DRAFT

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Growing for a Better Tomorrow

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR KITSAP COUNTY 2016 COMPREHENSIVE PLAN UPDATE

November 2015

Draft Supplemental Environmental Impact Statement for

Kitsap County 2016 Comprehensive Plan Update

November 2015

kitsap2036

Growing for a Better Tomorrow

KITSAP COUNTY DETERMINATION OF SIGNIFICANCE AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS FOR COMPREHENSIVE PLAN UPDATE 2016

Description of current proposal: Kitsap County Draft Supplemental Environmental Impact Statement (Draft SEIS) for the Comprehensive Plan Update 2016-2036, prepared in accordance with the State Environmental Policy Act (SEPA).

The proposal is to update the Kitsap County Comprehensive Plan consistent with the Growth Management Act (GMA). The proposal and associated Draft SEIS address properties located within unincorporated Kitsap County. Three land use alternatives are analyzed.

Proponent: Kitsap County

Location of current proposal: Unincorporated Kitsap County

Title of documents being adopted:

- Kitsap County 10-Year Comprehensive Plan Update – Integrated Plan and Environmental Impact Statement, Volume II: Final EIS, December 2006.
- Kitsap County Urban Growth Area (UGA) Sizing and Composition Remand, Final SEIS, August 10, 2012.
- City of Bremerton and Kitsap County, Gorst Creek Watershed Characterization & Framework Plan, Gorst Subarea Plan, and Gorst Planned Action, October 8, 2013.

Agency that prepared documents being adopted: Kitsap County (2006 and 2012 documents), City of Bremerton (2013 documents).

Description of document (or portion) being adopted: Environmental analysis of existing conditions and land use alternatives.

If the document being adopted has been challenged (WAC 197-11-630), please describe:

NA

The documents are available to be read at: http://compplan.kitsapgov.com

EIS REQUIRED. The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. To meet the requirements of RCW 43.21C.030(2)(c), the lead agency is adopting the documents described above, and supplementing them with a supplemental EIS. Under WAC 197-11-360, there will be no scoping process for this EIS.

We have identified and adopted these documents as being appropriate for this proposal after independent review. The documents meet our environmental review needs, and along with the supplemental EIS for the current proposal will accompany the proposal to the decision maker.

Name of agency adopting document: Kitsap County Department of Community Development

Contact person, if other than responsible official: See below

Responsible official: Steve Heacock

Position/title: SEPA Responsible Official, Planner 3 Phone: 360-337-5777

Address: Kitsap County Dept. of Community Development, MS-36, Port Orchard, WA 98366

Date: November 6, 2015 Signature

November 6, 2015

Dear Reader:

Attached is a copy of the Kitsap County Draft Supplemental Environmental Impact Statement (Draft SEIS) for the Comprehensive Plan Update 2016-2036, prepared in accordance with the State Environmental Policy Act (SEPA).

The proposal is to update the Kitsap County Comprehensive Plan consistent with the Growth Management Act (GMA). Through the Comprehensive Plan Update, the County is: reestablishing its vision; addressing growth targets of 77,071 new people and 46,647 new jobs countywide between 2012 and 2036; updating its inventory of natural and built environment conditions; streamlining and setting goals and policies; updating its land use plan; amending zoning, critical areas and other development regulations; and aligning its Capital Facilities Plan to address Kitsap County's future. The proposal and associated Draft SEIS address properties located within unincorporated Kitsap County.

This SEIS for the Comprehensive Plan Update 2016 supplements the following EISs:

- Kitsap County 10-Year Comprehensive Plan Update – Integrated Plan and Environmental Impact Statement, Volume II: Final EIS, December 2006.
- Kitsap County Urban Growth Area (UGA) Sizing and Composition Remand, Final SEIS, August 10, 2012.
- City of Bremerton and Kitsap County, Gorst Creek Watershed Characterization & Framework Plan, Gorst Subarea Plan, and Gorst Planned Action EIS, October 8, 2013.

The alternatives under consideration include a No Action Alternative assuming the continuation of the current Comprehensive Plan, and two Action Alternatives that test different growth and land use patterns.

Alternative 1 No Action: Alternative 1 would maintain the current Comprehensive Plan with no land use plan, policy, or development regulation changes; it is a required alternative under SEPA.

Alternative 2 Whole Community: Alternative 2 directs the 20-year growth targets into compact UGA boundaries emphasizing mixed uses and higher densities in centers and corridors. All together Alternative 2 results in a 4% net reduction of UGA lands. Alternative 2 also updates the Comprehensive Plan and regulations based on GMA requirements and Board of County Commissioner's (BOCC) Guiding Principles.

Alternative 3 All Inclusive: Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. All private reclassification requests would be included. Alternative 3 expands some UGAs and reduces others, and results in a 4% increase in UGA lands. The Comprehensive Plan and development regulations would be updated based on GMA requirements.

For a range of natural resource and built environment topics, the attached Draft SEIS addresses potential impacts of the three alternatives at a non-project, programmatic level of analysis. The Draft SEIS addresses the following topics: Earth; Air Quality; Water Resources; Plants and Animals; Land and Shoreline Use; Plans and Policies; Population, Housing, and Employment; Transportation; and a range of Capital Facilities, Public Services, and Utilities.

Agencies, affected tribes, and members of the public are invited to comment on the Draft SEIS. In addition, all are invited to comment on the Draft Comprehensive Plan Update 2016-2036, associated Draft Capital Facilities Plan, and Preliminary Land Use Reclassification Request Reports available under separate covers.

A 30-day comment period is established for all of these documents concurrently as part of the integrated SEPA/GMA process, extending from **November 6, 2015 to 5 p.m. December 7, 2015.**

The draft documents and materials will be posted for public review and comment on Friday, November 6, 2015 at a dedicated website **http://compplan.kitsapgov.com**. Written comments will be accepted until 4:30pm, Monday, December 7, 2015. Comments may be submitted on line; by email to **compplan@co.kitsap.wa.us**; handed in to the DCD front counter at 619 Division Street, Port Orchard or post-marked by December 7, 2015, and addressed to: Comprehensive Plan Update, Planning and Environmental Programs Division, DCD, MS-36, 614 Division Street, Port Orchard, 98366.

A series of public open houses are planned to introduce and discuss the Draft Comprehensive Plan Update, Draft Zoning Maps, and associated documents, including this Draft SEIS. The open houses are:

November 10, 2015 South Kitsap Kitsap County Administration Building Chambers 614 Division Street, Port Orchard 5:00-7:00 PM	November 12, 2015 North Kitsap Poulsbo City Hall Chambers 200 NE Moe Street, Poulsbo 5:00PM-7:00PM	November 16, 2015 Central Kitsap Silverdale Beach Hotel 3073 NW Bucklin Hill Road, Silverdale 5:00PM-7:00PM

For other information about public meetings, please see the project website at: http://compplan.kitsapgov.com.

Following the public comment period, the County will prepare and issue a Final SEIS that will include responses to the comments received during the public comment period, and will prepare a companion Final Comprehensive Plan Update and associated development regulations for adoption.

If you have any questions or desire clarification of the above information, please contact Katrina Knutson at (360) 337-5777.

Sincerely,

Steve Heacock,
Kitsap County SEPA Official

FACT SHEET

PROJECT TITLE

Kitsap County 2016 Comprehensive Plan Update

PROPOSED ACTION AND ALTERNATIVES

Kitsap County (the County) is updating its Comprehensive Plan consistent with the Growth Management Act (GMA) (RCW 36.70A), as part of the required 8-year review and evaluation. The County's 2016 Comprehensive Plan Update is also intended to achieve consistency with the Puget Sound Regional Council's (PSRC) VISION 2040, countywide planning policies (CPPs), and local community needs.

Through the Comprehensive Plan Update, the County is reestablishing its vision; addressing growth targets of 77,071 new people and 46,647 new jobs countywide between 2012 and 2036; updating its inventory of natural and built environment conditions; streamlining and setting goals and policies; updating its land use plan; amending zoning, critical areas and other development regulations; and aligning its Capital Facilities Plan to address Kitsap County's future.

The Comprehensive Plan Update 2016 proposal and above objectives are tested with three alternatives:

Alternative 1 No Action: current Comprehensive Plan as of September 2015. Alternative 1 would maintain the current Comprehensive Plan with no land use plan, policy, or development regulation changes; it is a required alternative under the State Environmental Policy Act (SEPA).

Alternative 2 Whole Community: reflects Guiding Principles and GMA Directives. Alternative 2 directs the 20-year growth targets into compact Urban Growth Area (UGA) boundaries emphasizing mixed uses and higher densities in centers and corridors. Alternative 2 makes UGA adjustments in the Bremerton UGA – expansions in West Bremerton and reductions in East Bremerton for more efficient public services delivery. The Port Orchard UGA is also reduced. A small (<1%) expansion of Silverdale UGA is included in Alternative 2. Some private reclassification requests related to employment are included. All together Alternative 2 results in a 4% net reduction of UGA lands. Alternative 2 also updates the Comprehensive Plan and regulations based on GMA requirements and Board of County Commissioner's (BOCC) Guiding Principles described in Sections 1.4.1 and 2.2.2.

Alternative 3 All Inclusive: most changes; all reclassification requests. Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. All private reclassification requests would be included. Areas of UGA expansion are considered in Kingston and Silverdale UGAs. Boundary reductions are considered in the Port Orchard UGA. Central Kitsap and Bremerton UGA boundaries would be expanded in some locations and reduced in others for a net increase. The net result of Alternative 3 is a 4% increase in

UGA lands. Last, the Comprehensive Plan and development regulations would be updated under Alternative 3, based on GMA requirements.

The Alternatives have similar growth levels though the pattern would be different as described above. The County is studying a growth range of 75,000 to 79,000 additional residents between 2012 and 2036, as well as 50,000 to 55,000 new jobs. Under all alternatives, nearly 80% of the new population would locate in cities and UGAs and over 90% of jobs would likewise locate in cities and UGAs.

These alternatives are detailed in Section 2.6 of this Chapter.

LOCATION

The Kitsap County Comprehensive Plan Update 2016 addresses all unincorporated portions of Kitsap County, encompassing a total of approximately 319 square miles and a population of 171,940 persons (Washington State Office of Financial Management, 2015).

The incorporated cities of Bremerton, Port Orchard, Poulsbo, and Bainbridge Island are responsible for maintaining their own GMA comprehensive plans, which must be consistent with the County's Plan. The County's planning process, however, includes consultation and coordination with these jurisdictions. Additionally, the analysis considers cumulative growth across ecosystems such as climate and water resources or built systems such as transportation.

PHASED ENVIRONMENTAL REVIEW

SEPA allows phased review where the sequence of a proposal is from a programmatic document, such as an EIS or SEIS addressing a comprehensive plan, to other documents that are narrower in scope, such as those prepared for site-specific, project-level analysis (WAC 197-11-060(5)). Kitsap County is using phased review in its environmental analysis of the Comprehensive Plan Update 2016 SEIS.

Additional environmental review will occur as other project or non-project actions are proposed to Kitsap County in the future. Phased environmental review may consider proposals that implement the Plan, such as land use regulations, specific development proposals, or other similar actions. Future environmental review could occur in the form of Supplemental EISs, SEPA addenda, or determinations of non-significance. An agency may use previously prepared environmental documents to evaluate proposed actions, alternatives, or environmental impacts. The proposals may be the same as or different than those analyzed in the existing documents (WAC 197-11-600[2]).

ENVIRONMENTAL DOCUMENT SUPPLEMENTED

This SEIS for the Comprehensive Plan Update 2016 supplements the following EISs:

- Kitsap County 10-Year Comprehensive Plan Update – Integrated Plan and Environmental Impact Statement, Volume II: Final EIS, December 2006. The 10-Year Comprehensive Plan Update Draft and Final EISs are herein incorporated by reference.
- Kitsap County Urban Growth Area (UGA) Sizing and Composition Remand, Final SEIS, August 10, 2012. The Remand Draft and Final SEISs are herein incorporated by reference.
- City of Bremerton and Kitsap County, Gorst Creek Watershed Characterization & Framework Plan, Gorst Subarea Plan, and Gorst Planned Action EIS, October 8, 2013. The Gorst Draft and Final EISs are herein incorporated by reference.

PROPONENT

Kitsap County

DATE OF IMPLEMENTATION

June 2016

LEAD AGENCY

Kitsap County

RESPONSIBLE SEPA OFFICIAL

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REQUIRED APPROVALS

Adoption of the Comprehensive Plan Amendments and development regulations is subject to Planning Commission recommendations and Board of County Commissioners (BOCC) approval; review and comment by Washington State Department of Commerce as required by GMA; and Puget Sound Regional Council consultation and amendment review.

PRINCIPAL EIS AUTHORS AND PRINCIPAL CONTRIBUTORS

The SEIS has been prepared under the direction of Kitsap County's Community Development Department. Research, analysis, and document preparation were provided by the following firms or agencies:

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(Alternatives; Public Outreach; GIS)

Kitsap County Public Works Department
(Traffic modeling)

DATE OF DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT ISSUANCE

November 6, 2015

DATE COMMENTS ARE DUE

December 7, 2015

The draft documents and materials will be posted for public review and comment on Friday, November 6, 2015 at a dedicated website **http://compplan.kitsapgov.com**. Written comments will be accepted until 4:30pm, Monday, December 7, 2015. Comments may be submitted on line; by email to **compplan@co.kitsap.wa.us**; handed in to the DCD front counter at 619 Division Street, Port Orchard or post-marked by December 7, 2015, and addressed to: Comprehensive Plan Update, Planning and Environmental Programs Division, DCD, MS-36, 614 Division Street, Port Orchard, 98366

.PUBLIC MEETINGS

A series of public open houses are planned to introduce and discuss the Draft Comprehensive Plan Update, Draft Zoning Maps, and associated documents including this Draft SEIS.

November 10, 2015
South Kitsap
Kitsap County Administration Building Chambers
614 Division Street, Port Orchard
5:00-7:00 PM

November 12, 2015
North Kitsap
Poulsbo City Hall Chambers
200 NE Moe Street, Poulsbo
5:00PM-7:00PM

November 16, 2015
Central Kitsap
Silverdale Beach Hotel
3073 NW Bucklin Hill Road, Silverdale
5:00PM-7:00PM

For other information about public meetings and comments, please see the project website at: http://compplan.kitsapgov.com.

TYPE AND TIMING OF SUBSEQUENT ENVIRONMENTAL REVIEW

Subsequent phases of environmental review may consider proposals that implement the Comprehensive Plan, such as land use regulations, specific development proposals, or other similar actions. Future environmental review could occur in the form of Supplemental EISs (SEIS), SEPA addenda, or Determinations of Non-Significance.

LOCATION OF BACKGROUND DATA

Kitsap County Community Development Department. Comprehensive Plan Update website: http://compplan.kitsapgov.com.

DRAFT SEIS PURCHASE PRICE

This Draft SEIS is available for review at the Kitsap County Community Development Department, MS-36, 614 Division St, Port Orchard, WA 98366. The Draft SEIS is posted on the County's website at http://compplan.kitsapgov.com.

CDs are available for purchase at Community Development Office - see address above (cost at the time of this writing is $2.00).

Distribution List

The Draft Supplemental Environmental Impact Statement (Draft SEIS) distribution list includes the following who were provided a notice of availability or a compact disc:

Federal, Tribal, State Regional Governments	Cities and Counties	Water and Sewer Districts	Port Districts
Naval Base Kitsap	City of Bainbridge Island	Cities' water and sewer utilities (see at left)	Port of Bremerton
Point No Point Treaty Council	City of Bremerton	Crystal Springs Water District	Port of Brownsville
Port Gamble/S'Klallam Tribe	City of Port Orchard	Kitsap Public Utility District (PUD)	Port of Elgon
Puget Sound Clean Air Agency	City of Poulsbo	Manchester Water	Port of Illahee
Puget Sound Regional Council	Jefferson County	North Perry Water	Port of Indianola
Puget Sound Partnership	Mason County	Northwest Water Systems	Port of Keyport
Puyallup Tribe	Pierce County	Old Bangor Water District	Port of Kingston
Skokomish Tribe	**School Districts**	Rocky Point Water District	Port of Manchester
Squaxin Island Tribe	Bainbridge Island School District	Silverdale Water District #16	Port of Poulsbo
Suquamish Tribe	Bremerton School District	Sunnyslope Water District	Port of Silverdale
Washington Department of Commerce, Growth Management Services	Central Kitsap School District	West Hills Water District	Port of Tracyton
Washington Department of Corrections	North Kitsap School District	West Sound Utility District	Port of Waterman
Washington Department of Ecology	South Kitsap School District	**Libraries**	**Other**
Washington Department of Fish and Wildlife	North Mason School District	Bainbridge Island Branch	Bremerton Housing Authority
Washington Department of Health	**Fire Districts**	Bremerton Branch	Housing Kitsap
Washington Department of Natural Resources	Bainbridge Island Fire Department	Kingston Branch	Kitsap County Health District
Washington Department of Social and Health Services	Central Kitsap Fire and Rescue	Kitsap Regional Library, Main Branch	Kitsap Economic Development Alliance
Washington Department of Transportation	North Kitsap Fire and Rescue	Little Boston Branch	Kitsap Historical Society
Washington Recreation and Conservation Office	Poulsbo Fire Department/Fire District 18	Manchester Branch	Kitsap Regional Coordinating Council
Washington Parks and Recreation Commission	South Kitsap Fire and Rescue	Port Orchard Branch	Olympic College
		Poulsbo Branch	Power and Telecommunication Utilities
		Silverdale Branch	Village Green Metropolitan Park District

Other notification will be provided in accordance with Kitsap County Code Chapter 18.04.

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LIST OF EXHIBITS

APPENDICES

Chapter 1. Summary

This Chapter summarizes elements of the Kitsap County 2016 Comprehensive Plan Update, including the purpose of the proposal and alternatives, compares and contrasts the impacts of the alternatives, and summarizes proposed mitigation measures to reduce impacts.

This Chapter is the first of a series of chapters contained in the Draft Supplemental Environmental Impact Statement (Draft SEIS) that are intended to provide both summary and more in-depth environmental review of the proposal and alternatives:

- **Chapter 1 Summary:** Summary of proposal, impacts, and mitigation measures contained in Chapters 2 and 3.
- **Chapter 2 Alternatives:** Comprehensive description of the proposal and alternatives including highlights of the proposed growth, policy, and code changes associated with the Alternatives.
- **Chapter 3 Affected Environment, Significant Impacts, and Mitigation Measures:** Evaluates, at a programmatic level, the current conditions and potential impacts of development that may occur under each of the alternatives described in Chapter 2. Addresses general or cumulative impacts on natural or constructed resources related to potential increased growth that could result from each alternative.
- **Chapter 4 Reclassification Requests:** A programmatic review of the reclassification requests to change land use and zoning designations.
- **Chapter 5 Acronyms, Abbreviations and References:** A list of documents and personal communication cited in the Draft SEIS.
- **Appendices:** Technical information supporting the Draft SEIS.

1.1. Purpose of Proposed Action

The County is updating its Comprehensive Plan consistent with the Growth Management Act (GMA) (RCW 36.70A), as part of the required 8-year review and evaluation. The Comprehensive Plan addresses a 20-year planning period and must demonstrate an ability to accommodate future growth targets adopted in the Countywide Planning Policies. Based on the Kitsap County Countywide Planning Policies, the County is planning for growth targets of 77,071 new people and 46,647 new jobs countywide between 2012 and 2036.

Through the Comprehensive Plan Update, the County is: reestablishing its vision; addressing growth through 2036; updating its inventory of natural and built environment conditions; streamlining and setting goals and policies; updating its land use plan; amending zoning, critical area, and other development regulations; and aligning its Capital Facilities Plan to address Kitsap County's future. The Comprehensive Plan will in turn guide land use permitting, capital investment programs, and budget and operational resources.

The Comprehensive Plan Update 2016 proposal and above objectives are tested with three alternatives:

- **Alternative 1 No Action:** current Comprehensive Plan as of September 2015.
- **Alternative 2 Whole Community:** reflects Guiding Principles and GMA Directives.
- **Alternative 3 All Inclusive:** most changes to the land use plan; all reclassification requests; reflects GMA requirements.

These alternatives are summarized below and further detailed in Chapter 2.

1.2. State Environmental Policy Act Process

SEPA requires government officials to consider the environmental consequences of actions they are about to take and to consider better or less damaging ways to accomplish those proposed actions. They must consider whether the proposed action will have a probable significant adverse environmental impact on elements of the natural and built environment.

This SEIS provides a programmatic analysis of the Comprehensive Plan Update 2016. The adoption of comprehensive plans or other long-range planning activities is classified by SEPA as a non-project action (i.e., actions which are different or broader than a single site-specific project, such as plans, policies, and programs (WAC 197-11-774)). An EIS or SEIS for a non-project proposal does not require site-specific analyses; instead, the SEIS discusses impacts and alternatives appropriate to the scope of the non-project proposal and to the level of planning for the proposal (WAC 197-11-442).

1.3. Public Involvement

Kitsap County has developed a Comprehensive Plan Update website with public engagement opportunities and information, located at: http://compplan.kitsapgov.com/Pages/home.aspx. Past meetings and comment summaries are available. With the issuance of this Draft SEIS, additional public engagement opportunities include:

- **Public Comments.** A 30-day comment period is established with the issuance of this Draft SEIS. See the Fact Sheet for information on how to provide comments.
- **Draft Plan meetings**. The Open Houses in November 2015 are designed to share the Draft 2016 Comprehensive Plan Update and Draft SEIS and hear feedback from the public. Please see http://compplan.kitsapgov.com/Pages/home.aspx.

- **Public hearings**. As part of the adoption process for the updated Plan, the Kitsap County Planning Commission and Board of County Commissioners (BOCC) will conduct public hearings. Please see http://compplan.kitsapgov.com/Pages/home.aspx for more information.

1.4. Proposed Action, Alternatives, and Objectives

The County is updating its Comprehensive Plan consistent with the Growth Management Act (GMA) (RCW 36.70A), as part of the required 8-year review and evaluation. The County's 2016 Comprehensive Plan Update is also intended to achieve consistency with the Puget Sound Regional Council's (PSRC) VISION 2040, countywide planning policies (CPPs), and local community needs.

Through the Comprehensive Plan Update, the County is reestablishing its vision; addressing growth targets of 77,071 new people and 46,647 new jobs countywide between 2012 and 2036; updating its inventory of natural and built environment conditions; streamlining and setting goals and policies; updating its land use plan; amending zoning, critical areas and other development regulations; and aligning its Capital Facilities Plan to address Kitsap County's future.

1.4.1. Objectives

SEPA requires a statement of objectives against which the alternatives can be tested. The Board of County Commissioners (BOCC) has developed the following Guiding Principles for the Comprehensive Plan Update (Kitsap County, 2014), and these are considered objectives of this Supplemental Environmental Impact Statement (SEIS).

