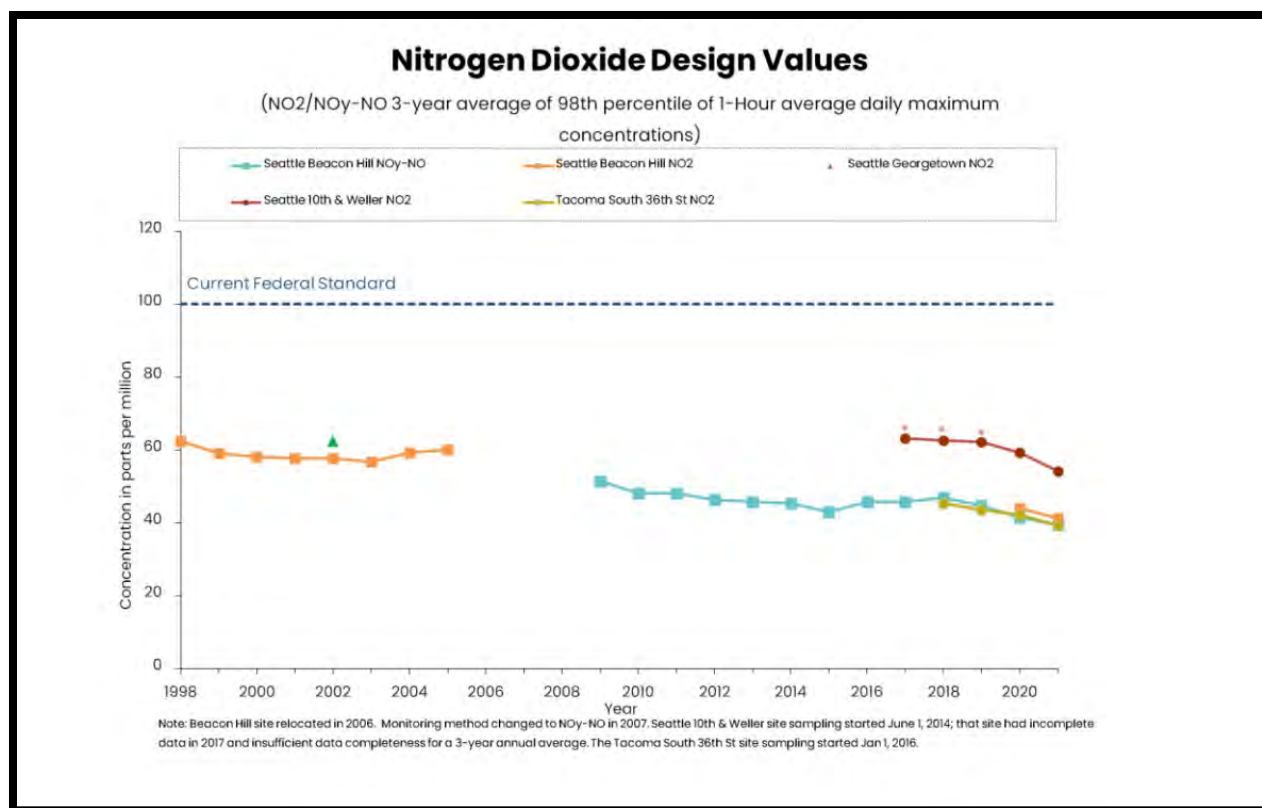


Source: PSCAA 2021 Air Quality Data Summary.

Carbon monoxide (CO) emissions primarily come from motor vehicles. Elevated CO levels are commonly associated with heavy traffic and thermal inversions. Historically, all urban areas of the Puget Sound have violated CO emission standards. The CO national ambient air quality standard is based on the second highest 8-hour average using procedures published in the Federal Register. The EPA also has a 1-hour standard for CO of 35 ppm, not to be exceeded more than once a year. Measured 1-hour concentrations in the Puget Sound region are typically much lower than 35 ppm.

Nitrogen dioxide (NO<sub>2</sub>) is a reddish brown highly reactive gas that reacts with free radicals in the atmosphere. NO<sub>2</sub> causes respiratory health problems and can react with volatile organic compounds to create ozone. The NO<sub>2</sub> 2010 1-hour standard is 100 ppb and is based on the 98<sup>th</sup> percentile of 1-hour daily maximum concentrations, averaged over three years. The Puget Sound region as currently monitored is below (cleaner than) the 1-hour standard (Exhibit 3.1.2.1-5, below).

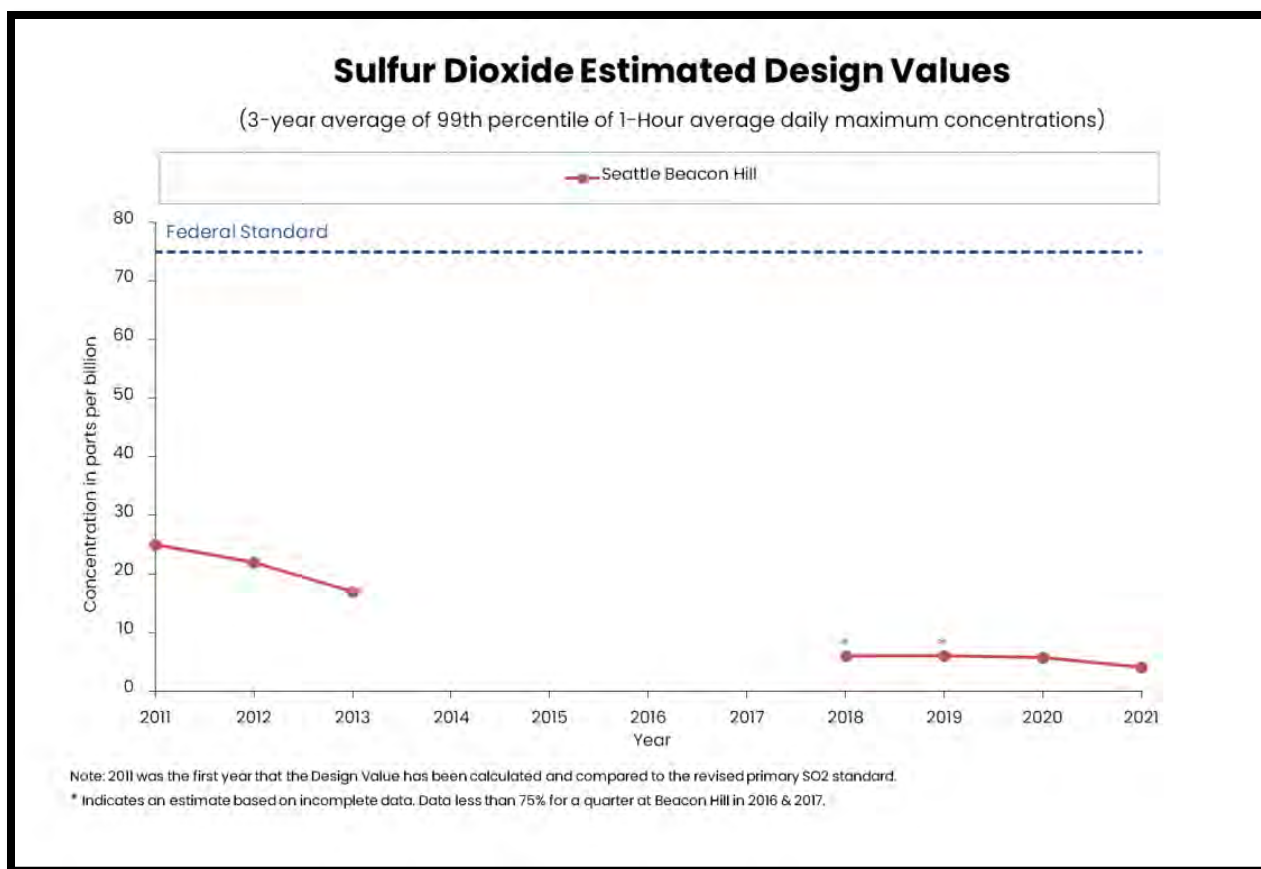
### Exhibit 3.1.2.1-5 Nitrogen dioxide (NO<sub>2</sub>) (1998-2005) and reactive nitrogen (NO<sub>y</sub>-NO) (2007-2021) for the Puget Sound region



Source: PSCAA 2021 Air Quality Data Summary.

SO<sub>2</sub> is a colorless gas produced by burning fossil fuels containing sulfur, like coal and crude oil. Marine vessels and diesel construction equipment are common sources of SO<sub>2</sub>. Like NO<sub>2</sub>, SO<sub>2</sub> causes respiratory health problems. The current EPA standard for SO<sub>2</sub> as of 2010 is a 1-hour standard of 75 ppb. Regional measurements have stayed within the standard (Exhibit 3.1.2-6, below).

**Exhibit 3.1.2.1-6 Sulfur dioxide (SO<sub>2</sub>) 1-hour maximum concentrations (3-year average of the 99<sup>th</sup> percentile) for the Puget Sound region**



Source: PSCAA 2021 Air Quality Data Summary.

### Air Quality Permitting Requirements

Types of air quality permits include the following:

- Air operating permits
- Burn permits
- General orders permits
- Notice of construction permits
- Prevention of Significant Deterioration permits

### ***Air Operating Permits***

Commercial and industrial businesses in Washington that emit large amounts of air pollution must obtain an air operating permit. Thresholds for emissions that require a permit include businesses with the potential to emit:

- More than 100 tons per year of any air pollutant
- More than 10 tons per year of any hazardous air pollutant
- More than 25 tons per year of a combination of hazardous air pollutants

Agencies that issue air operating permits include:

- Ecology Air Quality Program in Central Regional & Eastern Regional Offices
- Ecology Industrial Section – aluminum smelters and pulp and paper mills
- Energy Facility Site Evaluation Council (EFSEC) – stationary thermal power plants with generating capacity of 350,000 kilowatts or more
- EPA – tribal lands
- Local clean air agencies, such as PSCAA

### ***Burn Permits***

Types of burning permits based on the location and type of burning are agricultural burning, fire training burning, asbestos demolition/renovation, and silvicultural (forest) burning.

### ***General Orders Permits***

A general order permit applies to businesses including asphalt plants, autobody shops, concrete batch plants, dairy digesters, dry cleaners, rock crushers, and small water heaters and steam-generating boilers.

### ***Notice of Construction Permits***

A notice of construction permit is required before installing a new source of air pollution or modifying an existing source of air pollution.

### ***Prevention of Significant Deterioration Permits***

The Prevention of Significant Deterioration permit applies to large new facilities or major changes to existing large facilities that could increase air pollution in an area that meets air quality standards.

### ***Conformity Analyses for State- or Federally Funded Transportation Projects***

Transportation projects are regulated at the state and federal levels. Federal, state, and local government representatives use collaborative interagency consultation to support conformity analyses. The conformity analysis is required for federal funding to ensure transportation projects are consistent with air quality goals.

FHWA works with the Washington State Department of Transportation (WSDOT) and county governments to implement transportation conformity requirements. The conformity analysis is required for nonattainment or maintenance areas. These are project areas that do not meet or previously did not meet air quality standards for ozone, carbon monoxide, particulate matter, or nitrogen dioxide. Kitsap County is not in such an area thus this analysis is optional.

### ***Vehicle Travel & Vehicle Emission Forecasts by PSRC***

While average fuel efficiency has improved, Kitsap County has seen an increase in Vehicle Miles Traveled (VMT) on a per-capita basis. The PSRC prepared a Regional Transportation Plan (RTP) for VMT reductions. To reach that goal the plan calls for investments in transit, rail, ferry, street and highways, freight, bicycle and pedestrian facilities, and other systems. Current PSRC traffic demand modeling assumes VMT reductions based on the RTP model (Cascadia 2022).

Future forecasting indicates GHG emissions from mobile sources (on-road vehicles, aviation, and off-road vehicles) will constitute 15% of countywide emissions (Cascadia 2022).

### ***Summary***

Current and forecast GHG emissions for Kitsap County indicate there will be an emissions gap of approximately 690,000 MTCO<sub>2</sub>e to attain the PSRC 2050 emission goal. Project emission values for 2050 are noted for the primary sources. The primary emission sources are the built environment (36%), transportation and other mobile sources (19%), and land use (17%).

### 3.1.2.2 Air Quality/Climate – Impacts

#### Impacts Common to All Alternatives

Air quality impacts associated with urban and rural development will occur under all the alternatives. Development consistent with zoning is anticipated to accommodate population and employment growth. Regional growth, building energy use, transportation volumes, and tree losses are projected to increase under all the considered alternatives.

Building energy fuel types considered under all alternatives are electricity, natural gas, and fuel oil. Buildings under all three alternatives are primarily fueled by electricity. Analysis of all alternatives uses housing capacity, and employee capacity planning to determine residential, commercial, and industrial energy consumption. Projections of associated emissions are based on net developable acres. Emissions associated with existing housing units or commercial buildings in Kitsap are not represented.

Fuel types for passenger vehicles are projected to shift from 93.7% baseline to approximately 69% electric vehicles (EVs) and 26% gasoline powered vehicles by 2044. Freight and service vehicles are fueled by gasoline and diesel at 2.4% and 2.8%, respectively in 2019. By 2044 approximately 40% of those freight and service vehicles are projected to be EV. Even with greater adoption of EV, VMT emissions increase under all alternatives. Increases in fuel burning are associated with several air quality pollutants, such as particulate matter, carbon monoxide, NO<sub>2</sub> and sulfur oxides.

Development under all alternatives is projected to result in a loss of tree canopy cover. The ICLEI LEARN spatial analysis tool was utilized by Cascadia Consulting Group to assess and compare forested acreage under each of the alternatives (Cascadia 2022). Projected net change in forested acreage was used to estimate emissions. Reductions in forested acreage represent losses of carbon sequestration, as well as reduction of air quality services trees provide. Regulations regarding tree retention and replacement may mitigate these impacts to some extent.

Relative to 2019 GHG emissions will increase under all three alternatives. Existing air quality policies and regulations apply to all alternatives to manage and mitigate these impacts to the extent practicable.

#### Impacts of Alternative 1, “No Action”

Alternative 1 would not accommodate growth targets for housing or employment. It is the lowest growth alternative considered here. Under Alternative 1 growth would progress under current zoning within current county and UGA boundaries.

Building energy consumption emissions are lowest for Alternative 1, relative to Alternatives 2 and 3. Alternative 1 building energy emissions are modeled at 137,412 MTCO<sub>2</sub>e. That total includes residential (61,008 MTCO<sub>2</sub>e) and commercial (76,404 MTCO<sub>2</sub>e) energy uses. However, lower emissions are due to lower growth that does not accommodate future population and employment growth. Housing capacity for single and multifamily units under Alternative 1 is 8,503 units and employment capacity are estimated at 10,637 under Alternative 1. These values are substantially lower than growth accommodated under Alternatives 2 and 3.

GHG emissions resulting from transportation are represented using VMT. VMT under Alternative 1 is modeled at 680,015 MTCO<sub>2</sub>e by 2044, an 11% increase relative to 2019 values.

Tree losses reduce carbon sequestration yielding increased GHG emissions. Difference in forested acreage among alternatives is nominal. Cascadia used the no action alternative as a baseline for comparison among Alternatives 2 and 3. Forested acreage in the county is modeled at 19.4% under Alternative 1.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Alternative 2 focuses growth within multifamily and commercial zones to accommodate growth with limited expansion of UGAs. Specifically, development is targeted in the Silverdale regional center and Kingston countywide center. UGA expansions under Alternative 2 would be associated with existing urban areas, including Bremerton, Port Orchard, and Poulsbo. The approach reduces development pressure on rural areas and provides opportunities for transit use within the urban centers.

Under Alternative 2, GHG emissions resulting from building energy consumption are lower than projected for Alternative 3. Residential and commercial emissions are modeled at 203,379 MTCO<sub>2</sub>e for Alternative 2, approximately 3% lower than projected for Alternative 3. Residential and commercial development comprise 82,904 and 120,475 MTCO<sub>2</sub>e of Alternative 2 totals, respectively. These lower emissions coincide with greater housing capacity under Alternative 2, relative to Alternative 3. Housing capacity for single and multifamily units under Alternative 2 is 13,533 units, approximately 26% more housing than under Alternative 3. Employment capacity under Alternative 2 is modeled at 16,733. This employment capacity is higher than Alternative 1 and slightly lower than Alternative 3.

Transportation impacts on GHG emissions, using the VMT metric, are modeled at 684,887 MTCO<sub>2</sub>e by 2044, 0.7% more than would be expected under the no action alternative.

Cascadia's ICLEI LEARN analysis projects a slight decrease in forested acres under Alternative 2. This decreases forested acres by 0.42% relative to Alternative 1 and increases emissions by 2,825 MTCO<sub>2</sub>e. (Cascadia 2022).

### **Impacts of Alternative 3, "Dispersed Growth Focus"**

Alternative 3 is more dispersed than Alternatives 1 and 2. UGAs would expand in more areas under Alternative 3 relative to Alternative 2. This more dispersed growth option offers fewer opportunities for transit and increases growth pressure on rural areas. Alternative 3 is similar to Alternative 2 metrics for GHG emissions, while accommodating less housing and employment growth.

Building energy emissions are greatest for Alternative 3 at 209,086 MTCO<sub>2</sub>e total. Residential and commercial development comprise 73,414 and 135,671 MTCO<sub>2</sub>e of Alternative 3 totals, respectively. Capacity for housing units and employment under Alternative 3 is 10,776 and 18,889, respectively. Alternative 3 building energy emissions are 2.8% higher than Alternative 2. However, Alternative 2 accommodates 26% more housing than Alternative 3. Employment capacity is highest for Alternative 3, approximately 13% more than Alternative 2.

Transportation impacts on GHG emissions, as measured by VMT, are highest for Alternative 3 of the preliminary alternatives. Dispersed development under Alternative 3 would yield a slight increase in emissions relative to Alternatives 1 and 2 at 691,068 MTCO<sub>2</sub>e. Alternative 3 VMT emissions are 0.9% higher than Alternative 2.

Under Alternative 3, Cascadia's ICLEI LEARN analysis projects a slight decrease in forested acres relative to Alternative 1. Forested acres are projected to decrease by 0.36% relative to Alternative 1 and increase emissions by 2,445 MTCO<sub>2</sub>e.

### **Impacts of the Preferred Alternative**

The Preferred Alternative is most similar to Alternative 2 in development pattern, with slightly more area of UGA expansion than Alternative 2 and less than Alternative 3. However, the Preferred Alternative also has the largest growth in peak-hour VMT compared to today, 6% higher than Alternative 2. This is due to its accommodation of greater population and employment growth and inclusion of additional urban industrial lands. GHG emissions associated with VMT are expected to be 722,704 MTCO<sub>2</sub>e in 2044, accordingly an increase of 17.8% over the 2019 baseline and higher than the preliminary alternatives.



Building energy emissions for the Preferred Alternative are higher than Alternative 2 but lower than Alternative 3 at 207,987 MTCO<sub>2</sub>e. Residential and commercial/industrial development represent 80,146 MTCO<sub>2</sub>e and 126,314 MTCO<sub>2</sub>e, respectively. The Preferred Alternative has 3.3% lower residential energy emissions than Alternative 2 and 4.8% higher commercial and industrial building energy emissions, which is consistent with the slightly lower housing capacity and higher employment capacity in the Preferred Alternative.

Under the Preferred Alternative, the ICLEI LEARN analysis projects a slight decrease in forested cover compared to Alternative 1, but a smaller decrease than Alternative 3. Forested acres are projected to decrease 0.30% relative to Alternative 1 and increase emissions by 2,022.8 MTCO<sub>2</sub>e, a smaller increase in emissions due to forest canopy loss than either Alternative 2 or Alternative 3. This is likely attributable to the increased buffer protections in the proposed revisions to the CAO included in the Preferred Alternative.

### 3.1.2.3 Air Quality/Climate – Mitigation Measures

#### Incorporated Plan Features

The 2016 Kitsap County Comprehensive Plan provides goals and policies intended to preserve and protect the natural environment. Chapters 1 – Land Use, Chapter 3 – Environment, and 5 – Transportation, include goals and policies pertinent to air quality and climate change.

**Land Use Goal 1.** Focus current and future planning on infill and redevelopment of existing UGAs.

Land Use Policy 2. Support innovative, high quality infill development and redevelopment in existing developed areas within the UGAs.

Land Use Policy 6. Where appropriate, encourage mixed use, high density uses, and Transit Oriented Development (TOD) to reduce reliance on the single occupancy vehicle (SOV).

**Environment Goal 1.** Formally treat natural environments, including forest lands, shorelines, freshwater systems, intact ecosystems, and other critical areas, as an essential asset that is planned for, managed, and invested in to meet the needs of current and future generations.

Environment Policy 5. Support projects that increase air quality, reduce carbon emissions, or reduce climate change impacts.

**Environment Goal 3.** Reduce the risk of damage to life, property, and the natural environment through appropriate regulatory and incentive-based approaches in land use, transportation, and development engineering programs.

Environment Policy 16. Train staff on the use of emerging best practices in the area of sustainable land use practices, including green building and site design, and create awareness of these preferred practices through the use of pilot programs, model ordinances, education, and incentives, while in balance with other GMA required elements.

**Transportation Goal 7.** Avoid first, minimize second, and then mitigate negative environmental or use impacts due to additions to or improvements to the transportation system whether upland or on shoreline. Plan, locate and design transportation systems and essential utility facilities along shoreline areas where they will have the least possible adverse effect on shoreline ecological functions and/or processes and existing or planned water-dependent uses.

Transportation Policy 27. Encourage use of innovative fuel systems.

Transportation Policy 28. Encourage travel patterns and mode choices through commute trip reduction.

Transportation Policy 29. Plan for and mitigate the impacts of climate change, extreme weather events, and natural/human-made disasters on the transportation system.

Transportation Policy 30. Retain or replace native vegetation as much as possible when developing transportation projects.

## **Applicable Regulations & Commitments**

Under each alternative, new and existing development must comply with the County's environmental health standards. Local, state, and federal regulations protecting air quality include the following:

- Clean Air Act (CAA) – a comprehensive federal law that regulates all sources of air emissions. The CAA is permitted and enforced by the EPA. The EPA establish NAAQS for common pollutants.
- Ecology monitors and tracks NAAQS to ensure outdoor air pollutants meet federal and state air quality standards.

- State Implementation Plan (SIP) provides tools to restore air quality and meet NAAQS when one or more pollutants are not in compliance. EPA reviews and approves a SIP.
- RCW 70A.15 – Washington Clean Air Act.
- PSCAA Regulations. PSCAA administers air quality permits and registrations.
- Washington State Department of Health (WDOH) – Shares AQI data with the public. Provides public education on hazards, including wildfire smoke.

Commitments to manage climate change include the following.

- Climate Commitment Act (CCA). The CCA caps and reduces GHG emissions from Washington state's largest emitting sources. Washington is working on polices to help achieve a 95% reduction in GHG emissions by 2050.
- The Clean Energy Transformation Act (CETA) 2019. CETA commits Washington state to an electricity supply free of GHG emissions by 2045.
- PSRC Vision 2050.
- Kitsap County Comprehensive Plan goals and policies as noted above.
- KCC, protections for significant trees under Title 19 – Critical Areas Ordinance, Title 22- Shoreline Master Program. Tree harvest is also regulated under Chapter 18.16 – Timber Harvest.

### **Other Potential Mitigation Measures**

The county should consider public and private incentives to reduce use of fossil fuel energy sources. This may include:

- Working with the Washington State Renewable Energy System Incentive Program and regional partners, such as Puget Sound Energy.
- Consider the cap-and-invest program under Washington's CCA to motivate large industrial polluters to reduce emissions.
- Invest in transit to reduce SOV use and reduce VMT overall.

#### **3.1.2.4 Air Quality – Significant Unavoidable Adverse Impacts**

Regional growth under all alternatives increases energy needs and impacts forest canopy cover. GHG emissions will increase under all the alternatives. While the alternatives can manage that population growth to minimize GHG emissions as a priority, none of the alternatives eliminates a net increase over the next 20 years.

Tree losses projected for the alternatives cannot be wholly avoided given net developable acres in the county. However, regulations to protect and replace significant trees can minimize this unavoidable impact.

### **3.1.3 Water Resources (Surface & Ground)**

This section addresses the quantity and quality of surface water, groundwater, wetlands, and frequently flooded areas in Kitsap county.

#### **3.1.3.1 Water Resources – Affected Environment**

Kitsap county has a variety of water resources including lakes, streams, marine and estuarine waters, frequently flooded areas, groundwater, aquifer recharge areas, wetlands, and stormwater runoff. These water resources are located within Water Resource Inventory Area (WRIA) 15.

Land use patterns have impacts on the quantity, quality, and the rate at which surface water flows. The conditions of surface water are crucial in protecting and maintaining designated surface water uses. Surface water uses include, but are not limited to, aquatic habitat, recreational activities, drinking water supply, shellfish and seaweed harvesting, navigation, and aesthetics.

The flow of water through the landscape is determined by delivery and movement. While precipitation is the primary driver of delivery, rate and mode of initial movement are primarily influenced by ground surface and other conveyance roughness factors affecting the movement of surface water. Storage, which slows movement and meters discharge, is provided by wetlands, lakes, stream channels, and floodplains, as well as by groundwater recharge, subsurface flow, and discharge. Slope wetlands and areas of higher permeability also contribute to movement.

The flow of water through stream channels is affected by channel roughness and hydraulic complexity. In-stream wood provides such complexity and roughness, and a functioning riparian corridor provides for a continued supply of such wood in the future and roughness out on the floodplain to reduce velocities and increase storage there. Such habitat complexity results in a wide range of flow depths and velocities, allowing fish and other

aquatic organisms to choose preferred conditions across the full range of stream flow events.

The quantity and quality of surface water also directly affects the extent of flooding and amount of groundwater recharge. Maintaining groundwater recharge is imperative for the residents of Kitsap County, as groundwater is the only source of drinking water outside of Bremerton's public water supply service area. Groundwater also contributes to base flows of streams, provides direct input into lakes, aids in the prevention of seawater intrusion, and other related benefits.

## Surface Waters

### *Marine Resources*

Marine shoreline environments provide essential nearshore habitats that support ecological functions and processes. Kitsap county has extensive marine shorelines that include a variety of inland and coastal landforms, including spits, coastal bluffs, lagoons, tidal flats, streams, tidal deltas, and rocky outcrops.

The marine and nearshore resources of Puget Sound and Hood Canal provide a diverse habitat for a range of organisms, including fish and shellfish. Pocket estuaries, inlets, and bays provide vital habitat, feeding grounds, and shelter for juvenile salmonids, as well as for forage fish and other aquatic species. The marine nearshore environment and lower creek reaches provide critical rearing habitat for endangered juvenile Chinook that originate from adjacent watersheds (West Sound Nearshore Integration and Synthesis 2016).

The marine nearshore is where subtidal marine habitat meets the upland watershed. This environment is shaped by various factors that impact sediment transport and movement patterns of aquatic species. These shoreline processes are critical for supporting self-sustaining shoreline habitats and ecological functions over time. Along coastal shorelines, feeder bluffs and other accretion shore forms provide continual replenishment of sediment that is utilized by forage fish in the nearshore environment. Forage fish, such as surf smelt (*Hypomesus pretiosus*), Pacific sand lance (*Ammodytes hexapterus*), and Pacific herring (*Clupea pallasii*) are a vital part of the marine food web and rely on sediment transport for spawning habitat.

Areas of shorelines that have been altered with hard armoring techniques are considered impaired and have reduced ecological function due to the interruption of natural sediment input, transport, and deposition processes. This impairment causes negative impacts on the marine ecosystem due to reduced forage fish spawning habitat and nearshore

environments (Dethier et. al 2016). According to county data, 82% of shoreline properties within the county have been developed and 38% of the shoreline has been altered with shoreline armoring (Gertsal et. al 2012).

### ***Streams & Rivers***

Nearly 1,000 miles of streams are mapped in Kitsap County, and this length is likely low because some smaller streams are likely still unmapped. Streams and rivers in Kitsap County largely represent lowland-type streams with moderate gradients. Many of these streams originate from lakes, groundwater discharge, or swamp-like headwater wetlands that may be shared between watersheds. Likewise, some adjacent watersheds share a common regional aquifer, which contributes significantly to the summer flows of these streams. Due to the lower elevations, none of the streams are supported by snow runoff (Williams et al. 1975). Gold and Green Mountains are the highest hills in the County at 1,761 and 1,639 feet, respectively (WDNR 2024.). Stream profile characteristics are pool-riffle in nature with water quality and aquatic insect production highly conducive to anadromous fish production (Williams et al. 1975). Riparian areas in Kitsap County consist of various forest-seral stages, ranging from deciduous forest to mixed deciduous-coniferous forest to coniferous forest. Vegetation characteristics of the riparian area [such as large woody debris (LWD) recruitment, overhanging vegetation, species composition, and canopy cover] vary significantly within and between watersheds.

Streams on the eastern side of the Kitsap Peninsula drain into several large inlets within western Puget Sound, including Port Madison, Liberty Bay, Port Orchard, Sinclair Inlet, and Dyes Inlet. Streams on the western side drain into Hood Canal. Generally, the eastern streams are smaller than those on the western side (Haring 2000); however, the eastern streams have historically supported substantial salmon runs (Williams et al. 1975). The predominant riverine systems of the east Kitsap Peninsula are Chico, Blackjack, and Curley Creeks. Of note, Chico Creek supports a Chum salmon run of typically 20,000 fish, but in a few years in excess of 100,000 (WDFW 2024). During some years, endangered Southern Resident Killer Whales enter Dyes Inlet to feed on salmon. The significantly larger riverine systems of the west Kitsap Peninsula include the major basins of Big Beef Creek, Dewatto River, Tahuya River, Big Mission Creek, and Union River. A map of surface waters is found in Exhibit 3.1.3.1-1.

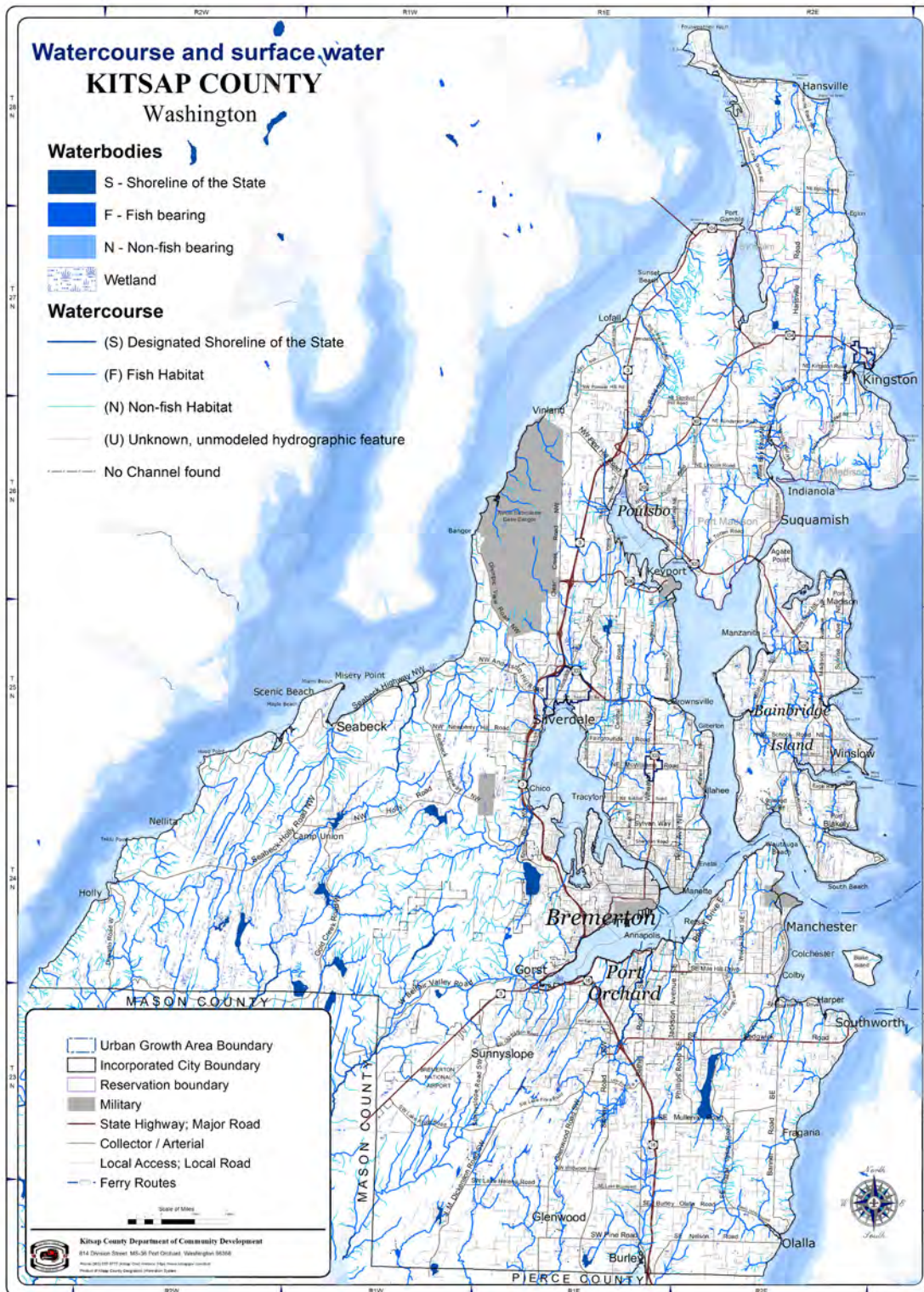
In 2018, the Washington State Legislature passed a streamflow restoration law (RCW 90.94) to help support robust, healthy, and sustainable salmon populations while ensuring rural communities have access to water. The law directs Ecology to develop a Watershed Restoration and Enhancement Plan in WRIA 15 that identifies projects to offset potential consumptive impacts of new permit-exempt domestic groundwater withdrawals on instream flows over 20 years (2018–2038) and provide a net ecological benefit to the

watershed. The final draft WRIA 15 Watershed Restoration and Enhancement Plan (Ecology 2022a) is also included by reference (Chapter 2).

Exhibit 3.1.3.1-2 describes ecological and land use conditions along county watercourses large enough to be considered Shorelines of the State. In addition to these larger watercourses, numerous small streams and direct tributaries can be found throughout the county.



### Exhibit 3.1.3.1-1 Watercourse and surface water map





**Exhibit 3.1.3.1-2 Existing conditions of the county's streams which are Shorelines of the State**

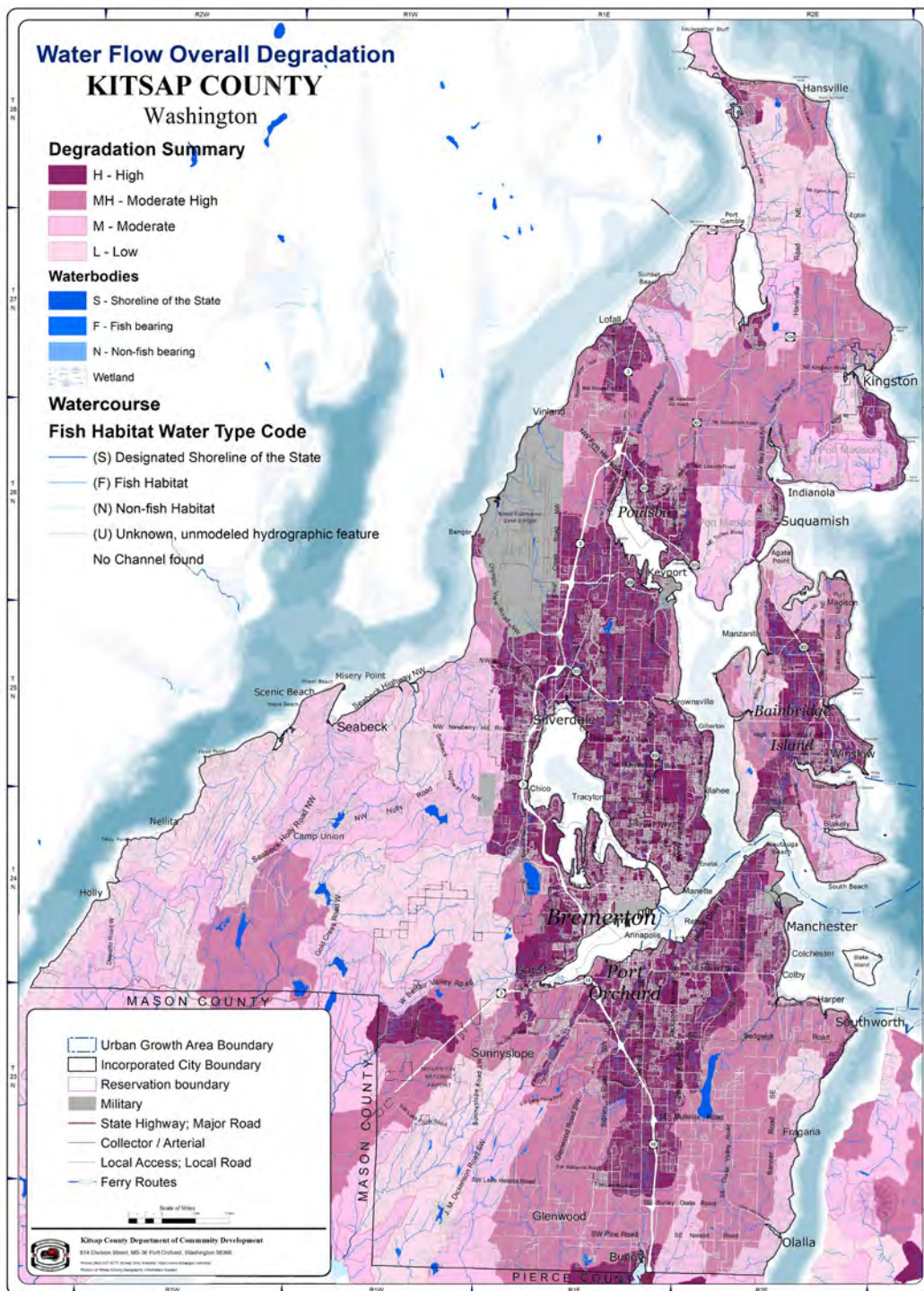
Stream/River	Description	Land Use Conditions
<b>Central Puget Sound</b>		
Chico Creek	303(d) list for temperature, bacteria, and dissolved oxygen (DO); improving trend in water quality; summer low flow concerns; good habitat and riparian cover upstream of railroad	Rural Residential; Rural Wooded; Rural Commercial
<b>South Puget Sound</b>		
Gorst Creek	Poor riparian cover and LWD in lower reaches; 303(d) list for DO and bacteria levels.	Urban high intensity commercial/ mixed use; Urban low density residential; Forest land, mostly City owned for watershed purposes, is a primary land use in watershed.
Blackjack Creek	Fair to poor riparian cover; limited LWD; floodplain function maintained; ditched channel through agricultural areas; 303(d) list for DO, temperature, and fecal coliform bacteria.	Urban low-density residential; Rural protection; Rural residential; Agricultural lands in upper portion of watershed
Curley Creek and Associated Wetland	Mixed forest vegetation and LWD in lower reaches; Poor riparian cover and LWD in upper reaches with surrounding agricultural use; Summer low flows limit fish passage; 303(d) list for DO and temperature.	Rural protection; Rural residential; Public facility
Burley Creek	Riparian cover is fair to poor; channelized; Summer low flow	Rural residential

Stream/River	Description	Land Use Conditions
	concerns- closed to further appropriation; increase in flows since 1996; 303(d) list for DO.	
Coulter Creek	Good riparian cover; 303(d) list for DO, pH, and bacteria	Rural wooded
<b>Central Hood Canal</b>		
Big Beef Creek	Steep, moderately confined ravine from Lake Symington to RM 2.0; Valley widens and gradient drops in lower section with floodplain and complex side channel habitat; Deciduous and mixed forest; Poor to fair LWD; 303(d) listed for DO, pH, and temperature.	Rural wooded; Rural protection; Mineral resource; Public facility
<b>South Hood Canal</b>		
Union River and floodplain	Headwater wetlands; fair floodplain connectivity; Mixed-forest buffer; Moderate LWD abundance; Poor pool frequency. 303(d) listed for DO and temperature.	Rural protection
Tahuya River	Wide, intact riparian buffers; Good pool quality. 303(d) listed for DO, bacteria and temperature	Rural wooded; Rural protection; Mineral resource; Rural residential;

Source: *The Watershed Company and BERK 2013; City of Bremerton, AECOM, BERK et al. 2013.*

Stream basins in Kitsap County vary in level of alteration and land use. Ecology mapped the relative level of degradation to water flow processes, which includes measures of delivery, surface storage, discharge, and recharge (Exhibit 3.1.3.1-3). The map illustrates that watershed processes tend to be most impaired in central Kitsap drainages to Puget Sound. The ranking used to assess degradation of water flow processes is based on vegetation clearing, impervious surfaces, level of development, presence of slope wetlands and floodplains, as well as other factors.

### Exhibit 3.1.3.1-3 Map of overall water flow degradation



Source: Ecology, electronic source.

## Lakes

As referenced in the Kitsap County SMP, there are 25 lakes greater than 20 acres in size in the county. The ecological and land use characteristics of each lake are briefly described below in Exhibit 3.1.3.1-4.

**Exhibit 3.1.3.1-4 Lakes and reservoirs in Kitsap county**

Lake	Description	Land Use Designations
<b>North Puget Sound</b>		
Buck Lake	Primarily forested adjacent to the shoreline, except for open space area related to the Buck Lake County Park	Rural Residential; Public Facility
Carpenter Lake	The cattail-lined lake is up to 60 feet deep, fed by Carpenter Creek and used by cutthroat trout and coho salmon. It is a sphagnum moss bog and is an unusual, fragile, sensitive area accessed by a boardwalk trail.	Public Facility
<b>Central Puget Sound</b>		
Island Lake	Vegetation is primarily intact on north and south ends of the lake; minimal riparian buffers on east and west ends and at Barker Creek headwaters	Urban Low Density Residential; Public Facility
Kitsap Lake	Single-family residences with bulkheads, docks, and related appurtenances	Bremerton West UGA; Urban Low Density Residential; Public Facility
Wildcat Lake	Moderately developed shoreline associated with residential development; some intact riparian buffers	Rural Residential; Public Facility
Newberry Hill Heritage Park Pond	Forested vegetation mostly intact with limited passive development associated with public trails	Public Facility; Rural Wooded
<b>South Puget Sound</b>		
Square Lake	Forested vegetation with minimal development; Non-native aquatic plants are present	Public Facility

Lake	Description	Land Use Designations
Long Lake	Eutrophic; Largest lake in Kitsap County; Forested in south; developed with single family residences and related appurtenances around most of the shoreline; Lake provides hydrologic buffer for Curley Creek and Ollala Creek; 303(d) list for total phosphorus	Rural Protection; Rural Residential; Public Facility
Mace Lake	Shallow lake with extensive aquatic vegetation; significant shoreline residential development and directly abuts a local county road	Rural Protection
Horseshoe Lake	Meso-eutrophic; minimal riparian cover, primarily developed with shoreline residential development and related improvements	Rural Residential; Public Facility
Wicks Lake	Riparian vegetation mostly intact, minimal passive trail development associated with Wicks Lake County Park	Public Facility
Big Lake (McCormick Woods)	Riparian vegetation primarily intact	Public Facility
Oakridge Lake	Portions of the lake have been logged riparian buffer remaining	Rural Wooded; Rural Residential
Lake Flora	Reduced buffer associated with previous logging activity along the south portion of the lake. Minimal buffer along northwest portion associated with a camp facility	Rural Wooded
Carney Lake	Primarily developed with SFRs and related appurtenances; limited riparian vegetation cover;	Rural Residential; Rural Wooded
Wye Lake	Primarily developed with SFRs and related appurtenances; limited riparian vegetation cover;	Rural Residential
Fern Lake	Riparian vegetation intact with woody debris	Public Facility
<b>North Hood Canal</b>		
Miller Lake	Intact riparian buffer with established floodplain connectivity	Rural Wooded
<b>Central Hood Canal</b>		
Lake Symington	Primarily developed with SFRs and related appurtenances; limited riparian vegetation cover and overhanging vegetation	Rural Residential

Lake	Description	Land Use Designations
<b>South Hood Canal</b>		
Lider Lake	Primarily intact riparian buffer with limited residential development along the southeast shoreline	Rural Residential; Rural Protection
Tiger Lake	Developed with single family residences and related appurtenances, Oligo-mesotrophic Lake;	Rural Residential
Mission Lake	Mesotrophic lake with highly erodible soils; primarily developed with single family residences and related appurtenances; Summer low flow concerns; Fair floodplain connectivity and riparian cover; non-native aquatic plants are present	Rural Residential
Panther Lake	Oligo-mesotrophic Lake; primarily developed with single family residences and related appurtenances, portions of intact buffer remain along southeast shoreline	Rural Residential
Lake Tahuya	Meso-eutrophic lake; primarily developed with single family residences and related appurtenances, non-native aquatic plants are present, recently developed public access	Mineral Resource; Rural Residential; Rural Wooded
Morgan Marsh	Well vegetated buffers, abundant woody debris, limited residential development	Rural Wooded; Rural Residential
Tin Mine Lake	Mixed riparian forest; intact, well vegetated buffers	Rural Wooded
Hintzville Beaver Ponds	Limited residential developed along the north portion of the ponds, well vegetated buffers	Rural Wooded; Rural Residential

Source: The Watershed Company and BERK 2013; Kitsap County SMP.

### **Wetlands**

Wetlands are often transitional zones between aquatic and terrestrial ecosystems, though they can be found across the landscape. Exhibit 3.1.3-5 shows approximate locations of



wetlands and hydric soils throughout Kitsap County. Some prominent wetland systems include the Morgan Marsh, Dewatto Wetland, and Hintzville Beaver Ponds, which are all considered shoreline waterbodies and are discussed in the Shoreline Inventory and Analysis Report (Kitsap County 2010).

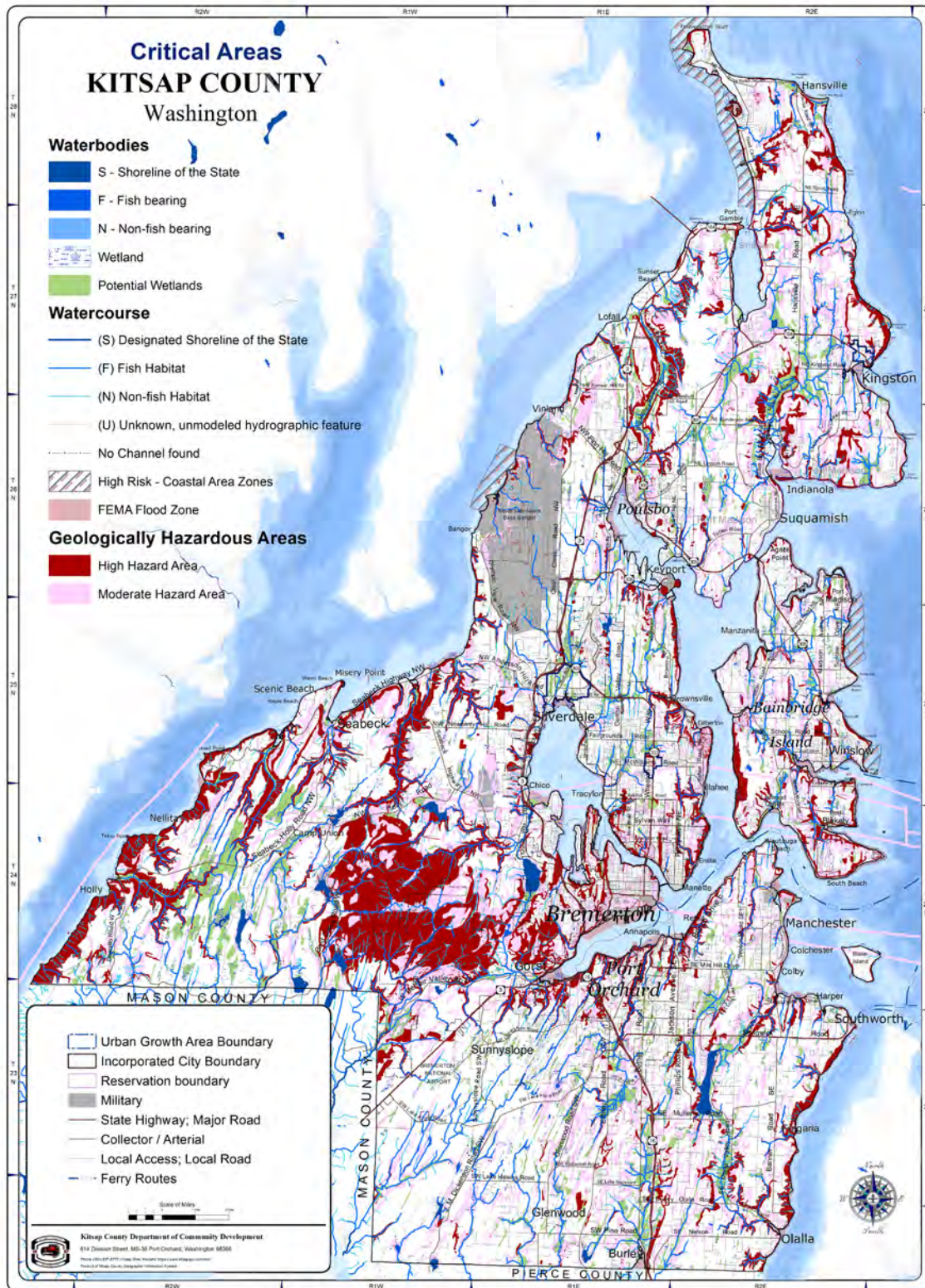
Wetlands provide many important functions including:

- Water quality improvement: Wetlands improve water quality by intercepting runoff, retaining inorganic nutrients, converting organic wastes, settling sediment, and removing contaminants (Sheldon et al. 2005).
- Hydrologic function: Hydrologic wetland functions include groundwater recharge, reduction in peak surface water flows, reduced stream erosion, and flood-flow desynchronization (Sheldon et al. 2005).
- Habitat: Wetlands provide unique habitat for wildlife, plants, and fisheries. Several factors including buffer width and condition, vegetative structure, habitat interspersation, wetland hydroperiods, and landscape setting all impact wetland habitat functions (Hruby 2014).

Wetland functions, such as those described above, are the biological, chemical, and physical processes that occur within a wetland. Wetland values refers to the resources a wetland provides that are valued by society, either ecologically, economically, recreationally, or aesthetically.

For regulatory purposes, wetland functions and values are commonly ranked in a rating system. KCC currently requires use of the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication #14-06-029, Hruby 2014) to categorize wetlands. The Ecology wetland rating system broadly groups wetland functional values into three categories described above (water quality functions, flood storage or hydrologic functions, and habitat functions). The functional score for each category is ranked as high, medium, or low. Each category assesses site potential to perform each function, relative to landscape setting, and value to society. The KCC assigns buffers based on the wetland category, habitat score and proposed land use. Required buffer widths range from 25 to 250 feet (KCC 19.200.220).

**Exhibit 3.1.3.1-5 Critical Areas map**





## **Water Quality**

### ***303(d) Listings***

According to Ecology, 68 surface water bodies have been identified as impaired under Section 303(d) of the federal Clean Water Act ([Ecology Current Water Quality Assessment 2022](#)). The listed water bodies are impaired from bacteria, DO, and temperature. Long Lake is the only body of water impaired by total phosphorus. Big Anderson Creek, Big Beef Creek, and Sacco Creek have been designated as impaired by pH. A Total Maximum Daily Load (TMDL) and Water Quality Implementation Plan has been established to address high levels of fecal coliform bacteria for Dyes and Sinclair Inlets (Ecology 2012). Kitsap County Public Health District have developed a Water Pollution Identification and Correction (PIC) to reduce bacteria levels to prevent waterborne illness and other water quality related issues (Kitsap Public Health 2024). In 2019, Washington state adopted *E. coli* bacteria as the basis for water quality standards instead of fecal coliform bacteria to align with the federal standard and more accurately represent health risk for waterborne illnesses (Ecology, 2019). The mission of the PIC is to collect water samples, investigate potential sources of *E. coli* bacteria and make efforts to resolve the issue. Kitsap County has successfully improved water quality conditions for waters impaired by bacteria through the implementation of pollution control plans and completing on-the-ground restoration activities. (Kitsap Public Health 2024).

### ***Hood Canal DO***

Hood Canal is listed as an impaired body of water under Section 303(d) of the Clean Water Act due to low DO. The continued low DO content has been attributed to a history of hypoxic conditions that have resulted in periodic fish kills. The Washington State Legislature adopted the Hood Canal Rehabilitation Program to develop a program to address the rehabilitation of Hood Canal in Mason, Kitsap, and Jefferson counties under RCW 90.88. Under this legislation, the Hood Canal Coordinating Council (HCCC) was designated as the local management board to address the low DO issues by coordinating with local governments. Current efforts to improve the water quality conditions in Hood Canal include: the Regional Hood Canal PIC program, Hood Canal Regional Stormwater Retrofit Plan, and the PIC by Kitsap County Public Health District and Clean Water Kitsap.

## **Groundwater**

The quantity and quality of groundwater is imperative to the residents of Kitsap county. Approximately 80% of residents within the county rely on the aquifer and groundwater sources as their potable source of water. The remaining water supply comes from the Union River and primarily serves the City of Bremerton (BERK et al. 2012). The quantity of groundwater varies depending on the recharge, discharge, and extractive uses in the

vicinity. The overall quantity of the available groundwater is limited due to the nearby seawater boundary. As usage increases with population growth, the potential for water level decreases and the risk of seawater intrusion increases (Jones et al. 2016). The aquifer relies predominately on infiltration of precipitation for recharge and the volume of recharge varies with the annual rainfall. As referenced in the Kitsap County Initial Basin Assessment (1997), it is estimated that the annual rainfall is approximately 315 billion gallons, but only 44% (about 140 billion gallons) is recharged as groundwater. The remaining precipitation is typically evaporated, absorbed, and transpired by vegetation, or diverted as runoff. Additional factors could affect the volume of groundwater recharge including the permeability of the surficial hydrogeologic units and impervious surface area cover. Areas of high impervious surface area coverage can negatively impact the potential for groundwater recharge by routing precipitation into nearby stream channels or stormwater discharge facilities instead of natural infiltration.

As discussed in the 2012 DEIS (BERK et al. 2012):

*The primary threats to groundwater quality in Kitsap County are seawater intrusion from over pumping of groundwater in coastal areas and nitrate contamination, likely from onsite septic systems and/or agricultural practices. Seawater intrusion is not currently evident throughout most of the county. In general, coastal wells (wells within 0.25–0.5 mile of the coast) are most vulnerable to seawater/saline intrusion. Elevated nitrate concentrations occur in sporadic areas broadly dispersed across the county. Nitrate is a naturally occurring by-product of the decomposition of organic material. Small amounts of nitrate are normal, but excess amounts can pollute supplies of groundwater. For most people, consuming small amounts of nitrate is not harmful. Nitrate can cause health problems for infants, especially those 6 months of age and younger. The primary source of nitrate in groundwater is assumed to be septic systems. Other potential sources are fertilizers and livestock waste. Nitrate concentrations greater than 2.5 mg/L typically occur in shallow aquifers and might be expected where populations of 500 people per square mile or more are served by onsite septic systems (Kitsap Peninsula Watershed Planning Unit 2005).*

### **Critical Aquifer Recharge Areas (CARA)**

A critical aquifer recharge area (CARA) is a designated area 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. This designation is based on the presence of hydrogeologic conditions that would facilitate aquifer recharge or the transfer of contaminants to the underlying aquifer. CARAs are regulated under the Kitsap County CAO (KCC 19.600). The CAO divides the regulations into two categories (Category I and Category

II) based on the potential to adversely affect groundwater. The identification of categories of CARAs includes the depth to water table, soil characteristics, presence of flat terrain, and the presence of permeable surficial geology. Areas without glacial hardpan or a surficial impervious surface layer can allow for increased recharge volume, but also are vulnerable to pollutants given the lack of filtration for contaminants (Kitsap Groundwater Protection Plan, 1994). The regulation of development and land use activities that may impact the quantity or quality of groundwater is critical to public welfare given the reliance on groundwater for the county's potable water supply. Several areas have been specifically identified in the CAO as Category I CARAs due to special circumstances or identified in accordance with WAC 365-190-100(4) as aquifer areas of significant potable water supply with susceptibility to groundwater contamination including, but not limited to, Hansville, Seabeck, Island Lake, Gorst, and Poulsbo. Large areas within Bremerton, Port Orchard, Silverdale, and watersheds that drain to Hood Canal are also designated Category I CARAs.

### **Silverdale Subarea**

The Silverdale subarea is located primarily in the Dyes Inlet basin, but streams also drain to Hood Canal, Liberty Bay, and Burke Bay. The major watersheds in the Silverdale subarea are described in detail in the 2006 Draft Comprehensive Plan EIS (Jones and Stokes et al. 2006). Major watersheds in the subarea include but are not limited to, Dyes Inlet, Clear Creek, and Barker Creek watersheds. Clear Creek is considered the largest watershed in the Silverdale subarea. Most streams in the Silverdale subarea meet freshwater standards as shown in the 2022 Kitsap Public Health District Water Quality Report. Parman Creek was the only stream to fail both state freshwater standards for high bacteria in the Silverdale subarea, according to the 2022 report. The Kitsap Public Health District's Water PIC program has been implemented since 1995 to protect public health and prevent fecal pollution in county surface waters, including those waters within the Silverdale subarea. Ecology has listed seven streams in the Silverdale subarea on the 2018 303(d) impaired waters list, including an unnamed Type F stream near Kitsap Mall and Clear, Strawberry, Mosher, Illahee, Steele, and Barker Creeks.

A large quantity of wetlands is also found in the Silverdale subarea due to the geologic, topographic, and climatic conditions. There are several major wetland systems associated primarily with Clear Creek, Steele Creek, and the headwaters of Barker Creek at Island Lake. However, the largest wetland complex in the subarea includes Schold Farm and the adjacent Peterson Farm. Schold Farm is owned by the County and is used for wetland mitigation, floodplain restoration, and provides an opportunity for public recreation.

Although the Silverdale subarea is served by wells outside the sub-area, all the drinking water comes from three layers of aquifers that underlie the subject area including the shallow Vashon Aquifer, the area-wide Sea Level Aquifer, and the regional Deep Aquifer.

Approximately two-thirds of the surface area is within either a designated Category I (44%) or Category II (20%) CARA within the Silverdale subarea (Kitsap County 2006). Subject to further investigation, there is potential for pumping from these aquifers in support of water supply to lower lake levels and stream flows, such as in Island Lake and Barker Creek.

### **3.1.3.2 Water Resources – Impacts**

#### **Impacts Common to All Alternatives**

All alternatives would allow for development in various land use designations to accommodate population and employment growth. Each of the alternatives would result in an overall increase in the population and total employed persons in Kitsap County. However, all alternatives must adhere to the policies and regulations to safeguard surface water and groundwater resources, as well as protect public health and safety from flood hazards. Each alternative would allow for increased opportunities for development in UGAs and would allow for lower density development to continue to occur in rural areas. Consequently, all alternatives would indirectly affect surface water resources with future development proposals. The creation of impervious surface areas and removal of forested areas associated with development activities in all alternatives will influence natural surface water systems (Booth et al. 2002).

#### ***Surface Waters***

##### ***Marine Resources***

Development along previously undeveloped shorelines is likely to impact physical shoreline processes by accelerating shoreline erosion through stormwater discharges or by preventing eroding sediments from reaching the nearshore if shoreline armoring is present. These changes to the physical shoreline processes will impede sediment transport and impact shoreline habitat. Both urban and rural development can contribute to water quality degradation, which in turn affects marine receiving waters. The coastline may also be affected by ocean temperature changes and changing sea levels under all alternatives (Kitsap County MHMP, 2019). Excessive amounts of nitrogen and phosphorus associated with upland land use activities can contribute to eutrophication and algal blooms in marine waters. These events are known to deplete the DO in the water and result in poor water quality and subsequent fish kills (Mayer et al. 2005, Dethier 2006, Heisler et al. 2008). Increased nutrient pollution associated within development can reduce light transmittance by triggering algal blooms and growth of seagrass epiphytes. The reduction of light may

also reduce the size of eelgrass and kelp beds (Steneck et al. 2002, Hauxwell et al. 2007, Mumford 2007).

### ***Streams & Rivers***

Increased development under all alternatives is likely to impact the quality and quantity of surface water from soil compaction, draining and ditching across the landscape, increased impervious surface cover, and decreased forest cover associated with construction activities (Booth and Jackson 1997, Moore and Wondzell 2005). Urban development is associated with increased high flows, associated flooding, and increased variability of daily streamflow (Burges et al. 1998, Jones 2000, Konrad and Booth 2005, Cuo et al. 2009). Conversion of land under all alternatives may result in reduced functions and values of riparian habitat at a watershed scale.

The development of previously undeveloped upland areas can result in various water quality concerns, including, but not limited to, increased fine sediment, nutrients, pathogens, and metals. Further, the impacts of fertilizers, pesticides, nutrients, bacteria, and chemicals become more widely dispersed as more land area is developed. Differences in the effects of the proposed alternatives on water resources will depend on where population growth is focused. Land clearing activities may accelerate runoff or result in elevated stream temperatures. Stream temperatures and summer low flows may be exacerbated by climate change under all alternatives. Moreover, alteration of watershed runoff processes and stream flow patterns is anticipated to be the most significant impact on water resources. Buffer functions and values, particularly changes in vegetation, may be impacted by a changing climate under all alternatives. New impervious surface area reduces opportunities for infiltration and groundwater recharge. This reduction results in increased surface water flows which causes sediment and contaminants to be transported more directly to receiving waters without natural soil filtration. Stream channel formations and related processes tend to remain intact where impervious surface coverage in a contributing watershed is below 10%. Above that threshold, channels tend to become incised and disconnected from the floodplain (Booth et al. 2002). In areas where land is currently undeveloped, increased impacts may be experienced as engineered surface water systems may not be effective in replicating natural processes or systems.

Changes in land use can also lead to declining summer base flows. Where summer base or low flows may be eliminated entirely, even for short periods, now-perennial streams would be converted to seasonal streams. Declining baseflows in streams which are already intermittent or seasonal would result in increased intermittency of such seasonal streams in both stream length and duration. Stormwater runoff that flows quickly downstream

reduces infiltration and allows less runoff to be stored in the soil for summer flows. Without adequate stormwater detention, channels that were formerly resilient may become unstable due to larger and more variable stream flows over time. Reduced summer base flows may result in a loss of flood-carrying capacity, increased stream temperatures, decreased supply of DO, loss of capacity to assimilate and dilute contaminants, loss of aquatic habitat, and creation of seasonal fish passage barriers (EPA 2021). Reduced groundwater supply to dry-season stream flows can also result in higher summertime temperatures in general, and specifically affect cold water refugia, which typically occur where significant flows of colder groundwater enter stream channels.

### ***Lakes***

The cumulative effects of development under all alternatives are expected to impact water quality in lakes in similar ways as marine resources and streams. Development activities and conversion of undeveloped land can increase the volume and quality of surface water runoff and increase sediment and pollutant loads to lakes. Increased nutrients, such as phosphorus, are known to increase algae in lakes and may result in eutrophication (Robertson 2012). Increases in impervious surface area is likely to reduce the opportunities for infiltration. Areas with slopes draining directly into a lake are expected to have the highest runoff amounts and associated nutrient loading. Eutrophication, pathogens, and low DO levels are primary concerns for impacting water quality in lakes. Increased development near lakes may also alter terrestrial inputs, including large wood debris, terrestrial insects, and organic detritus (Francis and Schindler 2009, Francis et al. 2007). Changes in food structures for fish species can substantially alter shoreline structure and food-web linkages in lakes. Structural stabilization along lakeshores is expected to negatively impact shoreline habitat and interrupt natural processes.

### ***Wetlands***

Increases in impervious surface coverage in a watershed affect wetland hydrology. The creation of impervious surface also increases the potential for sediment and pollutants to be carried into wetlands by stormwater runoff, which can adversely affect wetland wildlife, such as amphibians, which are sensitive to water quality conditions. The loss of wetland areas that tends to occur with development reduces a watershed's capacity to filter pollutants. Direct and indirect impacts on wetlands are anticipated as a result of development activities under each alternative. Alterations to wetlands or associated buffers may occur for development activities if permitted by local, state, and federal agencies. Additional losses to wetland functions and values could occur if mitigation efforts to restore, enhance, or create wetlands are not fully successful and corrective action is not

taken. Increased development activities under each alternative could also result in direct temporary impacts from road or utility construction and increased indirect impacts. Potential impacts to wetlands associated with future development under each alternative could include impacts to wetland hydrology, degradation due to temporary construction impacts, and loss of wetland habitat as outlined above.

### ***Groundwater***

An increase in population under each alternative will increase the demand for potable water within the county. As described in the final draft Watershed Restoration and Enhancement Plan (WRIA 15), it is estimated that Kitsap County will have 2,568 new permit-exempt domestic well connections between 2018-2038 (Ecology 2022). (Not including the projected new permit exempt wells in incorporated Bainbridge Island, the unincorporated county total is 2,430 permit exempt wells.) The estimated consumptive water use associated with the expected new permit-exempt wells is 717.8 acre-feet per year (AFY) across the entirety of WRIA 15, which equates to approximately 123 gallons per day per household. When accounting for only those wells located within Kitsap County, based on the percentage of the wells in the sub-basins projected for Kitsap County multiplied by the total consumptive use in each sub-basin, the total estimated new consumptive use in Kitsap County is 334.4 AFY.

The 334.4 acre-feet per year of consumptive use by projected new permit exempt wells in unincorporated Kitsap County is constant across all alternatives, as no rural growth is planned for in this comprehensive plan.

Pumping water from permit exempt wells can reduce groundwater discharge to springs and streams, which in turn has the potential to reduce stream flows (Barlow and Leake, 2012). Increased water supply demand can impact the underlying aquifers, increase susceptibility of saltwater intrusion, and reduce the groundwater baseflow which contributes to stream flows. Future sea level rise may also increase the potential of saltwater intrusion, particularly for wells that are located adjacent to the shoreline. Changes in land use are expected to reduce groundwater recharging. In undeveloped conditions, groundwater recharge is expected to return to streams as baseflow or may recharge deeper portions of the underlying aquifer system and discharge to marine waters. Urban development is likely to increase impervious surface areas, which prevents precipitation from recharging groundwater aquifers. Reduced groundwater recharge can in turn lower water tables and reduce base flow to water resources including streams, lakes, and wetlands. Loss of wetland habitat would exacerbate this impact. As the population density grows, pollutant loads are also generally expected to increase. The risk of



contamination of CARAs may increase with the intensification of development.

Groundwater storage, which is provided by aquifers and wetlands, provides key riparian functions by desynchronizing stream flows and providing clean cool water to surface water flow. Impacts or reductions to groundwater storage is expected to negative effect stream flows and cold-water contributions.

Changes in land use may result in higher levels of non-point source pollution, such as urban runoff or increased septic disposal. One of the greatest threats to groundwater quality in Kitsap county is nitrate contamination, which can be linked to on-site septic systems. WDOH establishes the safe level for nitrate in drinking water as 10 parts per million (ppm). Nitrate concentrations that exceed the threshold may occur in shallow aquifers or in poorly constructed wells. Higher concentrations of nitrate might be expected where the population density exceeds 500 people per square mile (Kitsap Peninsula Watershed Planning Unit 2005). Land uses that produce specific contaminants, known as point source pollutants, can enter the groundwater at specific discharge points. Industrial uses may also produce point source pollutants that can significantly affect groundwater quality.

### **Impacts of Alternative 1, “No Action”**

Alternative 1 allows for the lowest level of growth of the three alternatives by retaining the existing UGA boundaries and zoning designations. Development would be concentrated in incorporated and unincorporated UGAs, consistent with current conditions. As such, population growth and densification over time would be the primary mechanism for impacts under Alternative 1. Impacts on water quality from intensification of development under Alternative 1 are assumed to be proportional to the amount of impervious surface created in specific areas. However, the total impervious surface area coverage under Alternative 1 is expected to be slightly lower than Alternatives 2 and 3 given the reduced amount of growth capacity. The increased imperious surface area associated with continued urban development under Alternative 1 may reduce groundwater recharge area and could affect water quality from nonpoint urban runoff and point source contamination. Impacts on water quality in rural areas are also assumed to be proportional to the number of residences served by onsite septic systems, which have the potential to produce higher loads of nutrients and bacteria as outlined above. Under Alternative 1, water resources within UGAs are predicted to experience changes in watershed runoff processes, stream flow patterns, and stream water quality with increasing development, similar to those as described in Impacts Common to All Alternatives above. Impacts to wetlands and streams would be consistent with those described above in Impacts Common to All Alternatives. Impacts to overall water quality are expected to occur where

clearing associated with development activities results in warmer stream temperatures and increased sediment transport to streams. Development of properties with environmentally critical areas could result in increased impacts to wetland and riparian habitat functions and values. Under Alternative 1, stream buffer width requirements will remain the same as current conditions. Therefore, no increases in the number of affected properties are expected. Removal of vegetation in the areas surrounding the wetlands and streams, including buffers and related outlying areas, could indirectly affect wetlands or riparian habitat by removing the additional protection afforded by those areas, increasing stormwater runoff, and reducing opportunities for infiltration.

### ***Silverdale Subarea***

The existing Silverdale UGA contains several water resources located within various watersheds. The Strawberry Creek, Knapp Creek, and Koch Creek watersheds are in the western portion of the existing UGA. Increases in impervious surface areas associated with continued development may impact watershed processes in these creeks. The Clear Creek watershed is present within the central and northern portions of the Silverdale UGA. This area currently contains various commercial and residential developments. Intensification of these types of development are expected to generate relatively high levels of impervious surfaces and may impact watershed processes associated with Clear Creek. This watershed also contains mapped wetlands that continue into the portion of the UGA that extends into the Barker Creek watershed. However, this area is currently designated for low-density residential development and as such is expected to have relatively low impacts on the watershed. Large Category I CARAs are located within the western and northern portions of the Silverdale UGA. Development in these areas, particularly industrial and mineral resource lands in the western portion of the UGA, could alter groundwater recharge and have the potential to cause groundwater contamination. Smaller Category II CARAs are in the central and eastern portions of the UGA. Development of commercial and residential lands in these areas would reduce groundwater recharge by increasing impervious surfaces.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

The impacts to water resources would be similar to those experienced with Alternative 1 but would include impacts commensurate with the limited expanded areas of UGA boundaries. Under Alternative 2, existing UGA boundaries would be expanded by a total of 493.96 acres. Accordingly, it is expected that water resources within UGA boundaries would experience greater impacts than Alternative 1. Most development will be focused within the Silverdale Regional Center and Kingston Countywide Center by providing incentives and

regulation amendments to allow for multifamily development in multifamily and commercial zones. Significant development is also expected in the UGAs of Bremerton, Port Orchard, and Poulsbo. The UGA boundary would be expanded in Silverdale and West Bremerton by 48 and 344 acres, respectively. The Port Orchard UGA will include approximately 27.5 acres of expansion and 47.5 acres of retraction for a net reduction of 20 acres. The Central Kitsap UGA will be similar to current conditions with a slight increase of 1.5 acres and expansion will also occur in the Poulsbo UGA for a total increase of approximately 17 acres. The Kingston UGA will include a small retraction, but overall will increase by about 73 acres. Alternative 2 focuses growth primarily within multifamily and commercial zones and reduces pressure of growth on rural areas by keeping UGA boundaries limited. Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces due to development activities. Surface water impacts on streams under Alternative 2 would be greater in several basins and UGAs than those under Alternative 1 as a result of increased total impervious surface area in those basins. Under Alternative 2, an additional 1,458 feet of non-fish bearing streams will be affected by the UGA expansion areas compared to Alternative 1. Additionally, 1,477 feet of non-fish bearing waters will be affected by upzoned areas under this Alternative. Water quality in riparian areas would be expected to decline in those areas where growth is greatest under Alternative 2. Under Alternative 2, the zoning designations that are expected to have the greatest decrease include Rural Protection, Industrial, and Mineral/Resource Protection. Conversion of Rural Protection and Mineral/Resource Protection may further increase impacts on water resources by allowing for increased opportunities for development.

Similar to the effects of population growth on peak stream flows described under Alternative 1, impacts on surface water resources under Alternative 2 would generally correlate to the level of growth, except that the rate of impact may be greater in undeveloped areas. Lakes may experience additional nutrient loading in areas that allow for densification, which may contribute to eutrophication. Direct and indirect impacts on wetlands and their associated buffers would include those impacts previously described in Impacts Common to All Alternatives and Impacts of Alternative 1, "No Action". Unmapped wetlands may also occur in all areas of proposed UGA expansion under this alternative, which may be impacted by subsequent development activities. Similarly, unmapped streams, both fish and non-fish may also occur, with similar potential impacts. Alternative 2 is expected to accommodate the greatest population growth of the three alternatives, which could further impact the demand on groundwater resources. The impacts on groundwater impacts would be commensurate with the increase in population.

### ***Silverdale Subarea***

Alternative 2 would accommodate the greatest amount of growth within the Silverdale subarea of the three alternatives. Alternative 2 includes some changes in zoning designations within the existing Silverdale subarea and would expand the boundaries of the UGA by approximately 48 acres. The UGA boundaries would be expanded to the northeast to accommodate primarily Urban Low Residential. These changes would result in an increase in impervious surfaces and may subsequently impact processes within the Barker Creek watershed. In particular, one of the expansion areas contains an unnamed Type F stream that serves Island Lake and ultimately Barker Creek. Development within this area may reduce riparian functions and values and overall water quality. The proposed expansion areas are also located within a designated Category I CARA. Development of residential activities in these areas would reduce groundwater recharge by increasing impervious surfaces. Several zoning changes are included that range from Industrial, Commercial Urban Medium Residential and Business Center. As outlined above, industrial, and commercial development may include greater impervious surface areas than other uses which would have the ability to further reduce groundwater recharge and cause groundwater contamination from point-source contamination.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Impacts on resources would be generally consistent with those of Alternative 1 and 2 but would be commensurate to the amount of growth opportunities. Alternative 3 would provide for increased growth primarily through expansion of existing UGAs. Instead of limiting UGA boundaries, Alternative 3 expands UGA acreage by approximately 1,049 acres. Expansion of UGA boundaries would occur in Kingston, Poulsbo, Silverdale, Port Orchard, Central Kitsap, and West Bremerton. These changes allow for higher impervious surface coverage compared to the other alternatives. Alternative 3 includes minor increased growth opportunities in rural areas for additional rural housing and employment but includes new policies and regulations that may reduce development potential in UGAs. Overall, Alternative 3 includes more expansions of UGAs than Alternative 2 to accommodate growth predominantly in Silverdale, Kingston, and Bremerton.

The potential for surface water impacts would be proportionately greater in the areas providing greater levels of growth within the UGAs. Under Alternative 3, an additional 5,674 lineal feet of non-fish bearing streams will be affected by the UGA expansion areas compared to Alternative 1. As a result, stream water quality would be expected to decline in those areas where growth is greatest under Alternative 3. Additionally, 17,936 feet of non-fish bearing waters would be affected by upzoned areas under this Alternative. Surface water impacts on streams would be generally greater under Alternative 3 than

under Alternatives 1 and 2. The greatest impacts to those basins would be directly associated with the most extensive conversion to impervious surfaces. Under Alternative 3, increased riparian buffer widths are proposed compared to Alternative 1 and 2. Within the proposed UGA boundaries, approximately 508 acres would be encumbered by the increased stream buffers, compared to 245.5 acres that would be affected by the existing 50-foot buffers. This increase will improve protections compared to Alternative 1 and 2.

Under Alternative 3, a portion of the predicted population growth would be accommodated by increased development within existing UGAs with the potential to affect wetlands and associated buffers. An increase in development activities that could have direct and/or indirect impacts on wetlands or their buffers, as described above in Impacts Common to All Alternatives and Impacts of Alternative 1, "No Action". Unmapped wetlands may occur in all areas of proposed UGA expansion which may affect such wetlands. Similarly, unmapped streams, both fish and non-fish may also occur, with similar potential impacts. Alternative 3 would increase growth to a greater degree than Alternatives 1, but less than Alternative 2. As such, it is expected that Alternative 3 may have greater impacts on groundwater resources commensurate to the higher population growth opportunities. Groundwater impacts would be expected to increase in those areas where growth is greatest under Alternative 3. Additionally, greater basin impacts are anticipated due to the larger UGA expansions than under Alternative 2. Under Alternative 3, the zoning designations that are expected to have the greatest decrease include Rural Wooded, Rural Protection and Mineral/Resource Protection. Conversion of these areas may further increase impacts on water resources by allowing for increased opportunities for development.

### ***Silverdale Subarea***

Alternative 3 includes some changes in zoning designations within the existing Silverdale subarea and would expand the boundaries of the UGA by approximately 333 acres, the greatest increase of the three alternatives. However, Alternative 3 will accommodate slightly less growth than Alternative 2. UGA boundaries would be expanded farther northwest to include additional Urban Low Residential and Urban Restricted lands. A portion of the UGA boundary expansion includes the southern portion of Island Lake and Barker Creek. Expansion of the UGA boundary along Island Lake and Barker Creek may affect shoreline habitat structure along the shorelines as most of this area is undeveloped. Increased zoning density is expected to increase impervious surface coverage and may increase the risk of water quality impairments by converting intact buffer areas. The UGA expansion areas also include those referenced in Alternative 2. As such, impacts are expected to be similar in those areas. Alternative 3 also includes a significant UGA expansion to the west, south of NW Anderson Hill Road. This area contains mapped hydric

soils and a stream. This area would be developed under the Urban Restricted zoning designation but may result in impacts to water resources compared to current conditions by increasing the allowed density. Expansion of the UGA boundaries would affect additional Category I and II CARAs. The increased demand on groundwater resources is expected to be commensurate with the amount of increased growth.

### **Impacts of the Preferred Alternative**

The impacts of growth on water resources under the Preferred Alternative would be comparable to those in Alternative 2. In both cases, standards of no net loss for critical areas including streams and wetlands as well as other requirements of the CAO would apply, requiring impacts to those critical areas to be fully offset by mitigation. Where impacts are greater due to increased development density as allowed by the Preferred Alternative, mitigation would need to be commensurately greater as well to negate those impacts. The code changes associated with the Preferred Alternative would promote vertical development as a means of limiting the expansion of urban areas in order to prevent or slow the loss of rural areas. Stormwater runoff from densely urbanized areas requires intensive management according to the most recent, state-of-the-art stormwater engineering practices and manuals, likely along with additional mitigation, to prevent net impacts to water resources since all stormwater is inevitably released downstream, to water bodies outside those urban centers. The deferral of all rural-to-rural rezones to a 2025+ process in the Preferred Alternative will serve to lessen impacts on water resources (as well as on earth resources as stated above) compared to especially Alternative 3.

### ***Silverdale Subarea***

The Preferred Alternative would accommodate the second-greatest amount of growth within the Silverdale subarea (less than Alternative 2). Alternative 2 included some changes in zoning designations within the existing Silverdale subarea and would expand the boundaries of the UGA by approximately 48 acres. However, the Preferred Alternative does not include any UGA expansions in Silverdale. Several zoning changes are included that range from Industrial, Commercial Urban Medium Residential and Business Center. Industrial, and commercial development may include greater impervious surface areas than other uses which would have the ability to further reduce groundwater recharge and cause groundwater contamination from point-source contamination.

### 3.1.3.3 Water Resources – Mitigation Measures

#### Incorporated Plan Features

The Kitsap County Comprehensive Plan Chapter 3, Natural Environment, provides goals and policies intended to preserve and protect critical areas, water resources, and intact ecosystems; coordinate on efforts toward ecosystem management and recovery; regulate land use, transportation, and development engineering programs to reduce risk to property, life, and the natural environment; and continue to provide opportunities for stewardship, education, and public dialogue related to the management and protection of the natural environment.

#### Regulations & Commitments

Under each alternative, new and existing development must comply with the County's critical area regulations, SMP, stormwater design specifications, and other applicable regulatory standards. Local, state, and federal regulations protecting water resources include the following:

- Critical Areas Regulations (KCC Title 19) identify and protect critical areas, including water resources like streams, wetlands, frequently flooded areas, and CARAs. As required by state law, these regulations require “no net loss” of habitat function for these critical areas, after mitigation. Critical areas regulations establish mitigation sequencing standards, as well as buffers on streams and wetlands. Alternatives 2 and 3 would include adoption of revisions to critical area regulations; however, the substantive regulatory requirements will be consistent across each of the alternatives. Increased riparian buffer widths are proposed for Alternative 3, improving protections and contributing to a result of “no net loss” in critical area habitat function for that alternative.
- The requirement to address groundwater quantity if needed in critical areas regulations was added to the state administrative code under WAC 365-190-100 in 2010. The Department of Ecology has developed a number of projects as part of the final draft of WRIA 15 Watershed Restoration and Enhancement Plan that will help the County acquire the detailed information needed to effectively develop this code. The update to the comprehensive plan includes goal and policy language that support this. For example:
  - Proposed Climate Change Goal 8: Hydrology and Hydrogeology. Protect and preserve water quality and quantity from drought, extreme heat, extreme precipitation, and other hazards exacerbated by climate change.

- Proposed Climate Change Policy 8.4: Coordinate with state and federal partners to evaluate long term cumulative impacts to watershed hydrology, including the provisions of sufficient streamflow for salmonids, and identify mitigation options.

Analysis would need to include implementation of the projects within the WRIA 15 watershed restoration plan as well as looking at impervious surface changes in sub-watersheds.

- SMP (KCC Title 22), updated in 2021, applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all shorelines of the state. The updated SMP was adopted to meet the standards of “no net loss” of shoreline ecological functions. Additionally, the Kitsap Regional Shoreline Restoration Plan identifies several voluntary projects and programs to be implemented to improve shoreline functions over time (Kereki 2017).
- The US Army Corps of Engineers (Corps) regulates fill of wetlands through the Federal Clean Water Act.
- Ecology regulates water quality through general and individual water quality permits as well as Section 401 water quality certifications that make sure federal agencies do not issue permits or licenses that violate state water quality standards.
- As a result of a 2008 Biological Opinion by the NMFS, to maintain coverage under the National Flood Insurance Program (NFIP), the County must ensure that any proposals for development or redevelopment within the floodplain will not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids.
- Under SEPA, all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in both planning and decision making.

### **Other Potential Mitigation Measures**

- Follow the recommendation of the 2019 Kitsap County MHMP for flood mitigation strategies including:
  - Convene an annual meeting of interested parties to discuss Local, State, and Federal regulatory requirements related to maintenance activities in flood-prone areas.



- Identify high-risk areas on Geographic Information System (GIS). Update Local stormwater system plans and improve stormwater facilities in high-risk areas.
  - Replace Kitsap County Public Works culverts in areas that are failing, undersized for fish passage and have flooding concerns for downstream areas.
  - Review and create a floodplain planning, management, and over-site program to assure compliance with the NFIP community wide.
  - Familiarize the community with the risks of “convergence zone” type of flooding. A convergence zone is caused when low atmospheric pressure combines with severe weather causing tidal overflow and watershed backup.
- The final draft WRIA 15 Watershed Restoration and Enhancement Plan (Ecology 2022) addresses planned actions to offset the consumptive water use from the expected new permit-exempt wells to avoid negative impacts to groundwater recharge. The identified projects are intended to benefit streamflows, enhance the watershed overall, and are expected to provide additional benefits for instream resources beyond those necessary to offset the expected use. The Watershed Restoration and Enhancement Plan also outlines specific managed aquifer recharge (MAR) projects that are designed to augment streamflow by increasing the surficial aquifer discharges to the streams beyond current conditions to have purposeful recharge of water into aquifers. These projects result in the eventual discharge of groundwater which provides an overall benefit to streamflows.
- Additional mitigation measures are recommended as needed to ensure adequate protection of anadromous fish. Potential mitigation measures could include, but are not limited to:
- Increased stormwater management requirements near riparian areas to increase channel complexity;
  - Establish benchmarks in floodways to accommodate additional flows; or
  - Encourage habitat components that will create pools to provide shelter to salmonids and other anadromous fish.

- Consider state, local, and tribal restoration plans to ensure salmon recovery is prioritized. The Chico Watershed Plan, Curley Creek Watershed Plan and the Natural Resource Asset study have been incorporated by referenced in Chapter 2.

### **3.1.3.4 Significant Unavoidable Adverse Impacts – Water Resources**

Each alternative will support a population increase compared to 2020 population levels. As described in the final draft WRIA 15 Watershed Restoration and Enhancement Plan, Kitsap County will have approximately 2,568 new permit-exempt domestic well connections between 2018-2038 (Ecology 2022). The estimated consumptive water use associated with the expected new permit-exempt wells is 717.8 AFY, which equates to approximately 123 gallons per day per household. Impervious surface area would increase to a similar extent under all alternatives. The County's stormwater management requirements would curtail the impacts from new impervious surfaces. However, it should be noted that the 2019 Stormwater Management Manual for Western Washington (SWMMWW) and the 2021 Kitsap County Stormwater Design Manual do not address outside factors, such as area increases in stream flows or rates of erosion. A lengthy disclaimer included in the manual includes the sentence: "Compliance with the standards in this manual does not necessarily mitigate all probable and significant environmental impacts to aquatic biota." Some impacts to both surface and ground water resources, including increasing peak flows, extension of non-peak flow durations to accommodate increased runoff volumes, channel incision, and reduced groundwater recharge, may be unavoidable as new impervious surfaces are created and vegetation is removed with development activities. It is not possible to eliminate all impacts on surface water resources entirely under any of the alternatives. Where impacts are unavoidable, mitigation would need to be provided sufficient to satisfy the "no net loss" standard.

All alternatives would result in increased urbanization in Kitsap County, with Alternative 1 resulting in the least and Alternative 2 in the most. These impacts would be mitigated by implementing the strategies listed above. However, some adverse impacts that may still occur including, but not limited to, the following:

- Decreases in forestland and vegetative cover.
- Increases in impervious surfaces.
- Erosion and sedimentation of streams and wetlands due to increased flow rates and volumes, resulting in the decline of nutrient balances, substrate quality, and habitat availability.

- Decline and eventual loss of some stream and wetland functions for hydrology, water quality, and habitat.
- Long-term cumulative reduction in groundwater recharge and associated discharge to streams.

### 3.1.4 Plants & Animals

This section describes the vegetation types, terrestrial and marine species and habitats, and fisheries resources that are found in Kitsap County. Certain fish and wildlife habitats are regulated under the KCC to ensure adequate protections are in place.

#### 3.1.4.1 Plants & Animals – Affected Environment

##### Plants

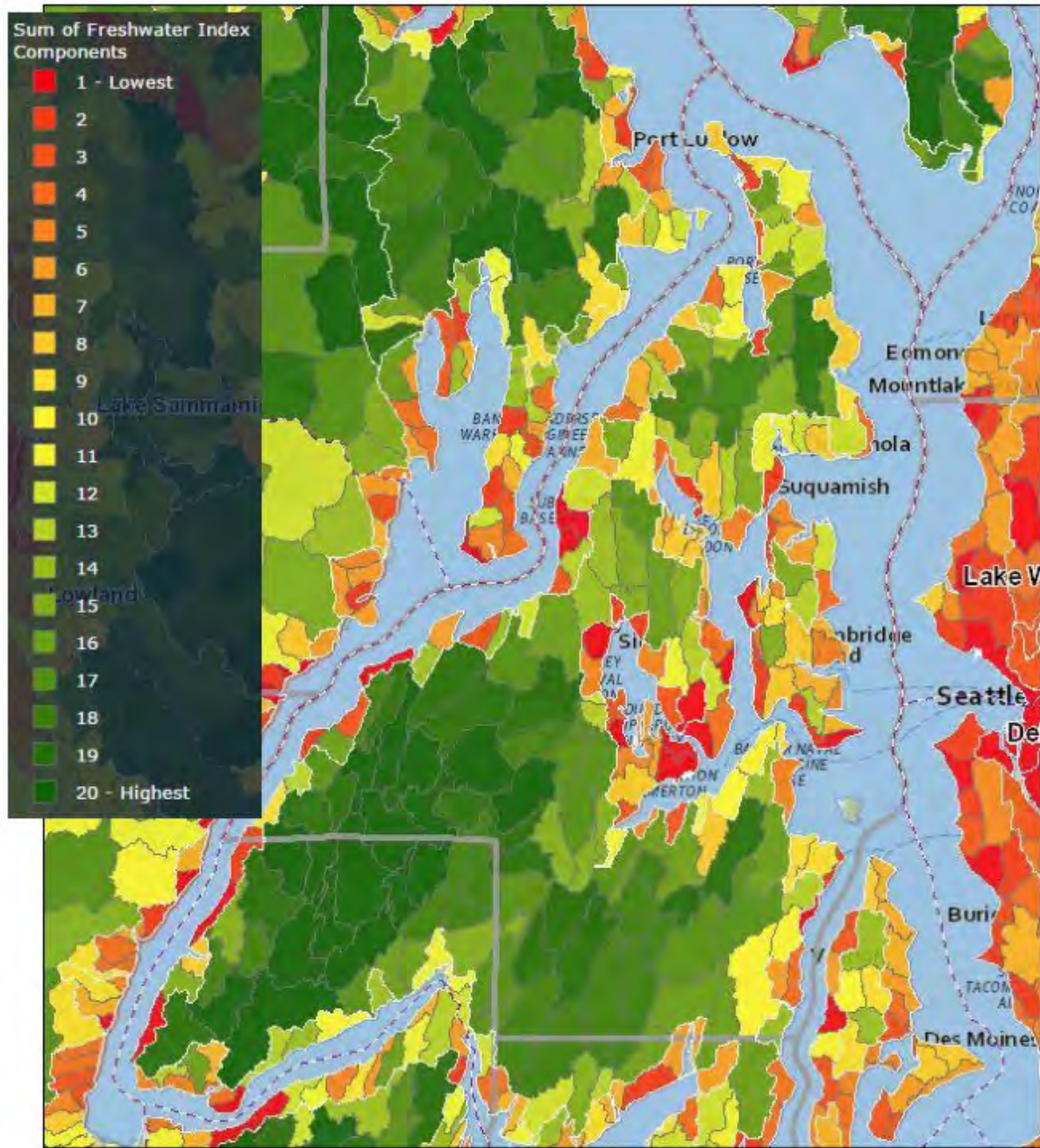
The *Draft Supplemental Environmental Impact Statement for Kitsap County 2016 Comprehensive Plan Update* (Kitsap County 2015) described the plant communities of Kitsap County as follows below. This description is generally anticipated to continue to apply.