1. Create a usable, results-oriented plan.
2. Utilize an integrated, interdisciplinary team approach.
3. Avoid urban growth area (UGA) expansion to the extent feasible.
4. Respond to new population trends in innovative ways.
5. Support vibrant waterfront communities, with emphasis on Silverdale, Kingston and Manchester.
6. Illustrate likely outcomes of proposed goals and projects.
7. Communication: include new groups in outreach and provide information in a graphically pleasing, simple, informative method.

Additional objectives of this SEIS include:

8. Respond to GMA goals and requirements:
    - Changes made by the State Legislature
    - Relevant court cases
    - PSRC's Vision 2040 Policies
    - Countywide Planning Policies including growth targets
9. Evaluate and refine the Comprehensive Plan vision to reflect the aspirations of Kitsap County communities to the year 2036. (See current vision in sidebar.)

10. Amend Comprehensive Plan Land Use Map designations that direct zoning regulations to accommodate growth targets and to meet community objectives for management of growth.
11. Revise the Comprehensive Plan to extend its planning horizon from 2025 to 2036.
12. Refine and streamline policies on population and employment growth, land use, housing, capital facilities, utilities, transportation, economic development, parks, natural environment, and rural and resource land use for the unincorporated areas of Kitsap County.
13. Review and evaluate subarea and community plan goals and policies, integrating public input and making consistency edits with the Comprehensive Plan as appropriate.
    - UGA Plans: Silverdale, Kingston*
    - Limited Area of More Intensive Rural Development (LAMIRD) Plans: Suquamish, Keyport, Manchester
    - Community Plan: Illahee

    *The Gorst Subarea Plan is not updated as it was recently prepared in 2013. The Poulsbo UGA Plan is anticipated to be updated in 2017 as part of a collaborative update between the County and the City.
14. Review and revise as necessary the County's Critical Areas Ordinance considering best available science.
15. Ensure efficient provision of and adequately available public services and capital facilities that serve existing and new development in urban areas.

1.4.2. Proposed Action and Alternatives

The Comprehensive Plan Update 2016 proposal and above objectives are tested with three alternatives:

Alternative 1 No Action: Alternative 1 would maintain the current Comprehensive Plan with no land use plan, policy, or development regulation changes; it is a required alternative under the State Environmental Policy Act (SEPA).

Alternative 2 Whole Community: Alternative 2 directs the 20-year growth targets into compact UGA boundaries emphasizing mixed uses and higher densities in centers and corridors. Alternative 2 makes UGA adjustments in the Bremerton UGA – expansions in West Bremerton and reductions in East Bremerton, for more efficient public services delivery. The Port Orchard UGA is also reduced. A small (<1%) expansion of Silverdale UGA is included in Alternative 2. Some private reclassification requests related to employment are included. All together Alternative 2 results in a 4% net reduction of UGA lands. Alternative 2 also updates the Comprehensive Plan and regulations based on GMA requirements and BOCC Guiding Principles described in Sections 1.4.1 and 2.2.2.

Alternative 3 All Inclusive: Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. All private reclassification requests would be included. Areas of UGA expansion are considered in Kingston and Silverdale UGAs. Boundary reductions are considered in the Port Orchard UGA. Central Kitsap and Bremerton UGA boundaries would be expanded in some locations and reduced in others for a net increase. The net result of Alternative 3

is a 4% increase in UGA lands. Last, the Comprehensive Plan and development regulations would be updated under Alternative 3, based on GMA requirements.

The Alternatives have similar growth levels, though the pattern would be different as described above. The County is studying a growth range of 75,000 to 79,000 additional residents between 2012 and 2036, as well as 50,000 to 55,000 new jobs. Under all alternatives, nearly 80% of the new population would locate in cities and UGAs and over 90% of new jobs would likewise locate in cities and UGAs.

These alternatives are detailed in Section 2.6 of this Chapter.

1.5. Major Issues, Significant Areas of Controversy and Uncertainty, and Issues to be Resolved

The key environmental issues and options facing decision makers are:

- the location of growth;
- sizing and composition of UGAs, given growth expected over the 2012-2036 period; and
- the level of capital improvements needed to support land use and growth levels.

All alternatives would allow increases in population and employment. Long-term local impacts resulting from any alternative include conversion of vacant land and redevelopment of developed property to new uses; cumulative impacts on earth, water resources, and habitat through increased impervious areas; increased transportation congestion; and increased demand for infrastructure and facilities.

Prior to final plan adoption, the following issues are anticipated to be resolved:

- refinement of a Preferred Alternative following public comment;
- preparation of associated land use plan and development regulations;
- selection and refinement of capital facility projects supporting land use, including transportation; and
- refinement of goals, objectives, and policies as well as implementing regulations.

1.6. Summary of Impacts and Mitigation Measures

1.6.1. Summary of Impacts and Mitigation Measures

This section contains an abbreviated version of Chapter 3, which contains the full text of the Affected Environment, Significant Impacts, and Mitigation Measures sections. Accordingly, readers are encouraged to review the more comprehensive discussion of issues in Chapter 3 to formulate the most accurate impression of impacts associated with the alternatives.

1.6.2. Natural Environment

1.6.2.1. Earth

How did we analyze Earth?

Impacts on soil disturbance and geologic hazard areas were analyzed under each alternative by evaluating available studies and maps of soils and geologic hazards in relation to each alternative's growth and land use pattern.

What impacts did we identify?

Soil: Densification in current UGA boundaries would result in loss of soil productivity through the expansion of impervious surfaces, modification of soil structure, and accidental or chronic contamination.

Geologic hazard areas: All alternatives would permit development that is at risk of some degree of catastrophic geologic hazards, including landslides, earthquakes, and tsunamis.

- All current UGA boundaries contain areas of high and moderate geologic hazard.
- All existing UGAs contain areas of 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 border of Silverdale.

What does it mean? What is different between the alternatives?

Soil disturbance: Nearly all development removes or modifies plant cover, particularly tree and forest cover, except in some cases of redevelopment. All alternatives would result in reduced plant cover and increased impervious surfaces (roof and pavements, primarily) in concert with the construction of approved development projects. Erosion risk increases with the loss of soil organic matter.

- Alternative 1 contemplates total UGA boundaries that are intermediate in acreage to Alternatives 2 and 3.
- Alternative 2 has slightly smaller UGA boundaries and encourages vertical construction, resulting in a slightly reduced level of soil disturbance and impervious surface area impacts.
- Alternative 3 has slightly larger UGA boundaries than Alternative 1, resulting in a slightly increased level of soil disturbance and impervious surface area impacts.

Geologic hazard areas: All alternatives would permit development that is at risk of some degree of catastrophic geologic hazards. Provisions in the County CAO apply avoidance and minimization measures to individual developments where current mapping is incomplete, and require site-specific analysis by a licensed engineer or geologist.

- Alternative 1 contemplates total UGA boundaries that are intermediate in acreage to Alternatives 2 and 3. All UGAs would be subject to geologic hazards.
- 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 and mapped fault lines. Bremerton (West) UGA expansion would include additional mapped moderate hazard and hydric soils susceptible to geologic hazards. Central Kitsap and East Bremerton UGAs would be reduced slightly where some steep slopes are present. The Port Orchard UGA reduction would reduce areas mapped with high and moderate hazards and hydric soils. In Silverdale, where about one-sixth of the UGA is in a mapped geologic hazard area, further densification could expose additional population to earthquake risks arising from soil liquefaction.
- Impacts would be generally similar to those of Alternative 1 and 2. All the UGAs under Alternative 3 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 and mapped fault lines. Unlike Alternatives 1 and 2, the Kingston UGA would include an expansion into an area with slope instability and a zoning change to Urban Restricted. The Central Kitsap area would be increased along Barker Creek which has moderate hazards and hydric soils, but the areas in Tracyton would be reduced in areas of moderate hazard. In Silverdale, UGA expansion would include additional mapped and un-mapped geologic hazard areas in the Chico area. In Silverdale, where about one-sixth of the UGA is in a mapped geologic hazard area, further densification could expose additional population to earthquake risks arising from soil liquefaction. The Port Orchard UGA reduction would be less in extent than Alternative 2, but would also reduce areas mapped with high and moderate hazards and hydric soils.

What are some solutions or mitigation for the impacts?

Plan policies, applicable regulations, and adopted codes such as Critical Areas Regulations, International Building Code, and others will be used to mitigate Earth impacts.

Reducing UGA expansions in Moderate and High Geologic Hazard areas would reduce the potential number of additional people exposed to risk of damage due to geologic hazards.

With mitigation, what is the ultimate outcome?

All alternatives would result in increased urbanization in the county, with a corresponding increase in impervious surfaces and changes in hydrology. One potential such consequence would be an increase in erosion and sedimentation. Sediment reaching lakes, wetlands, and streams could have adverse impacts on the nutrient balances and other water quality indicators in these receiving waters and on the anadromous fish and other aquatic organisms living there. A greater population could also be at risk from the adverse impacts of damage to buildings and infrastructure during and following an earthquake, landslide or tsunami.

1.6.2.2. Air Quality

How did we analyze Air Quality?

In Kitsap County, typical air pollution sources include construction, commercial and retail businesses, light industry, residential wood-burning, and vehicular traffic. Pollutants analyzed in this evaluation include criteria and toxic air pollutants and greenhouse gases (GHGs).

The analysis focused on a review of existing air pollution sources in Kitsap County and an evaluation of potential air quality impacts that would result from the three alternatives. Population, employment, and land-use estimates were developed for each alternative and GHG emissions were estimated using Washington Department of Ecology's "SEPA GHG Calculation Tool."

Vehicle miles traveled (VMT) estimates for each alternative were also used to compare differences in vehicular air emissions between the three alternatives. VMT estimates took into consideration an emphasis on creating denser communities that are more conducive to alternative modes of transportation.

What impacts did we identify?

Kitsap County is expected to experience commercial and residential growth. All growth will require construction, leading to temporary increases in dust, air pollution emissions from heavy equipment and odors in the vicinity of the construction activities.

Commercial growth is expected to lead to increases in emissions from stationary and mechanical equipment. Large stationary pollutant-emitting equipment must be registered and permitted with the Puget Sound Clean Air Agency (PSCAA); therefore, it is unlikely that new commercial operations would cause significant air quality issues.

Residential growth is expected to increase air emissions generated by natural gas, fuel oil and propane combustion used for heating, as well as particulate matter produced by wood burning. Increasing use of energy efficient furnaces and EPA certified woodstoves will reduce these impacts.

Every alternative is expected to increase VMT; however, the increase in VMT is expected to be offset by increasing fuel efficiency and decreasing tailpipe emissions, so vehicular air emissions are expected to decrease even as VMT increase.

What does it mean? What is different between the alternatives?

All three alternatives are expected to result in very similar changes in GHG and criteria and toxic air pollutant emissions. Excluding vehicular air emissions, Alternative 1 is forecast to have the lowest GHG emissions of the three alternatives and Alternative 3 is forecast to have the highest GHG emissions. However, VMT is expected to have the greatest impact on emissions in the County. Due to the forecast decrease in emissions from vehicular travel resulting from improved fuel efficiency, total GHG emissions are expected to decrease in Kitsap County in all three alternative scenarios. All alternatives would result in similar changes in air emissions associated with new construction, residential and commercial growth. Compared with total gross GHG emissions for Washington State, the impacts of the three alternatives are not considered to be significant.

What are some solutions or mitigation for the impacts?

The Kitsap County Comprehensive plan includes many goals and policies that would reduce air pollutant emissions. These policies include:

- Planning development to encourage transit and high-occupancy vehicle travel
- Promoting pedestrian paths and greenbelt links
- Designing pedestrian- and bicycle-safe transportation systems to maximize opportunities for safe non-motorized travel

The County can also mitigate the impacts of stationary-source air pollution emissions by continuing to enforce construction-related dust control requirements, and encouraging use of energy-efficient furnaces and certified woodstoves.

Appendices lists a variety of mitigation measures that could reduce GHG emissions caused by transportation facilities, building construction, space heating, and electricity usage (Washington State Department of Ecology, 2008). The table lists potential GHG reduction measures and indicates where the emission reductions might occur. Kitsap County could require development applicants to consider the reduction measures shown in Appendices for their projects. Kitsap County could incorporate potential GHG reduction measures through goals, policies, or regulations.

With mitigation, what is the ultimate outcome?

No significant unavoidable adverse impacts on regional or local air quality are anticipated. Temporary, localized dust and odor impacts could occur during construction activities. The regulations and mitigation measures described in Section 3.1.2.3 are adequate to mitigate any adverse impacts anticipated to occur as a result of Kitsap County growth.

1.6.2.3. Water Resources (Surface and Ground)

How did we analyze Water Resources?

The SEIS analysis considers the current conditions and land use-related stresses associated with surface and groundwater resources in Kitsap County. The SEIS evaluates anticipated impacts from each alternative based on known relationships between urban development and both surface and groundwater conditions. Results from an analysis of impervious surface coverage under each of the alternatives informed where changes in development intensity would occur among alternatives.

Carpenter Lake 2010, Kitsap County DCD

What impacts did we identify?

Reduced vegetation coverage and increased impervious surface coverage impacts both surface and groundwater resources. The impacts associated with these changes include changes to stream

channel form, reduction in floodplain connectivity, altered wetland hydrographs, and reduced groundwater recharge.

Impacts to water quality result from a variety of land uses. In general, higher intensity land uses have more potential to deliver nutrients, sediment, and contaminants to surface and groundwater resources. However, where existing developed lands are redeveloped, water quality may be improved through the implementation of improved stormwater treatment approaches.

The majority of the population within Kitsap County relies on groundwater resources for potable water. As the population increases, the demand on groundwater resources will increase. Potential reductions in groundwater recharge, compounded by increased demand for groundwater resources could reduce natural groundwater discharge, which would affect streamflows. Reductions in the groundwater table could increase the potential for salinity intrusion.

What does it mean? What is different between the alternatives?

The primary differences among alternatives stem from how and where population growth and development will occur within the county.

Alternative 2 concentrates growth within existing developed areas more than either of the other two alternatives. This approach is expected to result in the lowest overall impervious surface coverage compared to Alternative 3 and a similar level of impervious area as Alternative 1 though in a smaller footprint, and it would maintain more areas of existing undeveloped or low-intensity lands at lower densities. By focusing development, Alternative 2 would also be expected to support more redevelopment of existing uses compared to the other alternatives, and therefore, stormwater management and water quality could be expected to generally improve. Increased development density in West Bremerton near Kitsap Lake may contribute to continued water quality degradation there.

Alternative 3 expands the total area within UGA boundaries compared to either of the other alternatives. Alternative 3 also results in the greatest impervious surface coverage throughout the county.

Both Alternatives 2 and 3 encourage use of alternative transportation methods through the Silverdale Subarea Plan, which in turn would be expected to improve water quality.

Water resources will inevitably by affected by continued population growth in Kitsap County. Alternative 2, combined with mitigation through county, state, and federal policies and regulations, will generally concentrate growth in less sensitive areas and support redevelopment of existing developed areas. This approach will generally help to maintain the integrity of surface and groundwater resources throughout the county.

What are some solutions or mitigation for the impacts?

In addition to comprehensive plan policies that emphasize conservation of water resources, federal, state, and local regulations address aquatic resources and associated buffer areas. County critical areas regulations protect lands associated with streams, wetlands, frequently flooded areas, and

critical aquifer recharge areas. County shoreline regulations also apply to land uses within shoreline jurisdiction.

Stormwater impacts are mitigated by county stormwater drainage regulations, as well as by the county's National Pollutant Discharge Elimination System Phase II permit standards.

State and federal standards apply to any in-water work.

With mitigation, what is the ultimate outcome?

Each alternative will support a population increase of nearly 25% compared to 2012 population levels, which will create an increased draw on groundwater resources in Kitsap County.

Impervious surface area would increase to a similar extent under all alternatives. Alternative 2 would have the least impacts of the three alternatives as it would reduce UGA boundaries collectively by 4%, including in areas with surface water resources. Alternative 3 would increase impacts in the Silverdale/Central Kitsap UGA boundaries along Barker Creek and reduce them in the Port Orchard UGA area.

The County's stormwater management requirements will minimize the impacts from new impervious surfaces; however, some unavoidable impacts to both surface and ground water resources, such as increasing peak flows, channel incision, and reduced groundwater recharge, are unavoidable as new impervious surfaces are created and vegetation is cleared for new development.

1.6.2.4. Plants and Animals

How did we analyze Plants and Animals?

The SEIS reviewed current conditions using aerial maps, Kitsap County environmental maps, Washington Department of Fish and Wildlife Priority Habitats and Species data, Washington State Department of Ecology Puget Sound Watershed Characterization Project maps, and prior reports including the 2012 Kitsap County UGA Sizing and Composition Remand SEIS. The SEIS referenced these sources to analyze potential impacts to plants and animals in light of general trends within an urbanized landscape, such as vegetation loss and habitat patch fragmentation. Available information and maps were reviewed to analyze the potential impact of each alternative on the existing plant and animal habitat functions within the county.

What impacts did we identify?

Population growth within Kitsap County will increase the developed area and development density. Impacts associated with these changes include habitat loss, habitat degradation, reduction in native vegetation patch sizes, and a reduction of habitat corridor connections.

Additionally, pollutant loads typically increase within an urban environment, which can adversely impact native species.

What does it mean? What is different between the alternatives?

Habitat loss, degradation, and fragmentation would occur under all three alternatives. Alternative 1 maintains current zoning and UGA boundaries. Under Alternative 2, a net 4% UGA reduction would minimize impacts plants and animals by protecting existing open space areas, relative to Alternatives 1 and 3. Alternatives 2 and 3 would each reduce the Port Orchard UGA by 904 and 741 acres, respectively. Although Alternative 3 includes areas of UGA reduction, Alternative 3 would result in a net 4% increase in UGA boundaries across the county. Areas of UGA expansion under Alternative 3 would allow for urban development in existing undeveloped corridors.

Plant and animal resources will be impacted by population growth in Kitsap County, but reducing development pressure on largely intact natural systems will minimize impacts to the extent feasible. Both plant and animal species diversity is expected to decline, particularly on the fringes within the adopted UGA boundaries.

What are some solutions or mitigation for the impacts?

Local, state, and federal regulations help to maintain the functions and values of highly productive ecosystems, including streams, riparian areas, wetlands, and associated buffers. Protections are also required for state and federally listed plant and animal species. Mitigation measures to reduce impacts to these habitats and species may include revegetation plans, introduction of special habitat features such as snags and large woody debris, and limited work windows for construction.

With mitigation, what is the ultimate outcome?

The projected population increase for Kitsap County and associated changes to the landscape will generate unavoidable adverse impacts to native plant communities and wildlife. Focusing high density development in urban cores or UGAs that exclude high functioning habitat patches minimizes impacts to plant and animal resources, but it does not prevent landscape-scale impacts. In particular, increased impervious surface area within a basin alters stream hydrology and water quality, negatively impacting aquatic species, including listed salmonids. Wildlife is consequently displaced as native vegetation corridors are degraded by selective clearing, colonized by invasive plant species, reduced in size, and fragmented by development.

1.6.3. Built Environment: Land Use and Transportation

1.6.3.1. Land and Shoreline Use

How did we analyze Land and Shoreline Use?

The EIS reviewed current land use and zoning patterns in unincorporated Kitsap County, including differences in uses and land use character in different areas of the county. Each alternative was evaluated based on potential changes to the existing land use pattern, the potential to cause conversion of existing uses to uses of a different character, the potential to cause a change in activity levels, and the potential to introduce new uses that would not be compatible with existing development. The EIS also evaluated potential changes to land uses in shoreline areas.

What impacts did we identify?

All three alternatives would result in increased population and employment, which would result in new development. Areas experiencing new development or redevelopment would see an increase in local activity. General impacts associated with additional population and employment growth would include conversion of undeveloped land for new residential, commercial, and/or industrial uses; increased land use intensity in currently developed areas that receive additional growth; and possible compatibility issues between newer, more intense development, and existing, lower-intensity development. Land use compatibility issues would be most likely to arise on the fringes of urban areas and also potentially in infill areas.

Kingston Downtown, Kitsap County 2014

What does it mean? What is different between the alternatives?

Alternative 2 would reduce the extent of UGAs overall and result in the most compact development pattern of the three alternatives. Alternative 3 would result in a net increase in UGA acreage and would result in a less compact development pattern than Alternatives 1 or 2. Alternative 2 would result in greater increases in activity level in the urban areas targeted for growth, but Alternative 3 would result in more conversion of rural land to urban uses due to UGA expansions. Alternative 1 would not alter existing UGAs or make significant changes to the current land use pattern, but it would not provide enough land capacity to accommodate projected urban growth.

What are some solutions or mitigation for the impacts?

Alternative 2 includes mitigation in the form of its reduced UGA footprint, which creates a more compact development pattern and limits conversion of rural uses to urban uses. Land use compatibility impacts are mitigated by existing Kitsap County development regulations, critical areas regulations, and the County's Shoreline Master Program. The EIS also recommends that the updated Silverdale Regional Center Plan include design standards to address land use incompatibilities resulting from infill development.

With mitigation, what is the ultimate outcome?

Under all the alternatives, future growth will result in development of vacant land and redevelopment of some existing uses, leading to an increase in urbanization over time.

1.6.3.2. Relationship to Plans and Policies

How did we analyze Plans and Policies?

The SEIS identified pertinent plans, policies, and regulations that guide development in Kitsap County. These include GMA, SEPA, Puget Sound Regional Council's VISION 2040, the Kitsap

County Countywide Planning Policies, the Kitsap County Shoreline Master Program and others. The SEIS evaluates the alternatives for consistency with each of these laws or plans.

What impacts did we identify?

With the exception of Alternative 1, which does not provide sufficient land capacity for projected urban growth, the alternatives are generally consistent with adopted plans and policies, though some alternatives are more aligned with the goals of particular plans and laws than others.

What does it mean? What is different between the alternatives?

Alternative 2 is most closely aligned with the goals of GMA because it appropriately sizes UGAs and fosters a more compact development pattern to reduce sprawl.

Alternatives 2 and 3 most closely balance UGA land supply with adopted growth targets and include plan amendments that are necessary under GMA requirements.

Alternatives 2 and 3 include adjustments to UGA boundaries to remove areas where provision of urban services would be problematic. This is in alignment with the goals of GMA, which require adequate provision of public services in urban areas.

What are some solutions or mitigation for the impacts?

- To provide additional population capacity under Alternative 2, the preferred alternative could either reduce the acreage removed from UGAs or increase zoning density to provide additional capacity.
- Alternative 3 provides the greatest amount of population and employment growth capacity, but it has the largest UGAs. To create a more compact development pattern, targeted UGA reductions could be made and zoning density increased in the most urbanized UGAs, such as Silverdale.

The County will confirm the adequacy of public urban services in UGA expansion areas with its Capital Facilities Plan before formally amending UGA boundaries.

With mitigation, what is the ultimate outcome?

With implementation of mitigation measures, no significant unavoidable adverse impacts are anticipated regarding future plan consistency under any of the alternatives.

1.6.3.3. Population, Housing and Employment

How did we analyze Population, Housing, and Employment?

The SEIS reviews available data and studies to identify current conditions of population, housing, employment and demographics from the US Census, State Office of Financial Management, and Employment Security Department as well as other regional and county sources. The land capacity of each alternative is compared to the growth targets of the Countywide Planning Policies.

What impacts did we identify?

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 from the present through 2036 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 semi-developed to developed. All alternatives would add about 23% to the county's population. About 79% of the new population would occur in cities and UGAs, while about 21% would occur in rural areas. Alternatives 2 and 3 would generally meet the growth target, but Alternative 1 would be below the target. Over 90% of employment growth would occur in UGAs under all alternatives.

What does it mean? What is different between the alternatives?

Under Alternative 1, countywide population growth would be 2% below CPP growth targets and countywide employment growth would be 8% above CPP growth targets. The population to employment ratio would be 2.54, lower than the CPP goal of 2.65. Under Alternative 1, the unincorporated UGAs would be below CPP population targets by 8% and above CPP employment targets by 12%. Generally the County has planned for growth within 5% above or below the target, as the 20-year projections and capacities are not precise. Thus, Alternative 1 would be generally in balance with CPP targets for population and high for employment.

Countywide population growth under Alternative 2 would be within 1% of CPP growth targets, while countywide employment growth would be 18% above CPP growth targets, but would occur primarily within smaller UGA boundaries, with a denser pattern. The population to employment ratio would be 2.47, the lowest of the three alternatives and below the CPP goal of 2.65. Under Alternative 2, the unincorporated UGAs would be below population targets by 7% and above employment targets by about 17%. However, because Silverdale's employment growth is essentially occurring in present UGA boundaries (with a less than 1% UGA change for industrial lands), growth would largely occur in the existing urban footprint of the Silverdale RGC. If the Silverdale employment growth is excluded, the percentage above employment targets across the County would drop to 3%.

Under Alternative 3, countywide population growth would generally be within 2% of CPP growth targets. Countywide employment growth would be 12% above CPP growth targets. The population to employment ratio would be 2.52, lower than the CPP goal of 2.65. Under Alternative 3, the unincorporated UGAs would be below target on population by 3% and at target on employment.

What are some solutions or mitigation for the impacts?

Alternative 2 reduces the acreage of the unincorporated UGAs countywide, allowing a greater density on buildable lands. This would reduce the consumption of land for urban development and provide a more efficient development pattern for urban services.

Alternatives 2 and 3 update the Land Use, Housing, and Economic Development Elements to better guide population, housing, and employment growth over the new 2016-2036 planning period.

The zoning code provides zones with allowable housing and employment uses and requirements for adequate facilities and appropriate site design.

The following measures are recommended for UGAs that are oversized under any alternative:

- 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 under any alternative:

- The County could consider measures to increase development capacity through increasing density, such as applying incentives (e.g., density bonuses) and/or upzones (e.g., greater densities).
- 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."

With mitigation, what is the ultimate outcome?

Population, employment, and housing will increase under any of the alternatives reviewed, to similar 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 SEIS. Alternative 2 is projected to have less indirect impacts from growth on the natural environment and public services since it focus growth in smaller more compact UGAs compared to Alternatives 1 or 3.

1.6.3.4. Transportation

How did we analyze Transportation?

We developed a travel demand forecasting model that estimated the automobile and transit trips generated by 2036 buildout of each of the future land use alternatives, and evaluated how well the roadway system can accommodate that demand by comparing the projected future traffic volumes to the capacities of the highways, arterials, and collector streets that carry the traffic. For each street, the capacity is based upon its multimodal characteristics, including the number of lanes, traffic control, and whether or not it has transit, pedestrian, and bicycle facilities. The County has adopted roadway volume-to-capacity (V/C) thresholds of 0.79 to 0.89 (depending on roadway type) that

indicate the highest level of traffic that a roadway can carry before it is considered deficient. If at least 85% of the county roadway system operates at or better than those thresholds, it meets the County's transportation concurrency standard, meaning the transportation infrastructure and services are considered adequate to accommodate future planned land use. Infrastructure needs for non-motorized bicycle and pedestrian travel are identified in the *Kitsap County Non-Motorized Facilities Plan*.

What impacts did we identify?

- With buildout of the land use alternatives, the level of deficiency by 2036 is projected to be 5.0% of county roadway lane-miles under Alternative 1 (No Action), 6.6% of county roadway lane-miles under Alternative 2, and 5.9% of county roadway lane-miles under Alternative 3. 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%.
- With buildout of the land use alternatives by, the percentage of state highways projected to exceed standards are 54% under Alternative 1 (No Action), and 59% under Alternatives 2 and 3. The County has ongoing coordination with the Washington State Department of Transportation (WSDOT) and cities to identify and fund improvements to state highways.
- Population and employment growth are also expected to increase ferry, transit, walking, biking, rail, and airport demand under the three future land use alternatives. In addition to the County Comprehensive Plan, infrastructure and services needed to address long-range transportation needs are identified in Kitsap Transit's *Transit Development Plan*, the Port of Bremerton's *Airport Master Plan*, and the County's Draft *Non-Motorized Facility Plan*.

What does it mean? What is different between the alternatives?

Alternative 1 (No Action) reflects the lowest level of projected growth, and as such, is expected to result in the lowest growth in vehicle trips and roadway deficiencies. Alternative 2 reflects the highest level of employment growth, and a population growth between Alternatives 1 and 3. It has the highest level of projected vehicle trips (about 4% higher than Alternative 3) and the highest projected vehicle-miles-traveled (about 9% higher than Alternative 3). In turn, there are slight differences in projected future county roadway and state highway deficiencies that are lowest under Alternative 1 and highest under Alternative 2. All three alternatives have higher projected increases in transit and rideshare trips, relative to lower increases in vehicle-miles-traveled, reflecting a more efficient use of the transportation system. Vehicle trips are expected to be shorter on average with all three alternatives. Increased demand for other modes, including ferry and non-motorized modes, are expected to be similar between alternatives.

What are some solutions or mitigation for the impacts?

- Roadway improvements have been identified for 16 roadway segments under Alternative 1 (No Action), 19 segments under Alternative 2, and 18 segments under Alternative 3.

- Additional strategies to maintain balance between transportation level of service, available financing and land use include reallocation of revenues and expenditures, measures to generate additional revenue, changes to roadway operational standards or the concurrency measurement system, or policies to intensify or redirect growth.
- Programmatic measures include commute trip reduction strategies, transit compatible design, and access management.

With mitigation, what is the ultimate outcome?

Implementation of any of the growth alternatives would result in increased traffic within the county, with the lowest increase occurring under Alternative 1 (No Action), and the greatest increase occurring under Alternative 2, and Alternative 3 in-between. Although the effects of additional vehicles on traffic congestion can be improved to varying degrees through the recommended transportation improvements, the actual increase in traffic is considered a significant unavoidable adverse impact.

1.6.4. Built Environment: Public Services and Capital Facilities

1.6.4.1. Public Buildings

County Administration Building, 2015

How did we analyze Public Buildings?

Kitsap County's public buildings include administrative offices, courtrooms, juvenile justice, maintenance facilities, and community centers. The amount of facility space per capita, today and under the three alternatives, was analyzed for each facility type based on the Draft Capital Facilities Plan Update.

What impacts did we identify?

Under all alternatives, growth in population and employment could result in increased demand for government facilities. This would require adaptive management of current spaces or expansions and improvements to current or new facilities. Alternatively, the County may adjust its Level of Service (LOS) standards. Under all alternatives, if annexation or incorporation of portions of the unincorporated UGAs occurs, some functions and responsibilities of the County could be assumed by cities.

What does it mean? What is different between the alternatives?

All alternatives increase population to similar levels, though Alternative 3 would increase population to greater degree than Alternatives 1 or 2. Under Alternatives 2 and 3, the level of demand for services at administrative buildings, courthouse, maintenance facilities and community centers would spatially differ, with increased intensity planned in central county such as in Silverdale and less in south county with the reduction of the Port Orchard UGA.

What are some solutions or mitigation for the impacts?

Policies in Chapter 11 of the Comprehensive Plan 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 and 3 update the Capital Facilities Plan for the 20-year planning period, 2016-2036. The County may consider altering its LOS standards, applying lean administration, conducting needs assessments, and constructing capital facilities.

With mitigation, what is the ultimate outcome?

Demand for public services will increase under all studied alternatives. With advanced planning, no significant unavoidable adverse impacts on public buildings would be anticipated within the range of alternatives reviewed.

1.6.4.2. Fire Protection

How did we analyze Fire Protection?

Kitsap County is served by Central Kitsap Fire and Rescue (CKFR), Fire District 18/Poulsbo Fire Department, North Kitsap Fire and Rescue (NKFR), and South Kitsap Fire and Rescue (SKFR).

Future growth estimates for each alternative are based on a land capacity analysis for the period 2016-2036 as described in Chapter 2 and the Kitsap County Buildable Lands Report. Current and alternative LOS measures were considered in relation to planned growth.

What impacts did we identify?

New development and population growth will result in an increased demand for fire protection.

What does it mean? What is different between the alternatives?

The density of population would increase across all alternatives particularly in central Kitsap County, and calls for service would increase. Alternative 2 would have the greatest increase in intensity of population and jobs in Silverdale in particular. Alternatives 2 and 3 would see a slight lessening of population density with UGA changes in the Port Orchard UGA.

What are some solutions or mitigation for the impacts?

- Alternatives 2 and 3 update the CFP for the new planning period and establish updated LOS standards in consultation with fire districts. Planned investments in fire suppression and emergency medical facilities and equipment are included in the CFP.
- Alternative 2 focuses growth and concentrate densities, allowing for improved efficiency of service, such as potentially lower response times.
- Other measures could include fire impact mitigation fees and levies to ensure services and facilities can address demands of growth.

With mitigation, what is the ultimate outcome?

Future population growth and development will continue to increase the need for fire protection/EMS services under any studied alternative. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

1.6.4.3. Law Enforcement

How did we analyze Law Enforcement?

The Kitsap County Sheriff Department serves the population of unincorporated Kitsap County. Law enforcement facilities include sheriff administration and operations offices, sheriff's office storage space, and sheriff's office corrections jail facility. The County's current and proposed LOS standards, designed to serve the current and future population, were examined

What impacts did we identify?

New development and population growth would result in an increased demand for law enforcement and correctional facilities under all alternatives at similar levels given similar population estimates. Increased densities would allow for greater efficiency of service in urban areas. A more compact development pattern allows for smaller patrol areas and faster response times. A greater tax base would also allow for increased funding. If urban areas of the county are annexed into adjoining cities or incorporated as new cities, patrol-related functions may be assumed by the cities while joint use of some facilities (e.g., jails) could be retained at the county level.

What does it mean? What is different between the alternatives?

The level of growth is similar across all alternatives. Greater growth is anticipated in central county and less in south county under Alternatives 2 and 3. The Silverdale Regional Growth Center (RGC) would be a focus of growth in Alternative 2 in particular. Generally a more compact footprint of UGA territory under Alternative 2 would allow for more efficient services, though access and congestion could be a concern in selected areas. Under both alternatives, the Port Orchard UGA would be decreased. Other UGA changes proposed under Alternative 3 are more incremental such as in Kingston, Bremerton, and Central Kitsap.

What are some solutions or mitigation for the impacts?

- The Comprehensive Plan Capital Facilities Chapter defines LOS standards for Sheriff's Office and correctional facilities. Future needs and costs can be determined based on these standards.
- Alternatives 2 and 3 update the Capital Facilities Plan and associated LOS standards to reflect more recent trends.
- The Comprehensive Plan focuses growth and concentrates densities, allowing for improved efficiency of service. Creating a more compact development pattern allows for smaller patrol areas and faster response times.
- The Sheriff's Office and facilities are maintained primarily through the County's general fund, which is funded through sales and property tax revenues. The increased tax base associated with

increased population and development would increase tax revenues and bonding potential, providing additional funding for law enforcement services and facilities.

- The County may adjust its LOS standards, conduct needs assessments, and construct facilities, as appropriate.

With mitigation, what is the ultimate outcome?

Future population growth and development will continue to increase the need for law enforcement services and facilities under all alternatives. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

1.6.4.4. Parks and Recreation

How did we analyze Parks and Recreation?

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.

The Level of Service (LOS) analysis for parks is based on the 2012 Kitsap County Parks, Recreation & Open Space (PROS) Plan that was adopted in March of 2012. The County has LOS standards for six types of facilities: natural resource areas, regional parks, heritage parks, community parks, shoreline access, and trails. LOS standards are generally in acres or miles of facility per capita.

What impacts did we identify?

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.

What does it mean? What is different between the alternatives?

The level of demand for park acreage and facilities is similar countywide across alternatives. However, the pattern of growth shows increased densification in the Silverdale RGC in both Alternatives 2 and 3 compared to Alternative 1. There would be lesser growth in the Port Orchard UGA and less demand in that location in both Alternatives 2 and 3 than Alternative 1.

Under Alternative 2 the level of growth is nearly the same as Alternatives 1 and 3 but contained in a smaller urban footprint (-4%); thus parks and open space amenities for recreation and respite may be more important to attracting growth to UGAs and meeting the needs of the community.

On the other hand, there would be a net increase in UGAs in Kingston, Silverdale, Central Kitsap and Bremerton (West) UGAs in Alternative 3 where more distributed park resources would be needed.

What are some solutions or mitigation for the impacts?

- The 2012 PROS Plan sets forth strategies, goals, and objectives for development and management of parks, open space, and recreational facilities for a 5-year planning period.
- Alternatives 2 and 3 update the CFP and include additional LOS objectives and guiding principles for facilities, acquisition, and healthy communities.
- 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 such as the Silverdale UGA.
- The County could reassess its LOS standards as detailed in the Draft CFP.
- Partnerships, entrepreneurial activities, user fees, and a regularly updated capital investment strategy could help balance demand and services for parks and recreation.

With mitigation, what is the ultimate outcome?

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.

1.6.4.5. Schools

How did we analyze Schools?

This section evaluates the four school districts that serve unincorporated Kitsap County: North Kitsap (NKSD), Central Kitsap (CKSD), South Kitsap (SKSD), and Bremerton (BSD). The student population ratios of districts were applied to the projected population under each alternative.

What impacts did we identify?

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.

What does it mean? What is different between the alternatives?

Typically Alternative 3 would produce greater growth in most districts with the exception of Central Kitsap where Alternative 1 has slightly more growth. There would be an intensification of population in existing UGA boundaries under Alternative 2 which may result in particular capacity needs at existing schools, such as in the central county. There may be less but still substantial growth in south county with the reduction of the Port Orchard UGA under Alternatives 2 and 3.

What are some solutions or mitigation for the impacts?

- Alternatives 2 and 3 amend the CFP to address the new 2016-2036 planning period.
- The County's regular review of the CFP in coordination with the school districts should allow for ongoing long-range planning for educational services.
- 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.

With mitigation, what is the ultimate outcome?

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. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

1.6.4.6. Solid Waste

How did we analyze Solid Waste?

The SEIS considers adopted solid waste plans and refuse and recycling rates in relation to the expected population.

What impacts did we identify?

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 capital facilities planning conducted within this Comprehensive Plan Update 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 2036.

What does it mean? What is different between the alternatives?

The existing level of service for solid waste is calculated based 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 Kitsap County's Solid Waste and Hazardous Waste Management Plan. If the generation rates from this plan are carried forward in 2021 and 2036, the tons of solid waste and recycling generated per year would be lowest with Alternative 1 and highest with Alternative 3.

What are some solutions or mitigation for the impacts?

- 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.
- 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.
- The County would continue to coordinate solid waste planning across the county.

With mitigation, what is the ultimate outcome?

Future population growth and development would continue to increase the amount of solid waste generated in the county under any alternative. With Solid Waste Management Plans, regularly updated as appropriate, no significant unavoidable adverse impacts are anticipated.

1.6.4.7. Wastewater

How did we analyze Wastewater?

The SEIS considers population growth and demand for services in relation to the functional plans of sewer service providers who predominantly serve UGAs.

What impacts did we identify?

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.

What does it mean? What is different between the alternatives?

Cost estimates for Kitsap County Sewer Utility capital sewer projects were compared under each alternative. Costs would be highest under Alternative 3 ($369.4 million), lower under Alternative 1 ($353.8 million) and lowest under Alternative 2 ($348.4 million).

What are some solutions or mitigation for the impacts?

- 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 and 3.

- 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. 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.
- 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.

With mitigation, what is the ultimate outcome?

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 would be anticipated within the range of alternatives reviewed.

1.6.4.8. Stormwater

How did we analyze Stormwater?

The pattern of growth and potential to increase impervious surfaces was considered.

What impacts did we identify?

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. Improved water quality and water management may occur in redevelopment areas.

What does it mean? What is different between the alternatives?

Alternative 1 would likely result in increased levels of urbanization, adding impervious surfaces and the need for stormwater drainage and treatment facilities. Alternative 2 would result in slightly higher levels of urbanization than in Alternative 1 but within smaller UGA boundaries. The amount of development and impervious surface would be similar to Alternative 1. Alternative 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 UGA boundaries compared to Alternatives 1 and 2.

What are some solutions or mitigation for the impacts?

Measures to reduce impacts of these alternatives to natural systems and public/private property will be achieved through planning policies, goals, and permit conditions.

- 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.
- The County has adopted regulations to protect against stormwater impacts of new development requiring all new development to meet specific performance standards before receiving approval.
- The 2013-2018 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, revised by Ecology in 2016.
- Kitsap County Stormwater Management Program manages stormwater in accordance with its stormwater design standards (KCC 12.04.020) and applicable NPDES permits.

With mitigation, what is the ultimate outcome?

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.

1.6.4.9. Water

How did we analyze Water?

The analyses considered the growth in population by major water district and considered functional plans referenced in the Draft CFP.

What impacts did we identify?

Demand for water service would increase under any of the alternatives. See Exhibit 3.3-58. Water demand associated with residential, commercial and industrial land uses would be concentrated within UGAs under all alternatives.

What does it mean? What is different between the alternatives?

Alternative 1 would create new demand for water across service provider districts, and would require additional water distribution infrastructure.

Alternative 2 would concentrate growth within the smallest UGA boundaries, thereby limiting the amount of growth that could occur in 2036 in several districts. In other areas the population would increase based on the approximate distribution of growth targets in the Countywide Planning Policies and the capacity of the Alternative in UGAs. Alternative 2 would require water distribution infrastructure to serve this development.

Compared to the other alternatives, Alternative 3 would have a net addition to UGAs in several locations, and reductions elsewhere. Alternative 3 would place greater growth in the Silverdale district than other alternatives. Other effects are similar to but greater in magnitude than Alternative 2.

What are some solutions or mitigation for the impacts?

- 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 expansion of distribution systems.
- 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.
- 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.
- 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.

With mitigation, what is the ultimate outcome?

All alternatives would increase demand for water services. However, with coordination of capital and land use planning, significant unavoidable adverse impacts are not anticipated.

1.6.4.10. Energy and Telecommunications

How did we analyze Energy and Telecommunications?

Population and employment growth under each alternative was analyzed to determine likely increases in demand for natural gas, electricity, and telecommunications in 2036.

What impacts did we identify?

For each private utility (gas, electricity, and telecommunications), increases in population and employment under all alternatives will create increases in demand. Funding for the facilities and services to serve this increased demand would come through user fees.

What does it mean? What is different between the alternatives?

Alternative 1 has the lowest countywide population growth and would thus result in slightly lower demand for energy and telecommunications services. Alternative 3 has the highest level of countywide population growth and thus results in higher demand for energy and telecommunications. Alternative 2 has slightly more population growth than Alternative 1 and less than Alternative 3, and thus has impacts on demand slightly higher than Alternative 1 and lower than Alternative 3.

What are some solutions or mitigation for the impacts?

All alternatives concentrate growth, which allows for improved efficiency for natural gas, electricity, and telecommunications facilities.

With mitigation, what is the ultimate outcome?

Population and employment growth under all alternatives will increase demands for energy and telecommunications, which will require additional facilities.

1.6.4.11. Library

How did we analyze Libraries?

The SEIS considered the library facility space per capita under each of the alternatives.

What impacts did we identify?

Under all three Alternatives, population growth would lead to less library facility space per capita than today, unless new facilities are built. Facility space in 2036 assuming the new Kingston Library, but not the unfunded Silverdale library, would be 0.28 square feet per capita, compared to 0.35 square feet per capita in 2015.

What does it mean? What is different between the alternatives?

There are no significant differences between alternatives at a countywide scale. There would be greater growth in Silverdale UGA and less in Port Orchard UGA under Alternatives 2 and 3 which may alter the pattern of demand for facilities.

What are some solutions or mitigation for the impacts?

The Kitsap Regional Library is currently raising funds to replace the Silverdale library with a larger facility.

With mitigation, what is the ultimate outcome?

Population increases are likely to increase demand for library services, particularly in areas with the highest growth, but significant, unavoidable, adverse impacts are not anticipated.

Chapter 2. Alternatives

2.1. Introduction

This chapter describes the Kitsap County (the County) Comprehensive Plan Update 2016 proposal and alternatives under consideration. The alternatives are evaluated in Chapter 3 across a variety of environmental topics.

2.2. Plan Update Proposal and Objectives

2.2.1. Proposal

The County is updating its Comprehensive Plan consistent with the Growth Management Act (GMA) (RCW 36.70A), as part of the required 8-year review and evaluation. Under GMA, the Comprehensive Plan (Plan) is a generalized coordinated land use policy statement of a county or city. Required elements include: land use, housing, capital facilities, utilities, rural (counties only), and transportation. Economic development and parks and recreation elements are required only when the state provides funding for them. Optional elements include subarea plans or other topics. The Comprehensive Plan addresses a 20-year planning period and must demonstrate an ability to accommodate future growth targets adopted in the Countywide Planning Policies. Based on the Kitsap County Countywide Planning Policies, the County is planning for growth targets of 77,071 new people and 46,647 new jobs countywide between 2012 and 2036.

Through the Comprehensive Plan Update, the County is: reestablishing its vision; addressing growth through 2036; updating its inventory of natural and built environment conditions; streamlining and setting goals and policies; updating its land use plan; amending zoning, critical area, and other development regulations; and aligning its Capital Facilities Plan to address Kitsap County's future. The Comprehensive Plan will in turn guide land use permitting, capital investment programs, and budget and operational resources.

A Comprehensive Plan guides and shapes a community's physical development over the long term, addresses the entire community and all its values, activities, or functions – land use, housing, employment, transportation, recreation, utilities, etc. – and provides a guide for achieving the community's desires for growth and character.

2.2.2. Objectives

The Board of County Commissioners (BOCC) has developed the following Guiding Principles for the Comprehensive Plan Update (Kitsap County, 2014), and these are considered objectives of this Supplemental Environmental Impact Statement (SEIS).