The overstory in the county is dominated by Douglas-fir (*Pseudotsuga menziesii*), a species well adapted to the local climate. Other common conifers are western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), and western white pine (*Pinus monticola*) (Kitsap County 2006). Throughout the county, human activities have encouraged the growth of hardwood trees. Red alder (*Alnus rubra*) and big-leaf maple (*Acer macrophyllum*) are the most common trees in these broadleaf forests, but Pacific willow (*Salix lucida* ssp. *lasianдра*), madrone (*Arbutus menziesii*), and cascara (*Frangula purshiana*) are also common (Kitsap County 2006). Common shrubs found in the understory include Ocean spray (*Holodiscus discolor*), salal (*Gaultheria shallon*), evergreen huckleberry (*Vaccinium ovatum*), sword fern (*Polystichum munitum*), and deer fern (*Struthiopteris spicant*). Broadleaf forest understory shrubs include salmonberry (*Rubus spectabilis*), black raspberry (*Rubus leucodermis*), red elderberry (*Sambucus racemosa*), and sword fern. Pastures and meadows typify the county's valleys and low-lying areas. These places may support agricultural crops or may host grasses, salmonberry, black raspberry, ox-eye daisy (*Leucanthemum vulgare*), sword fern, rushes (*Juncus* sp., *Luzula* sp.), and nonnative shrubs such as Himalayan blackberry (*Rubus armeniacus*) and Scotch broom (*Cytisus scoparius*). A variety of wetland types sustain vegetation such as red alder, willow (*Salix* sp.), Labrador tea (*Rhododendron groenlandicum*), and sedges (*Carex* sp.), which are adapted to the hydric soils and wet surroundings (Kitsap County 2006).

In addition, it is noted that Pacific rhododendron (*Rhododendron macrophyllum*) is an important native plant species in Kitsap County. Removal of invasive plant species including Scotch broom, Himalayan blackberry, and reed canarygrass associated with actions and projects will improve habitat for native plant and animal species.

The Washington State Department of Fish and Wildlife (WDFW) completed a ranking of the condition of freshwater habitat in the county (Exhibit 3.1.4.1-1) through the Puget Sound Watershed Characterization Project. Habitat value is a function of landscape integrity, such as open space blocks, and the presence of documented priority habitats or species (Stanley et al. 2013). The most intensely developed areas lacking in habitat value are ranked lowest (1 - red) and the highest-value intact habitat areas are ranked highest (20 – dark green). The mapping illustrates that more intact habitats tend to occur in southwestern and southeastern portions of the county, and habitat values tend to be lower within UGAs.

**Exhibit 3.1.4.1-1 Habitat – sum of freshwater index components**



Source: Ecology, electronic source

***Rare Plant Species***

The Washington DNR Natural Heritage Program have identified two species of rare plants as occurring in Kitsap County (WDNR 2023).



## Habitat Types & Associated Species

Habitat is considered the combination of environmental elements that are critical for the survival of plants and animals including food, shelter, refuge from predators, and a place to reproduce and rear young. The type, quantity, and quality of habitat areas will determine where plants and animals live and the overall long-term survival of a species. Loss of historic habitat has been widespread within the Puget Sound Lowland over time. Most remaining habitat areas have incurred alterations to their condition due to population growth and development activities. Continual loss of habitat, alteration, and degradation of intact natural habitats are directly correlated to these activities, which ultimately contributes to the reduction or elimination of many plant and animal species and populations. The quantity and quality of habitat throughout Kitsap County has reduced over time. Previously intact habitat areas have been fragmented by roads and developed areas. However, many locations still retain historic high-quality riparian, wetland, aquatic, and terrestrial habitats, including lands owned by the County and private lands protected by conservation easements. The Kitsap County CAO is intended to preserve habitat functions and values along streams, wetlands and in other designated fish and wildlife habitat conservation areas.

### ***Westside Lowlands Conifer-Hardwood Forest***

The Westside Lowlands Conifer-Hardwood Forest habitat type occurs throughout low-elevation areas in western Washington (Chappell et al. 2001). Historically, it covered most of the Kitsap Peninsula, consisting primarily of conifer trees such as Douglas-fir, western hemlock, and western red cedar. Along stream corridors and cleared areas, this habitat type also includes deciduous trees such as big-leaf maple, black cottonwood (*Populus trichocarpa*), and red alder. Non-woody species include fern, salal, rhododendron, and various berries. Common animals associated with this habitat are brown bats (*Myotis* spp.), Douglas squirrel (*Tamiasciurus douglasii*), beaver (*Castor canadensis*), black-tailed deer (*Odocoileus hemionus columbianus*), rabbits (Lagomorpha), skunk (Mephitidae), squirrels and chipmunks (Sciuridae). Common birds include crow (*Corvus* sp.), robin (*Turdus migratorius*), bald eagle (*Haliaeetus leucocephalus*), barn owl (*Tyto alba*), wrens (Campylorhynchus), warblers (Sylviidae), great blue heron (*Ardea herodias*), and woodpeckers (Picidae) (Keyport Community Plan 2007). Larger predators including America black bear (*Ursus americanus*), cougar (*Puma concolor*), and coyote (*Canis latrans*) are also indicated by citizen comments and observations as being present in North Kitsap woodland areas as well as elsewhere in the county.

This habitat is characterized by a mild, moist to wet climate with mean annual precipitation of 35-100 inches. Snowfall is episodic and transitory, and summers are relatively dry. Elevation ranges from sea level to about 2,000 feet. This is the most extensive habitat in the

lowlands on the west side of the Cascades in western Washington. This forest habitat is typically dominated by conifers and/or deciduous broadleaf trees. Late seral stands typically have an abundance of large coniferous trees, a multi-layered canopy structure, large snags, and many large logs on the ground. Small subcanopy trees include cascara, and understory shrub species include salal, Oregon grape (*Berberis* sp.), vine maple (*Acer circinatum*), Pacific rhododendron, salmonberry, trailing blackberry (*Rubus ursinus*), red elderberry, evergreen huckleberry, and red huckleberry. Sword fern is the most common herbaceous species, and other forbs and ferns include sorrel (*Oxalis oregana*), deer fern, bracken fern (*Pteridium aquilinum*), and false lily-of-the-valley (*Maianthemum dilatatum*).

Fire or wind can result in major natural disturbance for this habitat. Mean fire-return intervals may vary greatly, in the range of 100-250 years or more. Major natural fires are associated with occasional extreme weather conditions, with fires typically of high severity with few trees surviving. Severity of wind disturbance varies greatly, with minor events being frequent. After a severe fire or blowdown, a typical stand will progress through several long-term successional changes ultimately restoring an old-growth forested condition. Landslides are another natural disturbance that can occur.

Significant loss of this habitat has occurred due to development in the Puget Lowland, notably including Kitsap County. Only a fraction of the original old-growth forest remains, mostly outside Kitsap County in National Forests in the Cascade and Olympic mountains. Areal extent continues to be reduced throughout Kitsap County and the Puget Lowland. Of the 62 plant associations representing this habitat listed in the National Vegetation Classification, 27% are globally imperiled or critically imperiled.

### **Urban & Mixed Environs**

Urban development occurs within or adjacent to nearly every habitat type, and often replaces habitats that are valuable for wildlife. The highest urban densities normally occur in lower elevations along natural or human-made transportation corridors, such as rivers, railroad lines, coastlines, or interstate highways. Typically, three zones are characteristic of urban habitat including: a high-density zone, a medium-density zone, and a low-density zone.

The high-density zones are considered the core, downtown areas of incorporated cities or UGAs. In Kitsap county, these include Bremerton, Port Orchard, Silverdale, Kingston, and Poulsbo. However, denser urban growth is being felt in almost every small town in the region and county. This high-density zone tends to have about 60% of its total surface area covered by impervious surfaces, with the smallest lot size, the tallest buildings, the least amount of total tree canopy, the lowest tree density, the highest percentage of exotics, the poorest understory and subcanopy, and the poorest vegetative structure. Most streams

and natural areas have disappeared from this zone. Green roofs, vertical landscaping and street trees provide opportunities for regreening these densely populated urban areas.

The medium-density zones are comprised of a typical housing density of three to six single-family homes per acre. This zone has more potential wildlife habitat. With 30%-59% impervious soil cover, this zone has 41%-70% of the ground available for plants. Isolated wetlands, stream corridors, open spaces and greenbelts are more frequently retained in this zone than in the high-density zone. However, remnant wetland and riparian areas are often widely separated by urban development. Restoring structural complexity in simplified parks, nature-scaping private properties, planting street trees and reconnecting natural areas are potentially important strategies to pursue in this zone.

The low-density zone is the outer zone of the urban-rural continuum. This zone contains 10%-29% impervious ground cover and normally contains only single-family homes. It has more natural ground cover than artificial surfaces. Vegetation is denser and more abundant than in the previous two zones. Typically, housing densities are 0.4-1.6 single-family homes per acre, and road density is the lowest of all three zones, consisting primarily of secondary and tertiary roads. Many wetlands remain and are less impacted. Water levels are more stable and peak flows are more typical of historic flows. Water tables are less impacted, and wetlands are more frequent. Stream corridors are less impacted and more continuous.

Within urban areas, a diverse mosaic of natural habitat fragments remains, albeit often simplified in structure and function. Many structural features typical of historical vegetation, such as snags, dead and downed wood, and brush piles, are often completely removed from the landscape. Sensitive area regulations largely prevent such impacts to streams and wetlands, but not uplands. The original habitats are often replaced by buildings, impervious surfaces, and bridges, and plantings of non-native species are frequently found along streets, in parks and in private gardens. Some human-made structures provide habitats similar to those provided by cavities, caves, fissures, cliffs, and ledges, and are frequently used by wildlife species. Remnant, isolated blocks of natural vegetation are often found scattered in urban areas, though mixed with a multitude of introduced or exotic vegetation. As urban development increases, these remnant natural areas become more fragmented and isolated. In urban and suburban areas, species richness is often increased because of the introduction of exotics. The juxtaposition of exotics interspersed with native vegetation produces a diverse mosaic with areas of extensive edge. Also because of irrigation and the addition of fertilizers, the biomass in urban communities is often increased.



Development and associated urban growth are considered one of the single biggest factors affecting the environment. Urban growth is expected to continue, at the expense of native habitat.

### ***Open Water***

Lakes, rivers, and streams are considered open water habitat for both terrestrial and aquatic species. Most water bodies in the county have been affected by development along the shorelines or stream channels, which has resulted in degraded overall water quality and resulted in alterations to hydrology. Several priority species within Kitsap county may utilize open water habitats including Townsend's big-eared bat (*Corynorhinus townsendii*), bufflehead (*Bucephala albeola*), great blue heron, common goldeneye (*Bucephala clangula*), and western grebe (*Aechmophorus occidentalis*). Many other native terrestrial and aquatic species may also utilize this type of habitat.

### ***Wetlands***

Wetlands provide unique habitat for wildlife, plants, and fisheries. Several factors, including buffer width and condition, vegetative structure, habitat interspersation, wetland hydroperiods, and landscape setting all impact wetland habitat functions (Hruby 2014).

### ***Nearshore Estuary Habitats***

Nearshore estuary habitats are sheltered bodies of water where freshwater mixes with saltwater. These habitats include lower reaches of rivers, intertidal sand and mud flats, saltwater and brackish marshes, and open water portions of associated bays. These diverse nearshore habitats are critical for rearing of anadromous fish, including Chinook salmon, by providing an abundant food supply from the nutrient rich freshwater and a wide range of gradients to acclimate young in Kitsap county (West Sound Watersheds Council 2016). Many priority species and other native species utilize these nearshore estuary environments for various stages of life, including forage fish. Significant restoration investment has been made in several places throughout the County to improve estuarine habitat conditions, including the creeks feeding into those estuaries (e.g., Carpenter Creek; Clear Creek; and Harpers creek).

Pocket estuaries are small sub-estuaries that form at the mouths of small creeks and/or behind spit or barrier beach landforms, sometimes within larger estuaries. A map of pocket estuaries in Kitsap County is available on the Kitsap County website.<sup>2</sup>

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<sup>2</sup> [https://www.kitsap.gov/dcd/NR\\_Nearshore\\_Assessment\\_Maps/KitsapEast\\_PocketEstuaries.pdf](https://www.kitsap.gov/dcd/NR_Nearshore_Assessment_Maps/KitsapEast_PocketEstuaries.pdf).

### ***Marine Nearshore Habitats***

Marine nearshore habitats are waters along the shoreline that are not influenced by freshwater inputs. This environment is often considered the transitional area between upland and marine habitats where direct functional interactions occur (Williams and Thomas 2001). The *Kitsap County Shoreline Cumulative Impacts Analysis* (The Watershed Company and BERK 2013) describes the existing upland vegetation along the county's marine shorelines as follows:

Approximately one third of the marine shorelines of Kitsap County are vegetated with mature forests. Another third of the shoreline is non-forested (this could entail lawn, buildings, or impervious surfaces). Approximately 19% of the County's marine shorelines have invasive vegetation covering greater than 25% of the area.

Vegetation overhanging the nearshore covers less than 25% of the shoreline length for the majority of the County's shorelines. The east Kitsap County shorelines fronting Puget Sound experience less overhanging vegetation, at 39%, compared to 57% on the west Kitsap County shorelines along Hood Canal.

A well-established, vegetated upland habitat typically provides shade to the intertidal area and preserves water quality by slowing runoff rates and reducing and filtering runoff from adjacent development (Williams and Thomas 2001). Kelp, eelgrass, and saltmarsh vegetation along the county's marine shorelines provide significant ecosystem functions and vital habitat for many species. Eelgrass and kelp mapping is provided on Ecology's Coastal Atlas Mapping website<sup>3</sup>. Impacts from shoreline modification and armoring can result in a direct loss of habitat. Shoreline modification is also correlated to changes in sediment transport and wave energy, which impact the nearshore habitat and overall ecological functions. Existing nearshore habitat conditions are described in detail in the *Kitsap County Shoreline Inventory and Characterization Report* (Kitsap County 2010), the *East Kitsap County Nearshore Habitat Assessment and Restoration Prioritization Framework* (Borde et al. 2009), and *West Kitsap Addendum to the East Kitsap County Nearshore Habitat Assessment and Restoration Prioritization Framework* (Judd et al. 2010). The importance of the nearshore environment for juvenile Chinook salmon is described in *West Sound Nearshore Integration and Synthesis of Chinook Salmon Recovery Priorities* (2016). Juvenile Chinook salmon rely the most on marine nearshore rearing habitats of all the salmon species (Healey 1982, Fresh 2006). Many other priority habitat species depend on the nearshore habitats for breeding, rearing, migration or feeding areas (Simenstad et. al. 2006).

Port Gamble Bay is a known herring spawning site, however the number of herring spawning there has declined significantly since 2000. A decline in herring spawning and

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<sup>3</sup> <https://apps.ecology.wa.gov/coastalatlasmap>

known contamination from past mill operations raised concerns about the health of Pacific herring and shellfish resources in Port Gamble Bay. Studies in the bay are under way by the Ecology and Long Live the Kings.

### ***Priority Habitats***

Washington State also identifies priority habitats in Kitsap county. These habitats include biodiversity areas and corridors, herbaceous balds, old growth/mature forest, Oregon white oak woodlands, riparian, freshwater wetlands and fresh deepwater, instream, Puget Sound nearshore, caves, cliffs, snags and logs, and talus.

### **Listed Fish & Wildlife Species**

Species in Exhibit 3.1.4.1-3 have been designated as sensitive, threatened, or endangered by federal and state resource management agencies and are known to occur or may occur in Kitsap county.

**Exhibit 3.1.4.1-2 Sensitive, threatened, or endangered species and habitats in Kitsap County**

	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	
	White Sturgeon		
	Pacific Herring		
	Longfin Smelt		
	Surfsmelt		
	Bull Trout/ Dolly Varden	<u>Candidate *</u>	<u>Threatened *</u>
	Chinook Salmon		Threatened (Upper Columbia Spring run is Endangered)
	Chum Salmon		Threatened

	Species/ Habitats	State Status	Federal Status
	Coastal Res./ Searun Cutthroat		
	Coho Salmon		Threatened – Lower Columbia
	Pink Salmon		
	Rainbow Trout/ Steelhead/ Inland Redband Trout	<u>Candidate **</u>	<u>Threatened **</u>
	Pacific Cod		
	Pacific Hake		
	Walleye Pollock		
	Black Rockfish		
	Bocaccio Rockfish		Endangered
	Brown Rockfish		
	Copper Rockfish		
	Greenstriped Rockfish		
	Quillback Rockfish		
	Redstripe Rockfish		
	Tiger Rockfish		
	Yellowtail Rockfish		
	Lingcod		
	Pacific Sand Lance		
	English Sole		
	Rock Sole		
Amphibians	Western Toad	Candidate	
Reptiles	Northwestern Pond Turtle (formerly Western Pond Turtle)	Endangered	
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 (formerly called Brandt)		
	Cavity-nesting ducks: Wood Duck, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Hooded Merganser		
	Western Washington nonbreeding concentrations of: Barrow's		

	Species/ Habitats	State Status	Federal Status
	Goldeneye, Common Goldeneye, Bufflehead		
	Harlequin Duck		
	Trumpeter Swan		
	Waterfowl Concentrations		
	Northern Spotted Owl***	Endangered	Threatened
	Mountain Quail		
	Sooty Grouse		
	W WA nonbreeding concentrations of: Charadriidae, Scolopacidae, Phalaropodidae		
	Band-tailed Pigeon		
	Yellow-billed Cuckoo	Endangered	Threatened
	Vaux's Swift		
Mammals	Dall's Porpoise		
	Humpback Whale	Endangered	Endangered
	Gray Whale	Sensitive	Endangered
	Sperm Whale	Endangered	Endangered
	Harbor Seal		
	Orca (Killer Whale)	Endangered	Endangered
	Harbor Porpoise (formerly called Pacific Harbor Porpoise)	Candidate	
	California Sea Lion		
	Steller Sea Lion		
	Roosting Concentrations of: Big-brown Bat, Myotis bats, Pallid Bat		
	Townsend's Big-eared Bat	Candidate	
	Keen's Myotis (formerly Keen's Long-eared Bat)	Candidate	
	Columbian Black-tailed Deer		
Invertebrates	Pinto (Northern) Abalone	Endangered	
	Pacific Geoduck (formerly Geoduck)		
	Butter Clam		
	Native Littleneck Clam		
	Manila (Japanese) Littleneck Clam (formerly called Manila Clam)		
	Olympia Oyster		
	Pacific Oyster		
	Dungeness Crab		
	Pandalid shrimp (Pandalidae)		
	Western Bumble Bee	Candidate	Candidate

	Species/ Habitats	State Status	Federal Status
	Monarch Butterfly**		Candidate
	Puget Blue	Candidate	
	Monarch Butterfly***		Candidate

Source: Retrieved from Priority Habitats and Species (PHS) report July 2024.

\*Bull Trout only

\*\*Steelhead only

\*\*\*Listed on USFWS IPac and not WDFW PHS report

Sources: USFWS IPac and WDFW PHS 2024.

### Terrestrial Species

USFWS has identified three federally listed terrestrial wildlife species that are documented to occur or may occur in Kitsap county (USFWS 2024). These terrestrial species include the marbled murrelet (*Brachyramphus marmoratus*), yellow-billed cuckoo (*Coccyzus americanus*), and the northern spotted owl (*Strix occidentalis caurina*), as referenced in Exhibit 3.1.4.1-3, above. All three species are protected on both the state and federal level.

### Aquatic Species

USFWS and NMFS have identified nine federally listed aquatic wildlife species that are documented to occur or may occur in Kitsap county (USFWS 2022). These aquatic species include Chinook salmon (*Oncorhynchus tshawytscha*), chum salmon (*O. keta*), steelhead trout (*O. mykiss*), bull trout (*Salvelinus confluentus*), bocaccio/rockfish (*Sebastes paucispinis*), humpback whale (*Megaptera novaeangliae*), killer whale (*Orcinus orca*), sperm whale (*Physeter macrocephalus*) and gray whale (*Eschrichtius robustus*), as referenced in Exhibit 3.1.4.1-3, above. River lamprey (*Lampetra ayresii*) and harbor porpoise (*Phocoena phocoena*) are considered Candidate species for protection at the state level. Southern resident killer whales are a DPS and are both state and federally listed as endangered. The J, K, and L pods frequent the waters surrounding Kitsap county. However, other orca populations be found in Puget Sound, which are not listed. Humpback whales are not common in Puget Sound but occasionally can be found in nearshore marine waters of Kitsap county. Chinook, coho and chum salmon can be found in the streams of Kitsap county. Salmon is considered a keystone species because of their importance in the food web, but also has significant cultural, economic, and recreational value. To protect and preserve these species, state and local governments are required to give special attention to anadromous fish under WAC 365-195-925.

### ***Fish Habitat***

Fish habitat is largely dependent on water quality and quantity. The Puget Sound lowlands region has been substantially altered from historic conditions. Development activities and increased population have impacted natural stream habitat-forming processes. The final draft *WRIA 15 Watershed Restoration and Enhancement Plan* (Ecology 2022a)) describes the primary limiting factors in freshwaters of WRIA 15 as channel and streambed degradation, increased peak flows, low streamflow, loss of upland forest cover and riparian forest, loss of floodplain connectivity and habitats, degradation of wetland and riparian habitats, conversion of wetlands to open water habitats, barriers to fish passage, lack of LWD, and fine sediment (Kuttel 2003; May & Peterson 2003). A high level of stream habitat function results from the interaction of flow, in-stream woody structure, and sediment. Pools with woody cover provide refuge at lower flows while wood farther up the banks provides low-velocity refugia at higher flows.

As a result of the decline in salmon populations, several salmonid species have been protected at local, state, and federal levels. Fish habitat in Kitsap county has been impacted by high peak stream flows; stormwater runoff; water quality impacts, reduced stream flows and increased water temperatures. Local salmon recovery efforts are managed at a watershed scale, known as Lead Entities. Kitsap county has two Lead Entities including West Sound Partners for Ecosystem Recovery and the HCCC. Both Lead Entities are responsible for implementing local salmon recovery strategies and projects.

### **Priority Species**

In addition to the endangered, threatened, and sensitive species, Washington State identifies priority species and habitats. Priority species include those listed as endangered, threatened, sensitive, or candidate; animal aggregations considered vulnerable; and those species of recreational, commercial, or Tribal importance that are vulnerable (WDFW 2024). Many priority species have been documented to occur in Kitsap county. Priority species in Kitsap county are also included in Exhibit 3.1.4.1-3, above.

### **Other Aquatic Species**

#### ***Shellfish***

Shellfish are a significant ecological, cultural, and economic component of Kitsap County shorelines. The Kitsap County Public Health Department staff monitors 12 shoreline sites in the winter and fall and 9 sites year-round by collecting shellfish samples that are sent to the WDOH for marine biotoxin testing. The samples determine when shorelines are closed for shellfish harvest if biotoxin levels exceed safe thresholds.

### **Forage Fish**

Forage fish, such as surf smelt (*Hypomesus pretiosus*), Pacific sand lance (*Ammodytes hexapterus*), and Pacific herring (*Clupea pallasii*), are critical to the marine ecosystem, particularly for Pacific salmon and other marine fish and avian species. These species provide a prey base for adult salmonids. Kitsap County has documented spawning grounds for these species. These locations are too numerous and varied to include here by species, but [mapped spawning areas for forage fish](#) can be found at the WDFW link provided. Chapter 77.55 RCW provides legislative requirements for construction projects in state waters. These rules require consideration of sand lance spawning habitat protection during the review of applications for Hydraulic Project Approvals (HPA) by the WDFW.

### **Marine Mammals**

Harbor seals (*Phoca vitulina*) are known to have haul-out sites located in Port Gamble Bay. California sea lions (*Zalophus californianus*) have been observed in Puget Sound near Bainbridge Island during aerial surveys for marine mammals (Kitsap County 2006). Both species are WDFW priority species, with an emphasis on management recommendations for protection of haul-out sites. Marine mammal species that rarely occur include gray whale (*Eschrichtius robustus*) and Dall's porpoise (*Phocoenoides dalli*). Stellar sea lion (*Eumetopias jubatus*) and Dall's porpoise are considered priority species by WDFW with an emphasis on foraging and migrating concentrations. These species are protected under the federal Marine Mammal Protection Act (MMPA).

### **Plant species**

The WDNR Natural heritage program lists plants species of special concern including global, federal, and state listing status. Six species in Kitsap County are state listed including golden chinquapin (*Chrysolepis chrysophylla* var. *chrysophylla*), Pink sand verbena (*Abronia umbellata*), Western yellow wood sorrel (*Oxalis suksdorfii*), Large St. John's wort (*Hypericum majus*), Northern bog moss (*Lycopodiella inundata*) and giant chain fern (*Woodwardia fimbriata*). Four of these species also have a federal status including Golden chinquapin, Golden paintbrush, Large St. John's wort and Northern clubmoss. The species of concern and their associated habitats are listed in Exhibit 3.1.4-4.



### Exhibit 3.1.4.1-3 Sensitive, threatened, or endangered plant species in Kitsap county

Species	Common Name	State Status	Federal Status	Ecological Systems
<i>Chrysolepis chrysophylla chrysophylla</i>	Golden chinquapin	Sens	BS, FS	NP Dry Douglas-fir Forest & Woodland; NP Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest
<i>Abronia umbellata</i>	Pink sand-verbena	<u>Sens</u>		NP Maritime Coastal Sand Dune
<i>Castilleja levisecta</i>	Golden paintbrush	Threat	T)	WV Upland Prairie & Savanna
<i>Oxalis suksdorfii</i>	Western yellow wood-sorrel	Extirp		NP Dry-Mesic Douglas-fir-Western Hemlock Forest; NP Maritime Coastal Sand Dune & Strand
<i>Hypericum majus</i>	Large St. Johns'-wort	Sens	<u>FS</u>	NA Arid West Emergent Marsh; RM Subalpine-Montane Fen; TP Freshwater Emergent Marsh
<i>Lycopodiella inundata</i>	Northern bog clubmoss	Sens	BS, FS	NP Bog & Fen; TP Subalpine-Montane Wet Meadow
<i>Woodwardia fimbriata</i>	Giant chain-fern	Sens		NP Intertidal Freshwater Wetland; NP Lowland Riparian Forest & Shrubland
<p><b>Federal Status</b>  Extirp = Extirpated. A species, subspecies, or variety in danger lost in this historical range.  Threat = Threatened. A species, subspecies, or variety likely to become Endangered in the foreseeable future  Prop = Proposed. A species, subspecies, or variety formally proposed for listing as Endangered or Threatened (a proposal has been published in the Federal Register, but not a final rule)  Cand = Candidate. A species, subspecies, or variety being evaluated by USFWS for potential listing as Threatened or Endangered under the ESA, but no formal proposal has been published yet.</p> <p>The Interagency Special Status and Sensitive Species Program (ISSSSP) of the US Forest Service (USFS) and Bureau of Land Management (BLM) in Washington and Oregon updated its list of Sensitive species in 2021 (ISSSSP 2021).  B-Sens = BLM Sensitive; all USFWS candidate and delisted species and WNHP species of concern ranked S1, S1S2, S1S3, S2, or S2S3 found on at least one BLM managed area in Washington.  F-Sens = Forest Service Sensitive: all USFWS candidate and delisted species and WNHP species of concern ranked S1, S1S2, S1S3, S2, or S2S3 found on at least one USFS managed area in Washington.</p>				

Source: WDNR Natural Heritage Plant List 2024 for Kitsap County retrieved July 2024 from <https://www.dnr.wa.gov/NHPLists>.

## Silverdale Sub-Area

Terrestrial habitat within the Silverdale subarea includes coniferous forest, open water habitat associated with Island Lake and Dyes Inlet, and wetlands throughout the subarea. Development is concentrated in the core area of the existing Silverdale UGA. Roads create significant barriers to wildlife movement. However, the Clear and Barker Creek corridors

provide significant terrestrial habitat within the subarea. Clear Creek is mapped as priority habitat for fall Chinook salmon runs by WDFW. The WDFW Priority Habitats and Species (PHS) also maps Dyes Inlet as a waterfowl wintering site. Several species of salmon are known to occur in streams within the Silverdale subarea. Estuarine habitat occurs at the stream mouths of Barker, Clear, and Steele Creeks, while areas along Dyes Inlet are considered marine nearshore habitat. The nearshore area along Dyes Inlet provides habitat for migrating, spawning, and rearing of a variety of fish that support commercial, Tribal subsistence, and sport fisheries. The west shore is considered a significant surf smelt spawning area, while the northwest corner is important for herring spawning.

## Summary

Key points of the Plants and Animals affected environment are summarized below:

- The type, quantity, and quality of habitat areas will determine where plants and animals live and the overall long-term survival of a species' population over time. The more urban, densely populated portions of Kitsap County, particularly within UGAs, have lower habitat suitability compared to rural areas. There are seven broad habitat types within Kitsap County, including westside lowlands, conifer hardwood forest, urban and mixed environs, open water lakes, herbaceous wetlands, westside riparian wetlands, nearshore estuary habitats, marine nearshore habitats. Many priority species of plants and animals are found within these habitat types.
- Six species in Kitsap County are state listed including golden chinquapin (*Chrysolepis chrysophylla* var. *chrysophylla*), Pink sand verbena (*Abronia umbellata*), Western yellow wood sorrel (*Oxalis suksdorfii*), Large St. Johns's wort (*Hypericum majus*), Northern bog moss (*Lycopodiella inundata*) and giant chain fern (*Woodwardia fimbriata*). Four of these species also have a federal status including Golden chinquapin, Golden paintbrush, Large St. John's wort and Northern clubmoss.
- Four federally listed endangered aquatic species occur in Kitsap County including killer whale, gray whale, sperm whale, and bocaccio/Rockfish.

### 3.1.4.2 Plants & Animals – Impacts

#### Impacts Common to All Alternatives

Population growth and upzoned areas will occur under each of the proposed alternatives throughout the County. As a result, loss of habitat and fragmentation is expected to increase. The extent of impacts to plants and animals will depend on the location and intensity of development, habitat patch size, and connectivity across the landscape. Development would be primarily focused within UGAs under all alternatives. However,

lower intensity development is still expected in rural areas. Critical areas, including streams and wetlands, would receive similar protection under each of the alternatives with some increased protections for riparian areas in Alternative 3. Salmon recovery and integrated watershed improvement projects will continue under all the alternatives through coordinated efforts by regional partners, including West Sound Partners for Ecosystem Recovery and the HCCC. An analysis of the expected impacts of planned growth on plants and animals under each of the three alternatives is described below.

### ***Plants***

Under all alternatives, a reduction in the type and coverage of vegetation is expected as a result of future development activities. Impacts are anticipated to be both direct and indirect. Removal of vegetation for development, changes in habitat, or other reasons would result in direct impacts to plant and animal species or populations. Indirect impacts may also occur with the introduction and establishment of nonnative, invasive plant species, increased potential for trees to fall due to windthrow in the riparian areas, and requests to remove danger trees from the riparian area or stream buffers. Established invasive species may outcompete and displace native species, further impacting plant and animal species. Overall, the vegetated area and number of native plants within UGA boundaries are expected to decrease as the amount of developed and landscaped areas increases.

### ***Rare Plant Species***

There would be no impacts on known populations of rare plant species within Kitsap county. Under each alternative, additional protections are expected by including the Washington DNR Natural Heritage Program as Fish and Wildlife Habitat Conservation Areas under KCC 19.300. However, there may be impacts on unmapped rare plant populations under all alternatives from future development activities. Certain rare plant species may be found in habitats that are protected, such as wetland or riparian habitats. These species are expected to have a lower potential for impacts from development activities given existing protections in the CAO.

### ***Habitat Types & Associated Species***

There may be a reduction in wildlife habitat throughout the county as a result of development activities under each alternative. Increased intensification within existing and proposed UGAs under all alternatives is expected to decrease wildlife habitat, as outlined above. However, these areas of expansion may also reduce development pressures in rural areas. Impacts are anticipated to be both direct and indirect. Loss or conversion of habitat is expected to directly impact all types of wildlife habitat. The loss of habitat may lead to

wildlife species utilizing an unsuitable or less suitable habitat compared to existing conditions. Conversion of currently undeveloped properties could lead to fragmentation of wildlife habitat and may reduce connectivity. Increased stormwater runoff from new impervious surface areas and roadways may result in increased contaminants and pollutants in habitats under all alternatives. These potential contaminants include 6ppd-quinone, a recently identified tire wear breakdown product which results in dramatic pre-spawn mortality in coho salmon and possibly other effects, which are under study. Reduction in habitat functions and values may occur due to increased human disturbance. Species diversity may be affected by increasing populations of species that are adapted to human presence, particularly in areas with increased noise and light. Development activities or associated landscaping may cause the introduction of nonnative plant species to occur. All the above factors may lead to reduced quantity and quality of wildlife habitat.

### ***Listed Fish & Wildlife Species***

#### ***Terrestrial Species***

Under all alternatives, there is potential for a decrease in habitat for listed terrestrial wildlife species. Impacts are expected to be similar to those described for *Habitat Types & Associated Species* above.

#### ***Aquatic Species***

Aquatic species may be impacted by loss of habitat due to development or alteration of habitat due to changes in water quality and/or quantity that will likely occur under each alternative. Water quality and quantity impacts are discussed in greater detail in *Section 3.1.3, Water Resources*. Increased development activities are expected to increase the pressure on existing aquatic ecosystems that support fish populations. Potential impacts from development near riparian or shoreline areas would be minimized through compliance with Fish and Wildlife Habitat Conservation Area development standards described in KCC 19.300 or within the Shoreline Master Program (SMP) development standards, where appropriate.

#### ***Fish Habitat***

Reduced quality and quantity of aquatic habitat will occur as a result of future development activities under all alternatives. Fish habitat will be impacted by the conversion of land, increased density, changes in types of land use activities, and compatibility with habitat functions and values under all alternatives. Resulting impacts could include, but are not limited to, increased water temperatures, sedimentation, increased peak flows, reduced groundwater recharge, increased shoreline armoring, channelization, overall reduced riparian and wetland habitats, reduced base flows, increased intermittency of seasonal

streams in both channel length and duration, and converting perennial streams to seasonal streams. Higher stream flows could be a benefit in some cases but could also result in displacement of fish or require higher expenditure of energy to avoid displacement.

Intact riparian or shoreline buffers may reduce adverse effects of watershed-wide development on streams and wetlands. Established, mature forested buffers allow LWD recruitment and support maintaining healthy stream temperatures. The flow of water through stream channels is affected by channel roughness and hydraulic complexity. In-stream wood provides such complexity and roughness, and a functioning riparian corridor provides for a continued supply of such wood in the future and roughness out on the floodplain to reduce velocities and increase storage there. Such habitat complexity results in a wide range of flow depths and velocities, allowing fish and other aquatic organisms to choose preferred conditions across the full range of stream flow events.

Conversion of these buffers could result in loss of function in riparian ecosystems. Development activities have the potential to increase pollutants, degrade instream and riparian habitat, and alter the natural flow regime of rivers and streams. Salmonid species are particularly sensitive to changes in water quality and temperature, which may affect their ability to survive, grow, and reproduce. Stream-rearing juveniles are also notably sensitive to changes in water velocities that may exceed their preferred range.

Reduced forest and riparian habitat and increased impervious surface area are expected to reduce groundwater recharge and infiltration, reduce streamflow, and increase runoff. Increased runoff can scour streambeds and increase bank erosion. Roads and various land uses have straightened and constrained stream channels, resulting in a loss of floodplain connectivity and off-channel habitats, simplification of in-stream habitats, and increased fish passage barriers.

Direct impacts on fish habitat will be limited by regulatory buffer requirements and the timing of in-water work windows established by state and federal agencies to protect fish. Increased stormwater runoff from additional impervious surface area can increase contaminants in aquatic habitat. However, current state and County regulations require stormwater management and treatment standards for projects that create significant new impervious surface area to help curtail detrimental effects on aquatic species and their associated habitats. These regulations are intended to limit or mitigate impacts on fish habitat but may not eliminate the impact entirely.

### ***Other Terrestrial & Aquatic Species***

Potential impacts on other terrestrial and aquatic species under all alternatives would be similar to those described above in *Listed Fish and Wildlife Species*. However, impacts may be greater on unlisted species since additional protection measures are not in place. Fish and wildlife habitat conservation areas, wetlands, and associated habitat would be protected under KCC Title 19, CAO. Shorelines of the State would be protected by the policies and regulations of the SMP.

### **Impacts of Alternative 1, “No Action”**

Alternative 1 would accommodate for the lowest level of growth of the three alternatives by retaining the existing UGA boundaries and zoning designations. Development would be concentrated in incorporated and unincorporated UGAs, consistent with current conditions. Under Alternative 1, direct impacts on plants and animals from intensification of development are assumed to be proportional to the amount of impervious surface created in specific areas. Under Alternative 1, wildlife habitats are predicted to experience reduced habitat quantity and quality as a result of development activities, similar to those described in *Impacts Common to All Alternatives*, above. Impacts to intact habitat are expected to occur primarily where clearing is being conducted or impervious surfaces are being created. New development to accommodate growth is expected to result in loss of habitat and increased fragmentation. These actions would impact the overall quality of remaining habitat areas. Development of properties within or near environmentally critical areas could result in increased impacts to wetland and riparian habitat functions and values, similar to those described in Section 3.1.3, Water Resources. Under Alternative 1, stream buffer width requirements would remain the same as current conditions, so riparian habitat areas are likely to be retained or reduced from current conditions. Relative to Alternatives 2 and 3, Alternative 1 is expected to be the least impactful to plants and animals.

### ***Silverdale Subarea***

Under Alternative 1, there is expected to be a decrease in the amount of vegetation within the existing UGA due to increased population. Existing coniferous forest and wetlands may be affected by future development activities. Potential impacts on these habitats would be reduced by the policies and regulations of the Kitsap County CAO. Although no populations of rare plants have been documented within the Silverdale subarea, impacts on unmapped populations of rare plant species may result from development activities as described in *Impacts Common to All Alternatives*. Increased development may affect aquatic species within the subarea through habitat alteration and changes in water quality and quantity. Impacts on salmonids may also occur if areas of refugia are altered. With increased development activities, there may be increased disturbance to terrestrial species within the

UGA. Increased construction of roads and impervious surface areas may lead to habitat fragmentation, increased pollutants, degraded water quality, and the potential for populations of species to become isolated.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

The impacts to plants and animals would be similar to those experienced with Alternative 1 but would include impacts commensurate with the expanded areas of UGA boundaries. Under Alternative 2, existing UGA boundaries would be expanded by a total of 466.05 acres. As a result of these intensified areas, it is expected that plant and animal populations within UGA boundaries would experience greater impacts than Alternative 1. Most development would be focused within the Silverdale Regional Center and Kingston Countywide Center with significant development also occurring in the UGAs of Bremerton, Port Orchard, and Poulsbo. Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces from increased development activities. These activities are expected to impact plant and animal species most in areas where undeveloped land is converted. Under Alternative 2, an additional 1,458 lineal feet of non-fish bearing stream habitat will be affected by the UGA expansion areas and 1,477 lineal feet of non-fish bearing stream habitat will be affected by upzoned areas under Alternative 2. Impacts to aquatic habitat are expected to be similar to those described in Section 3.1.3, *Water Resources*. The area of expanded UGA boundaries may result in increased conversion of riparian habitat and related habitat corridors, degraded habitat functions and values, and increased fragmentation. Quantity and quality of riparian areas would be expected to decline in those areas where growth is greatest under Alternative 2. Under Alternative 2, the Rural Protection, Industrial, and Mineral/Resource Protection zoning designations are expected to have the greatest reductions in area due to upzoning. Conversion of Rural Protection and Mineral/Resource Protection may further increase impacts on plants and animals by allowing for increased development in areas that may restrict development under Alternative 1.

Direct and indirect impacts on terrestrial and aquatic species would include those impacts previously described in *Impacts Common to All Alternatives* and *Impacts of Alternative 1*. Unmapped rare plants as well as unmapped streams and wetlands may also occur in all areas of proposed UGA expansion under this alternative, which may be impacted by subsequent development activities. Alternative 2 is expected to accommodate the greatest population growth of the three alternatives, which may have a higher impact on plants and animal species.

### ***Silverdale Subarea***

Alternative 2 would accommodate the greatest amount of growth within the Silverdale subarea of the three alternatives. As such, it is expected that impacts on plants and animals under Alternative 2 would be higher in the Silverdale subarea than the other alternatives. Alternative 2 includes some changes in zoning designations within the existing Silverdale subarea and would expand the boundaries of the UGA by approximately 48 acres. The UGA boundaries would be expanded to the northeast within the Barker Creek watershed. These changes in density allowances would increase impervious surfaces and may subsequently impact habitat functions and wildlife corridors. Development within this area may reduce riparian functions and values and result in overall loss of habitat. Impacts to water quality are also expected to degrade aquatic habitat and affect related species populations.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Impacts on resources would be generally consistent with those of Alternative 1 and 2 but would be commensurate with the amount of growth opportunities. Intact open spaces and connectivity would be reduced under Alternative 3. Alternative 3 would provide for increased growth primarily through expansion of existing UGAs by approximately 1,082 acres overall. Expansion of UGA boundaries would occur in Kingston, Poulsbo, Silverdale, Port Orchard, Central Kitsap, and Bremerton. These changes allow for higher impervious surface coverage compared to the other alternatives, which may result in greater impacts on plants, animals, and related habitat. Overall, Alternative 3 includes more expansions of UGAs than Alternative 2 to accommodate growth, predominantly in Silverdale, Kingston, and Bremerton.

Under Alternative 3, an additional 5,674 lineal feet of non-fish bearing stream habitat would be included in UGA expansion areas and 17,936 feet of non-fish bearing stream habitat would be included in upzoned areas compared to Alternative 1 (No Action). As a result, riparian habitats and related habitat corridors would be expected to decline in those areas where growth is highest under this alternative. The greatest impacts to plants and animals would be directly associated with the most extensive conversion of undeveloped habitat areas to impervious surfaces.

However, increased stream buffers are proposed in Alternative 3 compared to the other alternatives. Within the proposed UGA boundaries, approximately 508 acres would be encumbered by the increased stream buffers, compared to 245.5 acres that would be affected by the existing 50-foot buffers. This increase would improve protection for plants and animals by requiring greater buffer widths from development activities compared to Alternatives 1 and 2. Increased buffer widths provide additional functions for pollution



removal and wildlife corridors for terrestrial habitats, in addition to increased protections of riparian and associated aquatic habitat.

An increase in development activities could have direct and/or indirect impacts on plants and animals, as described above in *Impacts Common to All Alternatives* and *Impacts of Alternative 1, "No Action"*. Unmapped rare plants as well as unmapped streams and wetlands may occur in all areas of proposed UGA expansion and could be affected by future development activities. Alternative 3 would increase growth to a greater degree than Alternative 1, but less than Alternative 2. Under Alternative 3, the Rural Wooded, Rural Protection and Mineral/Resource Protection zoning designations are expected to have the greatest decrease. Conversion of these areas may further increase impacts on plants and animals by allowing for increased opportunities for development compared to current conditions.

### ***Silverdale Subarea***

Alternative 3 would expand the boundaries of the UGA by approximately 333 acres, the greatest increase of the three alternatives, and include some changes in zoning designations. However, Alternative 3 would accommodate slightly less growth than Alternative 2. A portion of the UGA boundary expansion includes the southern portion of Island Lake and Barker Creek. Expansion of the UGA boundary in this area may impact the currently undeveloped shoreline habitat, similar to those impacts described in Section 3.1.3, *Water Resources*. Conversion or indirect impacts to the shoreline habitats associated with Island Lake and Barker Creek are expected to impact both aquatic and terrestrial species that occupy these ecosystems, both during and following construction. Increased zoning density is expected to increase impervious surface coverage and so will likely result in conversion of intact wildlife habitat areas. The UGA expansion areas also include those referenced in Alternative 2 and would experience similar impacts. Alternative 3 also includes a significant UGA expansion to the west, south of NW Anderson Hill Road. This area contains mapped hydric soils and stream habitat. This area would be upzoned and may experience further impacts to plant and animal habitats by increasing the allowed density.

### **Impacts of the Preferred Alternative**

The impacts to plants and animals would be similar to those experienced with Alternative 1 but would include impacts commensurate with the expanded areas of UGA boundaries. Under the Preferred Alternative, existing UGA boundaries would be expanded by a total of 575.3 acres. As a result of these intensified areas, it is expected that plant and animal populations within UGA boundaries would experience greater impacts than Alternative 1.

Most development would be focused within the Silverdale Regional Center and Kingston Countywide Center with significant development also occurring in the UGAs of Bremerton, Port Orchard, and Poulsbo. Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces from increased development activities. These activities are expected to impact plant and animal species most in areas where undeveloped land is converted. Under the Preferred Alternative, an additional 7,666 lineal feet of Type F stream habitat and 1,760 lineal feet of seasonal / perennial stream habitat will be affected by the UGA expansion areas. Additionally, 3,338 lineal feet of fish bearing stream habitat will be affected by other upzoned areas under the Preferred Alternative. Impacts to aquatic habitat are expected to be similar to those described in Section 3.1.3, *Water Resources*. The area of expanded UGA boundaries may result in increased conversion of riparian habitat and related habitat corridors, degraded habitat functions and values, and increased fragmentation. However, the revisions to the Critical Areas Ordinance should be expected to mitigate impacts to maintain quantity and quality of riparian areas under the Preferred Alternative. Under Alternative 2, the Rural Protection, Rural Residential, and Urban Low zoning designations are expected to have the greatest reductions in area due to upzoning. Conversion of Rural Protection and Rural Residential land in particular may further increase impacts on plants and animals by allowing for increased development in areas that may currently restrict development under Alternative 1.

Direct and indirect impacts on terrestrial and aquatic species would include those impacts previously described in *Impacts Common to All Alternatives* and *Impacts of Alternative 1*. Unmapped rare plants as well as unmapped streams and wetlands may also occur in all areas of proposed UGA expansion under this alternative, which may be impacted by subsequent development activities. The Preferred Alternative is expected to accommodate the second-greatest population growth compared to the three alternatives, which may have a higher impact on plants and animal species than all but Alternative 2.

### ***Silverdale Subarea***

The Preferred Alternative would accommodate the second-greatest amount of growth within the Silverdale subarea compared the three alternatives. As such, it is expected that impacts on plants and animals under the Preferred Alternative would be higher in the Silverdale subarea than in Alternatives 1 or 3 but lower than under Alternative 2. The Preferred Alternative includes some changes in zoning designations within the existing Silverdale subarea but does not expand the UGA.

### 3.1.4.3 Plants & Animals – Mitigation Measures

#### Incorporated Plan Features

*Kitsap County Comprehensive Plan* Element 3, Environment, provides goals and policies to generally preserve and protect critical areas and intact ecosystems; coordinate on efforts toward ecosystem management and recovery; regulate land use, transportation, and development engineering programs to reduce risk to property, life, and the natural environment; and continue to provide opportunities for stewardship, education, and public dialogue related to the management and protection of the natural environment.

#### Applicable Regulations & Commitments

Under each alternative, new and existing development must comply with the County's critical area regulations, SMP, stormwater design specifications, and other applicable regulatory standards. Local, state, and federal regulations protecting water resources include the following:

- Critical Areas Regulations (KCC Title 19) identify and protect critical areas, including fish and wildlife conservation areas, streams, wetlands, frequently flooded areas, and CARAs. Critical areas regulations establish mitigation sequencing standards, as well as buffers on streams and wetlands. Fish and wildlife conservation areas involve priority species and habitats and include riparian habitats. Development in these areas may require a Habitat Management Plan (HMP) prepared by a qualified biologist that identifies how impacts to wildlife or habitat will be mitigated. Alternative 3 would include increased riparian buffer requirements; however, the substantive regulatory requirements will be consistent across each of the alternatives.
- The SMP (KCC Title 22), updated in 2021, applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all Shorelines of the State. The updated SMP was adopted to meet the standards of “no net loss” of shoreline ecological functions. Additionally, the Kitsap Regional Shoreline Restoration Plan identifies several voluntary projects and programs to be implemented to improve shoreline functions over time (Kereki 2017).
- The Corps regulates fill of wetlands through the Federal Clean Water Act.

- Ecology regulates water quality through general and individual water quality permits as well as Section 401 water quality certifications that make sure federal agencies do not issue permits or licenses that violate state water quality standards.
- As a result of a 2008 Biological Opinion by the NMFS, to maintain coverage under the NFIP, the County must ensure that any proposals for development or redevelopment within the floodplain will not adversely affect water quality, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids.
- Under SEPA, all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in both planning and decision making.
- Kitsap County supports and implements ecological restoration projects. Planned restoration projects are highlighted in the Shoreline Restoration Plan, Appendix C of the adopted Kitsap County SMP. Kitsap County supports the HCCC and the West Sound Partners for Ecosystem Recovery, both of which are responsible for coordinating the implementation of restoration actions as Lead Entities.

## Other Potential Mitigation Measures

- Public outreach and education measures, such as those listed below, could help mitigate the impact of population growth on plants and animals.
  - A clean water campaign regarding stormwater and best management practices to reduce pollutant loads.
  - Native plant resources.
  - As it is acknowledged that lawn care treatments including fertilizers and pesticides can have a deleterious effect on water quality, a campaign to encourage reduction of lawns, as well as low-impact lawn care practices is recommended.
- The County does consider incorporation of best management practices beyond the existing 2021 Kitsap County Stormwater Design Manual requirements for stormwater management near roadways to reduce the impacts on aquatic life from roadway runoff that may contain 6ppd-quinone.

## **Plants & Animals – Significant Unavoidable Adverse Impacts**

Future development activities to accommodate the expected growth in Kitsap County will generate unavoidable adverse impacts to native plant and animal species. By focusing development within UGAs, impacts will be minimized by reducing impacts to high functioning, intact habitats, but is unlikely to reduce landscape-scale impacts. Increased impervious surface area within a basin is expected to impact stream hydrology and water quality and quantity. These watershed-level changes are likely to negatively impact listed and unlisted aquatic species. As native vegetation corridors are degraded by selective clearing, wildlife is consequently displaced, colonized by invasive plant species, reduced in size, and fragmented by development.

## 3.2 BUILT ENVIRONMENT: LAND USE & TRANSPORTATION

### 3.2.1 Land & Shoreline Use

The Land Use Chapter has the central role of guiding urban, rural, and resource land use patterns and decisions for the unincorporated portions of Kitsap County. This chapter describes existing land uses, scale and intensity of development, County character, pertinent regulations, and subareas.

#### 3.2.1.1 Land & Shoreline Use – Affected Environment

##### Current Policy & Regulatory Frameworks

###### *Land Area Types*

Land in Kitsap County is divided into three categories: urban, rural, and natural resource lands. In accordance with the GMA, county policies and regulations seek to guide development towards urban areas, while preserving the rural character of designated rural areas.

**Urban areas**, both incorporated and unincorporated, are within the UGA and are intended to grow in a way that makes efficient use of physical infrastructure and provides easy access to a broad range of amenities and human services that make them attractive and safe places to work and live. Within urban areas are “Regional and Countywide Centers” that are designated to accommodate efficient and denser land use, higher concentrations of housing and employment, reduce sprawl, and increase access for walking, biking, and transit mobility options.

**Rural areas** are areas characterized by farms, low-density residential development, open space, vegetation, forests, and important watersheds. Rural areas are also characterized by scenic views, links to cultural heritage, and environmental benefits. There is limited development planned for rural areas. However, there are slightly higher intensity areas, LAMIRDS, where primarily infill development is used to meet the needs of current residents without attempting to draw population from other areas or create a need for urban levels of service.

**Resource Lands**, though treated similarly in standards and character to rural areas, are working lands that provide jobs and products for local use and export. Kitsap County has resource lands for industries like lumber/timber production and mining. Kitsap County

does not have lands specifically designated as agriculture but does have some small-scale agricultural uses on rural lands.

## ***Centers***

There are eight designated centers in unincorporated Kitsap County adopted in conjunction with PSRC in the 2018 Regional Centers Framework Update. Kitsap County has three categories of centers in urban unincorporated areas.

**Regional Growth Centers** are locations of more compact, pedestrian-oriented development with a mix of housing, jobs, retail, services, and other destinations. Regional Growth Centers are expected to be planned for a significant share of the region's population and employment growth compared with other parts of the urban area, while also providing improved access and mobility for walking, biking, and transit. Current Kitsap County Regional Growth Centers are:

- Silverdale
- Bremerton

**Regional Manufacturing/Industrial Centers** are areas focused on preserving lands for family-wage jobs in basic industries and trade and provide areas where that employment may grow in the future. Regional Manufacturing/Industrial Centers are critical regional resources that provide economic diversity, support national and international trade, generate substantial revenue for local governments, and offer higher than average wages. Current Kitsap County Regional Manufacturing/Industrial Centers are:

- Puget Sound Industrial Center-Bremerton

**Countywide Centers** are places for concentrating jobs, housing, shopping, and recreational opportunities. They are often smaller downtowns, high-capacity transit station areas, or neighborhood centers that are linked by transit, provide a mix of housing and services, and serve as focal points for local and county investment. Countywide Industrial centers are also included within the Countywide Center category. Current Kitsap Countywide Centers are:

- Kingston
- McWilliams/303
- Charleston District Center Core (DCC) Center
- Eastside Village Center

- Port Orchard Downtown
- Downtown Port Orchard

**Limited Areas of More Intense Rural Development (LAMIRDs)** are locations, even amongst rural areas, which concentrate housing, jobs, shopping, and recreational uses. LAMIRDs may be Type 1 with a variety of uses characterized as a village or hamlet, Type 2 are for recreation purposes only, or Type 3 for small-scale businesses and cottage industries that provide job opportunities for rural residents. Current Kitsap County Rural Centers are:

**Type 1**

- Keyport
- Manchester
- Port Gamble
- Suquamish
- George's Corner

**Type 3**

- Ecology Road
- Streibels Corner
- Twelve Trees
- Bond/Gunderson
- Port Orchard Airport



### Exhibit 3.2.1.1-1 Land use centers

<b>Regional Growth Centers and Manufacturing/Industrial Centers (PSRC designated)</b>		
<b>Jurisdiction</b>	<b>Regional Center Name</b>	<b>Regional Center Type</b>
City of Bremerton	Bremerton	Metro Center
Kitsap County	Silverdale	Urban Center
City of Bremerton	Puget Sound Industrial Center - Bremerton	Manufacturing/Industrial Growth Center (MIC)
<b>Candidate Regional Growth Center or Manufacturing/Industrial Center</b>		
<b>Countywide Centers</b>		
<b>Jurisdiction</b>	<b>Countywide Center Name</b>	<b>Countywide Center Type</b>
Kitsap County	Kingston	Growth Center
Kitsap County	McWilliams/SR 303	Growth Center
City of Bremerton	Charleston DCC Center	Growth Center
City of Bremerton	Eastside Village Center (previously Harrison Hospital)	Growth Center
City of Port Orchard	Downtown Port Orchard	Growth Center
<b>Candidate Countywide Centers</b>		
City of Port Orchard	Ruby Creek	Growth Center
City of Port Orchard	Mile Hill	Growth Center
City of Port Orchard	Sedgwick/Bethel Center	Growth Center
City of Poulsbo	Downtown Poulsbo/SR 305 Corridor	Growth Center
City of Bainbridge Island	Winslow	Growth Center
<b>Military Installations</b>		
	<b>Military Installation Name</b>	<b>Type of Installation</b>
Bremerton	Naval Base Kitsap – Bremerton	Major Installation
Bremerton	Naval Base Kitsap – Jackson Park	Smaller Installation
Kitsap County	Naval Base Kitsap – Bangor	Major Installation
Kitsap County	Naval Base Kitsap - Keyport	Smaller Installation

Source: Kitsap County, CPPs (2021)

### **Shoreline Master Program (SMP)**

The Washington State Shoreline Management Act (SMA) requires all counties and most towns and cities to plan for how shorelines in their jurisdiction will develop through a SMP. The Kitsap County SMP was adopted in 1976, updated in 1998, and underwent a comprehensive update in 2014 to comply with new SMP Guidelines adopted in 2003.

The SMP was updated and adopted again on June 28, 2021, alongside updates to development regulations. Ecology announced final approval on September 23, 2021,

finding the SMP consistent with the policy and procedural requirements of the SMA and its implementing rules.

The SMP establishes a system of categorizing shoreline areas designed to provide a uniform basis for applying policies and use regulations for distinctly different shoreline areas. To accomplish this, a shoreline environment designation is given to specific areas based on the existing development pattern, the biophysical capabilities and limitations of the shoreline being considered for development, and the goals and vision of the local community. The SMP is designed to encourage a balance of preferred shoreline uses, ecological protection, and public access where appropriate.

## **Current Conditions**

### ***Land Use***

Kitsap County breaks down its land use patterns into twelve categories that broadly capture rural land, forest and mineral resource land, urban land, commercial land, and industrial land. The land use designations reflect a variety of future land use types and intensity of development envisioned for the area. Land use designations broadly categorize land as rural, urban, industrial, forested, or mineral resourced in Kitsap County. The land uses help describe the general use or character of the land, while zoning corresponds to zoning and development standards that regulate development in areas under the County's jurisdiction. Below are land use maps for Kitsap County.



Exhibit 3.2.1.1-2 North Kitsap Land Use map

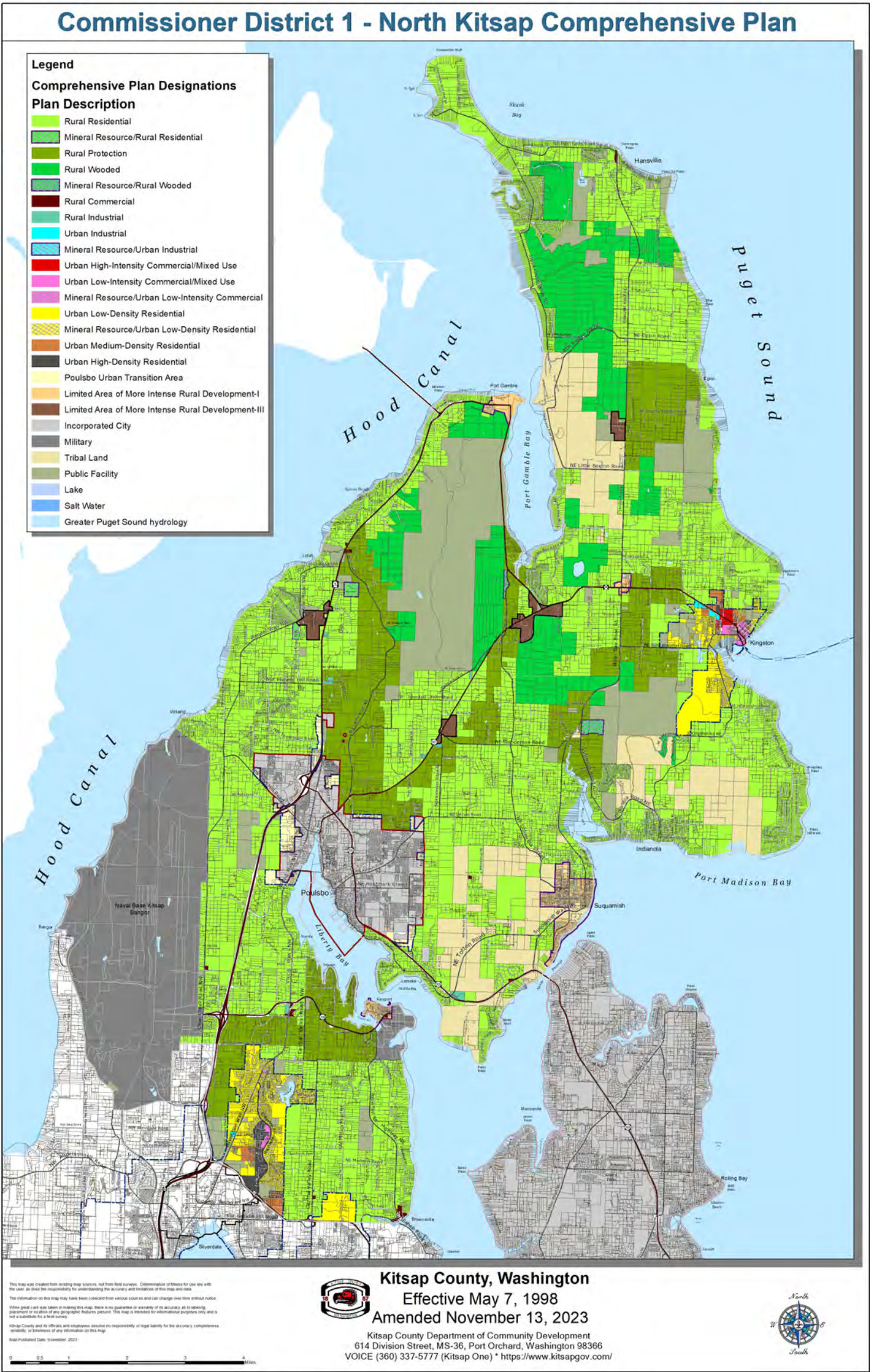




Exhibit 3.2.1.1-3 South Kitsap Land Use map

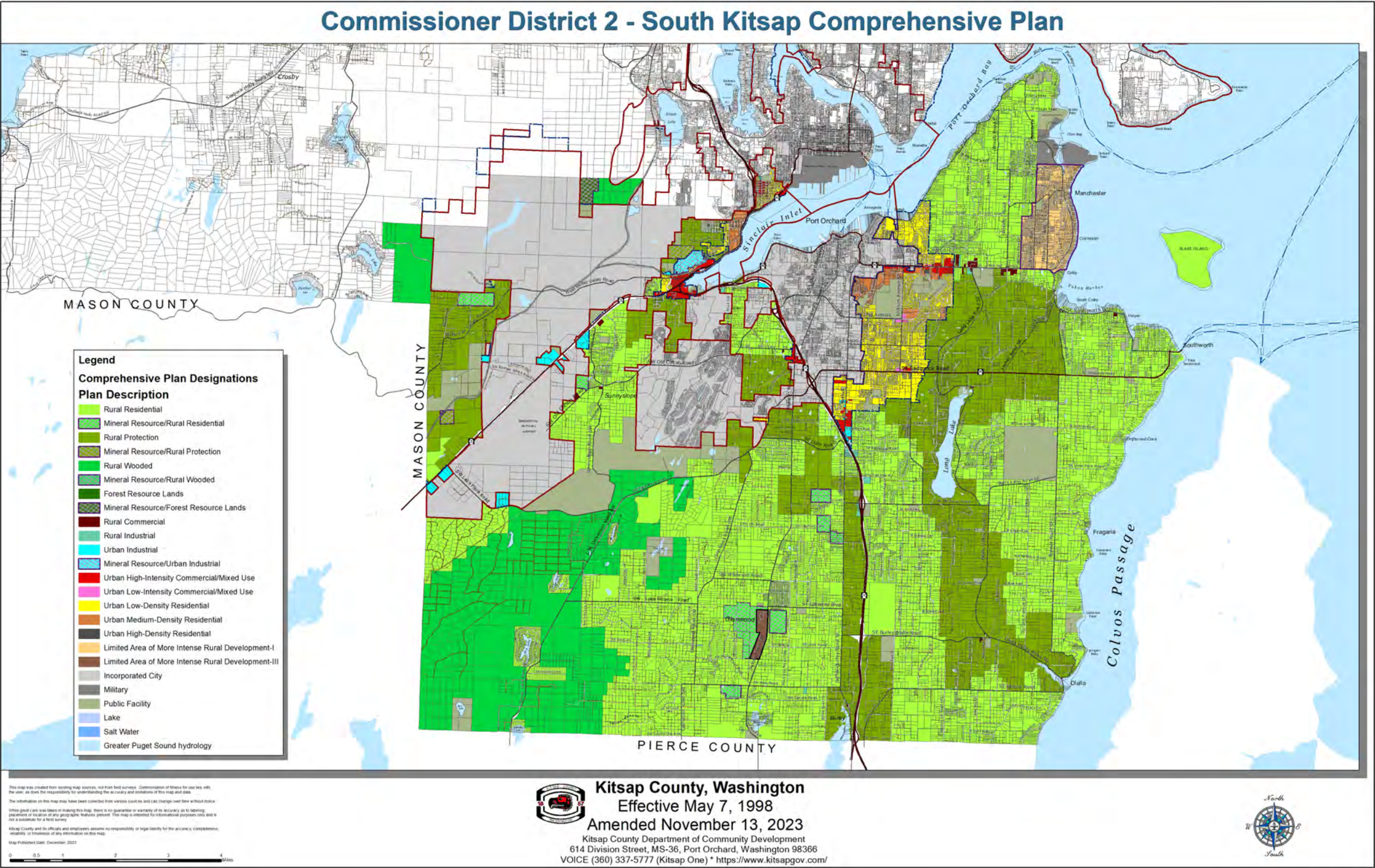
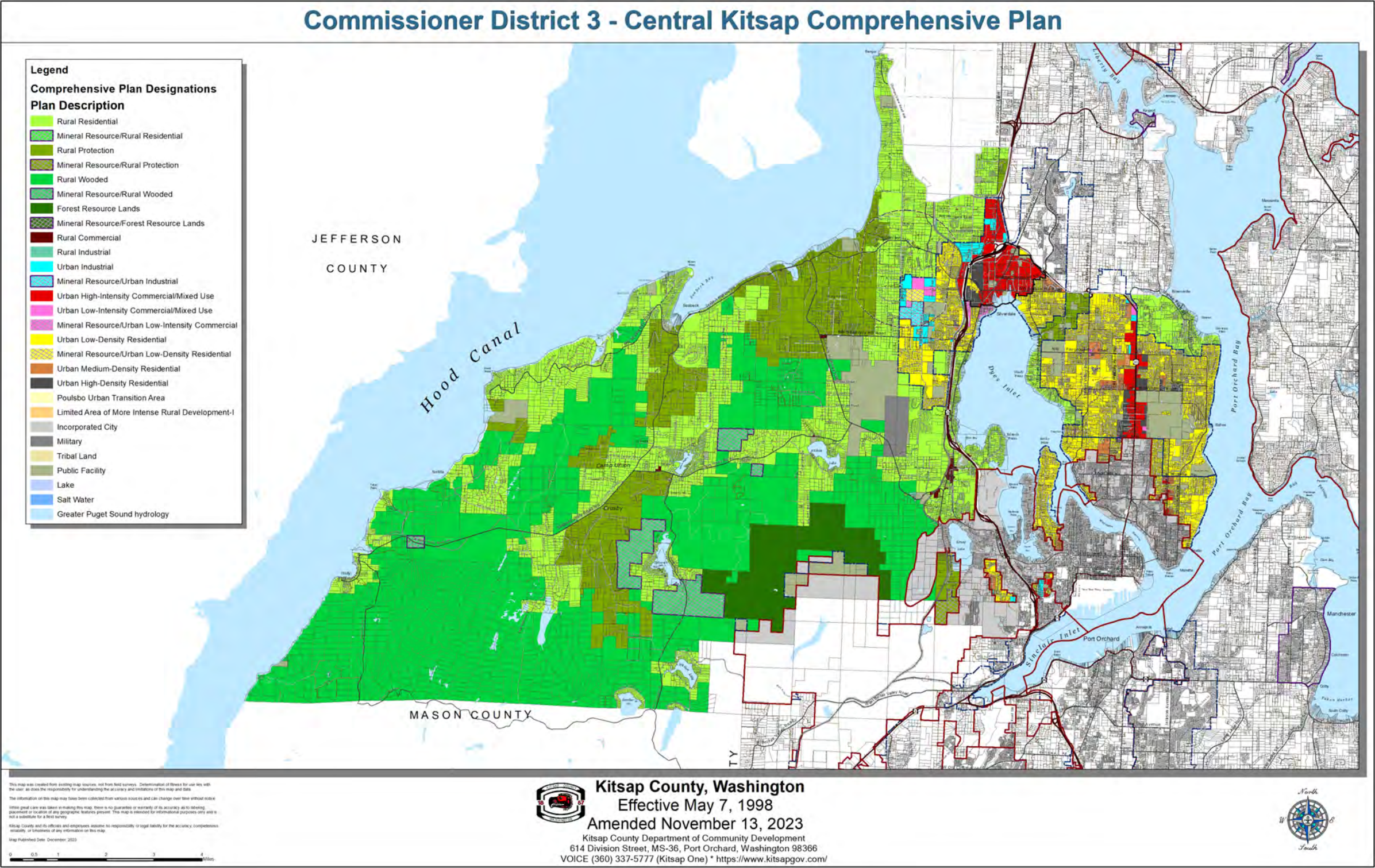




Exhibit 3.2.1.1-4 Central Kitsap Land Use map





## ***Zoning & Development Standards***

Zoning classifies, designates, and regulates the development of land for agriculture, forest, mineral resource extraction, residential, commercial, industrial, and public land uses for the unincorporated areas of Kitsap County.

Kitsap County has 22 total zones covering the land uses previously listed. The zones related to rural and resource land have a minimum lot size range of 5 to 40 acres and a general max height of 35 feet. The zones related to urban low density residential have a minimum lot size range of 2,400 to 5,800 square feet and a general max height of 35 feet. The zones related to urban medium/high density residential generally have no minimum lot size, have a general max height of 45 feet in the urban medium residential zone, and a general max height of 55 feet in the urban high residential zone.

View the table below for a full list of the 22 zones in Kitsap County and each zone's minimum and maximum density standard. Additional details on zoning standards can be found at [KCC 17.420.052](#).

### **Exhibit 3.2.1.1-5 Zoning**

Land Use Designation	Zone Classification	Symbol	Minimum Density	Maximum Density
Rural Residential	Rural Residential	RR	N/A	1 DU/5 Acres
Rural Protection	Rural Protection	RP	N/A	1 DU/10 Acres
Rural Wooded	Rural Wooded	RW	N/A	1 DU/20 Acres
Forest Resource Lands	Forest Resource Lands	FRL	N/A	1 DU/40 Acres
Mineral Resource Overlay	Mineral Resource Overlay	MRO	N/A	0
Urban Low-Density Residential	Urban Restricted	UR	1 DU/Acre	5 DU/Acre
	Greenbelt	GB	1 DU/Acre	4 DU/Acre
	Urban Low Residential	UL	5 DU/Acre	9 DU/Acre
	Urban Cluster residential	UCR	5 DU/Acre	9 DU/Acre

Land Use Designation	Zone Classification	Symbol	Minimum Density	Maximum Density
Urban Medium-Density Residential	Urban Medium Residential	UM	10 DU/Acre	18 DU/Acre
Urban High-Density Residential	Urban High Residential	UH	19 DU/Acre	30 DU/Acre
Urban High Intensity Commercial	Commercial	C	10 DU/Acre	30 DU/Acre
	Regional Center	RC	10 DU/Acre	30 DU/Acre
	Low Intensity Commercial	LIC	10 DU/Acre	20 DU/Acre
Urban Low Intensity Commercial	Urban Village Center	UVC	10 DU/Acre	N/A
	Neighborhood Commercial	NC	10 DU/Acre	30 DU/Acre
Rural Commercial	Rural Commercial	RCO	N/A	0
Urban Industrial	Business Park	BP	N/A	0
	Business Center	BC	N/A	0
	Industrial	IND	N/A	0
Rural Industrial	Rural Industrial	RI	N/A	0
Public Facilities	Parks	P	N/A	0

Source: KCC, Title 17.



Exhibit 3.2.1.1-6 North Kitsap Zoning map

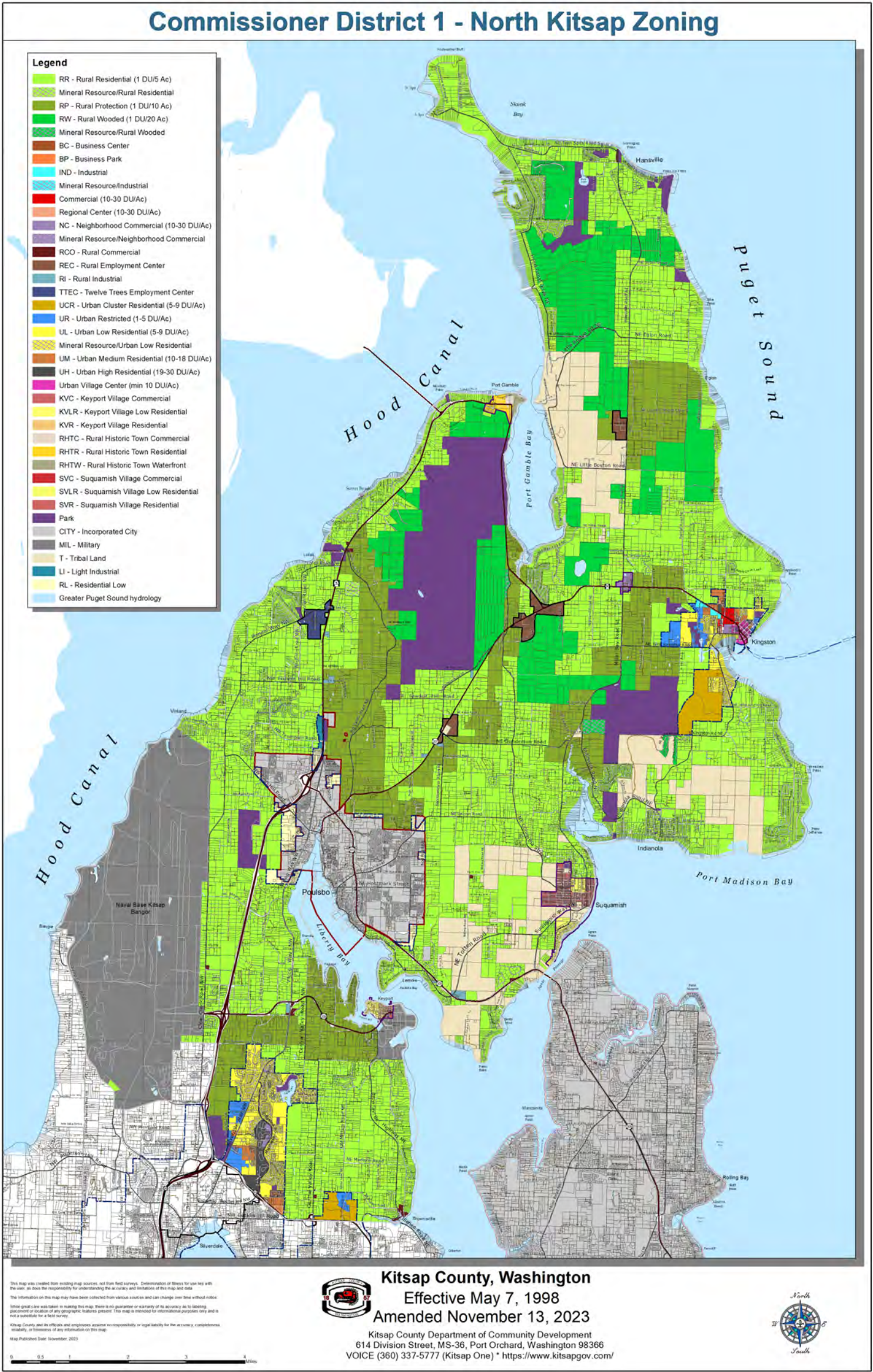




Exhibit 3.2.1.1-7 South Kitsap Zoning map

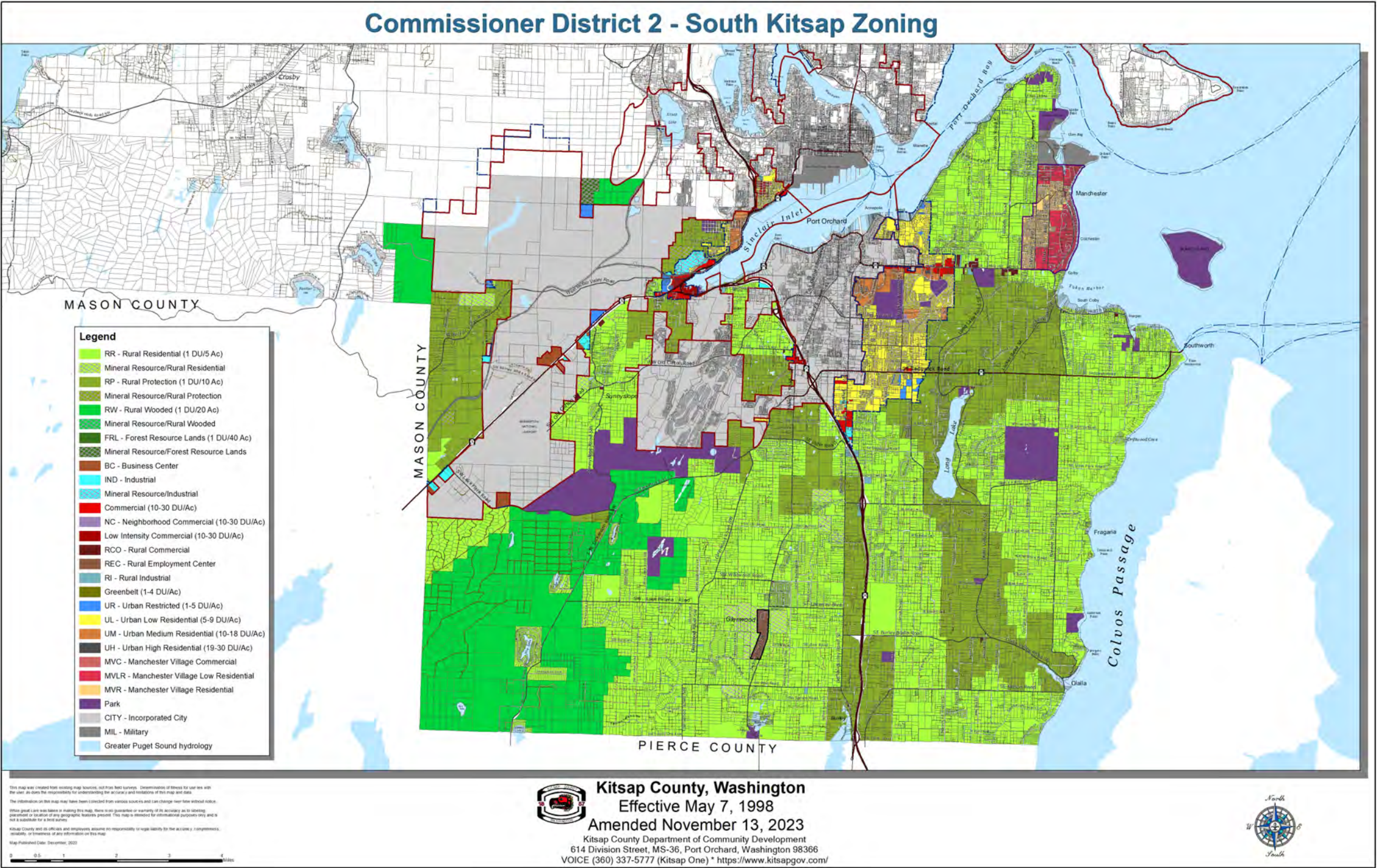
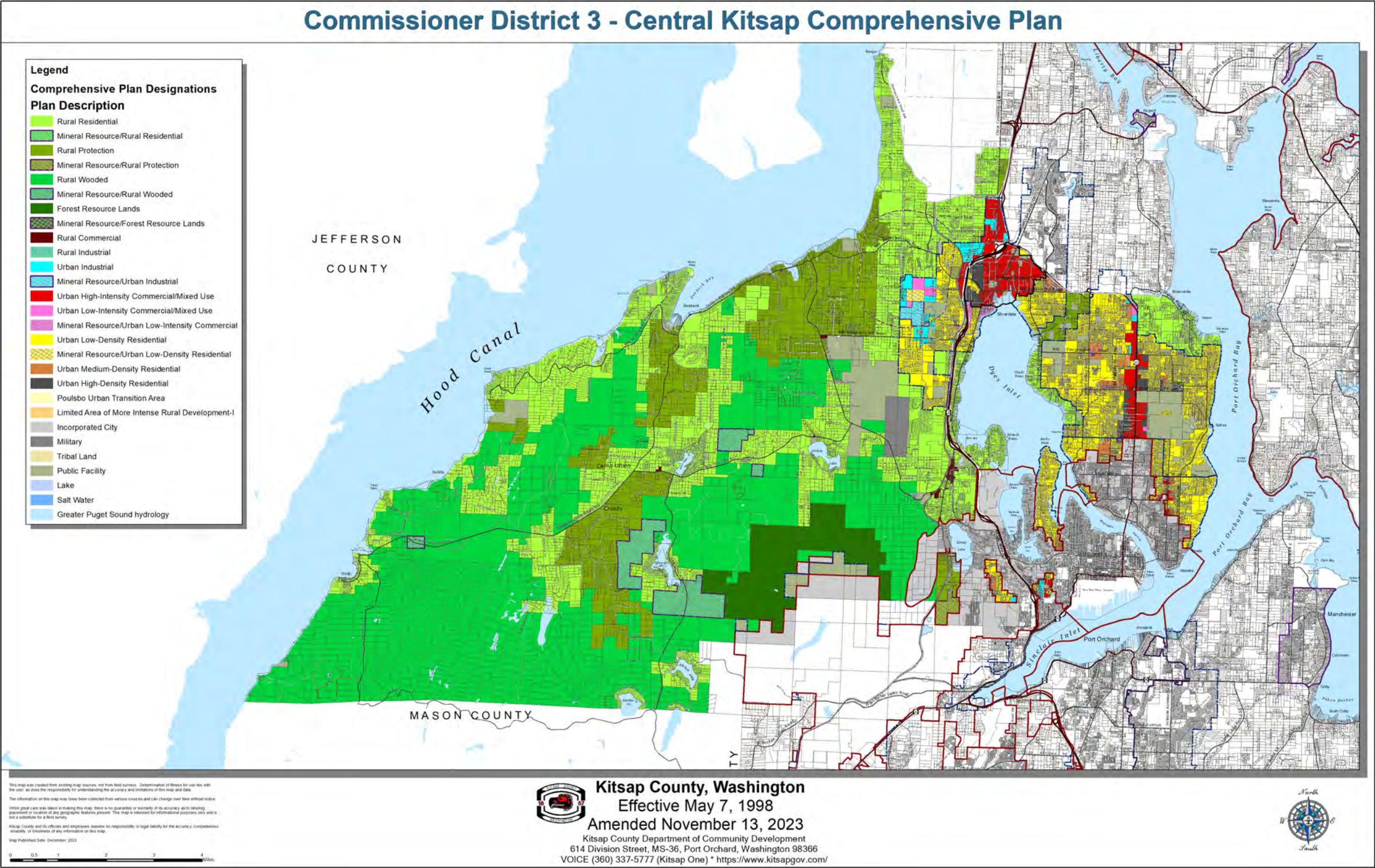




Exhibit 3.2.1.1-8 Central Kitsap Zoning map



***Shorelines***

Kitsap County's shoreline designations include Natural, Rural Conservancy, Urban Conservancy, Shoreline Residential, High-Intensity, and Aquatic.

- Natural – Refers to shorelines that are relatively free of human influence.
- Rural Conservancy – Refers to the conservation of existing natural resources and valuable historic and cultural areas near shorelines.
- Urban Conservancy – Refers to the conservation of ecologically important functions and open space in or near urban areas.
- Shoreline Residential – Refers to areas that accommodate residential development near shores.
- High-Intensity – Refers to shores that provide high-intensity water oriented commercial, transportation, and industrial uses.
- Aquatic – refers to high water mark areas where the needs of aquatic life are given priority.



Exhibit 3.2.1.1-9 North Kitsap Shoreline Environment Designations map

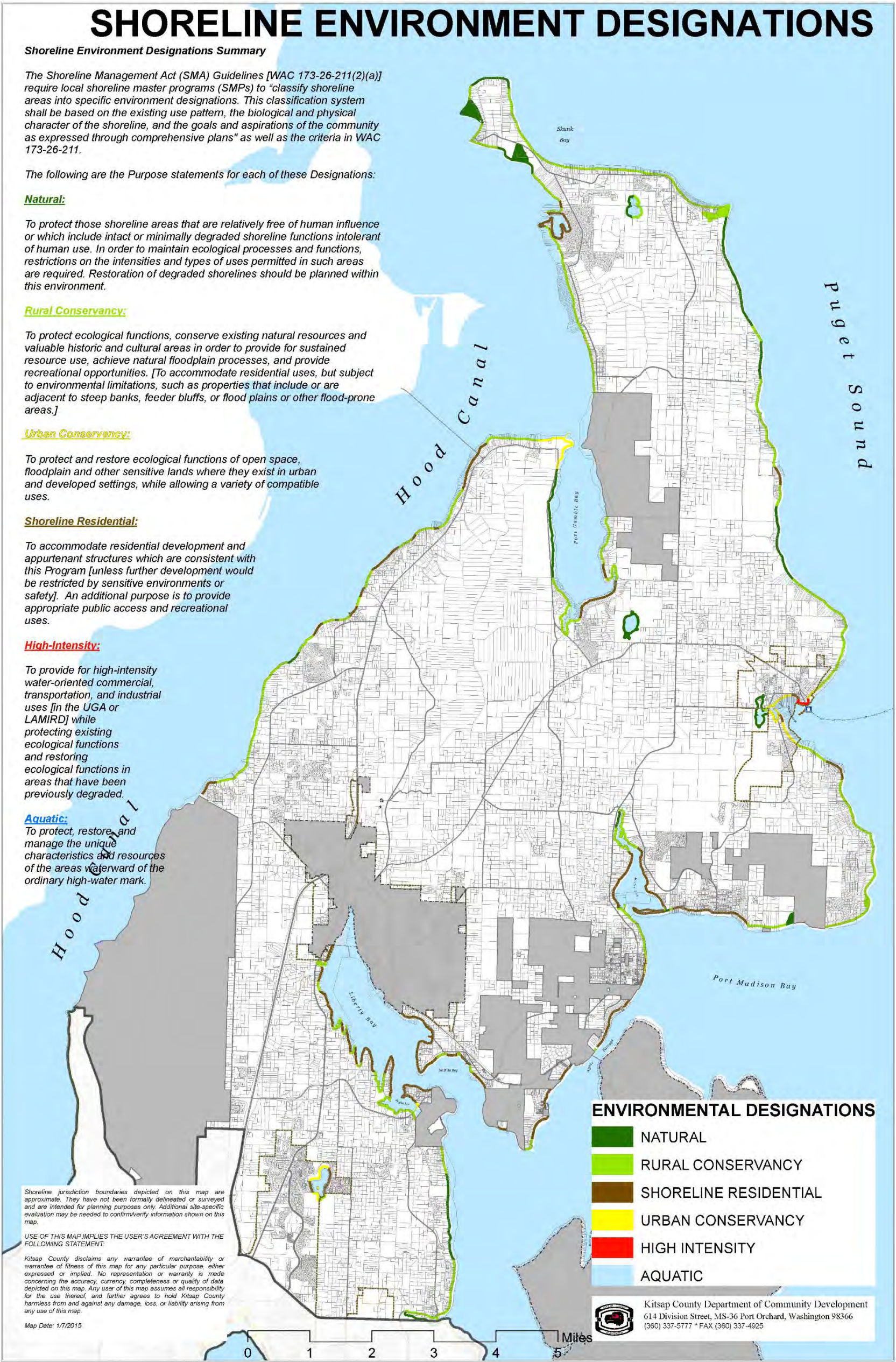




Exhibit 3.2.1.1-10 South Kitsap Shoreline Environment Designations map

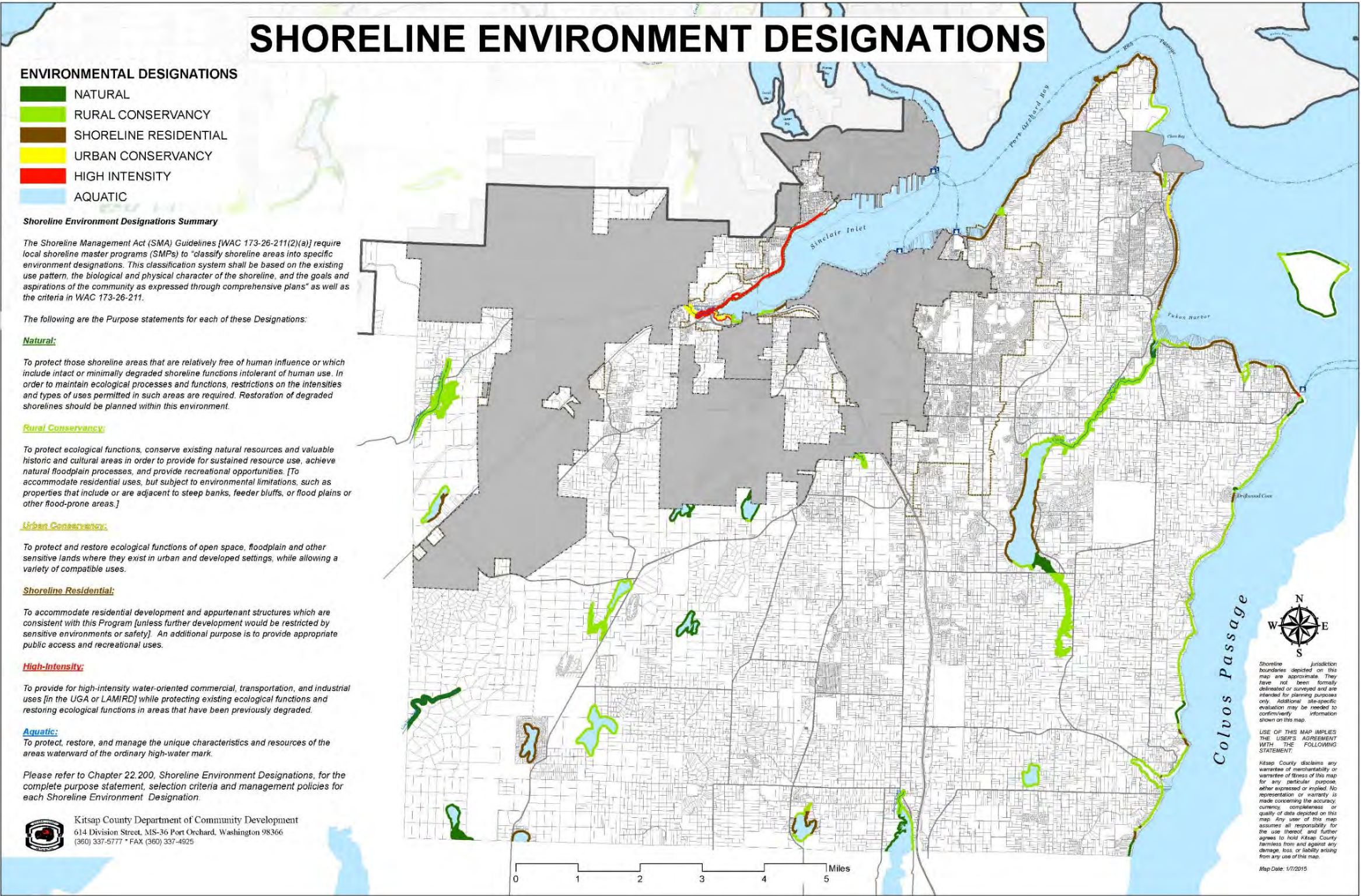
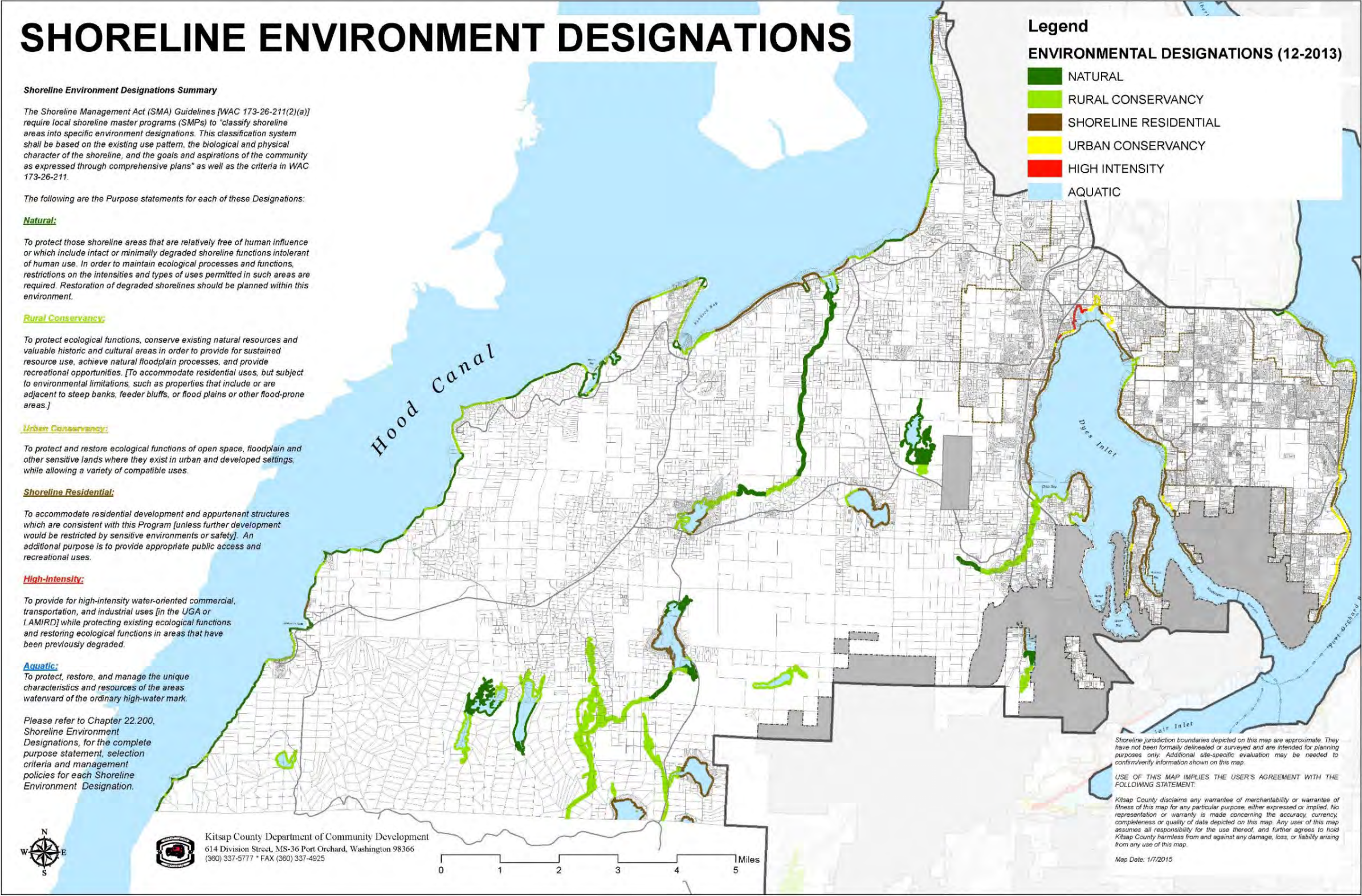




Exhibit 3.2.1.1-11 Central Kitsap Shoreline Environment Designations map

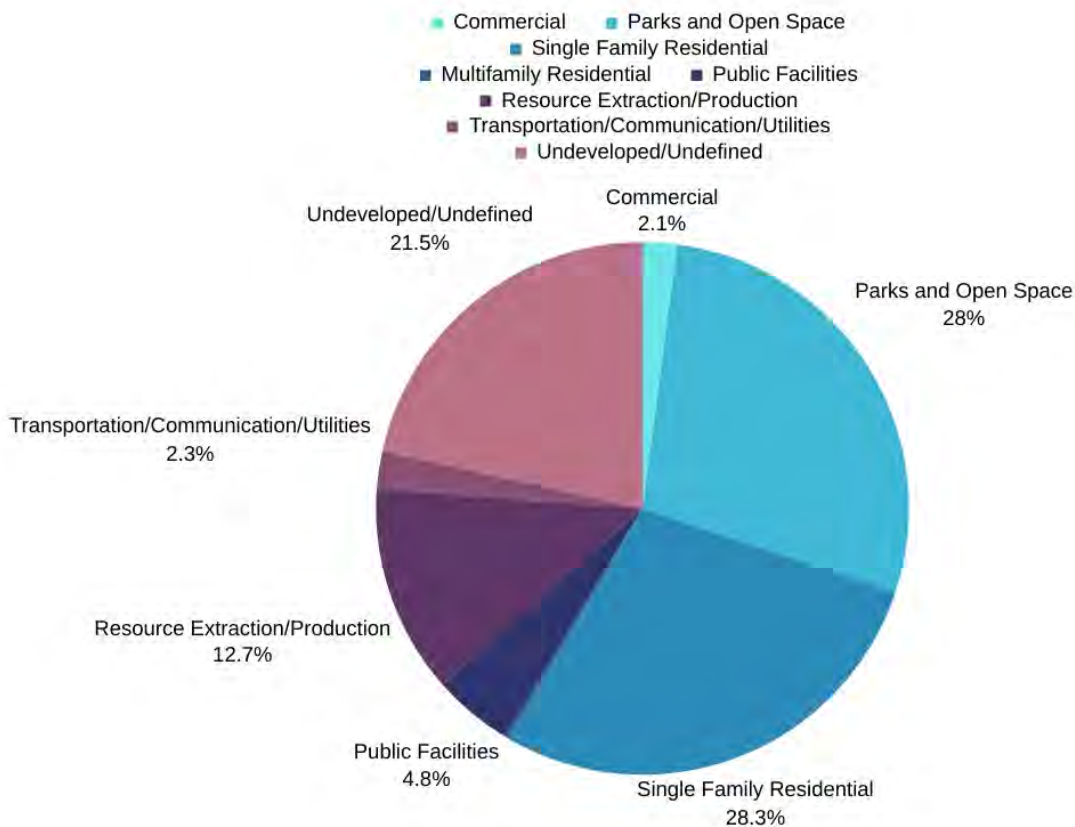




### ***Existing Land Use Pattern***

Kitsap County breaks down its land use patterns into eight broad categories. Residential uses account for 28.6% of the land, with just 0.3% used for multifamily and the rest single family. Parks and other kinds of open space are an additional 28%, and land that is undeveloped or has not been assigned a code by the assessor (undefined) are 21.5% - this includes lands that are covered by water. Further breakdown can be seen below in Exhibits 3.2.1.1-12 and 3.2.1.1-13.