1. Create a usable, results-oriented plan.
2. Utilize an integrated, interdisciplinary team approach.
3. Avoid urban growth area (UGA) expansion to the extent feasible.
4. Respond to new population trends in innovative ways.
5. Support vibrant waterfront communities, with emphasis on Silverdale, Kingston and Manchester.
6. Illustrate likely outcomes of proposed goals and projects.
7. Communication: include new groups in outreach and provide information in a graphically pleasing, simple, informative method.

Additional objectives of this SEIS include:

8. Respond to GMA goals and requirements:
   - Changes made by the State Legislature
   - Relevant court cases
   - PSRC's Vision 2040 Policies
   - Countywide Planning Policies including growth targets
9. Evaluate and refine the Comprehensive Plan vision to reflect the aspirations of Kitsap County communities to the year 2036. (See current vision in sidebar.)
10. Amend Comprehensive Plan Land Use Map designations that direct zoning regulations to accommodate growth targets and to meet community objectives for management of growth.
11. Revise the Comprehensive Plan to extend its planning horizon from 2025 to 2036.
12. Refine and streamline policies on population and employment growth, land use, housing, capital facilities, utilities, transportation, economic development, parks, natural environment, and rural and resource land use for the unincorporated areas of Kitsap County.

Kitsap County Vision Statement (2012)

...This vision of the future, which is shared by citizens and elected officials, includes the following elements:

County Government. County government that is accountable and accessible; encourages citizen participation; seeks to operate as efficiently as possible; and works with citizens, governmental entities and tribal governments to meet collective needs fairly while respecting individual and property rights.

Natural Environment. Natural ecosystems—including inter-connected wetlands, streams, wildlife habitat, and water quality—that are rehabilitated, protected and enhanced and that allow for flexible and innovative development to meet environmental and growth goals. In developed areas, the growth pattern supports conservation of non-renewable energy and minimizes impacts on air quality and climate.

Housing. Residential communities that are attractive, affordable, diverse, and livable supported by appropriate urban or rural services. A variety of housing choices are available, meeting a full range of resident income levels and preferences. Residents are able to walk between neighborhoods and to community destinations.

Open Space. An open space network—including greenbelts, wildlife habitat, forested areas, and active and passive parks—that is accessible, inter-connected, provides opportunities for recreation and defines and distinguishes urban and rural areas.

Urban Areas. Healthy urban areas that are the region's centers for diverse employment and housing opportunities, all levels of education, and civic and cultural activities.

Rural Areas. Rural areas and communities where unique historical characters, appearances, functions, and pioneering spirits are retained and enhanced. Natural resource activities, such as forestry, agriculture, and mining continue to contribute to the rural character and economy. Rural recreation opportunities are enhanced, including equestrian facilities, trails, and others.

Cultural Resources. Historical and archaeological resources that are recognized and preserved for future generations.

Economic Development. A stable, prosperous and diversified economy that provides living wage jobs for residents, supported by adequate land for a range of employment uses and that encourages accomplishment of local economic development goals.

Public Services and Facilities. Public services and facilities—including, but not limited to, parks and recreation, law enforcement, fire protection, emergency preparedness, water/sewer, roads, transit, nonmotorized facilities, ferries, stormwater management, education, library services, health and human services, energy, telecommunications, etc.—are provided in an efficient, high-quality and timely manner by the County and its partner agencies. Public services and facilities are monitored, maintained and enhanced to meet quality service standards.

Transportation. An efficient, flexible, and coordinated multimodal transportation system—including roads, bridges and highways, ferries, transit, and non-motorized travel—that provides interconnectivity and mobility for county residents and supports our urban and rural land use pattern.

13. Review and evaluate subarea and community plan goals and policies, integrating public input and making consistency edits with the Comprehensive Plan as appropriate.
    - UGA Plans: Silverdale, Kingston*
    - Limited Area of More Intensive Rural Development (LAMIRD) Plans: Suquamish, Keyport, Manchester
    - Community Plan: Illahee

    *The Gorst Subarea Plan is not updated as it was recently prepared in 2013. The Poulsbo UGA Plan is anticipated to be updated in 2017 as part of a collaborative update between the County and the City.

14. Review and revise as necessary the County's Critical Areas Ordinance considering best available science.
15. Ensure efficient provision of and adequately available public services and capital facilities that serve existing and new development in urban areas.

2.2.3. Alternatives

The Comprehensive Plan Update 2016 proposal and above objectives are tested with three alternatives:

- **Alternative 1 No Action:** current Comprehensive Plan as of September 2015.
- **Alternative 2 Whole Community:** reflects Guiding Principles and GMA Directives.
- **Alternative 3 All Inclusive:** most changes; all reclassification requests.

These alternatives are summarized below and further detailed in Section 2.6 of this Chapter.

Alternative 1 would maintain the current Comprehensive Plan with no land use plan, policy, or development regulation changes; it is a required alternative under the State Environmental Policy Act (SEPA).

Alternative 2 directs the 20-year growth targets into compact UGA boundaries emphasizing mixed uses and higher densities in centers and corridors. Alternative 2 makes UGA adjustments in the Bremerton UGA – expansions in West Bremerton and reductions in East Bremerton for more efficient public services delivery. The Port Orchard UGA is also reduced. A small (<1%) expansion of Silverdale UGA is included in Alternative 2. Some private reclassification requests related to employment are included. All together Alternative 2 results in a 4% net reduction of UGA lands. Alternative 2 also updates the Comprehensive Plan and regulations based on GMA requirements and BOCC Guiding Principles.

Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. All private reclassification requests would be included. Areas of UGA expansion are considered in Kingston and Silverdale UGAs. Boundary reductions are considered in the Port Orchard UGA. Central Kitsap and Bremerton UGA boundaries would be expanded in some locations and reduced in others for a net increase. The net result of Alternative 3 is a 4% increase in UGA lands. Last, Comprehensive Plan and development regulations would be updated under Alternative 3, based on GMA requirements.

2.3. Description of the Plan Area

Kitsap County is located in the Puget Sound region of western Washington. The county lies in the eastern portion of the Olympic Peninsula and includes the Kitsap Peninsula as well as Bainbridge Island. Kitsap County encompasses approximately 395 square miles of land and has an estimated population of approximately 258,200 (Washington State Office of Financial Management, 2015). Please see Exhibit 2.3-1 for a general map of the area.

The Kitsap County Comprehensive Plan Update 2016 addresses all unincorporated portions of Kitsap County, encompassing a total of approximately 319 square miles and a population of 171,940 persons (Washington State Office of Financial Management, 2015).

Urban land, designated as Urban Growth Areas (UGAs), is characterized by denser development patterns where public or private facilities or services exist or are planned. Urban areas comprise cities, totaling approximately 76 square miles (Bainbridge, Poulsbo, Bremerton, and Port Orchard), and unincorporated UGAs, totaling about 30 square miles. Three cities, Poulsbo, Bremerton, and Port Orchard, are surrounded by UGAs. In the future, UGAs may incorporate into new communities or annex to existing cities depending on property owner or voter approvals. Current unincorporated UGAs are:

- Kingston
- Silverdale
- Poulsbo
- Central Kitsap
- Bremerton UGA: East Bremerton, West Bremerton and Gorst
- Port Orchard

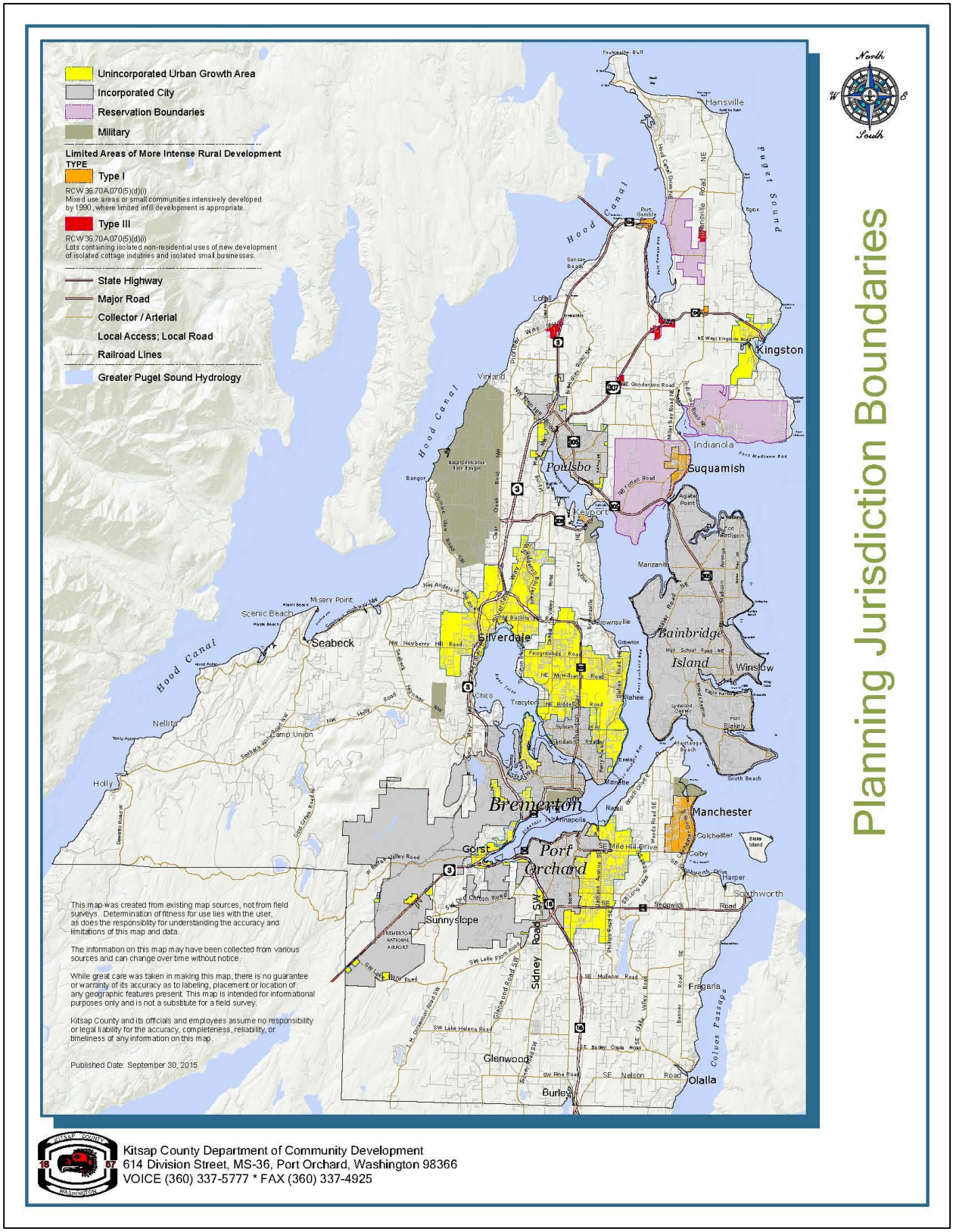
Outside of urban areas, rural lands include rural residential, rural industrial, and rural commercial areas; and lands for forestry, mining, and agriculture[1].

The incorporated cities of Bremerton, Port Orchard, Poulsbo, and Bainbridge Island are responsible for maintaining their own GMA comprehensive plans, which must be consistent with the County's Plan. The County's planning process, however, includes consultation and coordination with these jurisdictions. Additionally, the analysis considers cumulative growth across ecosystems such as climate and water resources or built systems such as transportation.

Please see Exhibit 2.3-1for a general map of the incorporated and unincorporated areas, including the current unincorporated UGA boundaries that are a focus of this SEIS.

[1] Agriculture primarily consists of small farms. The county does not contain agricultural lands of long-term commercial significance under GMA.

Exhibit 2.3-1. Study Area Map



Source: Kitsap County Department of Community Development 2015

2.4. Purpose of this Draft Supplemental EIS

The purpose of a SEIS is to add information and analysis to supplement the information in one or more previous EISs. [WAC 197-11-600 (4) (d)] A SEIS may address new alternatives and new topics. A SEIS should not include analysis of actions, alternatives, or impacts that is in the previously prepared EIS. Scoping for a SEIS is not required.

This SEIS for the Comprehensive Plan Update 2016 supplements the following EISs:

- Kitsap County 10-Year Comprehensive Plan Update – Integrated Plan and Environmental Impact Statement, Volume II: Final EIS, December 2006. The 10-Year Comprehensive Plan Update Draft and Final EISs are herein incorporated by reference.
- Kitsap County Urban Growth Area (UGA) Sizing and Composition Remand, Final SEIS, August 10, 2012. The Remand Draft and Final SEISs are herein incorporated by reference.
- City of Bremerton and Kitsap County, Gorst Creek Watershed Characterization & Framework Plan, Gorst Subarea Plan, and Gorst Planned Action EIS, October 8, 2013. The Gorst Draft and Final EISs are herein incorporated by reference.

Consistent with SEPA (Revised Code of Washington [RCW]) 43.21C), this SEIS does not fully repeat the analysis of actions, alternatives, or impacts included in the countywide 2006 or 2012 Final EISs and the Gorst EIS. The prior 2006 and 2012 Final EIS alternatives studied a broad range of UGA land use patterns, boundaries, and population capacities across the county. None of the Comprehensive Plan Update 2016 SEIS alternatives exceed the prior range of geography or population capacity of these EISs. However, having the same UGA boundaries and land use designations, the 2016 Comprehensive Plan Update No Action Alternative in this SEIS is similar to the Preferred Alternative in the 2012 UGA Sizing and Composition Remand FEIS, and provides a link to the prior analysis.

This SEIS evaluates environmental topics most pertinent to the task of determining appropriate UGA boundaries, growth capacities, and public services/infrastructure needed to serve reconfigured UGAs. The natural and built environment topics studied in this SEIS include:

- Natural Environment
  - Earth
  - Air Quality
  - Water Resources (Surface and Ground)
  - Plants and Animals
- Built Environment: Land Use and Transportation
  - Land and Shoreline Use
  - Relationship to Plans and Policies
  - Population, Housing and Employment

  - Transportation
- Built Environment: Public Services and Utilities
  - Public Buildings
  - Fire Protection
  - Law Enforcement
  - Parks and Recreation
  - Schools
  - Solid Waste
  - Wastewater
  - Stormwater
  - Water Supply
  - Energy and Telecommunications
  - Library

The overall conclusions of the 2006 Final EIS on the following topics – cultural resources, aesthetics, and noise – are not expected to significantly change, and the prior EIS may be referenced for analysis. These topics would also be addressed on a project-level basis depending on the nature of the proposal and County code standards.

2.5. SEPA Process

2.5.1. Public Review Opportunities

Kitsap County has developed a Comprehensive Plan Update website with public engagement opportunities and information, located at: http://compplan.kitsapgov.com/Pages/home.aspx. Between September 2014 and August 2015, Kitsap County received over 5,000[2] comments from responses to County surveys, responses to the "Questions of the Week" posted at the website and emailed to interested parties, and from Open Houses. Public engagement opportunities and special events have included:

- Two online surveys
- Widely distributed postcards to advertise comment opportunities (see Exhibit 2.5-1)
- Four Citizens Advisory Council-hosted Open Houses (Central Kitsap, Kingston, Manchester, Suquamish Citizen Advisory Councils)
- Three district Open Houses
- Fourteen weeks of online comments from the "Question of the Week"
- Emails to the project website: see http://compplan.kitsapgov.com/Pages/home.aspx

[2] Comments are being collected on an ongoing basis.

- Community Quilt: "What do you love about Kitsap?" at the Olalla Bluegrass and Beyond Festival (see Exhibit 2.5-2)

Exhibit 2.5-1. Let's Hear Kitsap

Source: Kitsap County 2015

Exhibit 2.5-2. Community Quilt: What do you love about Kitsap?

Source: Kitsap County 2015

With the issuance of this Draft SEIS, additional public engagement opportunities include:

- **Public Comments.** A 30-day comment period is established with the issuance of this Draft SEIS. See the Fact Sheet for information on how to provide comments.
- **Draft Plan meetings**. The Open Houses in November 2015 are designed to share the Draft 2016 Comprehensive Plan Update and Draft SEIS and hear feedback from the public. Please see http://compplan.kitsapgov.com/Pages/home.aspx.
- **Public hearings**. As part of the adoption process for the updated Plan, the Kitsap County Planning Commission and Board of County Commissioners (BOCC) will conduct public hearings. Please see http://compplan.kitsapgov.com/Pages/home.aspx for more information.

2.5.2. Level of Analysis

The purpose of SEPA is to understand the relationship of projects or plan proposals and their effects on ecological systems:

> *The purposes of this chapter are: (1) To declare a state policy which will encourage productive and enjoyable harmony between humankind and the environment; (2) to promote efforts which will prevent or eliminate damage to the environment and biosphere; (3) and [to] stimulate the health and welfare of human beings; and (4) to enrich the understanding of the ecological systems and natural resources important to the state and nation.*
> *(RCW 43.21C.010)*

SEPA requires government officials to consider the environmental consequences of actions they are about to take and to consider better or less damaging ways to accomplish those proposed actions. They must consider whether the proposed action will have a probable significant adverse environmental impact on elements of the natural and built environment.

This SEIS provides a programmatic analysis of the Comprehensive Plan Update 2016. The adoption of comprehensive plans or other long-range planning activities is classified by SEPA as a non-project action (i.e., actions which are different or broader than a single site-specific project, such as plans, policies, and programs (WAC 197-11-774)). An EIS or SEIS for a non-project proposal does not require site-specific analyses; instead, the SEIS discusses impacts and alternatives appropriate to the scope of the non-project proposal and to the level of planning for the proposal (WAC 197-11-442).

This SEIS considers potential environmental impacts at both the countywide and smaller area levels of detail.

- **Countywide analysis.** In general, environmental analysis has been conducted at a countywide and cumulative level. For example, air quality and transportation impacts are considered across the county.
- **Specific analysis.** For some elements of the environment, information has been broken down into smaller areas of analysis. For example, watershed basins are referenced when possible in the discussion of surface water. Land use, population, housing, and employment are described by UGA.

2.5.3. Phased Review

SEPA allows phased review where the sequence of a proposal is from a programmatic document, such as an EIS or SEIS addressing a comprehensive plan, to other documents that are narrower in scope, such as those prepared for site-specific, project-level analysis (WAC 197-11-060(5)). Kitsap County is using phased review in its environmental analysis of the Comprehensive Plan Update 2016 SEIS.

Additional environmental review will occur as other project or non-project actions are proposed to Kitsap County in the future. Phased environmental review may consider proposals that implement the Plan, such as land use regulations, specific development proposals, or other similar actions. Future environmental review could occur in the form of Supplemental EISs, SEPA addenda, or determinations of non-significance. An agency may use previously prepared environmental documents to evaluate proposed actions, alternatives, or environmental impacts. The proposals may be the same as or different than those analyzed in the existing documents (WAC 197-11-600[2]).

2.6. Development of Alternatives

2.6.1. Planning Process

This Draft SEIS addresses three alternatives: Alternative 1 No Action, Alternative 2 Whole Community, and Alternative 3 All Inclusive. The purpose of the alternatives is to provide decision makers and the public with growth options before a plan is adopted, and to test the environmental implications of each.

Alternative 1 is required by SEPA and is the continuation of the current Plan as of September 2015. Alternatives 2 and 3 review different population and employment growth levels and patterns, as well as UGA boundaries. Alternatives 2 and 3 have been developed on the basis of GMA requirements, population and employment projections, draft Comprehensive Plan policy amendments, land use plan and zoning consistency changes, map reclassification requests by private individuals, and public comments submitted with the ”Let’s Hear Kitsap” outreach process.

2.6.1.1. Population and Employment Growth Targets and Land Capacity

Growth is anticipated through 2036. For every 3 people in Kitsap County now, there will be 1 more by 2036, based on population growth targets in Countywide Planning Policies (2014).

Growth Targets

The Kitsap County Comprehensive Plan is founded on 20-year growth projections. Population and employment growth targets are recommended by the Kitsap Regional Coordinating Council (KRCC), which is composed of elected officials, planning directors from city and Tribal jurisdictions, the Board of County Commissioners (BOCC), and Kitsap County's Community Development Director. The population and employment distributions were adopted by the BOCC in the Countywide Planning Policies (CPPs) and ratified by the cities. These allocations are a key guide to the sizing of UGAs.

Under the adopted CPPs, cities and UGAs are slated to take the majority of the population growth over the 20-year planning period, approximately 78%, as shown in Exhibit 2.6-1 and Exhibit 2.6-2. The growth target has been adjusted to a 2012 base year to track with Kitsap County's Buildable Lands Report. (Kitsap County, 2014) See also Appendix A for a discussion of base year adjustments and corrections.

Exhibit 2.6-1. Population Targets 2012-2036

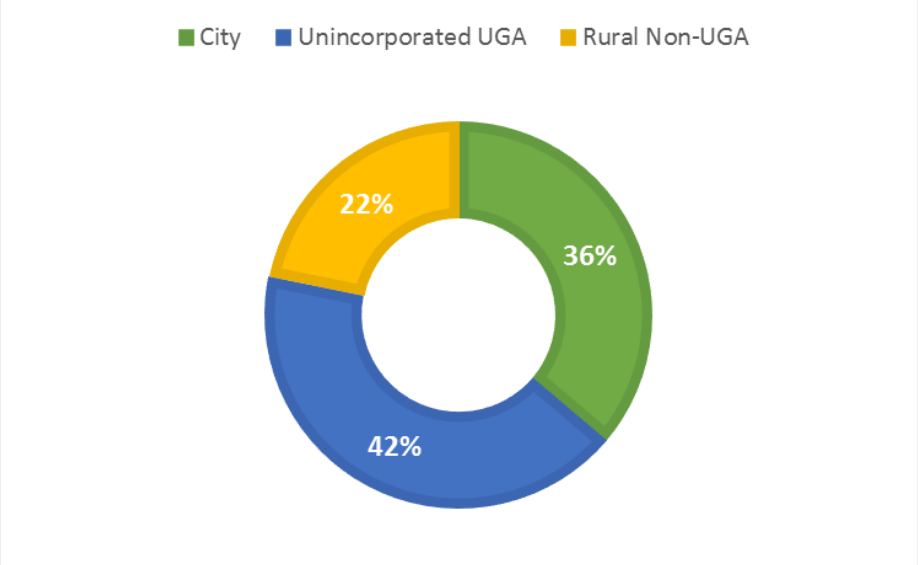
City or UGA	2010 Population	CPPs 2010-2036 Growth Target	2036 Population	2012: Buildable Lands Report	2010-2012 Growth	Growth Target 2012-2036
City of Bremerton	37,729	14,288	52,017	39,650	1,921	12,367
Bremerton UGA	9,082	4,013	13,095	9,123	41	3,972
Total Bremerton	**46,811**	**18,301**	**65,112**	**48,773**	**1,962**	**16,339**
City of Bainbridge Island	**23,025**	**5,635**	**28,660**	**23,090**	**65**	**5,570**
City of Port Orchard	12,323	8,235	20,558	11,780	(543)	8,778
Port Orchard UGA	15,044	6,235	21,279	15,169	125	6,110
Total Port Orchard	**27,367**	**14,470**	**41,837**	**26,949**	**(418)**	**14,888**
City of Poulsbo	9,222	1,330	10,552	9,360	138	1,192
Poulsbo UGA	478	3,778	4,256	470	(8)	3,786
Total Poulsbo	**9,700**	**5,108**	**14,808**	**9,830**	**130**	**4,978**
Central Kitsap UGA	22,712	6,764	29,476	22,634	(78)	6,842
Silverdale UGA*	17,556	8,779	26,335	17,612	56	8,723
Kingston UGA	2,074	2,932	5,006	2,080	6	2,926
Total City	82,299	29,488	111,787	83,880	1,581	27,907
Unincorporated UGA	66,946	32,501	99,447	67,088	142	32,359
Total City and UGA	**149,245**	**61,989**	**211,234**	**150,968**	**1,723**	**60,266**
Rural Non-UGA*	101,888	18,449	120,337	103,532	1,644	16,805
Total	**251,133**	**80,438**	**331,571**	**254,500**	**3,367**	**77,071**

Legend: CPPs = Countywide Planning Policies

* = Compared to the CPPs, the Silverdale and Rural 2010 estimates are adjusted per Appendix A of this Draft SEIS. The growth between 2010 and 2036 is unchanged. Because of the base estimate correction, the 2036 amounts differ from the Countywide Planning Policies.

Source: (Kitsap Regional Coordinating Council, 2014): (Kitsap County, 2014); BERK Consulting 2015

Exhibit 2.6-2. Population Growth Target Shares: 2012-2036



Source: BERK Consulting 2015

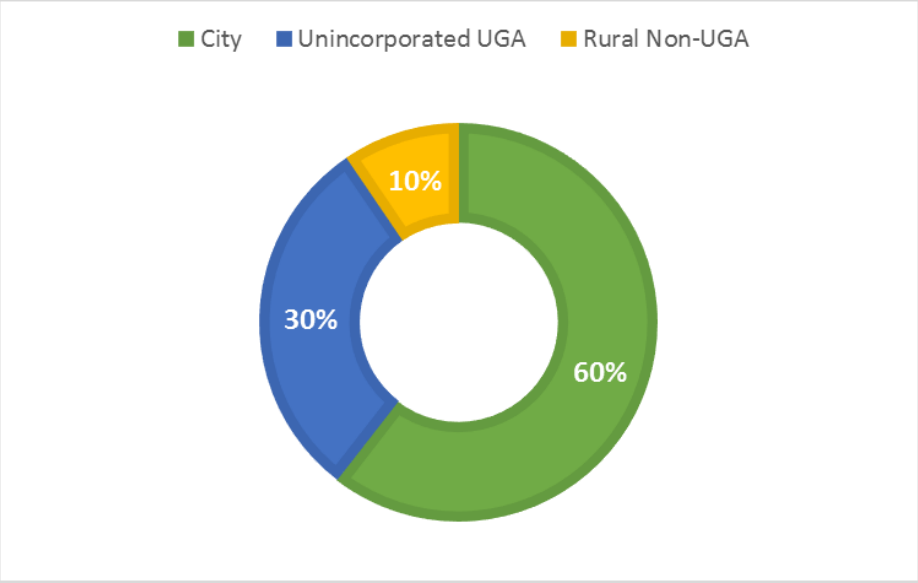
The BOCC has also adopted employment targets for the 2012-2036 planning period (see Exhibit 2.6-3 and Exhibit 2.6-4). Cities and UGAs would take about 90% of employment growth. The target has been adjusted to a 2012 base year, similar to population. (Kitsap County, 2014)

Exhibit 2.6-3. Employment Targets 2012-2036

City or UGA	2010-2036 Target	2010-2012 Growth	2012-2036 Target with job loss/gain	2012 Base Employment (Est.)	2036 Employment (Est.)
City of Bremerton	18,003	(273)	18,276	28,165	46,441
Bremerton UGA	1,385	(58)	1,443	1,094	2,537
Total Bremerton	**19,388**	**(331)**	**19,719**	**29,259**	**48,978**
City of Bainbridge Island	**2,808**	**88**	**2,720**	**6,377**	**9,097**
City of Port Orchard	3,132	58	3,074	6,457	9,531
Port Orchard UGA	1,846	706	1,140	2,395	3,535
Total Port Orchard	**4,978**	**764**	**4,214**	**8,852**	**13,066**
City of Poulsbo	4,155	17	4,138	5,727	9,865
Poulsbo UGA	46	32	14	64	78
Total Poulsbo	**4,201**	**49**	**4,152**	**5,791**	**9,943**
Central Kitsap UGA	1,200	(685)	1,885	3,454	5,339
Silverdale UGA	9,106	178	8,928	10,946	19,874
Kingston UGA	600	3	597	626	1,223
Total City	28,098	(110)	28,208	46,726	74,934
Non-City UGA	14,183	176	14,007	18,579	32,586
Total City and UGA	**42,281**	**66**	**42,215**	**65,305**	**107,520**
Rural Non-UGA	3,877	(555)	4,432	14,273	18,705
Total	**46,158**	**(489)**	**46,647**	**79,578**	**126,225**

Source: Employment Security Department and Puget Sound Regional Council 2012; (Kitsap Regional Coordinating Council, 2014); BERK Consulting 2015

Exhibit 2.6-4. Employment Growth Shares: 2012-2036



Source: BERK Consulting 2015

Growth Capacity

Kitsap County and cities prepare estimates of future capacity consistent with methods and assumptions in the Buildable Lands Report. The method is summarized in Exhibit 2.6-5.

Exhibit 2.6-5. Land Capacity Steps

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8 - Resid	Step 8 - Jobs
Identify Vacant Parcels Zoned Commercial or Industrial	Identify Underutilized Parcels by Zone	Deduct Areas Impacted by Critical Areas	Deduct Future Roads/ R-O-W Needs	Deduct Future Public Facilities Needs	Deduct Capacity to Account for Unavailable Lands	Combine All Factors to Estimate Net Buildable Acres by Zone	Convert Net Buildable Acres to Determine Employment Capacity	Convert Net Buildable Acres to Determine Employment Capacity

Source: Kitsap County Buildable Lands Report 2014; BERK Consulting 2015

The assumed densities are summarized in Exhibit. They largely follow the results of the 2012 trends analysis issued with the 2012 Remand SEIS and the 2014 Buildable Lands Report. See Exhibit 2.6-6.

Exhibit 2.6-6. Land Capacity Assumed Densities based on Platted Densities

Zoning	Dwelling Units Per Acres	Assumed Density in Land Capacity (1)	2014 BLR Density (2)
Urban Low Residential	5 – 9 DU/AC	6 DU/AC	6.10 DU/AC
Urban Medium Residential	10 – 19 DU/AC	12 DU/AC	10.95 DU/AC
Urban High Residential	19 – 30 DU/AC	21.75 DU/AC	13.77 DU/AC
Urban Restricted	1 – 5 DU/AC	2.5 DU/AC	5.42 DU/AC
Urban Cluster Residential	5 – 9 DU/AC	7.6 DU/AC	5.53 DU/AC
Mixed Use	10 – 30 DU/AC	15 DU/AC	15.79 DU/AC
Illahee Greenbelt Zone	1 – 4 DU/AC	2 DU/AC	NA
Urban Village Center	Up to 18 DU/AC	12 DU/AC	NA
Senior Living Homestead	5 – 9 DU/AC	6 DU/AC	NA

1. Based on August 2012 Final Supplemental Environmental Impact Statement for the Kitsap County Urban Growth Area (UGA) Sizing and Composition Remand; Appendix A.

2. Reflects Average Platted Densities, except for Mixed Use which is based on Condominium Densities.

Source: (Kitsap County, 2012); Kitsap County Buildable Lands Report 2014; BERK Consulting 2015

The basic deductions are summarized in Exhibit 2.6-7. These deductions are similar to those described in the 2012 trends analysis issued with the 2012 Remand SEIS.

Exhibit 2.6-7. Assumed Deductions in Land Capacity Analysis

Deduction	Assumption
Critical Areas	Remove 75% of mapped critical areas and 50% of Areas of Moderate Geologic Hazard
Roads/Right-of-Way (Future)	20% (-)
Public Facility (Future)	20% (-)
Unavailable Lands	Vacant 5% (-), Underutilized 15% (-)

Source: (Kitsap County, 2012); Kitsap County Buildable Lands Report 2014; BERK Consulting 2015

Based on the method, land capacity has been estimated and is provided in Appendix B including estimates at small geographic areas called transportation analysis zones.

2.6.1.2. Land Use Plan and Zoning Consistency Changes

Alternatives 2 and 3 make a series of land use plan and zoning corrections to improve the implementation of the County's vision, policies, and permitting. These amendments include:

- **Tribal Property Corrections.** The future land use plan and zoning maps would be corrected to reflect land in tribal ownership that is under tribal management and not under County jurisdiction.
- **Split-Zone Corrections.** Single parcels of land with unintentionally two or more land use or zoning designations would be given a single designation.
- **Parks Zone.** The County applies its Parks zone to public parks and recreation facilities. Not all parks were so designated and map corrections would apply the Parks zone to properties that qualify for the classification.
- **Public Facility Zone.** A new Public Facility Zone would be created and applied to public facilities such as schools, fire stations, transit facilities, and others.
- **Urban Reserve Zone.** The Urban Reserve land use designation and zoning would be removed and reclassified primarily to rural categories.
- **Commercial Zones.** Commercial zones would be reduced in number, though still applied in similar locations as Alternative 1. Mixed-use residential and commercial would be allowed in more commercial zones with Alternatives 2 and 3.

Silverdale Town Hall, January 2015

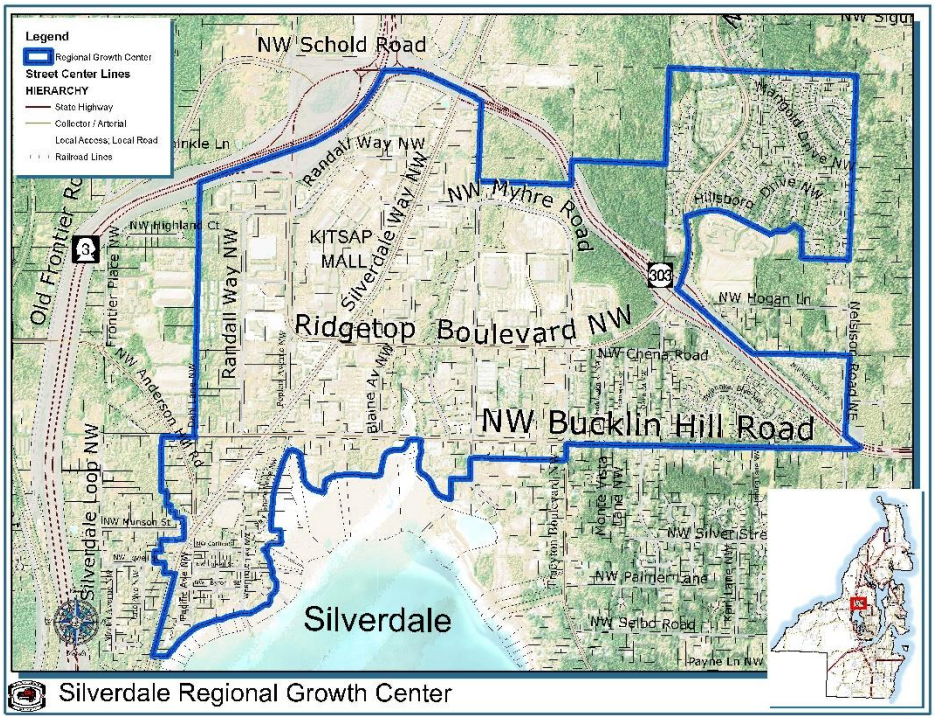
2.6.1.3. Silverdale Regional Growth Center

All subarea, LAMIRD, and community plans are under review and evaluation in the Comprehensive Plan Update 2016. In addition, the Silverdale Regional Center Plan is underway to establish updated policies, growth patterns, and development standards to meet regional planning requirements for the designated Regional Growth Center (RGC) within the larger Silverdale UGA

Since 2003, central Silverdale, including the Kitsap Mall and surrounding areas, has been designated RGC under

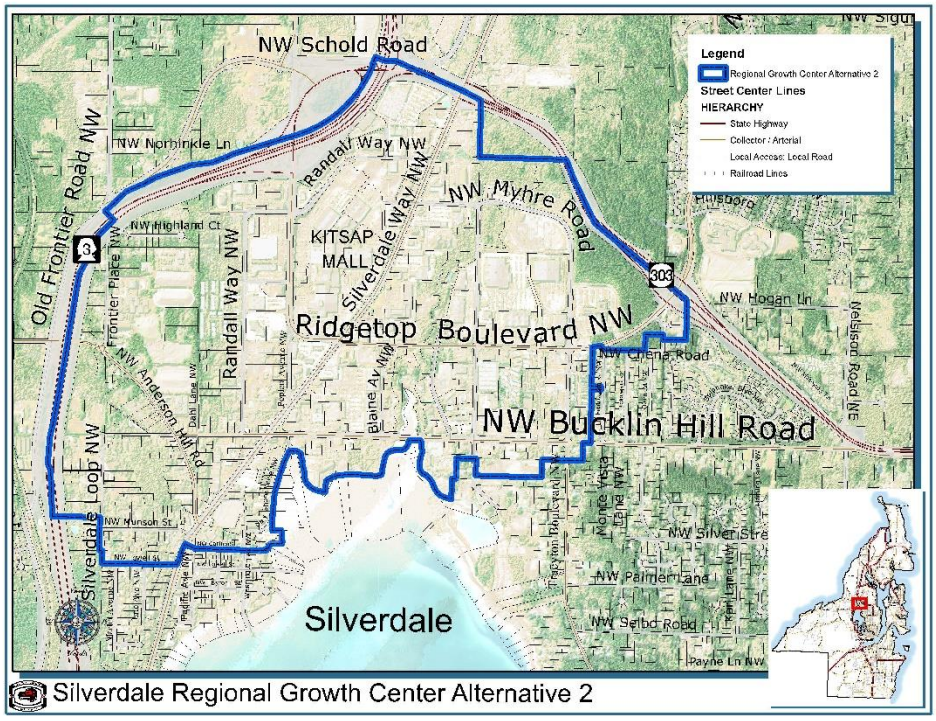
the Puget Sound Regional Council's (PSRC's) VISION 2040. See Exhibit 2.6-8 for a map of the Silverdale RGC, and alternative boundaries under consideration in Exhibit 2.6-9 and Exhibit 2.6-10. RGCs are designated for dense housing and employment growth and prioritized for regional infrastructure funding.

Exhibit 2.6-8. Silverdale Regional Growth Center Boundary No Action



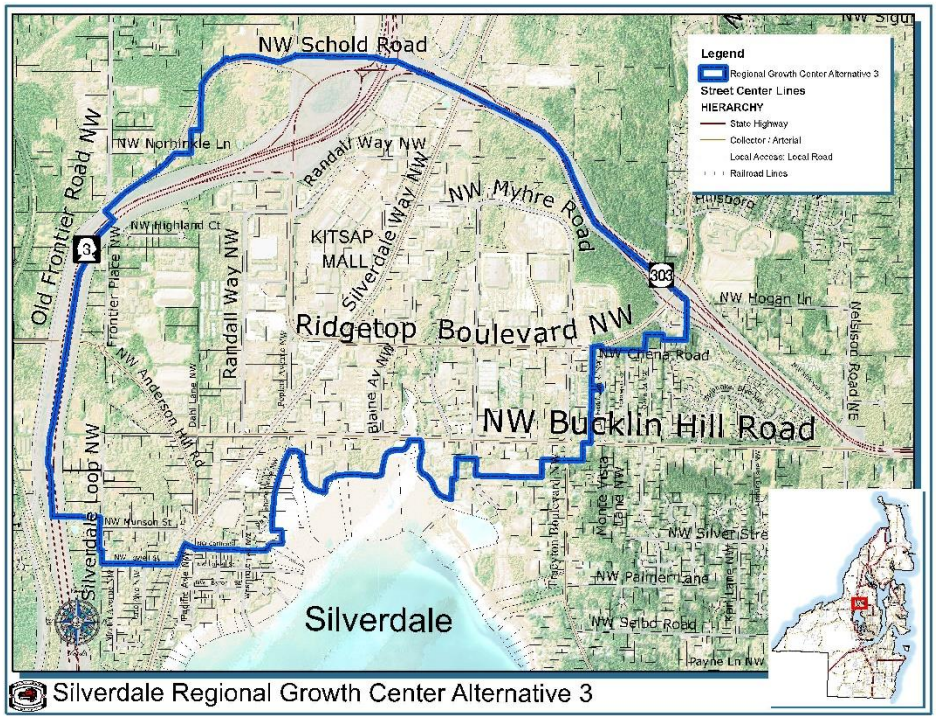
Source: Kitsap County Department of Community Development 2015

Exhibit 2.6-9. Silverdale Regional Growth Center Boundary Alternative 2



Source: Kitsap County Department of Community Development 2015

Exhibit 2.6-10. Silverdale Regional Growth Center Boundary Alternative 3



Source: Kitsap County Department of Community Development 2015

Based on PSRC guidance, the Silverdale RGC is to have a plan that sets growth targets and transportation mode-split goals (to promote non-single occupant vehicle travel); see Appendix B. Several growth and land use scenarios are under consideration, including adding opportunities for 500-1,000 dwellings and greater office uses in Regional Commercial areas in Alternatives 2 and 3. Additionally, Kitsap County is considering amending the Silverdale land use plan and zoning to allow for greater building height in the RGC area. The County is also considering adjusting the Silverdale's RGC boundaries to exclude lower density areas on the periphery.

2.6.1.4. Reclassification Requests

As part of its 2016 Comprehensive Plan Update, Kitsap County provided an opportunity for requests for reclassification requests. Based on an initial screening and consultation with affected cities, the County is carrying forward review of 27 reclassification requests. See Exhibit 2.6-11 for a list of amendments and Exhibit 2.6-11for a map of amendments. Each application is evaluated for consistency with approval criteria from the Kitsap County Code. See SEIS Chapter 4 and preliminary staff reports under separate cover.

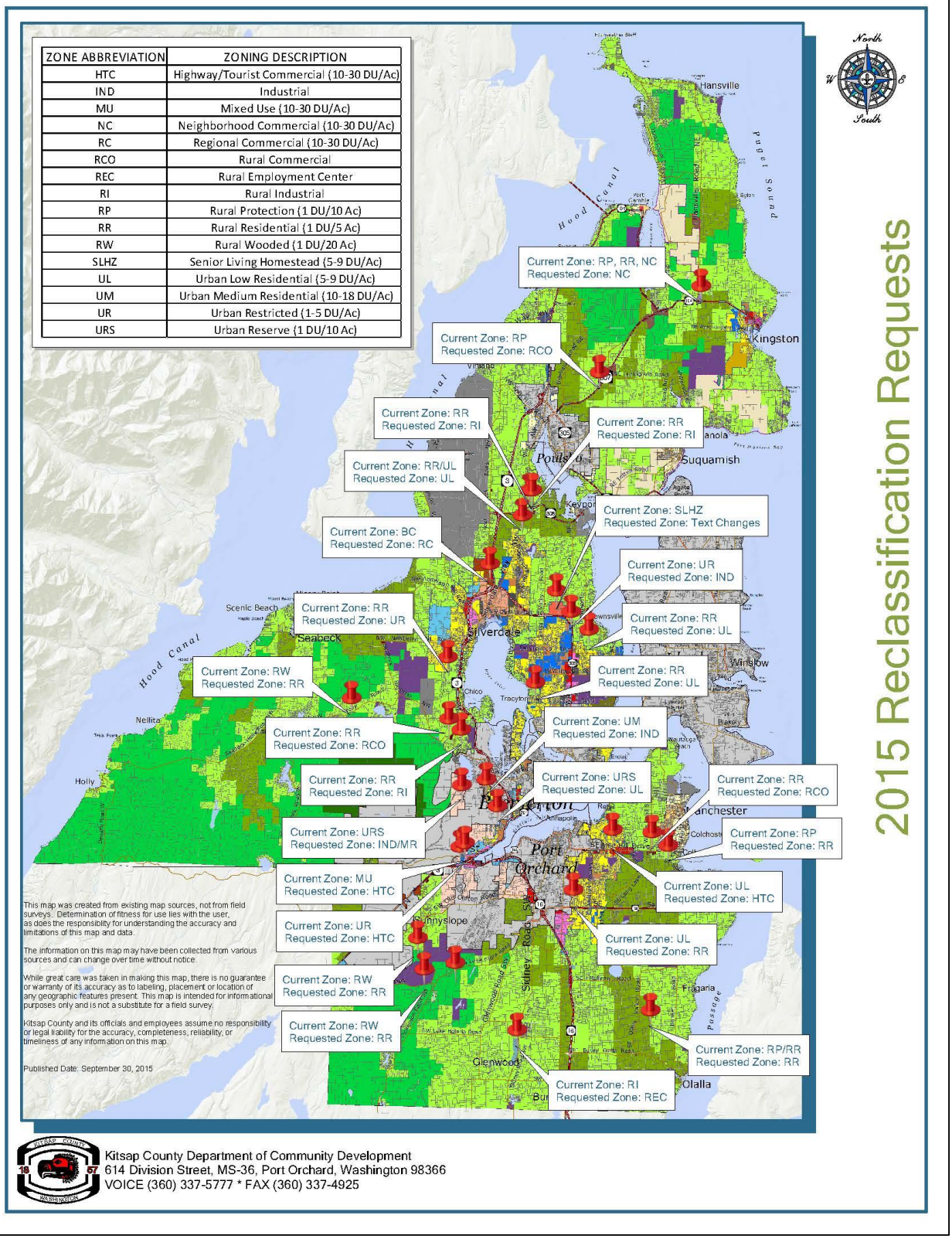
Exhibit 2.6-11. Reclassification Request List

Num	Permit #	Applicant	Request	Vicinity Zip Code	Alt 2	Alt 3
Residential						
Rural						
A.	15 00461	Porter	RR/RP to RR	Ollala 98359		X
B.	15 00686	Garland	RW to RR	Port Orchard 98367		X
C.	15 00710	Trophy Lake Golf Club	RW to RR	Port Orchard 98367		X
D.	15 00714	McCormick Land Company	RW to RR	Port Orchard 98367		X
E.	15 00738	Fox-Harbor Rentals	RP to RR	Port Orchard 98366		X
F.	15 00742	Tallman	RW to RR	Bremerton 98312		X
Urban						
G.	15 00641	Curtiss-Avery	URS to UL	Bremerton 98312		X
H.	15 00692	Eldorado Hills, LLC	RR to UR	Bremerton 98312		X
I.	15 00722	Royal Valley LLC	Text Change Only	Poulsbo 98370	X	X
J.	15 00724	Harris	RR to UL	Bremerton 98311		X
K.	15 00737	Edwards-Mt. View Meadows	RR-UL	Poulsbo 98370		X
Commercial						
Rural						
L.	15 00378	DJM Construction	RP/RR to NC	Kingston 98346		X
M.	15 00522	Bremerton West Ridge	Request MRO, URS to IND	Bremerton 98312	X	X
N.	15 00607	Cornerstone Alliance Church	RR to RI	Poulsbo 98370		X
O.	15 00657	Gonzalez	RR to RI	Poulsbo 98370	X	X
P.	15 00689	Lee	RP to RCO	Poulsbo 98370		X
Q.	15 00697	Bair	RR to RI	Bremerton 98312		X
R.	15 00703	Port Orchard Airport	RI to REC	Port Orchard 98367	X	X
S.	15 00711	Merlinco	RR to RCO	Port Orchard 98366		X
T.	15 00736	Rodgers	RR-RCO	Bremerton 98312		X
Urban						
U.	15 00380	Ryan	UR to HTC	Bremerton 98312		X

Num	Permit #	Applicant	Request	Vicinity Zip Code	Alt 2	Alt 3
V.	15 00550	Unlimited	BC to RC	Silverdale 98383	X	X
W.	15 00701	Prigger	UR to IND	Bremerton 98311		X
X.	15 00725	Dumont-Tracyton Tavern	UL to NC	Bremerton 98311	X	X
Y.	15 00739	Schourup	UM to IND	Bremerton 98312		X
Z.	15 00740	Laurier Enterprises, Inc.	UL to HTC	Port Orchard 98366		X
AA.	15 07354	Sedgwick Partners	UL to HTC	Port Orchard 98366		X

Legend: MRO = Mineral Resource Overlay; NC = Neighborhood Commercial; REC = Rural Employment Center; RCO = Rural Commercial; RI = Rural Industrial; RP = Rural Protection; RR = Rural Residential; RW = Rural Wooded; URS = Urban Reserve; BC = Business Center; HTC = Highway Tourist Commercial; Ind = Industrial; RC = Regional Commercial; UL = Urban Low Residential; UM = Urban Medium Residential; UR = Urban Restricted.
Source: Kitsap County 2015

Exhibit 2.6-12. Reclassification Requests Map



2.6.1.5. Source: Kitsap County DCD 2015Comprehensive Plan Element Amendments

As described in Section 2.2, GMA requires the County to establish the following required Comprehensive Plan elements: land use, housing, capital facilities, utilities, rural (counties only), and transportation. Economic development and parks and recreation elements are required only when the state provides funding for them. Optional elements include subarea plans or other topics.