**Exhibit 3.2.1.1-12 Current land use countywide**



*Source: Kitsap County Assessor, 2023*



### Exhibit 3.2.1.1-13 Current land use categories by study area (acres)

Land Use category	Acres
Commercial	8,237.67
Parks and Open Space	110,780.7
Single Family Residential	111,873.1
Multifamily Residential	1,104.99
Public Facilities	19,121.79
Resource Extraction/Production	50,119.16
Transportation/Communication/Utilities	9,029.94
Undeveloped/Undefined	85,174.21
Total	395,441.6

Source: Kitsap County Assessor, 2023

Regionally, Kitsap County is in a unique position within the Puget Sound area. To the east is highly developed Seattle and the rest of King County. To the west across Hood Canal is rural Jefferson County. Much like its position between King County and Jefferson County, Kitsap County considers itself in the middle of and as a mix of urban and rural areas; balancing this mix is an integral goal of the Comprehensive Plan.

Kitsap County is characterized by urban areas in the central and southern part of the County, like Silverdale, Bremerton UGA, and Port Orchard UGA. These urban areas are signified by higher populations and denser residential development, jobs, and commercial uses. Silverdale acts as a regional commercial center for the region with its regional mall and big box stores, and there are industrial, military, and maritime uses in the Bremerton/Port Orchard area. The urban areas have pockets of multifamily residential housing, but most of the residential character is single family detached homes on smaller lots than what is allowed in rural areas.

Kitsap County is also characterized by rural areas in the northern and western parts of the County. The rural areas have lower populations and less residential and commercial development. Instead, rural areas are signified by having open space, agricultural uses, mining and natural resource industries, conservation of fish and wildlife habitat, and parks, trails, and recreation that connect people to nature.

## Subareas

### *Silverdale Subarea*

Silverdale is a regional growth center. The Silverdale UGA, located in Central Kitsap County at the north end of Dyes Inlet, was established in 1998. In 2003, the Kitsap CPPs and PSRC recognized a portion of the Silverdale UGA as a regional growth center for employment and population. In 2006, as part of an update to the Kitsap County Comprehensive Plan, the Silverdale UGA was expanded to encompass approximately 7,400 acres, the Silverdale Sub-Area Plan was adopted, and areawide design standards were created.

Silverdale is dominated by auto oriented development and lacks a coherent physical identity. Silverdale also lacks an integrated downtown/central area because of the incremental growth pattern. However, most of the activities and functions of a downtown and civic/community center are present. Silverdale has the potential to accommodate significant growth through infill and redevelopment. Shopping centers throughout the state and country are undergoing significant changes due to market forces, competition with online shopping, and aging structures. The current lack of well-defined centers, a compact human-scale, and internal connections are being addressed by the Silverdale Regional Center Sub-Area Plan and implementing zoning and design standards.

### *Kingston Subarea*

Kingston is a countywide center. The Kingston UGA, located in North Kitsap County on Appletree Cove, was established in 1998. It encompasses 1,400 acres. Design standards were first adopted in 2000 (last amended in 2020) and a Kingston Sub-Area Plan was first adopted in 2003 and last updated in 2016.

Kingston is home to Kitsap County's northernmost Washington State Ferries terminal, which provides automobile/passenger service to Edmonds. Kitsap Transit provides passenger-only service to Downtown Seattle from the same terminal. Kingston has characteristics of a small town, being relatively compact with a walkable street grid, a cluster of businesses forming a downtown near the ferry terminal, and low-density residential and auto-oriented commercial uses ringing the downtown.

The 2016 version of the subarea plan says Kingston should become an incorporated city within the 20-year planning horizon. Incorporation procedures are provided by [RCW 35.02](#).

### 3.2.1.2 Impacts

#### Impacts Common to All Alternatives

Kitsap County will likely continue to see increases in population and employment under all alternatives over the course of the planning period. The actual pace and distribution of future growth would be influenced in part by the implementation of the comprehensive plan policies, related regulations, and actions, and by decisions made by individual property owners and developers. By 2044, Kitsap County is projected to add 28,825 people, 19,882 jobs, and need 14,497 housing units.

General impacts associated with additional population and employment growth include the following:

- Conversion of undeveloped land for new residential, commercial, and/or industrial uses.
- Increased intensity of use on developed parcels through redevelopment, or infill development on underutilized parcels.
- Land use compatibility issues resulting from the encroachment of new urban development patterns on current uses, often more rural in nature. Encroachment can also include two or more urban uses, such as industrial and residential uses, which are likely to have more conflicts. Encroachment can occur within the existing UGAs or in rural areas adjacent to the UGA boundary.

#### Impacts of Alternative 1, “No Action”

##### *Land Use Patterns*

Alternative 1 would maintain existing Comprehensive Plan land use designations, zoning, and UGA boundaries. The county would continue to have residential patterns that focus on single-family residential and limited multifamily residential. The residential and employment land use pattern would continue a more sprawled character.

##### *Growth Accommodations*

Although population, housing, and employment are all expected to grow in Kitsap County. Under Alternative 1, Kitsap County will not meet growth targets for population, housing, or employment. A likely consequence of Alternative 1 not providing sufficient urban capacity for projected population growth levels, would be a greater portion of increased residential activity may be located in rural areas as spillover development occurs outside UGAs.

### ***Regional and Countywide Centers***

Under Alternative 1 there are no changes to Regional or Countywide Centers.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

#### ***Land Use Patterns***

Alternative 2 would emphasize a more compact land use pattern that increases density to accommodate growth, specifically in urban centers. Alternative 2 focuses more on multifamily residential and densely populating jobs in commercial zones. These changes would reduce pressure of growth on rural areas and increase areas in unincorporated Kitsap County that have a more compact land use character.

There would be limited expansions to UGA boundaries under Alternative 2, to accommodate growth and meet employment and housing goals. There would also be limited rural rezones, with rezones being limited for rural employment opportunities.

#### ***Growth Accommodations***

Under Alternative 2 Kitsap County exceeds population growth targets to meet projected housing need. Alternative 2 is close to meeting employment targets, with a shortfall of just under 1,000 jobs.

#### ***Regional & Countywide Centers***

Under Alternative 2 population, housing, and job growth is focused in Regional and Countywide Centers. The Silverdale Regional Center and Kingston Countywide Center see significant zoning amendments and incentives to reduce barriers for multifamily and commercial development, which include greater allowed heights and densities.

Under Alternative 2, the Kingston Countywide Center will not require commercial on the ground floor of multifamily development.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

#### ***Land Use Patterns***

Alternative 3 would have a more dispersed growth focus that is similar to the land use pattern of Alternative 1. Alternative 3 proposes new policies and regulations that may reduce development potential in UGAs and instead provide opportunities for additional housing and employment in rural areas. Like Alternative 1, Alternative 3 would continue to have residential patterns that focus on single-family residential and limited multifamily

residential. The residential and employment land use pattern would continue a more sprawled character.

There would be more expansions to UGA boundaries under Alternative 3 than in Alternative 2. There would also be more rural rezones, especially for those requested in Type 1 LAMIRDs.

### ***Growth Accommodations***

Under Alternative 3 Kitsap County exceeds employment targets. However, Alternative 3 also accommodates less population than Alternative 2 and does not meet the housing need target.

### ***Regional & Countywide Centers***

Similar to Alternative 1, there are no new incentives or zoning changes for the Regional and Countywide Centers under Alternative 3. One policy change in the Kingston Countywide Center is the requirement of commercial space on the ground floor of multifamily development.

## **Impacts of the Preferred Alternative**

### ***Land Use Patterns***

The Preferred Alternative would emphasize a more compact land use pattern that increases density to accommodate growth, specifically in urban centers, very similar to Alternative 2 as described above. The Preferred Alternative focuses more on multifamily residential and densely populating jobs in commercial zones as well as an expansion of the Puget Sound Industrial Center – Bremerton UGA that adds industrial employment capacity. These changes would reduce pressure of growth on rural areas and increase areas in unincorporated Kitsap County that have a more compact land use character.

There would be limited expansions to UGA boundaries under the Preferred Alternative, slightly larger than Alternative 2 but much smaller than Alternative 3, to approach employment and housing goals. All proposed rural-to-rural rezones have been deferred to a 2025+ planning process under the Preferred Alternative.

### ***Growth Accommodations***

Under the Preferred Alternative, Kitsap County exceeds population growth targets. It is very close to meeting employment targets, with a shortfall of only 146 jobs.

### ***Regional & Countywide Centers***

Under the Preferred Alternative, as in Alternative 2, population, housing, and job growth is focused in Regional and Countywide Centers. The Silverdale Regional Center and Kingston Countywide Center see significant zoning amendments and incentives to reduce barriers for multifamily and commercial development, which include greater allowed heights and densities.

Under the Preferred Alternative, the Kingston Countywide Center will not require commercial on the ground floor of multifamily development.

#### **3.2.1.3 Mitigation Measures**

- Alternative 2 provides for the most compact development pattern of the three alternatives limiting the potential for long-term conversion of rural uses to urban uses.
- Kitsap County Code (KCC) Title 17 regulates land uses and establishes development standards such as densities, minimum lot sizes, setbacks, landscaping to reduce compatibility impacts, and other measures regarding land use. Specifically, Chapter 17.382 provides detailed standards for site design and landscaping.
- Adopted regulations and plans for protecting environmentally sensitive areas require evaluations and mitigation and prohibit certain types of land uses within sensitive areas. These regulations include:
  - KCC Title 19, Critical Areas Regulations, which are also undergoing revision as part of the Comprehensive Plan update to ensure they are consistent with best available science.
  - Kitsap County SMP, consisting of Shoreline Chapter policies in the Comprehensive Plan and regulations in KCC Title 22.

#### **3.2.1.4 Significant Unavoidable Adverse Impacts**

Over time, additional growth and development will occur in Kitsap County and a generalized increase in development intensity, height, bulk, and scale is expected under all alternatives—this gradual conversion of low-intensity uses to higher intensity development patterns is unavoidable but an expected characteristic of urban population and employment growth. No significant unavoidable adverse impacts to land use patterns, compatibility, or urban form are expected under any alternative.



Future growth is likely to result in temporary or localized land use impacts as development occurs. The potential impacts related to these changes may differ in intensity and location in each of the alternatives and many are expected to resolve over time. Application of the County's adopted or new development regulations, zoning requirements, and design guidelines are anticipated to sufficiently mitigate these impacts.

### 3.2.2 Relationship to Plans & Policies

This section reviews policy consistency with regional and countywide land use goals and policies.

#### 3.2.2.1 Relationship to Plans & Policies – Affected Environment

##### Washington State GMA

The GMA was adopted in 1990 by the Washington State Legislature. The GMA contains a comprehensive framework for managing growth and coordinating land use with infrastructure. Provisions of the GMA apply to the state's largest and fastest growing jurisdictions, including Kitsap County and all of its cities. A selected summary of the major provisions of the GMA together with specific provisions that directly pertain to the alternatives is provided below.

##### *Planning Goals*

The GMA contains broad planning goals (RCW 36.70A.020) to guide local jurisdictions in determining their vision for the future and in developing plans, regulations, programs, and budgets to implement that vision. The goals are presented below, in no order of priority.

- **Urban growth.** Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
- **Reduce sprawl.** Reduce the inappropriate conversion of undeveloped land into sprawling, low- density development.
- **Transportation.** Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.
- **Housing.** Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.

- **Economic development.** Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.
- **Property rights.** Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
- **Permits.** Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
- **Natural resource industries.** Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands and discourage incompatible uses.
- **Open space and recreation.** Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.
- **Environment.** Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.
- **Citizen participation and coordination.** Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.
- **Public facilities and services.** Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.
- **Historic preservation.** Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

- **Climate change and resiliency.** Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies adapt to and mitigate the effects of a changing climate; support reductions in GHG emissions and per capita VMT; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.
- **Shoreline management.** Goals and policies of the SMA are set forth in RCW 90.58.020.

### ***Best Available Science (BAS)***

The GMA requires that cities and counties "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" (WAC 365-195-900). Regulated critical areas include wetlands, areas of critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas. (RCW 36.70A.030)

### ***UGAs***

Under the GMA, counties must designate UGAs. These are areas already characterized by urban development or adjacent to areas characterized by urban development. Designated UGAs must also have services available or planned to support future urban growth in these areas.

### ***Rural Lands***

Lands outside of UGAs are to be designated as rural. In general, urban development is not to be permitted on these lands and all development must be rural in character. The GMA requires county comprehensive plans to include a rural element that addresses lands not designated for urban growth, including resource lands such as agricultural lands, forests, and mineral resources. The rural element may allow for a variety of rural densities and uses, but it should include measures for the protection of rural character, both in terms of the visual compatibility of rural development with surrounding areas and in terms of reducing the inappropriate conversion of undeveloped land into sprawling, low-density development.

The GMA does allow for Local Areas of More Intensive Rural Development (LAMIRDs). This designation is intended to recognize areas that are already developed at densities too

intense to be considered rural, but which are not located within or adjacent to an urban area. The GMA allows three types of development in LAMIRDs:

- Infill, development, or redevelopment of existing commercial, industrial, residential, or mixed uses;
- Intensification or new development of small-scale recreation or tourist uses (which Kitsap County does not have any of this type of LAMIRD); and
- Intensification or new development of isolated cottage industries and small scale-businesses (RCW 36.70A.070[5][d]).

### ***Mineral Lands***

The GMA also requires planning jurisdictions to adopt measures for the conservation of designated resource lands, including mineral resource lands. In general, new rural development should occur outside designated resource lands, and land uses surrounding such lands should be restricted to prevent conflicts between rural residences and resource extraction activities. To be classified as Mineral Resource Lands, lands must not already be characterized by urban growth and have long-term significance for the extraction of minerals (RCW 36.70a.170). At a minimum, areas with long-term commercial significance for extraction of sand, gravel, and valuable metals should be designated, but other minerals may be designated as appropriate (WAC 365-190-070(3)(b)).

### ***Forest Lands***

The GMA also requires planning jurisdictions to adopt measures for the conservation of designated resource lands, including FRL. In general, new rural development should occur outside designated resource lands, and land uses surrounding such lands should be restricted to prevent conflicts between rural residences and resource extraction activities. To be classified as FRL, lands must not already be characterized by urban growth and have long-term significance for the commercial production of timber (RCW 36.70a.170).

### ***Reasonable Measures***

The GMA requires that counties and cities plan for a 20-year period and accommodate allocated population growth. A “buildable lands” review and evaluation program was instituted in 1997 in RCW 36.70A.215. The program requires counties and cities to determine if land is being used efficiently in UGAs, to determine if growth is occurring consistent with adopted comprehensive plans, and to identify reasonable measures that could be taken to improve consistency with plans other than adjusting UGAs.

Kitsap County CPPs (2021) indicate each jurisdiction is to implement reasonable measures to support the efficient use of urban lands:

*UGA-2. If the Buildable Lands analysis shows that a jurisdiction's Comprehensive Plan growth goals are not being met, that jurisdiction shall implement reasonable measures to reduce the differences between growth and development assumptions and targets and actual development patterns. Each jurisdiction is responsible for implementing appropriate reasonable measures within its jurisdictional boundaries.*

In 2004 a Growth Management Hearings Board decision found that there were three areas of inconsistency between planned and achieved growth patterns (urban/rural split, urban and rural densities).

In 2006, Kitsap County adopted additional reasonable measures, upheld by the Growth Management Hearings Board. The Growth Management Hearings Board indicated that "GMA requires both pre-adoption (will the measure work) and post-adoption (has the measure actually worked) evaluation of adopted reasonable measures." The Growth Management Hearings Board further indicated that the evaluation should contain "a description, potential benefits, jurisdictions using the measure, and...the effectiveness of the measure" (07-3-0019c Final Decision and Order).

The 2021 Buildable Lands Report identified significant progress towards meeting growth goals to direct growth to urban areas and to increase achieved densities of residential development. A summary evaluation of Reasonable Measures is included in Appendix D of the 2021 Buildable Lands Report. Through the update process, the addition or amendment of reasonable measures that may help increase consistency will be further evaluated for implementation.

### ***Plan Consistency***

A central concept of GMA is the requirement that comprehensive plans be internally and externally consistent. Internal consistency means that the "differing parts of the comprehensive plan must fit together so that no one feature precludes the achievement of any other" (WAC 365-196-500(1)). In a practical sense, internal consistency also means using compatible assumptions, such as consistent numeric assumptions in land use, capital facilities, and other elements of the comprehensive plan.

Further, if relying on forecasts, data, or functional plans developed by other entities, a county or city should identify differences and reconcile them to have compatible assumptions. Finally, each plan must have a mechanism for ongoing review and plan

adjustment, as well as required review cycles in the GMA (RCW 36.70A.130), generally every ten years.

Externally, local comprehensive plans are required to be consistent with the comprehensive plans of other jurisdictions with common borders or related regional issues (WAC 365-196-510(1)). State Department of Commerce rules (WAC 365-196-510(2)) indicate that interjurisdictional (external) consistency is accomplished by consistency with PSRC and CPPs discussed below.

Each county or city that is preparing a GMA comprehensive plan or implementing development regulations, or amendments to them, is required to submit the proposed plan or regulations to the Washington State Department of Commerce and other departments for review and comment before final adoption.

### ***Public Participation***

A fundamental requirement of the GMA is early and continuous public participation in the development and amendment of plans and development regulations. Public participation procedures that are described in the procedural rules (WAC 365-196-600) include broad dissemination of proposals and alternatives, opportunity for written comment, public meetings after effective notice, provision for open discussion, communication programs, information services, and consideration of and response to public comments.

### **State Environmental Policy Act (SEPA)**

SEPA (RCW 43.21C) requires government officials to analyze the environmental consequences of actions they are considering and examine better or less damaging ways to accomplish those proposed actions. They must determine whether the proposed action would have a probable significant adverse environmental impact on the natural and built environment. This FEIS provides qualitative and quantitative analysis of environmental impacts as appropriate to the general nature of the Comprehensive Plan Update proposal. The SEPA process is more fully described in Section 2.2.2, *SEPA Environmental Review*.

### **VISION 2050 and Regional Transportation Plan (RTP)**

VISION 2050, developed by the PSRC and its member governments, including King, Kitsap, Pierce, and Snohomish Counties, is a regional growth strategy. VISION 2050 is implemented through PSRC's policy and plan review of each county's and city's comprehensive plan and amendments.

The 2022-2050 RTP is a transportation plan for the central Puget Sound region. As most people do not experience transportation based solely on the jurisdiction they live and



travel through the region. A metropolitan planning organization (MPO) like PSRC plans and guides transportation choices that improve movement throughout the Puget Sound region. PSRC certifies county and city transportation elements, the regional transportation improvement program, and evaluates performance measures. PSRC also allocates federal funding for transportation projects within its member jurisdictions.

Both plans provide a coordinated framework for guiding growth and transportation actions over the next twenty years.

### ***Regional Centers***

VISION 2050 is based on a centers concept that encourages growth to take place within regional centers of growth and focuses economic development and transportation infrastructure investments there. Under VISION 2050, PSRC designates the following centers in Kitsap County.

- Downtown Bremerton is a *Regional Growth Center – Metro*
- Silverdale is a *Regional Growth Center – Urban*
- The Puget Sound Industrial Center-Bremerton is a *Regional Manufacturing Industrial Center – Growth*

### ***Regional Geographies***

In addition to the Centers concept, VISION 2050 classifies different communities according to the roles they play in the region and allocates growth accordingly.

**Exhibit 3.2.2.1-1 VISION 2050 regional growth share by PSRC geography**

Regional Geography	Regional Population Growth Share	Regional Employment Growth Share
Metropolitan Cities	36%	44%
Core Cities	28%	35%
High Capacity Transit Communities	24%	13%
Cities & Towns	6%	4%
Urban Unincorporated Areas	3%	2%

Source: PSRC VISION 2050

**Metropolitan Cities** are centrally located and have convenient access to high-capacity transit and serve as civic, cultural, and economic hubs. Each county in the Puget Sound

region has at least one Metropolitan City. In Kitsap County, Bremerton and its UGAs are classified as a Metropolitan City.

**Core Cities** are intended to accommodate a significant share of future growth. They contain key hubs for the region's long-range multimodal transportation system and are major civic, cultural, and employment centers. In Kitsap County, the unincorporated community of Silverdale is classified as a Core City.

**High-Capacity Transit Communities** are connected to existing or planned light rail, commuter rail, ferry, streetcar, and/or bus rapid transit facilities. They play an important role as hubs for regional employment and population growth. In Kitsap County, Bainbridge Island, Port Orchard and its UGA, Poulsbo and its UGA, and the unincorporated community of Kingston are classified as High-Capacity Transit Communities.

**Cities and Towns** are other jurisdictions. Kitsap County does not have any designated Cities and Towns at the regional level; all cities fall under one of the other classifications above.

**Urban Unincorporated Areas** are within the regional UGA and governed by county governments. They may be served by local transit but are not yet planned for annexation/incorporation and/or are not yet planned for high-capacity transit. VISION 2050 envisions that over time these unincorporated areas will be fully annexed or incorporated as cities. As stated previously, the Kingston and Silverdale UGAs are anticipated to incorporate as cities within the planning horizon (by 2044).

**Rural Areas and Natural Resource Lands** are used long-term for farming, forestry, recreation, cottage industries, mining, and limited low-density housing supported by rural levels of infrastructure service. Kitsap County mostly consists of Rural Areas and Natural Resource lands outside of the incorporated and unincorporated urban areas.

**Other geographies** not subject to the state and regional planning framework:

- Major Military Installations (more than 5,000 active duty and civilian personnel) in Kitsap County are Naval Base Kitsap-Bangor and Naval Base Kitsap-Bremerton. Smaller installations in Kitsap County are Naval Base Kitsap-Keyport, and The Landings.
- Indian Reservation Lands subject to the jurisdiction of tribal governments are Port Gamble Indian Reservation (S'Klallam Tribe) and Port Madison Reservation (Suquamish Tribe).

VISION 2050 contains multicounty planning policies (presented as goals, policies, and actions) which are organized by the following topics and goals:

- **Regional Collaboration:** The region plans collaboratively for a healthy environment, thriving communities, and opportunities for all.
- **Regional Growth Strategy:** The region accommodates growth in urban areas, focused in designated centers and near transit stations, to create healthy, equitable, vibrant communities well-served by infrastructure and services. Rural and resource lands continue to be vital parts of the region that retain important cultural, economic, and rural lifestyle opportunities over the long term.
- **Environment:** The region cares for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, and reducing air pollutants. The health of all residents and the economy is connected to the health of the environment. Planning at all levels considers the impacts of land use, development, and transportation on the ecosystem.
- **Climate Change:** The region substantially reduces emissions of GHG that contribute to climate change in accordance with the goals of the PSCAA (50% below 1990 levels by 2030 and 80% below 1990 levels by 2050) and prepares for climate change impacts.
- **Development Patterns:** The region creates healthy, walkable, compact, and equitable transit- oriented communities that maintain unique character and local culture, while conserving rural areas and creating and preserving open space and natural areas.
- **Housing:** The region preserves, improves, and expands its housing stock to provide a range of affordable, accessible, healthy, and safe housing choices to every resident. The region continues to promote fair and equal access to housing for all people.
- **Economy:** The region has a prospering and sustainable regional economy by supporting businesses and job creation, investing in all people and their health, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life.
- **Transportation:** The region has a sustainable, equitable, affordable, safe, and efficient multimodal transportation system, with specific emphasis on an integrated

regional transit network that supports the Regional Growth Strategy and promotes vitality of the economy, environment, and health.

- **Public Services:** The region supports development with adequate public facilities and services in a timely, coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives.

### ***Regional Transportation Plan (RTP)***

The RTP supports VISION 2050 in planning for a transportation system which supports the growth strategy. Transportation 2050 is built around these key challenges and opportunities:

- Reducing GHG emissions
- Improving safety for all users
- Investing in growing communities
- Maintaining and promoting economic vitality
- Expanding transit and travel choices

### **Kitsap Countywide Planning Policies (CPPs)**

The GMA requires that counties adopt CPPs to provide an agreed-upon framework within which cities and the counties containing them can develop coordinated comprehensive plans (RCW 36.70A.210). The CPPs define the countywide vision and establish the parameters under which the comprehensive plans of Kitsap County and its cities are developed. The CPPs express a countywide vision and help measure consistency of local plans. The GMA also specifies subjects that must be addressed, including policies for urban and rural uses.

The KRCC coordinates the development of the CPPs. The KRCC is the council of local governments for Kitsap County and its members collaborate on regional transportation and land use decisions. The KRCC consists of elected officials and staff from:

- Kitsap County
- City of Bainbridge Island
- City of Bremerton

- City of Port Orchard
- City of Poulsbo
- Kitsap Transit
- Suquamish Tribe
- Port Gamble S'Klallam Tribe
- Naval Base Kitsap
- Port of Bremerton
- Port of Kingston

On September 27, 2021, the County Board of Commissioners adopted the updated Kitsap County CPPs. This met the deadline of December 31, 2021, to update the CPPs consistent with PSRC's VISION 2050 (adopted October 2020) and Regional Centers Framework (adopted March 2018).

The CPPs have been amended several times since 1992, including August 2001, December 2003, November 2004 (established population distributions), November 2007, November 2011, and November 2013. Employment growth allocations were established and reallocations in population were adopted in April 2015.

The CPPs include policies that address the following topics:

- Countywide Growth Patterns
- UGAs
- Centers of Growth
- Rural Land Use and Development Patterns
- Natural Environment
- Contiguous, Compatible, and Orderly Development
- Public Capital Facilities and Essential Public Facilities
- Transportation

- Housing
- Economic Development
- Coordination with Tribal and the Federal Governments

### ***Kitsap County SMP***

The Kitsap County SMP was adopted in 1976, updated 1998 and underwent a comprehensive update in 2014 to comply with new SMP Guidelines adopted in 2003, as well as to meet the requirements of the SMA of 1971 (RCW 90.58).

The SMP was updated and adopted again on June 28, 2021, alongside updates to development regulations. Ecology announced final approval on September 23, 2021, finding the SMP is consistent with the policy and procedural requirements of the SMA and its implementing rules.

The SMP establishes a system of categorizing shoreline areas designed to provide a uniform basis for applying policies and use regulations within distinctively different shoreline areas. To accomplish this, a shoreline environment designation is given to specific areas based on the existing development pattern, the biophysical capabilities and limitations of the shoreline being considered for development, and the goals and aspirations of local citizenry. The SMP is designed to encourage a balance of preferred shoreline uses, ecological protection, and public access where appropriate.

### ***Tribal Plans***

Both the Suquamish Tribe and the Port Gamble/S'Klallam have tribal lands within Kitsap County. The Tribes have control over development that occurs on trust lands and develop plans to guide that growth. There are privately-owned, non-member parcels on reservation lands where Kitsap County has permitting authority. Other than Tribal lands, the Port Gamble/S'Klallam and Suquamish Tribes have usual and accustomed areas throughout the county as well.

## **3.2.2.2 Impacts**

### **Impacts Common to All Alternatives**

This section compares the impacts associated with each alternative for state, regional, and county policies and plans. Impacts unique to each of the alternatives are described under those respective headings later in this chapter.



Relevant state, regional, and county plans include GMA, VISION 2050, and Kitsap CPPs. The table below identify the three alternatives' potential impacts on pertinent state goals and policies and use the following key:

**Exhibit 3.2.2.2-1 Consistency of alternatives with GMA goals**

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
<b>Washington State GMA</b>					
<b>Goal</b> - Guide growth into urban areas	●	●	●	●	All alternatives would generally foster the greatest share of growth in urban areas. However, Alternative 2 would increase the amount and density of housing in Kitsap County centers. The Preferred Alternative is close to Alternative 2 but produces somewhat less growth in urban areas by way of critical areas ordinance revisions.
<b>Goal</b> - Reduce sprawl	○	●	○	●	Alternative 2 and the Preferred Alternative would likely produce more compact development. Alternative 1 and 3 will likely follow development patterns of the last 20 years, which has included sprawling development.
<b>Goal</b> - Encourage an efficient multimodal transportation system	○	●	○	●	Alternative 2 and the Preferred Alternative are more likely to create development patterns that support High-capacity Transit and increased walk, bike and roll infrastructure.
<b>Goal</b> - Encourage a variety of housing types including affordable housing	●	●	●	●	All alternatives promote housing variety and include goals promoting affordability. The Preferred Alternative improves upon the capacity of housing for households making 80 percent AMI or less compared to Alternative 1 but is off the mark by several hundred units compared to Alternative 2.

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
<b>Goal</b> - Promote economic development	●	●	●	●	The Preferred Alternative provides close to sufficient capacity to meet established employment growth targets.
<b>Goal</b> - Recognize property rights	●	●	●	●	Under all alternatives, all properties are given a reasonable use of land.
<b>Goal</b> - Ensure timely and fair permit procedures	●	●	●	●	All alternatives have similar permitting procedures and meet desired goals for permitting.
<b>Goal</b> - Protect agricultural, forest, and mineral resource land lands	●	●	●	●	All alternatives avoid designated resource lands in terms of UGA boundaries. More compact, dense development under alternative 2 and the Preferred Alternative would leave more land to be agricultural or forested.
<b>Goal</b> - Retain and enhance open space	●	●	●	●	All alternatives would implement the County's parks and recreation plans and critical areas regulations. All alternatives would increase the demand for parks and recreation. The County's parks plans would be implemented to help offset the demand.
<b>Goal</b> - Protect the environment and shorelines	●	●	●	●	Under all alternatives, critical area, and shoreline regulations would guide development. More compact, dense development under alternative 2 would encourage development away from environmentally sensitive areas. The Preferred Alternative includes the draft amendments to the Critical Areas Ordinance currently under consideration by the Board of County Commissioners.
<b>Goal</b> - Ensure adequate public facilities and services	●	●	●	●	All alternatives increase the demand for public facilities and services.

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
<b>Goal</b> - Encourage historic preservation	●	●	●	●	All alternatives would be subject to Comprehensive Plan policies and federal and state laws that promote the protection and preservation of historic and cultural features.
<b>Goal</b> - Foster citizen participation	●	●	●	●	All alternatives are undergoing public review as part of the GMA Comprehensive Plan Update and SEPA process.
<b>Goal</b> - Reduce GHG emissions and climate change impacts	○	●	○	●	Alternative 2 and the Preferred Alternative would take measures to appropriately meet climate change goals. The emphasis on housing diversity, increased density, a more compact growth pattern, and improvement to high-capacity transit in the regional center are measures for reaching climate change goals.

Source: Washington GMA, Kitsap County, & MAKERS (2023).

Note: ○ = negative impact ◐ = partially meets ● = generally meets • = greater emphasis

PSRC's VISION 2050 goal and policies that relate to land use, urban growth, population, housing, employment, centers, and transportations influence on land use were deemed as pertinent to evaluate in this chapter. The table below identifies the three alternatives' potential impacts on PSRC's VISION 2050 pertinent land use goals and policies.

### Exhibit 3.2.2.2-2 Consistency of alternatives with PSRC's VISION 2050

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
<b>PSRC VISION 2050</b>					
<b>Goal</b> – The region accommodates growth in urban areas, focused in designated centers and near transit stations	●	●	●	●	All alternatives would generally foster the greatest share of growth in urban areas. However, the Preferred Alternative would increase the amount and density of housing in Kitsap County centers nearly as much as Alternative 2.
<b>MPP-RGS-4:</b> Accommodates the region's growth primarily in the UGA. Ensure that development in rural areas is consistent with regional vision and the goals of the Regional Open Space Conversation Plan.	●	●	●	●	All alternatives would generally foster the greatest share of growth in urban areas and follows vision for rural development.
<b>MPP-RGS-6:</b> Encourage efficient use of urban land by optimizing the development potential of existing urban lands and increasing density in the UGA.	●	●	●	●	All alternatives would generally foster the greatest share of growth in urban areas. Additionally, the Preferred Alternative would allow for middle housing development, therefore increasing the density in UGAs.
<b>MPP-RGS-9:</b> Focus a significant share of population and employment growth in designated regional growth centers.	●	●	●	●	All alternatives focus population and employment growth in the Silverdale regional center. The Preferred Alternative and

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
					Alternative 2 increase the development capacity in Silverdale and adds increased transit service.
<b>MPP-RGS-11:</b> Encourage growth in designated countywide centers.	○	●	●	●	Alternatives 2 and 3 and the Preferred Alternative will see increased capacity for growth in countywide centers like Kingston, with Alternative 3 having the largest increase in capacity for growth due to increases to the Kingston UGA and higher allowed heights in commercial zones.
<b>MPP-RGS-14:</b> Manage and reduce rural growth rates over time, consistent with the Regional Growth Strategy, to maintain rural landscapes and lifestyles and protect resource lands and the environment.	●	●	●	●	All alternatives limit growth in rural land. The Preferred Alternative defers all rural-to-rural rezones, which would create development capacity, to a 2025+ planning process.
<b>Goal</b> – The region creates healthy, walkable, compact, and equitable transit-oriented communities that maintain unique character and local culture, while conserving rural areas and creating and preserving open space and natural areas.	○	○	○	○	While all alternatives conserve rural areas and limit growth in rural land, all alternatives likely fall short of significant gains toward achieving transit-oriented communities. This is because Kitsap Transit, like many other transit agencies, is experiencing a lack of

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
					funding and a lack of operators.
<b>MPP-DP-4:</b> Support the transformation of key underutilized lands, such as surplus public lands or environmentally contaminated lands, to higher-density, mixed-use areas to complement the development of centers and the enhancement of existing neighborhoods.	○	●	●	●	The Preferred Alternative has, like Alternatives 2 and 3, specific policies for the County to catalog and plan around developing underutilized land for high-density residential or mixed-use.
<b>MPP-DP-33:</b> Do not allow urban net densities in rural and resource areas.	●	●	●	●	All alternatives conserve rural areas and limit growth in rural land.
<b>Goal</b> – The region preserves, improves, and expands its housing stock to provide a range of affordable, accessible, healthy, and safe housing choices to every resident. The region continues to promote fair and equal access to housing for all people.	●	●	●	●	All alternatives currently allow middle housing and are likely to see continued housing supply increase. Code revisions for middle housing that remove barriers for development of middle housing are present in the Preferred Alternative as well as Alternatives 2 and 3. The Preferred Alternative increases housing choice for people in the county more than the other alternatives except for Alternative 2, as it reduces regulatory barriers and increases height and density the



Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
					most in regional and countywide centers.
<b>MPP-H-1:</b> Plan for housing supply, forms, and densities to meet the region's current and projected needs consistent with the Regional Growth Strategy and to make significant progress towards jobs/housing balance.	●	●	●	●	All alternatives currently allow middle housing and are likely to see continued housing supply increase. Code revisions for middle housing that remove barriers for development of middle housing are present in the Preferred Alternative, as well as Alternatives 2 and 3. Alternative 2 and the Preferred Alternative increase housing choice for people in the county more than the others, as they reduce regulatory barriers and increases height and density the most in regional and countywide centers.
<b>MPP-H-2:</b> Provide a range of housing types and choices to meet the housing needs of all income levels and demographic groups within the region.	●	●	●	●	All alternatives are likely to see continued housing supply increase, and the Preferred Alternative, like Alternative 2, increases housing choice for people in the county, as it allows middle housing.
<b>MPP-H-6:</b> Develop and provide a range of housing choices for workers at all income levels throughout the	●	●	●	●	All alternatives currently allow middle housing and are likely to see continued housing supply increase. Code

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
region that is accessible to job centers and attainable to workers at anticipated wages.					revisions for middle housing that remove barriers for development of middle housing are present in the Preferred Alternative as well as Alternatives 2 and 3. Alternative 2 and the Preferred Alternative increase housing choice for people in the county more than the others, as they reduce regulatory barriers and increases height and density the most in regional and countywide centers.
<b>MPP-H-9:</b> Expand housing capacity for moderate density housing to bridge the gap between single-family and more intensive multifamily development and provide opportunities for more affordable ownership and rental housing that allows more people to live in neighborhoods across the region.	○	●	●	●	The Preferred Alternative and Alternatives 2 and 3 increase zoned capacity for moderate density housing development. The Preferred Alternative has more moderate-density housing capacity than Alternative 3 but less than Alternative 2, primarily due to the incorporation of revised critical area buffers from the CAO update.
<b>MPP-H-10:</b> Encourage jurisdictions to review and streamline development standards and regulations to advance their public	●	●	●	●	The Preferred Alternative is not enacting MFTE at this time due to lack of eligibility for Kitsap

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
benefit, provide flexibility, and minimize additional costs to housing.					County, but expedited permitting processes for multifamily housing is being implemented.

Source: Washington GMA, Kitsap County, & MAKERS (2023).

Note: ○ = negative impact ◐ = partially meets ● = generally meets • = greater emphasis

CPP goal and policies that relate to land use, urban growth, population, housing, employment, centers, UGAs, and growth accommodations were deemed as pertinent to evaluate in this chapter. The table below identifies the three alternatives' potential impacts on Kitsap CPPs pertinent land use goals and policies.

#### Exhibit 3.2.2.2-3 Consistency of alternatives with Countywide Planning Policies

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
<b>Countywide Planning Policies (CPPs)</b>					
CW-1 – The primary role of Kitsap Cities and unincorporated UGAs is to encourage growth through new development, re-development, and in-fill.	●	●	●	●	All alternatives would generally foster the greatest share of growth in urban areas.
CW-2: Maintain/enhance natural systems and rural character and include a variety of low-density rural centers and uses.	●	●	●	●	All alternatives limit growth in rural land and follow vision for rural development.
UGA-1: The County and Cities shall maintain a Land Capacity Analysis Program.	●	●	●	●	The County has performed Land Capacity analysis for all alternatives, including the Preferred Alternative.
UGA-2: Jurisdictions shall implement reasonable measures to reduce differences between growth and development assumptions and targets and	●	●	●	●	Using Land Capacity analysis for all alternatives, all alternatives implement reasonable measures to accommodate population, job, and housing growth.

Goal or Policy	No Action	Alt. 2	Alt. 3	Preferred Alt.	Notes
actual development patterns if the Buildable Lands analysis show Comprehensive Plan goals are not being met.					Alternative 2 implements enough reasonable measures to meet population, housing, and employment targets. Alternative 3 implements enough reasonable measures that exceed employment targets.
C-1: Centers are focal points of growth within Kitsap County and Centers should have a high priority.	●	●	●	●	All alternatives focus population and employment growth in the Silverdale regional center. However, alternative 2 increases the development capacity in Silverdale and adds increased transit service, with the Preferred Alternative following behind. Alternative 3 increases the development capacity for commercial uses in Kingston.
C-4: Centers shall be identified within a local comprehensive plan and/or subarea plan and establish compliance and consistency with the PSRC 2018 Regional Centers Framework designation criteria.	●	●	●	●	All centers in the county follow the appropriate measures needed by PSRC's Centers Framework.
R-1: Preserving rural character and enhancing the natural environment.	●	●	●	●	All alternatives limit growth in rural land.
R-2 – Preserving rural land use and development patterns.	●	●	●	●	All alternatives conserve rural areas and limit growth in rural land.

Source: Washington GMA, Kitsap County, & MAKERS (2023).

Note: ○ = negative impact ◐ = partially meets ● = generally meets • = greater emphasis

## Impacts of Alternative 1, “No Action”

### *Policy Consistency*

Impacts on policy consistency under Alternative 1 would be similar to the existing pattern described under **Impacts Common to All Alternatives**.

## Impacts of Alternative 2, “Compact Growth/Urban Center Focus”

### *Policy Consistency*

Below is a list of proposed policy changes under Alternative 2:

- The Silverdale center, Kingston UGA, and McWilliams center will have multifamily tax exemption (MFTE) areas and multifamily development may receive expedited permitting.
- Both the Silverdale center and Kingston UGA will be expected to increase transit service to at least 30-minute frequency.
- Density ranges and reduction of regulatory barriers for middle housing types.
- Tree replacement standard for urban areas in which development must meet a certain tree unit per acre standard.
- Expected to meet PSRC’s GHG emission targets.
- Reduce parking minimums: Individual garages count as one of the required spaces per unit for single family homes; 1 space per unit for multifamily units with 1 or fewer bedrooms; 1.5 spaces per unit for multifamily units with 2 or more bedrooms; Commercial uses will follow the High-capacity Transit standards for the county.

The addition of MFTE areas along with expedited permitting in centers and UGAs is consistent with Countywide and PSRC policies of encouraging growth in centers and UGAs. It also aligns with PSRC policies to streamline development.

Increased transit service in the locations mentioned above is intended to help areas meet PSRC’s centers criteria and is consistent with policies looking to increase transit-oriented communities.

The reduction of regulatory barriers for middle housing types and parking reductions under Alternative 2 are consistent with policies related to expanding housing supply and

choice. While a tree replacement standard could limit housing production, a carefully managed tree replacement standard would likely help accomplish other environmental and climate related goals.

## **Impacts of Alternative 3, “Dispersed Growth Focus”**

### ***Policy Consistency***

Below is a list of proposed policy changes under Alternative 3:

- The Kingston UGA will have a storefront zone that requires vertically integrated mixed-use building development in the zone.
- Tree retention standard for urban areas in which development must keep a certain percentage of trees on site.
- Increased stream buffers, from 50 feet to 100 feet, for seasonal / perennial streams.
- The lot aggregation requirement is removed in the Suquamish and Manchester LAMIRDS.

The storefront zone that requires mixed-use development in Kingston is likely consistent with the Regional Growth Strategy. However, requiring mixed-use development could limit overall development, as current demand for commercial uses is declining. Connecting commercial development to residential development may lower residential development and be inconsistent with urban growth goals.

The removal of lot aggregation requirements is consistent with PSRC policies to streamline development, while also allowing rural areas to add limited growth and population without changing the character of the rural lands.

Similar to Alternative 2, a tree retention standard could limit housing production, but a carefully managed tree retention standard would likely help accomplish other environmental and climate related goals.

## **Impacts of the Preferred Alternative**

### ***Policy Consistency***

Below is a list of proposed policy changes under the Preferred Alternative:



- In the Silverdale center, Kingston UGA, and McWilliams center, multifamily development may receive expedited permitting.
- Both the Silverdale center and Kingston UGA will be expected to increase transit service to at least 30-minute frequency.
- Density ranges and reduction of regulatory barriers for middle housing types.
- Tree canopy standards combining a replacement and retention approach.
- Expected to meet PSRC's GHG emission targets.
- Reduce parking minimums: Individual garages count as one of the required spaces per unit for single family homes; 1 space per unit for multifamily units with 1 or fewer bedrooms; 1.5 spaces per unit for multifamily units with 2 or more bedrooms; Commercial uses will follow the High-capacity Transit standards for the county.

The expedited permitting in centers and UGAs is consistent with Countywide and PSRC policies of encouraging growth in centers and UGAs. It also aligns with PSRC policies to streamline development. MFTE is ready to be implemented if eligibility is changed in state law allowing Kitsap County to implement it.

Increased transit service in the locations mentioned above is intended to help areas meet PSRC's centers criteria and is consistent with policies looking to increase transit-oriented communities.

The reduction of regulatory barriers for middle housing types and parking reductions under the Preferred Alternative are consistent with policies related to expanding housing supply and choice. While tree replacement and retention standards could limit housing production, a carefully managed tree canopy standard would likely help accomplish other environmental and climate related goals.

### **3.2.2.3 Mitigation Measures**

#### **Regulations and Commitments**

- In order to ensure consistency with GMA requirements, Kitsap County will submit its proposed plan to the Washington Department of Commerce for review and comment prior to adoption.

- To ensure consistency with Kitsap County CPPs and with individual municipal comprehensive plans, Kitsap County will evaluate the consistency of its preferred plan with the adopted CPPs prior to adoption.
- The County will confirm the adequacy of public urban services in UGA expansion areas with its CFP before formally amending UGA boundaries.

#### **3.2.2.4 Significant Unavoidable Adverse Impacts**

With implementation of mitigation measures, no significant unavoidable adverse impacts are anticipated regarding future plan consistency under any of the alternatives.

### **3.2.3 Population, Housing & Employment**

This section describes characteristics of Kitsap County's population, housing stock and affordability, and employment base. The County's ability under each alternative to meet growth targets and to provide housing and employment opportunities is analyzed.

#### **3.2.3.1 Population, Housing & Employment – Affected Environment**

##### **Population & Household Characteristics**

##### ***Population Estimates & Projections***

Between 2010 and 2022, Kitsap County's population grew at an average annual growth rate (AAGR) of almost one percent (Exhibit 3.2.3.1-1). The AAGR for Kitsap County between 1990 and 2022 is 1.2%, suggesting a very small decrease in annual population growth from the previous decade. The overall percent change in the County's population between 2010 and 2022 was 12%, compared to a 48% change between 1990 and 2022.

As of 2022, Kitsap County is home to 280,900 people. If the rate of population growth continues at about one percent per year (based on the AAGR from 2010 to 2022), Kitsap County could exceed 300,000 residents by 2030.

**Exhibit 3.2.3.1-1 Population change summary, 1990–2022**

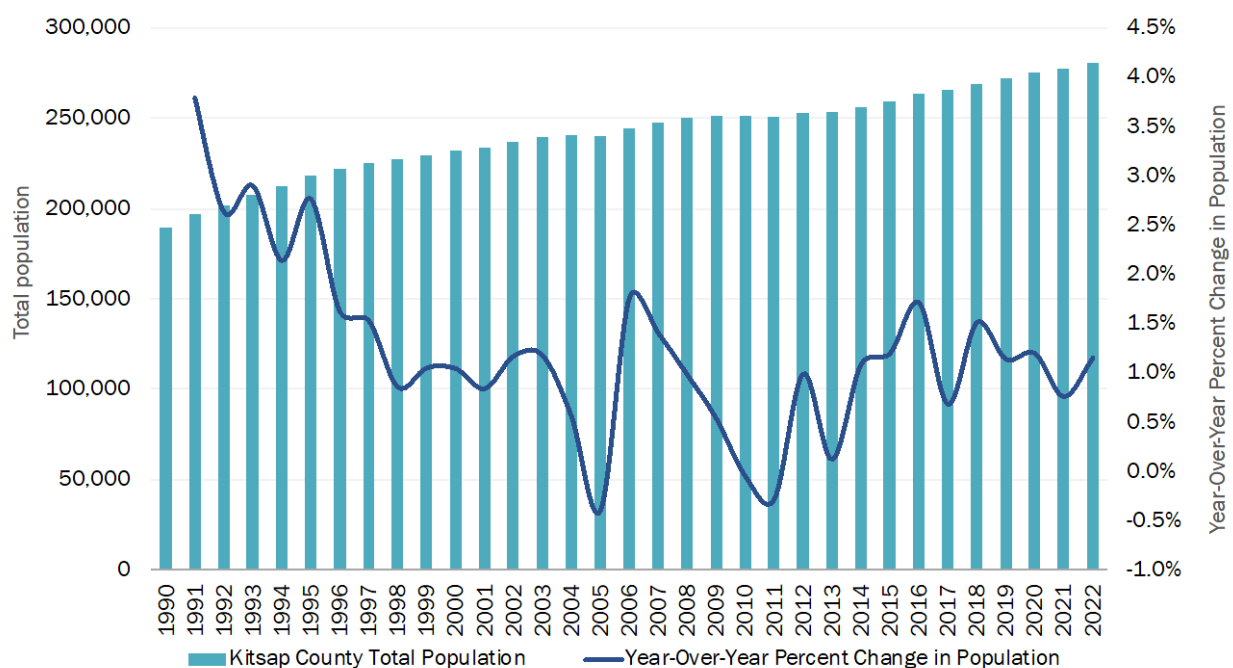
Location	Population Count				Change, 1990 to 2022			Change, 2010 to 2022		
	1990	2000	2010	2022	Difference	% Change	AAGR (%)	Difference	% Change	AAGR (%)
Kitsap County	189,731	231,969	251,133	280,900	91,169	48%	1.2	29,767	12%	0.9
Kingston	No data	1,611	2,099	2,514	No data	No data	No data	415	20%	1.5
Silverdale	No data	15,816	19,204	20,129	No data	No data	No data	925	5%	0.4
WA	4,866,659	5,894,143	6,724,540	7,864,400	2,997,741	62%	1.5	1,139,860	17%	1.3

Source: U.S. Census Bureau, Washington Office of Financial Management (OFM), and ECONorthwest

Note: The data reported for years 1990 through 2020 are intercensal estimates; 2021 and 2022 data are postcensal estimates. AAGR = Average Annual Growth Rate, WA = Washington State.

A look at the year-over-year percent change of population in Exhibit 3.2.3.1-2 tells a similar story. While the total population has increased between 1990 and 2022, the year-over-year percent change in population has decreased from around four percent to just one percent.

**Exhibit 3.2.3.1-2 Year over year percent change of population, 1990–2022**



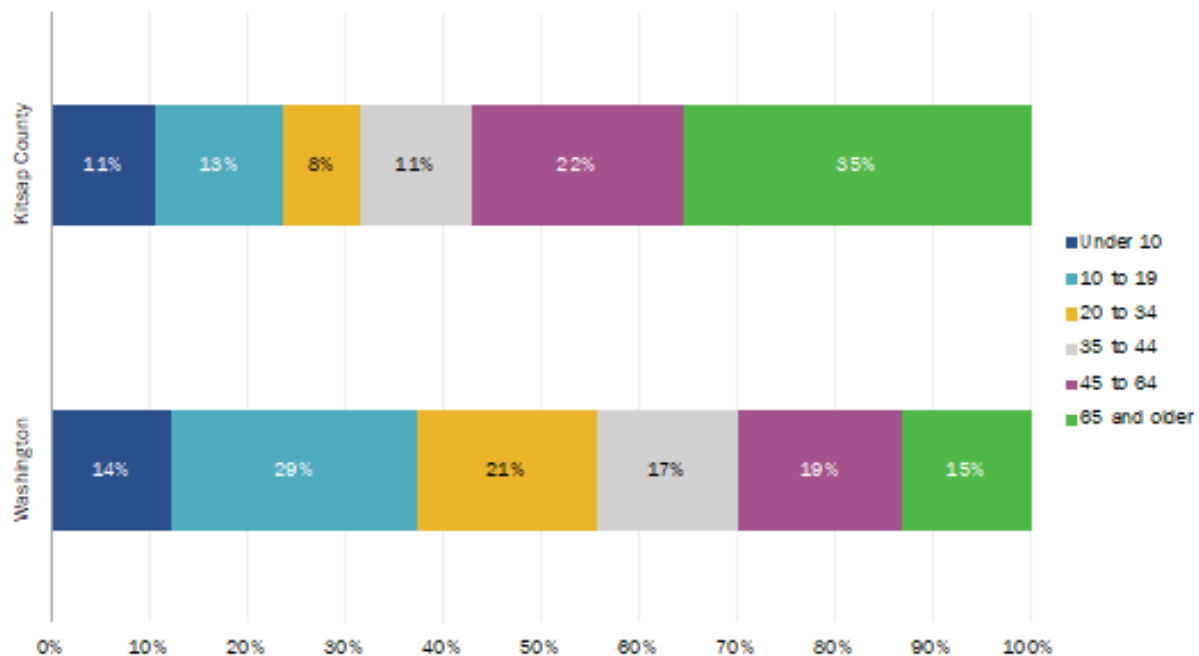
Source: U.S. Census Bureau, Washington OFM, and ECONorthwest

Note: The data reported for years 1990 through 2020 are intercensal estimates; 2021 and 2022 data are postcensal estimates.

### Population Characteristics

Kitsap County's demographic statistics show that the county is primarily composed of white and senior households. Of all age groups, people between ages 45 and 64 and 64 and older represent 22% and 35% of Kitsap County's population, respectively (see Exhibit 3.2.3.1-3). In total, the percent of people 45 and older is 23 percentage points higher in Kitsap County than in Washington.

**Exhibit 3.2.3.1-3 Population distribution of Kitsap County and Washington by age, 2020**



Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2016-2020 estimates (Table DP05)

The median age in Kitsap County is 39, which is similar to Washington's median age of almost 38 years and Silverdale's median age of 37.5 years. In comparison, the median age in Bremerton and Port Orchard is lower (32 and 34 years), whereas the median age in Poulsbo, Bainbridge Island, and Kingston are higher, between 43 and 49 years.

#### Exhibit 3.2.3.1-4 Median age comparisons, 2000–2020

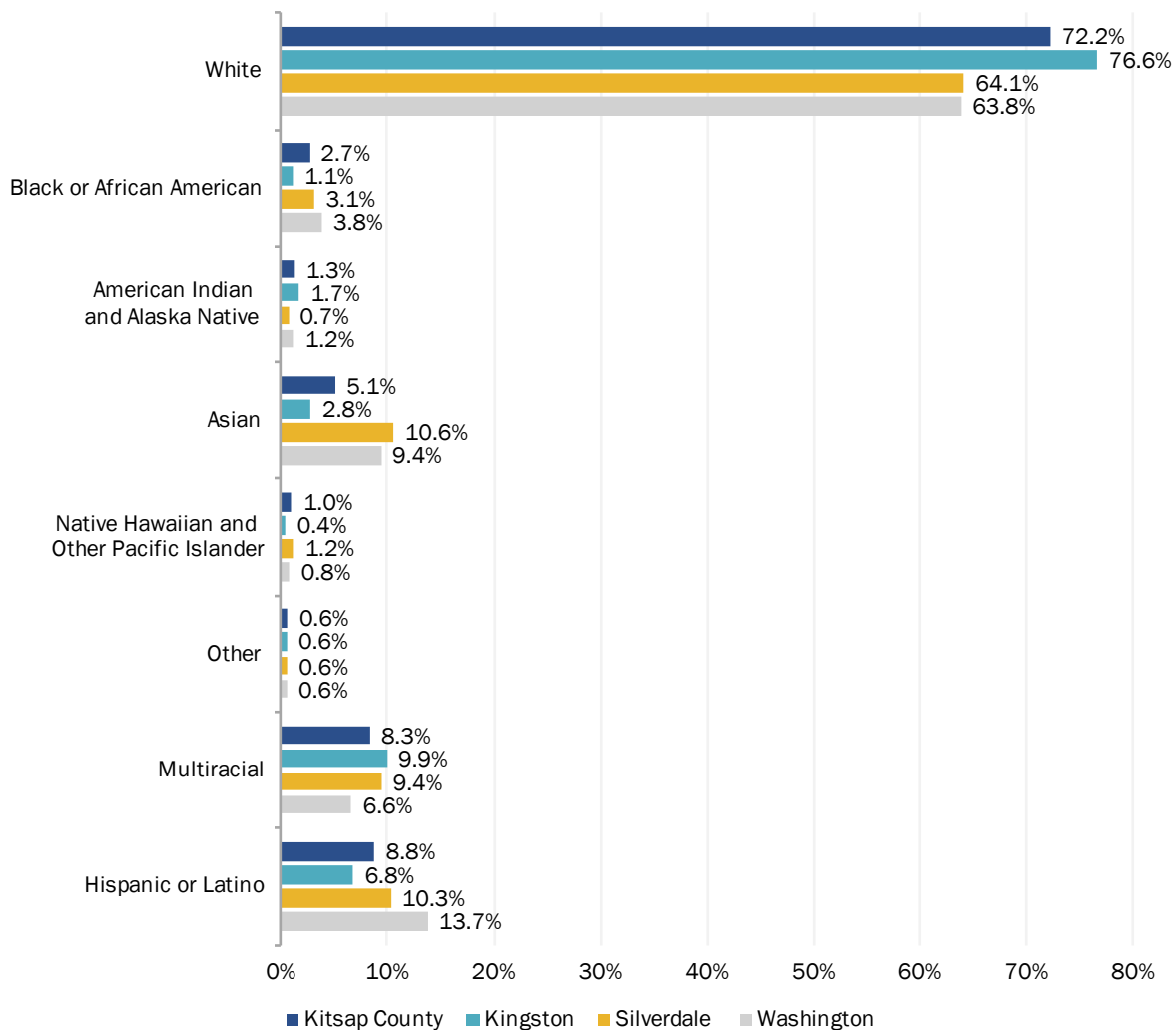
Geography	Median Age			Percent Change
	2000	2006-10	2016-20	2000-2020
Bainbridge Island	43.0	45.9	49.7	16%
Bremerton	30.9	31.9	32.4	5%
Port Orchard	31.2	36.3	34.3	10%
Poulsbo	39.3	38.4	44.6	13%
Kingston	41.1	48.9	43.5	6%
Silverdale	31.5	49.5	37.5	19%
Kitsap County	35.8	38.9	39.2	9%
Washington	35.3	37.0	37.8	7%

Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Summary File 2 – Table DP1), ACS 5-year estimates, 2006-10 and 2016-20 estimates (Table S0101).

Overall, Kitsap County is less racially diverse than the State of Washington, with a population that is 72% white versus 64% white for the state of Washington. However, Silverdale (the most diverse region of unincorporated Kitsap County) has racial demographics similar to the State of Washington as a whole.

Exhibit 3.2.3.1-5 (below) shows that Kitsap County overall has a smaller percentage of Asian and Hispanic or Latino households, at five and nine percent respectively, compared to Washington and Silverdale’s populations, of which around nine - and ten percent are Asian and about 14-10 percent are Hispanic or Latino. The county’s multiracial population is almost two percent larger than Washington’s, and this share is even larger for Kingston and Silverdale. These three populations encompass the largest percentages of Black, Indigenous, and People of Color (BIPOC) in all regions, whereas Black, American Indian, and Alaska Native, Native Hawaiian and Other Pacific Islander, and populations defined as “Other” represent less than four percent of the population.

**Exhibit 3.2.3.1-5 Distribution of population by race and ethnicity, 2020**

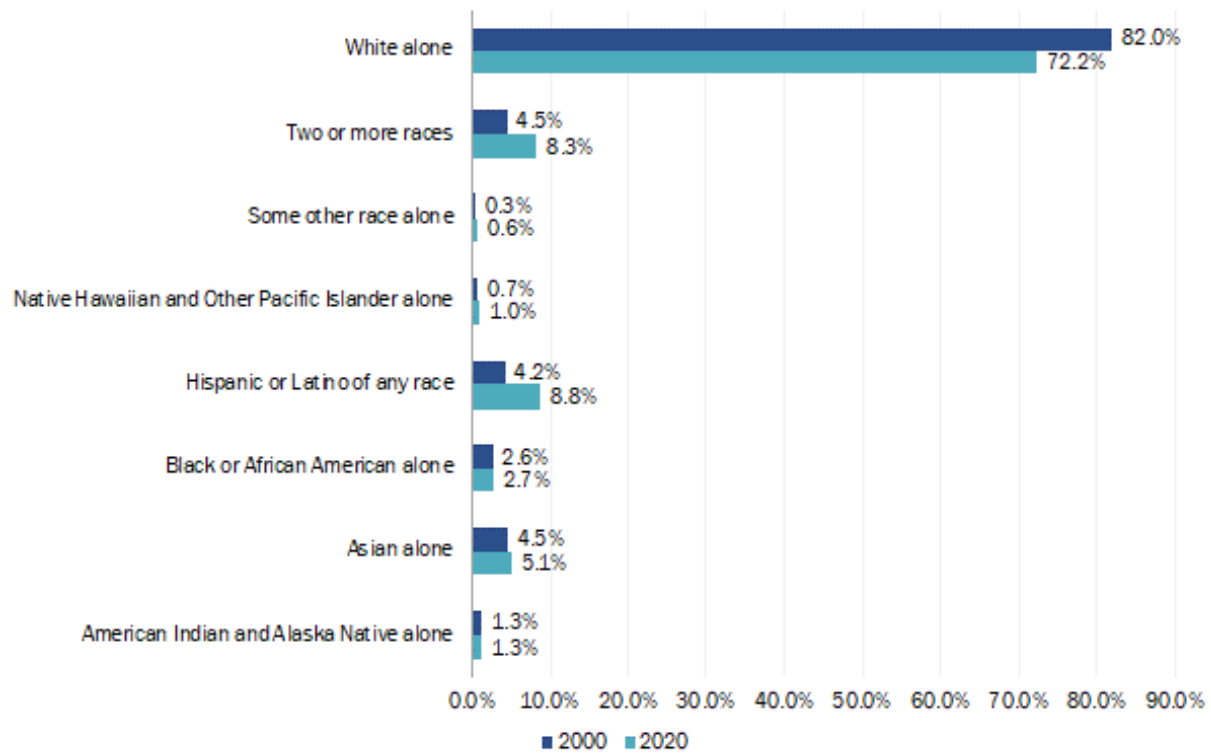


Source: U.S. Census Bureau & ECONorthwest, 2020 Decennial Census Redistricting Data (PL 94-171) estimates (Table P2)

While Kitsap County's white population remains the largest portion of the county's racial demographics, the White population has decreased as a share of the total by almost eight percent since 2000 (see Exhibit 3.2.3.1-6). On the other hand, the percentages of all BIPOC populations have increased in the same timeframe. Hispanic or Latino households and Multiracial households have increased the most, at almost nine percent and 8 percent, respectively.



### Exhibit 3.2.3.1-6 Change in diversity, Kitsap County, 2000–2020

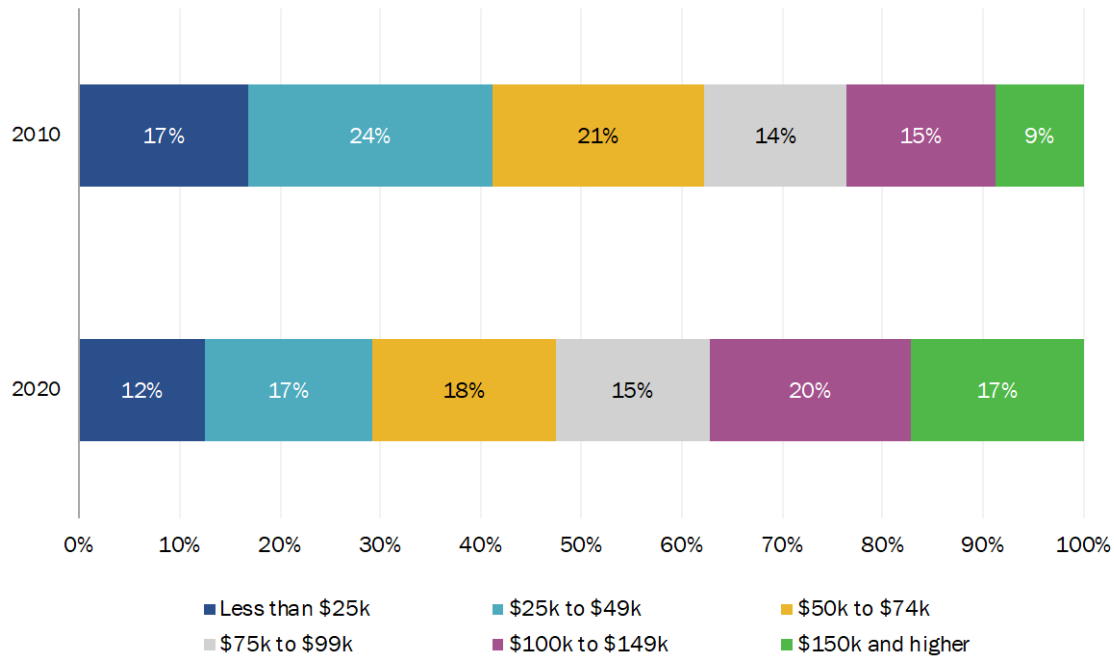


Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Table P007) and 2020 ACS 5-year estimates (Table B03002)

### Household Characteristics

In Kitsap County, the median household income has been gradually increasing over the last ten years. As shown below, the share of households earning over \$150,000 annually increased from nine percent in 2010 to 17% in 2020, and the share of households earning \$100-\$149,000 per year increased from 15% to 20%. Households earning less than \$75,000 per year decreased from 62% to 47% between 2010 and 2020.

**Exhibit 3.2.3.1-7 Household income distribution of Kitsap County, 2010–2020**



Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2006-10 and 2016-20 estimates (Table B19001)

Exhibit 3.2.3.1-8 shows the median household income changes over the last twenty years for Kitsap County, Kingston, and Silverdale. In Kitsap County, median household incomes (on an inflation-adjusted basis) have increased from \$70,399 to \$78,969, which is a 12% increase.

While this increase matches that of Washington, it is two percent lower than Silverdale's increase in median household income, which went from \$71,362 in 2000 to \$81,458 in 2020. Furthermore, Kitsap County's percent change in median household income is 14% lower than that of Kingston, where the highest increase in median household income occurred from \$62,028 to \$77,008 in the same timeframe.

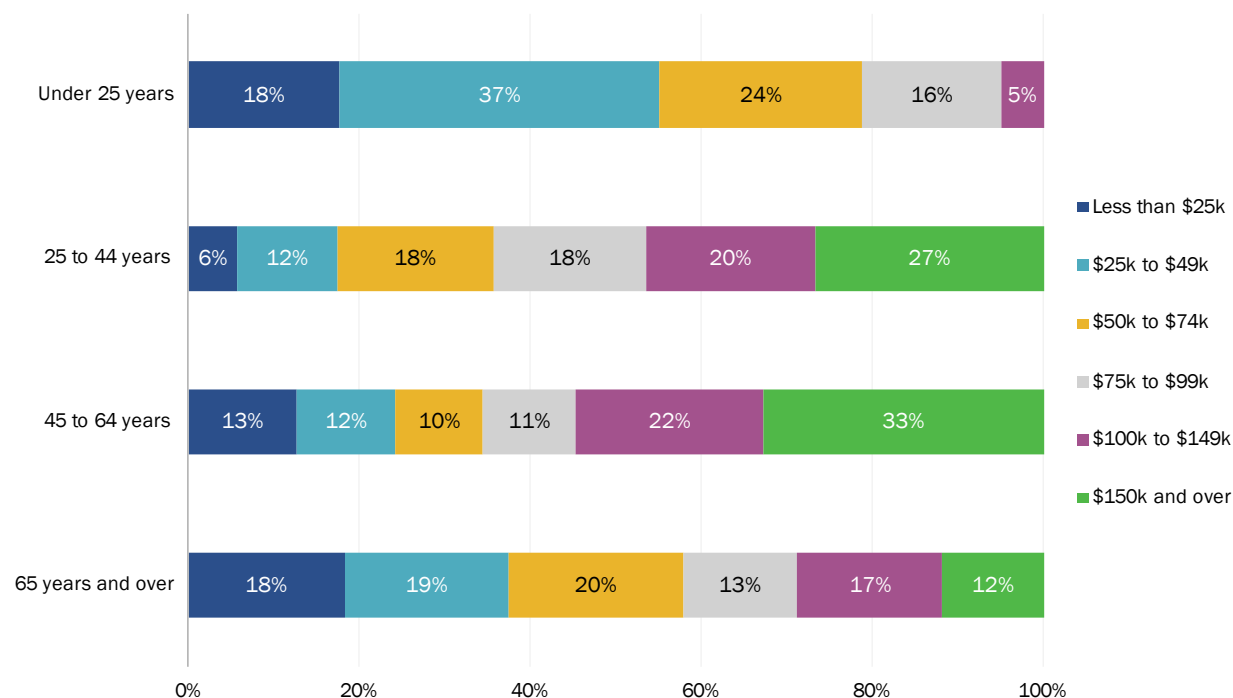
### Exhibit 3.2.3.1-8 Change in median household income, 2000–2020

Median Household Income (2020 Dollars)	2000	2010	2020	Percent Change, 2000–2020
Kingston	\$61,028	\$62,579	\$77,008	26.2%
Silverdale	\$71,362	\$72,044	\$81,458	14.1%
Kitsap County	\$70,399	\$70,679	\$78,969	12.2%
Washington	\$68,800	\$67,943	\$77,006	11.9%

Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Summary File 3 – Table HCT012) and ACS 5-year data, 2006-10 and 2016-20 estimates (Table B19013). Dollar amounts for 2000 and 2010 were adjusted for inflation using the U.S. Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers and All Items (annual, not seasonally adjusted values).

As shown below, the household income distribution in Kitsap County and Washington for 2020 are quite similar (Exhibit 3.2.3.1-9). For both regions, about 37% of households earned over \$100,000, while about 62% earned less than that.

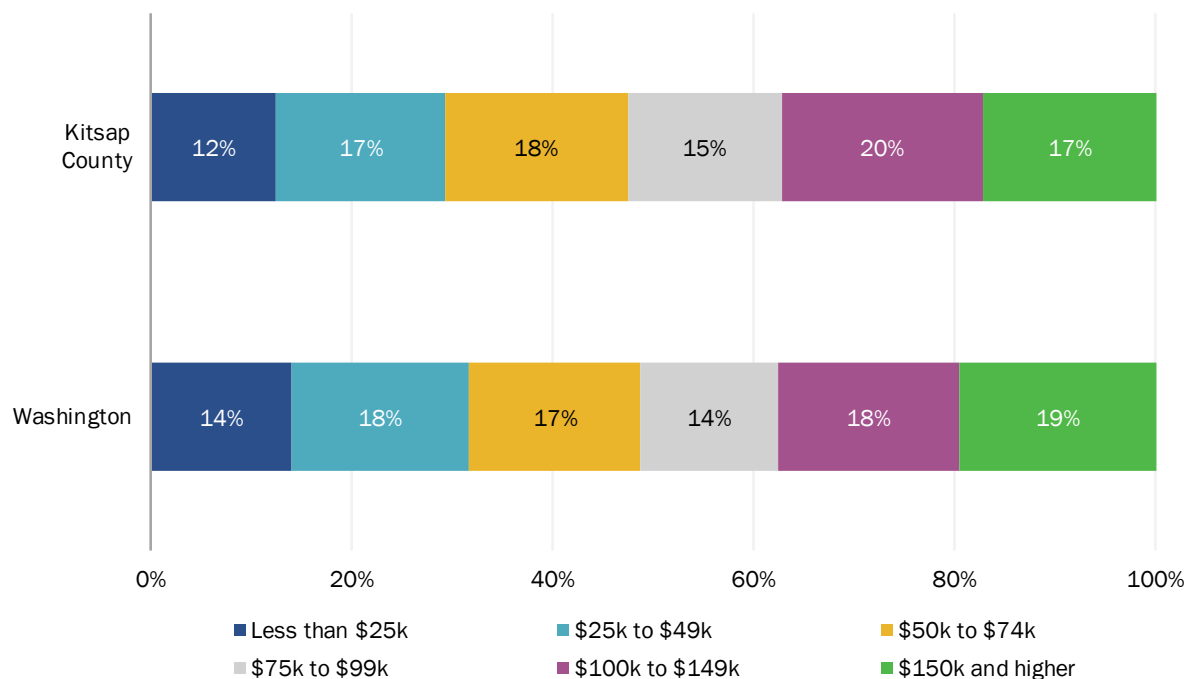
### Exhibit 3.2.3.1-9 Household income distribution of Kitsap County and WA, 2020



Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2016-20 estimates (Table B19001).

Exhibit 3.2.3.1-10 (below) shows how Kitsap County's household income distribution varies among age groups. Adults 25 years of age and younger tended to have lower levels of income relative to older working-age adults. About 55% of adults 25 and younger earned less than \$50,000 annually in 2020 compared to 18% of 25-to-44-year-olds and 25% of 45-to 64-year-olds. Conversely, 27% of 25-to-44-year-olds and 33% of 45-to-64-year-olds earned over \$150,000 annually, while no adult households under 25 years of age earned above \$150,000. Senior households had the most evenly distributed income relative to all other age groups, likely due to seniors being on fixed incomes. About 37% of seniors earned less than \$50,000 annually and about 12% earned over \$150,000 annually.

**Exhibit 3.2.3.1-10 Household income distribution by age category, 2020**



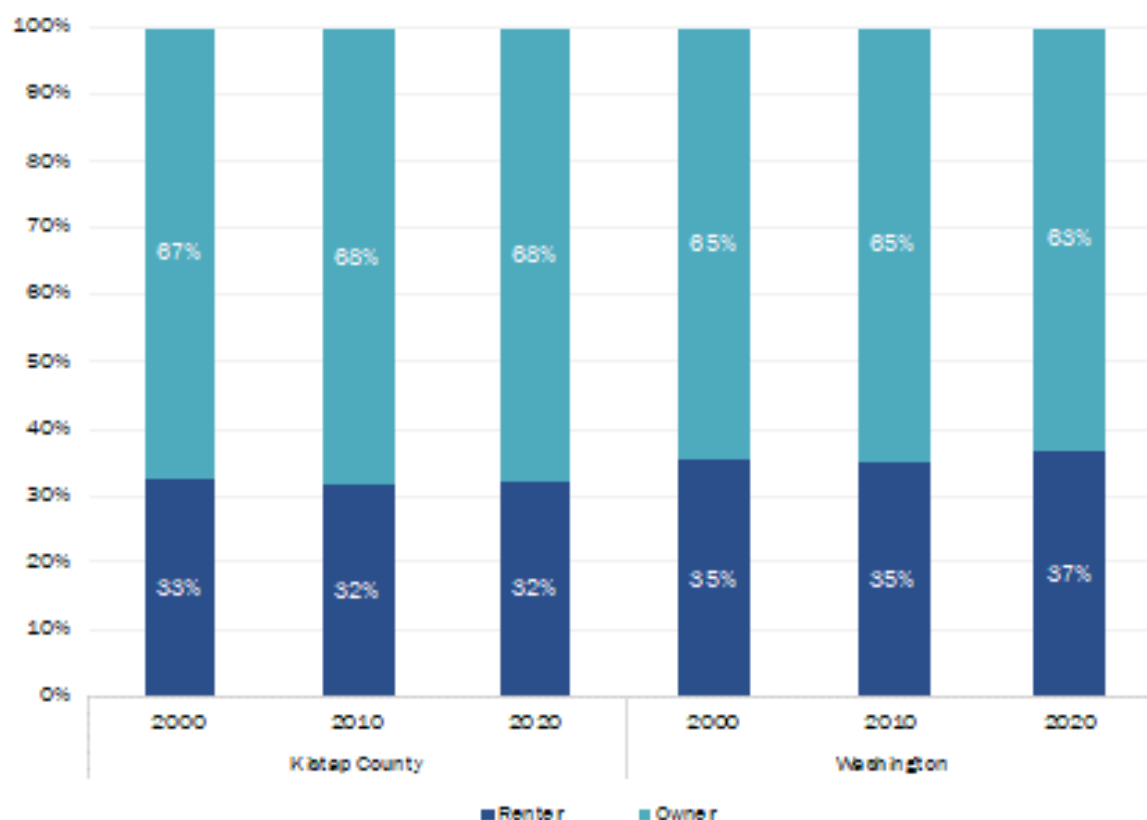
Source: U.S. Census Bureau & ECONorthwest, ACS 5-Year Estimates, Table B19037 (2020).

### **Household Tenure & Composition**

Kitsap County has maintained its homeownership levels even in the face of a small state-wide decrease in household ownership between 2000 and 2020. Exhibit 3.2.3.1-11 shows that the share of owner households in Kitsap County has increased between 2000 and 2020 by one percentage point (from 67% -68%), while the share of owner households decreased by two percentage points statewide (65% down to 63%).

Similar to Washington as a whole, most Kitsap County households were owners between 2000 and 2020, at about 67%-68%. The respective shares of rental and owner households have remained stable across the years.

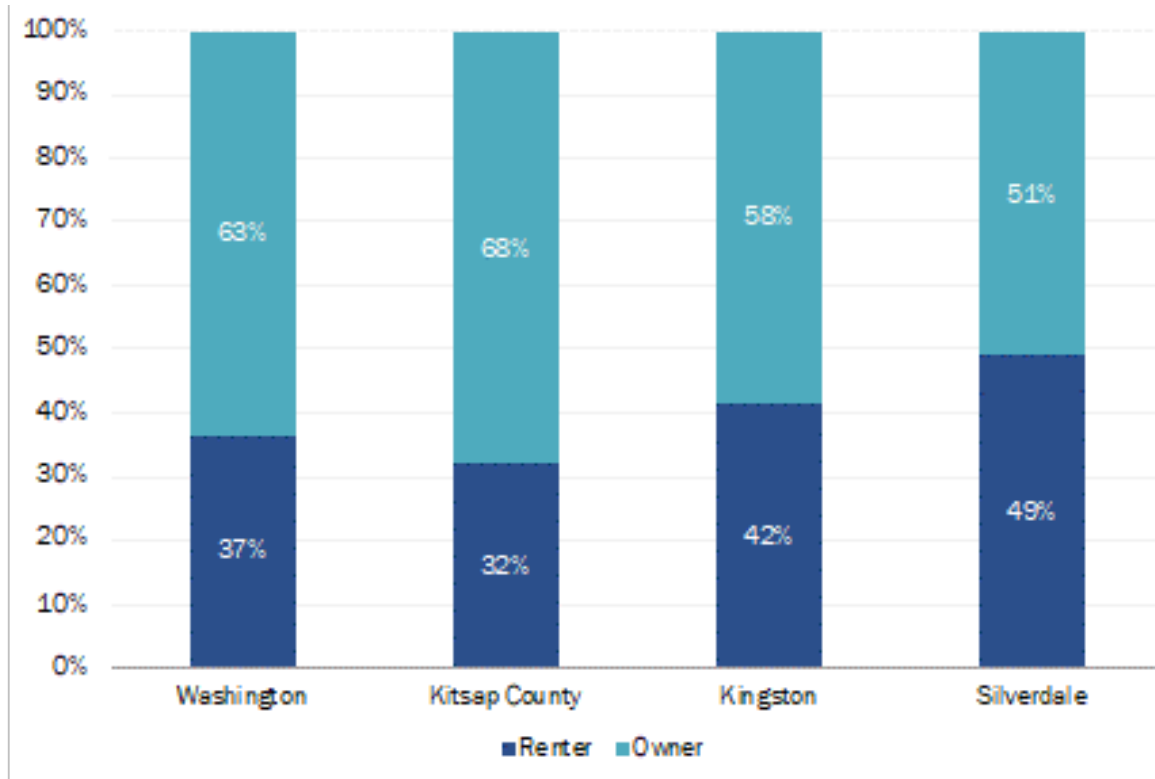
**Exhibit 3.2.3.1-11 Household tenure, Kitsap County, WA, 2000–2020**



Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Summary File 2 – Table DP1) and ACS 5-year data, 2006-10 and 2016-20 estimates (Table DP04).

In 2020, Kitsap County's share of owner-occupied households, at 68%, was similar to the state as a whole, at 63%. The county's unincorporated UGAs, Kingston and Silverdale, provide the most rental opportunities as evidenced by higher shares of renter households, at 42% and 49%, respectively. Silverdale has the highest share of households renting, which is not surprising considering recent multifamily housing construction.

**Exhibit 3.2.3.1-12 Household tenure, Kitsap County region and Washington, 2020**

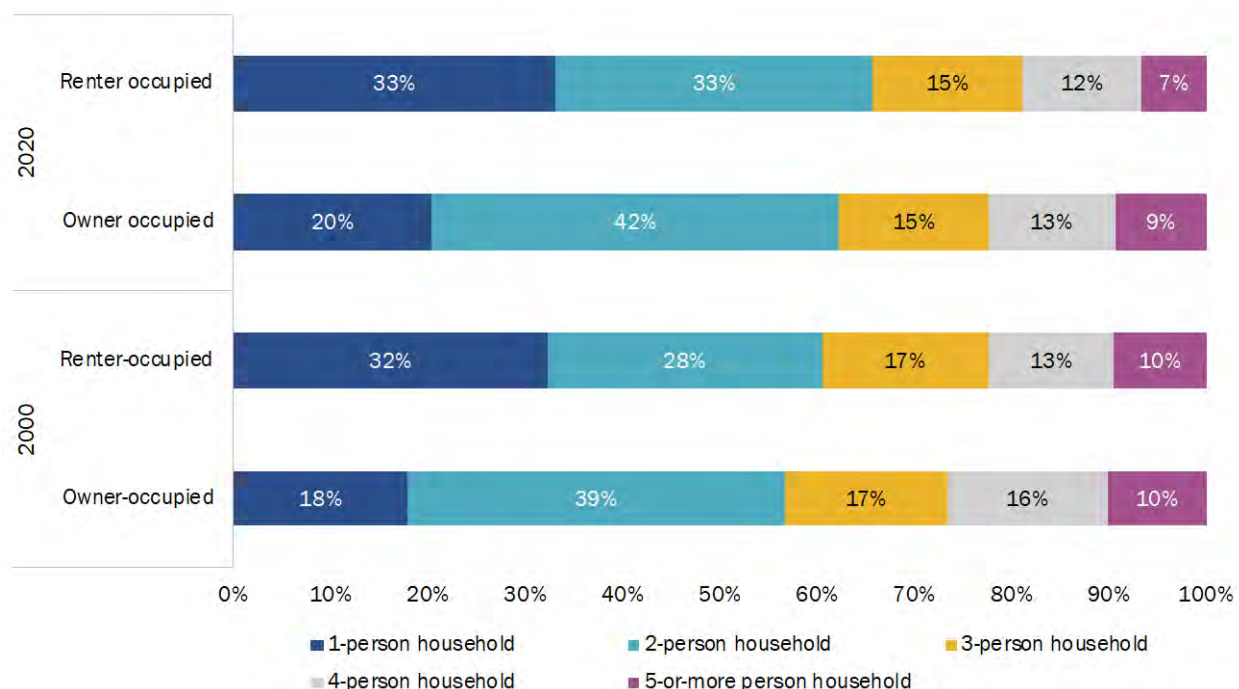


Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2016-20 estimates (Table DP04).

Kitsap County's household tenure shares across household size have remained relatively consistent between 2010 and 2020, though the share of renters and owners for one and two person households have changed slightly. For two-person households, the share of renters decreased from 33% to 28%, while the share of renters for three-person households increased by six percent.



**Exhibit 3.2.3.1-13 Household tenure by household size, Kitsap County, 2010 and 2020**



Source: US Census Bureau & ECONorthwest, 2000 Decennial Census, Table H015 (Summary File 1); and 2020 ACS 5-year estimates, Table B25009.

Householders aged 55 and older represent the highest shares of homeownership in Kitsap County, and their rates of homeownership have increased the fastest, by nearly 20% between 2000 and 2020. On the other hand, the share of homeowners aged 35 to 55 has decreased by 20% from 2000 to 2020, and those under age 35 have not increased their share of homeownership much in the same timeframe. This suggests that younger and middle-aged households in Kitsap County are struggling to obtain homeownership at the same rates as more senior households.

### Exhibit 3.2.3.1-14 Household ownership by age of householder, Kitsap County, 2000–2020

Age of Homeowner	2000	2020	Change 2000-2020
15 to 24 years	1%	0.9%	0.16
25 to 34 years	10%	10.6%	0.94
35 to 44 years	24%	13.9%	(9.63)
45 to 54 years	28%	16.7%	(11.41)
55 to 59 years	10%	12.3%	2.67
60 to 64 years	7%	11.8%	4.38
65 to 74 years	11%	21.5%	10.30
75 and older	10%	12.3%	2.59
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0</b>

Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (summary File 4 – Table HCT003) and ACS 5-year data, 2016-20 estimates (Table B25007).

Similar to Washington State, most households in Kitsap County are composed of married couples with or without children, at 53% in 2020 (Exhibit 3.2.3.1-15). Married couple households with or without children have decreased by five percent since 2000 in Kitsap County, while in contrast, single-female, single-male, and non-family households have all increased slightly over the same timeframe.