As part of the required GMA review and evaluation process, the County is proposing to amend and streamline goals and policies and to establish implementation strategies (together called "GPS"). Goals, policies, and implementation strategies that have been fulfilled would be removed, others simplified, and others removed that are optional or require inordinate resources to implement. Exhibit 2.6-13 shows the current and proposed Comprehensive Plan Elements and key changes under consideration with Alternatives 2 and 3.

Exhibit 2.6-13. Comprehensive Plan Element Amendments

No Action Elements	Alternatives 2 and 3 Elements	Alternatives 2 and 3 Key Changes
1. Introduction	Introduction	• Refresh vision
2. Land Use	Land Use	• Address plan and zoning consistency changes • Address population and employment targets
3. Rural and Resource Lands	Rural, addressing all non-UGA lands	• Address plan and zoning consistency changes
4. Natural Systems	Environment	• Integrate critical areas review and evaluation • Manage environment as an asset
5. Economic Development	Economic Development	• Update urban and rural economic policies, e.g. Silverdale center
6. Housing	Housing	• Address greater mixed-use opportunities
7. Utilities	Utilities	• Update to current conditions
8. Transportation	Transportation	• Integrate multimodal level of service, Silverdale mode share goals, and other recent County plans (e.g. non-motorized plan)
9. Shorelines	Included in Environment	• Integrate recent adopted Shoreline Master Program
10. Parks, Recreation, and Open Space	Parks and Recreation	• Update to current conditions
11. Capital Facilities Plan	Capital Facilities	• Update inventory, levels of service, and capital project lists
12-17. UGA Subarea, LAMIRD & Community Plans	Subarea, LAMIRD & Community Plans	• Review and evaluate all plan goals and policies • Update Silverdale Subarea Plan per VISION 2040 and Centers guidance
18. Implementation	*Strategies included in each Element*	• Update based on refreshed policies
Historic policies included in Land Use Element	Historic Preservation	• Create new element to emphasize cultural resources

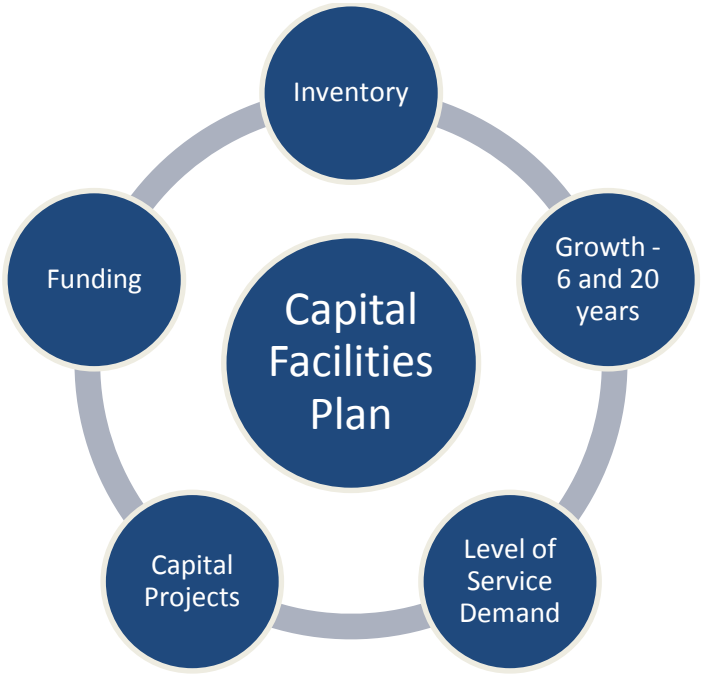
Source: Kitsap County Community Development 2015

2.6.1.6. Capital Facilities Plan

Consistent with GMA, the County has developed a Capital Facilities Plan (CFP) as part of its Comprehensive Plan. Capital facilities include roads, sewers, parks and recreation; facilities for drinking water, stormwater, garbage disposal and recycling; and all the government buildings which house public services, including law enforcement, fire protection, and schools.

The purpose of the CFP is to use sound fiscal policies to provide adequate public facilities consistent with the land use element. Public facilities and services are to be provided concurrent with, or prior to, the impacts of development, to achieve and maintain adopted level of service standards. The CFP contains an inventory of each facility and associated service, level of service standards, revenue projections and capital costs, and descriptions of how facilities are to be funded. Of particular focus are facilities needed to support urban growth in UGAs. The components of the CFP are illustrated in Exhibit 2.6-14. All alternatives are studied in a Draft CFP issued concurrently with this SEIS.

Exhibit 2.6-14. Capital Facilities Plan (CFP) Update Process



2.6.1.7. Development Regulation Amendments

Kitsap County intends to make amendments to its development regulations to implement its Comprehensive Plan and as part of its eight-year evaluation under GMA. See Exhibit 2.6-15.

Exhibit 2.6-15. Draft Development Regulation Amendments

Code Reference	Change Description	Intent for change
KCC Title 13		
13.12.025 Waivers	Amend septic to sewer conversion appeals process	Maintain consistency with ESB 5871.
KCC Title 17		
17.315 Urban Reserve Zone	Remove	The original intent for the Urban Reserve zone is no longer applicable. Proposing conversion of parcels zoned Urban Reserve to applicable rural land use zoning designations.
17.321 LAMIRDs	Add three new LAMIRDs: Keyport Junction Port Orchard Airport Consider changing George's Corner to a Type III Add language to 17.376	Type I LAMIRDs are established for higher intensity residential development in a localized rural area. Type III LAMIRDs are established for higher intensity commercial and industrial development in a localized rural area. Keyport Junction and Port Orchard Airport are both locations that meet the criteria for a Type III LAMIRD designation. When providing design regulations for the new LAMIRDs, Keyport requires an adjustment to the alley setbacks to maintain consistency with the Keyport Community Plan. George's Corner is currently designated as a Type I LAMIRD. Almost all uses within the LAMIRD are commercial in nature; therefore, conversion to a Type III LAMIRD is warranted.
17.321 C Manchester	Codify view protection and change use permissibility for Manchester Village Commercial Zone	To maintain consistency with the Manchester Community Plan the Manchester Village Commercial zone requires a revision to increase permissibility for small commercial businesses. View protections in the Manchester Community Plan shall be codified.
17.321 E Illahee	Codify view protection	View protections shall be moved from the Illahee Community Plan to code, and enforcement procedures clarified.
17.332 Senior Living Homestead Zone	Remove age limits from the zone.	Senior Living facilities shall be a use in KCC 17.381 Use Table.
17.352 Mixed Use Zone	Remove	Absorb Mixed Use Zone into other higher density residential or commercial zones.
17.355 Commercial Zones	Combine HTC and RC into a single commercial zone Create Regional Center Zone	Use permissibility and design criteria are nearly identical for Highway Tourist Commercial and Regional Commercial Zones. Neighborhood Commercial zone remains separated from a general commercial zone to support separate design criteria previously established to maintain historic character of commercial development (e.g. Old Town Silverdale and historic development in Kingston) Identifies areas within the Silverdale Regional Center. Provides increased permissibility for urban uses and design criteria consistent with redevelopment and infill code.
17.375 Airport Zone	Remove	The airport zone no longer applies to unincorporated lands. Bremerton National Airport, which is now within the City of Bremerton city limits, was the only location in Kitsap County to have this designation.
17.376 Rural Employment Center and 12 Trees Employment Center zone	See 17.321	Language from 17.321 modifications shall be placed in this section.

Code Reference	Change Description	Intent for change
17.377 Parks Zone	Update Comprehensive Plan and Zoning Maps	Kitsap County maps must reflect the addition of a Public Facilities zone and show parks as a separate zone.
17.379 Public Facility Zone	Add new zone	Identifies locations of existing public facilities. Provides increased permissibility for projects in the capital facilities plan.
17.381 Allowed Uses	Review and Revise	Review and revise as necessary the use permissibility in each zone and ensure consistency with comprehensive plan designations. Change Kennel requirements to maintain consistency with Title 7 revisions to commercial pet facilities.
17.382 Density, Dimension, Design	Review and Revise	Review and revise as necessary the design regulations in each zone and ensure consistency with the comprehensive plan. Review and revise the lot dimension table to maintain consistency with recently revised Title 22 'Shoreline Master Program'. Match Urban Restricted zone intent by changing allowable density to 1-5 du/ac.
17.430 Transfer of Development Rights (TDR)	Establish transfer and receiving areas	Code consistency with 2014 Comprehensive Plan policy revisions on TDR.
17.446 Sign Code	Revise to reflect case law	Consistency with Supreme Court decision regarding content neutrality.
KCC Title 19		
Title 19 Critical Areas Ordinance	Review and Revise	Review and code using best available science and revise where necessary. To maintain consistency with Title 19, make necessary corresponding changes to 17.381 'Uses' and 17.382 'Density, Dimensions, and Design'.
KCC Title 21		
Title 21 Land Use Development Procedures	Review and Revise and add resource land notification procedures into code	Rezone applications revised to a Type III land use procedure rather than Type IV legislative action in order to allow Hearing Examiner review. Move notification procedures for resource land designation requests into code from the Comprehensive Plan.

Source: Kitsap County Department of Community Development 2015

Several zoning map and text changes such as commercial zone consolidation, removal of the Urban Reserve designation and other amendments would be implemented with the Comprehensive Plan Update as described in the table above. Detailed zoning maps by alternative are shown in Appendix C.

As described in the table above, part of the GMA 8-year review and evaluation is ensuring that best available science is used in the Critical Areas Ordinance (Title 19, KCC). The evaluation indicates that limited changes are needed. One example of an ordinance change under consideration includes changes to wetlands to be consistent with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual (2010), and the updated Wetland Rating System (2014):

- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2). (U.S. Army Corps of Engineers, 2010)(Corps Publication No. ERDC/EL TR-10-3)
- Washington State Wetland Rating System for Western Washington: 2014 Update. (Washington State Department of Ecology, 2014)(Ecology Publication No. 14-06-029)

2.6.2. Description of Alternatives

As briefly described in Section 2.2, the County is studying three alternatives in this SEIS:

- **Alternative 1 No Action:** Current Comprehensive Plan as of September 2015
- **Alternative 2 Whole Community:** Reflects Guiding Principles and GMA Directives
- **Alternative 3 All Inclusive:** Most Changes; All Reclassification Requests

Each alternative is described below, followed by a comparison across all alternatives.

2.6.2.1. Description of Alternatives

Alternative 1 No Action

Alternative 1 continues current plans and regulations; see Exhibit 2.6-16.

Exhibit 2.6-16. Alternative 1 No Action Features and Description

Features	Description
Theme	Continue current Comprehensive Plan and development regulations as of September 2015.
Unincorporated UGA Acres	18,949 total acres* based on 2012 Remand UGA boundaries and latest city limits.
UGA Boundary Changes	No change since 2012 Remand.
Land Use Plan and Zoning Changes	No changes. Continue current land use plan and zoning as of September 2015.
Policy Changes	No changes. Continue Comprehensive Plan goals, policies and strategies as of September 2015.
Subarea Plan Changes	No changes. Continue current subarea, LAMIRD, and community plans as of September 2015.
Reclassification Requests	No changes. Current plan designations and zoning classifications continue as of September 2015.
Critical Area Regulations	Current code retained.
CFP Changes	No change since 2012. Continue current CFP.

Note: * Based on UGA boundaries and parcels and streets therein; excludes water. The 2012 Remand EIS included parcel acres and excluded streets and water.

Source: Kitsap County 2014

Alternative 1 No Action zoning classification acres are listed in Exhibit 2.6-17. The greatest number of acres in unincorporated Kitsap County is assigned a Rural Residential zoning district.

Exhibit 2.6-17. Alternative 1 No Action Zoning Classifications and Acres

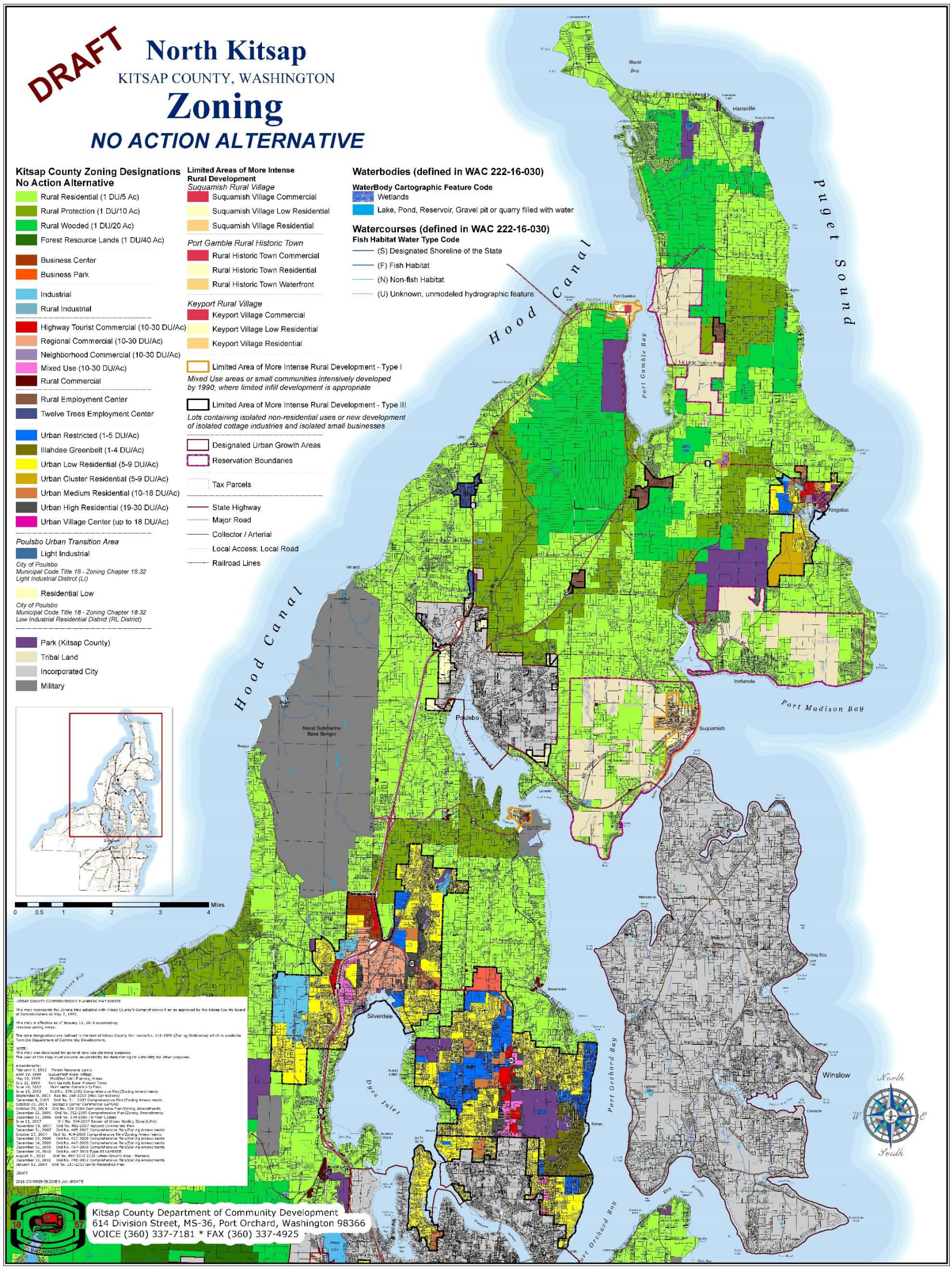
Zoning Designation	Acres	Zoning Designation	Acres
Business Center	342	Rural Historic Town Waterfront	35
Business Park	5	Rural Industrial	214
Commercial	0	Rural Protection	28,143
Forest Resource Lands	3,157	Rural Residential	80,748
Highway/Tourist Commercial	561	Rural Wooded	49,405
Illahee Greenbelt	537	Salt Water	83
Incorporated City	40,865	Senior Living Homestead	174
Industrial	937	Suquamish Village Commercial	13
Keyport Village Commercial	7	Suquamish Village Low Residential	112
Keyport Village Low Residential	32	Suquamish Village Residential	182
Keyport Village Residential	17	Tribal Land	4,023
Lake	407	Twelve Trees Employment Center	106

Zoning Designation	Acres	Zoning Designation	Acres
Light Industrial	28	Urban Cluster Residential	329
Low Intensity Commercial	43	Urban High Residential	462
Manchester Village Commercial	6	Urban Low Residential	8,555
Manchester Village Low Residential	516	Urban Medium Residential	732
Manchester Village Residential	386	Urban Reserve	1,991
Military	8,298	Urban Restricted	1,518
Mixed Use	614	Urban Village Center	30
Neighborhood Commercial	141	**Grand Total**	**239,785**
Park	4,628		
Public Facility	0		
Regional Center	0		
Regional Commercial	547		
Residential Low	350		
Rural Commercial	169		
Rural Employment Center	264		
Rural Historic Town Commercial	13		
Rural Historic Town Residential	61		

Source: Kitsap County GIS 2015

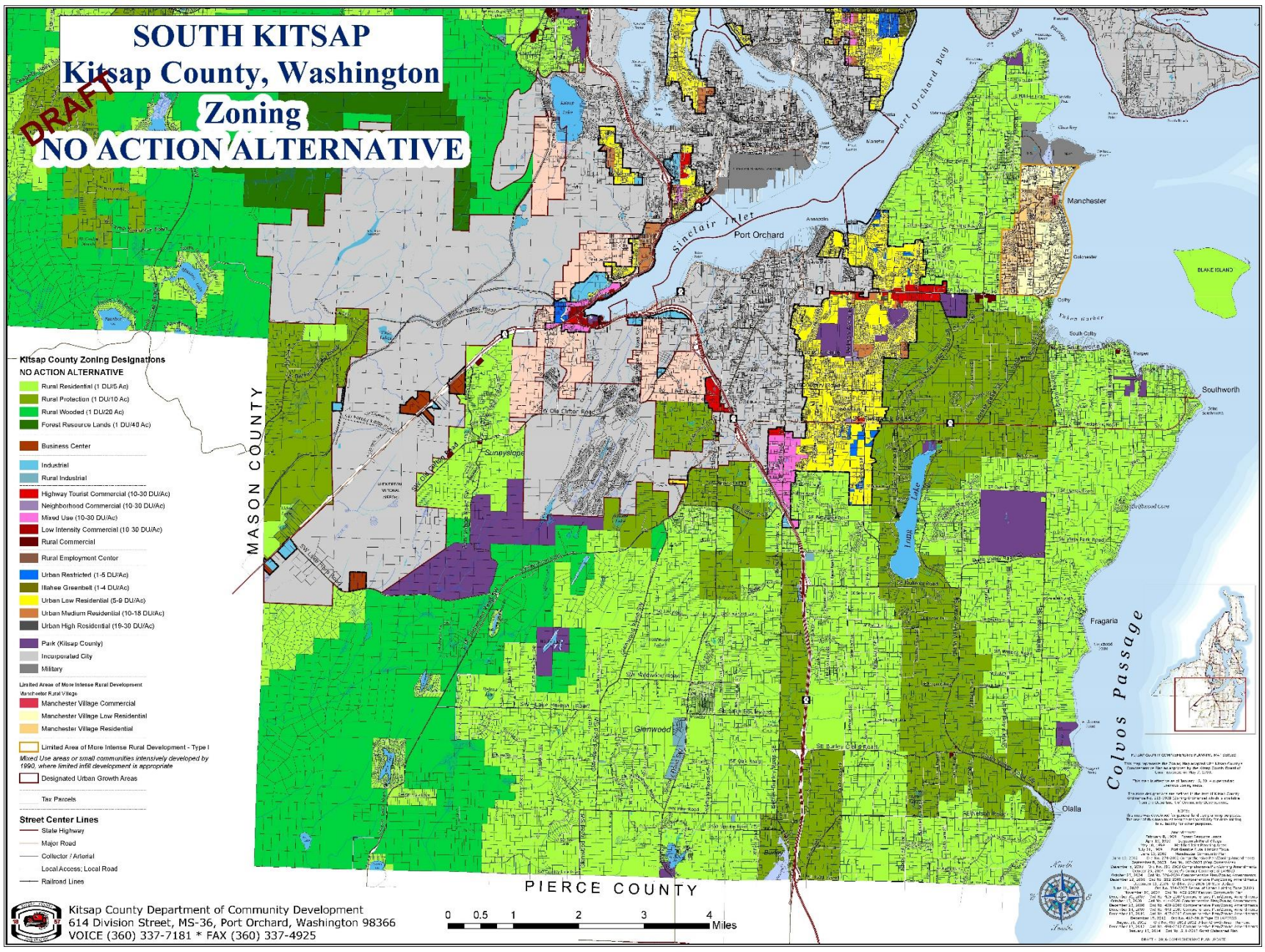
Current zoning maps are shown in Exhibit 2.6-18, Exhibit 2.6-19 and Exhibit 2.6-20 by BOCC District. Zoning maps are more specific than the Comprehensive Plan Future Land Use Map but are consistent with the overall growth concepts of the Comprehensive Plan policies. Detailed zoning maps are found in Appendix C.