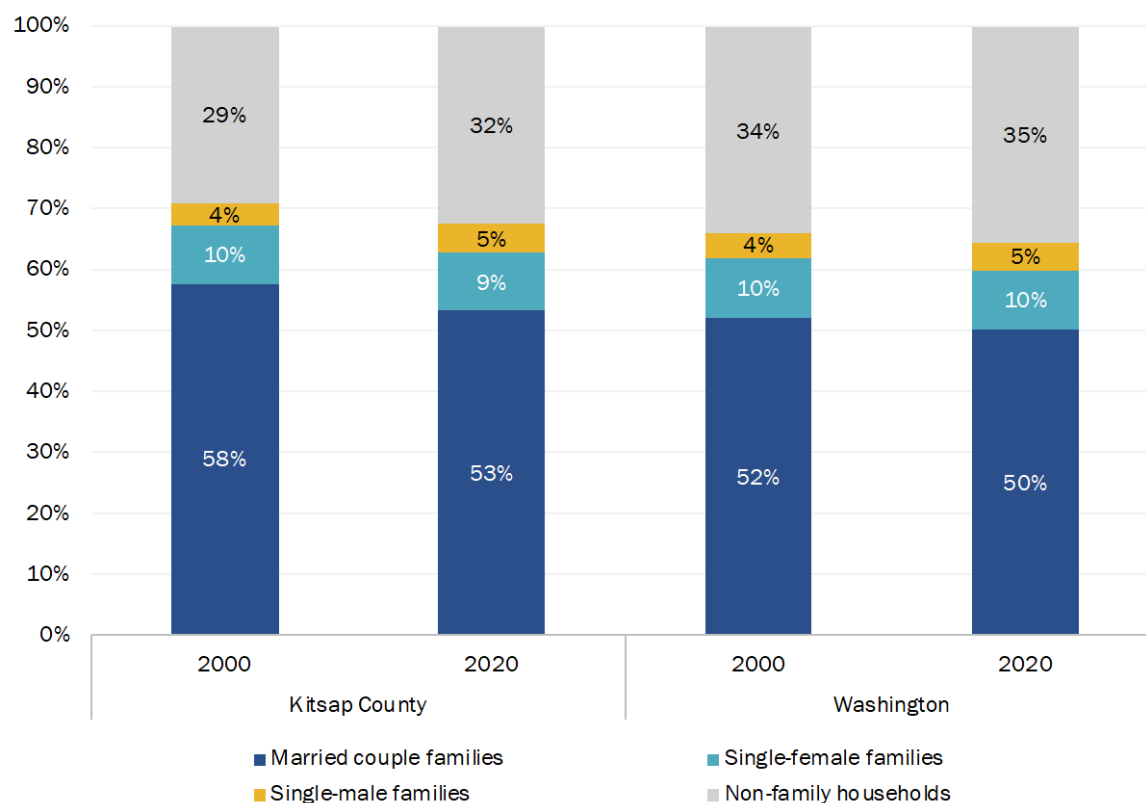
Average household size is quite similar among the regions of Washington State, Kitsap County, Kingston, and Silverdale, ranging between 2.37 and 2.53 people per household. Kitsap County's average household size of 2.46 people sits right in the middle of this range, as does Silverdale. Given what we know about Kitsap County's household composition, these households likely represent mostly non-family and married couple family households with or without children.

### Exhibit 3.2.3.1-15 Average household size, Washington & Kitsap County region, 2020

	Washington	Kitsap County	Kingston	Silverdale
Average household size	2.53	2.46	2.37	2.47

Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2016-20 estimates (Table S1101).

### Exhibit 3.2.3.1-16 Household composition, Kitsap County and Washington, 2000–2020



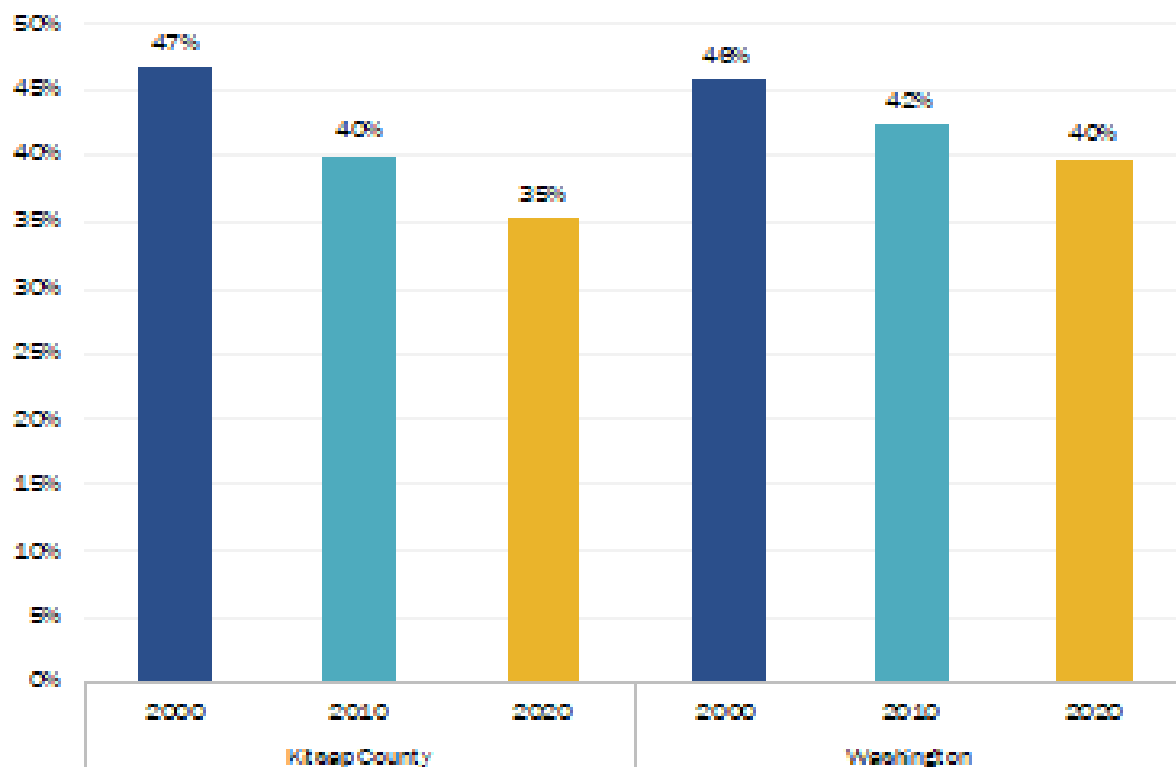
Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Summary File 2 – Table DP1) and ACS 5-year data, 2016-20 estimates (Table DP04).

Note: Non-family households include single persons living alone along with unrelated persons living together. Single-male families includes families with a male householder with a family but no wife or partner present. Single-female families includes families with a female householder with a family but no husband or partner present. A married couple is spouses enumerated as members of the same household. The married couple may or may not have children living with them.

In Kitsap County, the share of households that are married-couple family households with children is decreasing faster than that of the state. Exhibit 3.2.3.1-17 shows that between 2000 and 2020, Kitsap County's share of family households has decreased by 12

percentage points, from 47% to 35%. In comparison, the state's share of family households has decreased less by six percentage points over the same time.

**Exhibit 3.2.3.1-17 Married-couple family households with children, 2000–2020**



Source: U.S. Census Bureau & ECONorthwest, 2000 Decennial Census (Summary File 2 – Table DP1) and ACS 5-year data, 2016-20 estimates (Table DP04).

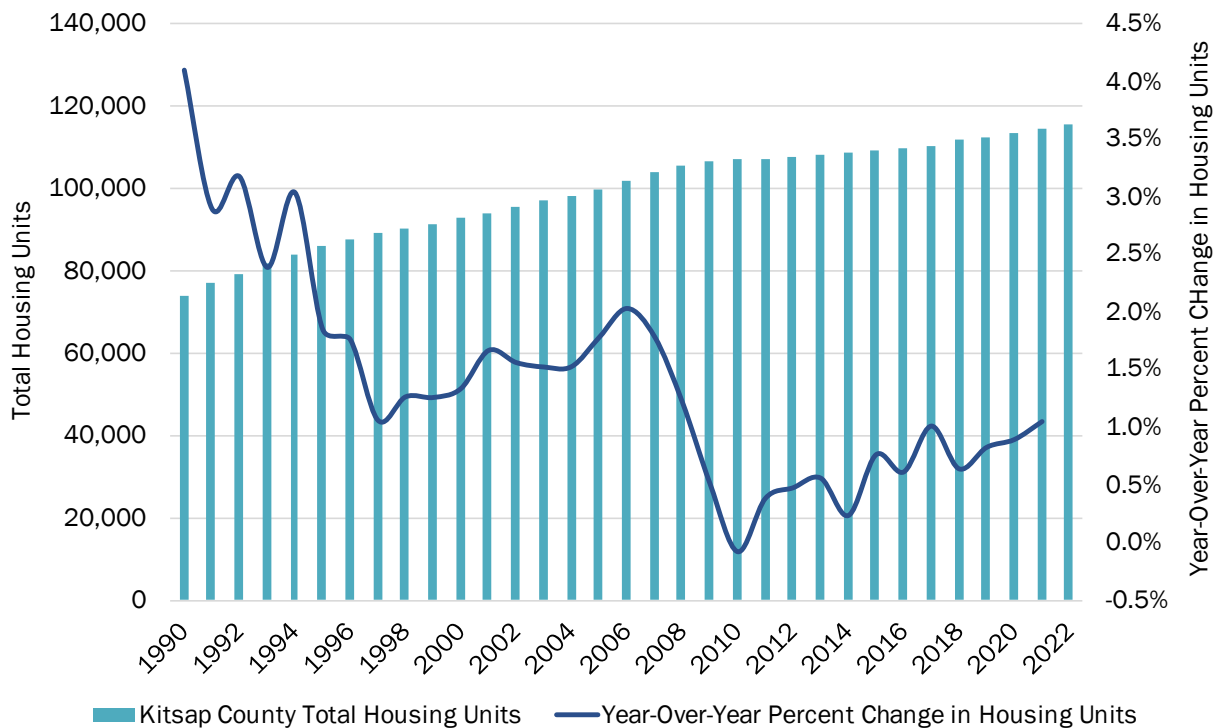
## ***Housing Stock & Affordability***

### ***Housing Unit Supply & Production Data Analysis Findings***

According to OFM data analyzed in Exhibit 3.2.3.1-18, housing availability in Kitsap County has become increasingly limited. While the year-over-year percent change in housing units has started to pick up since 2010, it has only increased by an average annual rate of around 0.6% through 2022 (see Exhibit 3.2.3.1-19). Total housing units in Kitsap County have increased from 108,638 in 2010 up to 115,443 in 2022, which is about 567 new homes per year on average for the county. In unincorporated Kitsap County, OFM data show that total housing units increased from 72,030 in 2010 to 73,179 in 2022, an increase of 96 homes per year on average over that time.

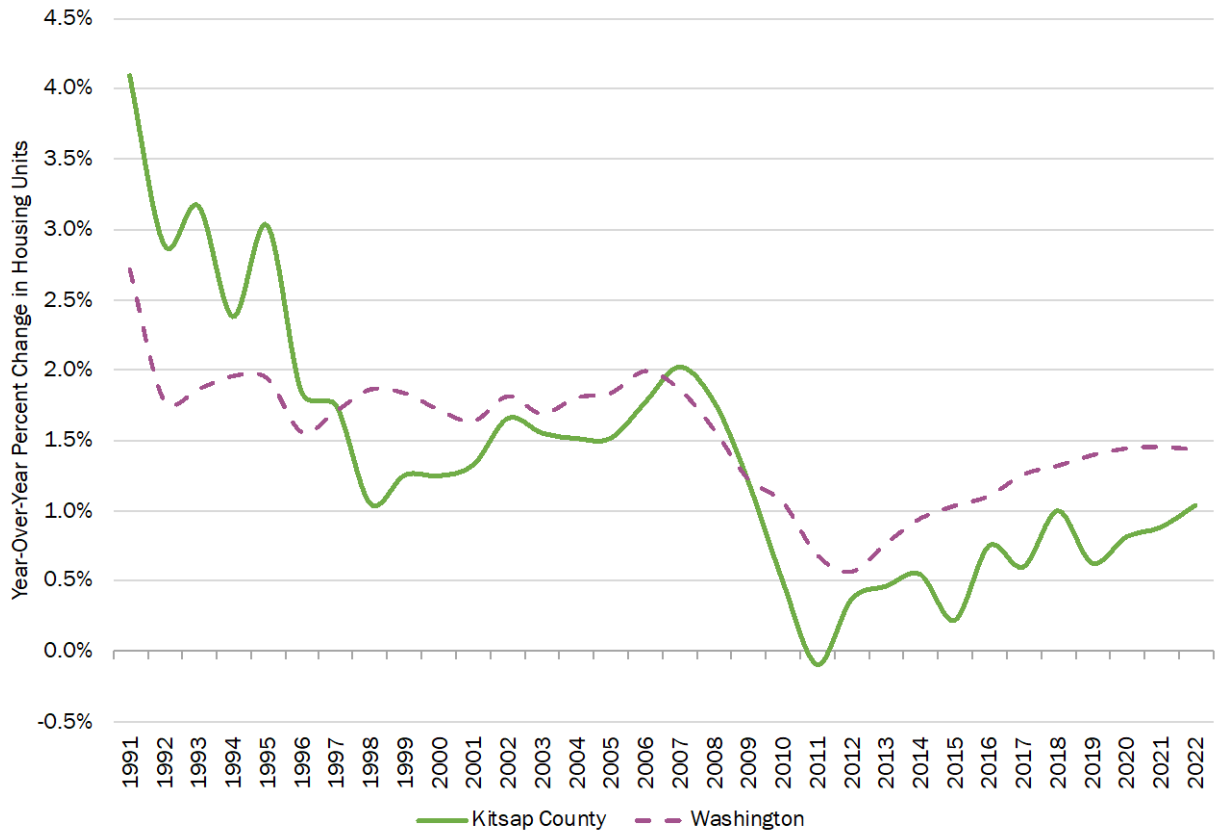
The lower AAGR of 0.6% over the last decade (from 2010 to 2022) represents a relative decrease from the county's previous decade, where housing units increased by about 1.5% per year over the 2000 to 2010 period (or, about 1,472 new homes built per year). This decline could partially be related to slow recovery from the Great Recession of 2007. In comparison, Washington State, on average, exceeded Kitsap County's rate of adding new housing units between 2000 and 2010 by adding new housing units at a rate of 1.6% per year on average (compared to Kitsap County's 1.5%), and over the 2010 to 2022 period, Washington added new units at a rate of 1.4% per year compared to 0.6% in Kitsap County.

**Exhibit 3.2.3.1-18 Annual housing growth: total housing units in Kitsap County and annual percent change, 1992–2022**



Source: Washington OFM & ECONorthwest.

### Exhibit 3.2.3.1-19 Annual change of housing, 1991–2022

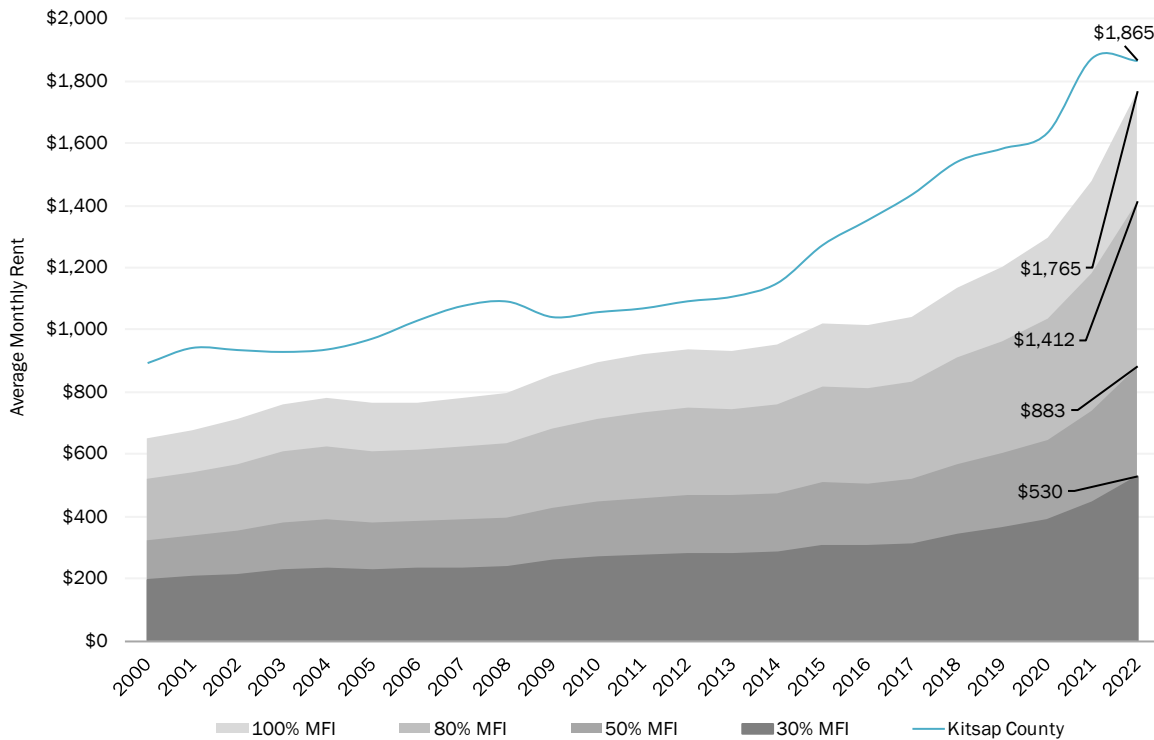


Source: U.S. Census Bureau, the Washington OFM, & ECONorthwest. Note: The data reported for years 1990 through 2020 are intercensal estimates; 2021 and 2022 data are postcensal estimates.

### **Rents Compared to Affordability**

Rents have increased considerably in Kitsap County since 2000. As of July 2022, the average asking rent for a two-bedroom apartment in Kitsap County was \$1,940, which is about 117 percent higher than the asking rent for a two-bedroom apartment in 2000 (see Exhibit 3.2.3.1-20 below).

### Exhibit 3.2.3.1-20 Average market and fair market rents for a two-bedroom apartment, 2000–2022



Sources: CoStar (historical rent data), HUD (MF 2-Bed affordability data), & ECONorthwest.

Notes: Two-bedroom affordable rents are fair market rents reported by HUD. These are on a fiscal year basis. The average monthly rent values were not adjusted for inflation since it was not recommended to adjust rent or home sales prices for inflation. For this analysis, 0-30% is very low income, 31-50% is low income, and 51-80% is moderate income. MFI stands for Median Family Income (MFI).

Overall, average asking rents have more than doubled in Kitsap County over the last two decades, increasing from nearly \$900 per month in 2000 to almost \$2,000 per month in 2022. As of 2022, Kitsap County's average asking rent is close to the city of Poulsbo (\$1,933), as seen in Exhibit 3.2.3.1-21. However, it is higher than the Bremerton and Port Orchard average rents and around \$600 lower than Bainbridge Island's average rent of \$2,605. In comparison to these areas, Kitsap County's AAGR in rents is quite similar. Aside from Bainbridge Island, which has an AAGR of 2.6%, all other areas (Kitsap County included) have a similar AAGR between 3.3% and 3.6%.



### Exhibit 3.2.3.1-21 Average asking two-bedroom rent in Kitsap County region 2000–2022

Geography	2000	2010	2020	2022	Percent Change 2000–2022	AAGR, 2000– 2022
Bainbridge Island	\$1,484	\$1,662	\$2,377	\$2,605	75.5%	2.6%
Bremerton	\$859	\$1,007	\$1,541	\$1,768	105.8%	3.3%
Port Orchard	\$954	\$1,100	\$1,592	\$1,840	92.9%	3.7%
Poulsbo	\$876	\$984	\$1,678	\$1,933	120.7%	3.7%
Kitsap County	\$894	\$1,055	\$1,622	\$1,940	117.0%	3.6%

Source: CoStar & ECONorthwest.

Another useful measure of housing supply and demand are vacancy rates of different housing product types. Housing vacancy is a measure of housing that is available to prospective renters and buyers (in some cases) and can help measure unutilized housing stock. A housing vacancy rate is typically described as the percent of units that are unoccupied. Low vacancy rates may indicate a limited housing supply and inadequate housing production to satisfy demand, while in contrast, high vacancy rates imply an over-supply of housing, reduced desirability of an area, or low demand. Housing market assessments often use five percent as a standard vacancy rate since it implies a balance between housing supply and demand. Average rental housing vacancy rates tend to be between seven and eight percent in the United States.<sup>4</sup>

Another way of describing the relationship between vacancy rate and housing cost is that when vacancy rates are low rental prices grow and increase year-after-year, and when vacancy rates are high rental prices decrease or stabilize.

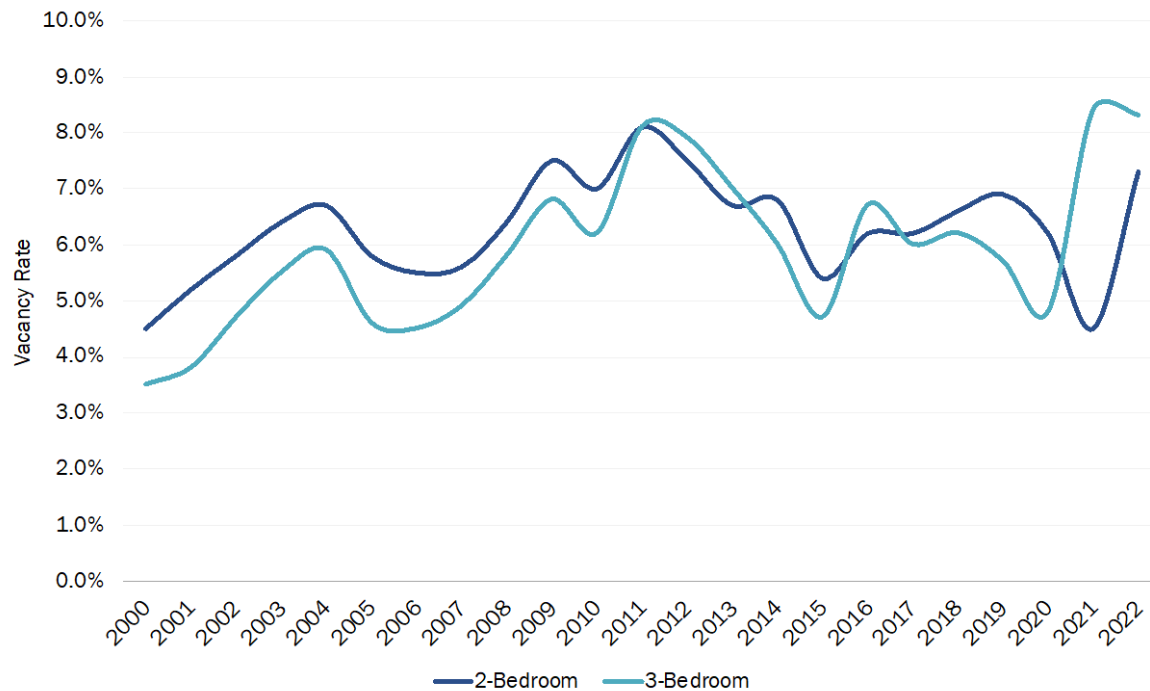
Vacancy rates for 2- and 3-bedroom apartments (primarily serving as rentals) have fluctuated over the past couple of decades. In recent years, the vacancy rate of 2-bedroom apartments reached a relatively low of 4.5% in 2021 (similar to vacancy rates in 2000); however, as of October 2022, 2-bedroom vacancies grew to 7.3% (similar to the 2009 and 2012 vacancy rates). While 3-bedroom vacancies generally followed the trends of 2-

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<sup>4</sup> Hagen, Daniel A. and Julia L. Hansen. "Rental Housing and the Natural Vacancy Rate." Journal of Real Estate Research, April 2010. Pages 413-434.

bedroom vacancies, in 2021, 3-bedroom vacancies reached 8.4% (3.9 percentage points higher than 2-bedroom vacancies that year), the highest rate over the analysis period.

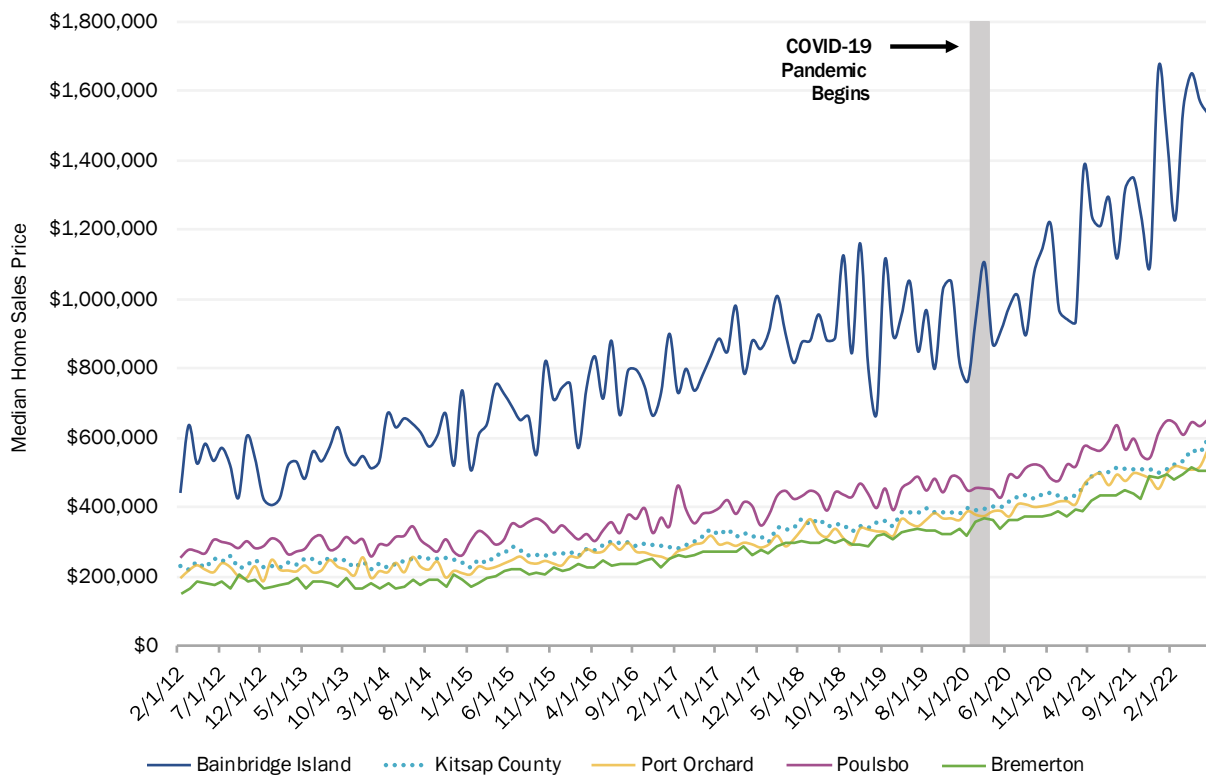
**Exhibit 3.2.3.1-22 Vacancy rate of two- and three-bedroom multifamily units in Kitsap County, 2000–2022**



Source: CoStar & ECONorthwest.

The median sales price of homes has simultaneously increased over the past decade. In the month of June 2022, Kitsap County's median home sale value was \$600,000 (see Exhibit 3.2.3.1-23), 140% higher than its median home sale value of \$250,000 in June 2012. Comparatively, Bainbridge Island's median sales price of single-family homes reached just over \$1.5 million in June 2022, 188% higher than its median sales price in June 2012. Port Orchard's median home sales price increased by 165% (from \$215,000 in June 2012 up to \$570,000 in June 2022), Poulsbo's increased by 113% (from \$308,000 up to \$655,500), and Bremerton's grew by 183% (from \$178,500 up to \$505,000).

### Exhibit 3.2.3.1-23 Median monthly home sales price, February 2012 – June 2022

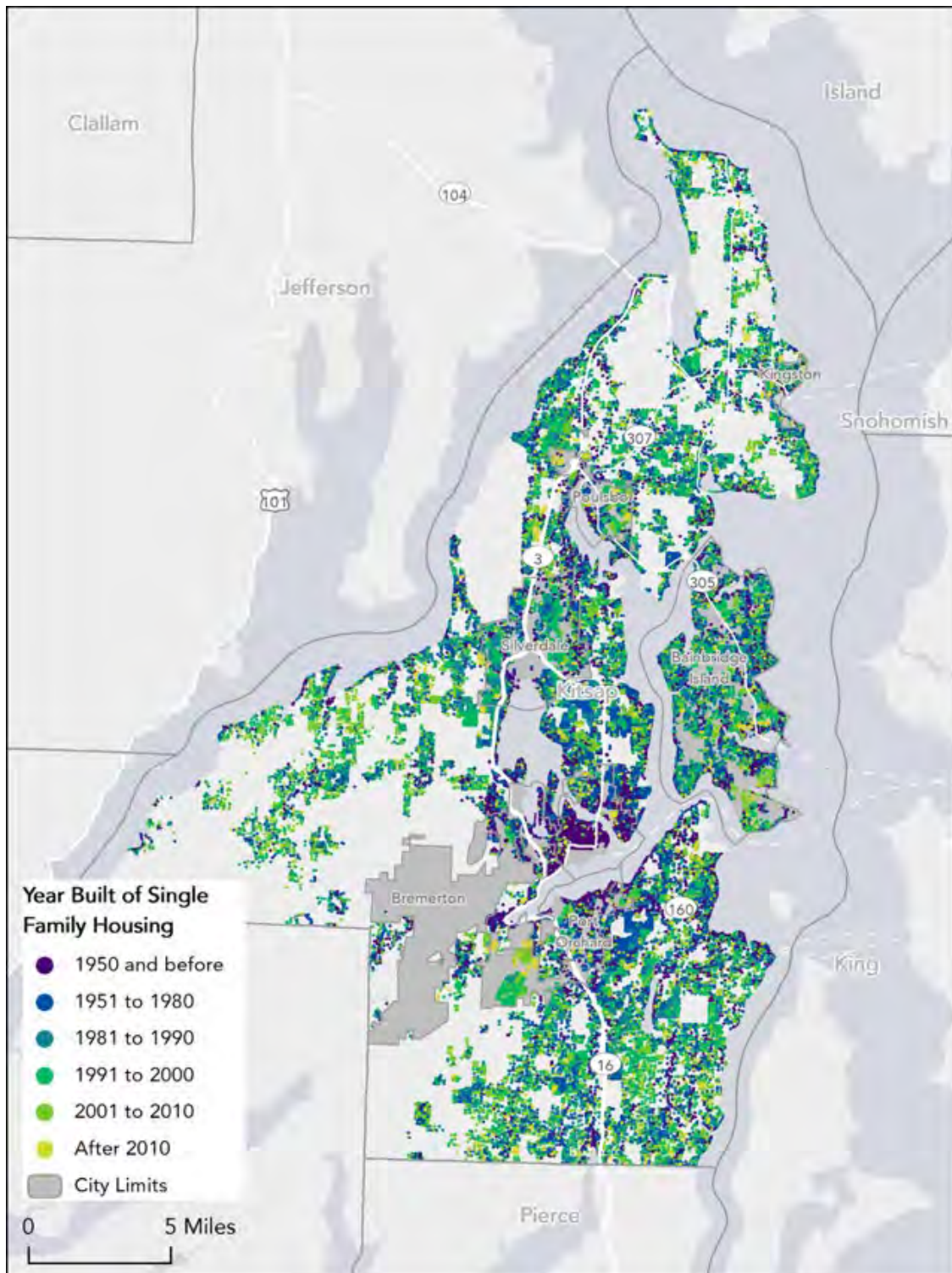


Source: Redfin Data Center & ECONorthwest.

The sizable growth rate in home sale prices in Kitsap County is due, in part, to the high demand for housing coupled with the county's declining stock of homes available on the market and increasing construction costs.

Exhibit 3.2.3.1-24, below, shows the age of single-family homes across Kitsap County using the County Assessor data. The map demonstrates Port Orchard's recent single-family developments and the single-family housing built before 1980 near Port Orchard and Bremerton. The age of housing does not always align with housing conditions, but older housing that has not been remodeled or maintained appropriately might need redevelopment, upgrades, and possible additional investment. Also, the cost of maintaining housing can lead to financial burden particularly for those with lower incomes to draw from, and this delayed maintenance may lead to serious housing problems. The unexpected costs of repairs are often unaffordable, sometimes leading to people moving to other housing and/or switching their housing tenure to rent rather than own.

### Exhibit 3.2.3.1-24 Age of housing, Kitsap County



Source: Kitsap County Assessor 2019 & ECONorthwest.

## **Cost Burden**

The U.S. Department of Housing and Urban Development (HUD) guidelines indicate that a household is cost burdened when they pay more than 30% of their gross household income for housing and severely cost burdened when they pay more than 50% of their gross household income for housing.

Housing cost burden can put households in vulnerable situations and force them to make trade-offs between housing costs and other essentials like food, medicine, or transportation. This unstable condition can also lead to rental evictions, job instability, school instability for children, and homelessness. Since housing at the low-income cost range is rare, most households in this income range pay more than 30% of their income for their housing. Low-income households who are severely cost burdened are at high risk of homelessness if a household crisis emerges.

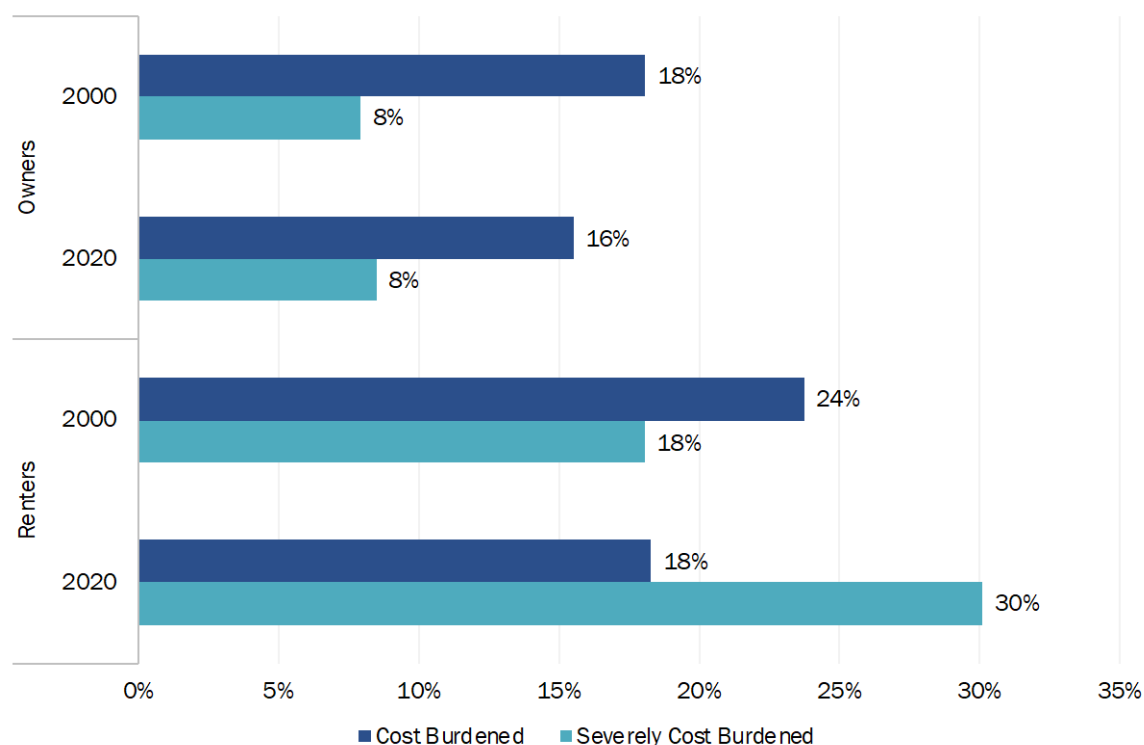
Cost burden for owner-occupied households is not common because mortgage lenders typically ensure that a household can pay its debt obligations before signing off on a loan. However, cost burdening can occur when a household secures a mortgage and then sees its income decline. In addition, retired persons subsisting on a fixed income can experience cost burden associated with increased property taxes rising above their financial limitations.<sup>5</sup>

Unsurprisingly, renter households tend to be more cost burdened than owner households in Kitsap County. As of 2020, 18% of renter households were cost burdened, compared to 16% of owner households. Renters in Kitsap County also tended to be more severely cost burdened in 2020 with 30% severely cost burdened in comparison to only eight percent of owner households being severely cost burdened. Renters are more likely to be cost burdened than homeowners because most renters tend to be lower income and in a place like Kitsap County, renters are left with a small supply of housing options available to rent.

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<sup>5</sup> Also, it is important to note that households with incomes over 100% of the AMI are less burdened overall since their larger income, minus housing costs, will go farther to cover non-housing expenses such as transportation, childcare, and food. While cost burden is a common measure of housing affordability, it does have limitations. The measure does not consider the actual income and the possibility of higher incomes being able to easily pay for necessary nondiscretionary expenses with the remaining income and it does not account for accumulated wealth and assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on the cost-burden indicator.

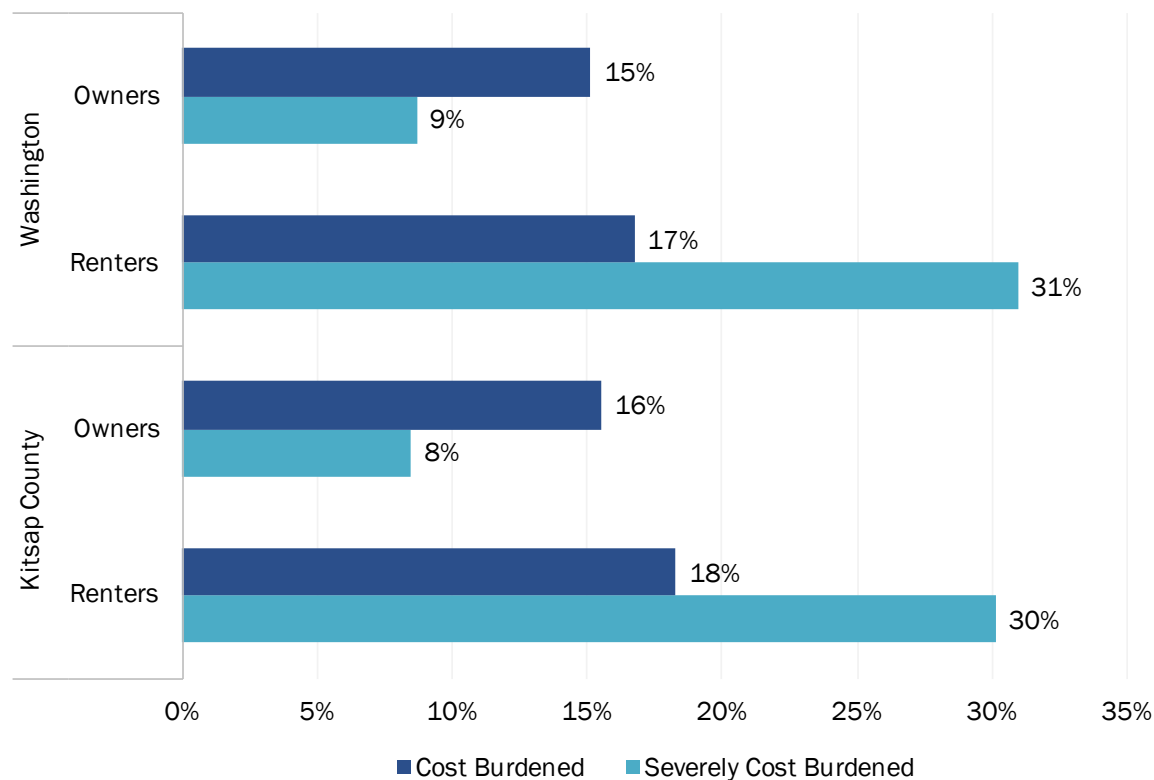
**Exhibit 3.2.3.1-25 Share of cost burden by tenure in Kitsap County, 2000-2020**



*Source: US Census Bureau, 2000 Decennial Census (Summary File X – Tables H069 and H090), ACS 5-year data, 2006-10 and 2016-20 estimates (Tables B25070 and B25091), & ECONorthwest.*

Overall, cost burden for renters in Kitsap County has increased between 2000 and 2020, from 42% to 48%. “Regular” cost burden (paying 30% to 50% of household income in rent) dropped from 24 percent of renter households in 2000 to 18% in 2020, but severe cost burden (paying more than 50 percent of household income on rent) increased sharply, from 18% of renter households to 30%. Across the years, cost burden and severe cost burden has consistently been higher for renters than for owners. As shown below, Kitsap County and Washington State had very similar shares of cost burdened and severely cost burdened renter and owner households in 2020 (Exhibit 3.2.3.1-26).

### Exhibit 3.2.3.1-26 Cost burdened comparison by tenure, Kitsap County and Washington, 2020



Source: U.S. Census Bureau & ECONorthwest, ACS 5-year data, 2016-20 estimates (Tables B25070 and B25091).

The Area Median Income (AMI) for a four-person household in Kitsap County is \$51,450 at 50% of the Median Family Income (MFI), \$82,300 at 80% MFI, and \$102,500 at 100 percent MFI (see Exhibit 3.2.3.1-27).



### Exhibit 3.2.3.1-27 HUD household income limits by family size, 2022

Persons in Family	Area Median Income Limits, Fiscal Year 2022						
	50% of MFI	80% of MFI	100% of MFI	120% of MFI	150% of MFI	180% of MFI	200% of MFI
1	\$36,050	\$57,650	\$72,060	\$86,470	\$108,090	\$129,710	\$144,120
2	\$41,200	\$65,850	\$82,130	\$98,770	\$123,470	\$148,160	\$164,620
3	\$46,350	\$74,100	\$92,630	\$111,160	\$138,950	\$166,730	\$185,260
4	\$51,450	\$82,300	\$102,500	\$123,000	\$153,750	\$184,500	\$205,000
5	\$55,600	\$88,900	\$111,130	\$133,360	\$166,700	\$200,030	\$222,260
6	\$59,700	\$95,500	\$119,380	\$143,260	\$179,070	\$214,880	\$238,760
7	\$63,800	\$102,100	\$127,630	\$153,160	\$191,450	\$229,730	\$255,260
8	\$67,950	\$109,650	\$137,060	\$164,470	\$205,590	\$246,710	\$274,120

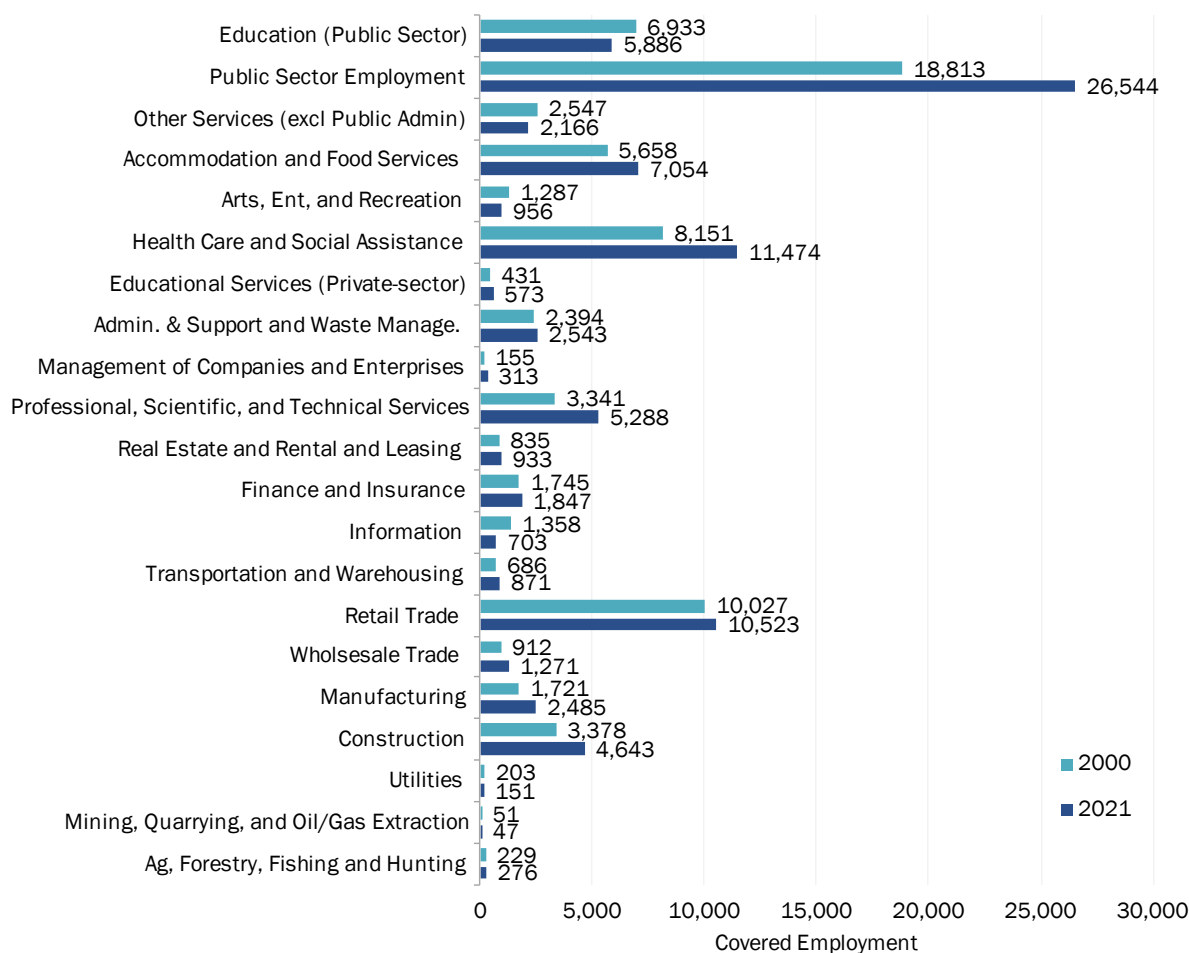
Sources: HUD Income Limits for Bremerton-Silverdale MSA (Kitsap County), Fiscal Year (FY) 2022.

## Employment

Kitsap County's largest employment sectors include the public sector (excluding military jobs), health care and social assistance, and retail trade. Exhibit 3.2.3.1-28 shows that between 2000 and 2021, public sector employment represented the largest employment sector in Kitsap County, with 18,813 and 26,544 covered employees in each respective year.

The second largest employment sector, health care and social assistance, had less than half the number of employees in the public sector, with 8,151 employees in 2000 and 11,474 employees in 2021. The only other sector following closely behind the health care and social assistance sector in 2021 was retail and trade, with 10,523 employees.

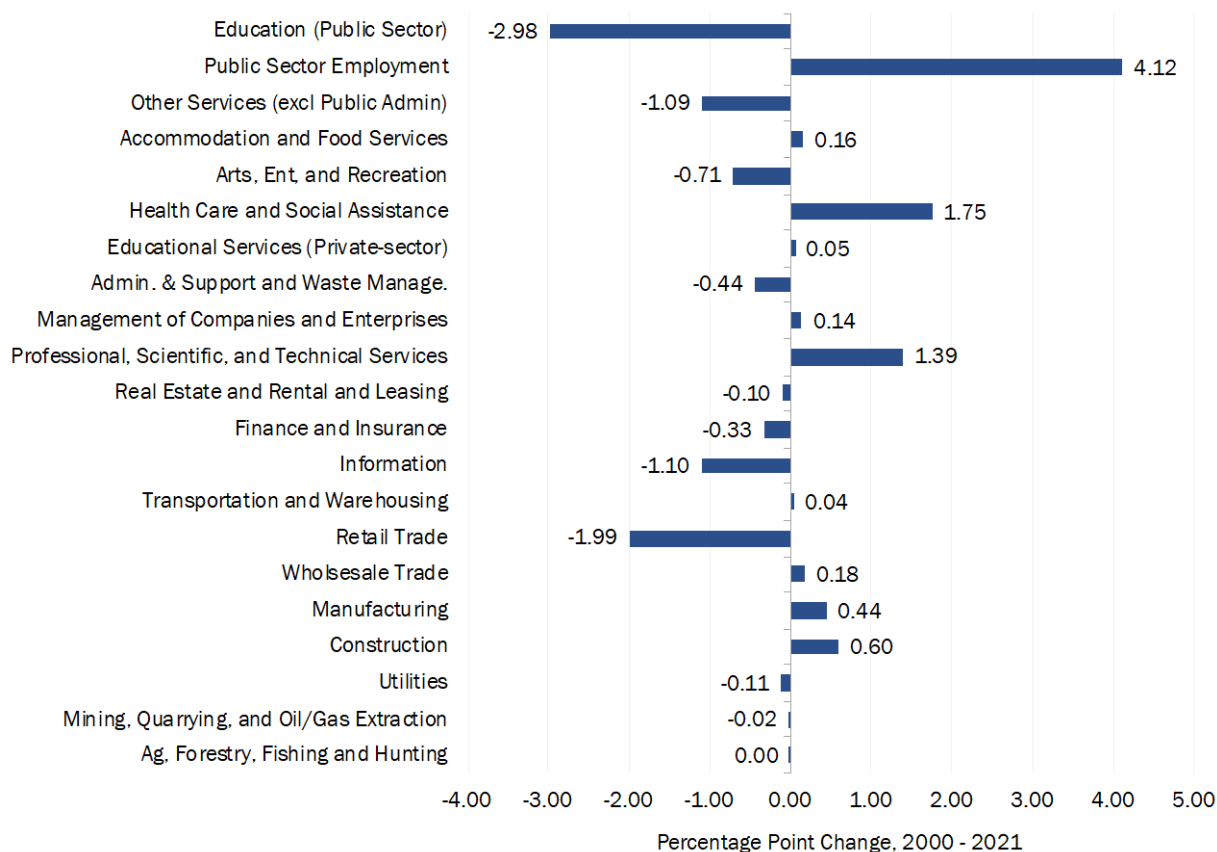
**Exhibit 3.2.3.1-28 Change in Kitsap county's covered employment, by major employment sector, 2000–2021**



Source: PSRC & ECONorthwest, Covered Employment Estimates, 2000–2021.

Between 2000 and 2021, employment in Kitsap County has increased most in the public sector, health care and social assistance sector, and professional, scientific, and technical services sector (see Exhibit 3.2.3.1-29 below). Public sector employment increased by four percent, while health care and social assistance employment increased by almost half that amount. On the other hand, employment decreased most in the public education sector and retail trade sector, at almost three percent and two percent, respectively. Employment sectors such as private educational services and transportation and warehousing remained relatively consistent.

### Exhibit 3.2.3.1-29 Change in the distribution of Kitsap county's covered employment, by major employment sector, 2000-2021



Source: PSRC & ECONorthwest, Covered Employment Estimates, 2000-2021.

### Changes in Annual Wages for Kitsap County

Annual wage data was currently only available for Kitsap County via the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) data series. On an inflation-adjusted basis, annual wages for covered employment jobs in Kitsap County increased by approximately \$7,820, or by about 14.5% (see Exhibit 3.2.3.1-30 below for more detail). The employment sectors with the largest wage growth over the 2010 to 2021 time period include finance and insurance (\$28,402, or 46.6%), information (\$23,933, or 36%), professional and technical services (\$16,489, or 23%), other services (\$14,692, or 62%), and real estate and rental and leasing (\$13,979, or 41%).

**Exhibit 3.2.3.1-30 Change in Kitsap county's average annual wages, by NAICS employment sector, in 2021 inflation-adjusted dollars 2010–2021**

NAICS Employment Sector	Kitsap County Annual Wages			Change, 2010 (Adjusted) – 2021	
	2010 (Unadjusted )	2010 (Inflation-Adjusted)	2021	Diff.	Percent Change
Utilities	\$76,728	\$95,347	\$104,572	\$9,225	9.7
Construction	\$46,728	\$58,067	\$63,398	\$5,331	9.2
Manufacturing	\$42,296	\$52,560	\$62,414	\$9,854	18.7
Wholesale Trade	\$48,983	\$60,869	\$73,556	\$12,687	<b>20.8</b>
Retail Trade	\$26,910	\$33,440	\$38,491	\$5,051	15.1
Transportation and Warehousing	\$31,784	\$39,497	\$50,243	\$10,746	<b>27.2</b>
Information	\$53,117	\$66,007	\$89,940	\$23,933	<b>36.3</b>
Finance and Insurance	\$49,051	\$60,954	\$89,940	\$28,402	<b>46.6</b>
Real estate and Rental and Leasing	\$27,296	\$33,920	\$47,899	\$13,979	<b>41.2</b>
Professional and Technical Services	\$57,506	\$71,461	\$87,950	\$16,489	<b>23.1</b>
Management of Companies and Enterprises	\$79,214	\$98,436	\$85,761	(\$12,675)	(12.9)
Administrative and Waste Management Services	\$33,205	\$41,263	\$47,274	\$6,011	14.6
Educational Services	\$29,020	\$36,062	\$36,534	\$472	1.3
Healthcare and Social Assistance	\$38,150	\$47,408	\$52,550	\$5,142	10.8
Arts, Entertainment, and Recreation	\$15,854	\$19,701	\$25,831	\$6,130	<b>31.1</b>
Accommodation and Food Services	\$15,069	\$18,726	\$24,463	\$5,737	<b>30.6</b>
Other Services (except Public Admin)	\$18,950	\$23,548	\$38,240	\$14,692	62.4
All Government	\$53,036	\$65,906	\$72,596	\$6,690	10.2
Federal Government	\$74,880	\$93,051	\$87,750	(\$5,301)	(5.7)
State Government	\$40,882	\$50,803	\$63,676	\$12,873	25.3
Local Government	\$43,346	\$49,494	\$66,362	\$12,498	23.2

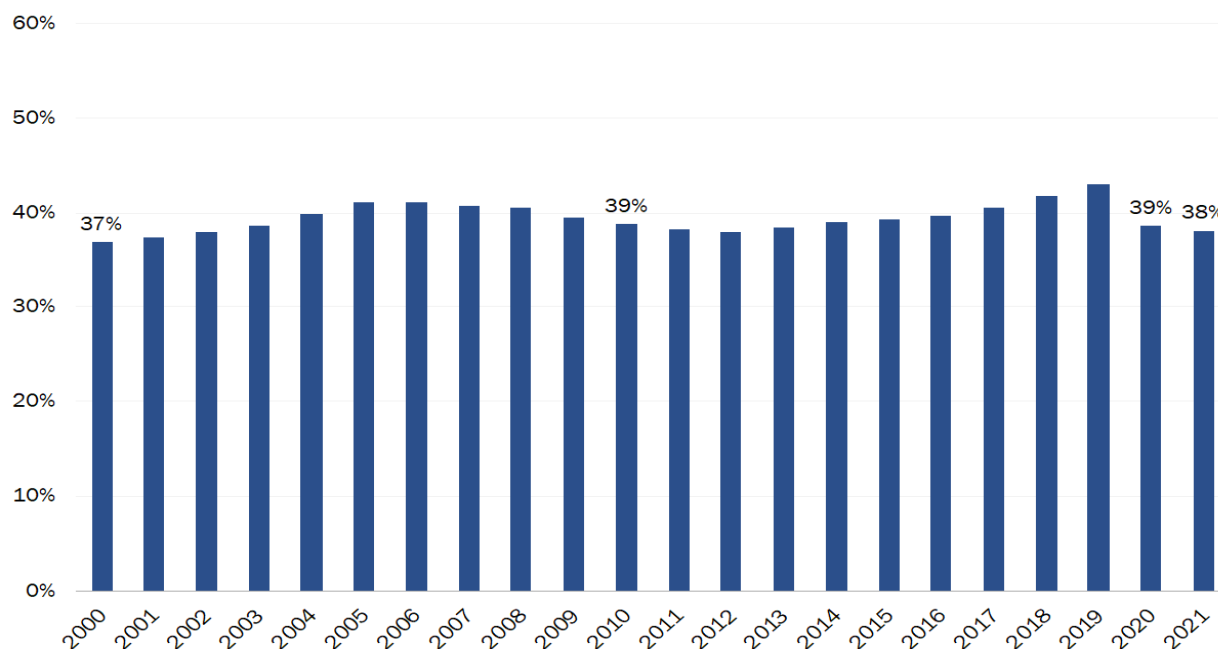
NAICS Employment Sector	Kitsap County Annual Wages			Change, 2010 (Adjusted) – 2021	
	2010 (Unadjusted )	2010 (Inflation-Adjusted)	2021	Diff.	Percent Change
Total (All Industries)	\$43,439	\$52,980	\$61,799	\$7,819	14.5

Source: U.S. Bureau of Labor Statistics & ECONorthwest, *Quarterly Census of Employment and Wages (QCEW) Annual Averages, 2010 and 2021*.

Note: The following NAICS Employment sectors, Agriculture, forestry, fishing, and hunting and Mining, quarrying, and oil and gas extracting, were not included due to the lack of data availability. NAICS = The North American Industry Classification System is the federal standard for classifying business establishments related to the U.S. business economy.

In Kitsap County, employment among those of prime working-age (25 to 54 years of age) has remained relatively consistent throughout the last 20 years. As seen in Exhibit 3.2.3.1-31, the rate of prime working-age people who are employed in Kitsap County—at 38%—has not changed much from its 2000 rate of 37% or 2010 rate of 39%.

**Exhibit 3.2.3.1-31 Employment-to-population ratio for the prime age working population (25 to 64 years of age) in Kitsap County, 2000–2021**



Source: Washington Employment Security Department & ECONorthwest, *Local Employment Dynamics (LED) data for workers by age group*; Washington OFM, *April 1 population estimates by age and sex*.

### 3.2.3.2 Impacts

#### Impacts Common to All Alternatives

All three alternatives assume an increase in population and employment over the planning period but differ in their assumed intensity and location of development. Impacts of population and employment growth within the county through 2044 likely include an increase in demand for infrastructure and public services, as well as the loss of open space within the UGAs as areas convert from vacant or under-utilized to developed.

Alternatives range from adding about 14% to 21% to the county's population (see Exhibit 3.2.3.1-32). About 85% of the new population growth would occur in cities and UGAs, while about 15% would occur in Rural areas. Alternative 2 would meet the housing need target, but Alternatives 1 and 3 as well as the Preferred Alternative would be below the target.

**Exhibit 3.2.3.1-32 Population growth by alternative**

Location	2022-2044 Population Growth	Alternative 1 Capacity	Alternative 2 Capacity	Alternative 3 Capacity	Preferred Alternative
Bremerton UGA	2,544	2,260	2,810	2,219	2,491
Silverdale UGA	9,442	7,962	15,549	11,846	14,563
Kingston UGA	3,121	2,375	3,952	3,227	3,271
Port Orchard UGA	3,486	3,547	3,967	2,615	3,643
Poulsbo UGA	1,054	974	974	1,021	922
Central Kitsap UGA	4,787	4,555	5,896	4,138	5,611
Rural	4,391	4,391	4,391	4,391	4,391
<b>Total</b>	<b>28,825</b>	<b>26,064</b>	<b>37,539</b>	<b>29,457</b>	<b>34,892</b>

Source:

*Kitsap County Community Development; MAKERS 2023*

All alternatives add employment opportunities. However, only Alternative 3 exceeds the growth target, as shown in Exhibit 3.2.3.1-33.

### Exhibit 3.2.3.1-33 Employment growth by alternative

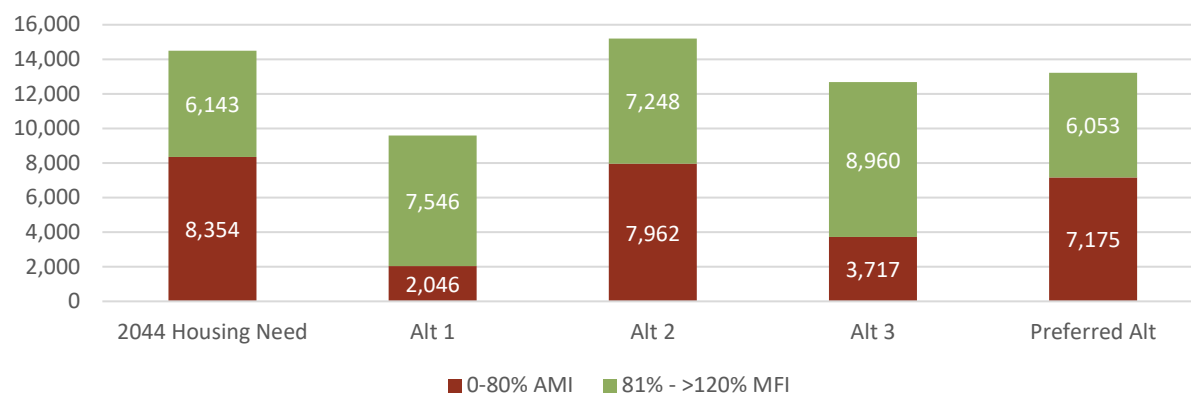
Location	2022-2044 Employment Growth	Alternative 1 Capacity	Alternative 2 Capacity	Alternative 3 Capacity	Preferred Alternative Capacity
Bremerton UGA	2,454	1,449	1,616	1,911	1,841
Puget Sound Industrial Center		802	802	2,537	2,081
Silverdale UGA	11,023	5,055	10,847	10,455	10,391
Kingston UGA	1,343	523	906	782	801
Port Orchard UGA	1,429	1,217	1,184	1,765	1,106
Poulsbo UGA	103	90	90	90	90
Central Kitsap UGA	1,380	1,499	1,329	1,349	1,276
Rural	2,150	2,150	2,150	2,150	2,150
<b>Total</b>	<b>19,882</b>	<b>12,785</b>	<b>18,924</b>	<b>21,039</b>	<b>19,736</b>

*Note: Puget Sound Industrial Center included in employment growth target for combined Bremerton UGA. Capacity for PSIC is broken out separately in the alternatives to draw out differences.*

*Source: Kitsap County Community Development; MAKERS 2023*

All alternatives would create opportunities for single family and multifamily housing. See Exhibit 3.2.3.1-34 for the distribution of housing that serves households at different income brackets. Only Alternative 2 is projected to accommodate the housing needed by 2044.

### Exhibit 3.2.3.1-34 Distribution of housing units by MFI by alternative



*Note: MFI stands for Median Family Income*

*Source: Kitsap County Community Development; Facet 2024*



## Impacts of Alternative 1, “No Action”

Alternative 1 projects 2,761 fewer people than the 2044 growth target. As alternative 1 is a continuation of current trends and policies, housing production projected under Alternative 1 likely plays a role in the lower population numbers. Alternative 1 is expected to produce an additional 9,090 housing units, with only about 1,800 of those units expected to serve households with MFI of 0 to 50% of AMI.

### Exhibit 3.2.3.1-36 Alternative 1 UGA population growth and targets

UGA	Estimated Population 2022	Adjusted Growth 2022-2044 Target	Alt 1 Population Growth	Difference from Population Target	% Difference from Population Target
Bremerton	10,323	2,544	2,260	-284	-11%
Silverdale	20,129	9,442	7,962	-1,480	-16%
Kingston	2,514	3,121	2,375	-746	-24%
Poulsbo	539	1,054	974	-80	-8%
Port Orchard	15,436	3,486	3,547	61	2%
Central Kitsap	24,954	4,787	4,555	-232	-5%
Rural	107,889	4,391	4,391	0	0%
<b>Total</b>	<b>181,784</b>	<b>28,825</b>	<b>26,064</b>	<b>-2,761</b>	<b>-10%</b>

Source: Kitsap County Community Development; MAKERS 2023

Alternative 1 also falls 7,097 jobs short of the growth target for 2044.

### Exhibit 3.2.3.1-37 Alternative 1 UGA employment growth and targets

UGA	Estimated Employment 2022	Adjusted Growth 2022-2044 Target	Alt 1 Employment Growth	Difference from Employment Target	% Difference from Employment Target
Bremerton	1,381	2,454	2,251	-203	-8%
Silverdale	13,674	11,023	5,055	-5,968	-54%
Kingston	1,134	1,343	523	-820	-61%
Poulsbo	72	103	90	-13	-13%
Port Orchard	2,754	1,429	1,217	-212	-15%

UGA	Estimated Employment 2022	Adjusted Growth 2022-2044 Target	Alt 1 Employment Growth	Difference from Employment Target	% Difference from Employment Target
Central Kitsap	4,075	1,380	1,499	119	9%
Rural	23,047	2,150	2,150	0	0%
<b>Total</b>	<b>46,137</b>	<b>19,882</b>	<b>12,785</b>	<b>-7,097</b>	<b>-36%</b>

Source: Kitsap County Community Development; MAKERS 2023

### Impacts of Alternative 2, “Compact Growth/Urban Center Focus”

Alternative 2 would bring 8,714 more people to Kitsap County than the growth target has set for 2044. This is because Alternative 2 is the only alternative which adequately meets the expected housing need by 2044 as projected by the Housing All Planning Tool developed by the Washington State Department of Commerce. Alternative 2 projects to develop 14,684 housing units and produces about an even split of housing that serves lower income households and middle to upper class income households.

#### Exhibit 3.2.3.1-38 Alternative 2 UGA population growth and targets

UGA	Estimated Population 2022	Adjusted Growth 2022-2044 Target	Alt 2 Population Growth	Difference from Population Target	% Difference from Population Target
Bremerton	10,323	2,544	2,810	266	10%
Silverdale	20,129	9,442	15,549	6,107	65%
Kingston	2,514	3,121	3,952	831	27%
Poulsbo	539	1,054	974	-80	-8%
Port Orchard	15,436	3,486	3,967	481	14%
Central Kitsap	24,954	4,787	5,896	1,109	23%
Rural	107,889	4,391	4,391	0	0%
<b>Total</b>	<b>181,784</b>	<b>28,825</b>	<b>37,539</b>	<b>8,714</b>	<b>30%</b>

Source: Kitsap County Community Development; MAKERS 2023

Alternative 2 gets close, but also falls short by 959 jobs, to achieving the employment target set for 2044.

### Exhibit 3.2.3.1-39 Alternative 2 UGA employment growth and targets

UGA	Estimated Employment 2022	Adjusted Growth 2022-2044 Target	Alt 2 Employment Growth	Difference from Employment Target	% Difference from Employment Target
Bremerton	1,381	2,454	2,417	-37	-2%
Silverdale	13,674	11,023	10,847	-176	-2%
Kingston	1,134	1,343	906	-437	-33%
Poulsbo	72	103	90	-13	-13%
Port Orchard	2,754	1,429	1,184	-245	-17%
Central Kitsap	4,075	1,380	1,329	-51	-4%
Rural	23,047	2,150	2,150	0	0%
<b>Total</b>	<b>46,137</b>	<b>19,882</b>	<b>18,923</b>	<b>-959</b>	<b>-5%</b>

Source: Kitsap County Community Development; MAKERS 2023

### Impacts of Alternative 3, “Dispersed Growth Focus”

Alternative 3 would add an additional 632 people living in Kitsap County than the 2044 Growth Target had set. Alternative 3 does not produce as much housing as Alternative 2 but does produce about 1,700 more housing units than Alternative 1 does. Alternative 3 also produces about 1,600 more housing units than Alternative 1 for households earning 0 to 50% MFI, but still only produces half of what is needed by 2044.

### Exhibit 3.2.3.1-40 Alternative 3 UGA population growth and targets

UGA	Estimated Population 2022	Adjusted Growth 2022-2044 Target	Alt 3 Population Growth	Difference from Population Target	% Difference from Population Target
Bremerton	10,323	2,544	2,219	-325	-13%
Silverdale	20,129	9,442	11,846	2,404	25%
Kingston	2,514	3,121	3,227	106	3%
Poulsbo	539	1,054	1,021	-33	-3%
Port Orchard	15,436	3,486	2,615	-871	-25%
Central Kitsap	24,954	4,787	4,138	-649	-14%
Rural	107,889	4,391	4,391	0	0%
<b>Total</b>	<b>181,784</b>	<b>28,825</b>	<b>29,457</b>	<b>632</b>	<b>2%</b>

Source: Kitsap County Community Development; MAKERS 2023

Alternative 3 is the only Alternative that meets the 2044 employment target, generating 1,157 more jobs than the target.

**Exhibit 3.2.3.1-41 Alternative 3 UGA employment growth and targets**

UGA	Estimated Employment 2022	Adjusted Growth 2022-2044 Target	Alt 3 Employment Growth	Difference with Employment Target	% Difference with Employment Target
Bremerton	1,381	2,454	4,448	1,994	81%
Silverdale	13,674	11,023	10,455	-568	-5%
Kingston	1,134	1,343	782	-561	-42%
Poulsbo	72	103	90	-13	-13%
Port Orchard	2,754	1,429	1,765	336	24%
Central Kitsap	4,075	1,380	1,349	-31	-2%
Rural	23,047	2,150	2,150	0	0%
<b>Total</b>	<b>46,137</b>	<b>19,882</b>	<b>21,039</b>	<b>1,157</b>	<b>6%</b>

Source: Kitsap County Community Development; MAKERS 2023

**Impacts of the Preferred Alternative**

Under the Preferred Alternative, there would be an additional 6,416 people living in Kitsap County than the 2044 Growth Target had set. The Preferred Alternative does not produce as much housing as Alternative 2 but does produce about 3,636 more housing units than Alternative 1 does and 551 more housing units than Alternative 3. The Preferred Alternative produces 1,269 fewer housing units than the 2044 new housing need.

**Exhibit 3.2.3.1-42 Preferred Alternative UGA population growth and targets**

UGA	Estimated Population 2022	Adjusted Growth 2022-2044 Target	Preferred Alternative Population Growth	Difference from Population Target	% Difference from Population Target
Bremerton	10,323	2,544	2,491	-113	-4%
Silverdale	20,129	9,442	14,563	5,500	58%
Kingston	2,514	3,121	3,271	150	5%
Poulsbo	539	1,054	922	-132	-13%
Port Orchard	15,436	3,486	3,643	187	5%

UGA	Estimated Population 2022	Adjusted Growth 2022-2044 Target	Preferred Alternative Population Growth	Difference from Population Target	% Difference from Population Target
Central Kitsap	24,954	4,787	5,611	824	17%
Rural	107,889	4,391	4,391	0	0%
<b>Total</b>	<b>181,784</b>	<b>28,825</b>	<b>34,892</b>	<b>6067</b>	<b>20%</b>

Source: Kitsap County Community Development; MAKERS 2023

#### Exhibit 3.2.3.1-43 Preferred Alternative UGA employment growth and targets

UGA	Estimated Employment 2022	Adjusted Growth 2022-2044 Target	Preferred Alternative Employment Growth	Difference with Employment Target	% Difference with Employment Target
Bremerton	1,381	2,454	1,318	1,136	-46%
Silverdale	13,674	11,023	10,391	-632	-6%
Kingston	1,134	1,343	801	-542	-40%
Poulsbo	72	103	90	-13	-13%
Port Orchard	2,754	1,429	1,106	-323	-23%
Central Kitsap	4,075	1,380	1,276	-104	-8%
Puget Sound Industrial Center		802	2,081	1,279	159%
Rural	23,047	2,150	2,150	0	0%
<b>Total</b>	<b>46,137</b>	<b>19,882</b>	<b>19,736</b>	<b>-146</b>	<b>-1%</b>

Source: Kitsap County Community Development; MAKERS 2023

### 3.2.3.3 Mitigation Measures

#### Incorporated Plan Features

- Alternative 2 and the Preferred Alternative will allow limited expansions of UGA areas with the expansions focusing on increasing multifamily housing and employment opportunities. (The Preferred Alternative includes a UGA amendment to the Puget Sound Industrial Center – Bremerton to take the employment capacity closer to Alternative 3.)
- Alternatives 2 and 3 and the Preferred Alternative update the Land Use, Housing, and Economic Development Elements to better guide population, housing, and employment growth over the new 2022-2044 planning period.

## Regulations and Commitments

Zoning codes throughout unincorporated Kitsap County will see a reduction in regulatory barriers to development. The County will increase development capacity through increasing density, such as applying incentives (e.g., density bonuses) and/or upzones (e.g., greater densities).

Expansion of MFTE zones and other affordable housing incentives could help support development of housing that serves households earning 0 to 50% of AMI.

## Other Potential Mitigation Measures

The following measures are recommended for UGAs that are oversized:

- For UGAs that show capacities greater than the population or employment targets, UGA boundaries should be decreased, where possible. Areas should be removed that are more costly to provide public services or that have significant concentrations of critical areas.
- Alternatively, or in combination with UGA reductions, a different mix of densities or land uses may assist the achievement of population and employment allocations, provided the densities are still urban and can be served with public services.
- The County could work with KRCC and cities to reallocate population from undersized UGAs to oversized ones. This would shift population to UGAs that have existing potential to accommodate population. Until such time as the CPPs are amended, the population could be “banked.”

The following measures are recommended for undersized UGAs:

- Where the County has already applied reasonable measures (e.g., upzones or other incentives), the County could consider limited UGA expansions.
- The County could work with KRCC and cities to reallocate population from undersized UGAs to oversized ones. This would shift population to UGAs that have potential to accommodate population. Until such time as the CPPs are amended, the population could be “banked.”

## **Significant Unavoidable Adverse Impacts**

Population, employment, and housing will increase under any of the alternatives reviewed, to varying degrees.

This population, housing, and employment growth will cause impacts on the natural and built environment and the demand for public services. Each of these topics is addressed in the appropriate sections of this FEIS.

Alternative 2 and the Preferred Alternative are projected to have fewer indirect impacts from growth on the natural environment and public services since they focus growth in smaller, more compact UGAs compared to Alternatives 1 or 3.

### **3.2.4 Historical & Cultural Preservation**

Cultural resources include historical and archaeological resources. For cultural resources, this subsection summarizes existing conditions, potential impacts of the alternatives, and mitigating measures.

#### **3.2.4.1 Historical & Cultural Preservation – Affected Environment**

Cultural resources have the potential to occur throughout the county. Shorelines in particular are the location of considerable cultural resources. For thousands of years Native Americans have used shorelines for housing, working, and transportation. Other cultures have used shorelines in similar ways since the late 1700s.

A variety of measures and organizations at multiple levels help identify and preserve cultural resources in the county. These are discussed further below.

#### **Tribal**

Kitsap county is home to the Suquamish Tribe and the Port Gamble S'Klallam Tribe. Both tribes are actively engaged in the preservation of cultural resources.

The Suquamish Tribe, collaborating with Tribal Elders and the Cultural Co-op, have identified, and mapped traditional places in and around the Port Madison Indian Reservation. Staff recorded locations and descriptive information of historic period Suquamish villages and camps, ethnographic place names, archaeological sites, hunting areas, and plant collecting places to help manage Suquamish cultural resources. This information, combined with environmental data such as soil types, vegetation coverage, and locations of fresh water, was used to develop a probability of cultural resources



sensitivity map of Kitsap County in part to help planners protect cultural resources. See Exhibit 3.2.4.1-1.

**Exhibit 3.2.4.1-1 Suquamish Tribe traditional places mapping**



*Source: Suquamish Tribe.*

**National**

The National Historic Preservation Act of 1966 authorized the creation of the National Register of Historic Places (NRHP) and the National Landmark program, which are tasked with recognizing sites and structures associated with significant people and events in national history. The NRHP is maintained by the National Park Service. Sites or structures listed on the NRHP are provided protection through various federal funding sources.

However, placement on the NRHP is voluntary and does not provide absolute protection of a site.

Currently, 24 places in Kitsap County are listed on the NRHP, including 10 places of National significance and three of Statewide significance (NRHP 2023).

## **State**

The Washington State Department of Archaeology and Historic Preservation (DAHP) performs the functions of the State Historic Preservation Officer (SHPO) established by the National Historic Preservation Act of 1966. DAHP maintains records of historic resources inventories and sites in the Washington Heritage Register, acts as liaison between local agencies and the federal government, and is responsible for reviewing proposed federal projects for their potential impacts on historic and archaeological resources.

## **Silverdale Subarea**

Silverdale's location on Dyes Inlet made it an ideal place for Coastal Salish people to live and gather food. The portion of Silverdale along Dyes Inlet is identified as a maritime heritage area by the DAHP. This area likely attracted early European settlers travelling by boat in search of accessible lumber and settlements. "Old Town" Silverdale was the focal point of the early lumber, fishing, and agriculture community. Silverdale became a community for military families based in Bangor and other Kitsap County communities as the Bangor Submarine Base was developed in the late 20th century. The Silverdale subarea has one mapped location on the NRHP, the Jackson Hall Memorial Community Hall.

### **3.2.4.2 Historical & Cultural Preservation – Impacts**

The following discussion describes potential impacts of the alternatives on cultural resources throughout the county at a planning level. When a development project is proposed, potential impacts on cultural resources would be evaluated in project-specific environmental documents in accordance with federal, state, and local regulations.

## **Impacts Common to All Alternatives**

Future development under all the alternatives may affect known or potential historic sites. Archaeological sites tend to be concentrated in the vicinity of waterways, shorelines, and river valleys. These areas are anticipated to be subject to development pressures under all alternatives. Unidentified prehistoric and historic sites and historic/cultural artifacts present throughout the area could be disturbed by future development. Historic and archaeological sites located in UGAs are likely to have the highest potential of disturbance

during development activities as these areas are likely to have the most intensive development.

Regarding the Port Gamble area, the FEIS for the Port Gamble Master Redevelopment Plan was issued in October 2020. That FEIS documented the potential impacts of redevelopment of the area at the project level. This FEIS adopts the FEIS for the Port Gamble Redevelopment Plan by reference.

### **Impacts of Alternative 1, “No Action”**

Under Alternative 1, residential, and employment-related growth would be focused within existing UGA boundaries. This could create additional incentives to develop or redevelop in UGAs, particularly those with zoning designations that allow for higher densities or a broad variety of land uses. Therefore, potential impacts on cultural resources may be higher within UGAs than rural areas. However, new residential growth is anticipated to occur in rural areas as well and may potentially impact cultural resources.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Alternative 2 would accommodate the greatest amount of residential growth of the three alternatives. Alternative 2 would focus residential growth within UGAs and centers. The majority of development would be focused in the Silverdale Regional Center and the Kingston Countywide Center. Alternative 2 includes approximately 464 acres of UGA expansion. The expansion of UGAs under Alternative 2 would lead to a greater potential for impacts on cultural resources than Alternative 1. Several locally significant historic and archaeological sites could potentially be affected by development pressure associated with the expansion of UGA boundaries. Since archaeological sites are likely to be located within the vicinity of shorelines and water bodies as outlined above, areas of expansion of UGAs near or adjacent to shorelines may have greater impacts on archaeological resources. Alternative 2 proposes expansion of urban areas near or adjacent to shorelines in almost every UGA. The rural areas are allocated the same growth in Alternative 2 as in Alternative 1.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Alternative 3 includes approximately 1,049 acres of UGA expansion. Accordingly, potential impacts on cultural resources are anticipated to be greater than for Alternatives 1 and 2 since the area for greater density of development would be the largest of three alternatives. Alternative 3 is expected to accommodate growth primarily with the expanded UGAs, predominantly within Silverdale, Kingston, and Bremerton. There is expected to be less variety in housing types under Alternative 3 than Alternative 2 due to a focus on single-

family residential development. This alternative would include greater potential for lower density and widespread urban development throughout the various UGAs. Alternative 3 also includes changes to the density allowances within the Suquamish Limited Area of More Intense Rural Development (LAMIRD), which may preclude Tribal social, economic, or cultural goals. Of the three alternatives, Alternative 3 would have the most potential to affect cultural resources. Overall, UGA expansion in proximity to water bodies would be greater under Alternative 3 than under any alternative, which as a result would create a greater potential impact on cultural resources.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would accommodate slightly less residential growth than Alternative 2 but more than Alternative 3 or the no action alternative. Like Alternative 2, the Preferred Alternative would focus residential growth within UGAs and centers. The majority of development would be focused in the Silverdale Regional Center, the Central Kitsap UGA, and the Kingston Countywide Center. The Preferred Alternative includes approximately 575 acres of UGA expansion. The expansion of UGAs under the Preferred Alternative would lead to a greater potential for impacts on cultural resources than Alternative 1. Several locally significant historic and archaeological sites could potentially be affected by development pressure associated with the expansion of UGA boundaries. Since archaeological sites are likely to be located within the vicinity of shorelines and water bodies as outlined above, areas of expansion of UGAs near or adjacent to shorelines may have greater impacts on archaeological resources. The Preferred Alternative proposes expansion of urban areas near or adjacent to shorelines in almost every UGA. The rural areas are allocated the same growth in Alternative 2 as in Alternative 1.

### **Silverdale Subarea**

Potential impacts on cultural resources in the Silverdale vicinity would generally be the same as described above under Impacts Common to All Alternatives. A portion of the UGA boundary expansion in Alternative 3 includes the southern portion of Island Lake and . (This expansion is not included in the Preferred Alternative.) This area may include increased impacts on cultural resources as most of this area is undeveloped. Under the Preferred Alternative and Alternatives 2 and 3, several locally significant historic and archaeological sites could be affected by development pressure due to UGA expansion, particularly expansions along shorelines. The population and employment capacity of the Silverdale UGA would substantially increase under Alternatives 2 and 3. Therefore, the potential impacts on cultural resources are expected to be greater in the Preferred Alternative and Alternatives 2 and 3 than Alternative 1.

### **3.2.4.3 Historical & Cultural Preservation – Mitigation Measures**

Goals and policies in the Kitsap County Comprehensive Plan encourage a coordinated approach to identification and preservation of historical and archaeologically significant sites and structures throughout the county.

#### **Incorporated Plan Features**

##### ***Goals***

Specific Comprehensive Plan goals help to encourage preservation of historical and culturally significant resources within the county. Further, these goals encourage the County to improve identification, evaluation and recognition of historic, archaeological, and cultural sites and resources throughout the County. Other goals direct the County to protect, conserve and enhance these historical, archaeological, cultural, scientific, or educational sites. These goals can be achieved through a comprehensive planning approach, incentivizing the conservation of open space, and utilization of land use and building code regulations. In addition, the County is encouraged to coordinate and cooperate with national, state, Tribal historic preservation officers (THPOs), and local historic and cultural preservation organizations to meet these goals.

##### ***Policies***

Specific Comprehensive Plan policies encourage the County to work with the appropriate local, state, and federal authorities, affected Indian tribes, and other organizations to inventory historical, archaeological, and cultural resources that provide unique insights into the history and development of Kitsap County. These policies encourage the preservation of historic structures by adopting building codes and development amendments that allow appropriate reuse of the buildings. Additional policies encourage integration of historic districts and cultural resource areas into zoning and planning maps or assisting developers and landowners with open space tax incentives for historical or archaeological sites or historic or working farmland. Other incentives are encouraged for rehabilitation and appropriate reuse of historic buildings. Additionally, coordination with Washington State Department of Fish and Wildlife and local Tribes is encouraged to ensure protection of treaty reserved natural and cultural resources, where applicable. There are also policies that encourage County staff, developers, landowners, and the public to become aware of historic and cultural resources in the county.

## Applicable Regulations & Commitments

- The County has an existing agreement with Department of Archaeology and Historic Preservation under Kitsap County Contract KC 442-07.
- The County will continue to implement the requirements of Port Gamble Historic Rural Town (KCC 17.321B) to ensure that development maintains and enhances the defining and essential characteristics of the town as Port Gamble is on NRHP and is a designated Historic Landmark.
- The County will continue to implement the Open Space Plan (KCC 18.12) that allows for tax relief for eligible properties as an incentive to preserve archaeological and historical sites under the Open Space Act (Chapter 84.34 RCW).
- The County will continue to implement the policies and regulations of the SMP (Title 22), which requires Tribal historic preservation officers (THPOs) for tribes with jurisdiction have the opportunity to review and comment on all development proposals in the Kitsap County shoreline jurisdiction (KC 442-07).
- If archaeological resources are uncovered during excavation, developers and property owners must immediately stop work and notify Kitsap County, the Office of Archaeology and Historic Preservation and affected Indian tribes. Uncovered sites shall require a site inspection by a professional archaeologist in coordination with the affected tribe(s). Tribal historic preservation officers shall be provided the opportunity to evaluate and comment on cultural resources evaluations conducted by the professional archaeologist. Further, work shall not recommence until authorized by the Office of Archaeology and Historic Preservation through an archaeological excavation and removal permit, which may condition development permits pursuant to KC 442-07.

## Other Potential Mitigation Measures

- A process could be developed that further improves the partnership with the Tribes, the Coroner's Office, DAHP, and other entities.
- The County could consider establishing a historic review board as a strategy to better preserve cultural and historical sites.

### 3.2.4.4 Historical & Cultural Preservation – Significant Unavoidable Adverse Impacts

Expected development to accommodate growth within Kitsap county may increase development pressure in proximity to cultural resources sites. Future development activities have the potential to impact undiscovered sites as well as documented sites. However, with consistent application of federal, state, and local laws, significant unavoidable adverse impacts to cultural resources are not anticipated.

### 3.2.5 Aesthetics

This section reviews the aesthetic/visual environment of the unincorporated county and analyzes the effects of additional development on visual character; bulk and scale of development; shadow, light, and glare conditions; and open space and vegetation.

#### 3.2.5.1 Affected Environment

##### Physical Setting

Kitsap County is bordered on the west by Hood Canal and Jefferson County, on the east by King, Snohomish, and Island Counties, and on the south by Mason and Pierce Counties. Kitsap County variously exhibits urban, suburban, and rural character. Unincorporated Kitsap County is one of the more densely populated counties in the state but, only about one-quarter of the area is designated as urban. Roughly half the land area can be classified as resource (forest, agricultural, mining); undeveloped; or open space.

##### Exhibit 3.2.5.1-1 Physical setting



*Note: Left to right (Five-story apartment complex in Silverdale, suburban houses in the Lofall area northwest of Poulsbo, & rural farmhouse in Manchester)*

*Source: MAKERS, 2023; Google Earth, 2018*

Kitsap County is characterized by urban areas in the central and southern part of the County, like Silverdale, Bremerton's UGAs, and the Port Orchard UGA. These urban areas



are signified by higher populations and denser residential development, jobs, and commercial uses. Silverdale acts as a regional commercial center with its regional mall and big box stores. The urban areas have pockets of multifamily residential housing, but most of the residential character is single family detached homes on smaller lots than what is allowed in rural areas.

Naval Base Kitsap (NBK) plays a significant role in the physical character of the County as well. NBK is comprised of seven different military facilities spread across the County, with NBK-Bangor, located west of Silverdale and along Hood Canal, the largest facility. A significant portion of the facilities look and function like industrial areas. Many of these areas are along waterfronts, while others are on inland sites. Key examples include NBK-Bremerton, NBK-Keyport, and NBK-Bangor. NBK also includes substantial natural areas, including woodlands and wetlands. As many parts of NBK feature sensitive national security uses, the natural areas provide an important buffer function between those uses and development outside NBK fence lines. As a measure to maintain compatibility with these sensitive NBK facilities, densities in the areas surrounding facilities are very low in density, with the exception of NBK-Bremerton, and largely wooded and rural in character.

Excluding Kingston, the northern and western portions of Kitsap County are characterized by rural areas. The rural areas have lower populations and less residential and commercial development. Instead, rural areas are signified by having open space, agricultural uses, mining and natural resource industries, conservation of fish and wildlife habitat, and parks, trails, and recreation that connect people to nature.

## Visual Character

### *Urban Areas*

Outside of the incorporated cities in the County, the most urban areas in Kitsap County are the communities of Silverdale, Kingston, and the UGAs north of East Bremerton and east of Port Orchard. The majority of the land in these urban areas have detached single-family residential uses, which include 1- and 2- story houses on a medium to large sized urban lot. Multifamily development is mostly low-rise, 3 story buildings with a few 4- and 5-story residential buildings in Silverdale and a limited amount of mixed-use development happening in these urban areas. Large bulky warehouse buildings by the inlets and bays of these urban areas are operated by industrial and military uses. Silverdale also has a significant amount of commercial and retail buildings. With the notable exceptions of parts of Kingston and Old Town Silverdale, the commercial areas within unincorporated Kitsap County feature suburban, auto-oriented development forms with single-story buildings served by large parking lots fronting streets.

Most residential housing has some form of off-street parking via driveways, garages, or surface parking lots. Some of Kitsap County's urban areas have a complete sidewalk network closer to downtown or central business areas, though the streets are not particularly pedestrian friendly due to width, speed of traffic, and vehicle orientation of businesses. However, a significant amount of the residential areas in the urban parts of the County do not have sidewalks.

#### **Exhibit 3.2.5.1-2 Visual character**



*Note: Left to right (A suburban street in Kingston & suburban block south of Gilberton around Esquire Hills Elementary)*

*Source: Google Earth, 2018*

Other slightly less intensive urban areas or suburban areas in the county, like Poulsbo and Kingston have similar residential development patterns to the other urban areas. The street patterns for these areas are more dispersed, curvilinear, and lack connectivity by ending in a cul-de-sac. Additionally, development for all urban areas in Kitsap County is typically setback from roads, contributing to a built form typical of suburban areas.

#### ***Silverdale Regional Center***

The Silverdale Regional Center lies east of State Route (SR) 3, south of SR 303, and north of Dyes Inlet. Downtown Silverdale is a regional commercial area and consist primarily of large blocks, with large-lot auto-oriented development. Commercial buildings downtown are generally low-rise, bulky structures set back from the road and surrounded by parking. The Kitsap Mall, a regional shopping facility, is a major focal point within the core commercial area.

A majority of the residential area in Silverdale is along the northwest and northeast shorelines of Dyes Inlet. There is some multifamily development to the west of Kitsap Mall Boulevard, along Ridgetop Boulevard, and north of Waaga Way.

Because large parking lots, big box retail buildings, and wide streets dominate the visual setting in Silverdale, trees, natural areas, and landscaping features are not a major character-defining feature of the area. Some exceptions include the Clear Creek corridor, critical area buffers, and natural areas adjacent to highway corridors, street trees and parking lot landscaping, and landscaped buffers around Central Kitsap High School.

#### **Exhibit 3.2.5.1-3 Silverdale**



*Note: Left to right (Crossing Bucklin Hill Road looking at Dyes Inlet, Silverdale Way by the commercial center, & more pedestrian friendly streets around the Silverdale Waterfront Park)*

*Source: MAKERS, 2023*

#### ***Kingston Countywide Center***

The Kingston Countywide Center is north and west of Appletree Cove off the Puget Sound. State Highway 104 runs to the center of downtown Kingston where the Kingston Ferry Terminal connects to Edmonds and Seattle, Washington. Commercial uses in the subarea tend to be located along State Highway 104. The subarea has a few low-rise multifamily buildings in the downtown area, but most of the residential buildings in Kingston are single-family houses. Downtown has a small traditional grid pattern, though many of these blocks have surface parking lots. A majority of the subarea does not have sidewalks which contributes to the auto-oriented nature of Kingston.

A portion of the south end of the subarea is currently forested, though it is going through phased development. There are a number of forested critical area buffers associated with streams and wetlands in the subarea as well.

#### Exhibit 3.2.5.1-4 Kingston Countywide Center



*Note: Left to right (Grid pattern streets in the storefront commercial area & a residential street in the Countywide Center)*

*Source: Google Earth, 2018*

### **Rural Areas**

Rural areas are comprised of vacant, vegetated land, land with a dispersed pattern of single-family residential development, and several small communities or more developed areas. The street pattern in rural areas generally consists of highways or arterials that follow the topography. Some of the LAMIRDs have a bit of small-town character due to a gridded street pattern and homes closer to the streets.