Exhibit 2.6-18. Alternative 1 No Action Zoning Map District 1



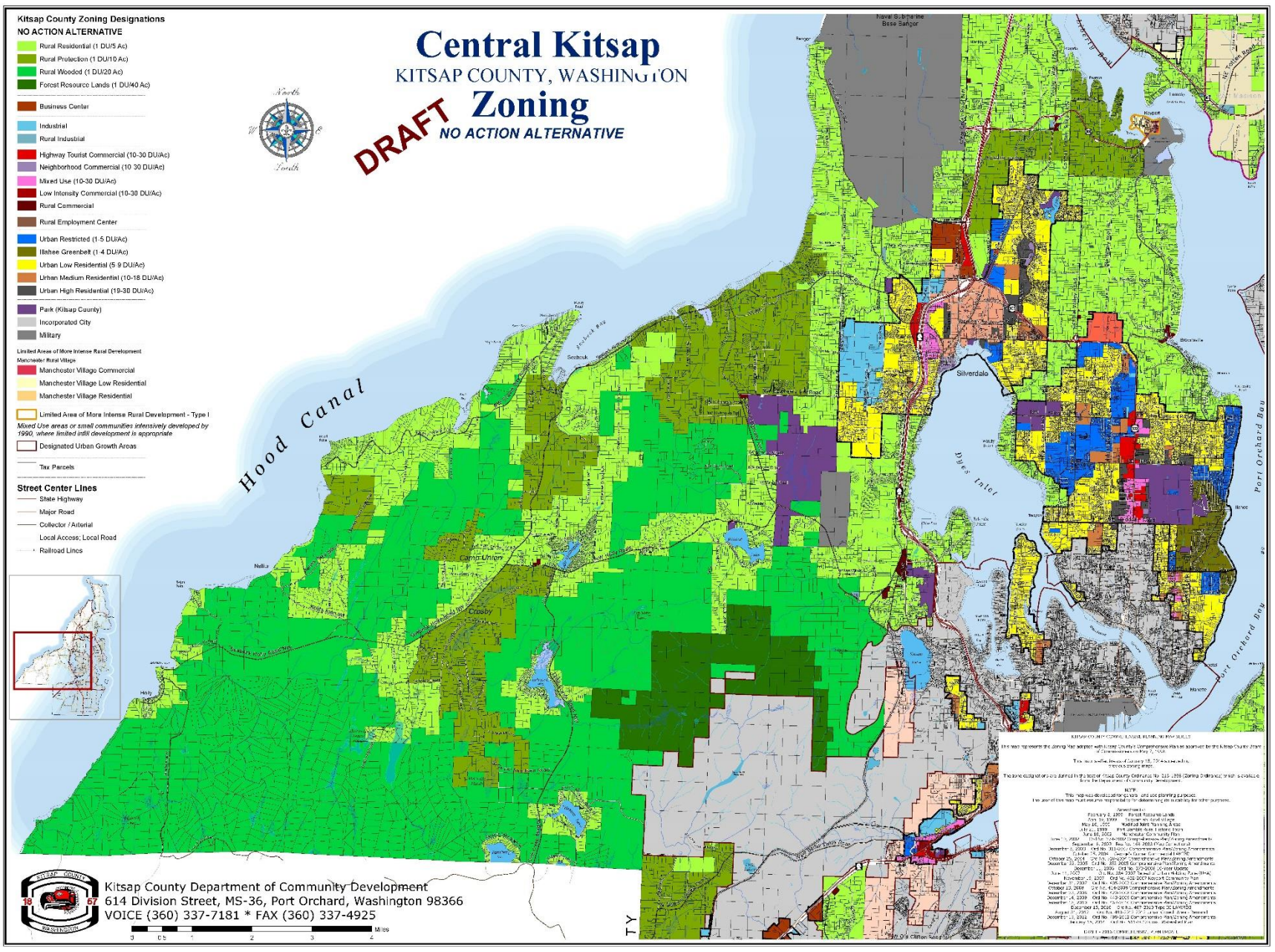
Source: Kitsap County GIS 2015

Exhibit 2.6-19. Alternative 1 No Action Zoning Map District 2



Source: Kitsap County GIS 2015

Exhibit 2.6-20. Alternative 1 No Action Zoning Map District 3



Source: Kitsap County GIS 2015

Countywide, Alternative 1 would carry forward the 2012 UGA boundaries and current land use and zoning designations and assumptions from adopted County and city plans. Under Alternative 1, population growth assumptions would be 2% below CPP growth targets and employment growth assumptions would be 8% above CPP growth targets. See Exhibit 2.6-21. Also see Appendix B with a method for growth distribution across the county.

Exhibit 2.6-21. Alternative 1 No Action Growth Assumptions

City or UGA	Adjusted Population Growth Target 2012-2036	Alternative 1 Population Growth Assumption	Difference with Population Target	Adjusted Employment Growth Target 2012-2036	Alternative 1 Employment Growth Assumption	Difference with Employment Target
City of Bremerton	12,367	13,757	1,390	18,276	18,208	(68)
Bremerton UGA	3,972	4,350	378	1,443	2,456	1,013
Total Bremerton	**16,339**	**18,107**	**1,768**	**19,719**	**20,663**	**944**
City of Bainbridge Island	**5,570**	**5,236**	**(334)**	**2,720**	**3,002**	**282**
City of Port Orchard	8,778	10,167	1,389	3,074	5,131	2,057
Port Orchard UGA	6,110	6,320	210	1,140	3,634	2,494
Total Port Orchard	**14,888**	**16,487**	**1,599**	**4,214**	**8,765**	**4,551**
City of Poulsbo	1,192	956	(236)	4,138	3,689	(449)
Poulsbo UGA	3,786	2,095	(1,691)	14	360	346
Total Poulsbo	**4,978**	**3,051**	**(1,927)**	**4,152**	**4,049**	**(103)**
Central Kitsap UGA	6,842	6,398	(444)	1,885	1,889	4
Silverdale UGA	8,723	7,644	(1,079)	8,928	6,801	(2,127)
Kingston UGA	2,926	2,823	(103)	597	579	(18)
Total City	27,907	30,117	2,210	28,208	30,029	1,821
Unincorporated UGA	32,359	29,630	(2,729)	14,007	15,719	1,712
Total City and UGA	**60,266**	**59,747**	**(519)**	**42,215**	**45,749**	**3,534**
Rural Non-UGA	16,805	15,676	(1,129)	4,432	4,433	1
Total	**77,071**	**75,423**	**(1,648)**	**46,647**	**50,182**	**3,535**

Source: Kitsap County Community Development Department; BERK Consulting 2015

Urban areas are evaluated for capacity in the Buildable Lands Report (Kitsap County, 2014) as updated in this SEIS. Planning for growth in city limits is the responsibility of cities. However, the County is responsible for sizing unincorporated UGAs. Unincorporated UGAs are evaluated based on growth capacity, as shown in Exhibit 2.6-22 below. Under Alternative 1, the unincorporated UGAs would be below CPP population targets by 8% and above CPP employment targets by 12%.

Exhibit 2.6-22. Alternative 1 No Action Unincorporated UGA Capacities and Target

Unincorporated UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 1 Population Growth Capacity	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 1 Emp Growth Capacity	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	4,350	378	10%	1,443	2,456	1,013	70%
Port Orchard	6,110	6,320	210	3%	1,140	3,634	2,494	219%
Poulsbo	3,786	2,095	(1,691)	-45%	14	360	346	2,474%
Central Kitsap	6,842	6,398	(444)	-6%	1,885	1,889	4	0%
Silverdale	8,723	7,644	(1,079)	-12%	8,928	6,801	(2,127)	-24%
Kingston	2,926	2,823	(103)	-4%	597	579	(18)	-3%
Total	32,359	29,630	(2,729)	-8%	14,007	15,719	1,712	12%

Source: Kitsap County Community Development Department; BERK Consulting 2015

Alternative 2 Whole Community

Alternative 2 updates the Comprehensive Plan and development regulations (see Exhibit 2.6-23). Alternative 2 provides for more varied and compact housing forms, meeting the needs of current and future households (smaller sizes, fewer children, aging). The plan also increases housing and jobs in centers and along corridors close to multimodal transportation options. Alternative 2 would result in a net reduction of UGA acres overall.

Exhibit 2.6-23. Alternative 2 Whole Community Features and Description

Features	Description
Theme	**Whole Community:** Meet housing needs for young and elderly, increase diverse employment base, and create more dense urban centers and corridors in similar or reduced UGA boundaries to promote multimodal travel. Adjust future land use and zoning patterns based on current uses, critical areas, and service delivery abilities as well as community comments.
Unincorporated UGA Acres	Total 18,167 acres* a net reduction of 782 acres over Alternative 1 No Action.
UGA Boundary Changes	**Kingston:** No change. **Poulsbo:** No change. **Silverdale:** Expansion for Industrial designation by 25 acres. **Central Kitsap:** Reduced by about 156 acres. **Bremerton UGA:** East reduced by 241 acres. West expanded for Urban Low Residential designation by 493 acres. Gorst no change. Total UGA boundary increases by 252 acres. **Port Orchard:** Reduced by 904 acres.
Land Use Plan and Zoning Changes by Location	
	Kingston: Area with slope and environmental constraints changed from Urban Medium Residential to Urban Restricted. Public Facility designation applied to schools and other public properties.
	Silverdale: Primary changes address Silverdale RGC and include increased Urban High Residential, Commercial mixed-use, and Industrial opportunities, as well as map consistency edits with Public Facilities. UGA expanded by about 25 acres for Industrial purposes.
	Central Kitsap: Small increase in employment categories along SR 303 to meet target. Streamlining zoning categories with Urban Cluster Residential replacing Senior Living Homestead (only mapped in this location). Commercial replaces Mixed Use but still allows for residential with commercial uses. Also, map consistency edits with Public Facilities.
	Bremerton UGA (East): Changes from Urban Low Residential to Illahee Greenbelt. Commercial replaces Mixed Use but still allows for residential with commercial uses. **Bremerton UGA (West):** Changes from Industrial to Urban Low Residential reflecting current uses near SR 3. Commercial replaces Mixed Use but still allows for residential with commercial uses. Public Facilities classification applied. Near Kitsap Lake, UGA expanded to allow Urban Low Residential. West of Kent Avenue W and north and south of Kitsap Lake, Urban Reserve changed to Urban Low Residential. **Gorst:** Mixed Use changed to Commercial but still allows for residential with commercial uses.
	Port Orchard: Highway Tourist Commercial to Urban Restricted. Urban Low Residential to Urban Medium Residential. Consistency edits including reclassifying Parks and Public Facilities.
	Rural: Changes from Urban Reserve to Rural Residential, Rural Protection, and Industrial with Mineral Resource Overlay. Added Type III LAMIRD designation at Keyport Junction and at Port Orchard Airport. See also Reclassification changes.
Policy Changes	All Comprehensive Plan Elements updated. See Exhibit 2.6-13. Comprehensive Plan Element Amendments.
Subarea Plan Changes	All subarea, LAMIRD, and Community plan goals and policies reviewed and evaluated; consistency edits to land use and zoning proposed. Silverdale RGC boundaries modified and Subarea Plan updated consistent with VISION 2040.
Reclassification Requests	Partially included. See Exhibit 2.6-11. Reclassification Request List.
CFP Changes	CFP updated.
Critical Areas Ordinance	Ordinance updated to reflect updated state guidance.

Notes: Includes parcels and roads, and excludes water acres.
Source: Kitsap County 2014

Denser and taller housing, retail, and office uses would be found in Silverdale's RGC, greater than Alternatives 1 and 3. The Port Orchard UGA would have less Urban Low Residential, Highway Tourist Commercial, and Mixed Use lands. Central Kitsap and East Bremerton UGA boundaries

would be reduced, recognizing critical areas and difficult infrastructure extensions due to topography. The West Bremerton UGA would be expanded for a more serviceable growth pattern based on City of Bremerton capital facility plans.

Urban Reserve would be removed and most often changed to Rural Protection and Rural Residential uses; in some cases Urban Reserve areas would be added to the Bremerton UGA in West Bremerton. Selected reclassification amendments would be included.

Zoning acres are listed in Exhibit 2.6-24. Zoning would feature a slightly different mix given UGA and Non-UGA proposals described above. Changes to zoning maps are shown in Exhibit 2.6-25, Exhibit 2.6-26 and Exhibit 2.6-27.

Exhibit 2.6-24. Alternative 2 Whole Community Zoning Classifications and Acres

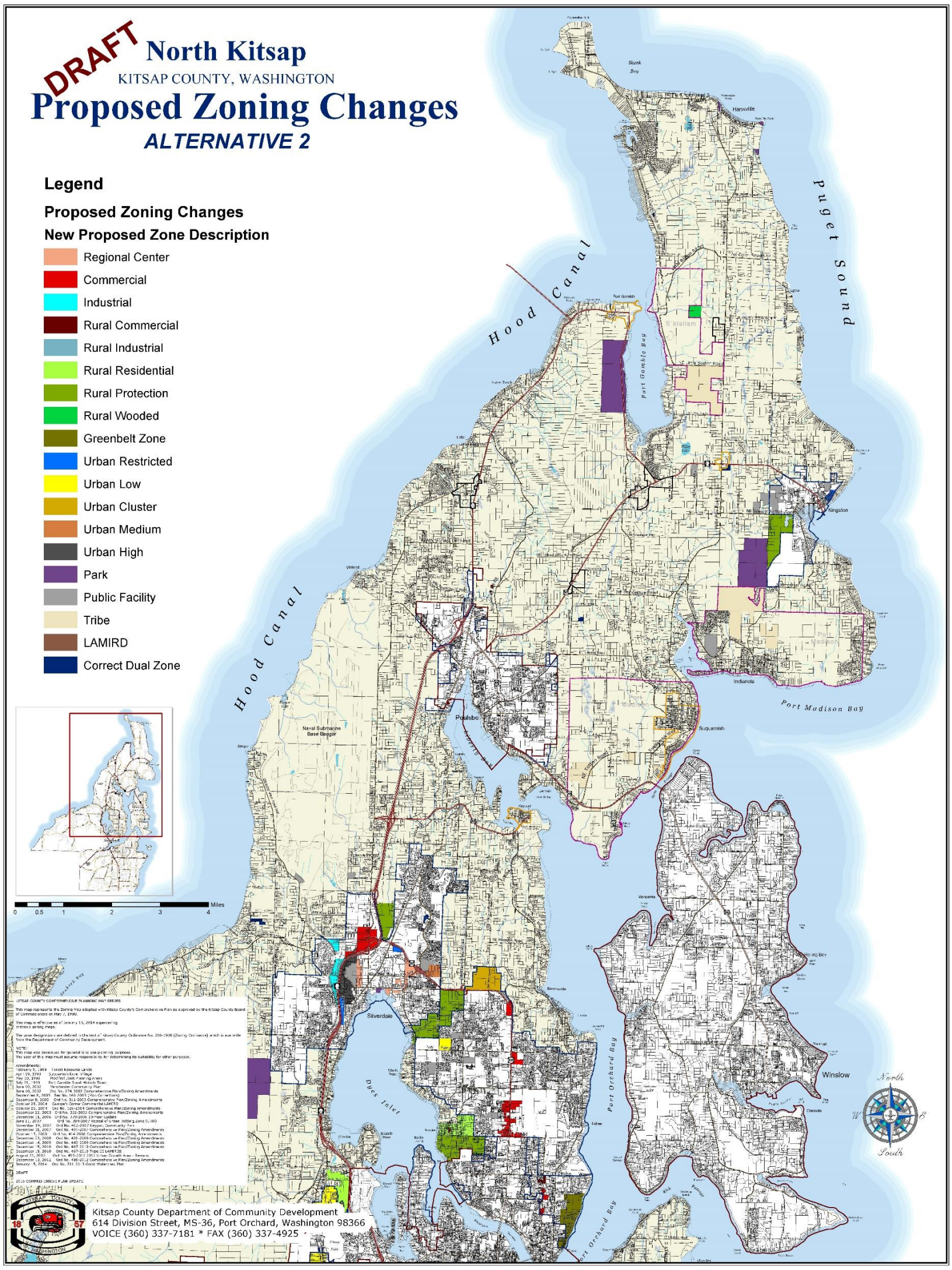
Zoning Designation	Acres	Zoning Designation	Acres
Business Center	323	Rural Historic Town Waterfront	35
Business Park	5	Rural Industrial	130
Commercial	720	Rural Protection	30,737
Forest Resource Lands	3,157	Rural Residential	79,799
Highway/Tourist Commercial	-	Rural Wooded	47,417
Illahee Greenbelt	720	Salt Water	83
Incorporated City	40,865	Senior Living Homestead	-
Industrial	1,012	Suquamish Village Commercial	3
Keyport Village Commercial	7	Suquamish Village Low Residential	104
Keyport Village Low Residential	32	Suquamish Village Residential	182
Keyport Village Residential	17	Tribal Land	5,091
Lake	407	Twelve Trees Employment Center	106
Light Industrial	28	Urban Cluster Residential	503
Low Intensity Commercial	43	Urban High Residential	459
Manchester Village Commercial	6	Urban Low Residential	7,436
Manchester Village Low Residential	516	Urban Medium Residential	911
Manchester Village Residential	372	Urban Reserve	-
Military	8,301	Urban Restricted	1,468
Mixed Use	-	Urban Village Center	30
Neighborhood Commercial	141	**Grand Total**	239,786
Park	6,261		
Public Facility	796		
Regional Center	570		
Regional Commercial	-		
Residential Low	350		
Rural Commercial	202		
Rural Employment Center	368		
Rural Historic Town Commercial	13		
Rural Historic Town Residential	61		

Source: Kitsap County GIS 2015

As the County develops a Preferred Alternative, it is likely that the area of Public Facility and Park would increase with more refined mapping of lands in public ownership.

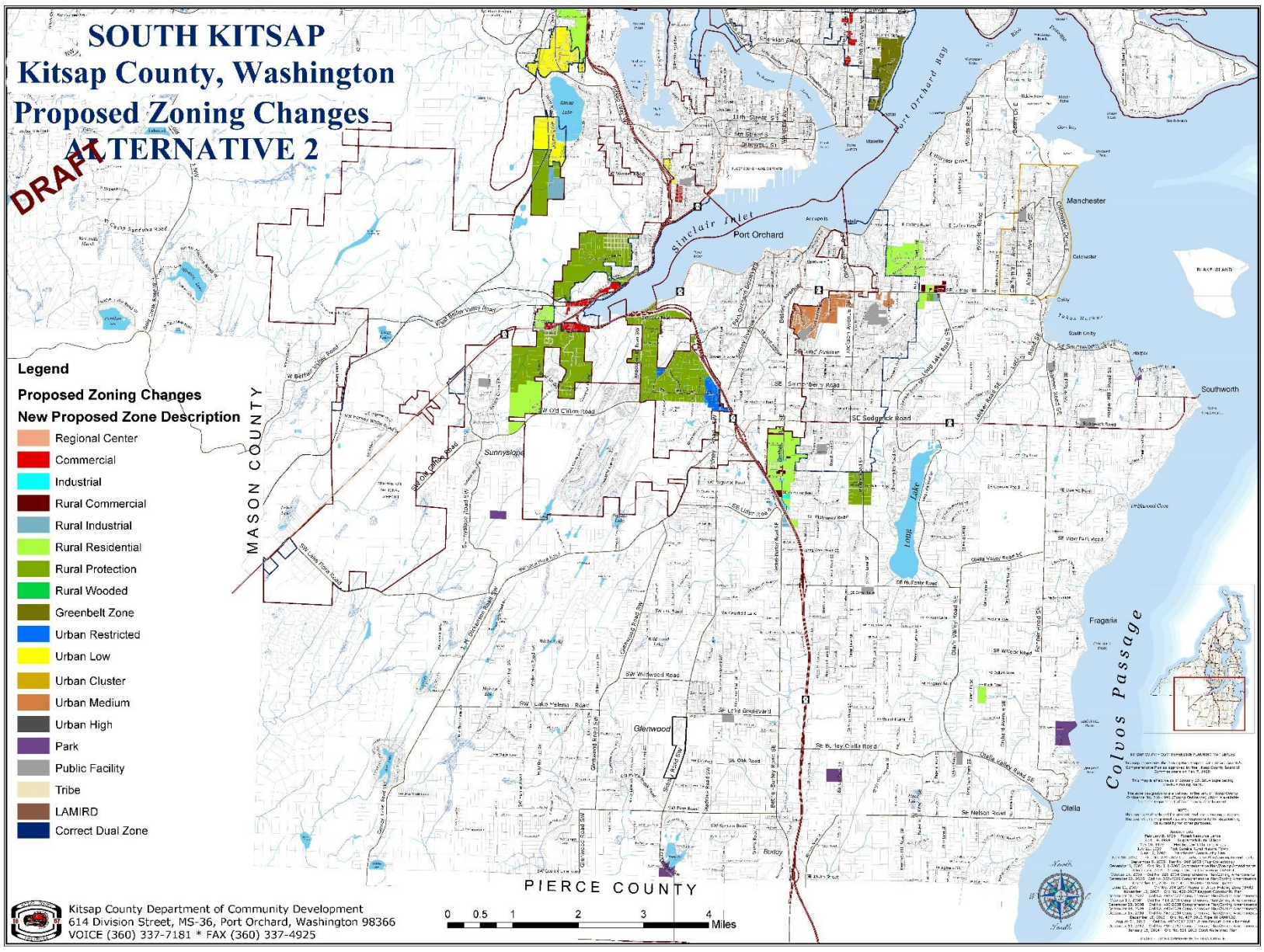
More detailed maps with zoning classifications are included in Appendix C.