The environment of the rural area ranges from heavily vegetated with dense forests to lands that have been cleared for pastures or are less densely vegetated with second- or third-growth wooded areas. The county also encompasses more than 228 miles of saltwater shoreline comprised of sea cliffs, gently rolling uplands, and estuaries. Shorelines, natural areas, views of water, the Cascades, and the Olympic Mountains contribute to the county's visual character.

### **Light, Glare & Shadows**

In areas of the county where rural areas border urban areas, there are considerable mobile and stationary sources of light largely associated with parking areas, illuminated signage, and vehicular traffic. Shade and shadow effects are currently limited due to low building heights and the dispersed pattern of development. Both rural and urban areas are also impacted by household security lighting from neighboring properties.

### **Design Standards**

The purpose of design standards is to provide more predictable and high-quality outcomes for private development. Design standards set expectations for site planning and building design elements (such as parking lot configurations, landscaping, signs, and architectural

expression) that meet community objectives related to walkability, economic development, open space access, and public services.

Kitsap County is one of many jurisdictions in Washington State which has adopted design standards for certain locations or for certain types of development. Design standards apply in addition to underlying zoning and development regulation requirements.

Kitsap County has adopted design standards for the following:

- General design standards (KCC 17.420.030, countywide; does not apply to single-family detached dwellings, duplexes and uses located in the RW, FRL, or MRO zones)
- KCC 17.420.037: Single-family subdivisions, condominiums, or residential developments of ten or more lots/units (countywide)
- KCC 17.470: Multifamily development (countywide)
- KCC 17.420.035: Mixed use development (countywide)
- Silverdale
- Keyport
- Kingston
- Manchester

### 3.2.5.2 Impacts

#### Impacts Common to All Alternatives

##### *Height, Bulk & Scale*

###### *Urban Area*

Under all alternatives, the greatest growth will happen in areas such as Bremerton, Silverdale, Port Orchard, Kingston, and Poulsbo. Vacant and underutilized urban land will continue to be developed as new employers and people relocate to the County. Future growth and development will include a wider variety of housing types that include more infill midrise buildings, ADUs, and middle housing types (duplexes, townhomes, etc.). In most of the County, new development will have minimal height differences than what is allowed currently. However, except for the Silverdale Regional Center, new development

could have slightly larger buildings, greater lot coverage, and increased parking areas, which could present impacts to older and smaller single-family development that are adjacent to new development.

### *Rural Area*

The greatest changes in the aesthetic character of rural lands would occur where urban uses are developed adjacent to rural areas. Generally, urban development adjacent to rural areas would be single-family residential development. The heights of such development would likely be similar in height to residential development in rural areas now but would occur at greater densities than existing residential development in the rural area. Additional changes to rural areas would occur with conversion of vacant rural lands to rural residential uses.

Under all Alternatives, the four LAMIRDs (Port Gamble, George's Corner, Suquamish, and Manchester) would continue to develop in accordance with adopted area-specific plans. Other small communities in the rural area, such as Hansville, Keyport, Indianola, South Colby, Southworth, Olalla, Brownsville, and Gilberton, would continue to develop in accordance with the Comprehensive Plan.

### *Shade & Shadows*

Increased density and intensity of development raises the potential for shade and shadow impacts on adjacent land uses, sidewalks, and plazas.

### *Lighting & Glare*

Generally, increased intensification of the built environment associated with all alternatives would result in increased levels of light and glare. Increased levels would come from both mobile (vehicle headlights) and stationary sources such as street and pedestrian lights, building illumination, parking lot lighting, illuminated signage, and recreational facilities. There also may be impacts associated with construction in those areas experiencing increased development. Impacts would most likely occur in areas nearest existing urban or urbanizing areas; however, there could also be spillover impacts in rural areas due to increased traffic and household security lighting from neighboring properties.

### *Vegetation, Views & Open Space*

Under all alternatives, vacant and underutilized lands within urban areas would likely be developed as infill and redevelopment over time. This would result in effects on open space and views. The amount of undeveloped vegetated land, which is often viewed as open space, will decrease as that land is developed. Natural vegetation would be replaced by buildings, paved surfaces, and planted vegetation. Under all alternatives there will be



limited expansion of the UGA boundaries. Such changes will impact some rural areas within the UGAs, as more urban development is allowed. Residents could view loss of vegetation and open space as adverse impacts. Views may increase due to removal of vegetation or for residents who live in taller buildings. Sightlines may also be obstructed due to new buildings.

### ***Silverdale Regional Center***

Under all alternatives, vacant land within the Silverdale subarea would be developed over time. Redevelopment of commercial areas and some larger lot residential uses would occur. There would be potential for height, bulk, and scale compatibility impacts as new uses are developed adjacent to less intensive uses; and increased shade and shadow with new development.

### ***Kingston Countywide Center***

Under all alternatives, vacant land within the Kingston subarea could be developed over time. Redevelopment of commercial areas and the opportunity for mixed-use residential uses would occur. There would be potential for height, bulk, and scale compatibility impacts as new uses are developed adjacent to less intensive uses; increased shade and shadow with new development; and a reduction in the amount of undeveloped vegetated land.

## **Impacts of Alternative 1, “No Action”**

### ***Height, Bulk & Scale***

#### ***Urban Area***

Impacts to height, bulk, and scale under Alternative 1 would be similar to the existing pattern described under **Affected Environment** and **Impacts Common to All Alternatives**. The overall height, bulk, and scale implications from such future development would likely be consistent with that experienced during growth over the last twenty years.

There would be continued potential for compatibility impacts where more intensive residential or urban development is adjacent to development of a lesser scale and intensity, such as at the edges of UGA boundaries, or within UGAs where commercial development abuts residential uses. The vast majority of residential growth would be in single-family units at densities of 5–9 du/ac, with a small proportion of multifamily development of a generally suburban character, similar to that which has been developed



under the adopted Comprehensive Plan. Additionally, the UGA would likely see more development of ADUs over the next 20 years.

#### *Rural Area*

There are no changes to height in rural residential areas under Alternative 1. Height, bulk, and scale impacts will likely be minimal and there will no changes in density ranges allowed in rural areas.

### ***Shade & Shadows***

#### *Urban Area*

Many of the impacts associated with Alternative 1 would be the same as those described above in **Impacts Common to All Alternatives**. Because urban development would be occurring in already urbanized areas, shadow and shade impacts would be limited to areas where infill and other redevelopment occur.

#### *Rural Area*

No significant shade and shadow impacts would be expected for rural areas, as there is no expectation of conversion of rural areas to urban uses.

### ***Lighting & Glare***

#### *Urban Area*

Impacts would most likely occur in areas nearest existing urban or urbanizing areas and would be less than those associated with the other alternatives due to less growth and less intensive infill development under Alternative 1. Many of the impacts associated with Alternative 1 would be the same as those described above in **Impacts Common to All Alternatives**.

#### *Rural Area*

There could be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.

## ***Vegetation, Views & Open Space***

### ***Urban Area***

Many of the impacts associated with Alternative 1 would be the same as those described above in **Impacts Common to All Alternatives**. Additionally, Shorelines within UGAs would continue to be developed in accordance with existing development patterns, which are predominantly single-family residential.

### ***Rural Area***

In the rural areas, open space in the form of pastures and forests would become more fragmented by new rural development, and overall perceived open space would decrease.

## ***Silverdale Regional Center***

### ***Urban Area***

Impacts within the Silverdale subarea under Alternative 1 would generally be similar to those described for the county as a whole under this alternative. No changes in land use designation or allowed densities or expansion of UGA boundaries would occur and maximum heights range from 45 feet to 65 feet. Vacant land within the UGA would be reduced over time. The existing development pattern of commercial uses with surface parking areas would generally continue in commercial portions of the Silverdale downtown and along Silverdale's major transportation corridors.

This change could result in localized compatibility impacts if adjacent properties are of lower scale or are less urban in character, especially where commercial and residential development are adjacent, as in the downtown portion of Silverdale. The potential for shade and shadow impacts would be limited to areas where infill and other redevelopment occur.

## ***Kingston Countywide Center***

### ***Urban Area***

Impacts within the Kingston subarea under Alternative 1 would generally be similar to those described for the county as a whole under this alternative. No changes in land use designation or allowed densities or expansion of UGA boundaries would occur.

The maximum heights for urban medium-density zones in Kingston are 45 feet, 55 feet for urban high-density residential and commercial zones, and 55-65 feet in regional center zones.

## Impacts of Alternative 2, “Compact Growth/Urban Center Focus”

### *Height, Bulk & Scale*

#### *Urban Area*

Under Alternative 2, height, bulk, and scale impacts on urban low-density residential land between buildings on adjacent parcels would be minimal as market-rate development would continue to have a 3-story height limit. However, Alternative 2 will see increases in allowed density, as urban low-density residential areas will allow for middle housing types at a density of 14 du/ac. Except for the development of vacant lands and large lot redevelopment, the anticipated development and redevelopment of missing middle housing types, such as duplexes, triplexes, townhouses, and ADUs will likely be incremental and scattered, thus moderating the visual impact of such density increases.

Alternative 2 also increases densities in other residential and commercial areas. Urban medium-density residential will see an increased density range of 10-30 du/ac and both urban high-density residential and high intensity commercial will see an increased density range of 19-60 du/ac. Under Alternative 2 the Kingston UGA, McWilliams Center, and South Kitsap/Bethel Commercial area see increased allowed height of 10 – 20 feet to their commercial areas. Increases in density will have height, bulk, and scale impacts by allowing more or larger buildings than what is allowed in Alternative 1.

#### *Rural Area*

There are no changes to height in rural residential areas under Alternative 2. Height, bulk, and scale impacts will likely be minimal and similar to what was described in Alternative 1.

### *Shade & Shadows*

#### *Urban Area*

The Kingston UGA, McWilliams Center, and South Kitsap/Bethel Commercial area see height limit changes that allow 10 – 20 feet to their commercial areas. However, for most of the UGA, height limits do not increase under Alternative 2. Therefore, shadow impacts would not likely increase significantly over the No Action Alternative. However, greater bulk on more sites may cast shadows on more places.

The increase in size and number of buildings allowed on a lot in Alternative 2 will likely decrease the amount of space available for trees on low-density residential lots. Middle housing and ADUs that preserve contiguous open space are likely better able to avoid impacts to existing trees and retain more contiguous planting areas for new trees.

Alternative 2 would introduce tree replacement standards for the urban residential areas, which could lead to increased shade over time as trees from new development mature.

#### *Rural Area*

No significant shade and shadow impacts would be expected for rural areas, as there is no expectation of conversion of rural areas to urban uses.

### ***Lighting & Glare***

#### *Urban Area*

Impacts would most likely occur in areas nearest existing urban or urbanizing areas and would likely be more than those associated with Alternative 1 due to more compact growth and more intensive infill development happening under Alternative 2. Many of the impacts associated with Alternative 2 would likely be a stronger version of what is described above in **Impacts Common to All Alternatives**.

#### *Rural Area*

There could be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.

### ***Vegetation, Views & Open Space***

#### *Urban Area*

Many of the impacts associated with Alternative 2 would be the same as those described above in **Alternative 1**.

#### *Rural Area*

Many of the impacts associated with Alternative 2 would be the same as those described above in **Alternative 1**.

### ***Silverdale Regional Center***

#### *Urban Area*

Heights under Alternative 2 for the Silverdale subarea are similar to the maximum heights in Alternative 1, with low-density residential up to 30 feet, medium-density residential up to 45 feet, and high-density residential and commercial 55-65 feet. The Silverdale subarea will have the same density ranges that were described above in the **Height, Bulk, and Scale** for Alternative 2. Additionally, areas zoned 'Regional Center' in Silverdale would have no

max density, which could have bulk and scale impacts by allowing more or bulkier buildings than what is allowed in Alternative 1.

Increased density and intensity of development raises the potential for shade and shadow impacts on adjacent land uses, sidewalks, and plazas.

Under Alternative 2, the Silverdale Regional Center will include a MFTE area and an expedited permitting process that could increase development in the area. The Silverdale subarea could see visual changes in the Silverdale center with more mixed-use buildings, greater intensity of commercial uses, along with the continuation as a regional commercial center due to development incentives from the MFTE area. Mixed-use areas in the subarea would likely become more pedestrian oriented over time and have an increase in pedestrian lighting, street trees, street furniture, and access to improved transit.

### ***Kingston Countywide Center***

#### ***Urban Area***

Residential heights under Alternative 2 in the Kingston subarea are the same that they are in Alternative 1 at 45 feet. However, commercial zoned areas will have an increased maximum height of 50 feet. Additionally, the Kingston subarea under Alternative 2 will include a MFTE area and an expedited permitting process that could increase development in the area. Such changes could increase commercial development in downtown Kingston and increase overall development near Kingston's ferry terminal.

### **Impacts of Alternative 3, "Dispersed Growth Focus"**

#### ***Height, Bulk & Scale***

##### ***Urban Area***

Impacts to height, bulk, and scale under Alternative 3 would be similar to the existing pattern described under Alternative 1. Alternative 3 also has similar density ranges to Alternative 1 but spreads out and distributes that density more broadly across the County UGA than is the case in the more focused and intense density found in Alternative 2.

##### ***Rural Area***

There are no changes to height in residential areas under Alternative 3. Height, bulk, and scale impacts will likely be minimal and similar to what was described in Alternative 1.

## *Shade & Shadows*

### **Urban Area**

Many of the impacts associated with Alternative 3 would be the same as those described above in **Impacts Common to All Alternatives**. However, Alternative 3 will also see UGA expansions that increase where urban development can happen in the county. The change in new urbanized areas will bring shadow and shade impacts to new areas with new greenfield development.

Also, Alternative 3 would see enhanced tree retention standards with new development. Such standards could help keep mature trees in place to continue providing the shade they already do.

### **Rural Area**

New shade and shadow impacts would be expected for rural areas, as UGA expansion will convert a limited number of rural areas to urban areas.

## *Lighting & Glare*

### **Urban Area**

Impacts of lighting and glare under Alternative 3 would be similar to the impact described under Alternative 1. However, because density and development under Alternative 3 is more dispersed throughout the UGA, there are areas that could have impacts from lighting and glare that would not be impacted under Alternative 2.

### **Rural Area**

There could be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.

## *Vegetation, Views & Open Space*

### **Urban Area**

Many of the impacts associated with Alternative 3 would be the same as those described above in **Alternative 1**.

### **Rural Area**

Many of the impacts associated with Alternative 3 would be the same as those described above in **Alternative 1**.

## ***Silverdale Regional Center***

### ***Urban Area***

Impacts within the Silverdale subarea under Alternative 3 would generally be similar to those described for the county as a whole under this alternative. Alternative 3 would see an expansion of UGA boundaries and changes in land use designation but would not see changes in allowed densities and maximum heights range from 45 feet to 65 feet. Vacant land within the UGA would be reduced over time. The existing development pattern of commercial uses with surface parking areas would generally continue in commercial portions of the Silverdale downtown and along Silverdale's major transportation corridors.

This change could result in localized compatibility impacts if adjacent properties are of lower scale or are less urban in character, especially where commercial and residential development are adjacent, as in the downtown portion of Silverdale. The potential for shade and shadow impacts would be limited to areas where infill and other redevelopment occur.

## ***Kingston Countywide Center***

### ***Urban Area***

Under Alternative 3, the Kingston subarea would see height increases in their high intensity commercial areas to 55 feet. Also, under Alternative 3, Kingston would have a mixed-use requirement in a new storefront overlay zone in downtown Kingston. A storefront zone that has a mixed-use building requirement could reduce future development of the storefront zone, given the recent regional struggles ground floor commercial has had in finding and sustaining businesses. However, if development were to happen in the storefront zone with a mixed-use requirement, the Kingston subarea would see visual changes in Kingston's downtown with more mixed-use buildings and greater intensity of commercial uses. Mixed-use areas in the subarea would likely become more pedestrian oriented over time and have an increase in pedestrian lighting, street trees, street furniture, and access to transit.

## **Impacts of the Preferred Alternative**

### ***Height, Bulk & Scale***

#### ***Urban Area***

Under the Preferred Alternative, height, bulk, and scale impacts on urban low-density residential land between buildings on adjacent parcels would be minimal as market-rate



development would continue to have a 3-story height limit. However, the Preferred Alternative includes increases in allowed density, as Urban Low-zoned residential areas will allow for middle housing types at a density of 14 du/ac. Except for the development of vacant lands and large lot redevelopment, the anticipated development and redevelopment of missing middle housing types, such as duplexes, triplexes, townhouses, and ADUs will likely be incremental and scattered, thus moderating the visual impact of such density increases.

However, there is a range of intensity of height, bulk, and scale impacts across the middle housing types. While ADUs and duplexes can blend in smoothly with existing low-density development, other types (like triplexes, fourplexes, and townhouses) will be more compatible when adjacent to other dense development, or when there are visual barriers (like greenbelts) and internal roadways. The largest impacts related to height, bulk, and scale will occur if the more intensive middle housing types are developed immediately adjacent to lots with historic development patterns (i.e., half-acre lots or larger).

The Preferred Alternative also increases densities in other residential and commercial areas. Urban medium-density residential will see an increased density range of 10-30 du/ac and both urban high-density residential and high intensity commercial will see an increased density range of 19-60 du/ac. Under the Preferred Alternative, the Kingston UGA, McWilliams Center, and South Kitsap/Bethel Commercial area see increased allowed height of 10 – 20 feet to their commercial areas. Increases in density will have height, bulk, and scale impacts by allowing more or larger buildings than what is allowed in Alternative 1.

The one major land use change in the Preferred Alternative that is not included in Alternative 2 (which it is otherwise very similar to) is the Puget Sound Industrial Center – Bremerton (PSIC) UGA expansion. Height, bulk, and scale impacts to the surrounding area would occur in the Preferred Alternative.

### ***Rural Area***

There are no changes to height in rural residential areas under the Preferred Alternative. Height, bulk, and scale impacts will likely be minimal and similar to what was described in Alternative 1.

### ***Shade & Shadows***

#### ***Urban Area***

The Kingston UGA, McWilliams Center, and South Kitsap/Bethel Commercial area see height limit changes that allow 10 – 20 feet to their commercial areas. However, for most of

the UGA, height limits do not increase under the Preferred Alternative. Therefore, shadow impacts would not likely increase significantly over the No Action Alternative. However, greater bulk on more sites may cast shadows on more places.

The increase in size and number of buildings allowed on a lot in the Preferred Alternative will likely decrease the amount of space available for trees on low-density residential lots. Middle housing and ADUs that preserve contiguous open space are likely better able to avoid impacts to existing trees and retain more contiguous planting areas for new trees. The Preferred Alternative includes tree canopy standards for the urban residential areas, which could lead to increased shade over time as trees from new development mature.

### ***Rural Area***

Shade and shadows impacts in rural areas would be expected where UGA expansions occur. The Preferred Alternative includes 575 acres of UGA expansion, which may result in shade and shadows impacts on neighboring land that is still rural.

## ***Lighting & Glare***

### ***Urban Area***

Impacts would most likely occur in areas nearest existing urban or urbanizing areas and would likely be more than those associated with Alternative 1 due to more compact growth and more intensive infill development happening under the Preferred Alternative. Many of the impacts associated with the Preferred Alternative would likely be a stronger version of what is described above in **Impacts Common to All Alternatives** (though not as strong as the impacts in Alternative 2 due to somewhat lower capacity overall and the new CAO standards).

### ***Rural Area***

There could be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.

## ***Vegetation, Views & Open Space***

### ***Urban Area***

Many of the impacts associated with the Preferred Alternative would be the same as those described above in **Alternative 1**.

### *Rural Area*

Many of the impacts associated with the Preferred Alternative would be the same as those described above in **Alternative 1**.

### *Silverdale Regional Center*

#### *Urban Area*

Heights under the Preferred Alternative for the Silverdale subarea are similar to the maximum heights in Alternative 1, with low-density residential up to 30 feet, medium-density residential up to 45 feet, and high-density residential and commercial 55-65 feet. The Silverdale subarea will have the same density ranges that were described above in the **Height, Bulk, and Scale** for the Preferred Alternative. Additionally, areas zoned 'Regional Center' in Silverdale would have no max density, which could have bulk and scale impacts by allowing more or bulkier buildings than what is allowed in Alternative 1.

Increased density and intensity of development raises the potential for shade and shadow impacts on adjacent land uses, sidewalks, and plazas.

Under the Preferred Alternative, the Silverdale Regional Center will include an expedited permitting process that could increase development in the area. The Silverdale subarea could see visual changes in the Silverdale center with more mixed-use buildings, greater intensity of commercial uses. Mixed-use areas in the subarea would likely become more pedestrian oriented over time and have an increase in pedestrian lighting, street trees, street furniture, and access to improved transit.

### *Kingston Countywide Center*

#### *Urban Area*

Residential heights under the Preferred Alternative in the Kingston subarea are the same that they are in Alternative 1 at 45 feet. However, commercial zoned areas will have an increased maximum height of 55 feet. Additionally, the Kingston subarea under the Preferred Alternative will include an expedited permitting process that could increase development in the area. Such changes could increase commercial development in downtown Kingston and increase overall development near Kingston's ferry terminal.

### **3.2.5.3 Mitigation Measures**

**Managing urban tree canopy.** The alternatives study both tree replacement standards and tree retention standards as tools to mitigate expected increased development of both residential and commercial uses in the County urban areas. The Preferred Alternative

directs the County to pursue tree canopy requirements, which are being developed currently.

**Reduce residential parking requirements.** Lower parking requirements could:

- Achieve greater opportunities for shared open space that also serves as space for trees and natural drainage.
- Reduce visual impacts to the street level experience and provide space for residential entries to face the sidewalk.
- Achieve more units and/or unit type variety on a lot.

Lower parking requirements could also result in increased impacts in other areas as discussed in the Transportation section.

### Exhibit 3.2.5.3-1 Summary matrix

Element of the Environment	Alternative 1 (No Action)	Alternative 2	Alternative 3	
Height, Bulk, and Scale	No changes to height standards and development will likely look similar to how it has looked the last ten years. Most residential development will continue to be single-family homes and there could be more development of ADUs due to state legislation.	Limited height changes but will see the allowance of middle housing in low density residential areas. Middle housing development will likely add some bigger and bulkier buildings in low density residential areas.	Limited changes to height standards, but zoning and development patterns will likely be more dispersed throughout the County than is the case under Alternative 1.	Limited height changes but will see the allowance of middle housing in low density residential areas. Middle housing development will likely add some bigger and bulkier buildings in low density residential areas.
Shade and Shadows	In the urban area, there would be relatively lower amounts of shadow and shade over smaller area. In the rural area there would be no significant shade and shadow impacts.	The increase in size and number of buildings allowed on a lot in Alternative 2 will likely decrease the amount of space available for trees on low-density residential lots. The introduction of tree replacement standards for the urban residential areas could lead to increased shade over time as trees from new	In the urban area, there would be relatively lower amounts of shadow and shade over smaller area. The introduction of tree retention standards for the urban residential areas could help keep mature trees in place to continue providing the shade they already do. In the rural area there would be no significant shade and shadow impacts.	The increase in size and number of buildings allowed on a lot in the Preferred Alternative will likely decrease the amount of space available for trees on low-density residential lots. The introduction of tree canopy standards for the urban

Element of the Environment	Alternative 1 (No Action)	Alternative 2	Alternative 3	
		development mature.		residential areas could lead to increased shade over time as trees from new development mature.
Lighting and Glare	In the urban area there would be increased levels of light and glare from both mobile and stationary sources. Impacts would most likely occur in areas nearest existing urban or urbanizing areas. In the rural area there would be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.	A stronger increase of light and glare from both mobile and stationery sources than would be the case in Alternative 1. Impacts would likely occur in current urban areas and be constrained to more focused areas	In the urban area there would be increased levels of light and glare from both mobile and stationary sources. Impacts would most likely occur in areas nearest existing urban or urbanizing areas. In the rural area there would be some spillover light from urban areas and increased light and glare associated with increased traffic due to overall growth.	A stronger increase of light and glare from both mobile and stationery sources than would be the case in Alternative 1. Impacts would likely occur in current urban areas and be constrained to more focused areas

Element of the Environment	Alternative 1 (No Action)	Alternative 2	Alternative 3	
Vegetation, Views, and Open Space	Vacant and underutilized land will likely be developed over time, possibly impacting vegetation and landscaping. View sightlines may increase due to removal of vegetation or for residents who live in taller buildings. View sightlines may also be obstructed due to new buildings. Rural areas could have limited impacts but may see open space become fragmented with new rural development, and overall perceived open space could decrease.	Similar impacts to Alternative 1.	Similar impacts to Alternative 1.	Similar impacts to Alternative 1.
Silverdale Subarea	Continued urbanization based on adopted land use designations and changes in visual character would occur as vacant land is developed. No change to potential for height, bulk, and scale	Heights include low-density residential up to 30 feet, medium-density residential up to 45 feet, and high-density residential and commercial 55-65 feet and the area will have increased density ranges. Also, under	Continued urbanization based on adopted land use designations and changes in visual character would occur as vacant land is developed. Limited change to potential for height, bulk, and scale	Heights include low-density residential up to 30 feet, medium-density residential up to 45 feet, and high-density residential and commercial 55-65 feet and



Element of the Environment	Alternative 1 (No Action)	Alternative 2	Alternative 3	
	compatibility impacts. Impacts would be greatest in designated centers where infill development at higher densities would occur.	Alternative 2, the Silverdale Center will include a MFTE area and an expedited permitting process that could increase development in the area.	compatibility impacts. Impacts would be greatest in designated centers where infill development at higher densities would occur.	the area will have increased density ranges. Also, under the Preferred Alternative, the Silverdale Center will include an expedited permitting process that could increase development in the area.
Kingston Subarea	Continued urbanization based on adopted land use designations and changes in visual character would occur as vacant land is developed. No change to potential for height, bulk, and scale compatibility impacts. Impacts would be greatest in designated centers where infill development at higher densities would occur.	Commercial zoned areas will have an increased maximum height of 50 feet. Additionally, the Kingston subarea under Alternative 2 will include a MFTE area and an expedited permitting process that could increase development in the area.	Commercial zoned areas will have an increased maximum height of 55 feet. Additionally, the Kingston subarea under Alternative 3 will include a mandatory mixed-use standard that could reduce development in the area or help what new development that does happen be mixed-use.	Commercial zoned areas will have an increased maximum height of 50 feet. Additionally, the Kingston subarea under the Preferred Alternative will include an expedited permitting process that could increase development in the area.

### **3.2.5.4 Significant Unavoidable Adverse Impacts**

Over time, additional growth and development will occur in Kitsap County and a generalized increase in development intensity, height, bulk, and scale is expected under all alternatives—this gradual conversion of low-intensity uses to higher intensity development patterns is unavoidable and an expected characteristic of urban population and employment growth. No significant unavoidable adverse impacts to land use patterns, compatibility, or urban form are expected under any alternative.

Future growth is likely to result in temporary or localized land use impacts as development occurs. The potential impacts related to these changes may differ in intensity and location in each of the alternatives and many are expected to resolve over time. Application of the County's adopted or new development regulations, zoning requirements, and design guidelines are anticipated to sufficiently mitigate these impacts.

## **3.2.6 Transportation**

### **3.2.6.1 Transportation – Affected Environment**

The affected environment related to transportation includes state highways, city and Kitsap County rights-of-way, interchanges and bridges, bikeways and trails, public transportation facilities and services, railroads, marine ports, ferries, and airports. The State, County, municipalities, and special districts share jurisdiction over these facilities.

This section discusses existing conditions relating to transportation in Kitsap County, including state and local regulations and policies; inventory of transportation infrastructure and services, including roadway, transit, non-motorized, rail, air, and ferry; and existing operational conditions of the transportation system.

## **Planning Context**

### ***Infrastructure Investment & Jobs Act (IIJA)***

The Infrastructure Investment and Jobs Act (IIJA) authorizes federal funding for numerous surface transportation programs. IIJA builds upon previous updates of the federal multimodal transportation law, which began with the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991. It seeks to address many of the challenges facing our transportation system today, such as improving safety, modernizing roads and bridges, modernizing transit, and improving accessibility, improving passenger and rail freight, building a nationwide electric vehicle charging network, and building out the power infrastructure for a clean energy transition to power electrified travel. The act promotes more efficient and effective federal surface transportation programs by focusing on

transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

### ***Washington State Growth Management Act (GMA)***

The Washington State GMA requires that the transportation element implements, and is consistent with, the land use element, and includes the following sub-elements (RCW 36.70A.070(6)).

- Inventory of facilities by mode of transport;
- Forecasts of traffic for at least ten years based on the adopted land use plan, to provide information on the location, timing, and capacity needs of future growth;
- Level of service assessment to aid in determining the existing and future operating conditions of the facilities;
- Identification of infrastructure needs to meet current and future demands and proposed actions to bring deficient facilities into compliance;
- Estimated impacts to state-owned transportation facilities resulting from planned land use;
- Identification of demand management strategies, as available;
- Pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements for walk, bike and roll facilities and corridors;
- Funding analysis for needed improvements, including identification of contingencies in case of future funding shortfalls; and
- Identification of inter-governmental coordination efforts.

In addition to these elements, GMA establishes a “concurrency” requirement, which states that development cannot occur unless adequate supporting infrastructure either already exists or is built concurrent with development. The concurrency timeframe is defined as the six-year period from the time the need for improvement is triggered. In addition to capital facilities, improvements may include transit service, Transportation Demand Management (TDM) strategies, or Transportation System Management (TSM) strategies.

Under the GMA, local governments and agencies must annually prepare and adopt six-year Transportation Improvement Programs (TIPs), which must be consistent with the transportation element of the local comprehensive plan as well as other state and regional plans and policies.

### ***Transportation Facilities & Services of Statewide Significance***

Transportation-related issues of growth management planning in Washington are further addressed through RCW 47.06.140. The Washington State Legislature declares a number of transportation facilities and services to be of statewide significance, including the interstate highway system, interregional state principal arterials, and ferry connections that serve statewide travel. This legislation further declares the state shall plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal transportation plan in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers, as appropriate.

### ***Washington Transportation Plan (WTP)***

The *Washington Transportation Plan 2040* (WTP 2040) is a comprehensive statewide transportation plan that establishes a 20-year vision for the development of the statewide transportation system, including state highways and ferries, sidewalks and bike paths, county roads, city streets, public transit, air, and rail (WSDOT, 2018). *The WTP 2040* identifies significant statewide transportation issues and recommends statewide transportation policies and strategies to the legislature and Governor (RCW 47.01.071(4)). By law, *WTP 2040* is required to be consistent with the state's growth management goals, reflect the priorities of government, and address regional needs, including multimodal transportation planning.

*Washington Transportation Plan 2040* is based on the following six transportation policy goals established by the Legislature:

- **Preservation:** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.
- **Safety:** To provide for and improve the safety and security of transportation customers and the transportation system.
- **Mobility:** To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility.

- **Environment:** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.
- **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system.
- **Economic Vitality:** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.

### ***Puget Sound Regional Council – VISION 2050***

The *Regional Transportation Plan (RTP)* is the region's long-range transportation plan developed by the PSRC that implements VISION 2050 (PSRC, 2022). PSRC is the local Metropolitan Planning Organization (MPO) for Kitsap County and one of the County's primary funding sources for transportation improvements. VISION 2050 is the region's plan focusing on the long-term growth strategy for regional and local planning policies with the goal of sustaining communities and preserving resource lands and open spaces. The Regional Transportation Plan establishes six integrated strategies:

1. **Climate** – A key focus of the plan is to support the VISION 2050 goals to reduce greenhouse gases (GHG) that contribute to climate change. It identifies performance and action steps to achieve GHG reduction goals adopted by the Puget Sound Clean Air Agency. In addition, the plan includes focused growth, extensive transportation choice and pricing mechanisms, and the decarbonization of the transportation systems as critical measures in making progress toward both 2030 and 2050 GHG reduction goals of 50% and 83% below 1990 levels, respectively.
2. **Access to Transit** – The plan supports the VISION 2050 regional growth strategy and planning for vibrant, attractive neighborhoods with access to jobs, schools, and services. The plan calls for identifying where access to transit improvements are needed, particularly for pedestrians and bicyclists. It establishes safe and convenient connections as necessary for transit becoming a viable choice for users and helps achieve the regional growth strategy. The plan looks to increase transit boardings and the number of households within a ½ mile of high-capacity service by 2050.

3. **Equity** – The plan builds on VISION 2050 goals and policies for racial and social equity by applying a focus on equity in all aspects of the plan. This includes the evaluation of existing and future conditions and the analysis of performance measures and regional outcomes.
4. **Safety** – The plan emphasizes the state’s goal of zero deaths and serious injuries through safety in the design, planning, and funding of projects. The plan establishes a focus on a safe systems approach and timely replacement of key facilities to maintain a state of good repair and safer systems.
5. **Mobility** - The plan calls for improvements in transportation choices across all modes by providing more reliability and addressing bottlenecks and congestion through the completion of key transportation corridors. The plan looks to reduce both delay and reduce vehicle miles traveled (VMT) for households from current conditions.
6. **Local needs and future visioning** – The plan looks ahead to address future challenges with potential new investments such as rail, aviation, and passenger-only ferries. The RTP and other supporting resources will assist and inform local planning by cities and counties as they continue to develop their local plans by 2024.

These strategies guide transportation investment decisions to meet growing travel needs for people and freight, calling for more transit, biking, and walking facilities, as well as more complete roadways.

### ***PRTPO Regional Transportation Plan***

The Peninsula Regional Transportation Planning Organization (PRTPO) is an association of cities, towns, counties, ports, tribes, and transit agencies that work together to develop transportation plans to meet the Olympic and Kitsap Peninsula region's future economic and population growth. Its *Regional Transportation Plan 2040* (PRTPO, 2019) looks to help preserve existing transportation assets, improve system performance, enhance residents' quality of life, provide more transportation choices, and protect the environment by:

- Maintaining existing system and services;
- Supporting public transit;
- Fostering active transportation;
- Providing a safe and reliable transportation system; and

- Coordinating across agencies

Kitsap County is not under the governing umbrella of PRTPO but coordinates transportation planning projects with PRTRO as Kitsap borders the PRTRO boundaries.

### ***Countywide Planning Policies***

The Kitsap Countywide Planning Policies (Kitsap Regional Coordinating Council, 2021) support the following transportation goals:

- Optimize and manage the safe use of transportation facilities and services;
- Reduce the rate of growth in auto traffic, including the number of vehicle trips, the number of VMT, and the length of vehicle trips taken for both commute and non-commute trips;
- Minimize the environmental and human health impacts of transportation facilities and improvements;
- Recognize differences in density, character, and development patterns throughout the county;
- Support transit service and facilities and pedestrian connections appropriate to each type of urban and rural development;
- Create multimodal transportation linkages between designated local and regional centers;
- Identify preferred routes for freight movement and support compatible land uses along those routes;
- Facilitate inter-jurisdictional coordination;
- Coordinate intra-county transportation planning efforts; and
- Develop comparable LOS standards.

### ***Kitsap County Comprehensive Plan Transportation Chapter***

The Kitsap County Comprehensive Plan Transportation Chapter is the County's long-range transportation planning document, which satisfies the requirements of GMA and defines the transportation policies, methods, and priorities for the County transportation system over a 20-year planning period. The Transportation Chapter is guided by the countywide



transportation planning policies, as described in the previous section. The collective analysis in the County's integrated Comprehensive Plan/EIS and CFP meets the content requirements of GMA and other guiding laws and rules and includes an inventory of transportation infrastructure and services within the county; establishes operational standards; provides analysis methods and results for operations of the transportation system; and provides a financially balanced transportation improvement plan to ensure that the transportation system is adequate to support the long-range land use plan.

## **Transportation System**

### ***Highways & Roadways***

#### ***State Highways***

Kitsap County is served by a number of state highways that provide access to and serve mobility needs within and beyond the county. The two major state highways that connect to Kitsap County from the Puget Sound region are SR 16, which connects to Pierce County, and SR 3, which connects to Mason County and the Olympic peninsula.

At the community of Gorst, SR 16 connects with SR 3. SR 3 continues north through Kitsap County to the Hood Canal Bridge. Just south of the bridge, SR 3 becomes SR 104, which extends through the community of Port Gamble and then south along the Port Gamble waterway to the junction of SR 104 and Bond Road (SR 307). From here, SR 104 turns east to Kingston.

SR 307 (Bond Road) is an important connection between Kingston (SR 104) and Poulsbo (SR 305). SR 305 is the only land-based access to the City of Bainbridge Island and the Bainbridge Island ferry terminal. SR 305 connects with Bond Road, an important connection to Kingston (SR 104) and to SR 3 in Poulsbo and extends south along Liberty Bay to Agate Passage. Here, the Agate Pass Bridge links Bainbridge Island to the remainder of Kitsap County. SR 305 then continues south to the Bainbridge Island ferry terminal.

The state highway system contains three main bridges that provide internal and regional connections to Kitsap County: Tacoma Narrows (SR 16), Agate Pass (SR 305), and Hood Canal (SR 104). The Tacoma Narrows Bridge (SR 16) provides access to the City of Tacoma and Pierce County. Access to the Olympic Peninsula from the northern half of the county is near Port Gamble via the Hood Canal Bridge (SR 104), which crosses the Hood Canal into Jefferson County. The Agate Pass Bridge (SR 305) connects Bainbridge Island to the Kitsap Peninsula.

### ***Highways of Statewide Significance***

In 1998, Highway of Statewide Significance (HSS) legislation was passed by the Washington State Legislature and codified as RCW 47.06.140. HSS facilities are those highways that promote and maintain significant statewide travel and economic linkages. The legislation emphasizes that these significant facilities should be planned from a statewide perspective. Local jurisdictions will assess the effects of local land use plans on state facilities operational standards. The LOS will be measured consistent with the latest edition (preferred) of the Highway Capacity Manual and based on a one-hour p.m. peak period. HSS facilities located in whole or in part within Kitsap County are listed below (Washington State 2009a):

- SR 3, US 101 (Shelton) to SR 104 (Hood Canal Bridge) (LOS C/D)
- SR 16, I-5 (Tacoma) to SR 3 (Gorst) (LOS C/D)
- SR 104, US-101 to I-5 (note: Kingston-Edmonds ferry route is HSS) (LOS C/D)
- SR 304, SR 3 to Bremerton Ferry (note: Bremerton-Seattle ferry route is HSS) (LOS D)
- SR 305, SR 3 to Bainbridge Island Ferry (note: Bainbridge Island-Seattle ferry route is HSS) (LOS C/D)
- SR 307, SR 305 to SR 104 (LOS C)
- SR 310, SR 3 to SR 304 (LOS D)

Highways of Regional Significance (HRS) are those state highways that do not have HSS designation. In Kitsap County, HRS operational standards are established by the PSRC. HRS facilities in Kitsap County are listed below. HRS operational standards are summarized in Exhibit 3.2.6.1-1.

- SR 160, Port Orchard to Southworth (LOS D)
- SR 166, Port Orchard to SR 16 (LOS E Mitigated)
- SR 303, Bremerton to Silverdale (LOS E Mitigated)
- SR 308, Bangor to Keyport (LOS C).

### Exhibit 3.2.6.1--1 PSRC's Highways of Regional Significance operational standards

Tier	LOS Standard	Description
1	LOS E/mitigated	Tier 1: For this process, the "inner" urban area is generally defined as a 3-mile buffer around the most heavily traveled freeways (I-5, I-405, SR 167, SR 520, and I-90), plus all designated urban centers (most are located in the freeway buffer already). The standard for Tier 1 routes is LOS "E/mitigated", meaning that congestion should be mitigated (such as transit) when p.m. peak hour LOS falls below LOS "E."
2	LOS D	Tier 2: These routes serve the "outer" urban area – those outside the 3-mile buffer – and connect the "main" UGA to the first set of "satellite" UGA's (e.g., SR 410 to Enumclaw). These urban and rural areas are generally farther from transit alternatives, have fewer alternative roadway routes, and locally adopted LOS standards in these areas are generally LOS "D" or better. The standard for Tier 2 routes is LOS "D."
3	LOS C	Tier 3: Rural routes are regionally significant state routes in rural areas that are not in Tier 2. The standard for rural routes is LOS "C," consistent with the rural standard in effect for these routes once they leave the four counties in the PSRC region, such as SR 530 entering Skagit County.

Source: PSRC, 2023

### **National Highway System (NHS)**

The National Highway System (NHS) is one component of the national transportation system. The purpose of the NHS is to focus resources on roadways that are most important to interstate travel and national defense, which connect other modes of transportation, and that are essential for international commerce. The entire interstate highway system is part of the NHS, which also includes a large percentage of urban and rural principal

arterials, the defense-strategic highway network, and other strategic highway connectors. All highways in Kitsap County listed in the previous section as HSS facilities are also part of the NHS.

### ***Functional Classifications***

Classifying roadways by their function helps in system planning, maintenance, and operations. The classification system is used in day-to-day decisions and long-range planning for land use and transportation. All roadways exist to serve two functions: mobility and land access. Mobility refers to the movement of vehicles or people at a reasonable speed. Access refers to the ability to get on the roadway, and includes features such as driveways, parking, and loading areas on the street. At times, these functions conflict with each other.

To minimize these conflicts, a system of classifying arterials, collectors, and local streets has been established. Functional classifications are based on the following characteristics:

- Average trip lengths
- Traffic characteristics such as volumes, design, and posted speeds
- Roadway design characteristics such as right-of-way requirements, number of travel lanes, lane widths, shoulder widths, medians, sidewalks, and turn lanes
- System continuity
- Degree of access control
- Operations, including parking and signal systems
- Ability to serve other travel modes, including buses, bicycles, pedestrians, and equestrians
- Reasonable spacing, depending on population density
- Directness of travel and distance between points of economic importance
- Connection of population centers

The County uses the Federal Functional Classification (FFC) system for transportation systems planning, financial planning and administrations, and developing design criteria and standards for County and private sector roadway improvements.

- **Transportation Systems Planning.** Functional classification is a tool for building a transportation system that serves all types of travel needs. It helps in setting priorities and making evaluations for improvement projects. It helps jurisdictions to coordinate their approaches to the transportation system, and it affects land use planning and zoning decisions.

- **Financial Planning and Administration.** The classification system also helps in the allocation of funds for transportation system improvements and maintenance. Some federal and state funding sources are reserved for specific types of facilities. WSDOT distributes Federal Aid highway funds to cities and counties in the state.
- **Design Issues.** The County has developed an extensive set of road design standards by functional classification. These standards guide the design of improvements for individual County roads. They also are used in the review of land development proposals to determine infrastructure requirements (e.g., right-of way, pavement, and sidewalk requirements) for both.
- **On- and offsite roads.** The road design standards, used with the functional classification system, are especially useful for longer-range planning, helping to make sure that enough land is set aside for roadways in developing areas.

Exhibit 3.2.6.1-2 explains the various FFCs of Kitsap County roadways. The table describes the primary access and mobility functions for each major classification. Each classification is also further designated as “Urban” or “Rural.”

**Exhibit 3.2.6.1-2 Federal Functional Classifications**

Functional Classification	Description
Freeway	A freeway is a multilane, high-speed, high-capacity roadway intended primarily for motorized traffic. Freeways in Kitsap County are all under the jurisdiction of WSDOT.
Principal Arterial	Principal arterials primarily serve a mobility function, and typically have uncontrolled access. Principal arterials provide for movement between surrounding urban and rural intra-county population centers. As such, this roadway facility classification predominantly serves "through" traffic with minimum direct service to abutting land uses. Principal arterials provide routes for public transit systems between major communities within the county.

Functional Classification	Description
Minor Arterial	Minor arterials provide access to the principal arterial and freeway systems. They provide a lower level of travel mobility than principal arterials to major communities within the county. They provide primary access to or through communities of high-density residential, commercial, or retail, or industrial land areas. They provide access to abutting properties at predetermined locations. Trip lengths on minor arterials are moderate and generally exceed 5 miles. Minor arterials provide routes for public transit systems between major communities within the county.
Major Collector	Major collectors provide the primary access to a minor arterial for one or more neighborhoods or non- residential areas. Collectors distribute trips to and from the arterial system. They provide a limited amount of travel through neighborhoods and non-residential areas that originate and terminate externally. Collectors provide direct connections to local roads and minor collectors. They provide collection and distribution routes for public transit systems. The basic trip length is generally between 2 and 10 miles.
Minor Collector	Minor collectors provide direct access to local roads and driveway access points to abutting properties. They provide internal distribution of trips within a neighborhood or non-residential area, or part of a neighborhood or non-residential area. Minor collectors contain a limited amount of through traffic; traffic is primarily local in nature.
Local	A local access street provides access immediately to adjacent properties. Characteristics of local streets include low traffic volumes, maximum of two travel lanes, no medians, 3-to-4-foot shoulders, no access control, and no preference at signals. Sidewalks and parking may be permitted. Local streets should connect local properties to minor collector streets and, in turn, to higher-class facilities. Fixed bus service is generally not provided along local streets.

Functional Classification	Description
Local Sub-Collector	Local Sub-collectors serve as primary access to developments and provide circulation within neighborhoods. They typically serve one neighborhood or a combination of a few small developments. They channel traffic to the collect system from the local roads in residential neighborhoods.

Source: Kitsap County Public Works Department, 2020.

### County Roadway Inventory

Exhibit 3.2.6.1-3 summarizes the existing miles of county arterial roadways by Federal Functional Classification. The majority of roads in Kitsap County are local streets.

#### Exhibit 3.2.6.1-2 Existing County-owned roadway mileage by functional classification within Kitsap county

Functional Classification	Total Miles of Roadway	Percentage of Total
Freeway/Expressway	0.22	0.2%
Principal Arterial	5.54	0.6%
Minor Arterial	106.58	11.6%
Major Collector	146.51	15.9%
Minor Collector	49.91	5.4%
Local Collector	519.15	56.3%
Local Sub-Collector	94.22	10.2%
<b>Total</b>	<b>922.13</b>	<b>100.0%</b>

Source: Kitsap County Public Works Department, 2020.

### Roadway Level of Service (LOS)

Level of service designations are qualitative measures of congestion that describe operational conditions within a traffic stream and take into consideration such factors as volume, speed, travel time, and delay. Six letter designations, "A" through "F," are used to define LOS. Levels A and B represent conditions with the lowest amounts of delay, and LOS C and D represent intermediate traffic flow with some delay. LOS E indicates that traffic conditions are at or approaching congested conditions and LOS F indicates that traffic volumes are at a high level of congestion with unstable traffic flow (Transportation Research Board, 2010). The characteristics of the six LOS designations for roadway segments and intersections are summarized in Exhibit 3.2.6.1-4.



### Exhibit 3.2.6.1-3 Level of service descriptions

LOS	Roadways
A	Describes primarily free-flow operations at average travel speeds, usually about 90% of the free-flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	Represents reasonably unimpeded operations at average travel speeds, usually about 70% of the free-flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.
C	Represents stable conditions; however, ability to maneuver and change lanes in mid-block location may be more restricted than at LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50% of the average free-flow speed for the arterial class. Motorists will experience appreciable tension while driving.
D	Borders on a range in which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40% of free-flow speed
E	Characterized by significant approach delays and average travel speeds of one-third the free-flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
F	Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with resultant high approach delays. Adverse progression is frequently a contributor to this condition.

Source: Transportation Research Board, 2010

### **Level of Service Standards**

Level of service standards are used to evaluate the transportation impacts of long-term growth and to ensure concurrency. Jurisdictions must adopt standards by which the minimum acceptable roadway operating conditions are determined, and deficiencies may be identified.

Level of service standards for county arterials and state highways in Kitsap County involve three different policy approaches established by Kitsap County, PSRC, and WSDOT. While

somewhat diverse in application, all the standards and methodologies are mostly consistent with the Highway Capacity Manual (Transportation Research Board 2016) definitions and procedures.

### *County Roadways*

Kitsap County's LOS policy generally recognizes that urban areas are likely to have more congestion than rural areas. This reflects the different characteristics of land use and transportation in these areas. For purposes of defining LOS standards, urban areas are the geographic areas located within a UGA boundary, and rural areas are the geographic areas located outside UGA boundaries.

In rural areas, the system of major roads must have sufficient access to the abutting land uses, but because of the low level of land development, rural roads have smaller capacity requirements. In contrast, urban areas typically attract and generate high volumes of traffic. In order to facilitate through traffic and minimize congestion, major roads may have limited access to adjacent land uses while the more minor roads serve as access points to the surrounding development. The increased density and activity in an urban area inherently results in higher levels of congestion. Drivers are aware of the differences in land use between urban and non-urban areas and generally are more tolerant of congestion and the associated lower LOS in urban areas than in rural areas.

The LOS standards shown in Exhibit 3.2.6.1-5 are based on the location and functional classification of the roadway facilities to which they apply. Kitsap County uses traditional engineering methodology to evaluate LOS of roadway segments, which are sections of roadway located between major intersections. Level of service is based on the Volume-to-Capacity ratio (V/C), which is calculated by dividing the traffic volume on a roadway by the roadway's vehicle capacity. Methods applied to calculate LOS for roadway segments are described later in the *Impacts* section of this chapter.

#### Exhibit 3.2.6.1-4 County roadway LOS standards

Maximum V/C Ratio/LOS Standard		
Functional Classification	Urban <sup>1</sup>	Rural <sup>2</sup>
Principal Arterial	0.89/D	0.79/C
Minor Arterial	0.89/D	0.79/C
Collector	0.89/D	0.79/C
Minor Collector	0.89/D	0.79/C
Residential/Local	0.79/C	0.79/C

Notes:

<sup>1</sup> Urban area is located within UGA boundaries.

<sup>2</sup> Rural area is located outside UGA boundaries.

Source: Kitsap County Public Works Department, 2014.

#### State Highways

WSDOT standards are applied to HSS facilities, and standards established by the PSRC are applied to HRS facilities, as summarized in Exhibit 3.2.6.1-6.

#### Exhibit 3.2.6.1-5 LOS standards for highways

Highways of Statewide Significance (HSS) <sup>1</sup>	Urban	LOS D	Based upon 70% of posted speed limit	SR 3, SR 16, SR 104, SR 304, SR 305 and SR 307
	Rural	LOS C		
Highways of Regional Significance (HRS) <sup>2</sup>	Tier 1 (within ~3-mile buffer around most heavily traveled freeways)	LOS E-mitigated	Highway Capacity Manual – latest edition preferred.	SR 166 and SR 303,
	Tier 2 (outside 3-mile buffer but within UGA)	LOS D		SR 160,
	Tier 3 (outside UGA)	LOS C		SR 308

Source:

<sup>1</sup> WSDOT, 2023.

<sup>2</sup> PSRC, 2023

### ***Concurrency Management System***

GMA requires that Kitsap County adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a transportation facility to decline below the standards adopted in the transportation chapter of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. This requirement, commonly referred to as *concurrency*, is described in WAC 365- 196-840. Concurrency means that transportation infrastructure and services must be adequate to support land use, with adequacy defined by locally adopted standards. Under GMA, transportation improvements needed to maintain concurrency must be in place within six years of the time the need for those improvements is triggered by new development.

The purposes of concurrency management are summarized below.

- Provide adequate levels of service on transportation facilities for existing uses, as well as new development in unincorporated Kitsap County.
- Provide adequate transportation facilities that achieve and maintain County LOS standards as provided in the Comprehensive Plan, as amended.
- Ensure that County LOS standards are maintained as new development occurs, as mandated by the concurrency requirements of the GMA.

The Kitsap County Concurrency Ordinance, codified in KCC 20.04, establishes a process for testing whether a development project meets concurrency. As established by the ordinance, concurrency is satisfied if no more than 15% of county road lane-miles exceed LOS standards.

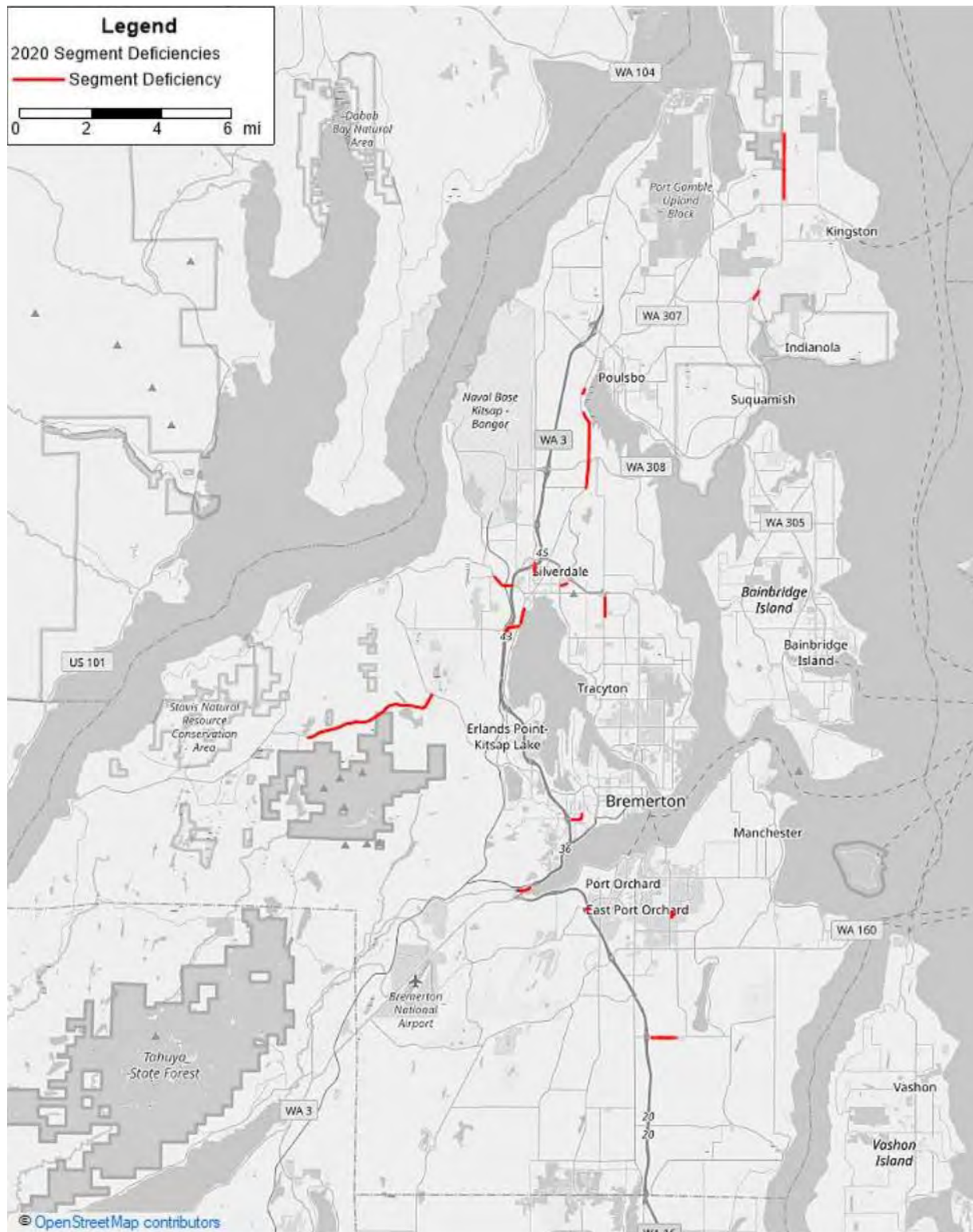
By adopting an area-wide standard, the County acknowledges the fact that not every roadway facility or link in the network will meet the adopted facility LOS standards all the time. Measures of area-wide concurrency are conducted periodically, such as during updates of the Comprehensive Plan, for sub-area planning, and when corridor studies are conducted.

The ordinance allows for the concurrency test to be applied on either a countywide or sub-area level but does not define methods for defining the area of impact at the sub-area level.

### ***Existing County Roadway Operations***

Exhibit 3.2.6.1- maps the lane-miles of county roadway (classified as collector or above) that exceed standards under existing conditions (based on 2020 data). Approximately 2.0% of lane-miles of functionally classified roadways in Kitsap County currently exceed adopted segment LOS standards. This is well below the 15% concurrency threshold, and indicates that under the current concurrency management program, the system-wide concurrency test would be passed for a considerable level of additional development.

### Exhibit 3.2.6.1-6 Existing roadway deficiencies on county roadways

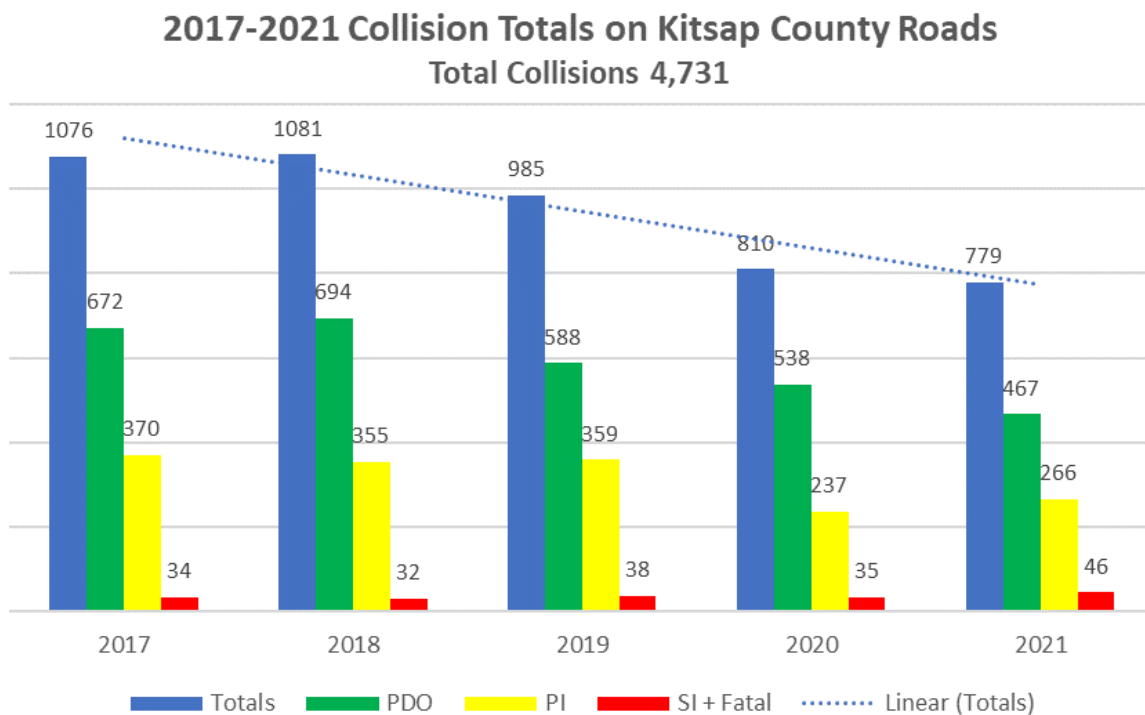


Source: Kitsap County 2020 Travel Demand Model Update, Page 21

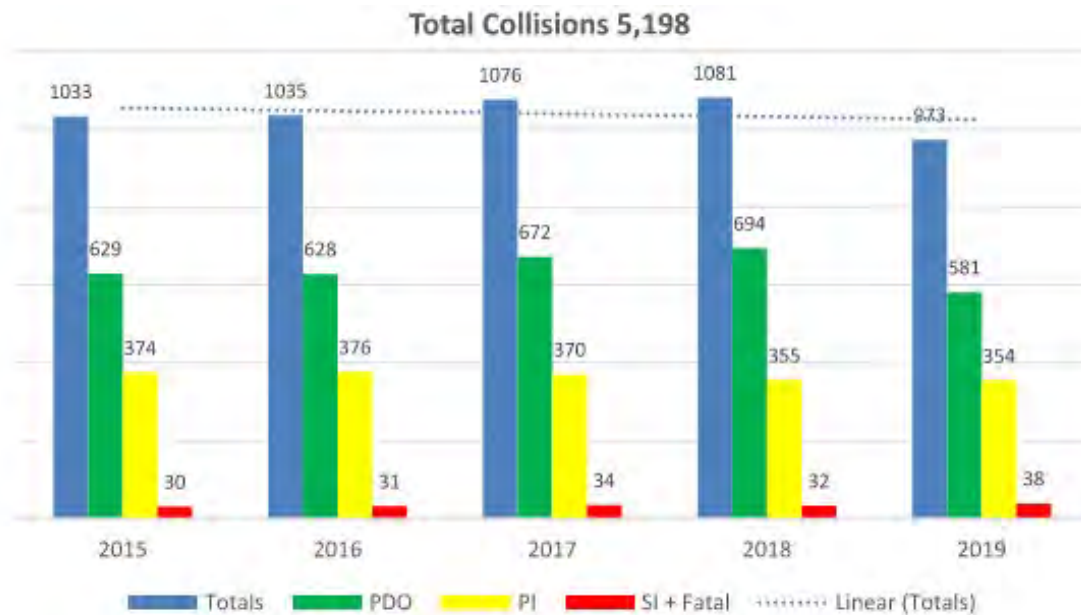
## Traffic Safety

According to the 2017-2021 traffic safety report produced by Kitsap County, there were a total of 4,731 collisions over the course of five years. The average number of collisions was about 947 per year. Prior to 2020 the annual average was about 1047 collisions a year. The pandemic years of 2020 and 2021 had a significantly lower number of collisions at an average of about 795 collisions. The significant change in traffic volumes and patterns during the pandemic makes any trend analysis skewed. The number of total collisions and property damage only (PDO) collisions dropped by about 20%. The number of personal injury (PI) collisions decreased by about 30% during Covid; however, the number of serious injury (SI)/fatal (FAT) collisions increased slightly. The collision totals for each year by severity are shown in Exhibit 3.2.6.1-8.

**Exhibit 3.2.6.1-7 2017-2021 collision totals on Kitsap County roads**



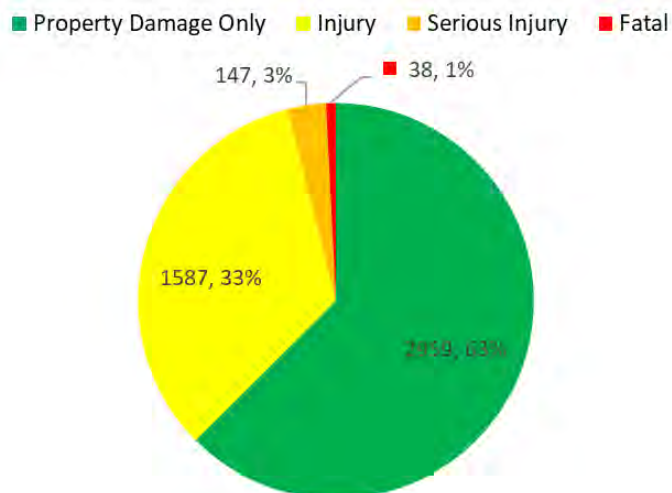


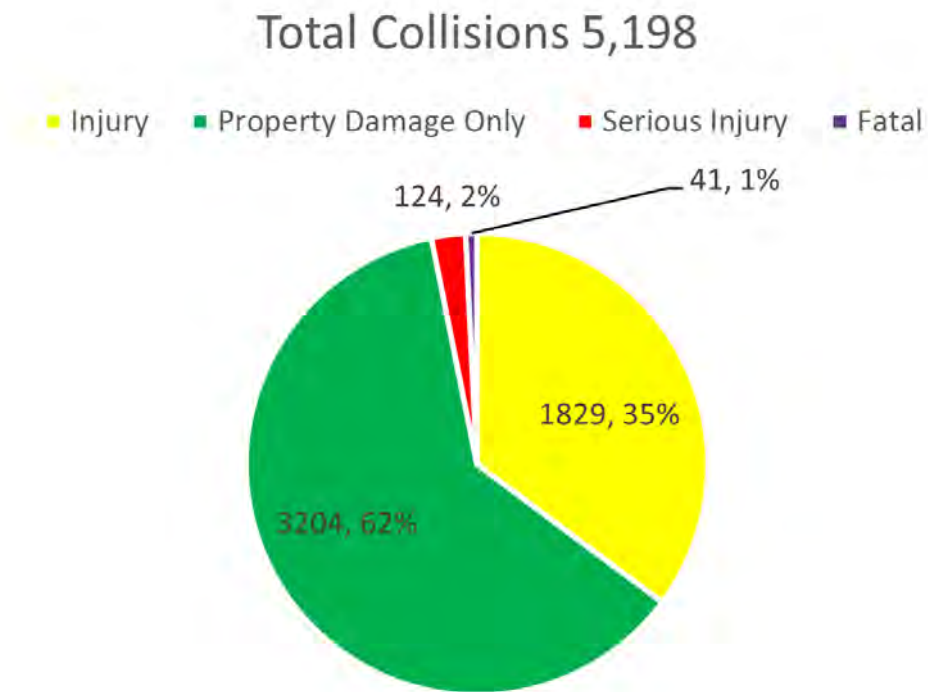


Injuries, major injuries, fatalities, and property damage only, are the four main collision severity categories that Kitsap County tracks. Based on the Kitsap County Safety report, out of 4,731 crashes throughout the study period, of which 185 (3.9%) resulted in serious injuries or fatalities, 1,587 (33.5%) in injury collisions, and 2,959 (62.5%) in PDO collisions as shown in Exhibit 3.2.6.1-9.

#### Exhibit 3.2.6.1-8 Collisions by severity

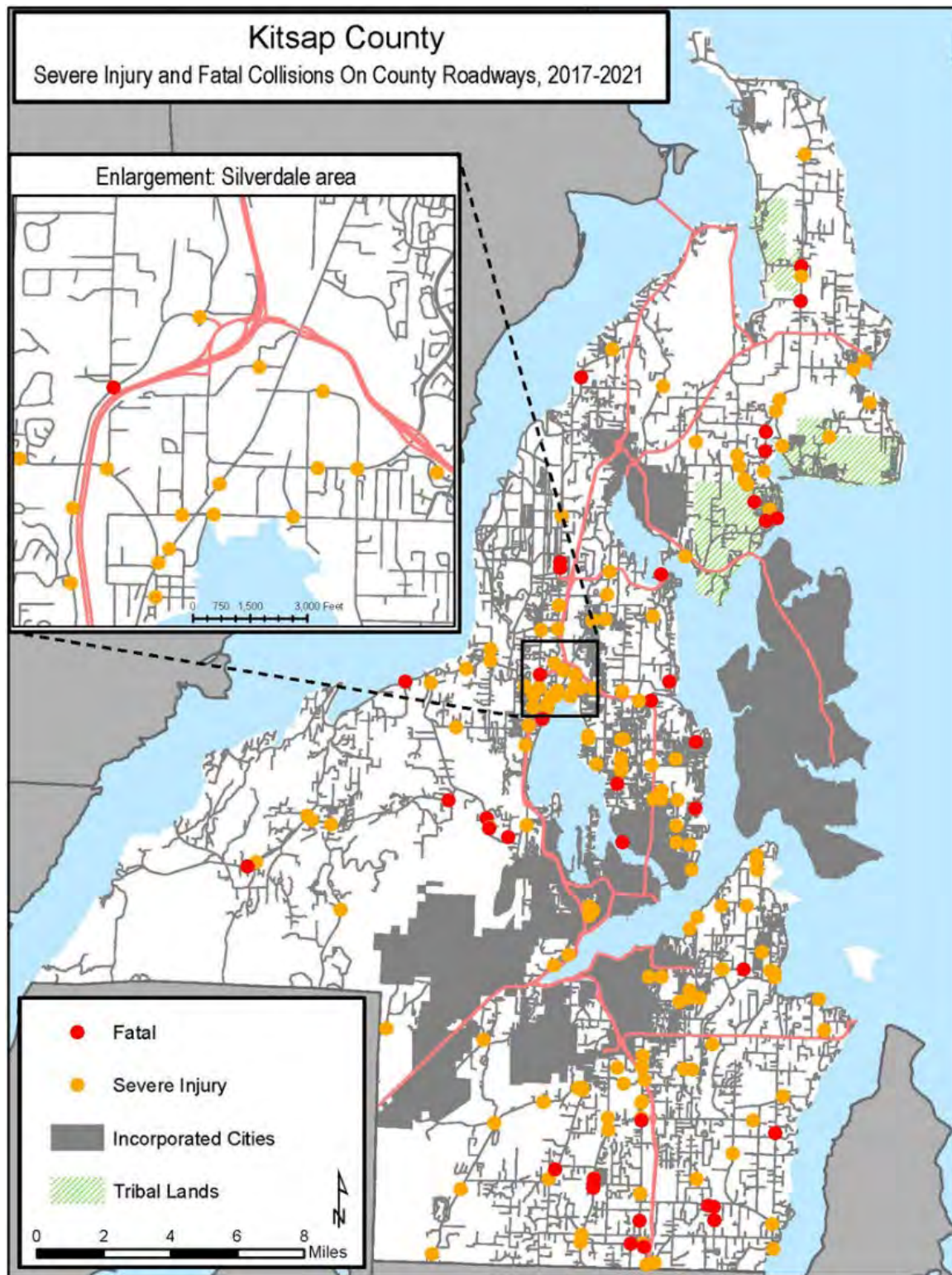
##### 2017-2021 Collisions by Severity Total Collisions 4,731





Collisions that resulted in serious injuries or fatalities make up 3.9 percent of collisions on county roadways according to the Kitsap County Safety Report. The location of county roadways where fatal and serious injuries are shown in Exhibit 3.2.6.1-10. These reported collisions are on Kitsap County-owned roads only. This excludes city roads, private roads and state highways.

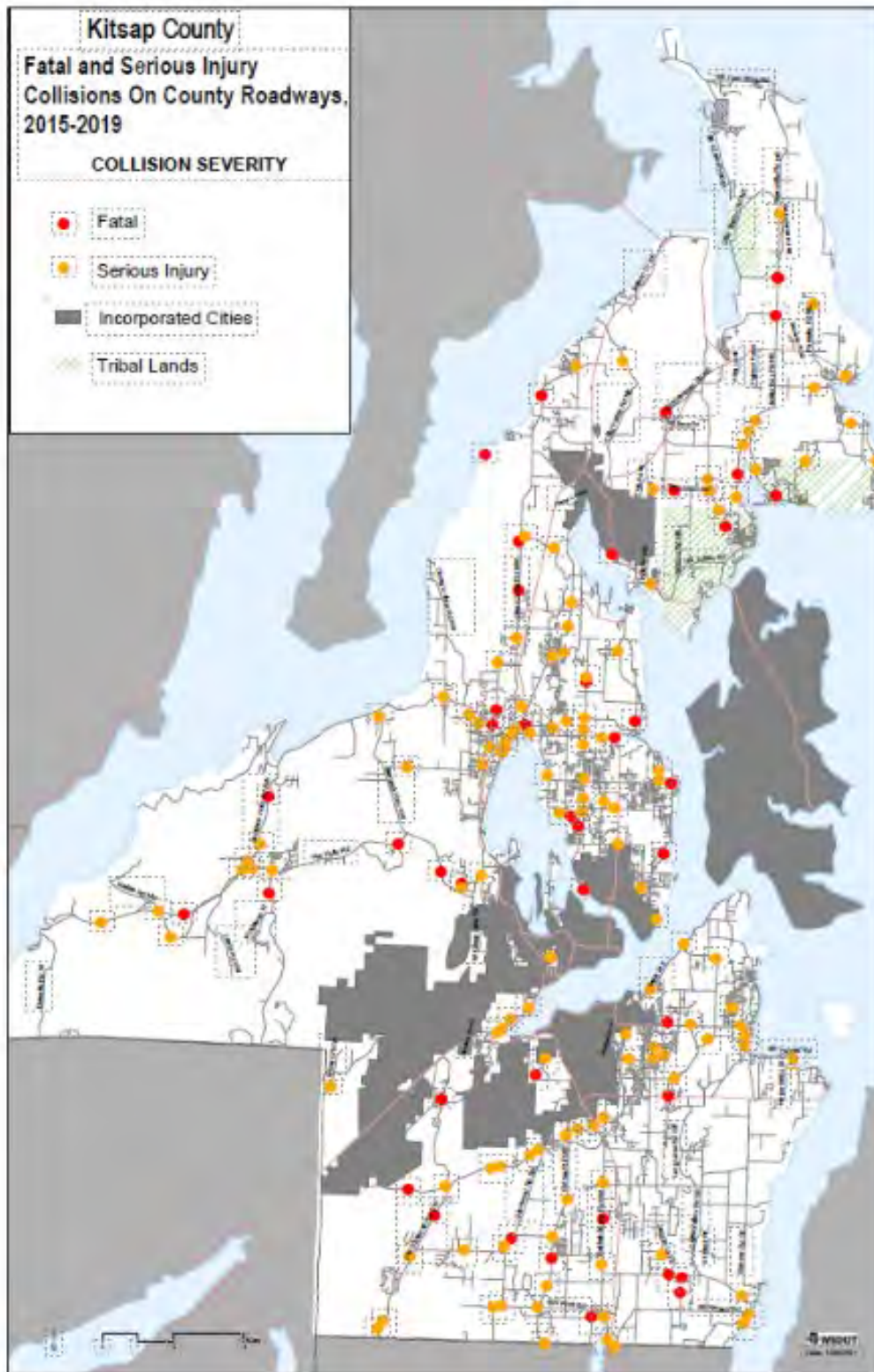
Exhibit 3.2.6.1-9 2017-2021 fatal and serious collisions



Note: Collisions are shown on County-owned roadways only. This excludes city, state, and private roadways.



Exhibit 3.2.6.1-10 2015-2019 fatal and serious collisions



### ***Other Maintenance, Operation & Preservation Needs***

In addition to safety and operational improvements, the County is responsible for many other maintenance and preservation needs. Some of the most important and time-consuming maintenance needs that Kitsap County staff are responsible for include:

- **Pavement Condition.** Pavement Preservation Program plans annual maintenance repairs and paving for county roads. Chip and fog seal treatments are also proposed for pavement surfaces to maintain the roads and repair existing damage.
- **Bridge Maintenance.** According to the 2022 Annual Bridge Report by Kitsap County, there are 41 maintained bridge locations in the county. Maintenance work consists of clearing debris, re-sealing joints, and removing clogs from under bridges. Temporary and permanent scour countermeasure repairs are also performed by the County.
- **Culvert Summary.** There are 3,735 culverts in the County. Maintenance Reports from inspections provide recommendations for maintenance of culverts based on noted defects or damage.
- **Sign Replacement.** Kitsap County Public Works maintenance for public roadways signs includes landscaping, electrical, material blemishes, structural deficiencies, and conditions changing visual quality through neglect.
- **Road Maintenance.** The Kitsap County Road Maintenance and Operation Division maintains structures along roadways including shoulders, ditches, sidewalks, guardrails, bulkheads, and seawalls. Within the division, the Vegetation Management Program sets requirements for roadside vegetation maintenance such as trimming, reseeding, fertilizing, and applying herbicides.

## Transit

Kitsap Transit is the public transportation provider in Kitsap County. Formally known as the Kitsap Public Transportation Authority, it was established by the voters in the fall of 1982. Its mission initially was to provide public transportation services in the greater Bremerton and Port Orchard areas. Since then, Kitsap Transit has expanded through a number of annexations to cover the entire county.

Kitsap Transit is a multi-program system that provides fixed route and paratransit bus service; offers a vanpool program; manages a park-and-ride lot system; operates a passenger-only ferry service between Bremerton & Port Orchard, Bremerton & Annapolis, and Seattle from Bremerton, Kingston & Southworth, provides Worker/Driver buses to carry employees to the Puget Sound Naval Shipyard; and supports transit-oriented development. The *2024-2029 Transit Development Plan* (Kitsap Transit, 2024) assesses existing service and facilities and lays out a six-year transit improvement plan. The Long-Range Transit plan, adopted in 2022, looks 20-years to 2042 for transit planning.

In addition to Kitsap Transit, several neighboring or regional transit providers operate services with connections to Kitsap County. These providers include Mason Transit, Clallam Transit, Jefferson Transit, and the Greyhound Dungeness Line. Greyhound currently offers two buses per day (in each direction) along SR 104 with a stop in Kingston.

Exhibit 3.2.6.1-11 and Exhibit 3.2.6.1-12 show existing fixed transit routes and park-and-ride facilities within the county. Transit service and facilities are described in the following sections.



Exhibit 3.2.6.1-11 Transit routes and park & ride lots

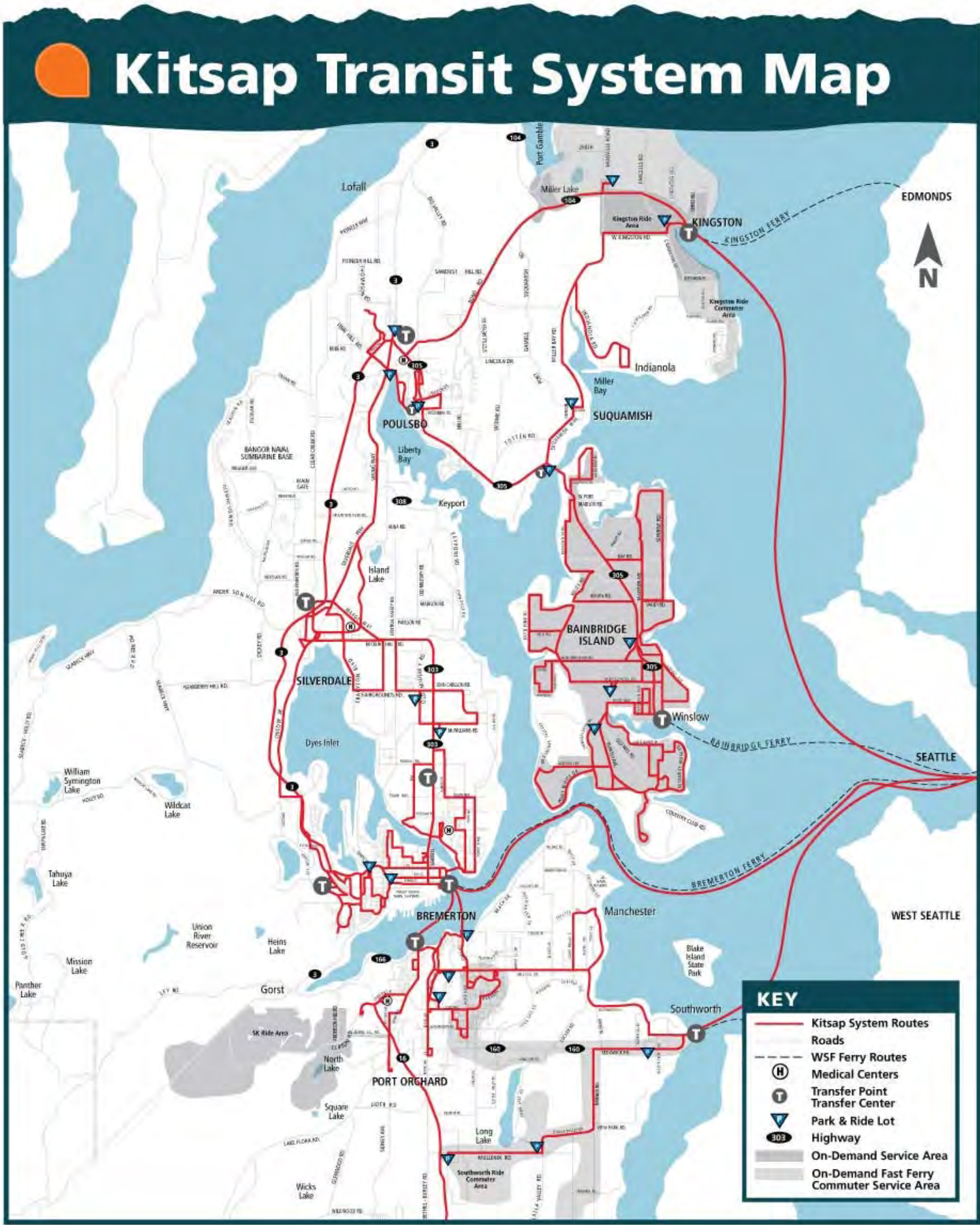
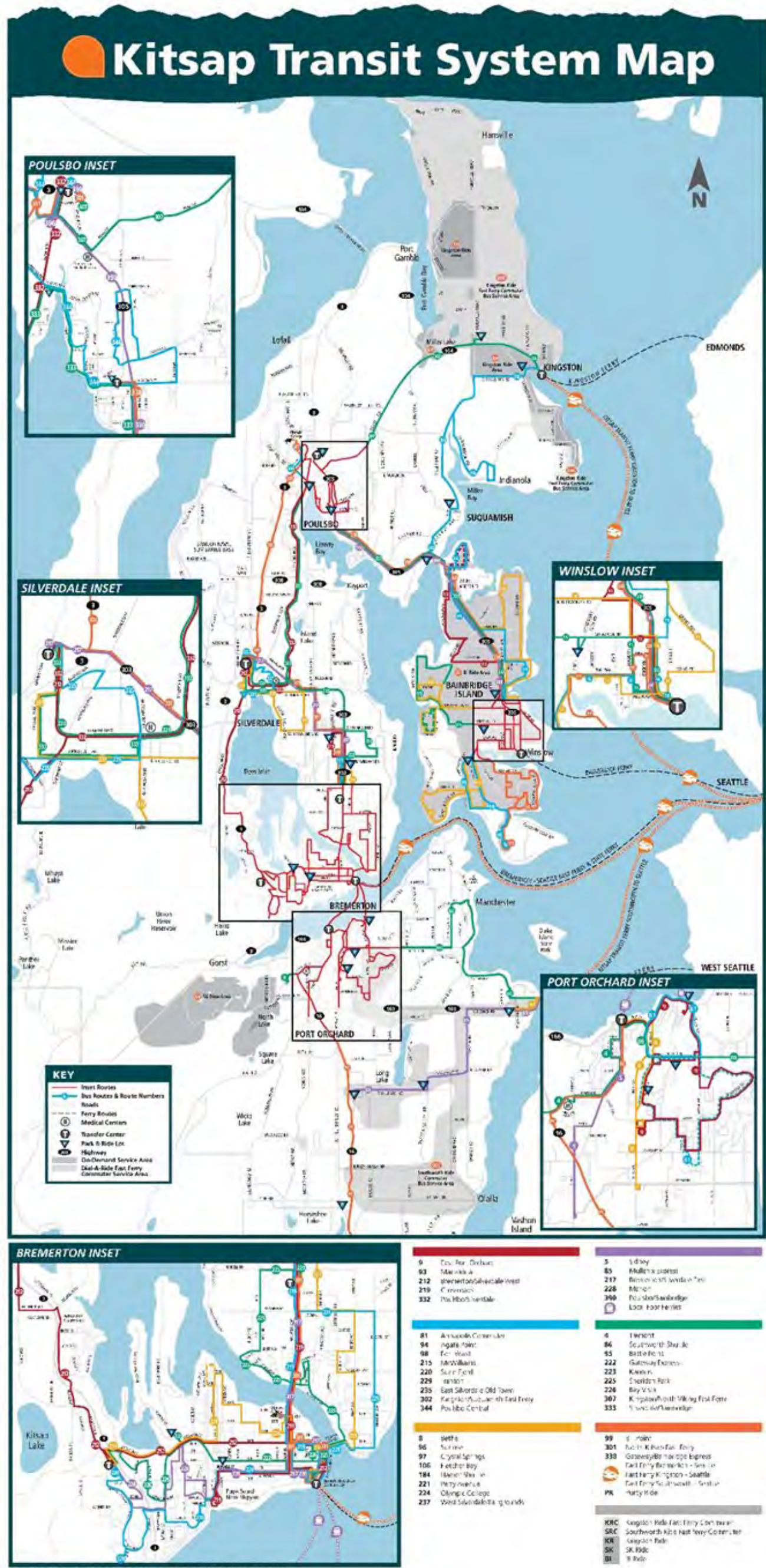




Exhibit 3.2.6.1-12 Transit routes and park & ride lots



Source: Kitsap Transit, 2023

### ***Fixed Route Bus Service***

Kitsap Transit operates 37 local bus routes throughout the county. Most routes provide everyday service. Saturday service is limited, with Sunday service for the entire covered area complete in 2024. Typical headways (time between buses) range between 15 minutes and 90 minutes, but most commonly are 30-60 minutes. (Kitsap Transit 2024)

Kitsap Transit fixed route buses carried 1,313,942 riders in 2023 (Kitsap Transit 2024). Appendix D of this FEIS contains a summary of all fixed bus routes, days in service, and average headways.

### ***Paratransit Bus Service***

Kitsap Transit operates ACCESS paratransit service for elderly and disabled people throughout most of the county. This service is designed to provide transportation for seniors and people with disabilities who are unable to use Kitsap Transit regular fixed route buses (Kitsap Transit 2024).

### ***On-Demand/ deviated fixed route***

Kitsap Transit operates seven on-demand/deviated fixed route services in the following areas: Bainbridge Island, Kingston, South Kitsap McCormick Woods / Ridge area of Port Orchard, Southworth, Nollwood in Bremerton and the Purdy area. The Sunday service also provides on-demand services in all of the four cities and much of the County connecting to fixed routes.

### ***Foot Ferry Service***

Kitsap Transit operates passenger ferries between Port Orchard and Bremerton and between Annapolis and Bremerton. The Port Orchard/Bremerton ferry operates weekdays and Saturdays and Sunday with average headways of 30 minutes . The Annapolis/Bremerton ferry operates weekdays during the morning and evening commute periods at average headways of 10 minutes. In 2023, the foot ferries carried 322,498 riders (Kitsap Transit 2024).

### ***Fast Ferry Service***

Kitsap Transit also operates high-speed passenger-only ferries between Pier 50 in Seattle and three ports in Kitsap: Southworth, Bremerton, and Kingston. The Bremerton fast ferry operates weekdays and Saturdays at average headways of 40 minutes, while the Southworth ferry has eight sailings per day (weekdays only) and the Kingston ferry has six sailings per day (weekdays only).

Kitsap Transit operates a large rideshare program composed of worker/driver buses (subscription or bus pool service), vanpools, and a ride-matching service. The vanpool program provides service to and from major employment destinations in and near Kitsap County. Currently, vanpool commute destinations include Bangor; Bellevue/Eastgate; Boeing in Bothell, Eastgate, Everett, Kent, Renton, and Seattle; Everett Naval Station; Joint Base Lewis-McChord; Keyport; Mountlake Terrace; Naval Station Bremerton; Puget Sound Naval Shipyard; Tacoma; and numerous Seattle destinations.

### ***Park-and-Ride***

Kitsap Transit manages 23 park-and-ride lots located throughout the county. Collectively, these lots have a capacity of 2,713 parking stalls, with average utilization that ranges from below five percent to 90%, and a countywide average utilization of 27% (Kitsap Transit 2024).

### **Transportation Demand Management**

TDM consists of strategies that seek to maximize the efficiency of the transportation system by reducing demand on the system. The benefits of successful TDM can include the following:

- Travelers switching from driving alone in a single occupancy vehicle (SOV) to high-occupancy vehicle (HOV) modes such as transit, vanpools, or carpools.
- Travelers switching from driving to non-motorized modes such as bicycling or walking.
- Travelers changing the time they make trips from more congested to less congested times of day.
- Travelers eliminating trips altogether, through compressed workweeks, consolidation of errands, or use of telecommunications.

### ***Commute Trip Reduction Law***

Passed in 1991 as part of the Washington Clean Air Act (Chapter 70.94 RCW), the Commute Trip Reduction (CTR) law seeks to reduce workplace commute trips in the 10 most populous counties in the state. This law requires that in designated high population counties, including Kitsap County, each employer with more than 100 employees will adopt a CTR plan. Programs provide various incentives or disincentives to encourage use of alternative transportation modes other than the SOV. City and County ordinances set goals for the reduction of SOV trips. Kitsap County maintains a CTR Plan, codified in Chapter 20.08 KCC.



In 2006, the Legislature amended the CTR law with the CTR Efficiency Act to make the CTR program more effective, efficient, and targeted. The modified CTR program requires WSDOT to work with cities, counties, planning organizations, and transit systems to develop programs that reduce drive-alone trips and VMT per capita.

There are currently 27 CTR worksites in Kitsap County, including both public and private employers (Kitsap Transit 2024). Employer-based CTR programs typically include a combination of incentives to choose alternative modes (e.g., transit fare subsidies, on-site bicycle facilities, on-site showers, preferred parking for carpools and vanpools), disincentives to drive alone (e.g., limited, or priced parking for SOVs), flextime policies that spread commute trips outside of the peak periods, and telecommute policies that eliminate commute trips altogether. Kitsap Transit provides several programs to support CTR, described in the following section.

### ***TDM Programs***

Kitsap Transit serves as the TDM lead for the County and is the agency responsible for implementation of CTR requirements for major Kitsap employers. The agency works with local governments and state agencies to promote its services and alternatives to SOV travel, including pedestrian/bicycle access and the facilities and land use patterns that support alternative modes. Kitsap Transit also advocates for TDM programs and overall land use programs that will benefit the array of alternatives described above. TDM programs are briefly described below.

- **Smart Commuter.** To be in the Smart Commuter Program, a person must regularly commute to work by walking, bicycling, riding a bus, carpooling, vanpooling, or riding a ferry as a foot passenger at least three times per week. Participants must register in the program; at which time they can sign up for the Guaranteed Ride Home program and for access to the SCOOT car (see descriptions below).
- **Worker/Driver Program.** Buses are driven by full-time employees (“workers”) of the military facilities who are also part-time employees of Kitsap Transit (“drivers”). Buses operate much like a large carpool. The driver boards the bus near home in the morning and drives to work, picking up co-workers along the way. After work, the driver drops off co-workers on the drive home. The current program operates 31 routes to Puget Sound Naval Shipyard (PSNS) and Naval Station Bremerton and one route to Sub Base Bangor.
- **Vanpool/ car share Service.** Provides vans for a fee to groups of commuters traveling to and from the same workplace large enough to fill an available van to one-half seating capacity plus one person.

- **Guaranteed Ride Home.** Employers may participate in Kitsap Transit’s Guaranteed Ride Home program. Under this program, for employees pre-registered as Smart Commuters, Kitsap Transit will arrange guaranteed transportation in case of emergency for commuters without cars.
- **Priority Parking.** Participants in carpool and vanpool programs receive priority parking at some public park-and-ride lots.
- **SCOOT.** Kitsap Transit operates the Smart Commuter Option of Today (SCOOT) program, a membership-based mobility club in which members have access to cars located around Kitsap County. The mission of the SCOOT program is to encourage commuters who work in targeted areas in Kitsap County to use alternatives to driving to work alone by offering a ‘smart option’ for personal errands. Currently, cars are provided in the Bremerton Business District at the Bremerton Harborside Building, Norm Dick’s Government Center, Kitsap County Courthouse in Port Orchard, and Kitsap Mental Health.

## Rail

Kitsap County has one rail line that is located roughly parallel to SR 3 between the Mason County line and the Gorst area. Near Gorst, it splits into two spurs, with one terminating at the Navy Shipyard in Bremerton, and the other terminating at the Bangor Naval Base. This rail line is operated as part of the Puget Sound and Pacific Railroad (PSAP), but the segments in Kitsap County are owned by the US Navy. This line is designated as a Class III (short line and terminal/switching) railroad (WSDOT, 2009) and has a Washington State Freight and Goods Transportation System (FGTS) classification of R-3 (rail economic corridor that carries 500,000 to 1 million tons of freight per year) (WSDOT, 2023). It connects directly to two Class I railroads—Union Pacific and BNSF Railway—at Centralia and offers service to the Port of Aberdeen. Under current conditions, rail lines primarily serve military and waste management functions. The majority of non-military freight movement (as well as additional military freight movement) in Kitsap County relies on trucks and barges.

Amtrak operates passenger rail service in the region, although no service is provided directly in Kitsap County. The nearest stations are in Edmonds, Seattle, and Tacoma. Edmonds Station is located immediately adjacent to the Edmonds Ferry terminal, which is accessed directly to and from Kitsap County via the Kingston-Edmonds ferry route. Edmonds Station serves daily trains to/from Spokane and Chicago, Vancouver, B.C., and Seattle. King Street Station in Seattle is located less than one mile from Colman Dock, which is accessed directly to and from Kitsap County via the Bremerton-Seattle, Bainbridge Island-

Seattle, and the Kitsap Transit Fast ferries. King Street Station serves daily trains to/from Vancouver, Chicago, Portland, and a through train to Los Angeles.

### Washington State Ferries

The Washington State Ferries (WSF) System is an important element of Kitsap County's transportation system. Four WSF terminals are located in Kitsap County: at Bremerton, Bainbridge Island, Southworth, and Kingston. Service between Kitsap County and the Seattle metropolitan area is provided by four state ferry routes, with endpoints at each of these terminals. Exhibit 3.2.6.1-13 summarizes ridership for 2019, 2020 and 2021 for each route. Three years of data is provided to highlight the change in ridership before and after the COVID-19 pandemic and that the 'new normal' has not been firmly established. Some of the decrease in ridership is due to a drop in demand, and some is due to a decrease in the sailings per day offered on the routes. WSF is currently severely understaffed and facing lengthy delays in repairs.

**Exhibit 3.2.6.1-13 Washington State Ferries traffic statistics**

Route	2019 Ridership	2020 Ridership	2021 Ridership
Edmonds / Kingston	4.1 million	2.9 million	3.5 million
Seattle / Bremerton	2.5 million	0.9 million	1.1 million
Seattle / Bainbridge Island	6.2 million	2.6 million	3.7 million
Fauntleroy / Vashon Island Southworth	3.1 million	1.9 million	2.1 million

Source: WSDOT, 2023.

### Bremerton/Seattle

The Bremerton–Seattle route is 13.5 nautical miles, the longest of the central cross-sound routes. It has a running time of 60 minutes. The vessel currently operating this run is the Suquamish. The Suquamish is an Olympic Class vessel with a capacity of 144 vehicles and 1,500 passengers. The Bremerton Terminal is located at 211 First Street in Bremerton. Service on this run is provided to and from downtown Seattle. This route runs daily between approximately 6:20 a.m. and 1 a.m., with average headways of 2.5 hours.

The Fast Ferry System was launched in July 2017 on the Bremerton/Seattle route as a passenger-only ferry service. It has a crossing time of 30 minutes. The Bremerton/Seattle ferry operates Monday through Saturday at average headways of 40 minutes.

### ***Bainbridge Island/Seattle***

The 7.5 nautical-mile Bainbridge Island–Seattle route is a 35-minute ferry crossing. It connects downtown Seattle and areas east of the Puget Sound with north and central Kitsap County via the Agate Passage Bridge. The vessels on this run are the Tacoma and the Wenatchee. The Tacoma is a Jumbo Mark II Class vessel with a capacity of 202 vehicles and 2,500 passengers, while the Wenatchee is a Jumbo Mark II Class vessel with a capacity of 202 vehicles and 2,500 passengers. The Bainbridge Terminal is located at 270 Olympic Drive on Bainbridge Island. Service on this run is provided to and from downtown Seattle. This route runs daily between approximately 5 a.m. and 2 a.m., with average headways ranging between 45 and 50 minutes.

### ***Southworth/Vashon/Fauntleroy***

The Southworth–Vashon–Fauntleroy route is 4.1 nautical miles. Crossing time is approximately 25 to 40 minutes, depending on whether or not a stop is made at Vashon. The vessels used on this route are the Sealth and the Kittitas. The Sealth is an Issaquah-130 Class vessel with a vehicle capacity of 90 and passenger capacity of 1,200. The State are Issaquah Class vessels with a vehicle capacity of 124 and a passenger capacity of 1200. The Southworth Terminal is located at 11564 SE State Highway 160 in Southworth. Service is provided to and from Vashon and West Seattle. This route runs daily between approximately 4 a.m. and 2 a.m., with average headways ranging between 30 and 90 minutes.

### ***Kingston/Edmonds***

The Edmonds–Kingston route connects south Snohomish County and north King County with the northern Kitsap Peninsula and points west on the Olympic Peninsula via the Hood Canal Bridge. This route is 4.5 nautical miles with a 30-minute crossing time. The vessels on this run are the Puyallup and the Kaleetan; The Puyallup is a Jumbo Mark II Class vessel with a capacity of 202 vehicles and 2,500 passengers. The Kaleetan is a Super Class vessel with a capacity of 144 vehicles and 1,870 passengers. The Kingston Terminal is located at 11264 SR 104 in Kingston. Service is provided to and from downtown Edmonds. This route runs daily between approximately 5 a.m. and 1 a.m., with average headways ranging between 40 and 60 minutes.

### **Walk, Bike and Roll Facilities**

Walk, bike, and roll facilities generally refer to any mode of transportation that involves physical activity, such as walking, cycling, or skateboarding. This includes both non-motorized travel and travel that involves powered vehicles, such as electric bikes or scooters. Within Kitsap County, walk, bike, and roll facilities include sidewalks, wide



shoulders, bike lanes, trails (both soft and hard surface), and any other facility designed to facilitate riding, walking, or rolling.

For most of its history, Kitsap County remained primarily rural in character, with county road construction focused on connecting communities via vehicles. Kitsap County has been retrofitting existing roads with wider shoulders or sidewalks as funding allows and requires shoulders or sidewalks along all new roads.

Kitsap County has also developed the *Kitsap County Non-Motorized Facility Plan* (Kitsap County Public Works Department, 2018), which provides a countywide vision. The plan highlights the importance of partnerships and coordination with the many communities and community organizations for successful implementation. Preferences for areas to focus future development include: (1) Regional Routes, (2) Safety Focus Areas, (3) Bicycle Routes, and (4) Roads of Bicycle Use. The primary mandate of the plan is to identify major gaps and regional routes identified by the community to achieve a connected system. A variety of strategies are identified to advance the plan in stages, and potential types of funding sources identified, though the plan does not evaluate the costs of identified projects or lay out a potential timeline for implementation.

### ***Pedestrian Facilities***

Pedestrian facilities are an integral part of the transportation system. For some citizens, particularly elderly residents and children, walking is the primary mode of travel. It is also a key link to transit service and between land uses in urban areas.

The roadway inventory (linked on the county website at [www.kcowa.us/compplan](http://www.kcowa.us/compplan)) identifies the sidewalks and shoulders currently present along county roads. In general, sidewalks are present in the urbanized areas of Silverdale and Kingston, within the UGAs of Port Orchard and Bremerton, and along most arterials. New developments in all UGAs provide sidewalks along the roadways. Roadways in rural areas generally do not have sidewalks, but many have shoulders that can be used for non-motorized travel.

### ***Bicycle Facilities***

Exhibit 3.2.6.1-13 shows the County's Non-Motorized Routes identified in the County's Non-Motorized Facilities Plan. The Routes include existing and planned facilities. The specific type or walk, bike, and roll facility for a location is dependent on the context of the route and can range from paved shoulders in rural areas, to bike lanes, or shared use paths.

### ***Shared Use Paths***

Shared use paths within the county include the Clear Creek Trail in central Kitsap, Little Boston Road on the Port Gamble S'Klallam Tribe Reservation, and the Sound to Olympics (STO) Trail in north Kitsap, described as follows.

#### ***Clear Creek Trail***

The Clear Creek Trail system starts at the Old Mill Site in Silverdale, and continues across Bucklin Hill and Ridgetop along Clear Creek, and then from Myhre Road to the SR 303 underpass. From there, the County's Clear Creek Trail shared use path begins. The shared use path begins on the north side of the SR 303 underpass to the Skateboard Park and then goes west through County-owned property along SR 3 to Trigger Avenue. The share use path has been extended easterly from Silverdale Way with planned extension to Ridgetop Boulevard.

#### ***Hansville Greenway Trails***

The Hansville Greenway was conceived as a five-mile corridor of projected forest, wetlands, beaver ponds, meadows, and streams, linking the beaches of Hood Canal to Puget Sound. Land has been acquired and a trail system has been planned and constructed. Volunteer-maintained trails, extending from the north end of Buck Lake to Lower Hawk's Pond, are available for walkers, mountain bikers, and horseback riders.

#### ***Sound to Olympics (STO) Trail***

The STO trail system was envisioned through a grass roots community process to connect communities, parks, and open space in North Kitsap. The paved shared use path system is seen as core to an extended trail system and provides access for all ages and abilities. The STO is divided into three segments: North STO – Kingston to Port Gamble; Central STO – Poulsbo to Port Gamble; and South STO – Bainbridge Island (Winslow) to Poulsbo. The northern segment of the STO – Port Gamble Trail is under construction in 2024.

**KITSAP COUNTY  
PUBLIC WORKS**

**Non-Motorized Routes**

**APPENDIX E  
AMENDED 12/11/2018**

**Legend:**

- Roads
- Non-Motorized Route
- Concept Route
- Military
- Parks
- Reservation
- City Limits
- Urban Growth Areas
- Schools

**Scale:** 0 1/2 1 2 3 4 5 Miles

**North Arrow:** N, S, E, W

**Inset Photos:**

- Two cyclists riding on a paved path.
- A group of people walking and pushing a stroller on a paved path.

**Map Description:** The map shows the geographical layout of Kitsap County, including its coastline, major water bodies, and land use designations. Non-motorized routes are highlighted in blue, while concept routes are shown in dashed blue. The map also indicates the locations of schools, parks, and urban growth areas.

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## **Air Travel**

### ***Bremerton National Airport***

Kitsap County is served by Bremerton National Airport, which is the county's major public airport. It is considered a Washington State Public Use Airport identified in the Washington State Aviation System Plan. WSDOT guidelines address airport land use compatibility for public use airports.

The Bremerton National Airport is on the southwest edge of the city of Bremerton and is owned and operated by the Port of Bremerton. Charter, rental, flight instruction, maintenance, 24-hour fuel (avgas and jet-A), and avionics services are available at the airport. The airport has two runways, only one of which is now in use. The main runway, repaved in 2014, has a capacity of more than twice the current number of takeoffs and landings. In addition, the runway is sufficiently long to handle planes that are larger than the current aircraft using this facility.

### ***Apex Airpark***

Apex Airpark is located two miles northwest of the Silverdale UGA. The airport's single runway is 2,500 feet long and 28 feet wide, has an asphalt surface, and is equipped with low-intensity runway lights. Local law enforcement and emergency aircraft periodically use Apex Airport. This airport is not listed as a Washington State Public Use Airport in the Washington State Aviation System Plan (WSDOT, 2009).

### ***Other Small Airstrips***

The Port Orchard Airport and several other small, privately-owned airstrips throughout the county serve small private planes.

### ***Seattle-Tacoma International Airport***

Seattle-Tacoma (Sea-Tac) International Airport, located in King County, is the principal passenger air terminal serving Kitsap County residents and businesses. Access to the airport from Kitsap County is via SR 16 and the Tacoma Narrows Bridge to I-5, as well as via ferry service to Edmonds, Seattle, and Fauntleroy and then ground transportation to the airport via SR 99 or I-5 or Link Light Rail. Travel time from Bremerton to Sea-Tac via Tacoma is slightly more than one hour during nonpeak travel times. An airport shuttle service operates hourly from Bremerton and other points in Kitsap County to the airport.

## Planned Future Roadway Improvements

Analysis of future conditions assumes the completion of transportation improvement projects to which commitment has been made by the implementing agency. The reason for this is that if committed capacity improvement projects are not assumed in place, potential exists for future impacts to be over-predicted. For the analysis presented in this EIS, future improvements were identified for county roadways and state highways as described below.

- County roadway improvements were identified if they are included in the County's Transportation Improvement Program (TIP) and have committed funding in place.
- State highway improvements were identified if WSDOT has programmed the project and is confident that they will be funded through completion.

### 3.2.6.2 Transportation – Impacts

#### Methodologies

##### *Travel Demand Forecasts*

The current Kitsap County travel demand forecasting model was calibrated based on 2020 data and uses Visum software. A primary goal of the Kitsap County model has been interoperability with neighboring agencies: our cities, adjacent counties, and WSDOT.

A detailed description of the Kitsap County model is provided in the technical report *Kitsap County 2020 Travel Demand Model Update* (Kitsap County, 2021). Each major component of the model, as described in the technical memorandum, is summarized in the following sections. To model travel demand in 2044 under the proposed scenarios, planned changes to the road network (on Kitsap county roads, WSDOT roads within Kitsap, and our cities' roads) were added to the model along with the population and employment changes projected for 2044 under each growth scenarios.

##### *Existing Land Use*

Land use data was compiled for Kitsap County for 2020. For purposes of transportation modeling, land use data are categorized as residential, employment and park & rides. Each category is further divided into several land use types. Residential and employment land uses are divided as follows:

### Exhibit 3.2.6.2-1 Land use type divisions

Land Use Type	Land Use Category	Short Code	Units
Housing	Single-Family	SFDU	Dwelling Units
	Multi-Family	MFDU	Dwelling Units
Employment	Retail	RETAIL	Employees
	Financial, Insurance, Real Estate, and Services	FIRES	Employees
	Government	GOV	Employees
	Education (K-12)	EDU	Employees
	Wholesale Trade, Transportation, and Utilities	WTU	Employees
	Manufacturing	MAN	Employees
	Construction and Resources	CONRES	Employees
	College	FTE	Employees
	Military	MIL	Employees
	Park & Ride	PNR	Spaces

#### ***Future Land Use***

Changes to the amount and type of housing and employment in each category for 2044 was arrived at by allocating growth targets set by PSRC to Transportation Analysis Zones (TAZ) within the Travel Demand Model in accordance with the objective of each alternative.

#### ***Transportation Analysis Zones***

For purposes of transportation modeling, the entire study area is divided into Transportation Analysis Zones (TAZs). One of the main objectives for this model was to maintain as much consistency as possible with the previous Kitsap model. To achieve this, 411 internal TAZs were included within the County, and zones outside of the county were aggregated to 10 external zones. To maintain consistency with the previous Kitsap County Comprehensive Plan and with neighboring agency travel demand models, land use was modeled in two residential and ten non-residential categories.

#### ***Transportation Network***

The roadway network is represented in the computer as a series of links (roadway segments) and nodes (intersections). Characteristics such as capacity, length, speed, and turning restrictions at intersections are coded into the network. The approach taken in

developing the transportation network was similar to that employed in TAZ development. It includes all federally functionally classified roads plus much of the local road network, including all through-streets. Each iteration of the travel demand model (2012, 2016, 2020, 2044) has included greater network detail than the previous.

### ***Trip Generation***

Modeled trip generation rates were based upon PM peak hour data published in the Institute of Transportation Engineers Trip Generation Manual 10th Edition and rates used in travel demand models for other agencies in western Washington. Trips were divided into five purposes: home-to-work (HW), work-to-home (WH), home-to-other (HO), other-to-home (OH), and non-home based (NHB) trips. Trip rates were also defined according to trip origins (O) and destinations (D). 2044 trip generation for external TAZs were increased by the same percent as Kitsap as a whole.

### ***Trip Distribution***

The trip distribution step allocates the trips estimated by the trip generation model to create a specific zonal origin and destination for each trip. This is accomplished through use of the gravity model, which distributes trips according to two basic assumptions: (1) more trips will be attracted to larger zones (the size of a zone is defined by the number of attractions estimated in the trip generation phase, not the geographical size); and (2) more trips will take place between zones that are closer together than will take place between zones that are farther apart. The result is a trip matrix (for each of the trip purposes specified in trip generation) that estimates how many trips are taken from each zone (origin) to every other zone (destination).

### ***Network Assignment***

The street system is represented in the computer model as a series of links, which represent roadways; and nodes, which represent the intersection of those roadways. Each roadway link and intersection node is assigned a classification, with associated characteristics of length, capacity, and speed. The computer model uses this information to determine the optimum path between all the zones based on travel time and distance. The model then distributes the trips from each of the zones onto the street network.

### ***Model Calibration***

A crucial step in the modeling process is the calibration of the model. The modeling process can generally be described as defining the existing street system as a model network and applying trip patterns based on existing land use. The model output, which



consists of estimated traffic volumes on each roadway segment, is compared to existing traffic counts and observed travel patterns.

Adjustments are made to the model inputs until the modeled existing conditions replicate actual existing conditions within accepted parameters. Once the model is calibrated for existing conditions, it can be used as the basis for analyzing future traffic conditions, as well as potential future improvements to address existing and future deficiencies.

### ***Projecting Future Traffic Conditions***

Using the same general process described for modeling existing conditions, the forecast 2044 land use data is used to estimate the number of trips that will be generated in future travel. These trips are then distributed among the TAZs and assigned to the street network which has been updated with projects that can reasonably be expected to be completed by 2044. The result is a model of projected future traffic conditions under the projected future land use scenario.

### ***Level of Service***

As described earlier in this chapter, LOS designations are measures of congestion that describe operational conditions within a traffic stream and take into consideration such factors as volume, speed, travel time, and delay. The characteristics of the six level-of-service designations for roadway segments and intersections are summarized in Exhibit 3.2.6.1-4. The following sections describe the methods applied to calculate LOS for county roadways.

### ***Roadway Capacities***

Kitsap County uses a multimodal methodology for estimating county roadway capacities that takes the physical characteristics of the roadway into account, as well as transit, pedestrian, and bicycle facilities on the roadways. This approach allows for a more refined assessment of capacity that is more sensitive to adjacent land uses, and also allows roadways to receive capacity credit for facilities that separate pedestrian and bicycle travel from vehicular traffic. The methodology is documented in detail in *Kitsap County 2020 Travel Demand Model Update* (Transportation Solutions, Inc, May 2021). The calculated county roadway capacities take the following factors into account:

- Number of through-lanes
- Free-flow speed
- Lane widths
- Median treatment (raised median or two-way left-turn lane)
- Presence and width of shoulders

- Presence and width of sidewalks (with and without vehicle traffic buffer)
- Traffic control characteristics (density of traffic signals, pedestrian signals, all-way stop-control, and/or roundabouts)
- Average driveway spacing
- Terrain
- Roadside parking characteristics
- Bus stops and bus frequency

### ***Roadway Segment Level of Service***

Kitsap County uses a traditional methodology to evaluate LOS of roadway segments, which are sections of roadway located between major intersections. LOS is based on V/C ratios, by which roadway travel volumes are compared to roadway capacity. To calculate V/C ratio on a roadway segment, the projected peak hour traffic volume that travels on the roadway is divided by its capacity.

### ***Kitsap County Concurrency Standards***

The Kitsap County Ordinance (KCC 20.04) establishes the process for determining whether a development project meets concurrency. The County recognized that not all roadways will meet the standards all the time given the limits of county, state and federal funding and timing of project improvements. The County's strategy, therefore, is to ensure LOS standards are within an acceptable range. This strategy is accomplished by allowing up to 15% of the road lane-miles tested for concurrency to temporarily exceed LOS standards. This 15% allowance is assessed independently within two separate regional geographies:

- North/Central County Service Area
- South County Service Area

Concurrency is satisfied if no more than 15% of the road lane-miles within the specific geography exceed LOS standards.

### ***Impacts Common to All Alternatives***

The alternatives are expected to result in common types of impacts, with the intensity of the impacts increasing as population and employment levels increase. This section provides a side-by-side summary of travel demand and roadway LOS impacts projected to result from each of the alternatives. Potential impacts on other modes of travel are also discussed.

## System-wide Travel Impacts

Exhibit 3.2.6-2-2 summarizes several numerical measures that have been defined for the alternatives based upon countywide population and employment projections, the proposed land use plan for each alternative, planned infrastructure improvements, and travel demand modeling results. The table shows that the preferred alternative results in the highest number of vehicle-miles-travelled (VMT).

**Exhibit 3.2.6.2-2 Summary of Countywide Travel Statistics**

Category	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<b>Countywide Population</b>				
Existing (2020)	275,611	275,611	275,611	275,611
2044	346,358	346,358	346,358	346,358
% Increase	26%	26%	26%	26%
<b>Countywide Employment</b>				
Existing	91,763	91,763	91,763	91,763
2044	186,211	192,087	193,704	192,977
% Increase	103%	109%	111%	110%
<b>PM Peak Hour Vehicle Miles Travelled (VMT)</b>				
Existing	124,000	124,000	124,000	124,000
2044	214,000	230,800	222,000	231,000
% Increase	72%	85%	78%	86%

Source: Kitsap County Public Works Department, 2023.

## LOS Impacts

Operational impacts were assessed by calculating the LOS of roadways in 2044 under traffic conditions projected to result from build-out of each of the alternatives.

## County Roadways

Exhibit 3.2.6.2-3 summarizes the lane-miles of deficient county roadway segments projected by 2044 for each of the alternatives. As discussed previously in this chapter, a county roadway is considered deficient if the projected V/C ratio exceeds the County's adopted standards (Exhibit 3.2.6.1-5).

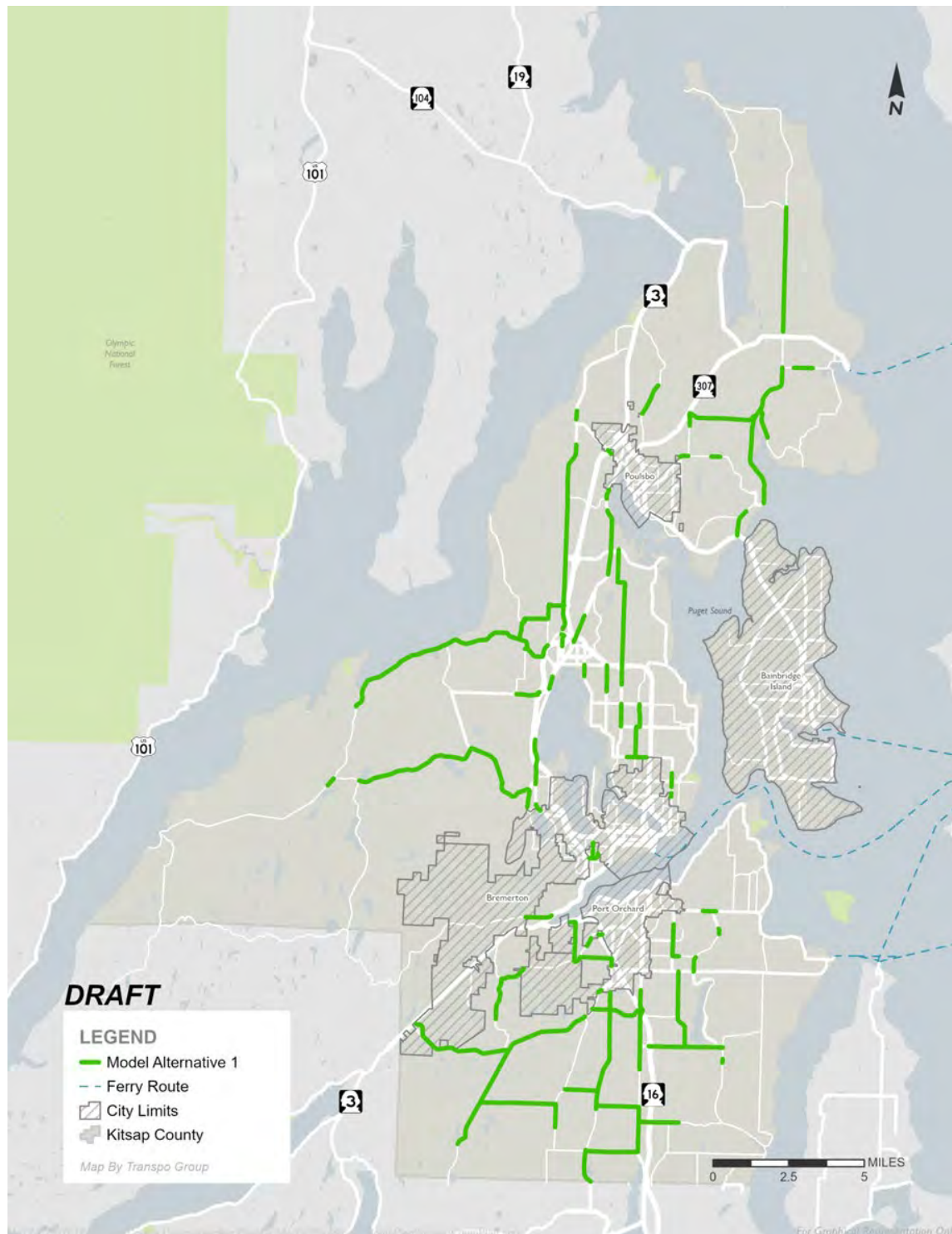
### Exhibit 3.2.6.2-3 Projected 2044 Roadway Segment Deficiencies

	ALTERNATIVE 1 (NO-ACTION)	ALTERNATIVE 2	ALTERNATIVE 3	PREFERRED ALTERNATIVE
NORTH-CENTRAL COUNTY	72.6	77.6	78.1	73.8
SOUTH COUNTY	56.8	56.2	58.8	67.9
TOTAL DEFICIENT LANE-MILES	129.4	133.8	136.9	141.6
TOTAL 2044 COUNTY ROADWAY LANE- MILES	1295.2	1295.2	1295.2	1,295.2
TOTAL 2044 NORTH- CENTRAL COUNTY LANE-MILES	626.6	626.6	626.6	626.6
TOTAL 2044 SOUTH COUNTY LANE-MILES	668.6	668.6	668.6	668.6
PERCENT OF DEFICIENT LANE- MILES (NORTH- CENTRAL)	11.6%	12.4%	12.5%	11.8%
PERCENT OF DEFICIENT LANE- MILES (SOUTH)	8.5%	8.4%	8.8%	10.1%
EXCEEDS COUNTYWIDE CONCURRENCY STANDARD OF 15%	NO	NO	NO	NO

Source: Kitsap County Public Works Department, 2023.

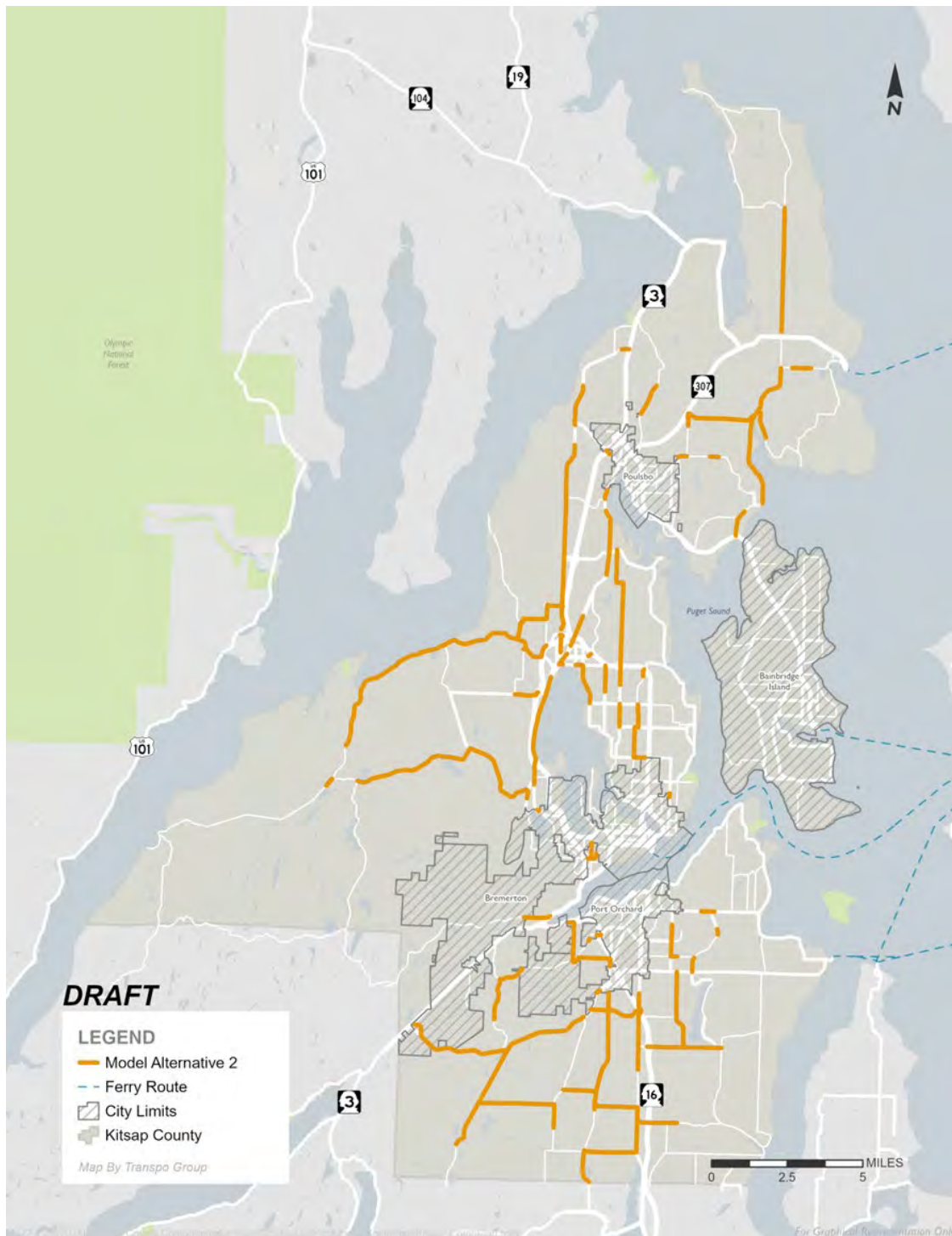
Locations of deficient segments with the Alternative 1 (No Action), Alternative 2, Alternative 3, and the preferred alternative are shown on Exhibit 3.2.6.2-4, 3.2.6.2-5, 3.2.6.2-6, and 3.2.6.2-7, respectively. Exhibit 3.2.6.2-3 shows that the percentage of deficient lane-miles of roadway is expected to be lowest with the Alternative 1 (No Action) and highest with the preferred alternative, with Alternative 2 and 3 in-between. However, the differences between the alternatives vary by less than one percent. None of the alternatives are expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15 percent.

### Exhibit 3.2.6.2-4 Projected 2044 Deficient Roadway Segments – Alternative 1 (No Action)



Source: Kitsap County Department of Community Development, 2023

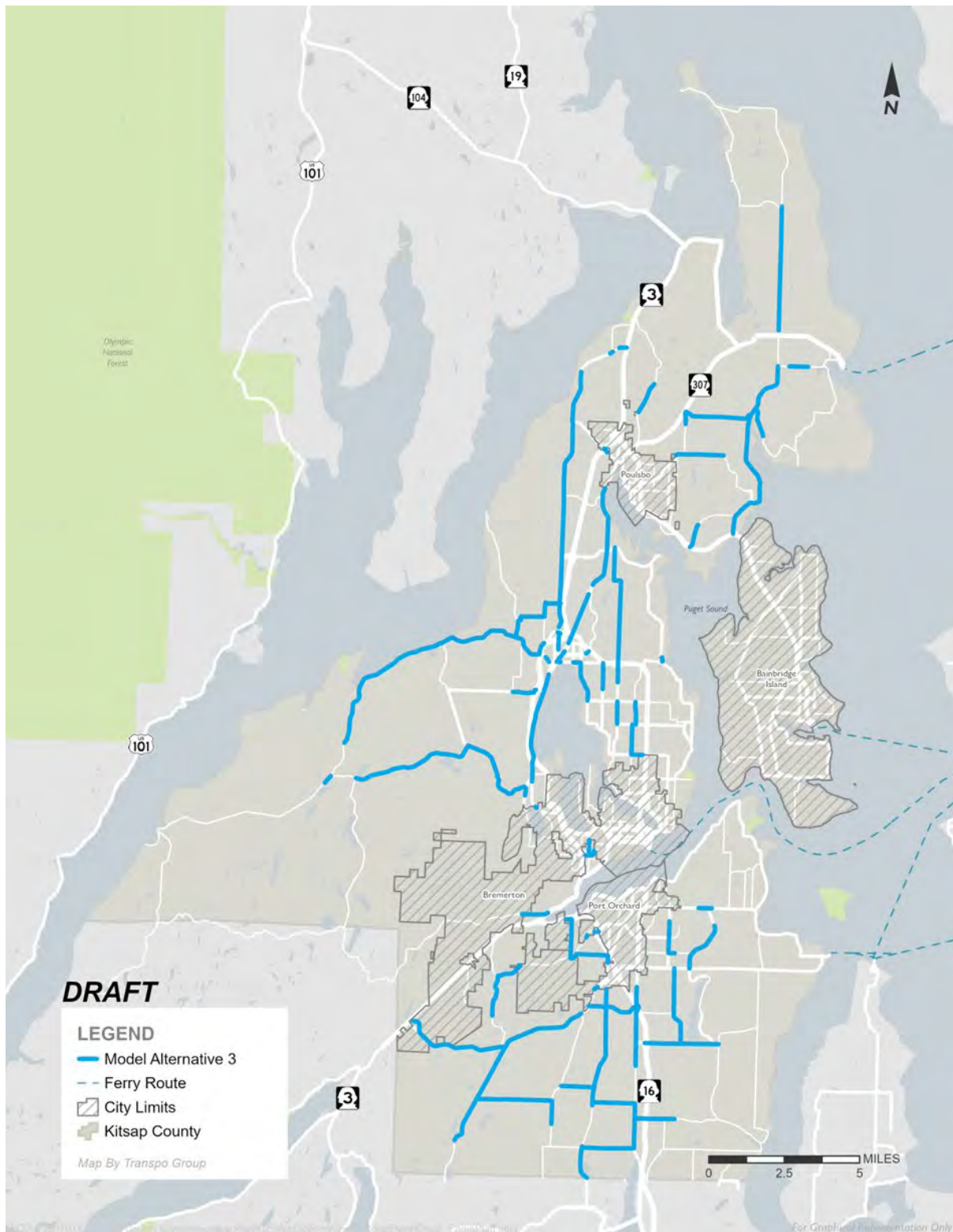
### Exhibit 3.2.6.2-5 Projected 2044 Deficient Roadway Segments – Alternative 2



Source: Kitsap County Department of Community Development, 2023



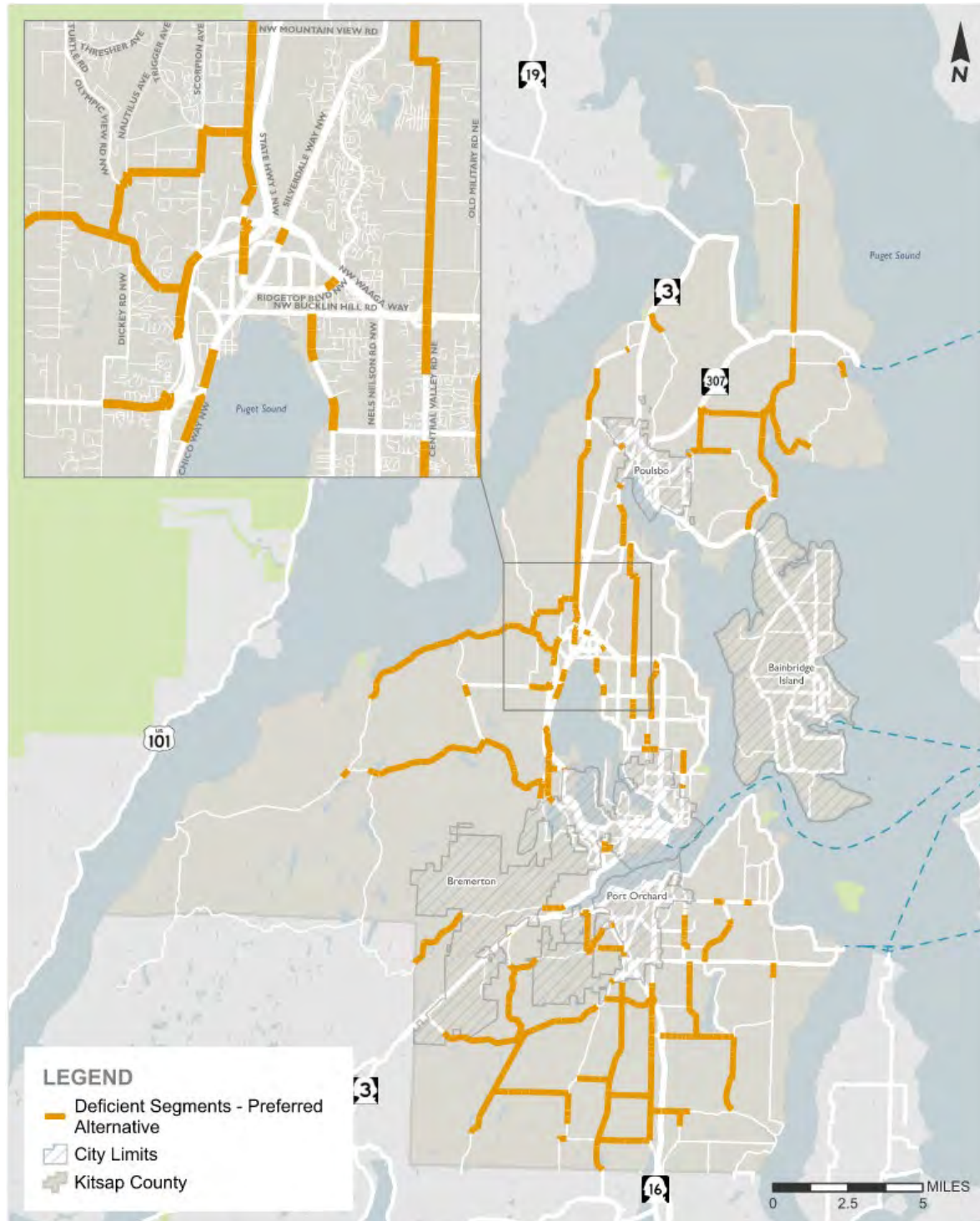
### Exhibit 3.2.6.2-6 Projected 2044 Deficient Roadway Segments – Alternative 3



Source: Kitsap County Department of Community Development, 2023



### Exhibit 3.2.6.2-7 Projected 2044 Deficient Roadway Segments – Preferred Alternative



Source: Kitsap County Department of Community Development, 2024

## Impacts on State Facilities

### State Highways

Exhibit 3.2.6.2-8 summarizes the lane-miles of deficient state highway segments projected by 2044 under each alternative. As noted earlier in this chapter, a county roadway is considered deficient if its operations are projected to exceed adopted highway standards.

The table shows that about 29% of the state highway miles in Kitsap County are projected to be deficient under Alternative 1 (No Action). Alternatives 2 and 3 are projected to have similar impact to state highways. The preferred alternative is predicted to be the highest at 32%. The County has ongoing coordination with WSDOT and cities to identify and fund improvements to state highways. A major improvement to SR 3 / 16 to address congestion through Gorst is anticipated before 2044, but it is not designed yet and so that potential additional capacity has not been added to the models. Exhibits 3.2.6.2-9.1 through 3.2.6.2-9.4 show maps of LOS deficiencies on state route segments for each alternative.

**Exhibit 3.2.6.2-8 Projected Miles of Deficient State Highways by 2044**

			Alternative 1		Alternative 2		Alternative 3		Preferred Alternative	
State Highway	LOS Standard	Total Length (miles)	Deficient Segment s (lane-miles)	Pct of Total	Deficient Segment s (lane-miles)	Pct of Total	Deficient Segment s (lane-miles)	Pct of Total	Deficient Segment s (lane-miles)	Pct of Total
104	C/D	23.1	6.4	27.8%	6.3	27.4%	6.3	27.4%	8.3	36%
16	C/D	84.2	30.2	35.8%	30.8	36.5%	30.8	36.5%	31.6	38%
160	D	15.8	0.8	4.9%	1.6	10.0%	1.5	9.6%	0.9	6%
166	C	11.2	2.8	25.0%	0.0	0.0%	0.0	0.0%	2.9	26%
3	C/D	182.4	60.8	33.3%	60.2	33.0%	61.9	34.0%	65.6	36%
302	C	1.4	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0%
303	E Mitigated	46.4	3.2	6.8%	2.8	6.1%	2.8	6.1%	3.8	8%
304	D	16.7	2.9	17.1%	2.9	17.1%	2.9	17.1%	3.1	19%
305	C/D	30.3	11.5	38.0%	11.9	39.2%	11.9	39.2%	14.3	47%
307	C	10.7	6.7	62.6%	6.7	62.6%	6.7	62.6%	6.7	63%
308	C	9.8	0.3	3.0%	0.3	3.0%	0.0	0.0%	0.3	3%
310	D	7.4	1.6	21.4%	2.2	30%	0.0	0.0%	2.2	30%
Total		439.3	127.1	28.9%	125.7	28.6%	124.8	28.4%	139.7	32%

Source: Kitsap County Public Works Department, 2023.

**LEGEND**

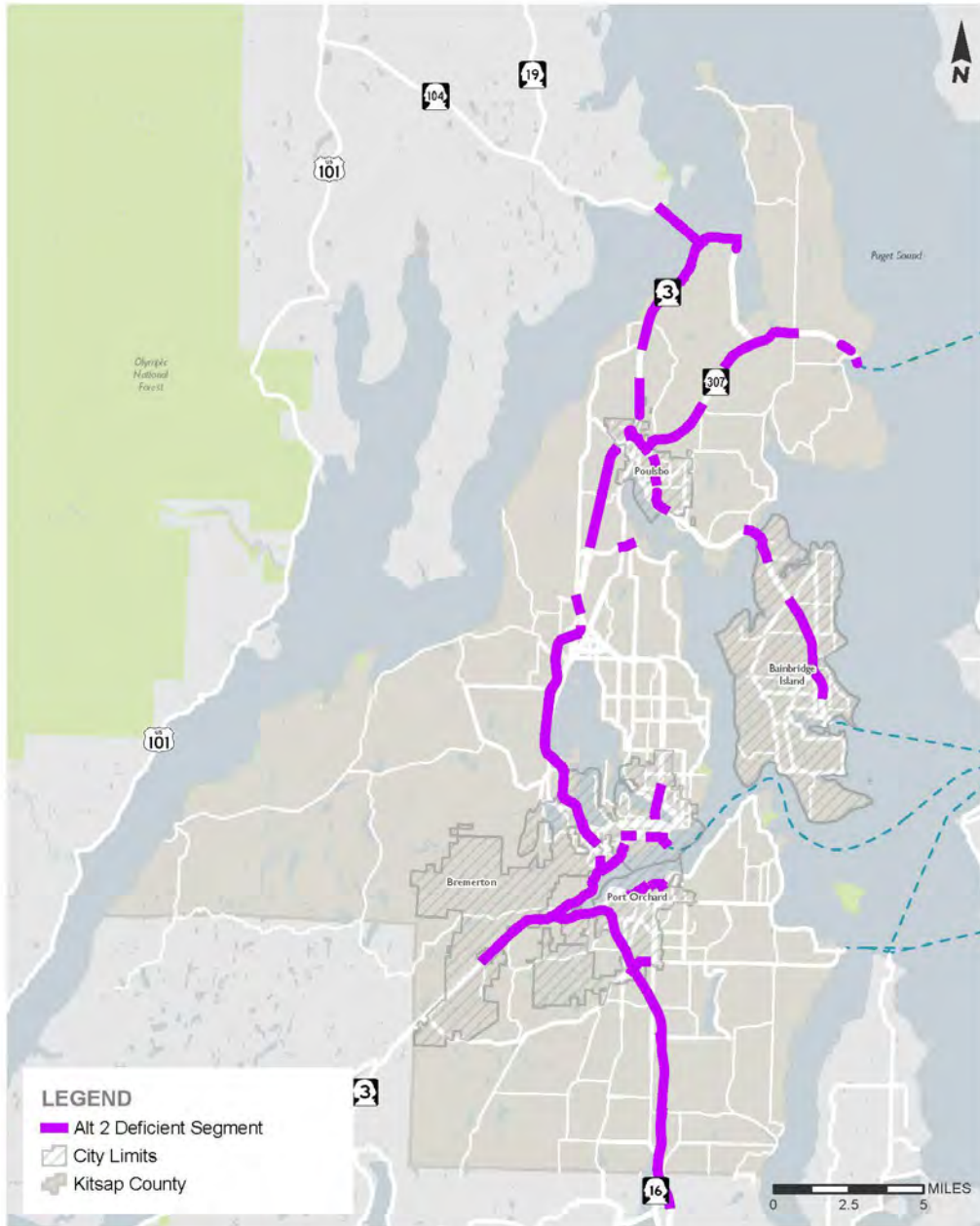
- Alt 1 Deficient Segment
- City Limits
- Kitsap County

Map labels include: Olympic National Forest, Port Townsend, Bainbridge Island, Bremerton, Port Orchard, and major roads 101, 19, 3, 307, 16. A scale bar shows 0 to 5 miles, and a north arrow is present.

## transpogroup 7/

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### Exhibit 3.2.6.2-9.2 Forecast 2044 LOS Deficiencies on State Routes - Alt 2



#### Deficient Roadway Segments - State Routes - Alt 2

Kitsap County Comprehensive Plan

transpogroup 

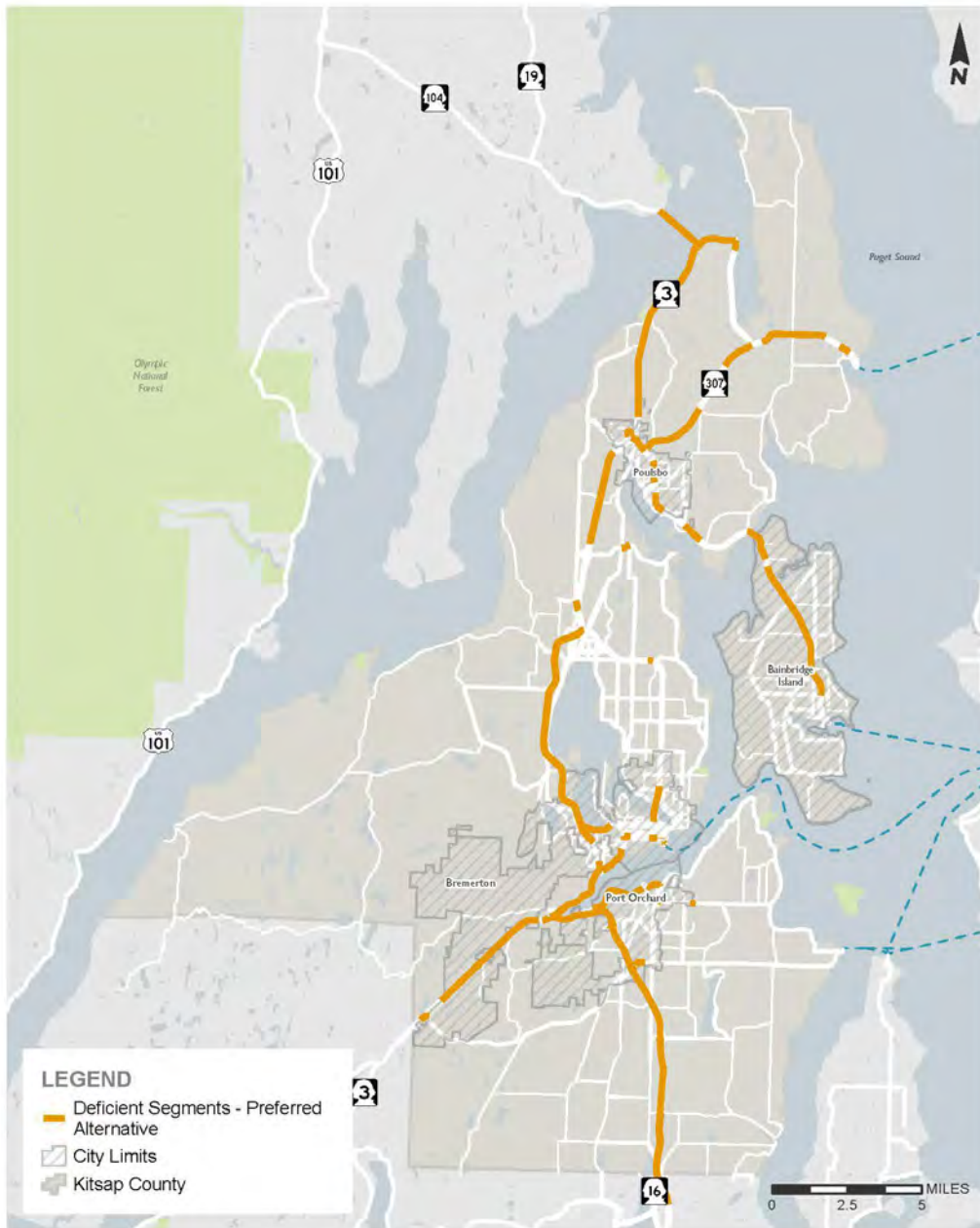
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**Exhibit 3.2.6.2-9.4 Forecast 2044 LOS Deficiencies on State Routes - Preferred Alt**



**Deficient Roadway Segments - State Routes - Preferred Alt**  
Kitsap County Comprehensive Plan

transpogroup 

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## Washington State Ferries

Long-range capacity and service needs for state ferry routes are identified by the WSDOT Ferries Division in its *2040 Long-Range Plan (Washington State Ferries, 2019)*. Forecasts are based on the regional population and employment projections that form the basis for the other projections presented in this DEIS; as well as financial analysis of projected future ferry fares. The WSDOT Ferries Division projects that system-wide, ferry ridership will increase from 24.5 million (based upon 2017 counts) to 32.5 million passengers per year in 2040; and vehicle demand will increase by 21% (WSDOT Ferries Division 2019). Exhibit 3.2.6.119 summarizes the annual demand projected by WSF for the Kitsap service area within this time period. The table shows that total ridership is projected to increase by approximately 39% by 2040.

### Exhibit 3.2.6.2-8 Projected PM Peak Ferry Demand for Kitsap Service Area

Annual Ridership	Existing (based on 2017)	Projected 2040 Demand	Percent Increase
Walk-On Passengers	9,054,700	13,609,200	50%
Vehicles/Drivers	5,400,400	6,545,000	21%
Total Ridership	14,455,100	20,154,200	39%

*Note: Represents ridership totals for Vashon-Southworth, Fauntleroy-Southworth, Seattle-Bremerton, Seattle-Bainbridge Island, and Edmonds-Kingston routes.*

*Source: Washington State Ferries, 2021*

The methodology used for these projections, as well as for WSF's plan for accommodating projected future demand, is presented in the Long-Range Plan (Washington State Ferries, 2021). Regular review and update of this plan will help ensure that the capacity and services needed to meet the increased demand are identified.

## Impacts on Other Modes of Travel

### Non-Motorized

Increases in population and employment levels are expected to increase the demand for additional facilities; thus, all three alternatives would result in increased demand for additional trails and bikeways. The increase in urbanized areas would result in more trail and bicycle facility demands in those areas. These bicycle and trail facilities may either be located along roadways as bike lanes/sidewalks or as separated facilities and would provide opportunities for both recreational and commuter users.

Infrastructure needs for non-motorized transportation/commuter and mixed bicycle/pedestrian user groups are identified in the Kitsap County Non-Motorized Facility



Plan. Regular review and update of this plan will help ensure that infrastructure and services needed to meet increased demand for non-motorized facilities is identified. County design standards indicate that sidewalks may be required in areas that include pedestrian generators such as schools, parks, shopping areas, medical facilities, social services, housing, community and recreational centers, and transit and park- and-ride facilities. Per County policy sidewalks are built within urban settings, not within rural areas without exceptional reason.

The County's LOS approach provides capacity credit to roadways with non-motorized facilities that separate pedestrian and bicycle travel from vehicle traffic. Therefore, implementation of non-motorized improvements can potentially benefit multiple travel modes under the County's long-range transportation analysis procedures.

### ***Transit***

Transit operations and facilities would be affected by the increase in travel demand created by each of the alternatives. These increases would require a substantial increase in hours of operations, increased frequency, . Kitsap Transit's 2024-2029 Long Range Plan outlines additional transit routes, on-demand service areas, micro-transit, and high-capacity transit improvements.

Growth within the urban areas would need new or extended bus routes in addition to more frequent service. Routes need to better serve Centers and improved connections to local areas.

Kitsap Transit relies on local sales tax revenues to operate its existing service as of 2024. Increases in service will need additional capital facility improvements / expansion and increased revenue to operate more frequent service with longer spans of service into the late evening, seven days a week, to accommodate service-related employment growth.

Increased population and employment under all three alternatives would affect demand on rail and airports in Kitsap County. In general, as employment and population increase, the requirement for these services would also increase.

Rail activity would be affected by an increase in population or employment because all garbage collected by Waste Management is brought to Olympic View Transfer Station in Bremerton, compacted, and loaded onto specialty rail cars for transport to Oregon. Airport activity would increase as recreational and employment activities increase. Long-range airport needs are identified in the *Bremerton National Airport Master Plan*, which was last adopted in 2013 (Port of Bremerton, 2013).

### **Impacts of Alternative 1 (No Action)**

Alternative 1 would maintain the current Comprehensive Plan with no land use plan, policy, or development regulation changes. Under this alternative, there are no changes to UGA boundaries or environment/climate change policies. In terms of housing diversity, this alternative focuses on single-family residential with limited multifamily opportunities or incentives. It reflects the lowest level of projected growth, and as such, is expected to result in the lowest growth in vehicle trips and roadway deficiencies. The PM peak hour VMT is expected to increase by 72% under Alternative 1 conditions. Build-out of the proposed land use in the No Action Alternative is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15% for either the north-central region or the south region.

### **Impacts of Alternative 2**

Alternative 2 directs the 20-year growth targets into compact UGA boundaries emphasizing mixed uses and higher densities in centers and corridors. There is a focus on high-capacity transit facilities and routes, as well as growth in multifamily and commercial zones. It aims to keep UGA boundaries limited and increase housing diversity. It exceeds population growth targets and generally meets employment targets. It has the median projected growth in PM peak hour VMT (about two percent higher than Alternative 1, but about two percent lower than alternative 3). Build-out of the proposed land use in the Alternative 2 is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15% for either the north-central region or the south region.

### **Impacts of Alternative 3**

Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. Some UGA expansions are included in this alternative. In terms of housing diversity, this alternative will focus on single-family opportunities with limited multifamily opportunities or incentives. It exceeds employment targets, but lower population growth than Alternative 2. Overall, it is expected to result in the highest growth in PM peak hour VMT, an approximately 78% increase from the existing condition. Build-out of the proposed land use in the Alternative 3 is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15% for either the north-central region or the south region.

### **Impacts of the Preferred Alternative**

The preferred alternative (much like alternative 2) directs the 20-year growth targets into compact UGA boundaries emphasizing mixed uses and higher densities in centers and

corridors. There is a focus on high-capacity transit facilities and routes, as well as growth in multifamily and commercial zones. It aims to keep UGA boundaries limited and increase housing diversity except the preferred alternative includes a UGA amendment to the Puget Sound Industrial Center – Bremerton to take the employment capacity closer to Alternative 3. Overall, it is expected to result in the highest growth in PM peak hour VMT, an approximately 86% increase from the existing condition. Build-out of the proposed land use in the preferred alternative is not expected to result in a percentage of deficient lane-miles of roadway that exceeds the County concurrency standard of 15% for either the north-central region or the south region.

### 3.2.6.3 Transportation – Mitigation Measures

#### Incorporated Plan Features

##### *Project Improvements as Mitigation*

##### **Recommended Roadway Improvements**

Exhibit 3.2.6.3-1 summarizes the roadway segments identified for improvement under the three alternatives in order to meet adopted County roadway segment LOS standards.

**Exhibit 3.2.6.3-1 Recommended Roadway Improvements by 2044**

			Approximate Project Length (mi)			
Project #	Roadway	Project Type	Alt 1	Alt 2	Alt 3	Pref Alt
North-Central County						
11	N National Ave	Pedestrian and Intersection Improvements and Overlay	0.25	-	-	-
23	Viking Way NW	Access Management, Left-Turn Lanes, Shared-Use Path, Intersection Improvements	2.50	2.25	3.75	2.0
24	NW Anderson Hill Rd	WB Climbing Lane, Sidewalk, Bike Lane or Multi-Use Path, New Railroad Bridge	1.75	1.75	1.50	1.25
25	Central Valley Rd NE	Sidewalks and Bike Lane	1.25	1.25	1.25	1.25
27	NW Newberry Hill Rd	SB/WB Slip Lane, Add WB Lane, Add Bike Lane, Sidewalks	0.25	0.25	0.25	0.25
28	NE Riddell Rd/Parkhurst Ln NE	Sidewalk and Bike Lane, Left-Turn Lanes	0.75	0.50	0.50	0.75

Project #	Roadway	Project Type	Approximate Project Length (mi)			
			Alt 1	Alt 2	Alt 3	Pref Alt
29	Ridgetop Blvd NW	Widening and Improvements	-	0.25	0.25	-
72	NW Holly Rd	Access Management, Shoulders, Left-Turn Lanes	4.25	-	-	-
73	Seabeck Hwy NW	Add Shoulders, Access Control, Left-Turn Lanes	3.00	3.00	3.00	3.00
80	Miller Bay Rd NE	Access Management, Left-Turn Lanes, Shoulders, or Multi-Use Path	4.00	4.00	4.00	4.75
82	Silverdale Way NW	Access Control, Left-Turn Lanes, Buffered Sidepath or Multi-Use Path	0.75	1.75	2.50	0.50
85	Hansville Rd NE	Access Control, Left-Turn Lanes, Shared-Use Path	6.00	6.00	3.75	3.75
86	Chico Way NW	Access Control, Left-Turn Lanes, Sidewalk and Bike Lanes	0.50	1.25	1.50	1.50
89	NW Bucklin Hill Rd	Sidewalk and Bike Lane and Lane Realignment	-	0.25	0.25	-
90	Miller Bay Rd NE	Access Management, Left-Turn Lanes, Shoulders, or Multi-Use Path	2.50	2.50	2.75	2.75
91	NW Anderson Hill Rd	Access Management, Shoulders and Non-Motorized Path, Left-Turn Lanes	0.50	0.50	0.50	0.50
92	Augusta Ave NE	Access Management, Sidewalk, Bike Lane	0.50	0.50	0.50	0.50
94	Central Valley Rd NE	Access Management, Left-Turn Lanes, Sidewalk, Bike Lane	1.25	1.00	0.75	-
95	Chico Way NW	Access Management, Sidewalks/Multi-Use Path, Center Curb, Roundabouts	1.50	1.50	1.50	1.75
99	Suquamish Way NE	Access Management, Sidewalk, Bike Lane	1.00	1.00	1.25	1.25
100	NE West Kingston Rd	Sidewalk and Bike Lane	0.75	0.75	0.5	-
101	Tracyton Blvd NW	Sidewalk and Bike Lane	0.50	5.50	4.00	-
102	Pine Rd NE	Sidewalk and Bike Lane, Left-Turn Lanes	2.00	2.00	1.50	0.75
200	NW Anderson Hill Rd/Seabeck Holly Rd NW	6 Ft Shoulder for all Alternatives	6.00	7.25	5.50	4.75
202	Big Valley Rd NE	6 Ft Shoulder for all Alternatives	1.00	1.00	1.00	-

Project #	Roadway	Project Type	Approximate Project Length (mi)			
			Alt 1	Alt 2	Alt 3	Pref Alt
203	Pioneer Way NW	4 Ft Shoulder for Alternatives 2 and 3	-	0.25	0.25	-
204	Indianola Rd NE	6 Ft Shoulder for all Alternatives	1.00	1.00	0.75	1.75
206	NE Gunderson Rd	Lane Adjustments for Alternative 1 6 ft Shoulder for Alternatives 2 and 3	4.00	4.00	5.00	6.00
208	NE Lincoln Rd	6 Ft Shoulder for Alternative 1 4 Ft Shoulder for Alternative 2 Lane Adjustments for Alternative 3	0.50	0.75	2.00	-
209	NE Totten Rd	6 Ft Shoulder for Alternative 3	-	-	0.75	-
213	NW Finn Hill Rd	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	-
214	Clear Creek Rd NW	Sidewalk for Alternatives 1 and 2 Lane Adjustments for Alternative 3	6.50	7.50	8.50	7.75
215	NW Westgate Rd	Lane Adjustments for all Alternatives	1.75	1.50	1.75	3.00
217	Central Valley Rd NW	6 Ft Shoulder for all Alternatives	4.00	4.50	3.50	4.00
218	Brownsville Hwy NE	4 Ft Shoulder for Alternative 3	-	-	0.25	-
219	Nels Nelson Rd NW	4 Ft Shoulder for Alternatives 1 and 2 Lane Adjustments for Alternative 3	0.75	0.75	0.75	-
221	NW Greaves Way	Sidewalk for Alternatives 1 and 2 Lane Adjustments for Alternative 3	0.25	0.25	0.25	-
222	Old Frontier/Provo st Rd NW	Sidewalk for Alternatives 1 and 2 Lane Adjustments for Alternative 3	0.75	0.75	3.50	1.50
223	Kitsap Mall Blvd NW	Lane Adjustments for all Alternatives	0.50	0.50	1.00	1.75
224	NW Anderson Hill Rd	6 Ft Shoulder for Alternative 3	-	-	0.25	-
225	Silverdale Way NW	6 Ft Shoulder for Alternatives 2 and 3	-	0.25	0.50	-
226	NW Bucklin Hill Rd	6 Ft Shoulder for Alternatives 2 and 3	-	0.25	0.25	-
227	NW Newberry Hill Rd	6 Ft Shoulder for all Alternatives	0.75	0.25	0.75	-

Project #	Roadway	Project Type	Approximate Project Length (mi)			
			Alt 1	Alt 2	Alt 3	Pref Alt
228	Silverdale Way	Sidewalk for Alternative 1 Lane Adjustments for Alternatives 2 and 3	0.50	0.50	0.75	0.25
230	Old Military Rd	4 Ft Shoulder for all Alternatives	0.75	0.75	0.50	1.00
233	Chico Way NW	Lane Adjustments for Alternative 1 6 Ft Shoulder for Alternatives 2 and 3	1.50	1.50	1.50	2.75
235	Northlake Way NW	6 Ft Shoulder for all Alternatives	0.50	0.25	0.25	0.50
236	Chico Way NW	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	0.25
238	Seabeck Holly Rd NW	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	-
301	Old Military Rd NE	4 Ft Shoulder for Alternative 2	-	0.25	-	-
302	Perry Ave NE	6 Ft Shoulder for Alternatives 1 and 2	0.50	0.25	-	1.00
<b>South County</b>						
11	N National Ave	Pedestrian and Intersection Improvements and Overlay	-	0.25	0.50	1.25
18	Sidney Rd SW	Construct Paved Shoulders	0.50	0.50	0.50	-
31	W Belfair Valley Rd	Access Control, Bike Lane, Sidewalks	0.75	0.75	0.75	0.75
36	SE Mullenix Rd	Eastbound Climbing Lane and Shoulder	2.25	2.25	2.25	2.25
79	Sidney Rd SW	Add Shoulders, Access Management, Left-Turn Lanes	2.75	2.75	2.75	2.75
81	Jackson Ave SE	Bike Lane, Sidewalk, Median Control, U-Turns	1.25	1.00	1.25	2.5
240	Berry Lake Rd	Lane Adjustments for all Alternatives	0.50	0.25	0.25	1.25
241	SE Salmonberry Rd	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	0.25
242	SE Mile Hill Dr	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	0.75
243	Long Lake Rd SE	6 Ft Shoulder for all Alternatives	0.75	0.75	2.00	-
244	Anderson Hill Rd SW	Sidewalk for Alternative 1 Lane Adjustments for Alternatives 2 and 3	3.25	3.25	3.25	3.00
245	Sunnyslope Rd SW	Lane Adjustments for all Alternatives	2.00	2.25	2.25	3.50

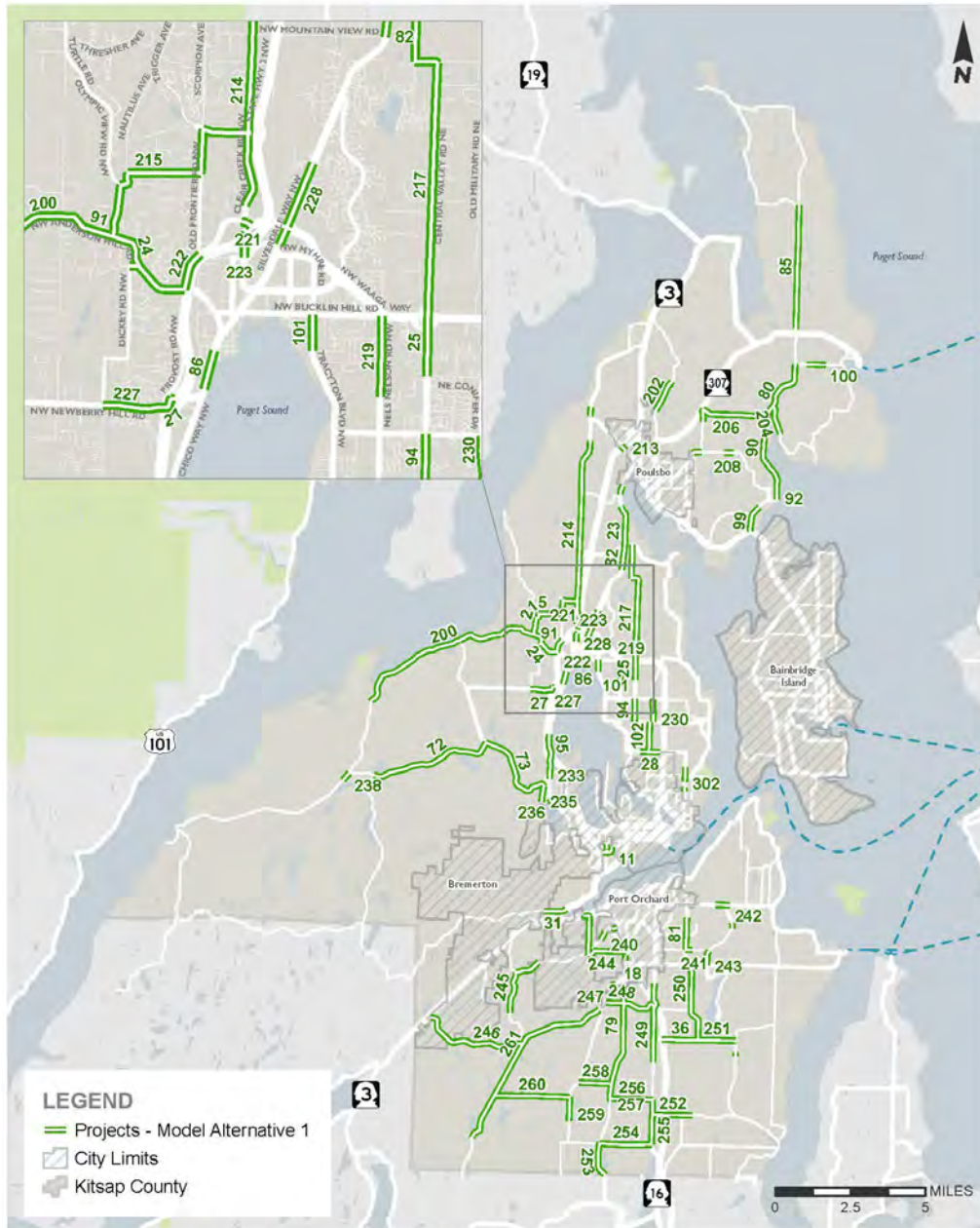
Project #	Roadway	Project Type	Approximate Project Length (mi)			
			Alt 1	Alt 2	Alt 3	Pref Alt
246	SW Lake Flora Rd	Lane Adjustments for all Alternatives	7.50	7.25	4.50	3.25
247	Glenwood Rd SW	6 Ft Shoulder for all Alternatives	0.25	0.25	0.25	-
248	SE Lider Rd	Sidewalk for Alternative 1 6 Ft Shoulder for Alternatives 2 and 3	1.75	1.75	1.75	1.75
249	Bethel Burley Rd SE	Lane Adjustments for Alternative 1 Sidewalk for Alternatives 2 and 3	2.75	2.75	2.75	-
250	Phillips Rd SE	Lane Adjustments for all Alternatives	4.00	4.00	4.00	4.00
251	SE Mullenix Rd	6 Ft Shoulder for Alternative 1 Lane Adjustments for Alternatives 2 and 3	1.50	1.25	1.25	1.25
252	SE Burley Olalla Rd	Lane Adjustments for all Alternatives	2.25	2.25	2.25	2.25
253	Sidney Rd SW	4 Ft Shoulder for all Alternatives	1.25	1.25	1.25	1.25
254	SE Pine Rd	6 Ft Shoulder for all Alternatives	1.75	1.75	1.75	-
255	Bethel Burley Rd SE	6 Ft Shoulder for Alternatives 1 and 3 Lane Adjustments for Alternative 2	2.50	3.50	2.50	-
256	SW Lakeway Blvd	4 Ft Shoulder for Alternative 1 Lane Adjustments for Alternatives 2 and 3	1.50	1.50	1.50	0.37
257	Sidney Rd SW	Lane Adjustments for all Alternatives	0.50	0.50	0.50	2.00
258	SW Wildwood Rd	4 Ft Shoulder Alternatives 1 and 3	1.00	-	1.00	-
259	Glenwood Rd SW	6 Ft Shoulder for all Alternatives	0.75	0.75	0.75	1.00
260	SW Lake Helena Rd	Lane Adjustments for all Alternatives	2.50	2.50	2.50	2.5
261	J M Dickenson Rd SW	Lane Adjustments for all Alternatives	9.25	9.25	9.25	9.25

*Note "Lane Adjustment" includes installation of two-way center turn lanes, left turn lanes, medians, or additional travel lanes.*

*Source: Kitsap County Public Works Department, 2023.*



### Exhibit 3.2.6.3-1.1 Recommended Roadway Projects Map – Alt 1

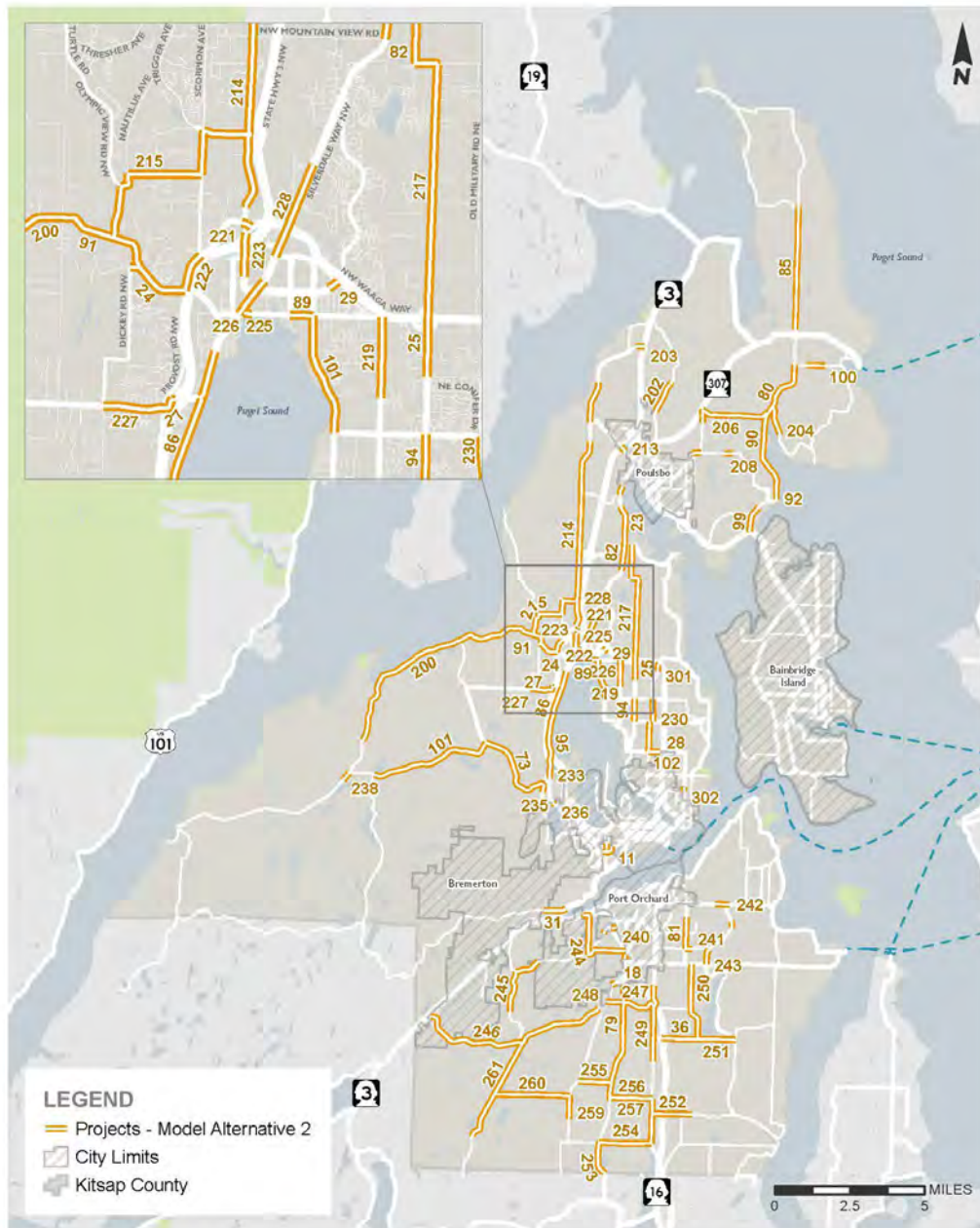


**Roadway Projects for Land Use Alternative 1**  
Kitsap County Comprehensive Plan

transpogroup

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### Exhibit 3.2.6.3-1.2 Recommended Roadway Projects Map – Alt 2



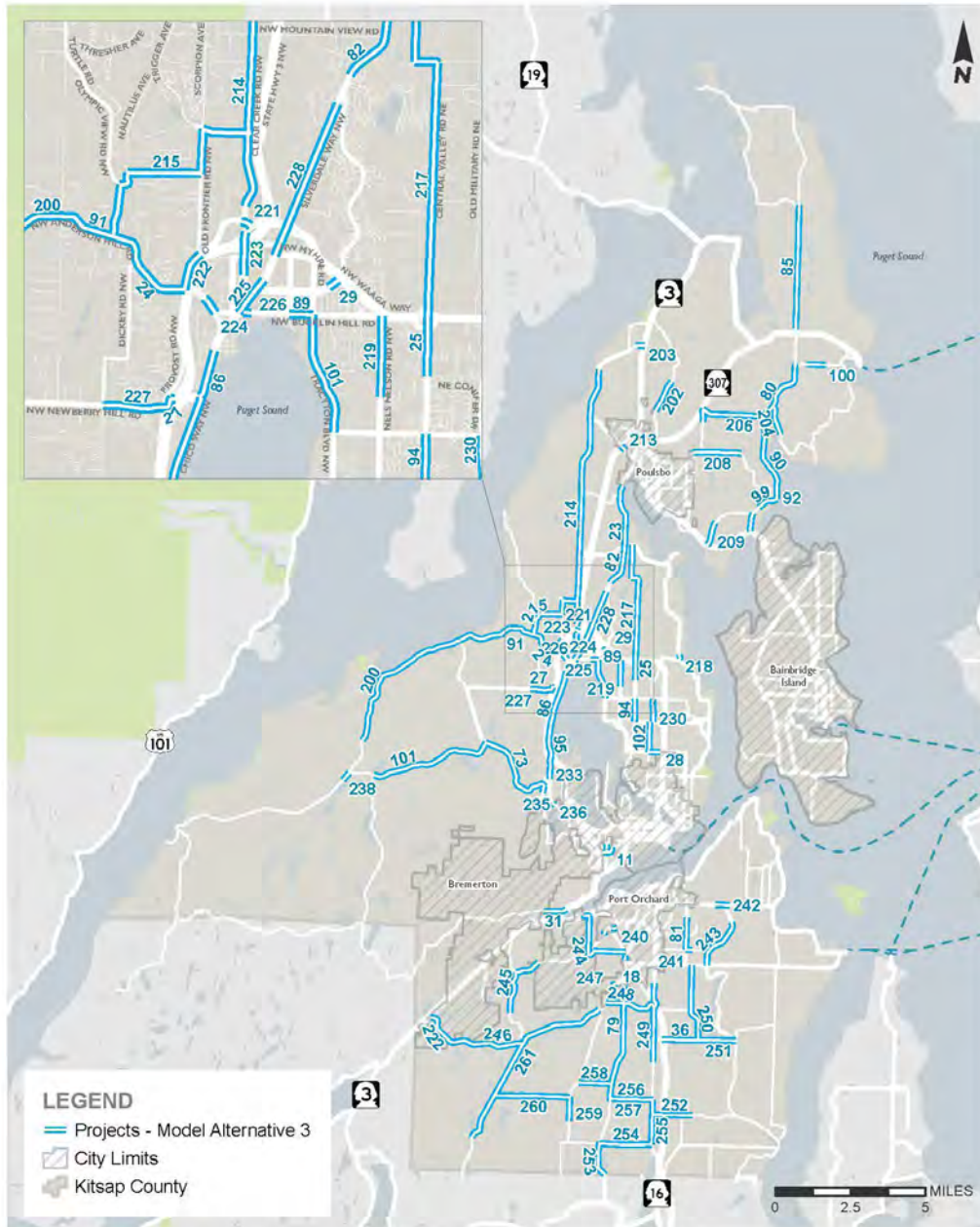
**Roadway Projects for Land Use Alternative 2**  
Kitsap County Comprehensive Plan

transpogroup

Map 3.2.6.3-1.2 Recommended Roadway Projects Map – Alt 2



### Exhibit 3.2.6.3-1.3 Recommended Roadway Projects Map – Alt 3



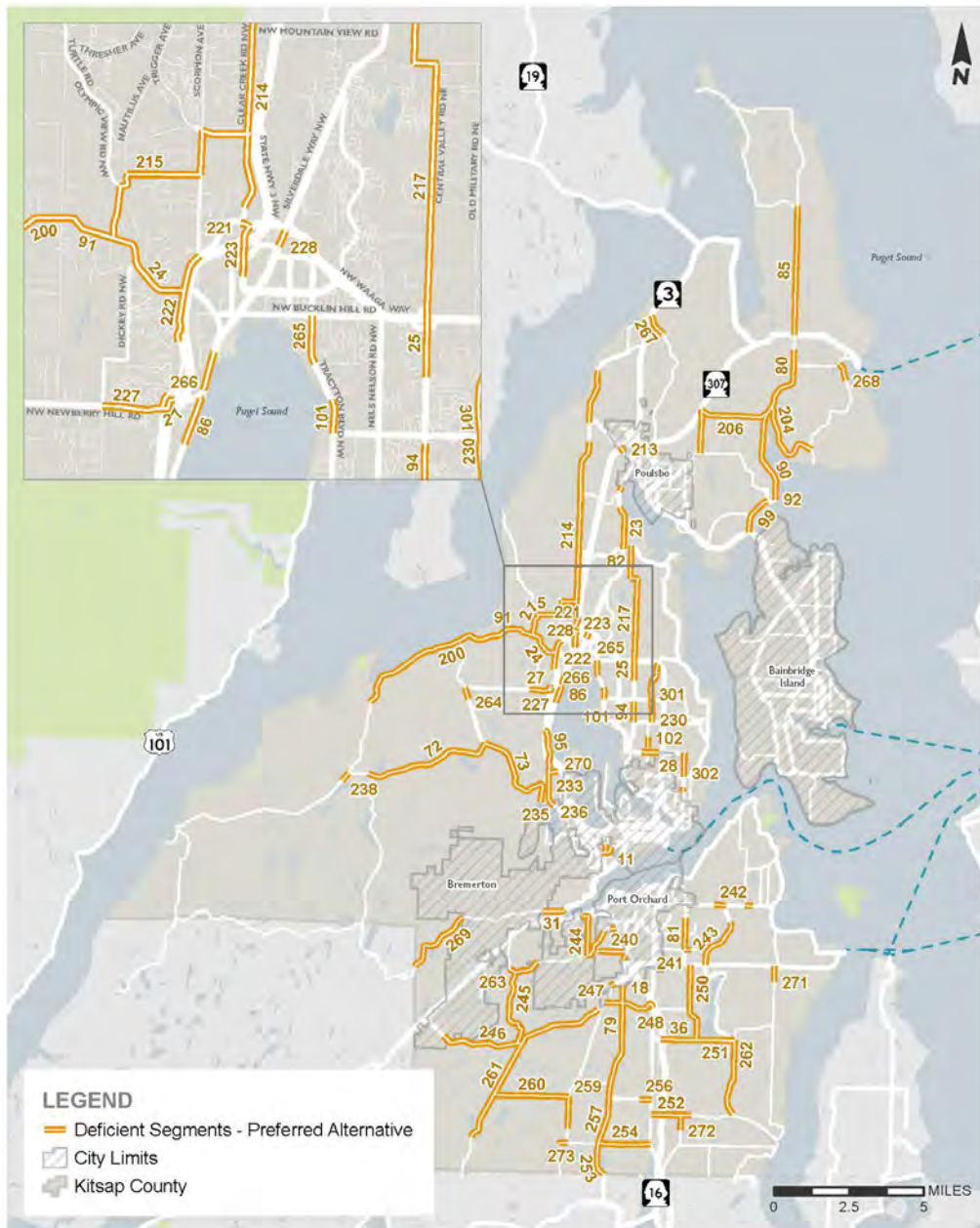
#### Roadway Projects for Land Use Alternative 3

Kitsap County Comprehensive Plan

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Map 3.2.6.3-1.3: Roadway Projects for Land Use Alternative 3. Map Date: 10/20/2023. Map Scale: 1 inch = 1 mile.

### Exhibit 3.2.6.3-1.4 Recommended Roadway Projects Map – Preferred Alt



**Roadway Projects for Land Use Preferred Alt**  
Kitsap County Comprehensive Plan

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MAP 3.2.6.3-1.4 - Recommended Roadway Projects for Land Use Preferred Alternative

### **Cost of Roadway Improvements**

Exhibit 3.2.6.3-2 summarizes the total cost of the projects recommended countywide. The Preferred Alternative has the highest estimated cost overall, with Alternative 1 having the lowest estimated cost. In terms of approximate cost, Alternative 3 is positioned between Alternative 1 and Alternative 2. These are calculated based off an average cost for the construction of sidewalks, shoulders, and lane adjustments if not already budgeted for. These costs do not include site-specific elements such as steep slopes, utility relocation, or other cost influencers.

**Exhibit 3.2.6.3-2 Summary of Cost of Roadway Improvements Recommended by 2044 (in \$ Millions)**

	Alternative 1 (No Action)	Alternative 2	Alternative 3	Preferred Alternative
North-Central County	174.4	174.1	179.5	186.0
South County	119.6	129.1	118.3	125.5
Total	294.0	303.2	297.8	311.5

*Note: Based upon 2023 dollars.*

As shown in Exhibit 3.2.6.3-2, the North-Central County costs are highest with the Preferred Alternative compared to the preliminary alternatives. There were 47 segments identified within the North-Central County for Alternative 3 that would require improvements. Alternatives 1 and 2 included 42 and 46 segments, respectively while the preferred alternative identified 34. Of the improvements for Alternative 3 that were not previously planned, the majority included shoulder improvements in the North-Central County, along with some segments involving lane adjustments. In the South County, costs are highest with Alternative 2. Alternatives 1 and 2 included 27 segments that would require improvements. Alternative 3 includes 28 such segments while the preferred alternative includes 25. For Alternative 2 of the improvements that were not previously planned, the majority included shoulder improvements in the South County. There are also two segments which included sidewalks as recommended improvements, with the remainder involving lane adjustments. The Preferred Alternative combines the greater density growth within the south country (like Alternative 2) with maintaining higher growth in the north-central region compared to Alternatives 1 and 2.

Exhibit 3.2.6.3-3 presents strategies the County is considering in order to achieve a balance between LOS, financing, and land use. Implementation of some strategies would raise

additional revenue; others would affect LOS standards to recognize a higher level of “acceptable” roadway congestion.

Strategies that affect land use could result in lower demand at some locations, but to accommodate future population and employment targets, could also result in higher demand at other locations. It is important to note that under the County’s current Concurrency program, not all projects identified in Exhibit 3.3-57 are needed to meet concurrency.

At the time of adoption of the updated Comprehensive Plan and CFP, Kitsap County will need to identify financing, policy-related and/or programmatic implementation measures that will allow the County to achieve a balance between land use, transportation finance, and LOS.

While none of the land use alternatives results in the County LOS standards being met, the table below summarizes potential mitigation measures to improve LOS (if needed) and balance the county’s budget.

**Exhibit 3.2.6.3-3      Potential Strategies to Achieve Balance between Transportation LOS, Financing, and Land Use**

POTENTIAL MITIGATION MEASURE	EFFECT OF MITIGATION MEASURE	IMPLEMENTATION
<b>FINANCIAL MEASURES: REALLOCATION OF EXPENDITURES, EXPENDITURE REDUCTIONS, AND OTHER MEASURES</b>		
<b>SHIFT RESOURCES FROM OTHER TRANSPORTATION PROGRAMS</b> – THIS MEASURE INVOLVES A SHIFT OF RESOURCES AMONG DIFFERENT TRANSPORTATION IMPROVEMENT PRIORITIES.	TRADITIONALLY, A SIGNIFICANT PORTION OF KITSAP COUNTY’S CAPITAL EXPENDITURES FOR ROADS HAS GONE TO OPERATIONS, MAINTENANCE, AND PRESERVATION INCLUDING PAVEMENT PRESERVATION, BRIDGE REHABILITATION /RESTORATION, INTERSECTION SAFETY AND SIGNALIZATION PROJECTS, AND WALKWAY PROJECTS. ONE OPTION IS TO REALLOCATE SOME OF THESE EXPENDITURES TO THE MAJOR CAPACITY PROJECTS NEEDED TO MAINTAIN LOS. THIS SHIFT COULD AFFECT FUNDING LEVELS OF NON-CAPACITY PROJECTS THAT WOULD LIKELY BE SPENT BY 2036. THIS COULD REDUCE PEDESTRIAN AND OTHER NON-VEHICULAR IMPROVEMENTS IN URBAN AREAS WHERE DEMAND WOULD BE GREATER DUE TO POPULATION GROWTH.	THIS MEASURE WOULD BE IMPLEMENTED AS PART OF THE COUNTY’S ANNUAL PROCESS ESTABLISHING ITS SIX-YEAR TIP, AND AN ORDINANCE ESTABLISHING THE ANNUAL CONSTRUCTION PROGRAM (ACP).
<b>SHIFT RESOURCES FROM MAINTENANCE AND OPERATIONS TO CAPACITY IMPROVEMENTS</b> – THIS MEASURE WOULD INVOLVE SHIFTING PUBLIC WORKS RESOURCES FROM MAINTENANCE AND OPERATIONS TO CAPACITY IMPROVEMENTS.	TRADITIONALLY, THE HIGHEST PRIORITIES FOR EXPENDITURE OF FUNDS BY PUBLIC WORKS HAVE BEEN SAFETY, MAINTENANCE AND PRESERVATION. NOTE: MAINTENANCE IS MORE COST EFFECTIVE WHEN PROVIDED ON AN ON-GOING BASIS.	THIS MEASURE WOULD BE IMPLEMENTED AS PART OF THE COUNTY’S ANNUAL PROCESS ESTABLISHING ITS BUDGET, ACP, AND SIX-YEAR TIP.



POTENTIAL MITIGATION MEASURE	EFFECT OF MITIGATION MEASURE	IMPLEMENTATION
<b>END REDIRECTS TO SHERIFF AND DEVELOPMENT ENGINEERING</b> - CURRENTLY PUBLIC WORKS REDIRECTS FUNDING TO THE SHERIFF AND TO COMMUNITY DEVELOPMENT ENGINEERING. THIS PROPOSAL ENDS THAT PROGRAM.	THIS PROPOSAL WOULD ALLOW THE COUNTY TO USE REDIRECTED FUNDS FOR CAPACITY PROJECTS. SHERIFF'S TRAFFIC CONTROL AND SITE-SPECIFIC REVIEW BY DEVELOPMENT ENGINEERING WOULD BOTH BE NEGATIVELY AFFECTED.	
<b>SHIFT RESOURCES FROM GENERAL BUDGET FUND TO TRANSPORTATION</b> - THIS STRATEGY WOULD REDIRECT FUNDING FROM THE GENERAL FUND TO SPECIFICALLY FUND CRITICAL TRANSPORTATION IMPROVEMENTS.	THIS PROPOSAL WOULD ALLOW THE COUNTY TO USE REDIRECTED GENERAL FUNDS TO THE TRANSPORTATION BUDGET TO FUND CRITICAL TRANSPORTATION IMPROVEMENTS.	
<b>FINANCIAL MEASURES: GENERATING ADDITIONAL REVENUE</b>		
<b>PROPERTY TAX LEVY OVERRIDE</b> - THE COUNTY MAY CONSIDER INCREASING THE AMOUNT OF PROPERTY TAX COLLECTED FOR THE ROAD FUND BEYOND ITS CURRENT ALLOWABLE ONE PERCENT INCREASE PER YEAR.	UNDER INITIATIVE 747 (2001), A TAXING DISTRICT MAY NOT INCREASE THE TOTAL AMOUNT IT COLLECTS IN REGULAR PROPERTY TAXES BY MORE THAN ONE PERCENT FROM ONE YEAR TO THE NEXT. THE INITIATIVE GIVES LOCAL OFFICIALS THREE OPTIONS TO INCREASE YEARLY PROPERTY TAX COLLECTIONS: 1) INCREASE THE AMOUNT COLLECTED BY UP TO ONE PERCENT; 2) INCREASE THE AMOUNT COLLECTED BY MORE THAN ONE PERCENT BY DRAWING ON UNUSED TAXING AUTHORITY THEY BANKED IN PREVIOUS YEARS; OR 3) ASK VOTERS TO APPROVE A HIGHER INCREASE.	THERE ARE NO STATUTORY LIMITS ON TAX INCREASE PROPOSALS SENT TO THE VOTERS. SUCH PROPOSALS NEED A SIMPLE MAJORITY TO PASS.

POTENTIAL MITIGATION MEASURE	EFFECT OF MITIGATION MEASURE	IMPLEMENTATION
<b>INCREASED IMPACT FEES</b> – THE COUNTY MAY CONSIDER INCREASING THE TRANSPORTATION IMPACT FEES ASSESSED TO NEW DEVELOPMENT TO REFLECT IMPACTS ON ROAD SYSTEM CAPACITY.	IMPACT FEE RATES ARE SET IN A FEE SCHEDULE ADOPTED BY ORDINANCE. INCREASING THE IMPACT FEE SCHEDULE WOULD INCREASE REVENUE.	THIS MEASURE WOULD REQUIRE ADOPTION OF AN ORDINANCE AMENDING THE FEE SCHEDULE.
<b>LOCAL OPTION FUEL TAX</b> –THE COUNTY COULD PROPOSE A COUNTYWIDE FUEL TAX TO FINANCE CITY AND COUNTY TRANSPORTATION IMPROVEMENTS (RCW 82.80). THE COUNTY AND CITIES WOULD SHARE THE REVENUE, WITH THE COUNTY'S SHARE 1.5 TIMES THE UNINCORPORATED POPULATION.	THIS MEASURE COULD SUBSTANTIALLY REDUCE THE REVENUE DEFICIT IMPACTS RELATED TO EACH ALTERNATIVE. REVENUE AMOUNTS FOR THE COUNTY AND CITIES WOULD DEPEND ON THE YEAR THIS MEASURE WAS IMPLEMENTED AND THE AMOUNT OF UNINCORPORATED POPULATION GROWTH.	THIS MEASURE WOULD REQUIRE THE COUNTY TO COLLABORATE WITH THE CITIES TO DEVISE AND CONCUR ON A PROGRAM OF PROJECTS. THE COUNTY WOULD THEN PLACE THIS MEASURE ON THE BALLOT FOR APPROVAL BY A MAJORITY OF COUNTY VOTERS.
<b>MOTOR VEHICLE LICENSE FEE</b> – THIS MEASURE WOULD HAVE THE COUNTY REINSTATE A \$15 LICENSE FEE ON MOST VEHICLES REGISTERED WITHIN THE COUNTY (RCW 82.80). THE COUNTY AND CITIES WOULD SHARE THIS REVENUE BASED ON THE PROPORTIONAL NUMBER OF REGISTERED VEHICLES WITHIN INCORPORATED AND UNINCORPORATED POPULATIONS.	THIS MEASURE COULD HELP REDUCE THE REVENUE DEFICIT IMPACTS ASSOCIATED WITH EACH ALTERNATIVE. THE AMOUNTS OF REVENUE GENERATED WOULD DEPEND ON THE YEAR THIS MEASURE WAS IMPLEMENTED AND THE NUMBER OF MOTOR-VEHICLES REGISTERED IN THE COUNTY OVER TIME.	THE COUNTY, WITH THE CITIES' CONCURRENCE, WOULD NEED TO PLACE THIS MEASURE ON THE BALLOT FOR APPROVAL BY A MAJORITY OF COUNTY REGISTERED VOTERS.

POTENTIAL MITIGATION MEASURE	EFFECT OF MITIGATION MEASURE	IMPLEMENTATION
<b>LOCAL TRANSPORTATION IMPROVEMENT DISTRICT (LTID) - COUNTY</b> COMMISSIONERS WOULD WORK WITH CITY COUNCILS TO DEVELOP A PACKAGE OF PROJECTS AND FUNDING UNDER THE LTID. LTID'S FUNDING OPTIONS INCLUDE INCREASED SALES TAX, IMPOSING A VEHICLE LICENSE FEE, INCREASING THE MOTOR VEHICLE EXCISE TAX (MVET), TOLLS ON HIGHWAYS OR BRIDGES, AND LOCAL OPTION FUEL TAX.	THIS MEASURE COULD HELP REDUCE THE REVENUE DEFICIT IMPACTS ASSOCIATED WITH EACH ALTERNATIVE. THE AMOUNTS OF REVENUE GENERATED WOULD DEPEND ON THE FUNDING SOURCE CHOSEN, YEAR OF IMPLEMENTATION, AND TRENDS IN COUNTY SALES, VEHICLE LICENSES, AND/OR DRIVING RATES.	THE LTID RECOMMENDED PACKAGE OF PROJECTS AND FUNDING WOULD BE SUBJECT TO APPROVAL BY COUNTY VOTERS.

LOS MEASURES: CHANGING LOS STANDARD AND/OR MEASUREMENT		
<p><b>LOWER LOS STANDARDS, GENERAL CONSIDERATION -</b> SETTING A LOWER LOS STANDARD WOULD RESULT IN A REDEFINED AND REDUCED NEED FOR MAJOR ROAD WIDENING PROJECTS. THIS IN TURN WOULD REDUCE THE EXPENDITURE FORECAST.</p>	<p>REDUCED AVAILABILITY OF CAPITAL RESOURCES FOR ROADS WILL BE AN IMPORTANT FACTOR IN EVALUATING THE 2044 LAND USE ALTERNATIVES. KITSAP COUNTY HAS FEWER RESOURCES FOR MAJOR ROAD PROJECTS THAN IN PRIOR PLANNING PERIODS. THE REVENUE/EXPENDITURE PORTION OF THE TRANSPORTATION ELEMENT HAS TO BE BALANCED AS ACCURATELY AND REALISTICALLY AS POSSIBLE. TO SET A LOS STANDARD THAT THE COUNTY CANNOT AFFORD MAY RESULT IN ROADS NOT GETTING WIDENED THAT WOULD NEED TO BE WIDENED TO ACCOMMODATE THE GROWTH ANTICIPATED IN THE LAND USE PLAN. THIS IN TURN COULD LEAD TO DEVELOPMENTS NOT BEING DEEMED CONCURRENT, NOT JUST FOR A FEW YEARS, BUT UNTIL SOMETIME BEYOND THE 2044 PLANNING HORIZON. HOWEVER, LOWER LOS STANDARDS WOULD ALSO MEAN INCREASED LEVELS OF CONGESTION COMPARED TO THE PRESENT.</p>	<p>THIS MEASURE WOULD REQUIRE ADOPTION WITHIN THE TRANSPORTATION ELEMENT OF THE COMPREHENSIVE PLAN, AN IMPLEMENTING ORDINANCE AND CHANGES TO IMPLEMENTING REGULATIONS.</p>
<p><b>SET LOS ON A CORRIDOR-BY-CORRIDOR BASIS -</b> SOME CORRIDORS COULD BE EXCLUDED FROM CAPACITY EXPANSION TO DISCOURAGE EXCESSIVE GROWTH IN RURAL AREAS.</p>	<p>THIS MEASURE WOULD RESULT IN A REDUCTION OF CAPACITY PROJECTS IN RURAL AREAS.</p>	<p>THIS MEASURE WOULD REQUIRE A CHANGE TO THE COUNTY CODE TO ALLOW FOR CORRIDOR-BASED LOS STANDARDS.</p>

LOS MEASURES: CHANGING LOS STANDARD AND/OR MEASUREMENT		
LAND USE MEASURES: ADOPTING OR AMENDING COUNTY LAND USE POLICIES		
<p><b>INTENSIFICATION OF EXISTING UGAS AND URBAN CENTERS</b> –FOCUS URBAN DEVELOPMENT WITHIN THE EXISTING UGAS AND AT DESIGNATED URBAN CENTERS BY AMENDING LAND USE DESIGNATIONS AND ZONING TO ACCOMMODATE AND ENCOURAGE MORE INTENSIVE USES.</p>	<p>THIS MEASURE WOULD LIMIT THE NEED FOR UGA BOUNDARY EXPANSIONS. THIS COULD REDUCE EXPENDITURES FOR URBAN ARTERIAL CAPACITY. HOWEVER, INTENSIFICATION OF URBAN CENTERS WOULD REQUIRE ARTERIAL IMPROVEMENTS THAT WOULD USE SOME OF THE FUNDING SAVED BY NOT EXPANDING UGAS.</p>	<p>THIS MEASURE WOULD BE AT THE COMMISSION'S DISCRETION TO ADOPT AND AMEND THE FUTURE LAND USE MAP, INVOLVING THE INITIAL ADOPTION OF THE COMPREHENSIVE PLAN AND SUBSEQUENT "ANNUALLY DOCKETED" PLAN AMENDMENTS (RCW 36.70A.070 {1}). PUBLIC HEARINGS WOULD BE HELD TO CONSIDER CONSISTENCY WITH COUNTYWIDE PLANNING POLICIES. ZONING CODE AMENDMENTS WOULD NEED TO BE PREPARED TO ACCOMMODATE AND OFFER INCENTIVES (E.G., DENSITY BONUSES), TO MORE INTENSIVE DEVELOPMENT WITHIN AND AROUND URBAN CENTERS.</p>
<p><b>PROACTIVE CITY ANNEXATION OF GROWTH AREAS</b> – THE COUNTY WOULD ENTER INTO AGREEMENTS TO EXPEDITE CITY ANNEXATION OF GROWTH AREAS, OR COUNTY-CONTROLLED URBAN "ISLANDS" FOR WHICH THE CITY IS PROVIDING SERVICES.</p>	<p>THE COUNTY WOULD RELINQUISH RESPONSIBILITY FOR ARTERIAL ROAD IMPROVEMENTS RESULTING FROM CITY GROWTH AND DEVELOPMENT OR DEVELOPMENT WITHIN AN AREA SUITABLE FOR ANNEXATION. FINANCIAL RELIEF UNDER THIS MEASURE IS SPECULATIVE AT THIS TIME.</p>	<p>THE COUNTY WOULD NEED TO NEGOTIATE AND ENTER INTO INTERLOCAL ANNEXATION AGREEMENTS WITH EACH CITY. THE INTERLOCAL AGREEMENTS WOULD SPELL OUT THE CONDITIONS THAT WOULD TRIGGER A CITY'S ANNEXATION OF AN AREA, THE COUNTY'S RESPONSIBILITY UNDER THE TRANSITION, AND TRANSFER OF COUNTY DEBT FOR INFRASTRUCTURE IMPROVEMENTS.</p>

LOS MEASURES: CHANGING LOS STANDARD AND/OR MEASUREMENT		
CONCURRENCY MANAGEMENT SYSTEM		
<p><b>REVISE CONCURRENCY MANAGEMENT SYSTEM (CMS)</b></p> <p>– THE COUNTY MAY CONSIDER UPDATES TO THE CONCURRENCY MANAGEMENT SYSTEM TO IMPLEMENT CHANGES IN LOS STANDARDS AND/OR OTHER ASPECTS OF DEVELOPMENT CONCURRENCY DETERMINATIONS.</p>	<p>THIS MEASURE MIGHT NOT HAVE ANY DIRECT IMPACT ON LEVELS OF SERVICE BUT COULD AFFECT THE WAY THE COUNTY MAKES CONCURRENCY DETERMINATIONS FOR DEVELOPMENTS. POTENTIAL CHANGES TO THE COUNTY'S CMS COULD INCLUDE, BUT ARE NOT LIMITED TO:</p> <ul style="list-style-type: none"> <li>· ALTERNATIVES TO THE CONVENTIONAL A-F LOS STANDARDS</li> <li>· DIFFERENT LOS STANDARDS ON DIFFERENT ROAD TYPES</li> <li>· DIFFERENT LOS STANDARDS IN DIFFERENT GEOGRAPHIC AREAS</li> <li>· USE OF INADEQUATE ROAD CONDITION CRITERIA</li> <li>· LIMITS ON WHAT ROADS LOS STANDARDS APPLY</li> <li>· USE OF ALTERNATIVE MEASUREMENTS (E.G., VOLUME-TO-CAPACITY, DENSITY, CONGESTION INDICES)</li> </ul>	<p>THIS MEASURE WOULD REQUIRE ADOPTION IN AN IMPLEMENTING ORDINANCE AND/OR CHANGES TO ADMINISTRATIVE RULES ADOPTED BY THE DIRECTOR OF PUBLIC WORKS.</p>

## Potential Policy Measures as Mitigation

The GMA requires Kitsap County to ensure that transportation facilities and services are adequate to serve planned land use, consistent with adopted LOS standards and a strategy to finance needed improvements (RCW 36.70A.70 {6}). This requires balancing three elements:

- Land development reflected by the Land Use Map
- Adopted LOS standards and policies
- Financial policy and strategy that determines available revenues and levels of expenditure

The County has a fair amount of discretion and several options under each of these policy categories. To maintain the balance between elements, an increase or decrease in one category requires change in the other two categories.

If revenue from one or more of the potential sources does not provide the additional revenue needed to fund the roadway improvements listed in Exhibit 3.2.6.121, the County has several options:

- Lower the LOS standard, reducing the need for additional infrastructure
- Increase the amount of revenue from existing sources
- Adopt new sources of revenue
- Require developers to provide such facilities at their own expense

The GMA concurrency requirements must be met regardless of funding shortfalls. Under current state law, if concurrency is not met, a moratorium on development must be imposed on the County. Kitsap County is projected to meet concurrency requirements under all three alternatives.

## Programmatic Measures as Mitigation

Kitsap County employs a number of implementation measures that are not improvement projects or specific policy decisions but represent programmatic actions that help implement the Comprehensive Plan. The following implementation measures could, over time, mitigate ongoing growth and transportation impacts:

- Commute trip reduction
- Transit-compatible design
- Access management



Most of the traffic mitigation offered by these implemented measures is accounted for in the County's travel modeling and analysis. However, increased emphasis on these measures could result in further reduced vehicular trips, reduced travel-time delay, and higher transit use.

#### **3.2.6.4      Transportation – Significant Unavoidable Adverse Impacts**

Generally, each alternative results in similar levels of transportation impact. In total, the number of VMT is expected to increase 84% during the PM peak hour between now and 2044 in the preferred alternative. The County's current roadway LOS standard is measured on a roadway segment V/C ratio. Each alternative results in approximately 130 lane-miles of county roadway being below LOS. While a list of projects has been compiled to address each roadway impact, it is unlikely that many of these projects will be built due to the feasibility of construction, as additional travel lanes on rural roadways are often infeasible. Additionally, none of the alternatives results in more than 15% of the County's lane-miles being below LOS standard, meaning concurrency has not been exceeded, and mitigation is not required. This suggests that without any transportation system improvements the County would still meet the LOS standard. However, the county is likely to focus transportation investments to improve non-motorized travel options (which will result in lower VMT due to mode shift) and prioritize safety investments.

#### **3.2.7          Noise**

This section evaluates noise associated with general changes in land use as well as changes in traffic flows.

Terrestrial noise is measured in the logarithmic decibel (dB) scale as a measure of how sound is interpreted by the human ear. It is measured on a frequency-weighted scale (the A-scale) to adjust for approximate human hearing. This decibel scale (dBA) begins at zero, and the relative noise levels double for each 10dBA increase. Therefore, an increase from 60 dBA to 70 dBA would be twice as loud to the human ear. Examples of typical background noise levels to be expected at different population densities are provided in Exhibit 3.2.7-1 below. Examples of typical traffic-generated noise based on varying traffic volumes and speeds are provided in Exhibit 3.2.7-2.

### Exhibit 3.2.7-1 Estimates of existing environmental noise background levels

Population Density (People per Square Mile)	Daytime Background Noise Levels Exclusive of Traffic (dBA)
1 – 100	35
100 – 300	45
300 – 1,000	50
1,000 – 3,000	55
3,000 – 10,000	60
10,000 – 30,000	65
30,000 and up	70

Source: WSDOT 2020

### Exhibit 3.2.7-2 Typical noise levels for traffic volumes at various speeds

Volume (Vehicles/hour)	Speed (mph)									
	35	40	45	50	55	60	65	70	75	
125	57.3	58.5	59.7	60.9	62.0	63.1	64.1	65.1	66.1	Sound Level (dBA) at 50'
250	60.2	61.4	62.6	63.8	64.9	66.0	67.0	68.0	69.0	
500	63.2	64.4	65.6	66.8	67.9	69.0	70.0	71.0	72.0	
1,000	66.2	67.4	68.6	69.8	70.9	72.0	73.0	74.0	75.0	
2,000	69.2	70.4	71.6	72.8	73.9	75.0	76.1	77.0	78.0	
3,000	71.0	72.2	73.4	74.6	75.7	76.8	77.8	78.8	79.8	
4,000	72.2	73.4	74.6	75.8	76.9	78.0	79.1	80.1	81.0	
5,000	73.2	74.4	75.6	76.8	77.9	79.0	80.0	81.0	82.0	
6,000	74.0	75.2	76.4	77.6	78.7	79.8	80.8	81.8	82.	

Source: WSDOT 2020

Noise attenuates at different rates based on a variety of factors, including the type of noise source and the characteristics of the surrounding landscape. Point source noise, which is generated from a stationary position, attenuates at 6 dB per doubling of distance. Line source noise, which is generated from a moving source (such as traffic), attenuates at 3 dB per doubling of distance. These general attenuation rates assume a hard surface (e.g., concrete, asphalt, hard-packed soil, or water) that is not absorptive of sound. A soft surface, such as soft-packed soil, absorbs an additional 1.5 dB per doubling of distance. Accordingly, point source noise and line source noise attenuate at 7.5 dB and 4.5 dB per

doubling of distance over soft surfaces, respectively. These attenuation rates are standard, baseline calculations. However, localized conditions can be highly variable depending on other factors that may interfere with sound transmission, such as topographic or structural obstructions.

In addition to background environmental noise based on land use or traffic, noise generated during construction must also be considered. Construction noise varies based on the types of construction equipment being used, whether the noise is individual or cyclical, and the attenuation rates described above. Noise levels generated by typical construction equipment are summarized in Exhibit 3.2.7-3.

**Exhibit 3.2.7-3      Average noise levels at 50 feet for common construction equipment**

Construction Equipment	Average dBA Measured at 50 feet
Backhoe	84
Chainsaw	83
Clamshell (dropping)	87
Concrete grinder	96
Concrete Pump Truck	60
Crane	79
Dozer	86
Dump truck (cyclical)	91
Dump truck (passby)	79
Front-end loader (cyclical)	81
Front-end loader (passby)	71
Grader (passby)	79
Impact pile driver	105
Jackhammer	95
Paving	74-91
Roller	82
Pumps	74
Vibratory pile driver	105
Water spray truck	72

*Source: WSDOT 2020*

When multiple pieces of construction equipment are operating simultaneously, the rules of decibel addition apply to determine the cumulative noise and resulting distance for attenuation to background levels. The three loudest pieces of construction equipment are

identified. The two lowest pieces of equipment are added together per the rules in Exhibit 3.2.7-4, then the loudest piece of equipment is added using the same rules.

#### Exhibit 3.2.7-4 Rules for combining noise levels

When Two Decibel Values Differ By	Add the Following to the Higher Decibel Value
0 or 1 dBA	3 dBA
2 or 3 dBA	2 dBA
3 to 9 dBA	1 dBA
10 dBA or more	0 dBA

Source: WSDOT 2020

### 3.2.7.1 Noise – Affected Environment

Ambient background noise levels in unincorporated Kitsap County depend largely on proximity to highways, as they are typically the dominant source of elevated noise levels outside of urban areas. Highway-generated noise levels vary as summarized in 3.2.7-2.

In suburban and rural areas away from highways, noise levels align more closely with the ranges summarized in Exhibit 3.2.7-1. As of 2020, the most recent year for which data is available, Kitsap County had an average population density of 697.6 people per square mile (US Census Bureau QuickFacts). This density would yield ambient noise levels of approximately 50 dBA, with anticipated ranges in populated areas between 45 dBA and 55 dBA, based on specific locations within the county.

### 3.2.7.2 Noise – Impacts

#### Impacts Common to All Alternatives (Area Specific and Cumulative)

Population growth, traffic volume increases, and noise-generating construction activities would occur under all alternatives to varying degrees. Changes to land use designations and zoning would directly influence ambient noise levels, as increases in population density increase background noise levels. Generally, changes in traffic flows, particularly speed and volume, would have a greater impact on noise generation than changes in land use or population density within an existing urban or suburban area. Increases in traffic volumes and construction-generated noise would be more project-specific under each alternative. Construction-generated noise would vary based on the scale of individual construction projects given the use of heavy machinery and power tools associated with each; this variable includes both the level of noise generated and the areal extent to which higher noise levels will be observable. The overall volume of single-family residential home

construction will be relatively consistent among the alternatives, whereas multifamily residential construction will differ substantially.

The nature and extent of ambient noise increases above existing ambient noise levels would depend on the location of proposed land use changes, as areas outside of UGAs would generally be more sensitive to changes in land use patterns than areas within the UGA where population densities are greater under the existing condition.

### **Impacts of Alternative 1, “No Action”**

Alternative 1 provides the least capacity and opportunity for population and employment growth. Construction noise impacts will continue to occur, primarily for single-family residential construction in existing UGAs and, to a lesser extent, rural areas. The level of construction noise impacts will be less than under Alternatives 2 and 3. Since Alternative 1 offers the lowest growth capacity, ambient noise levels will increase less than under Alternatives 2 and 3. With the limited population and density growth opportunities under Alternative 1, ambient noise levels are not likely to increase by more than 5 dBA in any areas, per the population density ranges under Exhibit 3.2.7-1.

Increased vehicle travel and new roadway construction will be less under Alternative 1 than under Alternatives 2 and 3. Alternative 1 includes the smallest increase in peak time VMT, estimated at a 72% increase. There would also be fewer increases in mass transit options, particularly buses, which reduce traffic volumes, but create higher noise levels individually. Therefore, traffic-related noise impacts would be less under Alternative 1 than under Alternatives 2 and 3.

### ***Silverdale Subarea***

Most of the growth in Silverdale would be infilled as single-family residential under Alternative 1. Multifamily residential construction would be limited under Alternative 1, leading to only modest growth and an anticipated shortfall of available housing. Construction noise impacts would occur through the construction of single-family residences and limited multifamily developments; construction noise would not significantly increase from current trends. Population density would not increase sufficiently to have a noticeable effect on ambient noise levels, and traffic noise would remain relatively stable.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Construction noise impacts would be the greatest under Alternative 2. While growth would continue throughout the county, much of the construction noise would be focused within the modified UGA boundaries. Growth and its associated noise impacts would be limited in

rural areas by limiting the expansion of UGA boundaries. The extent of elevated construction noise would be dependent on the specifics of individual construction projects, although multifamily developments typically require more heavy construction equipment operating simultaneously and, therefore, generate comparatively louder noise that extends farther before dissipating to background levels than single-family home construction.

Population density would be increased significantly in the Central Kitsap and Silverdale UGAs, although increases in ambient noise exclusive of traffic would be negligible based on average ambient noise levels of existing and anticipated population densities. Single-family residential growth would be only slightly higher under Alternative 2 as compared to Alternatives 1 and 3, with most residential construction focused on multifamily development in population centers.

Traffic volumes would increase in the UGAs, as would commuter traffic from the rural areas into UGAs as a result of increased employment opportunities in population centers. However, by focusing multifamily and mixed-use development near transit hubs and increasing density near urban centers, residents would be encouraged to use public transit and/or shorten commute times, thus reducing vehicular trips when compared to outward residential expansion. The increase in peak time vehicle miles travelled would be more than under Alternative 1 and less than Alternative 3, with an estimated 75% increase by 2044. As compared to the no action alternative, this increase is not expected to represent a substantial difference in traffic-generated noise for most areas.

### ***Silverdale Subarea***

Population density and employment capacity will increase significantly in the Silverdale UGA under Alternative 2, with approximately half of all unincorporated county growth for both parameters focused in this UGA. However, increases in ambient noise exclusive of traffic would be negligible based on average ambient noise levels of existing and anticipated population densities. Construction noise would be comparatively higher in the Silverdale UGA versus other areas of the county, due to the heavy construction equipment needed to construct multifamily and mixed-use developments.

Traffic-related noise in the Silverdale UGA would be mostly correlated with an increase in bus use, which will be encouraged. City buses generate approximately 20 dBA more noise during operation than a typical gasoline-powered car or light truck. This will lead to elevated noise levels along bus routes with increased frequency of trips. The effects will be limited to pass-by noise and not an overall increase in ambient noise outside of transit hubs.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Noise impacts under Alternative 3 would be similar to those for Alternatives 1 and 2. Construction noise would be greater than Alternative 1 and less than Alternative 2, as much of the population growth would be accommodated through single-family home construction, with less emphasis on multifamily residences than Alternative 2 but more than Alternative 1. Individual single-family residential construction projects produce less noise impacts than multifamily and mixed-use construction. Noise impacts will not be as concentrated in urban areas as under Alternative 2. While much of the future growth will be within existing UGAs, notable growth will also occur in areas that are currently outside of the UGA. Construction noise will rise farther above ambient noise in areas that are currently rural but incorporated into the expanded UGAs, as compared to similar activities in existing urban areas. Less population growth can be accommodated under Alternative 3 than Alternative 2. Ambient background noise exclusive of traffic noise will increase slightly in areas to be incorporated into the expanded UGAs but is not expected to notably increase in the existing UGAs.

The need for increased commuter options from rural areas into the UGAs as necessitated by the increased employment opportunities will result in the greatest increase in peak hour VMT of all Alternatives, with an approximately 78% increase by 2044. The need for increased commuter options, particularly buses, would result in increased noise levels along existing and expanded bus routes; this effect would be limited to pass-by noise and not an overall increase in ambient noise, as compared to the other alternatives.

#### ***Silverdale Subarea***

Noise effects in the Silverdale UGA under Alternative 3 would be less than under Alternative 2, but more than under Alternative 1. Multifamily construction would be significantly less than under Alternative 2, resulting in lower construction-generated noise disturbances. Population density would increase more modestly than under Alternative 2; however, the overall ambient noise levels would not be significantly different.

### **Impacts of the Preferred Alternative**

Noise impacts under the Preferred Alternative are similar to those under Alternative 2. New construction and associated noise would be greater in the modified UGAs where housing and employment centers are planned. Ambient noise levels would increase with greater density, particularly in the Silverdale Subarea, Puget Sound Industrial Area, Central Kitsap, West Bremerton, and Port Orchard. Noise impacts in surrounding rural areas are expected to be lower. Increased traffic volumes may be offset somewhat by investments in transit



around urban centers. However, as population and employment grow, ambient noise is expected to increase in those areas.

### ***Silverdale Subarea***

Generally, the noise impacts for the Preferred Alternative are similar to Alternative 2. The regional growth center in the Silverdale Subarea is zone 19 DU/acre - no max under the Preferred Alternative, slightly higher density than proposed under Alternative 2. Increased public transit is expected to increase noise around transit hubs in the Silverdale Subarea. Although there may be a corresponding decrease in individual vehicle noise depending on individual adoption of transit resources in daily practices.

### **3.2.7.3 Noise – Mitigation Measures**

#### **Applicable Regulations & Commitments**

##### ***Local Regulations***

Noise in Kitsap County is regulated under KCC 10.28. KCC 10.28 includes the use of EDNA classifications. EDNA means the environmental designation for noise abatement, being an area or zone (environment) within which maximum permissible noise levels are established. Three EDNAs are established by Kitsap County: Residential Zones (Class A); Commercial Zones (Class B); and Industrial Zones (Class C). Permissible noise levels vary based on the source and receiving EDNA. Exhibit 3.2.7.3-1 presents the basic maximum noise levels for each EDNA. The maximum allowable noise levels must be reduced by 10 dBA between the hours of 10:00 p.m. and 7:00 a.m. (KCC 10.28.040(b)). At any time, the maximum allowable noise limits may be exceeded by no more than the following, per KCC 10.28.040(c):

- 1) 5 dBA for a total of fifteen minutes during any one-hour period; or
- 2) 10 dBA for a total of five minutes during any one-hour period; or
- 3) 15 dBA for a total of one and a half minutes during any one-hour period.

Specific exemptions to the general maximum permissible noise limits are itemized in KCC 10.28.045-080.

### Exhibit 3.2.7.3-1 Maximum permissible noise levels by EDNA

EDNA of Noise Source	EDNA of Receiving Property		
	Class A	Class B	Class C
Class A	55 dBA	57 dBA	60 dBA
Class B	57 dBA	60 dBA	65 dBA
Class C	60 dBA	65 dBA	70 dBA

Source: KCC 10.28.040(a)

Noise generation from vehicles traveling on state highways is regulated under WAC 173-62 and is exempt under the Kitsap County Noise Ordinance (KCC 10.28). Vehicles traveling off state highways are also exempted from KCC 10.28, when the noise is generated in Class A (residential) EDNAs.

### State & Federal Regulations

The Federal Highway Administration (FHWA) has adopted noise abatement criteria for all projects that receive funding. WSDOT has adopted these standards. Exhibit 3.2.7.3-2 describes the noise abatement criteria for projects that receive federal funding.

### Exhibit 3.2.7.3-2 Federal noise abatement criteria

Activity Category	Activity Leq(h) <sup>1</sup>	Activity Description
A	57 dBA (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 dBA (exterior)	Residential.
C	67 dBA (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 dBA (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.

Activity Category	Activity Leq(h) <sup>1</sup>	Activity Description
E	72 dBA (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	Undeveloped lands that are not permitted.

Notes:

<sup>1</sup> Equivalent sound pressure measurement over a 60-minute time period.

Source: CFR Part 772.19

The Kitsap County Noise Ordinance (KCC 10.28) governs allowable noise disturbances. EDNAs will be maintained or re-established based on future residential, commercial, and industrial zones. The noise regulations limit noise disturbances for residential areas in proximity to commercial and industrial zones. Any project receiving federal funding (i.e., highway construction) would also be subject to the federal noise abatement criteria established by the FHWA. Project-specific construction activities will be required to maintain standard construction best practices, including limiting the hours of construction noise in accordance with local regulations.

#### 3.2.7.4 Noise – Significant Unavoidable Adverse Impacts

Adverse noise impacts are unavoidable for all alternatives. Population and employment growth across the county will continue under all alternatives. This will necessitate the construction of both single-family and multifamily residential projects, although the number of multifamily construction projects would vary substantially between alternatives. Under Alternative 1, construction-related noise impacts would be more dispersed throughout the county, whereas under Alternatives 2, 3 and the preferred alternative, they would be more concentrated in the UGAs, particularly the Silverdale subarea. Ambient noise increases are unavoidable wherever growth occurs. However, given the relevant population densities under the existing conditions and proposed for each alternative, ambient noise levels exclusive of traffic are not anticipated to increase significantly.

Traffic volumes and VMT will increase significantly under all three alternatives because of population and employment increases. This will inevitably result in increased traffic-related noise effects, which will vary by location depending on the selected alternative. These effects would be realized along primary traffic corridors and new or expanded bus routes. Major highway expansions could lead to significant noise increases, depending upon

additional anticipated traffic volumes and speeds. Planned improvements to SR 3 / 16 could yield significantly increased noise levels along the corridor, but this cannot be assessed in detail prior to design.

## **3.3 BUILT ENVIRONMENT: PUBLIC SERVICES & UTILITIES**

### **3.3.1 Public Buildings**

#### **3.3.1.1 Public Buildings – Affected Environment**

Kitsap County's public buildings, which include government administrative offices, courtrooms, juvenile justice, maintenance facilities, and community centers, serve the county as a whole, including incorporated and unincorporated populations. The analysis in this section excludes facilities specific to department missions, such as Public Works maintenance facilities.

The 2023 inventory shows that the County has approximately 613,371 square feet of public building space. A detailed inventory is included in Exhibit 4-1 of the Kitsap County Capital Facility Plan.

#### **Silverdale Subarea**

Under the preferred alternative and alternative 2 Compact Growth/Urban Center Focus, the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard and Poulsbo will be targeted for future growth.

#### **3.3.1.2 Public Buildings – Impacts**

##### **Impacts Common to All Alternatives**

All alternatives described in this FEIS will accommodate a certain level of growth and development. Along with this level of growth there is expected to be an equal increase in demand for public building space. Increased demand would result in the need for different strategies to increase the amount of public building space which include 1) Adaptive management of current space, 2) expand and/or improve current space, 3) Acquire additional property to construct new space. Estimated population growth is constant across all alternatives.

Under alternatives 2, 3, and the preferred, where annexation or incorporation of portions of the unincorporated UGAs occurs, some functions and responsibilities of the County (e.g., land use, facilities maintenance) could be assumed by cities.

## Level of Service Analysis

### ***County Administration Buildings***

The County's LOS for County administration buildings is 952 square feet per 1,000 countywide population. With this standard, the County has a deficit in County administration space, which would increase in the future. See Exhibit 3.3.1.2-1.

**Exhibit 3.3.1.2-1 LOS analysis for County administration buildings**

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS Standard	Current Square Feet Available	Net Reserve or Deficit
Current LOS Standard = 952 square feet per 1,000 population				
2022	280,900	267,416	190,810	(76,606)
2044	346,358	314,087	190,810	(123,277)

Source: Kitsap County Facilities Maintenance, 2023

To address future LOS deficiencies, the County can lower its LOS standards to reflect space efficiencies. See Exhibit 3.3.1.2-2

**Exhibit 3.3.1.2-2 Potential LOS adjustments for County administration buildings**

Time Period	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/1000 people)
2022	952 square feet per 1,000 population	(76,606)	679
2044	952 square feet per 1,000 population	(123,277)	551

Source: Kitsap County Facilities Maintenance, 2023

### ***County Maintenance Facilities***

Currently and within the 20-year planning period, the County will be able to meet the County maintenance facility LOS standard. See Exhibit 3.3.1.2-3.

### Exhibit 3.3.1.2-3 LOS analysis for County maintenance facilities

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS Standard	Current Square Feet Available	Net Reserve or Deficit
Current LOS Standard = 109 square feet per 1,000 population				
2022	280,900	30,618	70,543	39,925
2044	346,358	37,753	70,543	32,790

Source: Kitsap County Facilities Maintenance, 2023

### County District Courtrooms

The LOS for County district courtrooms is currently 0.012 courtrooms per 1,000 population. Per the space needs analysis prepared by Kitsap County, there will be 6 total district courtrooms by 2030 and 7 total by 2045. Currently and within the 20-year planning period, the County will be able to meet the County district courtroom LOS standard. See Exhibit 3.3.1.2-4.

### Exhibit 3.3.1.2-4 LOS analysis for County district courtrooms

Time Period	Kitsap Countywide Population	Courtrooms Needed to Meet LOS Standard	Current Courtrooms Available	Net Reserve or Deficit
Current LOS Standard = 0.012 courtrooms per 1,000 population				
2022	280,900	3	4	1
2044	346,358	4	4	0

Source: Kitsap County Facilities Maintenance, 2023

With the construction of the new district courtrooms by 2030, the County will have a surplus of two superior courtrooms.

### County Superior Courtrooms

The LOS for County superior courtrooms is currently 0.021 courtrooms per 1,000 population. Per the space needs analysis prepared by Kitsap County, there will be 12 total superior courtrooms by 2030 and 13 total by 2045. Under current LOS standards, there is a deficit in the number of superior courtrooms. Currently and within the 20-year planning period, the County will be able to meet the County superior courtroom LOS standard. See Exhibit 3.3.1.2-5.



#### Exhibit 3.3.1.2-5 LOS analysis for County superior courtrooms

Time Period	Kitsap Countywide Population	Courtrooms Needed to Meet LOS Standard	Current Courtrooms Available	Net Reserve or Deficit
Current LOS Standard = 0.021 courtrooms per 1,000 population				
2022	280,900	6	7	1
2044	346,358	7	7	0

Source: Kitsap County Facilities Maintenance, 2023

With the construction of the new Superior Courtrooms by 2030, the County will have a surplus of 5 Superior Courtrooms.

#### Juvenile Jail Facility

The Superior Court oversee the Juvenile Jail Facility. The current LOS for juvenile facilities is 0.084 beds per 1,000 population. Currently and within the 20-year planning period, the County will be able to meet the Juvenile Jail Facility LOS standard. See Exhibit 3.3.1.2-6.

#### Exhibit 3.3.1.2-6 LOS analysis for Juvenile Jail Facility

Time Period	Kitsap Countywide Population	Beds Needed to Meet LOS Standard	Current Beds Available	Net Reserve or Deficit
Current LOS Standard = 0.084 beds per 1,000 population				
2022	280,900	24	35	11
2044	346,358	29	35	6

Source: Kitsap County Facilities Maintenance, 2023

#### County Community Centers

The LOS for County Community Centers is 200 square feet per 1,000 population. With the successful relocation of the Kingston Community Center (now the Village Green Community Center) the County will be able to meet the Community Center LOS standard. See Exhibit 3.3.1.2-7.

The old Kingston Community Center relocated due to the realignment of SR 104. The center was sold, and proceeds were donated to The Village Green group who used the funds along with decades of fundraising to build the Village Green Community Center in Kingston. The building is approximately 23,000 square feet.

### Exhibit 3.3.1.2-7 LOS analysis for Community Centers

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS Standard	Current Square Feet Available	Net Reserve or Deficit
Current LOS Standard = 200 square feet per 1,000 population				
2022	280,900	56,180	72,796	16,616
2044	346,358	69,271	72,796	3,525

Source: Kitsap County Facilities Maintenance, 2023

### Comparison of Alternatives

Population growth is constant across all alternatives, as such the level of demand for services at administrative buildings, courthouses, maintenance facilities, and community centers would be equal at a countywide level.

Alternative 2 focuses growth in multifamily and commercial zones with an emphasis on the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo. This alternative would benefit from the strategic location of amenities such as community centers to serve a population that would be seeking community gatherings and recreation.

Central unique facilities such as administration and courthouse buildings would be less influenced by the spatial distribution of population. The sizing and location of maintenance facilities and community centers is particularly more sensitive to location. Such facilities would be addressed in the space needs analysis.

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. All alternatives will have an impact on the existing administrative buildings, courthouses, maintenance facilities, and community centers. But the greatest impact will be on maintenance facilities, which will need to either upgrade or retrofit their existing services to meet the anticipated needs of the population.

### **3.3.1.3 Public Buildings – Mitigation Measures**

#### **Incorporated Plan Features**

- Policies in the Capital Facilities Element establish LOS standards for community centers, County buildings and courts and require the County to apply these standards to its annual budget and Capital Improvement Program.
- Alternatives 2, 3 and the preferred, update the Capital Facilities Plan for the 20-year planning period 2024-2044.

#### **Regulations and Commitments**

- With added development and population, tax revenues to the County would increase and could contribute to funding of additional or expanded facilities and associated staffing needs.

#### **Other Potential Mitigation Measures**

- To address future deficiencies, the County could adjust its LOS standards to reflect the likely service levels in 2044, given estimated population growth and planned facilities.
- The County has outsourced its custodial services to a private company. Similarly to County Administration buildings, the current County Maintenance Facility LOS does not reflect the current efficiencies and can be lowered.
- The Silverdale Community center will be replaced in concert with other public and private partners. Over the planning period, it is anticipated the Givens Community Center will be upgraded.
- The County could coordinate with non-County facility providers including cities and special purpose districts to provide community center facilities in areas of greatest need.
- If determining impact fees for parks and recreation facilities, the County could ensure that impacts on community centers are incorporated into fees.
- The County could consider co-location of government agencies and uses to reduce the costs of new facilities.

- Alternative 2 focuses growth in specific zones and locations. A strategy to plan community spaces around these zones would help address future deficiencies.

### 3.3.1.4 Public Buildings – Significant Unavoidable Adverse Impacts

Demand for public services will increase under all studied alternatives. With advanced planning, no significant unavoidable adverse impacts on public buildings are anticipated within the range of alternatives reviewed.

## 3.3.2 Fire Protection

### 3.3.2.1 Fire Protection – Affected Environment

#### Inventory/Overview

Kitsap County receives Fire, Rescue, and Emergency Medical Services (EMS) from the six local fire departments and the federal fire department serving the Navy bases within the county. Through automatic-aid agreements, the departments provide seamless all-hazards emergency response to all areas of the county, regardless of jurisdiction. While Kitsap County is the authority having jurisdiction for the unincorporated areas of the county for fire code enforcement, the fire departments operate independently, receiving no regular funding or governance from Kitsap County.

#### Agency List

**Bainbridge Island Fire Department** (formally Kitsap County Fire Protection District #2): An independent special purpose district governed by a 5-member board of fire commissioners, providing service to the City of Bainbridge Island.

**Bremerton Fire Department:** A division of the City of Bremerton is governed by the city's 5-member city council, providing service to the City of Bremerton.

**Central Kitsap Fire & Rescue** (formally Kitsap County Fire Protection District #1): An independent special purpose district governed by a 5-member board of fire commissioners, providing service to unincorporated areas Kitsap County from Bremerton to Keyport, including the Silverdale UGA and the East Bremerton UGA.

**Navy Region Northwest:** A federal fire department governed by the Department of Defense, providing service to Navy Base Kitsap installations. Navy Region Northwest is not directly impacted by the growth outside of the navy bases.

**North Kitsap Fire & Rescue** (formally Kitsap County Fire Protection District #10); An independent special purpose district governed by a 5-member board of fire commissioners, providing service to unincorporated areas Kitsap County from Suquamish to Hansville, including the Kingston UGA.

**Poulsbo Fire Department** (formally Kitsap County Fire District #18): An independent special purpose district governed by a 5-member board of fire commissioners, providing service to the City of Poulsbo, the Poulsbo UGA, and unincorporated areas of Kitsap County from Keyport to Port Gamble.

**South Kitsap Fire & Rescue** (formally Kitsap County Fire Protection District #7): An independent special purpose district governed by a 5-member board of fire commissioners, providing service to the City of Port Orchard, the Port Orchard UGA, and the unincorporated areas of Kitsap County South of Bremerton.

#### Exhibit 3.3.2.1-1 Staffed and Non-Staffed Fire Stations in Kitsap County

Fire District	Total Stations	Fully Staffed Station	Volunteer Station
North Kitsap Fire and Rescue (NFKR)	5	4	1
Poulsbo Fire Department	5	4	1
Bainbridge Island	3	3	0
Central Kitsap Fire and Rescue (CKFR)	9	7	2
Bremerton	3	3	0
South Kitsap Fire and Rescue (SKFR)	11	7	4
<b>Total</b>	<b>36</b>	<b>28</b>	<b>8</b>

Source: Direct communication with Kitsap County Fire Districts and Departments, 2023

Kitsap County has adopted levels of service based on fire/emergency units per 1,000 population in its Capital Facility Plan (CFP). Fire/emergency units include fire engines, water tenders, and medic units. Fire stations are included in the CFP when considering capital facilities housing fire units and personnel; however, fire stations themselves are not included in the LOS calculation.

### Exhibit 3.3.2.1-2 Kitsap County Fire Protection Current Facilities Inventory

Fire Protection Provider	Number of Stations	WSRB 2020 Rating	Fire and EMS Units*	Estimated 2023 OFM Service Area Population**
North Kitsap Fire and Rescue (NFKR)	5	4	25	20,730
Poulsbo Fire Department	5	4	27	27,064
Central Kitsap Fire and Rescue (CKFR)	9	4	79	75,589
Bremerton	3	3	17	45,000
South Kitsap Fire and Rescue (SKFR)	11	3	35	64,698

Notes:

\* A unit is the combination of vehicle and equipment that responds to a fire or EMS situation, including engines, ladder trucks, water tenders, rescue units, aid cars and ambulances, and rehabilitation units, but not including staff or miscellaneous vehicles.

\*\* The Bremerton Fire Department serves the City of Bremerton, and the Service Area Population is from 2022.

Source: Direct communication with Kitsap County Fire Districts and Departments, 2023

## 3.3.2.2 Fire Protection – Impacts

### Impacts Common to All Alternatives

All alternatives described in this FEIS will accommodate a certain level of growth and development. New development and population growth will result in an increased demand for emergency response to fire, rescue, and EMS. This increased demand will require fire departments to increase their emergency response capabilities concurrent with growth to maintain service levels. All growth alternatives will create challenges for fire districts to maintain service levels.

Fire district fire protection service, equipment and facilities are funded almost exclusively by levies. If annexation or incorporation of unincorporated area occurs and a municipal fire department is established, that fire department would have access to additional revenues and could be funded by the city's general fund, with revenue from property and other taxes. Under all alternatives, these revenues would increase and could partially or fully offset the increased need for services and facilities.

## Level of Service Analysis

### *Service Level*

Each fire department establishes the service levels provided to the community as a policy level decision. These policies define the types of services provided, required resources, and the response times identified to effectively mitigate emergency incidents. Types of service include, but are not limited to, fire suppression, EMS, hazardous materials response, and rescue. Required resources for response include the vehicles, personnel, and equipment needed depending on the type of response. Response times objectives are based on the ability to rapidly provide adequate resources to address life safety issues. Fire departments establish and record the response time objectives as both the average response time and the response time to 90% of emergency incidents, or the 90th percentile. The fire departments' ability to achieve the service level objectives establishes the LOS currently provided to the community, and each agency produces an annual report on their LOS per RCW 52.33.

Previous versions of the CFP recognized the rating provided by the Washington State Survey and Rating Bureau (WSRB) as LOS standard for fire protection. While this rating is a useful tool to evaluate fire department staffing, equipment, water flow, fire alarm processing, and fire prevention activities, it is focused to the need of fire insurance providers and is not a LOS standard that is adopted by any of the county's fire departments.

### *Fire Units*

As described in Section 3.2.2.1 Affected Environment, the current LOS is based on fire units which include a combination of vehicle and equipment that responds to a fire or EMS situation, including engines, ladder trucks, water tenders, rescue units, aid cars and ambulances, and rehabilitation units, but not including staff or miscellaneous vehicles. With population growth, the need for fire units would increase for each district. However, because Fire Districts measure their operations by response time objectives this measure is not seen as relevant for the County's CFP purposes.

### *Response Time Objectives*

Individual departments and districts monitor service levels in terms of response times because the state statute (RCW 52.33) requires fire districts with substantially career staff (as opposed to volunteers) to adopt and annually report response time objectives. These objectives may change over time to respond to each district's resources and needs. These



objectives show each department's use of equipment and fire fighters; the response time objectives are related to capital planning needs indirectly.

### Exhibit 3.3.2.2-1 Kitsap county fire response time objectives

District / Department	Response Time Objectives
North Kitsap Fire and Rescue	<b>Structure Fires</b> Turnout Time Goal: 2:45 minutes Travel Time Goal: 7:50 minutes <b>EMS (Basic Life Support)</b> Turnout Time Goal: 2:00 minutes Travel Time Goal: 8:40 minutes <b>EMS (Advanced Life Support)</b> Turnout Time Goal: 2:00 minutes Travel Time Goal: 8:40 minutes
Poulsbo Fire Department	Turnout time for fire: 86 sec Turnout time for priority 1 and 2 events: 67 seconds Turnout time for medical events: 64 seconds Response time of units to suburban calls for service: 285 seconds Rural response time goals: <600 seconds
Bainbridge Island	<b>EMS</b> Turnout: 60 seconds Response: 5 minutes <b>Fire</b> Turnout: 90 seconds  Response: 5:30 minutes
Central Kitsap Fire and Rescue	Turnout time goal: 90 seconds, met 90% of the time Suburban fire/EMS: 8 minutes Rural fire/EMS: 12 minutes Wilderness fire/EMS: 20 minutes
Bremerton Fire Department	Response Time Objective: 6 Minutes
South Kitsap Fire and Rescue	Turnout time: Travel times for fire responses (urban, suburban, rural): 8:00 – 18:15 minutes Travel times for EMS services (urban, suburban, rural): 8:00 – 14:15 minutes

Source: Direct communication with Kitsap Fire Districts, 2022

### ***Established Levels of Service***

The 2024 Kitsap County CFP proposed new LOS standards based on the WSRB rating that address fire district spacing, personnel, and equipment. The proposed LOS is as follows:

*Consistent with GMA requirements to establish levels of service for improvements necessary for development, this CFP provides a minimum countywide measure of need for fire services. All fire districts in Kitsap County must achieve the following minimum Washington Surveying and Ratings Bureau (WSRB) Ratings:*

- *Fire districts with career staff serving urban areas must have a minimum WSRB rating of 4. Urban areas include city limits and UGAs.*
- *The portions of districts serving rural areas with noncareer staff must have a minimum WSRB Rating of 5. Rural areas consist of lands outside of UGAs and city limits.*

All districts currently meet the WSRB ratings (Exhibit 3.3.2.2-1) identified above which is a reasonable standard given the majority of the County has good station spacing, primarily career staffing, mutual aid agreements, water supply and other factors.

### **Comparison of Alternatives**

Population growth is constant across all alternatives, as such the level of demand for fire services would be equal at a countywide level.

#### ***Alternative 2 Compact Growth/Urban Center Focus***

Alternative 2 focuses growth in multifamily and commercial zones with an emphasis on the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.

- Will create challenges with larger and more complex buildings to protect along with increased traffic congestion.
- Will allow for greater efficiency of fire protection service, especially if a new fire station is built near the higher growth allocation areas.

This alternative would benefit from the strategic location or expansion of fire stations that serve the growth allocation areas.

### ***Alternative 3 Dispersed Growth Focus***

Alternative 3 with UGA expansion will be challenged by increased emergency response travel times or will otherwise require the development of new fire departments closer to expanded UGA areas. Departments serving incorporated cities and/or tribal reservations will also have to account for growth within those areas not covered by the county comprehensive plan.

### ***Preferred Alternative***

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. While this alternative will focus more on multifamily missing middle housing, the increase in traffic congestion will have an impact on response times for the Fire Protection Services. The impacts related to the expansion, such as travel times will be limited due to the Critical Area Ordinance limiting the amount of developable land available.

### ***Funding***

The six local fire departments receive no regular funding from Kitsap County, the State of Washington, or the Federal Government. The five fire districts receive a majority of their funding from property tax levies, principally the fire levy, limited to \$1.50/\$1,000 of assessed valuation, and the EMS Levy, limited to \$.50/\$1,000 of assessed valuation. The Bremerton Fire Department is funded through the City of Bremerton's general fund and an EMS levy limited. Each agency has established a fee for service for providing ambulance transport for patients in need of additional care beyond what is provided by the fire departments. Washington State law provides fire departments access to additional funding through measures such as maintenance and operations levies and capital bonds. These measures require a supermajority vote of 60% to be approved.

Departments generally rely upon the regular levies (fire and EMS) and ambulance transport fees to fund their operational budgets. Growth will provide additional revenue to the fire departments through an increase in the assessed value of properties. Generally, this revenue increase will provide sufficient funding for the increased operational costs caused by growth and the rising demand for emergency services. Due to the large investments necessary to acquire the capital facilities needed to support operations, departments generally cannot fund capital projects through the regular levies and must rely upon voter approval of additional funding measures.

There is no significant impact on overall fire district operational funding related to UGA expansion or incorporation, as the assessed value of the property will not significantly change based solely on the designation.

### **3.3.2.3 Fire Protection – Mitigation Measures**

#### **Incorporated Plan Features**

- The CFP determines LOS standards for fire protection/EMS. Future needs and costs can be determined based on these standards. Under the CFP, the County fire and rescue districts would continue to improve fire protection efficiency by focusing on eliminating overlapping responsibilities and system inefficiencies, as well as coordinating service provision with population growth.
- Alternatives 2 and 3 update the CFP for the 20-year planning period 2024-2044 and establish updated LOS standards in consultation with fire districts.
- Alternative 2 focuses growth and concentrates densities, allowing for improved efficiency of service, such as potentially lower response times.
- Preferred Alternative focuses growth and concentrates densities, allowing for improved efficiency of service, such as potentially lower response times.

#### **Regulations & Commitments**

- New development would be required to meet city and County codes, as well as International Fire Code and IBC alarm systems, sprinklers, and emergency vehicle access.

#### **Other Potential Mitigation Measures**

- Kitsap County adoption of ordinance allowing fire departments to implement impact fees per RCW 82.02
- Kitsap County adoption of ordinance requiring fire department certification of the ability to provide adequate LOS to new construction
- Ensure countywide compliance with the International Fire Code and Wildland Urban Interface Code
- Kitsap County adoption of minimum road and driveway standards

- Kitsap County adoption of sprinkler and minimum fire flow standards
- Kitsap County adoption of emergency radio reception standards for large commercial buildings
- Expanded fire and EMS could be provided concurrent with new development

#### **3.3.2.4 Fire Protection - Significant Unavoidable Adverse Impacts**

Future population growth and development will continue to increase the need for fire protection/EMS services under any studied alternative. With implementation of the abovementioned mitigation measures, significant, unavoidable adverse impacts are not anticipated.

Kitsap County's once predominately rural unincorporated areas surrounding its cities have urbanized, creating, or expanding single and multi-family, commercial, and industrial zones with greater densities necessary to support the expanding population. The county's cities have adopted fire codes and access standards to reflect the increased demands for fire protection that urban uses and zoning create; however, the county's fire protection codes and access standards (particularly for private roads) remain consistent with the needs of the once predominately rural land uses. Not updating county codes for urban areas has led to land that is being developed today in a manner that is permissible, yet unsatisfactory for the growth that has already occurred (in terms of fire protection/access). Therefore, more fire department resources are required in these areas. Updated codes would lead to land development that depends less on these additional public resources. Failing to have urban level fire codes for urban or urbanizing unincorporated areas or requiring mitigation measures including additional installed fire protection systems or features, creates a substantially increased need for fire department capital facilities, equipment, and other resources. Having urban level fire codes and mitigating fire protection measures in urban areas outside of incorporated cities will allow fire departments to better anticipate and plan for all manner of fire protection and emergency service needs.

### **3.3.3 Law Enforcement**

#### **3.3.3.1 Law Enforcement – Affected Environment**

The Kitsap County Sheriff's Office provides primary law enforcement services to the population of unincorporated Kitsap County. The Office is responsible for law enforcement, maintaining order, crime investigation and prevention, traffic enforcement, marine enforcement, search and rescue, process, and service of civil papers for the courts, service of criminal warrants, and other emergency services. In addition, the Sheriff's office provides

regional services including the operation of a corrections facility and providing regional law enforcement services to all of Kitsap County including criminal investigation, serious collision and fatality investigations, marine patrol, search and rescue, SWAT, and patrol K-9 services.

### Inventory of Current Facilities

The Sheriff's main office is located in Port Orchard, and is the home to the Sheriff, Undersheriff, records, detective, patrol chief, administration, corrections, and evidence/ storage rooms.

The County correctional facilities, which service the population of incorporated cities and the unincorporated county, consist of a jail and a juvenile facility. The jail is located on the courthouse campus in Port Orchard. The jail is attached to the second floor of the courthouse and is accessible from the sheriff's main office. The County correctional facilities used a work release facility in the past; however, that facility is no longer used by the Sheriff's Office. The Superior Court operates the Juvenile Jail Facility.

Law enforcement facilities include sheriff administration, records, detective unit, and office space within the Kitsap County Courthouse complex in Port Orchard. Patrol Division functions operate from Silverdale precinct located in Silverdale. The sheriff maintains a small office space in Kington. The Sheriff's Office has shared and leased space located at the Kitsap Readiness Center in Bremerton that provides storage, a shared training classroom, and office space which houses the training and standards unit. The sheriff's office also shares space at the Kitsap County public works south road shed for storage of vehicles.

The Sheriff's Office adult corrections facilities service both the incorporated and unincorporated population of the county and contracts services with both the Suquamish and Port Gamble S'Klallam tribes, the city of Gig Harbor, and the Department of Corrections. The Sheriff's Office operates a correction facility connected to the Kitsap County Courthouse complex.

#### Exhibit 3.3.3.1-1 Law enforcement current facilities inventory

Name	Location	Size (Square Footage)
Main Office	614 Division Street, Port Orchard	11,734
Central Office	3133 Randall Way, Silverdale, WA	5,620
Jail Administrative Offices	614 Division Street, Port Orchard	927

Name	Location	Size (Square Footage)
Office of Professional Standards/Training*	5102 Linden St. Bremerton	1,540
Kingston Office	26076 Illinois Avenue NE, Suite A, Kingston	1,200
Readiness Classroom**	1211 Carver St. Bremerton	1,275
<b>Total Office Space</b>		<b>22,296</b>
Readiness Center Garage*	5150 Linden St. Bremerton	3,245
Silverdale Storage Container*	3951 Randall Way, Silverdale, WA	250
Vehicle Impound lot, Carport and Storage Building	South Road Shed off Cedar Street	2,960
Jail/Equipment Storage Room	614 Division Street, Port Orchard	1,868
Property Evidence Room	614 Division Street, Port Orchard	4,095
<b>Total Storage Space</b>		<b>12,418</b>
Jail Corrections Facility	614 Division Street, Port Orchard	127,103
<b>Total Jail Space</b>		<b>127,103</b>

Notes: The Juvenile Correctional Facility is under the jurisdiction of the Superior Court.

\* The County leases these spaces.

\*\*Shared space/access – when available

Source: Sheriff John Gese, Chief Penelope Sapp, Sergeant Jason Hedstrom, 2023



### Exhibit 3.3.3.1-2 Law enforcement facilities photos



Kitsap County Sheriff's Port Orchard Office



Kitsap County Jail Entrance



Sheriff's Kingston Office



Sheriff's Silverdale Office

### 3.3.3.2 Impacts- Law Enforcement

#### Impacts Common to All Alternatives

New development and population growth will result in an increased demand for law enforcement and correctional facilities under all alternatives at similar levels, given similar population estimates. Lack of staff currently means a small number of patrol deputies are responsible for very large geographic areas within their patrol areas and current growth has created an increased demand for services and degradation in patrol response time. A portion of the Sheriff's office funds comes from tax revenue. A greater tax base could allow for increased funding due to the estimated population growth under all alternatives. Additional funding alternatives could be sought to keep law enforcement services at appropriate levels for the population and need for services.

Kitsap County is expected to grow in population and this growth will occur in both incorporated and unincorporated areas. Currently, the Sheriff's Office is the primary provider of law enforcement services for the majority of Kitsap County residents. This is not expected to change given any of the growth alternatives for the short term. Requests for services including responding to 911 calls, requests for traffic enforcement services, and assisting with community challenges such as encampments of unhoused persons, untreated mental illness, or illegal drug use are on the rise. Post-pandemic (COVID-19) Kitsap County has also experienced a growth in crime rates. Growth in population would likely lead to an increase in services for all areas of the Sheriff's Office, including corrections needs.

The Kitsap County Sheriff's Office currently has a low staffing level, as expressed in a ratio of commissioned officers per 1,000 population compared with many other areas. In 2022, unincorporated Kitsap County ranked 260 out of approximately 270 law enforcement agencies with a staffing ratio of 0.67 per 1,000 per Washington Association of Sheriffs and Police Chiefs. Current needs include an increase in staffing to respond to current community expectations and needs. Expected growth suggests an increasing facility and staffing need .

Many regions have benefited from the regionalization and contracting of law enforcement and fire services. New cities contracting for police services upon incorporation would likely be a requirement for new cities given the cost and complexity of establishing a police department. It is the strategy of the Sheriff that the county would pursue contracted services for any newly incorporated cities and be open to regionalization with our current cities. This would help keep a consistent LOS throughout Kitsap County and would offset a significant loss of revenue and potential law enforcement services lost by the county, particularly if Silverdale and Kingston incorporate within the planning horizon.

### **Level of Service Capacity Analysis**

The LOS needed for facilities needs is closely tied to population growth, the increasing need for services, and the number of staff. The LOS relating to the amount of office space, number of corrections beds, jail space, and other needed facilities are below standard for the current needs and population of Kitsap County. The Sheriff's Office is operating at a deficit for office space, and interior and exterior storage currently. The Sheriff's Office currently has no additional vacant office space.

### ***Sheriff's Office***

The county currently has a deficit of office space for the Sheriff's Office; they have no additional office space to grow which has led to sub-optimal working conditions. Currently and within the 20-year planning period, the County will not be able to meet the County Sheriff's Office space LOS standard. See Exhibit 3.3.3.2-1.

#### **Exhibit 3.3.3.2-1 LOS requirements analysis for Sheriff's Office**

Time Period	Kitsap Unincorporated County Population	Square Feet Needed to Meet LOS Standards	Square Feet Available	Net Reserve or Deficit
Current LOS Standard = 129 square feet per 1,000 population				
2022	182040	23478	22,296	(1,182)
2044	210,609	27,169	22,296	(4,873)

Source: Kitsap County Sheriff's Office, 2023

To address deficiencies, the County could choose to add facilities or adjust its LOS standards to reflect likely future service levels given estimated population growth and current facility plans. Adjusting its LOS is not recommended due to existing overcrowded office conditions. See Exhibit 3.3.3.2-2.

#### **Exhibit 3.3.3.2-2 Potential LOS adjustments for Sheriff's Office**

Time Period	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/1000 people)
2022	129 square feet per 1,000 population	(1,182)	122
2044	129 square feet per 1,000 population	(4,873)	106

Source: Penelope Sapp, Chief of Corrections, Lt. Keith Hall, Kitsap County Sheriff's Office – Jail. 2023.

### ***County Jail***

The county currently has a deficit of beds in its Jail Facilities; they have no additional office space to grow which has led to sub-optimal working conditions. Currently the County is meeting the County Jail Facilities LOS standard. Within the 20-year planning period, the County will not be able to meet the County Jail Facilities LOS standard. See Exhibit 3.3.3.2-3.

### Exhibit 3.3.3.2-3 LOS requirements analysis for County Jail Facilities

Time Period	Kitsap Countywide population	Beds Needed to Meet LOS Standards	Beds Available	Net Reserve or Deficit
Current LOS Standard = 1.43 beds per 1,000 population				
2022	280,900	402	407	5
2044	346,358	495	407	(88)

Source: Penelope Sapp, Chief of Corrections, Lt. Keith Hall, Kitsap County Sheriff's Office – Jail. 2023.

"About 167 inmates per 100,000 U.S. residents were incarcerated in local jails at midyear 2020, down from 224 per 100,000 in 2019. The number of persons admitted to local jails also decreased from 2019 to 2020, from 10.3 million to 8.7 million. This 16% decline was more than six times the 2.5% decrease in jail admissions each year from 2010 to 2019. The large declines in jail admissions and midyear populations from 2019 to 2020 can be attributed mainly to the COVID-19 pandemic". (Minton & Zhang, 2021).

Kitsap County's incarceration rate was 116 per 100,000 population in 2023. In 2013, it was 170, and in 2012 it was 167. Kitsap County's incarceration rate is 30% lower than the 2020 national rate of 167. This is expected to return to pre-pandemic levels in the next few years.

There is no current plan or timeline to increase available space and assuming that incarceration rate will return to pre-pandemic levels, it is predicted that the county will see a significant shortage in available beds to meet the LOS in the near future, see Exhibit 3.3.3.2-4.

### Exhibit 3.3.3.2-4 Alternative LOS based on incarceration rate

Time Period	Kitsap Countywide population	Beds Needed to Meet LOS Standards	Beds Available	Net Reserve or Deficit
Alternative LOS Standard = Kitsap County Incarceration Rate: 168 per 100,000 Population				
2022	280,900	402	472	(70)
2044	346,358	582	407	(175)

Source: Kitsap County Sheriff's Office, 2023

Potential LOS Adjustments could be considered if incarceration rate remains lower than expected or facilities are expanded.

## Comparison of Alternatives

Population growth is constant across all alternative growth patterns, but the growth is focused in different areas.

### ***Alternative 2 Compact Growth/Urban Center Focus***

Alternative 2 focuses growth in multifamily and commercial zones with an emphasis on the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.

Increased density could allow for greater efficiency of service in urban areas, although density may contribute to increased crime rates and needs for services, such as traffic enforcement. A denser development pattern could allow for smaller patrol areas and faster response times if the associated needed staff is available.

### ***Alternative 3 Dispersed Growth Focus***

Alternative 3 with some UGA expansion will be challenged by increased emergency response travel times. Annexation could lead to patrol-related functions being assumed by the cities while joint use of some facilities (e.g., jails) could be retained at the county level.

The further growth of Silverdale and its potential incorporation would have an effect on service levels, but the Sheriff's Office would be the expected provider of law enforcement services upon incorporation.

### ***Preferred Alternative***

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. The increased density provided by this alternative may contribute to an increase in crime and service, but also allow for greater efficiency of service. The potential UGA expansion would increase response travel times, but the Critical Area Ordinance will limit the amount of developable land.

## **3.3.3.3 Mitigation Measures– Law Enforcement**

### **Incorporated Plan Features**

- A comprehensive study of predicted law enforcement services and facilities, including impacts on the corrections services could be conducted to provide an evaluation of potential deficits and the needed resources to meet future demand.

- Considering the growth patterns and population increases of the three alternatives, law enforcement services are expected to rise for the Sheriff's Office. Future incorporation of Silverdale would likely result in contracting for services to the new city but would also provide a funding source that could provide the LOS the new city requires.
- Concentrated growth could lead to some efficiency of services depending on the size of the area and location. However, an increase in crime in areas of high density could be one potential impact. Without an increase in staffing, having smaller patrol areas with higher needs for services would mean other areas in the unincorporated areas could see a reduction in law enforcement services.

## **Regulations & Commitments**

- The Sheriff's Office and facilities are maintained primarily through the County's general fund, which is funded through sales and property tax revenue. The increased tax base associated with increased population and development would increase tax revenues and bonding potential, potentially providing additional funding for law enforcement services and facilities. However, short-term forecasts suggest a funding deficit looming to provide current and needed services in law enforcement and other general fund departments.
- Other potential funding sources could be considered. This could include a potential criminal justice sales tax, increasing the cost of contracted services such as the incarceration of misdemeanor subjects by the local cities and tribes, or potential regionalization of services.
- Current and future regulations and best practices will impact the corrections facility. Criminal Justice reform may require significant capital improvements and alterations to the facility if changing standards require different levels of confinement and housing. Additionally, challenges of providing medical and behavioral health services may also yield impacts on the facility needs of the jail.

## **Other Potential Mitigation Measures**

- A comprehensive study of current and future levels of service for law enforcement and the facilities' needs would provide a basis for future county planning to meet those needs.

- Staffing will need to be increased as the population increases. Urban areas may be annexed or incorporated. In this case, responsibility for law enforcement services in these areas would be absorbed by the cities. Contracting for law enforcement services is the preferred strategy in any new city. Many counties have found this model of providing law enforcement services to be mutually beneficial both in services provided, cost efficiencies, and revenue available to cover costs for services.
- Future regionalization of law enforcement services is also a potential pathway for delivering services to county and city residents. Like the fire services, regionalization of law enforcement services in some areas of the country has been found to provide a more cost-effective and efficient means of providing these services.
- Building and site designs known as Crime Prevention through Enhanced Design (CPTED) could be encouraged through regulations, which would reduce opportunities for crime to occur, as would adequate street lighting for residential and commercial development. Reduced opportunities for crime could reduce the need for law enforcement staff, correctional facility staff, and the deficit of beds anticipated based on projected incarceration rates.
- Development of effective community crime prevention programs could also help mitigate some of the impacts of increased demand for police services.
- Potential future changes in the criminal justice system may result in lowered need for corrections services.
- Working collaboratively with different community partners to address Law Enforcement and County approach towards dealing with community problems.
- Plan for additional capital facility projects. Target largest deficiencies identified in this DEIS and any future space needs analysis.
- Building improvements and expansion of space were referenced in the needs assessment regarding the Sheriff's Kingston offices. As of late 2023, no current plan exists for the renovation or replacement of these facilities. (Coates Design & McClaren, Wilson & Lawrie, Inc.)

#### **3.3.3.4 Law Enforcement – Significant Unavoidable Adverse Impacts**

Future population growth and development will continue to increase the need for law enforcement services and facilities under all alternatives. An appropriate assessment of current and future needs should be conducted to provide the framework of needs. The



county can use that tool to determine a course of action and potential adverse impacts on law enforcement services, including the need for future corrections facility needs.

### 3.3.4 Parks & Recreation

#### 3.3.4.1 Parks & Recreation – Affected Environment

A variety of public agencies and private organizations provide parks and recreation facilities within Kitsap County, including Kitsap County, Washington State Parks, Washington Department of Natural Resources (DNR), National Park Service designated Kitsap Peninsula Water Trail, schools, and cities.

#### Inventory of Current Facilities

Kitsap County and other agencies own approximately 30,000 acres of parkland in the county, as shown in Exhibit 3.3.4.1-1. Kitsap County owns 8.5 miles of shoreline access and approximately 100 miles of trails in the county, while other agencies own 18 miles of shoreline access and 57 miles of trails in the county. All county residents generally use park space. Out-of-county and out-of-state visitors and tourists also use a significant portion of these regional sites and facilities.

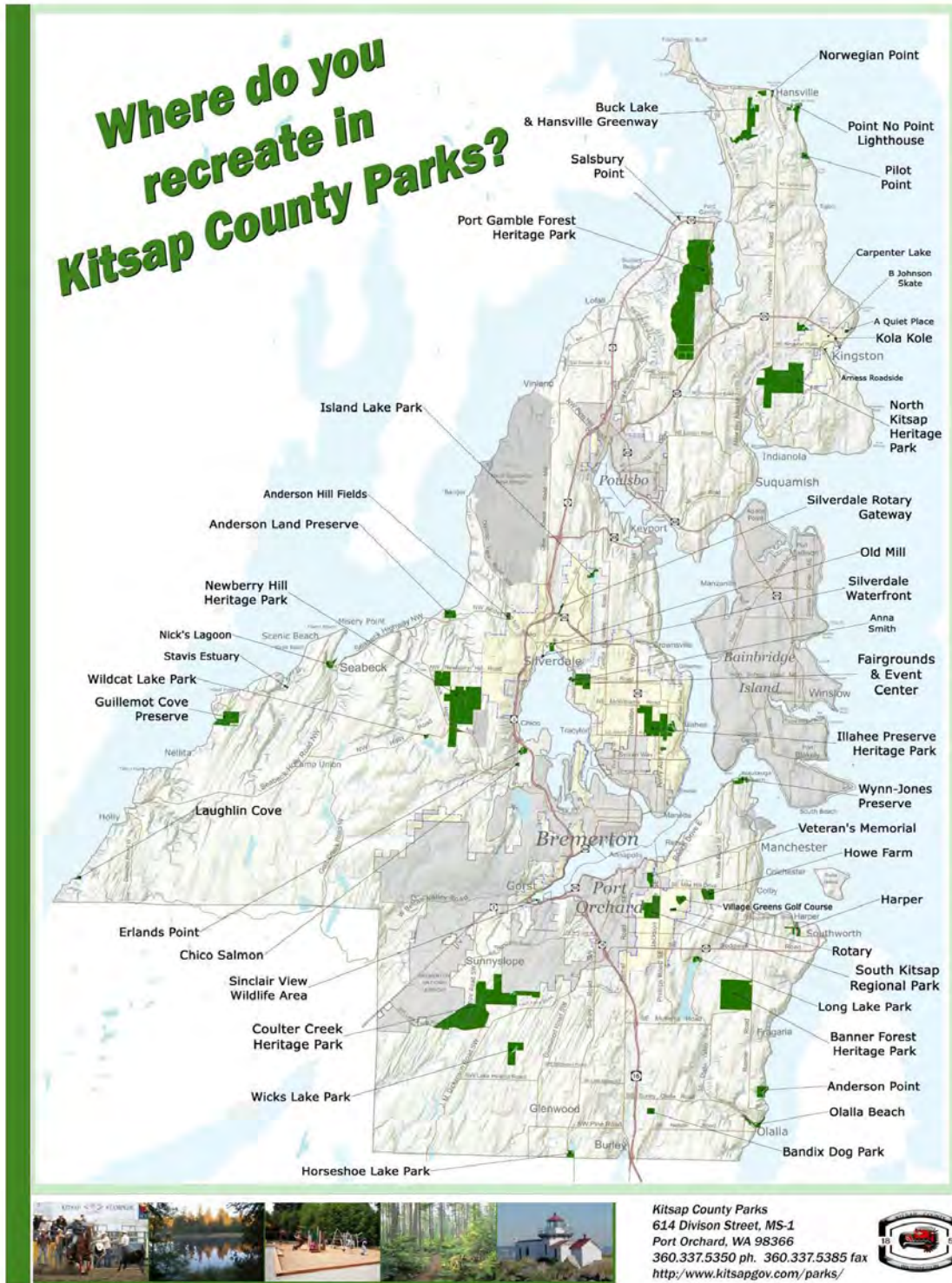
**Exhibit 3.3.4.1-1 County-owned parks, shoreline access, and trails**

Type of Park	Kitsap County Capacity (Acres)	Other Agencies Capacity (Acres)	Total Capacity (Acres)
Natural Resource Areas	255	16,699	16,954
Heritage Parks	7,668	0	7,668
Regional Parks	1,326	2,324	3,650
Community Recreation Complex	343	806	1,149
Partnership Properties	381	-	381
<b>Total Acres</b>	<b>10,138</b>	<b>19,829</b>	<b>29,985</b>
Shoreline Access (Miles)	8.5	18	26.5
Trail Miles (Paved and Unpaved)	74	57	131

Source: Kitsap County Parks, Recreation & Open Space Plan, 2018; Kitsap County Parks Department, 2023.

A generalized map of Kitsap County Parks can be found in Exhibit 3.3.4.1-2.

Exhibit 3.3.4.1-2 County Parks Map



Source: Kitsap County Parks Department

### 3.3.4.2 Parks & Recreation – Impacts

#### Impacts Common to All Alternatives

All alternatives would result in an increased demand for park and recreation facilities or enhancement of existing facilities. As population growth occurs in cities, Tribal areas, and unincorporated county lands, demand for parks, open space, and recreational facilities will increase. The demand for trails would increase both for recreational/nature trails and trails used for transportation purposes.

#### Level of Service Capacity Analysis

The LOS analysis for parks is based on the 2012 Kitsap County Parks, Recreation & Open Space (PROS) Plan that was adopted in March of 2012. A 2024 update to the PROS Plan is pending and the Kitsap DEIS will be updated with its release.

#### Natural Resource Areas

The adopted LOS for natural resource areas is 71.1 acres per 1,000 population, including both County and non-County facilities. Currently and within the 20-year planning period, the County will not be able to meet the Natural Resources Area LOS standard as shown in Exhibit 3.3.4.2-1.

**Exhibit 3.3.4.2-1 Target LOS analysis for natural resource areas**

Time Period	Kitsap Countywide Population	Acres Needed to Meet LOS Standard	Acres Available*	Net Reserve or (Deficit)
Natural Resources Area LOS Standard = 71.1 Acres per 1,000 population				
2022	280,900	19,972	16,954	(3,018)
2044	346,358	24,626	16,954	(7,672)

*\* Note: The numbers specific to Natural Resource Areas have changed significantly since the previous update, as previous natural areas have been integrated into Heritage Park master planning and park visioning processes.*

*Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023*

#### Regional Parks

Currently and within the 20-year planning period, the County will not be able to meet the Regional Parks LOS standard as shown in Exhibit 3.3.4.2-2.

#### Exhibit 3.3.4.2-2 Target LOS analysis for regional parks

Time Period	Kitsap Countywide Population	Acres Needed to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
Regional Park Area LOS Standard = 16 Acres per 1,000 population				
2022	280,900	4,494	3,650	(844)
2044	346,358	5,542	3,650	(1,892)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023

#### Heritage Parks

Currently and within the 20-year planning period, the County will be able to meet the Heritage Parks LOS standard as shown in Exhibit 3.3.4.2-3. This analysis includes consideration of concepts within the Port Gamble Forest Heritage Park Framework completed in December 2022.

#### Exhibit 3.3.4.2-3 Target LOS analysis for heritage parks

Time Period	Kitsap Countywide Population	Acres Needed to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
Heritage Park Area LOS Standard = 19 Acres per 1,000 population				
2022	280,900	5,337	7,833	2,496
2044	346,358	6,581	7,833	1,252

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023

#### Community Parks

Currently and within the 20-year planning period, the County will not be able to meet the Community Parks LOS standard as shown in Exhibit 3.3.4.2-4.

#### Exhibit 3.3.4.2-4 Target LOS analysis for community parks

Time Period	Kitsap Countywide Population	Acres Needed to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
Community Parks Area LOS Standard = 4.65 Acres per 1,000 population				
2022	280,900	1,306	1,149	(157)
2044	346,358	1,611	1,149	(462)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023

#### Shoreline Access

The LOS for Shoreline Access includes County and non-County miles. The County currently has a surplus of shoreline access, considering both County and non-County miles of

shoreline access. Currently and within the 20-year planning period, the County will be able to meet the Shoreline Access LOS standard as shown in Exhibit 3.3.4.2-5.

#### Exhibit 3.3.4.2-5 LOS analysis for shoreline access

Time Period	Kitsap Countywide Population	Miles Needed to Meet LOS Standard	Miles Available	Net Reserve or (Deficit)
Shoreline Access LOS Standard = 0.061 miles per 1,000 population				
2022	280,900	17	26.5	9.5
2044	346,358	21	26.5	5.5

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023

#### Trails

The LOS for Trails includes only County's inventory of trails. The County currently has a surplus of trails. Other agencies provide approximately 57 miles of trails in the county, which, if included in the adopted LOS standard, would increase the surplus. Currently and within the 20-year planning period, the County will be able to meet the Trails LOS standard as shown in Exhibit 3.3.4.2-6.

#### Exhibit 3.3.4.2-6 LOS analysis for trails

Time Period	Kitsap Countywide Population	Miles Needed to Meet LOS Standard	Miles Available	Net Reserve or (Deficit)
Shoreline Access LOS Standard = 0.2 miles per 1,000 population				
2022	280,900	56	157	101
2044	346,358	69	157	88

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2023

### Comparison of Alternatives

The level of demand for park acreage and facilities is similar countywide across alternatives.

#### Alternative 2, Compact Growth/Urban Center Focus

Alternative 2 focuses growth in multifamily and commercial zones with an emphasis on the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo.

Increased densities would allow for easier planning of outdoor leisure facilities, like playgrounds, picnic shelters, nature centers, and community centers. At the same time, existing park facilities in areas with higher growth allocations may become overburdened.



There is an opportunity to plan for an increase in park facilities surrounding the areas with a higher growth allocation.

### ***Alternative 3, Dispersed Growth Focus***

Alternative 3 takes a dispersed growth focus approach. Natural resource areas, trails, and shoreline access may see more use compared to alternatives 1 and 2 due to the rural nature of those facilities. The adoption of the 2024 PROS plan may find more specific impacts to these facilities under Alternative 3.

### ***Preferred Alternative***

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. The alternative will provide more leisurely facilities, while also increasing the use and overburdening the existing facilities. The focused expansion of the UGA will help to preserve opportunities for the population to use natural areas, trails, and shorelines.

## **3.3.4.3 Parks and Recreation – Mitigation Measures**

### **Incorporated Plan Features**

- Improve the connectivity of parks, trails, and open space systems, particularly in proximity to population and job centers, to encourage recreation use when appropriate.
- Develop active or outdoor leisure facilities usable in multiple seasons for a variety of activities.
- Promote and encourage tree planting in Kitsap County owned facilities to help reduce GHG emissions and promote ecosystem recovery efforts.

### **Applicable Regulations & Commitments**

- Impact fees are applied to all new housing developments. Fees could be reassessed to reflect increased costs of land for park acquisition, or increased impacts within areas of significant intensification.

## Other Potential Mitigation Measures

- The County could reassess its target and base LOS standards to match its present capital plans.
- The County could consider allowing public use of undeveloped or partially developed parkland in or near urban areas. For instance, sites could be used with unimproved parking areas to open play areas or fields for team practices and games, and portable restroom facilities.
- User fees could be initiated or increased at specific County parks and recreation facilities.
- Regular review of UGA boundaries and buildable land capacity in conformance with GMA requirements could help reduce the potential for future parkland to become difficult to acquire due to scarcity.
- The County could consider joint use of facilities for parks and recreation purposes such as school athletic fields and playgrounds.
- The County should monitor population growth in relation to LOS and planned facilities such as at the time of the capital improvement programs in association with the County budget and adjust the LOS or facilities if needed to ensure a future balance of demand, service, and planned projects.

### 3.3.4.4 Parks & Recreation – Significant Unavoidable Adverse Impacts

With the increase in population and urbanization of the County under any of the alternatives, there would be greater demand for parks, recreational facilities, and programs. To avoid impacts, the County could work with other agencies and regularly monitor population growth, service levels, and demand to bring supply and demand into balance; this can be accomplished with regular CFP updates, as appropriate.

Neighborhoods surrounding existing, new, or expanded parks would experience more activity in the form of vehicles and pedestrians. Costs for acquiring parks will rise with the increased demand for urban land.

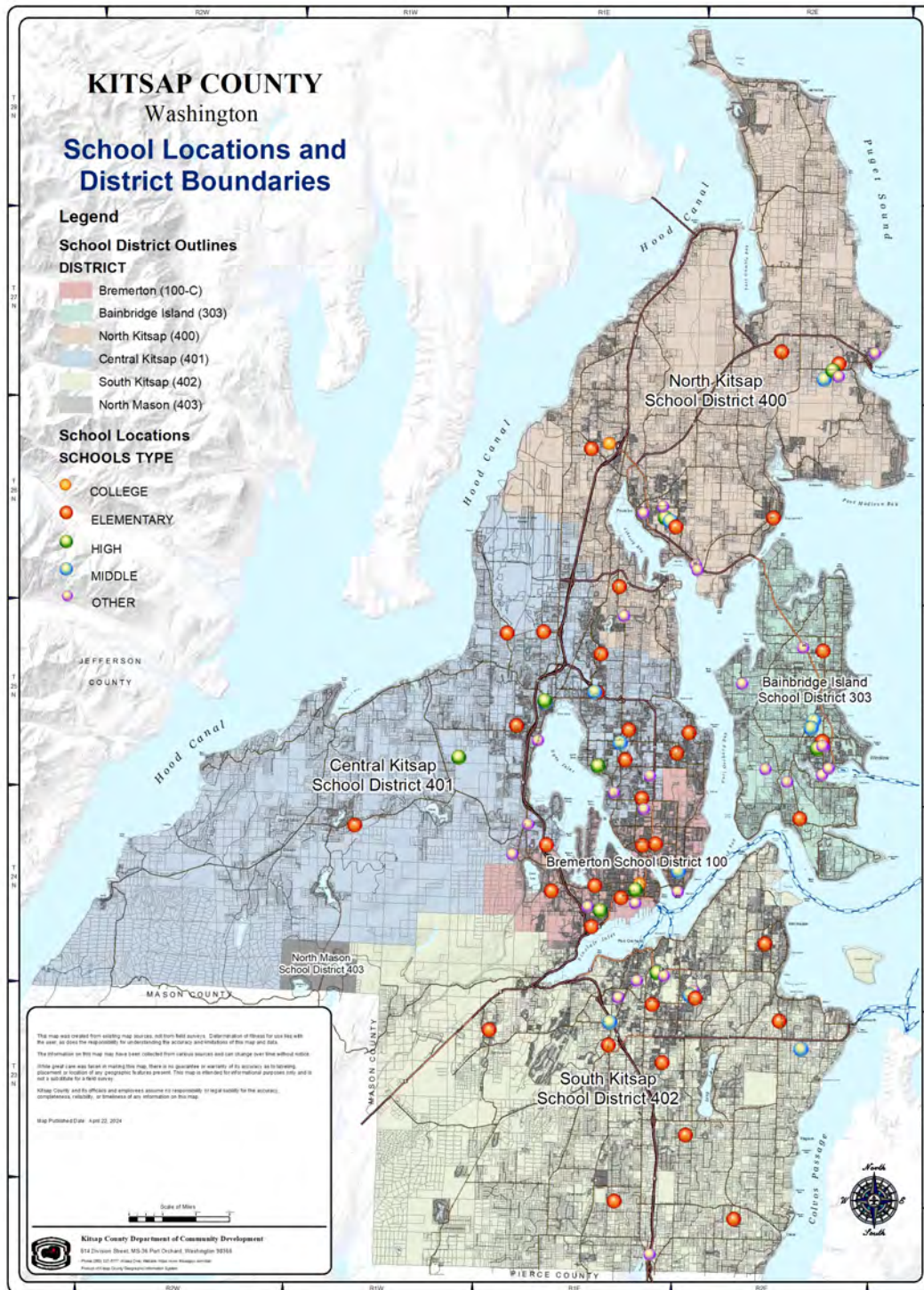


### **3.3.5 Schools**

#### **3.3.5.1 Schools – Affected Environment**

This section evaluates the four school districts that serve unincorporated Kitsap County: North Kitsap (NKSD), Central Kitsap (CKSD), South Kitsap (SKSD), and Bremerton (BSD). Two districts were excluded: Bainbridge Island Schools, because the entire district is located in the City of Bainbridge Island, and the North Mason School District because it does not have schools or facilities located in Kitsap County.

### Exhibit 3.3.5.1-1 Inventory of Current Facilities



A detailed inventory is included in Exhibits 4-37 through 4-42 of the Kitsap County Capital Facility Plan.

### 3.3.5.2 Schools – Impacts

#### Impacts Common to All Alternatives

All alternatives will result in an increase in projected school enrollment. The alternatives will affect school districts by increasing residential development, and consequently the number of students enrolled within the four school districts serving the unincorporated county. Based on where population growth would occur and the demographic of the population within the unincorporated county, each school district will be affected differently. Impacts will generally be higher at schools serving the more urbanized area located within UGAs.

#### Enrollment Projections

##### North Kitsap School District (NKSD)

NKSD is currently meeting its LOS standard through the use of permanent and portable facilities. However, with an increase in households expected over the planning period, the District is not expected to meet its LOS in 2044, as shown in Exhibit 3.3.5.2-1. Of the school districts, North Kitsap would have the third highest increase in student population, largely due to the growth in Poulsbo and Kingston UGAs. Capacity deficits are different for each alternative.

In its CFP, NKSD has its own student generation rates based on the demographics in the district. The District uses the student generation rates to project future enrollment based on anticipated housing unit growth. Generation rates for NKSD are 0.273 students per single-family dwelling unit and 0.92 students per multifamily dwelling unit.

**Exhibit 3.3.5.2-1 North Kitsap School District LOS analysis – student capacity**

Time Period	SF House-holds	MF House-holds	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2024	118,923	4,4176	5,213	5,871	6689	6,892	1,679
2044	22,836	5,975	6,494	6,197	(297)	6,347	(147)

*Source: NKSD Administration, 2023. Students per SF Household ratio is 0.273. Students per MF household ratio is 0.092.*

### **Central Kitsap School District (CKSD)**

CKSD is currently meeting the LOS standard through the use of portables, which gives it a total available capacity that is greater than current enrollment. It is not meeting its standard through permanent facilities alone. All MS and HS students are currently housed in permanent space. With the exception of two elementary schools, all elementary students are currently housed in permanent space. Elementary portables have largely remained in place since the 2016 CFP to serve in the capacity of pre-school and daycare needs or waiting to be surplus due to age. Current statement of work initiatives suggest that pre-school may become state funded and more portables will be needed to accommodate.

Additionally, the additional housing units planned by 2044 within the district will create the need for additional classroom space at elementary and secondary levels. This future growth necessitates the need for a review and update of school impact fees to offset the cost of the growth, without creating an undue burden on the existing property owners.

#### **Exhibit 3.3.5.2-2 Central Kitsap School District LOS analysis – student capacity**

Time Period	SF House-holds	MF House-holds	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2023	16,428	7,404	10,233	11,673	1,440	12,229	1,996
2044	35,564	21,974	15,595	11,921	(3,674)	12,034	(3,561)

Source: CKSD Administration, 2023. Students per SF household ratio is 0.513. Students per MF household ratio is 0.208.

### **Bremerton School District (BSD)**

BSD is currently meeting its LOS standard through the use of permanent facilities. However, with an increase in households expected over the planning period, the District is not expected to meet its LOS, as shown in Exhibit 3.3.5.2-3. With permanent or temporary capacity there would be a deficit by 2044, and the District does not have adequate portable facilities to serve total enrollment under the Preferred Alternative.

### Exhibit 3.3.5.2-3 Bremerton School District LOS analysis – student capacity

Time Period	SF House-holds	MF House-holds	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2023	13,694	7,761	3,962	5,393	1,431	6,744	2,782
2044	20,151	19,170	6,860	5,393	(1523)	6,744	(172)

Source: BSD Administration, 2023. Students per SF household ratio is 0.21. Students per MF household ratio is 0.14.

#### **South Kitsap School District (SKSD)**

SKSD is currently meeting the LOS standard through the use of portables to house approximately 75 classrooms, which gives it a total available capacity greater than current enrollment. The 75 portable classrooms in use throughout the District have the capacity to house over 1500 students. It is not meeting its standard through permanent facilities alone.

In its CFP, SKSD has its own student generation rates based on the demographics within the district. The district uses the student generation rates to project future enrollment based on anticipated housing unit growth. Generation rates for SKSD are 0.52 students per single-family dwelling unit and 0.32 students per multifamily dwelling unit (South Kitsap School District CFP, 2014-19).

#### Exhibit 3.3.5.2-4 South Kitsap School District LOS analysis – student capacity

Time Period	SF House-holds	MF House-holds	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2023	19,515	6,816	8,761	9065	304	10696	1,935
2044	29,568	7,477	18,067	9065	(9,002)	10696	(7,371)

Source: SKSD Administration, 2023. Students per SF household ratio is 0.52. Students per MF household ratio is 0.36.

### Comparison of Alternatives

The most impactful preliminary alternative is Alternative 2, which focuses growth in multifamily and commercial zones with an emphasis on the Silverdale regional center and Kingston countywide center as well the associated UGAs of Bremerton, Port Orchard, and Poulsbo. The school districts serving these communities are already overburdened and without planned increase in school facilities could lead to overcrowding of schools.

### Preferred Alternative

The Preferred Alternative, like alternative 2, will have a significant impact on the enrollment for all schools located within the UGA and especially in centers where expedited permitting for multifamily projects is being purposed. The preferred Alternative's focuses is to promote multifamily missing middle housing via regulation revisions and incentives. While this will help the county meet its needed multifamily housing capacity, this will also increase the strain on the existing schools in centers. Which will result in school districts utilizing temporary structures such as portables to help meet the increase in enrollment.

### 3.3.5.3 Schools – Mitigation Measures

#### Incorporated Plan Features

- Alternatives 2,3 and the preferred amend the CFP to address the new 2024-2044 planning period.
- The County's regular review of the CFP and coordination with the school district should allow for ongoing long-range planning for educational services.



## Applicable Regulations & Commitments

- School districts are required to plan for growth over time by regularly updating their six-year capital improvement program.
- Adopted school impact mitigation fees would be collected for new residential development.

## Other Potential Mitigation Measures

- To address enrollment changes on an ongoing basis, prior to reaching the level of demand that would necessitate construction of a new facility, districts can use portable classrooms to temporarily meet growth demands. Portables can be funded by impact fees paid by residential developers.
- The County and school districts could work together to identify potential sites for new school development in areas where higher amounts of growth are planned.

### 3.3.5.4 Schools – Significant Unavoidable Adverse Impacts

The demand for school services and facilities will increase as new development occurs and the number of families with school-aged children increases. Land developed or set aside for school facilities would be generally unavailable for other uses. Without a significant redevelopment to existing schools or planned development of new schools, the schools which are near or above capacity will become overcrowded.

## 3.3.6 Solid Waste

### 3.3.6.1 Solid Waste – Affected Environment

Washington State law (RCW 70A.205 [formerly RCW 70.95]) requires counties to plan an integrated solid waste management system that emphasizes waste reduction and recycling. Chapter 70A.300 RCW (formerly 70.105 RCW) requires local governments to develop plans for managing moderate risk waste, which includes hazardous wastes produced by households, businesses, and other entities in small quantities. Kitsap County Public Works/Solid Waste Division is the lead planning agency for solid waste management in Kitsap County.



## Inventory of Current Facilities

The Kitsap County solid waste facilities include private companies and public agencies owned and operated by different entities in Kitsap County. Exhibit 3.3.6.1-1 shows the current inventory of solid waste facilities.

**Exhibit 3.3.6.1-1 Solid waste current facilities inventory**

Name	Owner	Operator	Location
<b><i>Solid Waste Disposal</i></b>			
Olympic View Transfer Station (OVTs)	Kitsap County Public Works (KCPW)	Waste Management Washington, Inc (WMWI) - KCPW operates Scalehouse	City of Bremerton
Olalla Recycling and Garbage Facility (RAGF)	KCPW	KCPW	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	KCPW	Central Kitsap
Bainbridge Island Transfer Station	Bainbridge Disposal	Bainbridge Disposal	City of Bainbridge Island
<b><i>Moderate Risk Waste Disposal</i></b>			
Household Hazardous Waste Collection Facility	KCPW	KCPW	City of Bremerton
North Kitsap Service Center Household Hazardous Waste Collection Facility*	KCPW	KCPW	North Kitsap
<b><i>Residential Recyclables Collection</i></b>			
OVTs Recycling Area	KCPW	KCPW	City of Bremerton
Olalla RAGF	KCPW	KCPW	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	KCPW	Central Kitsap
Bainbridge Island Transfer Station	Bainbridge Disposal	Bainbridge Disposal	City of Bainbridge Island

Notes:

\* To open in 2025.

Source: Keli McKay-Means, Projects, and Operations Manager of Kitsap County Public Works Solid Waste Division, 2023.

## County Solid Waste Plans

Components of an integrated solid waste management program are:

- System planning, administration, and enforcement
- Collection, transfer, and disposal of solid waste
- Collection and processing of recyclables
- Moderate risk waste transfer and collection programs.

In 2018, the Solid Waste Division adopted the current Solid and Hazardous Waste Management Plan (Kitsap County 2018). The Plan specifies the management actions that will be taken over a 6-year (detailed) and 20-year (general) time period. The plan is developed with participation from the cities, tribes, and the Navy, as well as a solid waste advisory committee. This Plan and personal communication with Kitsap County Public Works/Solid Waste Division staff are the sources for this analysis. As of summer 2023, the Solid Waste Division began updating the 2018 Plan for a 6-year detailed and 20-year general time period.

### Exhibit 3.3.6.1-2 Solid waste facilities photos



Olympic View Transfer Station



Silverdale RAGF

## Solid Waste Landfill

With the closure of the Olympic View Sanitary Landfill, the County contracted with Waste Management of Washington, Inc. (WMW) to design, build, and operate the Olympic View Transfer Station (OVTS) located in Bremerton. OVTS opened to the public in 2002, serving

as the primary transfer station for managing the County's municipal solid waste for transport by rail to Waste Management's Columbia Ridge Landfill near Arlington, Oregon. This contract spanned 20 years and expired in June 2022. A comprehensive procurement process was undertaken in 2020 and 2021 to ensure continued LOS for OVTS operations. As a result of this process, the County awarded a contract to WMW for operations of OVTS through May 2042.

The County has a contract with Waste Management for implementing designated capital improvement projects at OVTS. This second contract is tied to the primary operations contract. The capital improvements contract included projects identified as part of a comprehensive Facility Master Plan conducted in 2022 to identify and plan for service level and operational needs for the next 20-years. The Solid Waste Division continues to work with WMW to address needs through implementation of projects identified in the capital improvement contract.

OVTS is designed for a maximum daily processing of 1,000 tons of waste, which exceeds the maximum projected average volume of 800-900 tons per day in 2044. The Columbia Ridge Landfill has an estimated capacity for 100 years and has additional acreage that could be permitted to increase its capacity further.

To increase daily tonnage processing of waste and provide redundancy in the event of equipment failure, a second trash compactor will be installed by 2025. However, OVTS is still limited by rail line capacity on the railway service lines. The Solid Waste Division is working with WMW, the rail companies, and the US Navy (who owns the portion of the rail line that goes to OVTS) to expand service levels and capacity within the rail system.

As part of the capital improvements contract, Kitsap County and Waste Management are evaluating general capacity upgrades to OVTS to improve the level of service. These upgrades may include needs identified in the facility master plan such as an additional scale, stormwater improvements, and expansion of the facility's intermodal yard.

Planning at Kitsap County and Waste Management occurs on an ongoing basis based on future projected needs. Projected levels could be accommodated at OVTS and the current landfill site.

### 3.3.6.2 Impacts– Solid Waste

#### Impacts Common to All Alternatives

The additional population capacity accommodated by the alternatives would increase demand for additional solid waste capacity. The degree of need would vary among the alternatives based on population and the capacity of existing solid waste facilities. The County, through contracts with private haulers, will continue to be able to provide solid waste management for an increased population regardless of the alternative ultimately chosen. The CFP conducted within this Comprehensive Plan will allow the County to better anticipate funding needs and sources for future solid waste disposal facilities.

The County would have adequate time to plan for landfill capacity for solid waste generation under all alternatives, and the County's current contracted landfill location is expected to have sufficient capacity through 2044 and beyond.

#### *Preferred Alternative*

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. This focused approach proposed by the alternative will allow Solid Waste Services to be even more efficient with their facilities by not needing to account for where solid waste services already exist. Which in turn would reduce impacts related to providing curbside pickup services as well as creating new processing facilities to facilitate growth associated with no alternatives or dispersed growth.

#### Level of Service Capacity Analysis / Comparison of Alternatives

The existing LOS for solid waste is calculated on estimated countywide population and the average per capita generation rates for solid waste and recycling. The rates used in this table were taken from the Ecology, 2018 Recycling and Disposal Numbers for Kitsap County, 2021. If the generation rates from this plan are carried forward in 2022 and 2044, the tons of solid waste and recycling generated per year would be lowest with Alternative 1 and highest with Alternatives 2 and the preferred, based on the projected population growth.

### Exhibit 3.3.6.2-1 LOS analysis for solid waste

Time Period	Countywide Populations	Solid Waste Disposal Rate (lbs./ cap/ day)	Solid Waste Tons Disposed per Year	Solid Waste Recycling Rate (lbs./ cap/ day)	Recycled Tons per Year
2022	280,900	4.22	216,335	2.85	146,103
2044	346,358	4.22	266,840	2.85	180,149

Notes:

\* Solid waste generation rate shown is calculated from SW produced within Kitsap County and North Mason County.

\*\* Solid waste generated does not include recyclables.

Source: Personal Communication with Keli McKay-Means, Projects and Operations Manager, Kitsap County Public Works Solid Waste Division, 2023.

## 3.3.6.3 Mitigation Measures– Solid Waste

### Incorporated Plan Features

- Focusing growth in existing UGAs and cities where solid waste services already exist would reduce impacts related to providing curbside pickup for added population and promote more curbside customers. There would also be less need for additional solid waste handling facilities. The Preferred Alternative would have the most compact UGAs of the alternatives.

### Regulations and Commitments

- Coordination and monitoring at transfer facilities and other facilities would be ongoing to ensure adequate solid waste capacity. Service levels for curbside collection as outlined in the CFP would continue or improve to encourage recycling.

### Other Potential Mitigation Measures

- Based on available landfill capacity at the County's current contracted landfill location, a new or extended contract could be enacted to provide landfill capacity well beyond the 2044 planning horizon.

### **3.3.6.4 Significant Unavoidable Adverse Impacts– Solid Waste**

Future population growth and development would continue to increase the amount of solid waste generated in the county under any alternative. Regular monitoring of capacity and demand at solid waste facilities will be conducted routinely as needed to address any capacity challenges

## **3.3.7 Wastewater/Sewer**

### **3.3.7.1 Wastewater/Sewer – Affected Environment**

According to the 2024 Kitsap County CFP, there are a total of 13 wastewater collection systems and 10 wastewater treatment facilities in Kitsap County, which serve approximately 40% of the total County population. The majority of the rural population uses on-site septic systems. Several agencies within the County provide sanitary sewer services:

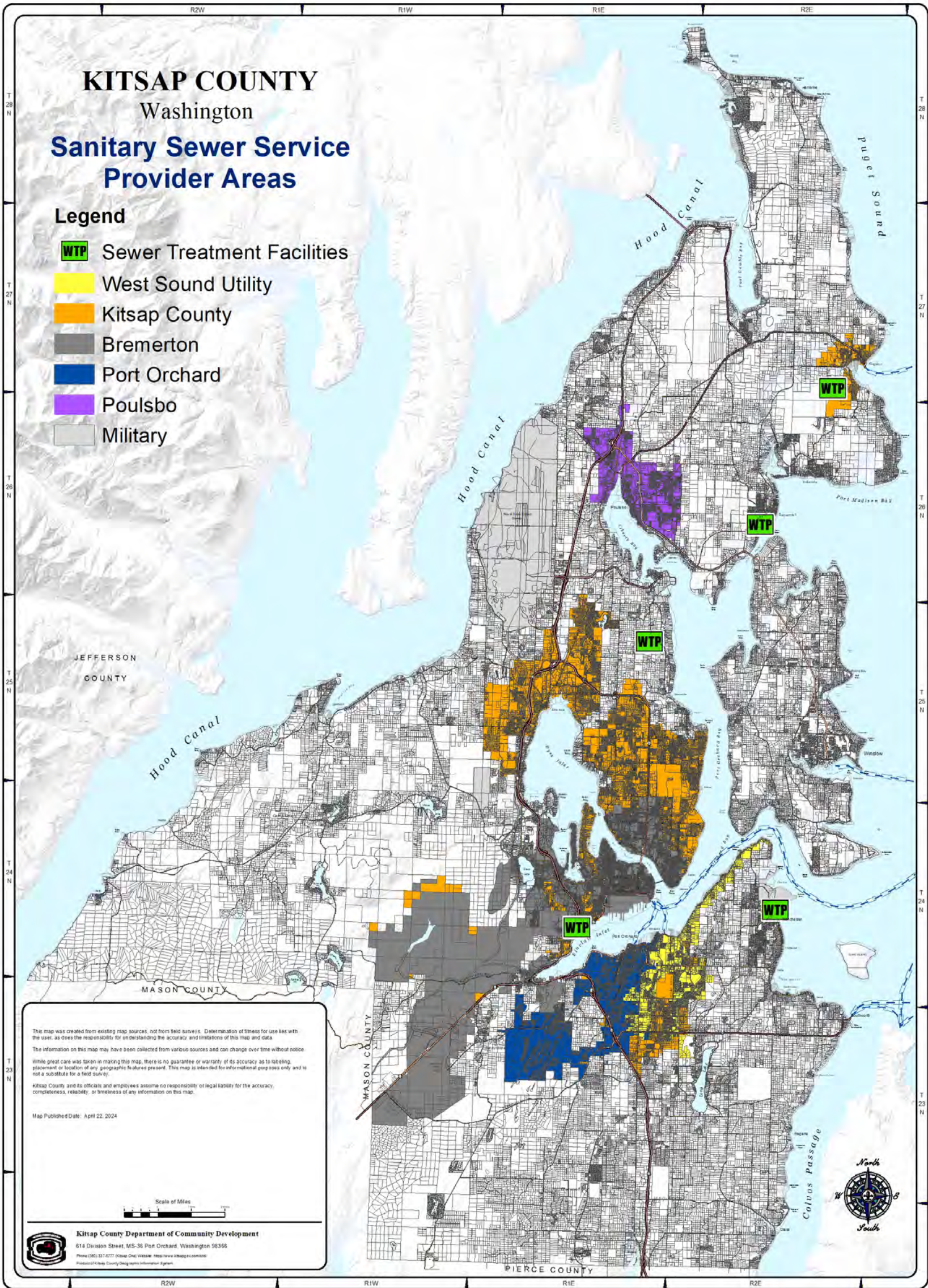
1. Kitsap County manages five wastewater collection systems: Central Kitsap, Kingston, Manchester, Navy Yard City, and Suquamish, and four treatment plants servicing Central Kitsap, Manchester, Suquamish, and Kingston;
2. The City of Bremerton maintains and operates collection and treatment systems for the East Bremerton UGA, portions of the West Bremerton UGAs, and the Gorst UGA;
3. The City of Poulsbo maintains a collection system and contracts with the County to treat city wastewater at the Central Kitsap Treatment Plant in Brownsville;
4. The City of Port Orchard and West Sound Utility District independently operate their respective collection systems and jointly own the treatment facility at Annapolis. West Sound Utility District is responsible for daily operation of the treatment plant;
5. The Port Gamble/S'Klallam Tribe owns and operates a small collection system and treatment facility that serves the community east of Port Gamble Bay.
6. Pope Resources owns and operates a collection system and secondary treatment plant serving the Port Gamble townsite and mill site;
7. The Port of Bremerton owns and operates a collection and treatment system that serves the commercial development on Port property; and
8. The U.S. Navy manages wastewater collection systems on federal reservations and contracts with Kitsap County and the City of Bremerton to treat its effluent. It is a

major contributor to several wastewater treatment plants in Kitsap County, with the Central Kitsap plant receiving the most.

Major providers to urban areas are shown in Exhibit 3.3.7.1-1.



Exhibit 3.3.7.1-1 Wastewater service areas





## **Inventory of Current Facilities**

A comprehensive list of current facilities for each wastewater district can be found in the Kitsap Capital Facility Plan in Exhibits 4-51 to 4-56.

### **3.3.7.2 Wastewater/Sewer – Impacts**

#### **Level of Service**

##### **Impacts Common to All Alternatives**

Under any of the UGA alternatives, additional sanitary sewer service would be necessary to serve increased demand. Existing treatment plants would handle increased wastewater volumes generated by residential growth, transitioning septic systems and increased pollutant loads generated by new commercial and industrial development. Conveyance system extensions would be necessary to provide sanitary sewer service to developing areas within UGAs. Several capacity improvements to existing pump stations and sewer mains would also be needed to ensure the existing system could handle additional flows from development within the UGAs.

Extensions to conveyance systems would occur incrementally, funded by new development, local improvement districts or private property owners as appropriate. Funding for regular maintenance of systems is provided through user fees.

Estimates of future demand in this analysis are based primarily on projections of population growth. However, additional demand may be generated by new commercial and industrial growth as well. Demand may also include some transition of existing development on septic systems to public sewer.

Construction of new sewer facilities would have potential to result in impacts to both the natural and built environment. These impacts would be addressed at the project level at the time of project implementation.

The costs are reflective of the impacts of growth as well as ongoing system maintenance. For most systems, the cost difference among the alternatives is not anticipated to markedly differ. However, there are more specific differences in Kitsap County facilities, Bremerton facilities, as well as the West Sound Utility District as a result of changes to UGA boundaries.

##### **Impacts of Alternative 1, “No Action”**

Capital improvement projects will continue as planned if no action is taken to allocate growth in a certain area or change UGA boundaries.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Encouraging development within existing urban centers and reduced unincorporated UGAs, as promoted under Alternative 2, will minimize impacts on service providers to extend their services to cover larger areas.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Alternative 3 provides for lesser expansions in some locations and greater expansions in others which may increase the demand for service locationally and reduce it in others.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. While this would reduce the need for providers to extend their services to cover larger areas, they would still need to anticipate increased demand within the area’s they currently service.

## **3.3.7.3 Wastewater/Sewer – Mitigation Measures**

### **Incorporated Plan Features**

- The Draft CFP proposes improvements associated with studied alternatives.
- The Comprehensive Plan Capital Facilities Element (CFE) and CFP establish LOS for County-owned and non-County-owned sanitary sewer systems and require agencies to “determine what capital improvements are needed in order to achieve and maintain the standards for existing and future populations.” This element is updated with Alternatives 2, 3 and the Preferred.

### **Applicable Regulations & Commitments**

- Pursuant to Chapter 58.17.110 RCW, local governments must review plat applications to ensure that adequate provisions are made for a variety of public facilities, including “sanitary wastes.”
- Pursuant to Chapter 16.12 KCC, the County engineer and County health officer provide their respective recommendations as to the adequacy of proposed sewage disposal systems. The hearing examiner then determines whether a proposal includes appropriate provisions for “sanitary wastes” and other public and private facilities and improvements.

- Capital Plans of wastewater service providers are required to proactively plan for future systems to meet growth projections.

### **Other Potential Mitigation Measures**

- The County could continue to coordinate with non-County facility providers, including cities and special purpose districts, to support and be consistent with the future land use patterns identified by city and County comprehensive plans.
- Plan policies and development regulations could include mechanisms or incentives to encourage existing properties within UGAs to connect to sewer systems to meet planned growth levels. Methods or incentives could include formation of local improvement districts, permit facilitation and newcomer agreements for developer extensions, density bonuses to encourage lot consolidations, or allowing for innovative sanitary sewer extension and treatment facility designs, such as package plants, grinder pumps and membrane systems for urban densities and others.
- The County could continue pursuing opportunities for water reclamation.

#### **3.3.7.4 Wastewater/Sewer – Significant Unavoidable Adverse Impacts**

With advance planning, implementation and update of capital facility plans no less than every six years, as well as review of development permits in terms of system impacts, no significant unavoidable adverse wastewater impacts are anticipated within the range of alternatives reviewed.

### **3.3.8 Stormwater**

#### **3.3.8.1 Stormwater – Affected Environment**

Kitsap County has three basic types of drainage facilities:

- Conveyance Network
- Runoff Quantity and Flow-Control Facilities
- Stormwater Quality Treatment Systems

The drainage infrastructure is guided by topography and flows, without consideration to property ownership, land use, or political boundaries. The conveyance network includes all natural (streams and swales) and constructed open channels (swales and ditches), as well

as piped drainage systems (including catch basins and conveyance structures) and culverts. These systems may be located on private property or within the County right-of-way.

Quantity and flow-control facilities include infiltration facilities, retention and detention ponds, tanks, vaults, and bioretention systems. The purpose of these facilities is to reduce the rate of stormwater flow from a specific site or area to reduce the potential for localized flooding, minimize flow damage to natural water courses, and prevent downstream erosion problems. These facilities are designed to hold a volume of runoff based on the amount of impervious area and a specific design storm event. Quality and flow-control facilities can be located on either public or private property, depending upon the area being served.

Stormwater quality enhancement facilities include water-quality (wet) ponds, biofiltration swales, infiltration facilities, and bioretention systems. The purpose of these facilities is to remove a certain type and/or amount of pollutant from the runoff before it is discharged into a water body or collection system or dispersed over the ground for infiltration. These facilities may be located on public or private property depending upon the area being served. See Exhibit 3.3.8.1-1.

#### Exhibit 3.3.8.1-1 Stormwater current facilities inventory

Type of System	Quantity	Note
<b>Basins</b>		
Detention Dry	268	(Detention Pond)
Detention Wet	3	(Detention Pond)
Retention	76	(Retention Pond)
Tank	102	(Tank or Vault)
Vaults	46	(Tank or Vault)
Constructed Wetland	3	
Infiltration Trench	1	
Natural	0	
<b>Conveyance</b>		
Perf Pipe	130	(Infiltration basin/trench)
<b>LID</b>		
Bioretention Cell	113	(Bioretention facility)

Type of System	Quantity	Note
Bioretention planter	0	
Bioswale	12	(Biofiltration Swale)
Enhanced Ditch	40	(?)
Filtterra Strip	0	
Filtterra	29	(Tree box filter)
Grass Swale	170	(Biofiltration Swale)
Modular Wetland	5	(Underground WQ filter)
Permeable Pavement	28	
Rain Garden	21	(WQ filter)
Rain Garden in a box	4	(Tree box filter)
<b>Inlets</b>		
CDS	24	(Hydro WQ Device)
OWS2	89	(WQ Device)
Tide gates	13	(Tide gates)

Source: Kitsap County Stormwater Division, 2023

The Kitsap County Stormwater Division has maintenance responsibility for more than 615 stormwater retention/detention and runoff quality enhancement facilities. More than 55 newly constructed and private residential facilities are expected to be included in the Stormwater Division Inspection and Maintenance Programs within the next two years.

### 3.3.8.2 Stormwater – Impacts

#### Impacts Common to All Alternatives

##### Level of Service

The goals and objectives of the County's Stormwater Program reflect the LOS for stormwater management facilities. The Stormwater Capital Improvement Program, adoption of the Kitsap County Stormwater Management Ordinance, and watershed planning activities undertaken by the Department of Community Development all contribute to the public's LOS expectations.

The current LOS complies with applicable state regulations. Under all alternatives, land development activities requiring land use approval from Kitsap County are conditioned to

meet the water quality, runoff control, and erosion control requirements of Kitsap County's Stormwater Design Manual, which was updated in 2021.

The Kitsap County Stormwater Design Manual requires development projects to provide water quality enhancement for 91% of the runoff volume generated at the project site. When discharging to streams or open channels, runoff rates from development sites are required to be controlled to meet stream bank erosion control standards. These standards require that post-developed peak flow runoff rates do not exceed pre-developed rates for all stormwater flows ranging from 50% of the two-year flow through the 50-year flow as predicted by the Western Washington Hydrology Model; this standard is from the NPDES permit for Western Washington.

Permit conditions may apply to development activities taking place within Kitsap County, for compliance with minimum requirements of the Kitsap County Stormwater Management Ordinance. Drainage control and water quality enhancement facilities constructed for large residential projects are dedicated to Kitsap County Stormwater Division for maintenance. Facilities constructed for commercial and multifamily developments are mostly maintained privately.

## **System Impacts**

Under all alternatives, additional stormwater drainage systems would be needed to handle increased stormwater runoff resulting from new development and added impervious surfaces such as roads and driveways. The creation of more impervious surface area and the reduction of forest land cover would reduce the amount of rainwater intercepted by trees and infiltrated into the ground, thereby increasing the volume and rate of stormwater runoff. Without adequate drainage facilities, an increase in either peak flow or volume of stormwater runoff could potentially add to existing flooding problems by increasing the depth of flooding, the area that is flooded, the frequency of flooding, and the length of time an area remains flooded. In some cases, an increase in the peak flow or volume of stormwater runoff may also create new flooding problems (i.e., flooding hazards in areas that are not currently subject to them).

The impacts of increased runoff on drainage systems would depend on several factors, such as soil permeability and topography. Where soil conditions allow the use of infiltration facilities, runoff from new development would not increase for smaller, more frequent storm events or even for some larger storm events. In areas unsuitable for infiltration facilities, some increases in stormwater runoff could occur despite the requirement for retention/detention facilities in new development.



As stated above, new development and redevelopment are subject to the requirements of Kitsap County's Stormwater Division. These regulations require site-specific and project-specific engineering analyses be conducted to determine potential impacts on areas upstream and downstream of proposed development. Mitigation strategies for control of stormwater quantity and quality must address predicted impacts on upstream properties, downstream drainages, and receiving waters. Stormwater facilities may be located on a specific development site, or they may be constructed to serve more than one development.

In some cases, redevelopment would add private stormwater control facilities where none currently exist. This could result in some localized reductions in stormwater runoff from individual properties served by County stormwater drainage systems where soils permit infiltration, or it could reduce the rate of flow into County drainage systems during large storm events from properties where retention/detention facilities are added.

### **Impacts of Alternative 1, "No Action"**

Alternative 1 would likely result in increased levels of urbanization, adding impervious surfaces and the need for stormwater drainage and treatment facilities in more areas of the county.

### **Impacts of Alternative 2, "Compact Growth/Urban Center Focus"**

Alternative 2 would result in an increased and focused growth within existing boundaries and could create a greater need for upgrading and retrofitting of existing drainage systems compared to Alternatives 1 and 3.

### **Impacts of Alternative 3, "Dispersed Growth Focus"**

Alternative 3 would result in an increase in UGA boundaries and associated development, impervious surface area, and associated stormwater runoff, and could potentially create a greater need for upgrades to existing drainage systems within expanded UGA boundaries compared to Alternatives 1 and 2.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would result in a more focused form of growth approach within the UGA, focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. The result will include a need to upgrade and retrofit existing drainage systems to handle the associated stormwater runoff caused by focusing the growth within the existing UGA. While the Critical Area Ordinance will decrease the amount of developable land which in turn will limit the expansion of the UGA, service

providers will need to keep in mind potential upgrades needed to the expanded UGA boundaries.

### **3.1.1.1 Stormwater – Mitigation Measures**

#### **Incorporated Plan Features**

The Land Use and Natural Systems elements of the Comprehensive Plan include goals for mitigating erosion, sedimentation, and stormwater runoff problems related to land clearing, grading, and development. Alternatives 2 and 3 update the County's Capital Facility Plan, incorporating a 6-year CIP for stormwater projects. This planning process helps to ensure that the County maintains compliance with the stormwater LOS.

#### **Applicable Regulations & Commitments**

- As previously described, the County has adopted regulations to protect against stormwater impacts of new development (Title 12 KCC). These regulations require all new development to meet specific performance standards before receiving approval. Kitsap County Code addressing clearing and grading, critical areas, and flood hazard areas also direct how stormwater mitigation will be implemented.
- The 2024-2029 NPDES Phase II Permit implements actions required by Pollution Control Hearings Board, including low impact development (LID) implementation. The County is required to meet the requirements of the final Phase II municipal separate stormwater system NPDES permit, reissued by Ecology in 2024.
- The Stormwater Management Program manages stormwater in accordance with its stormwater design standards (KCC 12.04.020) and applicable NPDES permits. Application of County standards results in implementation of Low Impact Development (LID) standards to require new developments to incorporate LID technologies wherever possible to aid in the reduction of stormwater impacts. Some examples of LID technologies are green roofs, bioretention swales or cells (rain gardens), pervious pavement, amended soils, forest cover retention, minimal excavation foundations, and general minimization of impervious surface coverage.

#### **Other Potential Mitigation Measures**

Measures to reduce impacts of these alternatives to natural systems and public/private property will be achieved through planning policies, goals, and permit conditions, as described below.

## Incorporated Plan Features

- The Land Use and Natural Systems elements of the Comprehensive Plan include goals for mitigating erosion, sedimentation, and stormwater runoff problems related to land clearing, grading, and development.
- Alternatives 2, 3 and the Preferred update the County's Capital Facility Plan, incorporating a 6-year CIP for stormwater projects. This planning process helps to ensure that the County maintains compliance with the stormwater LOS.

### 3.3.8.3 Stormwater – Significant Unavoidable Adverse Impacts

With advanced planning, review of development applications, and implementation of mitigation measures, there should not be unavoidable adverse impacts from any of the three alternatives. The level of unavoidable adverse impacts depends on the degree that potential mitigation measures are implemented. Even if one or more of the mitigation measures is implemented, there could still be some changes to existing stormwater runoff patterns. This could alter flow conditions downstream of the planning areas and could potentially aggravate existing downstream flooding and erosion problems.

### 3.3.9 Water Supply

The purpose of this section is to identify water supply and transmission facilities inventories to evaluate whether adequate supplies and facilities are available for water service in the county as its forecasted population increases.

#### 3.3.9.1 Water Supply – Affected Environment

Water systems are classified into two categories, Group A (former Classes 1–3) and Group B (former Class 4) systems. According to the Washington State Department of Health (DOH), Group A systems, having 15 or more residential service connections or regularly serve 25 or more people 60 or more days per year, currently comprise approximately 95% of all the County's public connections; Group B systems, having less than 15 residential service connections and serving less than 25 people, serve approximately five percent of the connections. Most of the Group B systems were developed with a shallow well to serve short plats or small subdivisions and serve only that development.

Using best available information from the Kitsap County Health Department, the following estimates were derived.

- There are approximately 16,700 exempt private wells and two-party private wells in the county (including Bainbridge Island).

- 5,278 of those are believed to be two-party private wells.
- Their distribution is roughly: 2,170 Bainbridge, 5,515 North Kitsap, 3,170 Central Kitsap, and 5,845 South Kitsap (based on commissioner districts).
- There are 808 Group water systems. 160 of them have a water right.
- The Group B distribution is roughly: 135 Bainbridge Island, 285 North Kitsap, and 180 Central Kitsap.

### **Kitsap County Water Planning Programs**

The Kitsap County Board of Commissioners have designated Kitsap Public Utility District (KPUD) as having countywide responsibility for technical, managerial, financial, operational, and support services needed to provide satisfactory water resource development, protection, and utility service. KPUD also functions as a Satellite System Management Operator throughout the County by provision of direct service, contract service, and support service.

The KPUD has worked cooperatively with the County and local water purveyors to conduct the Groundwater Management Plan (GWMP) process. The District and County have also jointly sponsored the preparation of a Coordinated Water System Plan (CWSP) for Kitsap County. KPUD, in coordination with Ecology, completed the initial basin assessment for Kitsap County. Each of these planning processes is described in more detail below.

### **Kitsap County Ground Water Management Plan**

To meet the requirements of the Ground Water Management Act, the KPUD served as a co-lead agency to develop the Draft Kitsap County Groundwater Management Plan completed in 2004. All of Kitsap County has been identified as a groundwater management area. KPUD coordinated with water purveyors in the County, as well as other members of the Kitsap County Groundwater Advisory Committee.

Preparation of the GWMP was done in accordance with the requirements of Chapter 173-100 WAC, Groundwater Management Areas, and Programs. These regulations led to the designation of Kitsap County as a Groundwater Management Area (GWMA) on October 7, 1986. An Interlocal Agreement was entered into between the KPUD and the Kitsap County Board of Commissioners on December 15, 1986. This Agreement established both entities as co-lead agencies for the evaluation and preparation of the GWMP.

## **Kitsap County Coordinated Water System Plan (CWSP)**

The Kitsap County CWSP (revised May 9, 2005) presents an assessment of municipal and industrial water supply needs in Kitsap County and a program to effectively provide water supply and service to customers throughout the area. The CWSP was developed to comply with Chapter 70.116 RCW and Chapter 246-293 WAC by the Water Utility Coordinating Committee (WUCC). The WUCC consists of representatives from each purveyor with over fifty services within the declared area, the county legislative authority, the Kitsap County Department of Community Development, and the Kitsap County Health District.

The CWSP provides a process and strategy for the existing water utilities to define their role in a program consistent with adopted land use polices and projected growth strategy. The regional water supply, transmission, and storage plan represents the collective views of the WUCC and integrates the findings of the Kitsap County GWMP (Water Conservation per Groundwater Plan Volume III).

## **Water Conservation in the County**

County government supports Group A water utilities as they pursue ongoing conservation programs. These programs include both supply and demand management measures within individual service areas as required by the Water Use Efficiency Rule (WUER) as a part of the Municipal Water Law (MWL).

In June 2009, the Board of County Commissioners adopted by resolution a new policy treating water as a resource, not a waste stream. This policy establishes a culture of innovative development and operating practices in order to preserve this natural resource on public property.

Members of the Water Purveyors of Kitsap County (WaterPAK) provide basic conservation kits and literature for water users. They also evaluate the advisability of countywide programs to retrofit existing homes with low flow toilets, low-flow shower heads, restricted flow aerators, and other appropriate devices on a cost-effective basis.

Water utilities conduct leak detection programs that identify problem water losses in distribution systems. The Kitsap County WaterPAK plans to evaluate a regional approach to leakage analysis efforts.

The WaterPAK developed a comprehensive, model water conservation program for small utilities. The conservation program includes conservation objectives, demand forecasting methods, program activities and level of effort, budget estimates, savings estimates, and evaluation and monitoring criteria. Program activities include education, system

monitoring and improvements, promotion of conservation devices, incentives for customers, water production monitoring, drought response conservation, and other appropriate supply and demand management measures. WaterPAK plans to conduct joint conservation efforts with Pierce and Mason counties.

### **Inventory of Current Facilities**

A complete inventory of current water supply facilities can be found in the Kitsap County CFP under Inventory of Current Facilities – Water.

Responses from water purveyors indicate that a majority of the systems in Kitsap County have a range of deficiencies when meeting the requirements as outlined in the Kitsap County Uniform Fire Code. These systems generally need to increase the size of piping, need to install additional looping to increase water pressure for fire flow, or increase frequency of hydrant placement to meet spacing requirements.

### **Current Level of Service Capacity Analysis**

#### **3.3.9.2 Water Supply – Impacts**

##### **Impacts Common to All Alternatives**

Data and modeling indicate that Kitsap County has adequate water resources to meet the need for water supply of expected population growth and allocation under all three alternatives, although water may need to be delivered to serve areas of lesser supply, or greater population in the future. Kitsap PUD has been working on developing regional supply and transmission for over 20 years in order to support the County in complying with the GMA. Some of the sources needed have been identified and is certificated, and some is in the process of being approved now, with more to follow as needed.

Water in the region's aquifers is not the issue, but more so, the availability to locate it, retain rights to use it, mitigate for stream flows, build storage to retain water for peak seasonal use and fire protection, and transmission mains to deliver it where needed. Kitsap PUD has to balance these issues with high quality, timely service to customers. As an example, Kitsap PUD has identified a large source of supply called the Seabeck Aquifer and has rights to use it throughout the County. Phase 8 of this project was completed in the summer of 2023, and they (Kitsap PUD) are now able to move water from Seabeck to Kingston. This is done in large part due to their partnership with the Silverdale Water District (SWD). This infrastructure is assisting Kitsap PUD in serving the historic town of Port Gamble and they are prepared to support the City of Poulsbo as needed to meet their growth projections. Additionally, plans are in the works to be able to supplement the supply in Keyport via SWD infrastructure, utilizing this regional supply. The supply can be

used to support other cities and UGAs as needed. Since the early 1990s Kitsap PUD's position has been to develop regional supply to be used in cities and UGAs in support of the Counties directive to comply with the GMA, while also ensuring that their water resources are responsibly managed in the process. As for aquifer recharge, and how it pertains to the 3 scenarios, it is Kitsap PUD's understanding that Kitsap County building codes responsibly ensures that waters falling on a given property are collected before they head to the sound or canal, ensuring water does in fact recharge aquifers. Kitsap PUD is in support of continued efforts by the County to ensure this is the case. If this is done correctly, Kitsap PUD does not have a position on which scenario is chosen from a water resources perspective.

In terms of resource cost analysis, greater densities should provide a lower cost of service, and lower densities, such as the majority of Kitsap PUD's rural service area, should be a higher cost of service. With that said, most of the infrastructure is already in place to support the existing UGA boundaries (Alternative 1), with developers covering the cost of future infrastructure needs. If, however, UGA boundaries are greatly expanded (Alternative 2 and 3), there may be a need for more regional infrastructure in the future to support this. Kitsap PUD has historically utilized state and federal grant funding for regional projects but may need financial assistance from the County depending on what funding is available at the time or before it is needed. Additionally, operating costs are increased for Kitsap PUD customers as additional low-density infrastructure is constructed, but it is the best way to manage our water resources responsibly if growth is required.

Across all alternatives, the County is not planning for additional growth in the rural areas. While some development is likely to occur, the preferred alternative in particular focuses growth in the urban areas of the county. This helps control the impacts on the water supply in two ways: first, by lessening the need for lateral expansions of distribution systems, and second, by reducing the pressure on groundwater resources in the rural areas by way of fewer exempt private wells.

The WRIA 15 Watershed Restoration and Enhancement Plan (not yet adopted) from the Department of Ecology analyzes the impacts of exempt wells across several sub-basins that cover portions of Kitsap County: West Sound, North Hood Canal, South Hood Canal, Bainbridge Island, and South Sound.



### Exhibit 3.3.9.2-1 – Map of Estimated Consumptive Use by Sub-Basin, WRIA 15

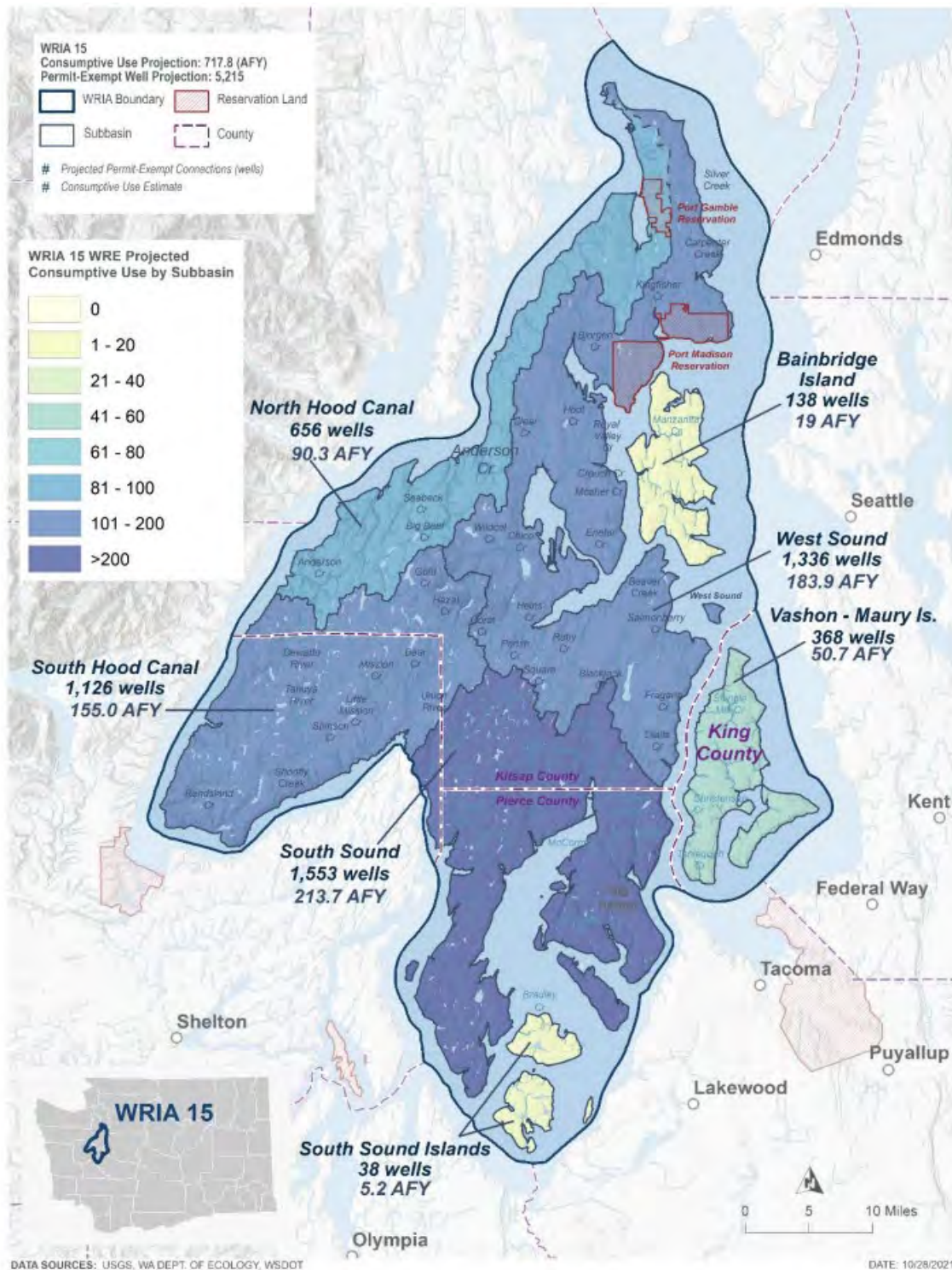


Figure 3. WRIA 15 Estimated Consumptive Use 2018-2038. Map prepared by GeoEngineers.

Kitsap County's share of the wells and projected consumptive use within these sub-basins is estimated in the draft WRIA 15 report as follows:

**Exhibit 3.3.9.2-2 – Kitsap County projected new permit exempt wells and consumptive use by sub-basin**

Subbasin	Private Exempt (PE) Well Projection, 2018-2038	Total Consumptive Use Projection, 2018-2038, acre-feet per year
West Sound	1,336	183.9
North Hood Canal	656	90.3
South Hood Canal	49	6.7
Bainbridge Island	138	19
South Sound	389	53.5
<b>Total Non-Bainbridge</b>	<b>2,430</b>	<b>334.4</b>

*Note: South Hood Canal and South Sound total consumptive use calculated based on percentage of projected permit exempt wells in these subbasins within Kitsap County.*

The 334.4 acre-feet per year of consumptive use by projected new permit exempt wells in unincorporated Kitsap County is constant across all alternatives, as no rural growth is planned for in this comprehensive plan.

**Impacts of Alternative 1, “No Action”**

Operating costs are increased for Kitsap PUD customers as additional low-density infrastructure is constructed, but it is the best way to manage our water resources responsibly if growth is required. Most of the infrastructure is already in place to support the existing UGA boundaries.

**Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Greater concentrations of population and employment growth within the UGAs, particularly in Alternative 2, would minimize impacts on service providers by lessening the need for lateral expansion of distribution systems. There may be a need for more regional infrastructure in the future to support UGA expansion. Most of the infrastructure is already in place to support the existing or minimally changed UGA boundaries.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

There may be a need for more regional infrastructure in the future to support UGA expansion.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance, which will have an impact on developable land. Due to the increased concentration of development, the impacts associated with this alternative would have minimal impacts to the Water system due to decreasing the need for expansion and distribution. The alternative will also not contribute to increased operation cost by focusing growth on multifamily and missing middle housing. However, regional infrastructure will be needed to support potential UGA expansion.

#### **3.3.9.3 Water Supply – Mitigation Measures**

##### **Incorporated Plan Features**

- Capital Facilities policies promote coordination with non-County facility providers, such as cities and special purpose districts, to support and be consistent with the future land use patterns identified in the County’s Comprehensive Plan.
- The Capital Facilities Chapter consolidates water provider capital plan information to help coordinate multi-jurisdictional planning efforts. This would be updated with Alternatives 2 and 3.

##### **Applicable Regulations & Commitments**

- Pursuant to RCW 58.17.110, local authorities must review plat applications to see that adequate provisions are made for a variety of public facilities, including potable water.
- Pursuant to KCC Chapter 16.12, the County engineer and County health officer provide their respective recommendations as to the adequacy of the proposed water supply systems. The hearing examiner then determines whether a proposal includes appropriate provisions for “water supplies” and other public and private facilities and improvements.

- Water supply facilities for new development and public water system expansions must be designed to meet, at a minimum, the fire flow levels specified in WAC 246-293-640, the Uniform Fire Code, and KCC Title 14. In addition, utilities must develop their capital improvement program for meeting these fire flow objectives in consultation with the appropriate local fire authorities.
- In accordance with state and local regulations, the Kitsap Health District performs assessments of proposed and existing water supplies for adequacy and potability.
- Pursuant to Chapter 70.116 RCW and Chapter 246-293 WAC, the KPUD coordinates with local water purveyors to evaluate and determine critical water supply service areas and undertake orderly and efficient public water system planning.
- Continued conservation and leak detection programs of the WATERPAK would help to reduce demand.
- The Coordinated Water System Plan for Kitsap County promotes regional water supply and transmission improvements.
- Implementation of projects within the WRIA 15 watershed restoration plan. As discussed in the Water Resources section of this FEIS, Climate Change Goal 8 and Policy 8.4 of the proposed comprehensive plan update are supportive of incorporation of groundwater quantity into the CAO and implementation the WRIA 15 plan.

## **Other Potential Mitigation Measures**

- Water systems should increase the size of piping, install additional looping to increase water pressure for fire flow, and/or increase frequency of hydrant placement to meet fire flow requirements.
- Water providers and County planners should continue to consult early in plan updating processes to coordinate land use with future water supply needs, particularly in urban infill areas designated for higher densities.
- The County should review and revise landscaping codes as necessary to encourage use of drought tolerant plantings and reduce demand for water.
- The County should encourage the use of rainwater retention systems in new and existing development to reduce water demand for landscaping needs.

### **3.3.9.4 Water Supply – Significant Unavoidable Adverse Impacts**

All alternatives would increase demand for water services. However, with coordination of capital and land use planning, significant unavoidable adverse impacts are not anticipated.

## **3.3.10 Energy & Telecommunications**

### **3.3.10.1 Energy & Telecommunications – Affected Environment**

#### **Natural Gas**

##### ***Overview***

Natural gas in Kitsap County is privately operated and maintained by Cascade Natural Gas Corporation (CNG), a subsidiary of MDU Resources Group, Inc., a multidimensional natural resources enterprise traded on the New York Stock Exchange. CNG serves more than 272,000 customers in 96 communities – 68 of which are in Washington and 28 in Oregon. Cascade serves a diverse territory covering more than 32,000 square miles and 700 highway miles from one end of the system to the other. Interstate pipelines transmit Cascade's natural gas from production areas in the Rocky Mountains and western Canada. The Cascade headquarters is located in Kennewick, Wash. (Cascade Natural Gas, 2023)

Interstate pipelines transmit Cascade's natural gas from production areas in the Rocky Mountains and Western Canada. Natural gas is either stored as a gas under pressure or cooled and stored as a liquid. Underground gas storage is provided at Jackson Prairie Gas Storage, located south of Chehalis, Washington. Cold liquid storage is provided at a facility in Plymouth, Washington. (Kitsap County, 2023)

CNG's service area in Kitsap County includes Bangor, Bremerton, Chico, Gorst, Keyport, Manchester, Port Orchard, Poulsbo, Silverdale, and Sunnyslope. (Cascade Natural Gas, 2023). Note that service is not currently provided to all areas inside the service area. Connections are initiated by customer demand and individual requests.

CNG does not plan in advance for individual connections; instead, connections are initiated by customer requests for new construction or conversion. CNG expects to continue developing distribution systems and services to meet growth at the lowest possible cost by maximizing capacity of the existing distribution system.

Cascade anticipates its core customer base will continue to grow and annual throughput will increase between 1.0% and 1.2% per year. (Cascade Natural Gas, 2023)

## ***Projects – Local Improvements***

Cascade currently has no planned projects in Kitsap County. Their plan for expansion is based purely on demand by customers with no planned long-range projects beyond that.

## **Electricity**

### ***Overview***

Electricity service in Kitsap County is provided by Puget Sound Energy (PSE), which is a privately held, investor-owned utility formed in 1997 with the merger between Puget Sound Power & Light Company and Washington Natural Gas. PSE is the largest electric utility in Washington State, with more than one million electric customers and a service area of 6,000 square miles, primarily in the Puget Sound region. PSE electricity is generated from a variety of sources, including hydroelectric power, thermal power plants, coal, natural gas, wind power, and more. In 2013, the PSE fuel mix for electricity was 31% coal, 32% hydroelectric, 28% natural gas, 7% wind, one percent nuclear, and one percent other. (Puget Sound Energy, 2015) PSE in Kitsap County PSE serves over 127,960 electric customers in Kitsap County and maintains over 132 miles of high-voltage transmission and distribution lines throughout the county. (Puget Sound Energy, 2022) PSE also maintains 1,317 miles of overhead wire and 1,562 miles of underground cable along with 30 total substations. (Puget Sound Energy, 2022)

Power is supplied to western Washington primarily from hydro generation stations along the mid-Columbia River and in Canada. Interregional 230 and 500 kV transmission lines carry power from the generating stations westward to PSE's transmission switching stations and to transmission substations operated by the

Bonneville Power Administration (BPA) in the Puget Sound region. The existing electrical facilities inventory in unincorporated Kitsap County consist of the following:

- Transmission Switching Stations – South Bremerton, Foss Corner and Valley Junction.
- Transmission Substations– South Bremerton, Bremerton.
- Distribution Substations – Port Gamble, Christensen's Corner, Miller Bay, Silverdale, Central Kitsap, Bucklin Hill, Tracyton, McWilliams, Chico, Sinclair Inlet, South Keyport, Fernwood, Manchester, Long Lake, Fragaria, East Port Orchard, Sheridan, Rocky Point, Poulsbo, Bremerton, Port Madison, Murden Cove, and Winslow, Serwold, Kingston. Some of these substations are within city limits.



- Transmission Lines 115 kV – Foss Corner-Salisbury Point, Foss Corner-Murden Cove, Port Madison Tap, Valley Junction-Foss Corner, Bremerton-Keyport, Foss Corner-Keyport, South Bremerton-Bremerton, South Bremerton-Valley Junction, O'Brien-Long Lake, South Bremerton-Long Lake, South Bremerton-Fernwood Tap, Fernwood Tie, and Bremerton-Navy Yard. Foss Corner - US Navy at Bangor, Miller Bay to Kingston.
- Other Facilities – Command Point Cable Station and Salisbury Point Cable Station.

(Kitsap County, 2023)

PSE has divided Kitsap County into two sub-areas (north and south) for the purposes of electric facilities planning. The North Kitsap sub-area is generally from Hood Canal in the north to Sinclair Inlet in the south. The South Kitsap sub-area is generally from Sinclair Inlet to the south county boundary. (Kitsap County, 2023)

The north and south sub-areas receive power from a network of 115kV interconnecting transmission sources in the southern part of the county and transmission switching stations in central and northern Kitsap County. A 230 kV transmission source comes into Kitsap County via BPA lines to the BPA Kitsap substation in Gorst, then PSE has a short run of 230kV to their South Bremerton Substation. From there 115kV lines transmit power throughout Kitsap County.

Long-range plans are developed by PSE's Total Energy System Planning Department and are based on electrical growth projections. County population projections produced by the OFM are used to determine new load growth for the next 20 years. Projected load is calculated as the existing load combined with forecasted new load, with deduction for conservation reductions and demand side management.

PSE's future electrical facilities plan is based on an estimated normal peak winter load. PSE plans to construct additional transmission and distribution facilities to meet demand. The exact timing of individual projects will be determined by the rate of load growth in specific areas. Planned or pending projects are listed below.

#### Exhibit 3.3.10-1 Puget Sound Energy Current & Planned Projects

Project Name	Location	Project Need	Estimated Start-End Dates	Status
<b>Southeast Salmonberry Road</b>	Port Orchard, 98366	Electrical, System Improvement	Start Date: 12/1/2022 End Date: 4/30/2023	In Construction



Project Name	Location	Project Need	Estimated Start-End Dates	Status
<b>electric reliability improvements</b>				
<b>West Belfair Valley Road electric system upgrade</b>	Bremerton, 98312	Electric, System Improvement	TBA, in permitting stage	Permitting
<b>Northeast West Kingston Road</b>	Kingston, 98346	Electric, System Improvement	Start Date: 4/3/2023 End Date: 8/31/2023	Pending Construction Start
<b>Hansville Road Northeast electric system upgrade</b>	Kingston, 98346	Electric, System Improvement	Start Date: 10/24/2023 End Date :6/30/2024	In Construction
<b>Highway 3 electric system upgrade</b>	Poulsbo, 98370	Electric, System Improvement	Start Date: 8/26/2019	Pending Construction Start
<b>Northwest Lofall Road electric system upgrade</b>	Poulsbo, 98370	Electric, System Improvement	Start Date:1/1/2022	Pending Construction Start

Source: Puget Sound Energy

## Telecommunications

The telecommunications services discussed in the section include telephones, cable television, and cellular phones. The Washington Utilities and Transportation Commission (WUTC) regulates telephone and radio communications; cable television and cellular telephone service are not under WUTC jurisdiction and are regulated by the Federal Communications Commission (FCC). Telecommunication providers must also comply with local regulations such as land use and public rights-of-way. The companies discussed here often provide more than one type of telecommunications service. In this discussion, they are introduced under the category with which they are most commonly associated.

### Telecommunication Services

Telephone service providers are required by state law to provide adequate telecommunications service on demand per Chapter 80.36.090 RCW. Telephone service providers are therefore required to provide services in a manner that accommodates growth within their service area, wherever it may occur. As such, telephone service providers generally do not conduct detailed long-range planning activities. General improvements and maintenance necessary to keep the current system operational and to accommodate future growth are implemented as required.

CenturyLink provides local and long-distance telephone service throughout Kitsap County and also provides digital television and DSL Internet. Kitsap PUD also operates a fiber-optic network, providing wholesale broadband internet access. State law prevents the PUD from offering this service directly to residents, but it sells network access to telecommunications retailers, who offer that access to consumers. Other telecommunications providers in Kitsap County include AT&T, McLeodUSA, NW CommNet LLC, Sprint, and Verizon.

### ***Cable Television***

Cable television providers are regulated under the Cable Television Consumer Protection and Competition Act of 1992, which is enforced by the FCC. Cable television providers enter franchise agreements with local governments; these franchise agreements regulate service rates to ensure compliance with FCC guidelines. Cable television service in Kitsap County is provided by Comcast, DirectTV, and Wave Broadband. Comcast and Wave Broadband also provide digital phone service and broadband internet access.

### ***Cellular Telephone***

Cellular telephone service in the watershed is provided by a variety of national and regional carriers, including Verizon Wireless, AT&T, T-Mobile, Sprint, and Cricket Wireless. Cellular telephone providers are regulated directly by the FCC. Cellular service depends upon a series of transmitting antennae located on towers throughout a provider's service area. Additional antennae are constructed when a particular area begins to experience capacity overload, and providers will expand capacity in response to consumer demand.

### ***Current & Planned Projects***

#### **ARPA Node Project –**

Kitsap County is distributing American Recovery Plan Act (ARPA) funding to agencies and organizations helping our community respond to the impacts of the COVID pandemic. The ARPA Node project is the expansion of broadband services into our unserved and underserved communities. Kitsap PUD will use this funding to expand middle-mile broadband facilities (up to 21 Fiber to the Home (FTTH) distribution nodes) to areas throughout Kitsap County. This will assist in future connection of homes in urban and rural areas providing fast & reliable broadband service. Total project funding of \$6.6 Million started September 6, 2023 & funds to be used by June 30, 2026.

#### **Hintzville Community, Seabeck Local Utility District (LUD) – CERB Funded project**

KPUD was awarded \$2 Million Community Economic Revitalization Board (CERB) to help support the expansion of KPUD's broadband infrastructure into the Hintzville Community

providing Fiber to the Home (FTTH) to approximately 480 homes. Total project is estimated to be \$4.2 Million & to be completed by October 2025.

Kitsap PUD is utilizing BEAD, CERB, IJA & PWB grants whenever possible to obtain funding for community projects.

### **3.3.10.2 Energy & Telecommunications – Impacts**

#### **Impacts Common to All Alternatives**

For each private utility (gas, electricity, and telecommunications), increases in population and employment will create increases in demand. Funding for the increased demand would be acquired through user fees. In general, increased densities associated with the population growth (Alternative 2) would allow for greater service efficiency by minimizing the length of pipe or line that would need to be installed and maintained. The following are a few likely impacts across services.

- CNG would increase its service connections upon customer request. Additional facilities would be constructed only when existing systems capacity has been maximized.
- PSE would use forecasts for future electricity need based on 20-year OFM population projections to accommodate increased growth.
- The telephone, cable, and cellular service companies would increase their service connections upon customer request.

Kitsap County's primary cable television franchise ordinance specifies that cable coverage must be available to all residents within the county where there are at least 32 dwelling units per street mile (KCC 14.32.350(b)). Future development must comply with this ordinance.

#### **Impacts of Alternative 1, "No Action"**

Any population growth will increase the demand for energy and telecommunications. Alternative 1 maintains current densities and UGA boundaries, which may result in more service extensions/expansions than alternative 2, which focuses on compact growth.

#### **Impacts of Alternative 2, "Compact Growth/Urban Center Focus"**

Alternative 2 focuses growth in current UGAs and urban centers. More population growth in current city limits and UGAs leads to more demand for energy and telecommunications services in those areas. Expanding or retrofitting the existing services in these areas may be required to accommodate the focused population growth. Focused growth and higher

densities allow for higher efficiency of service for natural gas, electricity, and telecommunications.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Alternative 3 focuses on dispersed growth. Dispersed population growth in the county would result in the highest infrastructure cost of the three alternatives due to the demand of service expansions and extensions. Anywhere there is focused growth centers will allow for more efficient services for natural gas, electricity, and telecommunications.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. While all the growth alternatives will increase the demand for energy and telecommunications, this specific alternative would result in energy services to expand or retrofit the existing service to support the increase growth within the UGA and urban centers, but will allow for higher efficiency of services. There is an anticipated increase in infrastructure cost with the expansion of the UGA, but due to the Critical Area Ordinance development within the UGA will be limited.

## **3.3.10.3 Energy & Telecommunications – Mitigation Measures**

### **Incorporated Plan Features**

All alternatives, particularly Alternative 2 and the Preferred Alternative, focus growth and concentrate densities, allowing for improved efficiency of service for natural gas, electricity, and telecommunications.

### **Applicable Regulations & Commitments**

Development of future energy resources, transmission facilities and other facilities will be consistent with federal and state laws, the Northwest Power Planning Council, WUTC, and other laws and agencies regulating utilities.

### **Other Potential Mitigation Measures**

- Continue to encourage site design that emphasizes tree retention and planting, as well as optimizes solar access, to moderate temperatures and reduces energy consumption. Encourage energy conservation through provider-sponsored programs and building codes.

- Continue to encourage co-location of telecommunications facilities and undergrounding of utilities (in urbanized areas) to minimize aesthetic and land use impacts of utility corridors and in rural areas to minimize aesthetic and environmental impacts.
- Continue to encourage appropriate landscaping and stealth design of telecommunication facilities to minimize their visual impacts on their surroundings.

### **3.3.10.4 Energy & Telecommunications – Significant Unavoidable Adverse Impacts**

Population and employment growth under all alternatives will increase demands for energy and telecommunications that in turn will increase the need for additional facilities.

## **3.3.11 Libraries**

### **3.3.11.1 Libraries – Affected Environment**

Kitsap Regional Library serves Kitsap County residents with nine locations, physical and digital collections, research tools, personalized services, classes and events, and outreach services for individuals with significant barriers to utilizing library locations.

In 2022, the Library had 70,319 active library card accounts, 312,733 items in its physical collection, and 72,714 downloadable ebooks, audiobooks, and magazines. The total items borrowed were 2,436,646. Attendance at all programs was 43,417 and there were 64,628 public computer sessions. (Kitsap Regional Library, 2023)

Library locations are summarized below:

- The Kingston community has had a library since 1945. Opened in 2016, Kingston's current branch is located in the Village Green Community Center. The Metropolitan Park District owns the building, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.
- Library service began in Little Boston in 1974. Opened in 2007, Little Boston's current branch is located in the House of Knowledge Complex and owned by the Port Gamble S'Klallam Tribe, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.
- Library service began in Poulsbo in 1918. Opened in 1980, Poulsbo's current branch was renovated and expanded in 1998 and renovated again in 2020.

- Bainbridge Island has had library service since 1863. Opened in 1962, Bainbridge Island's current branch had a children's library added in 1968. The building was expanded in 1982 and renovated in 2017. The building is owned by Bainbridge Public Library, Inc., a registered nonprofit, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.
- Silverdale has had library service since 1945. Opened in 2022, Silverdale's current branch is owned by the Central Kitsap School District, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.
- Opened in 1978, the Sylvan Way branch was created as a second library for the Bremerton community while also serving as Kitsap Regional Library's administrative offices and service departments.
- Bremerton has had library service since 1908. Opened in 1938, the Downtown Bremerton branch was renovated in 2007, 2019, and 2023. The building is named for Rev. Dr. Martin Luther King, Jr. and is owned by the City of Bremerton, while Kitsap Regional Library provides staff, services, collections, and regular maintenance.
- Port Orchard has had library service since 1924. Opened in 1954, Port Orchard's current branch was renovated in 1995 and 2013. There is currently a capital campaign to raise funds for a new library that will be located in the Port Orchard Community Event Center in partnership with the City of Port Orchard. The anticipated opening date of this new Center is between 2028 and 2030. The City of Port Orchard owns the current building, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.
- Manchester has had library service since 1947. Opened in 1980, Manchester's current branch was renovated and expanded in 1994 and 2022. The building is owned by the Friends of Manchester Library, a registered nonprofit, and the Port of Manchester owns the property, while Kitsap Regional Library provides staff, services, collections, and non-structural, routine maintenance.

### 3.3.11.2 Libraries - Impacts

#### Impacts Common to All Alternatives

##### *Level of Service*

Library services have been changing to focus more on digital format, it is not clear the exact square footage per capita that would be needed for the future population.

Because all three alternatives have relatively similar countywide population figures, the facility space LOS is generally equal for each Alternative, at 0.27 square feet per capita with current facilities, 0.28 with the new Kingston library, and 0.30 with the new Silverdale library. These levels are all well below the current LOS of 0.35 square feet per capita. Thus, if facility space is deemed as necessary in the future, KRL will need to build or expand more facilities by 2044 to keep up with population growth.

##### *Funding*

Kitsap Regional Library operations are primarily funded by property taxes, contributing 96% (2024) to its nearly \$17 million yearly revenue. This funding is crucial for maintaining library services, facilities, and collections, with staff salaries and benefits comprising 78% (2024) of the operating budget. In 2001, the Library's funding landscape was dramatically altered when voters approved Washington Initiative 747, capping property tax revenue increases at 1% annually or 50 cents per \$1,000 assessed property value, whichever is less. This change restricts growth in the Library's main revenue source.

The Library received a significant boost in November 2017 when Kitsap voters passed a levy that increased the tax rate to 43 cents per \$1,000, adding \$3.43 million to the 2018 budget and, more importantly, establishing a new base for future revenue calculations. Despite an average annual revenue increase of 2.4% since 2018, the Library faces challenges from the economic environment, a capped rate, and rising costs, including healthcare, technology, staff salaries, and maintenance of older buildings. In 2023, the library's tax revenue is about 27 cents per \$1,000 of assessed property value.

Periodic levies are an essential part of responsible stewardship and stable, long-term funding for the library to meet community needs, given the 1% cap and reliance on property taxes. To this end, Kitsap Regional Library anticipates proposing a levy to voters in the near future to sustain current service levels and meet expanding needs inherent to the growing population in Kitsap County. (Kitsap Regional Library 2023)



### **Impacts of Alternative 1, “No Action”**

As population increases in Kitsap County, so will the demand for library resources and services. Facilities may have to be expanded or new facilities may have to be built. Additional staffing, library materials, technological resources, and other services could be required to meet growing demand. Areas where more population growth would occur could experience higher localized demand for additional library resources.

Because the population increase in Kitsap County as a whole is similar under all three alternatives, countywide LOS, both in terms of facility space and collection items per capita, is similar under all alternatives. However, because the location of growth would be different under each Alternative, local impacts to library space are possible.

### **Impacts of Alternative 2, “Compact Growth/Urban Center Focus”**

Alternative 2 would concentrate population growth in smaller more compact urban areas, where population may find easier access to library services. This also means that without new or expanded libraries in these locations, they will be heavily impacted compared to other libraries.

### **Impacts of Alternative 3, “Dispersed Growth Focus”**

Alternative 3 would disperse population growth, which may increase the barriers to library access due to longer travel times to the nearest library. This will not affect digital library users. New library branches may need to be planned as growth occurs.

### ***Silverdale Subarea***

With the opening of the new Silverdale Library branch, impacts stemming from increasing density in the Silverdale Subarea are unlikely to be significant. Regular capacity studies will determine the need for future expansions.

### **Impacts of the Preferred Alternative**

The Preferred Alternative would result in a more focused form of growth approach within the UGA similar to Alternative 2, by focusing on promoting multifamily and missing middle housing. UGA expansions will be included in this alternative, but limited due to the Critical Area Ordinance which will have an impact on developable land. The increase in development within UGA will make it easier for the population to access library services but will increase the impact and strain on the existing libraries due to the increase in population. The potential UGA expansion will potentially create a need for additional library branches, but expansion and development will be limited due to the Critical Area Ordinance.

### **3.3.11.3 Libraries – Mitigation Measures**

#### **Incorporated Plan Features**

Alternative 2 would concentrate population growth in smaller more compact urban areas, where population may find easier access to library services.

#### **Applicable Regulations & Commitments**

- With added development and population, property tax revenues and revenues from library levies will increase and could contribute to funding of additional circulating materials.

The newly expanded Kingston library branch and new Silverdale library will help serve demand from projected population growth, especially in the Kingston and Silverdale subareas.

#### **Other Potential Mitigation Measures**

- None.

### **3.3.11.4 Libraries – Significant Unavoidable Adverse Impacts**

As population increases in the County, the demand for library services is likely to increase, both countywide and particularly in areas with the highest population growth allocation. With advanced coordination between the Library District, County, and municipalities, along with consistent monitoring of the effects of population growth on libraries, significant, unavoidable, adverse impacts are not anticipated.

## 4 ACRONYMS, ABBREVIATIONS & REFERENCES

### 4.1 ACRONYMS & ABBREVIATIONS

AAGR	average annual growth rate
ACS	American Community Survey
ADUs	accessory dwelling units
AFY	acre-feet per year
AQI	Air Quality Index
BAS	Best Available Science
BIPOC	Black, Indigenous, and People of Color
Board	Board of County Commissioners
BP	Business Park
BPA	Bonneville Power Administration
C	Commercial
CAA	Clean Air Act
CAO	Critical Areas Ordinance
CARA	critical aquifer recharge area
CCA	Climate Commitment Act
CETA	Clean Energy Transformation Act
CFE	Capital Facilities Element
CFP	Capital Facilities Plan
CIP	Capital Improvement Plan
CNG	Cascade Natural Gas
CO	carbon monoxide
County	Kitsap County
C-PACER	program for multifamily and commercial development in UGAs
CPPs	Countywide Planning Policies
D	destinations
DAHP	Department of Archaeology and Historic Preservation
dBa	decibel
DCC	District Center Core
DEIS	Draft Environmental Impact Statement
DNR	Department of Natural Resources
DO	dissolved oxygen
DPS	Distinct Population Segment
Ecology	Washington State Department of Ecology
EDNA	Environmental designation for noise abatement
EFSEC	Energy Facility Site Evaluation Council
EIS	Environmental Impact Statement
EMS	emergency medical services
EPA	US Environmental Protection Agency
ESU	Evolutionary Significant Unit
EV	electric vehicle

FAT	fatal
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFC	Federal Functional Classification
FHWA	Federal Highway Administration
FRL	Forest Resource Lands
FY	fiscal year
GB	Greenbelt
GHG	greenhouse gases
GIS	Geographic Information System
GMA	Growth Management Act
HCCC	Hood Canal Coordinating Council
HMP	Habitat Management Plan
HO	home-to-other
HOV	high-occupancy vehicle
HPA	Hydraulic Project Approvals
HSS	Highways of Statewide Significance
HW	home-to-work
IBC	International Building Code
ICLEI	ICLEI-Local Governments for Sustainability
IJA	Infrastructure Investment & Jobs Act
IND	Industrial
IRC	International Residential Code
ISTEA	Intermodal Surface Transportation Efficiency Act
KCC	Kitsap County Code
KRCC	Kitsap Regional Coordinating Council
KVC	Keyport Village Commercial
KVLR	Keyport Village Low Residential
LAMIRD	Limited Area of More Intense Rural Development
LED	Local Employment Dynamics
LI	Light Industrial
LIC	Low Intensity Commercial
LIDAR	Light Detection and Ranging
LOS	level of service
LWD	large woody debris
MAR	managed aquifer recharge
MFI	median family income
MFTE	multifamily tax exemption
MHMP	Multi-Hazard Mitigation Plan
MMPA	Marine Mammal Protection Act
MPO	metropolitan planning organization
MRO	Mineral Resource
MRO/FRL	Mineral Resource/Forest Resource Lands
MRO/IND	Mineral Resource/Industrial
MRO/RP	Mineral Resource/Rural Protection
MRO/RR	Mineral Resource/Rural Residential

MRO/RW	Mineral Resource/Rural Wooded
MSA	Metropolitan Statistical Area
MTCO <sub>2</sub> e	million metric tons of CO <sub>2</sub>
MVC	Manchester Village Commercial
MVLR	Manchester Village Low Residential
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NC	Neighborhood Commercial
NFIP	National Flood Insurance Program
NHB	non-home based
NHS	National Highway System
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O	trip origins
OFM	Office of Financial Management
OH	other-to-home
P	Park
PBD	performance based development
PDO	property damage only
pH	potential of hydrogen
PHS	Priority Habitats and Species
PI	personal injury
PIC	Water Pollution Identification and Correction
PROS	Parks, Recreation, and Open Space
PSCAA	Puget Sound Clean Air Agency
PSNS	Puget Sound Naval Shipyard
PSRC	Puget Sound Regional Council
PUD	Planned Unit Development
QCEW	Quarterly Census of Employment and Wages
RC	Regional Center
RCW	Revised Code of Washington
RGS	Regional Growth Strategy (PSRC)
RL	Residential Low
RM 2.0	Residential Medium 2.0 acres
RP	Rural Protection
RR	Rural Residential
RTP	Regional Transportation Plan
RW	Rural Wooded
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Officer
SI	serious injury
SIP	State Implementation Plan
SMA	Shoreline Management Act
SMMWW	Stormwater Management Manual for Western Washington

SMP	Shoreline Master Program
SO <sub>2</sub>	sulfur dioxide
SOV	single occupancy vehicle
SR	State Route
SVC	Suquamish Village Commercial
SVLR	Suquamish Village Low Residential
SVR	Suquamish Village Residential
TAZs	Transportation Analysis Zones
TDM	Transportation Demand Management
TIPS	Transportation Improvement Programs
TMDL	Total Maximum Daily Load
TOD	Transit Oriented Development
TSM	Transportation System Management
TTEC	Twelve Trees Employment Center
UCR	Urban Cluster Residential
UFP	Ultrafine particulate matter
UGA	Urban Growth Area
UH (1)	Urban High Density
UH (2)	Urban High Residential
UL	Urban Low Density
UM (1)	Urban Medium Density
UM (2)	Urban Medium Residential
UR	Urban Restricted
US	United States
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UTA	Urban Transition Area
UVC	Urban Village Center
V/C	Volume-to-Capacity
VMT	Vehicle Miles Traveled
WAC	Washington Administrative Code
WATERPAK	Water Purveyors of Kitsap County
WDFW	Washington Department of Fish and Wildlife
WDOH	Washington State Department of Health
WH	work-to-home
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WSRB	Washington State Survey and Rating Bureau
WTP	Washington Transportation Plan

## 4.2 REFERENCES

- Barlow, P.M., and Leake, S.A., (2012), *Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow*: U.S. Geological Survey Circular 1376, 84 p. Retrieved from <https://pubs.usgs.gov/circ/1376/>.
- BERK & Parametrix. (2012). *Kitsap County UGA Sizing and Composition Remand, Final Supplemental Environmental Impact Statement*. Unpublished.
- Booth, D.B., & Jackson, C.R. (1997). Urbanization of aquatic systems: degradation thresholds, stormwater detection, and the limits of mitigation 1. *JAWRA Journal of the American Water Resources Association*, 33.d.
- Booth, D.B., Hartley, D. & Jackson, R. (2002). Forest cover, impervious surface area, and the mitigation of stormwater impacts. *Journal of the American Water Resources Association*, 38(3), 835-845. <https://doi.org/10.1111/j.1752-1688.2002.tb01000.x>
- Borde AB, C Judd, NK Sather, and RM Thom. (2009) *East Kitsap County nearshore habitat assessment and restoration prioritization framework. prepared for the Kitsap County Department of Dommunity Development by Battelle Marine Sciences Laboratory*, PNWD-4053, Sequim, WA.
- Burges, S., Wigmosta, M., & Meena, J. (1998). Hydrological effects of land-use change in a zero-order catchment. *Journal of Hydrologic Engineering*.
- Cascadia Consulting Group.(2022) *Kitsap County communitywide geographic greenhouse gas emissions: Puget Sound Regional Emissions Analysis-Final Report*. Retrieved from [https://www.kitsap.gov/dcd/Kitsap\\_climate\\_assessment/Kitsap%20County%20GHG%20Final%20Report.pdf](https://www.kitsap.gov/dcd/Kitsap_climate_assessment/Kitsap%20County%20GHG%20Final%20Report.pdf).
- Cascadia. (2022a). Memorandum: Kitsap County Climate Change Baseline Assessment.
- Cascadia. (2022b). Kitsap County Communitywide Geographic Greenhouse Gas Emissions, Puget Sound Regional Emissions Analysis. Final Report.
- Chappell, C.B., M.S. Mohn Gee, B. Stephens, R. Crawford, and S. Farone. (2001). *Distribution and decline of native grasslands and oak woodlands in the Puget Lowland and Willamette Valley ecoregions, Washington*. Pages 124-139 in Reichard, S. H., P.W. Dunwiddie, J. G. Gamon, A.R. Kruckeberg, and D.L. Salstrom, eds. Conservation of Washington's rare plants and ecosystems. Washington Native Plant Society, Seattle, WA.
- Cuo, L., Lettenmaier, D., Alberti, M., & Richey, J. (2009). .Effects of a century of land cover and climate change on the hydrology of the Puget sound basin. *Hydrological Processes*, 23, 907-9d. Retrieved from <https://cig.uw.edu/publications/effects-of-a-century-of-land-cover-and-climate-change-on-the-hydrology-of-puget-sound-basin/>.
- Deeter, J.D. (1975) *Quaternary geology and stratigraphy of Kitsap County, Washington-Masters thesis*. Western Washington University. <https://doi.org/10.25710/t72n-1q64>.



- Dethier, M.N. ,W.W. Raymond, A.N. McBride, J. D. Toft, J. R. Cordell, A.S. Ogston, S.M. Heerhartz, H.D. Berry, (2016) Multiscale impacts of armoring on Salish Sea shorelines: Evidence for cumulative and threshold effects. *Estuarine, Coastal and Shelf Science*. Volume 175, 20 Pages 106-117, ISSN 0272-7714, <http://dx.doi.org/10.1016/j.ecss.2016.03.033>.
- Ecology (2019). 2019 *Updates to recreational use water quality standards*. Washington Department of Ecology. Retrieved from <https://apps.ecology.wa.gov/publications/documents/1910037.pdf>.
- Ecology. (2012). *Sinclair and dyes inlets fecal coliform bacteria total maximum daily load: TMDL and water quality implementation plan* . Publication 11-10-051. Washington Department of Ecology. Water Resources Program. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/1110051.html>.
- Ecology. (2014) *Washington State wetland rating system for Western Washington: 2014 Update* (Effective January 2015) Publication 14-06-029.
- Ecology. (2022a). *Watershed restoration and enhancement plan: WRIA 15 Kitsap watershed: publication 22-11-017*. Washington Department of Ecology. Water Resources Program. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/2211017.html>.
- Ecology. (2022b). *6PPD in road runoff: assessment and mitigation strategies*. Publication 22-03-020. Washington Department of Ecology. Water Resources Program. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/2211017.html>.
- EPA. (2021). *Holistic watershed management for existing and future land use development activities: opportunities for action for local decision makers: Phase 1 – Modeling And development of flow duration curves (fdc 1 project) support for Southeast New England program (SNEP) communications strategy and technical assistance final project report*. Retrieved from <https://www.epa.gov/system/files/documents/2022-02/fd1-task-7-final-report.pdf>.
- EPA. (2024) *Government partnerships to reduce air pollution*. U.S. Environmental Protection Agency (EPA). Retrieved from <https://www.epa.gov/clean-air-act-overview/government-partnerships-reduce-air-pollution>.
- FEMA. (2015). *Notice to Congress: Monthly update on flood mapping*. Retrieved from [https://www.fema.gov/sites/default/files/2020-07/notice\\_to\\_congress\\_november2015\\_update.pdf](https://www.fema.gov/sites/default/files/2020-07/notice_to_congress_november2015_update.pdf).
- Francis, T. B., And D. E. Schindler. (2009). Shoreline urbanization reduces terrestrial insect subsidies to fishes in North American lakes. *Oikos* 118: 1872–1882, doi:10.1111/j.1600-0706.2009.17723.x
- Francis, T.B., Schindler, D.E., Fox, J.M. et al. (2007). Effects of Urbanization on the Dynamics of Organic Sediments in Temperate Lakes. *Ecosystems* 10, 1057–1068. <https://doi.org/10.1007/s10021-007-9077-0>
- Frans, L.M. and T.D Olsen. (2016) *Numerical simulation of the groundwater-flow system of the Kitsap Peninsula, West-Central Washington*. Prepared in cooperation with Public Utility District No. 1 of Kitsap County. Scientific Investigations Report 2016–5052.

- Fresh, K.L., R. Cardwell, and R. Koons. 1981. *Food habits of Pacific salmon, baitfish and their potential competitors and predators in the marine waters of Washington, August 1978 to September 1979*. Washington State Department of Fisheries, Olympia, WA.
- Garling, M.E., Molenaar, D., Bailey, E.G., VanDenburgh, A.S., and Fiedler, G.H., (1965). *Water resources and geology of the Kitsap Peninsula and certain adjacent islands*. Washington State Department of Conservation, Division of Water Resources, Water Supply Bulletin no. 18.
- Gerstel, W., J. Small and P. Schlenger. (2012) *Kitsap Regional shoreline restoration feasibility and prioritization study demonstration project restoration feasibility and prioritization analysis of sediment sources in Kitsap County*. Deliverable under Contract KC-390-11. Authored by Qwg Applied Geology, Anchor QEA, LLC and Confluence Environmental Company.
- Haring, D. (2000). *Salmon and steelhead habitat limiting factors Water Resource Inventory Area 15 East Kitsap Watershed*. Washington State Conservation Commission, Olympia, Washington.
- Hauxwell, J., Valiela, I. (2004). *Effects of nutrient loading on shallow seagrass-dominated coastal systems: patterns and processes*. In: Nielsen, S.L., Banta, G.T., Pedersen, M.F. (eds) *Estuarine Nutrient Cycling: The Influence of Primary Producers*. Aquatic Ecology Book Series, vol 2. Springer, Dordrecht. [https://doi.org/10.1007/978-1-4020-3021-5\\_3](https://doi.org/10.1007/978-1-4020-3021-5_3).
- Heisler, J., Glibert, P., Burkholder, J., Anderson, D., Cochlan, W., Dennison, W., Gobler, C., Dortch, Q., Heil, C., Humphries, E., Lewitus, A., Magnien, R., Marshall, H., Sellner, K., Stockwell, D., Stoecker, D., & Suddleson, M. (2008). Eutrophication and harmful algal blooms: a scientific consensus. *Harmful Algae*, 8(1), 3-13. <https://doi.org/10.1016/j.hal.2008.08.006>.
- Hruby, T. (2014). *Washington State wetland rating system for Western Washington*. Washington State Department of Ecology. Publication No. 14-06-029. <https://apps.ecology.wa.gov/publications/documents/1406029.pdf>
- Johannesen, J.A., MacLennan, A. Blue, J. Waggoner, S. Williams, W. Gerstel, R. Barnard, R. Carman, and H. Shipman. (2014). *Marine shoreline design guidelines*. Washington Department of Fish and Wildlife, Olympia, WA.
- Jones, J. (2000). Hydrologic processes and peak discharge response to forest removal, regrowth, and roads in 10 small experimental basins, western Cascades, Oregon. *Water Resources Research*.
- Jones, J.L., Johnson, K.H., & Frans, L.M. (2016). *Numerical simulation of groundwater flow at Puget Sound Naval Shipyard, Naval Base Kitsap, Bremerton, Washington*. U.S. Geological Survey. Open-File Report 2016-1135. <https://doi.org/10.3133/ofr20161135>
- Judd, C. 2010. *West Kitsap addendum to: East Kitsap County nearshore habitat assessment and restoration prioritization framework*. PNWD-4053-ADD-REV 1. Prepared by Battelle Marine Sciences Laboratory, Sequim, WA. Prepared for Kitsap County Department of Community Development, Port Orchard, WA. October 2010. dComparisons, ed. Kennedy, V.S. New York, NY: Academic Press. 315-341.

- Kereki, A. (2017). *Kitsap Regional shoreline restoration program final report*. Grant PO-00J08501-0 Environmental Protection Agency. Retrieved from Grant PO-00J08501-0 Environmental Protection Agency.
- Kinney, A., Francis, T. and Rice, J. (2015). *Analysis of effective regulation and stewardship findings*. Puget Sound Institute, University of Washington. [https://www.eopugetsound.org/sites/default/files/features/resources/AnalysisOfEffectiveRegulationAndStewardshipFindings\\_FINAL\\_2015-12-14.pdf](https://www.eopugetsound.org/sites/default/files/features/resources/AnalysisOfEffectiveRegulationAndStewardshipFindings_FINAL_2015-12-14.pdf).
- Kitsap County (2010). *Kitsap County shoreline inventory and characterization report*. Kitsap County Department of Development, Environmental Programs. Port Orchard, WA.
- Kitsap County (2015). *Draft supplemental environmental impact statement for Kitsap County*. 2016 Comprehensive Plan Update. Retrieved from <https://www.kitsap.gov/dcd/PEP%20Documents/2016%20Draft%20SEIS.pdf>.
- Kitsap County, City of Bremerton, & City of Port Orchard. (2020). *Kitsap County Climate Change Resiliency Assessment*. [https://www.kitsapgov.com/dcd/Kitsap\\_climate\\_assessment/KitsapCountyClimateAssessment\\_June2020%20-%202%20Full%20Assessment%20LowRes.pdf](https://www.kitsapgov.com/dcd/Kitsap_climate_assessment/KitsapCountyClimateAssessment_June2020%20-%202%20Full%20Assessment%20LowRes.pdf).
- Kitsap County, City of Bremerton, & City of Port Orchard. (2020). *Kitsap County climate change resiliency assessment*. Retrieved from [https://www.kitsapgov.com/dcd/Kitsap\\_climate\\_assessment/KitsapCountyClimateAssessment\\_June2020%20-%202%20Full%20Assessment%20LowRes.pdf](https://www.kitsapgov.com/dcd/Kitsap_climate_assessment/KitsapCountyClimateAssessment_June2020%20-%202%20Full%20Assessment%20LowRes.pdf).
- Kitsap County. (2006). *2006 Kitsap County 10-year comprehensive plan update*. Retrieved from [https://www.kitsap.gov/dcd/Pages/2006\\_Comprehensive\\_Plan.aspx](https://www.kitsap.gov/dcd/Pages/2006_Comprehensive_Plan.aspx).
- Kitsap County. (2019). *Multi-hazard mitigation plan*. Retrieved from <https://www.kitsapdem.com/wp-content/uploads/2021/08/2019-multi-hazard-mitigation-plan-for-Kitsap-County-WA.pdf>.
- Kitsap County. (2020) *Climate change resiliency assessment*. Retrieved from [https://www.kitsap.gov/dcd/Kitsap\\_climate\\_assessment/KitsapCountyClimateAssessment\\_June2020%20-%202%20Full%20Assessment%20LowRes.pdf](https://www.kitsap.gov/dcd/Kitsap_climate_assessment/KitsapCountyClimateAssessment_June2020%20-%202%20Full%20Assessment%20LowRes.pdf).
- Kitsap County. (2021). *Transportation impact fee rate study-2021 update*. Retrieved from
- Kitsap Public Health (2024). *2023 Water quality report*. Retrieved from [https://kitsappublichealth.org/environment/water\\_reports.php](https://kitsappublichealth.org/environment/water_reports.php).
- Kitsap Public Utility District. (1997) *Kitsap County initial basin assessment: Open file technical report No. 97-04*. Prepared in cooperation with Washington Department of Ecology. Bellevue, WA. 98008. Retrieved from <https://apps.ecology.wa.gov/publications/documents/9704.pdf>.
- Kitsap Transit (2024). *2024-2029 Transit Development Plan*. Bremerton, WA. Retrieved from <https://www.kitsaptransit.com/uploads/pdf/planning/2024-2029drafttdpplan-6657b85bae09c.pdf>.

- Konrad, C., & Booth, D. (2005). Hydrologic changes in urban streams and their ecological significance. *American Fisheries Society Symposium*. 47, 157-177. Retrieved from <https://pubs.usgs.gov/publication/70028019>.
- Kuttel, Michael. 2003. *Salmonid Habitat Limiting Factors Water Resource Inventory Area 15, (West), Kitsap Basin and 14 (North), Kennedy-Goldsborough Basin*. Washington Conservation Commission. June 2003. 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 from <https://doi.org/10.7915/CIG93777D>.
- May, C.W. and G. Peterson. (2003). *Landscape Assessment and Conservation Prioritization of Freshwater and Nearshore Salmonid Habitat in Kitsap County*. Retrieved from [https://salishsearestoration.org/w/images/c/c7/May\\_%26\\_Peterson\\_2003\\_kitsap\\_salmon\\_refugia\\_report.pdf](https://salishsearestoration.org/w/images/c/c7/May_%26_Peterson_2003_kitsap_salmon_refugia_report.pdf).
- Mayer, P.M., Reynolds, S., Canfield, T., & McCutchen, M. (2005). *Riparian buffer width, vegetative cover, and nitrogen removal effectiveness: A review of current science and regulations*. EPA/600/R-05/118. U.S. Environmental Protection Agency. Retrieved from <https://www.epa.gov/sites/default/files/2019-02/documents/riparian-buffer-width-2005.pdf>.
- Mobilian, C. and Craft, C.B. (2021). *Wetland soils: physical and chemical properties and biogeochemical processes*. Reference Module in Earth Systems and Environmental Sciences. Pp 157-168. Retrieved from <https://doi.org/10.1016/B978-0-12-819166-8.00049-9>.
- Moore, R.D., & Wondzell, S.M. (2005). Physical hydrology and the effects of forest harvesting in the Pacific Northwest: A review. *Journal of the American Water Resources Association*, 41(4), 763-784. Retrieved from <https://www.fs.usda.gov/research/treesearch/27183>.
- Mumford, T.F. 2007. *Kelp and eelgrass in Puget Sound. Puget Sound nearshore partnership report No. 2007-05*. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- NOAA. (2024) National Centers for Environmental information, *Climate at a glance: County time series*, retrieved from <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series>.
- NRCS. (2016) *Web Soil Survey*. U.S. Department of Agriculture. Retrieved from <http://websoilsurvey.sc.egov.usda.gov>.
- NRCS. (2024) *Soil series descriptions-Alderwood series*. U.S. Department of Agriculture. Retrieved from Natural Resources Conservation Service. (2016) *Web Soil Survey*. U.S. Department of Agriculture. Retrieved from <http://websoilsurvey.sc.egov.usda.gov>.
- Revised Code of Washington (RCW)*. <https://apps.leg.wa.gov/rcw/>.
- Robertson, Will. (2012). Phosphorus Retention in a 20-Year-Old Septic System Filter Bed. *Journal of Environmental Quality*. 41. 1437-44. 10.2134/jeq2011.0427.
- Sceva, J.E.. (1957). *Geology and ground-water resources of Kitsap County, Washington*. National Geologic Map Database. U.S. Geological Survey. <https://doi.org/10.3133/wsp1413>.

- Simenstad, C. M Logsdon, K. Fresh, H. Shipman, M. Dethier, J. Newton. (2006). *Conceptual model for assessing restoration of Puget Sound nearshore ecosystems*. Washington Sea Grant Program, University of Washington, Seattle. Puget Sound Nearshore Partnership Report No. 2006-03. <https://wdfw.wa.gov/publications/02201>.
- Steneck RS, Graham MH, Bourque BJ, et al. Kelp forest ecosystems: biodiversity, stability, resilience and future. *Environmental Conservation*. 2002;29(4):436-459. doi:10.1017/S0376892902000322.
- The Watershed Company and BERK. (2013). Kitsap County shoreline cumulative impacts analysis for 2014 comprehensive SMP update. (unpublished).
- USFWS. (2023) Information and Planning Council (Ipac). Retrieved from <https://ipac.ecosphere.fws.gov/>.
- Washington Administrative Code (WAC). <https://app.leg.wa.gov/WAc/default.aspx>.
- Washington State Department of Ecology (Ecology). (2018). *State Environmental Policy Act Handbook*. <https://ecology.wa.gov/getattachment/4c9fec2b-5e6f-44b5-bf13-b253e72a4ea1/2-2018-SEPA-Handbook-Update.pdf>.
- Washington State Office of Financial Management (OFM). (2020). *2019 Data Book*. <https://ofm.wa.gov/sites/default/files/public/dataresearch/databook/pdf/databook.pdf>.
- WDFW. (2023). *Washington Department of Fish and Wildlife Conservation: Chum recovery goals*. Retrieved from [https://fortress.wa.gov/dfw/score/score/species/population\\_details.jsp?stockId=2251](https://fortress.wa.gov/dfw/score/score/species/population_details.jsp?stockId=2251).
- WDFW. (2024) Priority species and habitats database. Retrieved from <https://wdfw.wa.gov/species-habitats/at-risk/phs>.
- WDNR. (2023) Washington State Department of Natural Resources: Natural heritage program. Retrieved from <https://www.dnr.wa.gov/natural-heritage-program>
- WDNR. (2024.). *Washington geologic information portal*. <https://geologyportal.dnr.wa.gov/>. Retrieved from [https://geologyportal.dnr.wa.gov/2d-view#wigm?-14056695,-12882622,5751039,6297105?Surface\\_Geology,500k\\_Surface\\_Geology,Map\\_Units](https://geologyportal.dnr.wa.gov/2d-view#wigm?-14056695,-12882622,5751039,6297105?Surface_Geology,500k_Surface_Geology,Map_Units).
- West Sound Watersheds Council (2016). West Sound nearshore integration and synthesis of Chinook salmon recovery *priorities*. Authored by: Confluence Environmental Company, Coastal Geologic Survey, Wild Fish Conservancy and Kitsap County . Retrieved from [https://www.kitsap.gov/dcd/PEP%20Documents/West%20Sound%20Nearshore\\_final\\_113016.pdf](https://www.kitsap.gov/dcd/PEP%20Documents/West%20Sound%20Nearshore_final_113016.pdf).
- Williams, GD and RM Thomas (2001). *Marine and estuarine shoreline modification issues: White paper submitted to the Washington Department of Ecology, and Washington Department of Transportation*. <http://wdfw.wa.gov/hab/ahg/marnrsrc.htm>
- Williams, R. W., and L. A. Phinney. (1975) *A Catalog of Washington streams and salmon utilization*. Washington Department of Fisheries.

- WSDOT. (2009). Design Manual Revisions January 2008. Retrieved from <https://wsdot.wa.gov/publications/manuals/fulltext/M22-01/M22-01.04Revision.pdf>.
- WSDOT. (2018). *Washington transportation plan 2040 & beyond-Your Washington State policy plan*. Retrieved from <https://www.wtp2040andbeyond.com/>.
- WSDOT. (2019). Washington State Ferries: Traffic statistics rider segment report. Retrieved from
- WSDOT. (2023). Standard specifications for road, bridge, and municipal construction m 41-10 2023. Retrieved from <https://wsdot.wa.gov/publications/manuals/fulltext/M41-10/SS2023.pdf>.
- WSDOT. (2020). 2020 Traffic noise policy and procedures. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-10/ENV-ANE-NoisePolicy2020.pdf>

## 5 APPENDICES



# APPENDIX A: PREFERRED ALTERNATIVE BOCC DIRECTION

# APPENDIX B: MAP OF PROPOSED ZONING CHANGES BY ALTERNATIVE

# APPENDIX C: RECLASSIFICATION REQUEST SUMMARY LIST

# APPENDIX D: KITSAP TRANSIT PLANNING CONTEXT AND TRENDS ANALYSIS

# APPENDIX E: DEIS COMMENT RESPONSE MATRIX