Exhibit 2.6-25. Alternative 2 Whole Community District 1 Zoning Changes



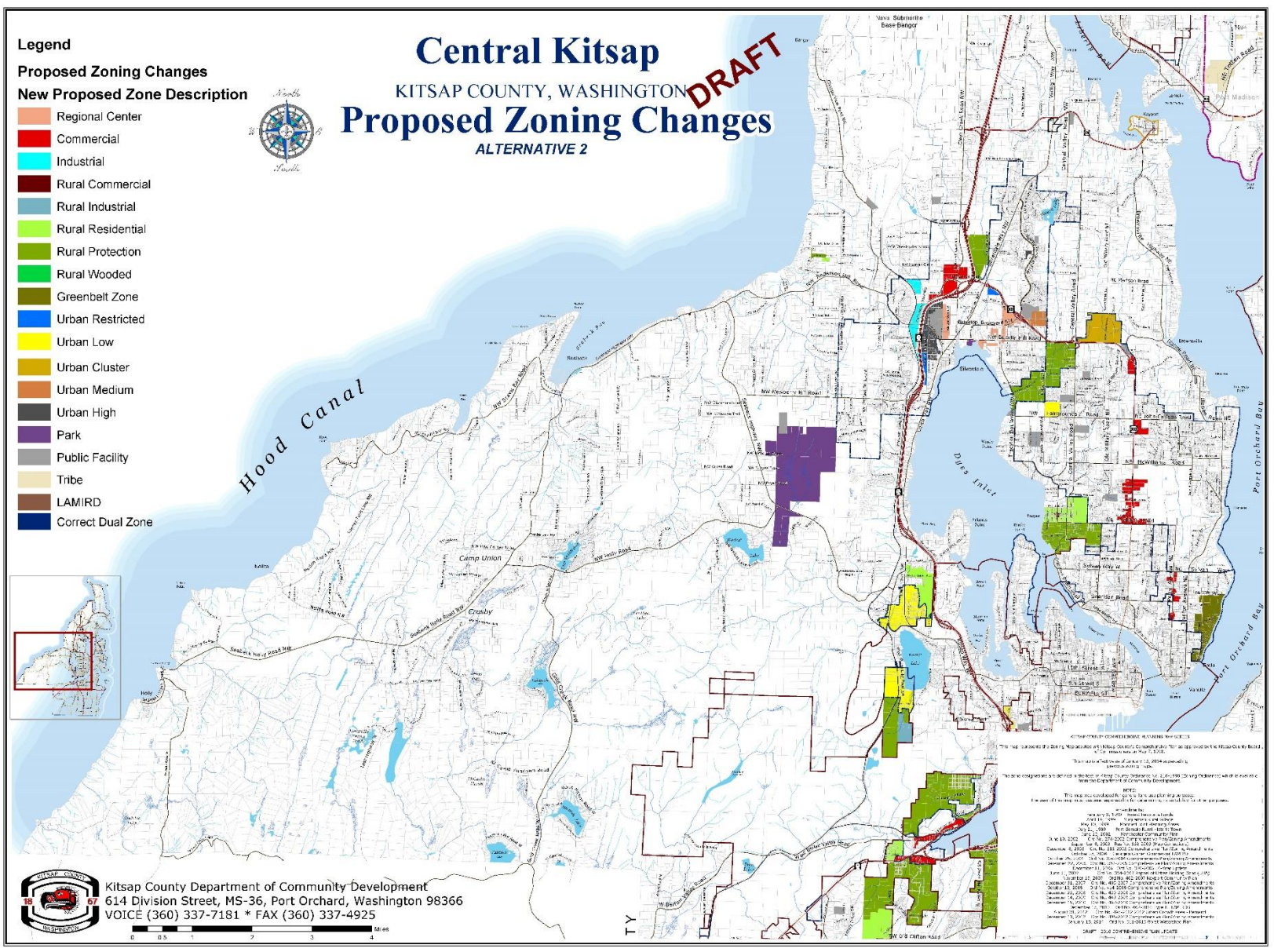
Source: Kitsap County GIS 2015

Exhibit 2.6-26. Alternative 2 Whole Community District 2 Zoning Changes



Source: Kitsap County GIS 2015

Exhibit 2.6-27. Alternative 2 Whole Community District 3 Zoning Changes



Source: Kitsap County GIS 2015

Alternative 2 would amend the Kitsap County Comprehensive Plan and development regulations as described above. Countywide, population growth would be within 1% of CPP growth targets. Employment growth would be 18% above CPP growth targets. See Exhibit 2.6-28. Also see Appendix B with a method for growth distribution across the county.

Exhibit 2.6-28. Alternative 2 Whole Community Growth Assumptions

City or UGA	Adjusted Population Growth Target 2012-2036	Alternative 2 Population Growth Assumption	Difference with Population Target	Adjusted Employment Growth Target 2012-2036	Alternative 2 Employment Growth Assumption	Difference with Employment Target
City of Bremerton	12,367	12,985	618	18,276	21,191	2,915
Bremerton UGA	3,972	3,329	(643)	1,443	1,983	540
Total Bremerton	**16,339**	**16,314**	**(25)**	**19,719**	**23,173**	**3,454**
City of Bainbridge Island	**5,570**	**5,849**	**279**	**2,720**	**2,856**	**136**
City of Port Orchard	8,778	10,358	1,580	3,074	5,570	2,496
Port Orchard UGA	6,110	4,676	(1,434)	1,140	1,507	367
Total Port Orchard	**14,888**	**15,034**	**146**	**4,214**	**7,077**	**2,863**
City of Poulsbo	1,192	5,227	249	4,138	4,345	207
Poulsbo UGA	3,786	See above	See above	14	64	50
Total Poulsbo	**4,978**	**5,227**	**249**	**4,152**	**4,409**	**257**
Central Kitsap UGA	6,842	6,234	(608)	1,885	1,398	(487)
Silverdale UGA	8,723	8,777	54	8,928	10,924	1,996
Kingston UGA	2,926	2,811	(115)	597	579	(18)
Total City	27,907	34,419	2,726	28,208	33,962	5,754
Unincorporated UGA	32,359	25,826	(2,747)	14,007	16,453	2,446
Total City and UGA	**60,266**	**60,245**	**(21)**	**42,215**	**50,415**	**8,200**
Rural Non-UGA	16,805	16,805	0	4,432	4,432	0
Total	**77,071**	**77,050**	**(21)**	**46,647**	**54,847**	**8,200**

Notes: For most cities, assumptions are based on growth targets plus 5% distributed based on each city's zoned capacity as cities' plan updates are in progress at this time; for Port Orchard, the County and City have been coordinating planning efforts and the results are based on the City's growth capacity and present zoning. Poulsbo UGA residential capacity is part of the results in the city limits. The growth capacity estimates in Bremerton (West) are slightly high as some area was included for urban densities in the capacity analysis and is correctly designated rural on the maps; however the change would result in a less than 1% difference in these results.

Source: Kitsap County Community Development Department; BERK Consulting 2015

Unincorporated UGAs are evaluated based on growth capacity in Exhibit 2.6-29. Under Alternative 2, the unincorporated UGAs would be below population targets by 7% and above employment targets by about 17%. However, because Silverdale's employment growth is essentially occurring in present UGA boundaries (with a less than 1% UGA change for industrial lands), growth would largely occur in the existing urban footprint of the Silverdale RGC. If the Silverdale employment growth is excluded, the percentage above employment targets across the County would drop to 3%.

Exhibit 2.6-29. Alternative 2 Whole Community Unincorporated UGA Capacities and Target

Uninc. UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 2 Population Growth Capacity	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 2 Emp. Growth Capacity	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	3,329	(643)	-16%	1,443	1,983	540	37%
Port Orchard	6,110	4,676	(1,434)	-23%	1,140	1,507	367	32%
Poulsbo City + UGA	3,786	5,227	249	5%				
Poulsbo UGA only					14	64	50	355%
Central Kitsap	6,842	6,234	(608)	-9%	1,885	1,398	(487)	-26%
Silverdale	8,723	8,777	54	1%	8,928	10,924	1,996	22%
Kingston	2,926	2,811	(115)	-4%	597	579	(18)	-3%
Total excl. Poulsbo	32,359	25,826	(2,747)	-8%	N/A	N/A	N/A	N/A
Total with Poulsbo	33,551	31,053	(2,498)	-7%	14,007	16,453	2,446	17%

Source: Kitsap County Community Development Department; BERK Consulting 2015

Alternative 3 All Inclusive

Alternative 3 updates the Comprehensive Plan and development regulations (see Exhibit 2.6-30) to address GMA requirements and County principles of a streamlined implementable plan. The All Inclusive Alternative incorporates all reclassification requests, rural and urban. Moderate increases in Silverdale RGC densities and height would allow progress towards the VISION 2040 Centers strategy and greater housing, office, and retail mixed use. Limited UGA boundary expansions in Kingston, Silverdale, Central Kitsap, and Bremerton (West) UGAs and decreased UGA boundaries in Bremerton (East) and Port Orchard results in 754 added acres. The UGA adjustments are proposed to meet growth targets, critical areas, service delivery, and community comments.

Exhibit 2.6-30. Alternative 3 All Inclusive Features and Description

Features	Description
Theme	**All Inclusive:** Incorporates all reclassification requests. Moderate increases in Silverdale RGC densities and height would allow greater housing, office, and retail mixed uses. Limited UGA boundary expansions in Kingston, Silverdale, Central Kitsap, and West Bremerton UGAs and decreased UGA boundaries in East Bremerton and Port Orchard UGAs address growth targets, critical areas, service delivery, and community comments.
Unincorporated UGA Acres	19,703 acres* a net increase of 754 acres.
UGA Boundary Changes	**Kingston:** UGA expansion along NE Jefferson Point Road for Urban Restricted designation. Increase in 142 acres. **Poulsbo: No change.** **Silverdale:** Expansion for Urban Low Residential and Industrial designation. Increase of 705 acres. **Central Kitsap:** UGA expanded along Barker Creek Corridor with Greenbelt designation, now abutting Silverdale UGA. North of SR 303 Senior Living Homestead replaced with Urban Cluster Residential. UGA north SR 303 extended westward to abut Silverdale UGA with Urban Restricted designation. Area in southwest of UGA reduced and redesignated with Rural designations. Net increase in UGA acres of 405 acres. **Bremerton UGA:** East reduced by 241 acres. West expanded for Urban Low Residential designation by 493 acres. Gorst no change. Total UGA boundary increases by 252 acres. **Port Orchard:** Reduced by 751 acres.
Land Use Plan and Zoning Changes by Location	
	Kingston: Area with slope and environmental constraints changed from Urban Medium Residential to Urban Restricted. Public Facility designation applied to schools and other public properties.

Features	Description
	Silverdale: Primary changes inside UGA address Silverdale RGC and include increased Urban High Residential, Commercial mixed–use, and Industrial opportunities, as well as map consistency edits with Public Facilities. Greater areas of Industrial changes inside UGA and in expansion areas than for Alternative 2. Added Urban Low Residential designations in UGA expansion.
	Central Kitsap: Small increase in employment categories along SR 303 to meet target. Streamlining zoning categories with Urban Cluster Residential replacing Senior Living Homestead (only applied in one location). Added Urban Restricted designation north of SR 303 abutting Senior Living Homestead. Commercial replaces Mixed Use but still allows for residential with commercial uses. Also, map consistency edits with Public Facilities.
	Bremerton UGA (East): Changes from Urban Low Residential to Urban Restricted. Commercial replaces Mixed Use but still allows for residential with commercial uses. **Bremerton UGA (West):** Changes from Industrial to Urban Low Residential reflecting current uses near SR 3. Commercial replaces Mixed Use but still allows for residential with commercial uses. Public Facilities classification applied. North of Oyster Bay and west of Kitsap Way West, added areas of Urban Medium Residential. Near Kitsap Lake, UGA expanded to allow Urban Low Residential uses. **Gorst:** Mine changes from Industrial to Urban Low Residential (consistent with Gorst Subarea Plan). Mixed Use changed to Commercial but still allows for residential with commercial uses.
	Port Orchard: Highway Tourist Commercial changes to Rural Protection. Reduced Urban Low Residential. Consistency edits including recognizing Parks and Public Facilities.
	Rural: Added Type III LAMIRD designation at Keyport Junction and at Port Orchard Airport. Addition of Type I LAMIRD per reclassification request. Changes from Urban Reserve to Rural Residential, Rural Protection, and Industrial with Mineral Resource Overlay. See also reclassification requests.
Policy Changes	All Comprehensive Plan Elements updated. See Exhibit 2.6-13. Comprehensive Plan Element Amendments.
Subarea Plan Changes	All Subarea, LAMIRD, and Community Plan goals and policies reviewed and evaluated; consistency edits to land use and zoning proposed. Silverdale RGC boundaries modified and Subarea Plan updated consistent with VISION 2040.
Reclassification Requests	All included. See Exhibit 2.6-11. Reclassification Request List.
CFP Changes	CFP updated.

Note: Includes parcel acres and streets; excludes water acres.

Source: Kitsap County 2014

Denser and taller housing, retail, and office uses would be found in Silverdale's RGC, though less than under Alternative 2. More Industrial lands would be classified in current and extended UGA boundaries, and Urban Low Residential would extend south into the Chico area where sewer and urban densities are already found.

The Port Orchard UGA would have less Highway Tourist Commercial and Mixed Use lands. Urban Low Residential would be reduced, though to a lesser extent than for Alternative 2.

In part, Central Kitsap UGA boundaries would be increased along Barker Creek and north of SR 303 causing the UGA boundaries to abut between Silverdale and Central Kitsap. Central Kitsap and East Bremerton UGA boundaries would be reduced near Tracyton, recognizing critical areas and difficult infrastructure extensions due to topography. The West Bremerton UGA would be expanded for a more serviceable growth pattern based on City of Bremerton capital facility plans.

Similar to Alternative 2, Urban Reserve would be removed and most often changed to Rural Protection and Rural Residential uses; in some cases Urban Reserve areas would be added to the UGA in West Bremerton. All urban and rural reclassification requests would be included.

Future land use and zoning acres would feature a different mix given UGA and Rural proposals described above.

Changes to zoning acres are shown in Exhibit 2.6-31, and corresponding zoning maps are shown in Exhibit 2.6-32, Exhibit 2.6-33, and Exhibit 2.6-34.

Exhibit 2.6-31. Alternative 3 All Inclusive Zoning Classifications and Acres

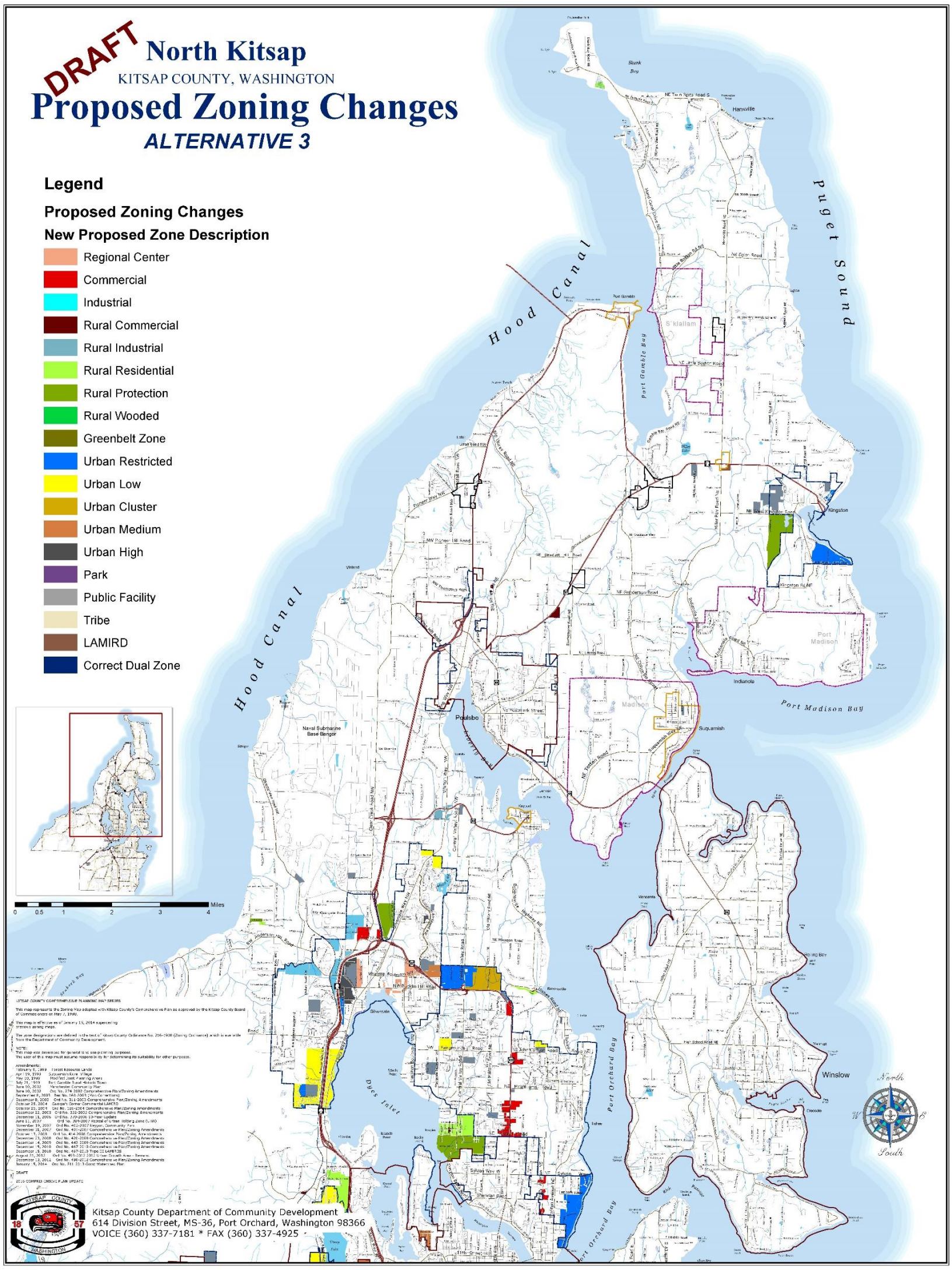
Zoning Designation	Acres	Zoning Designation	Acres
Business Center	315	Rural Historic Town Waterfront	35
Business Park	5	Rural Industrial	157
Commercial	752	Rural Protection	30,482
Forest Resource Lands	3,157	Rural Residential	79,205
Highway/Tourist Commercial	-	Rural Wooded	47,041
Illahee Greenbelt	813	Salt Water	83
Incorporated City	40,865	Senior Living Homestead	-
Industrial	1,102	Suquamish Village Commercial	3
Keyport Village Commercial	7	Suquamish Village Low Residential	104
Keyport Village Low Residential	32	Suquamish Village Residential	182
Keyport Village Residential	17	Tribal Land	5,091
Lake	407	Twelve Trees Employment Center	106
Light Industrial	28	Urban Cluster Residential	503
Low Intensity Commercial	43	Urban High Residential	459
Manchester Village Commercial	6	Urban Low Residential	8,048
Manchester Village Low Residential	516	Urban Medium Residential	788
Manchester Village Residential	372	Urban Reserve	-
Military	8,301	Urban Restricted	2,034
Mixed Use	-	Urban Village Center	30
Neighborhood Commercial	95	**Grand Total**	239,785
Park	6,257		
Public Facility	699		
Regional Center	613		
Regional Commercial	-		
Residential Low	350		
Rural Commercial	193		
Rural Employment Center	414		
Rural Historic Town Commercial	13		
Rural Historic Town Residential	61		

Source: Kitsap County GIS 2015

As the County develops a Preferred Alternative, it is likely that the area of Public Facility and Park would increase with more refined mapping of lands in public ownership.

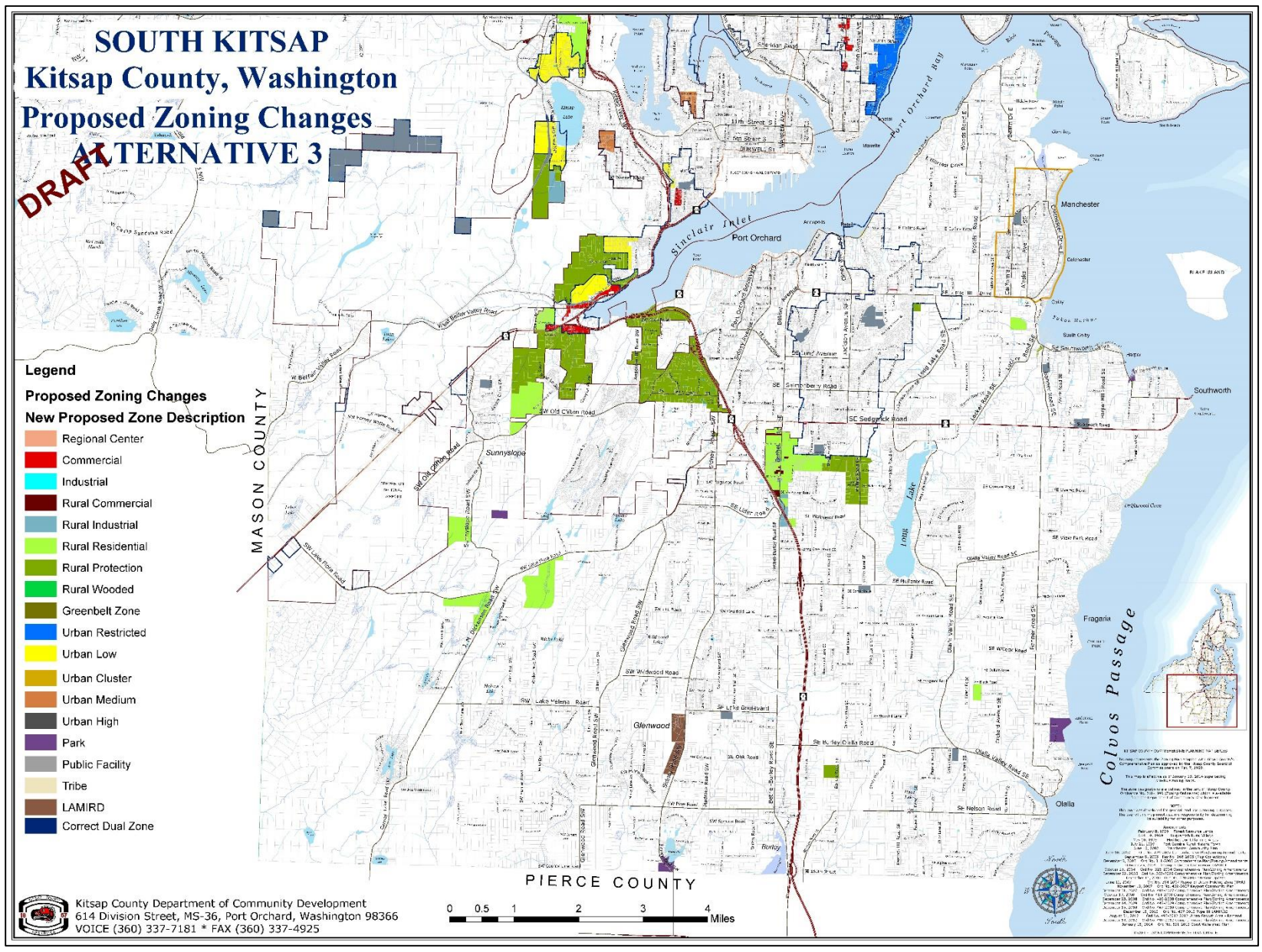
More detailed maps of zoning classifications are included in Appendix C.

Exhibit 2.6-32. Alternative 3 All Inclusive District 1 Zoning Changes



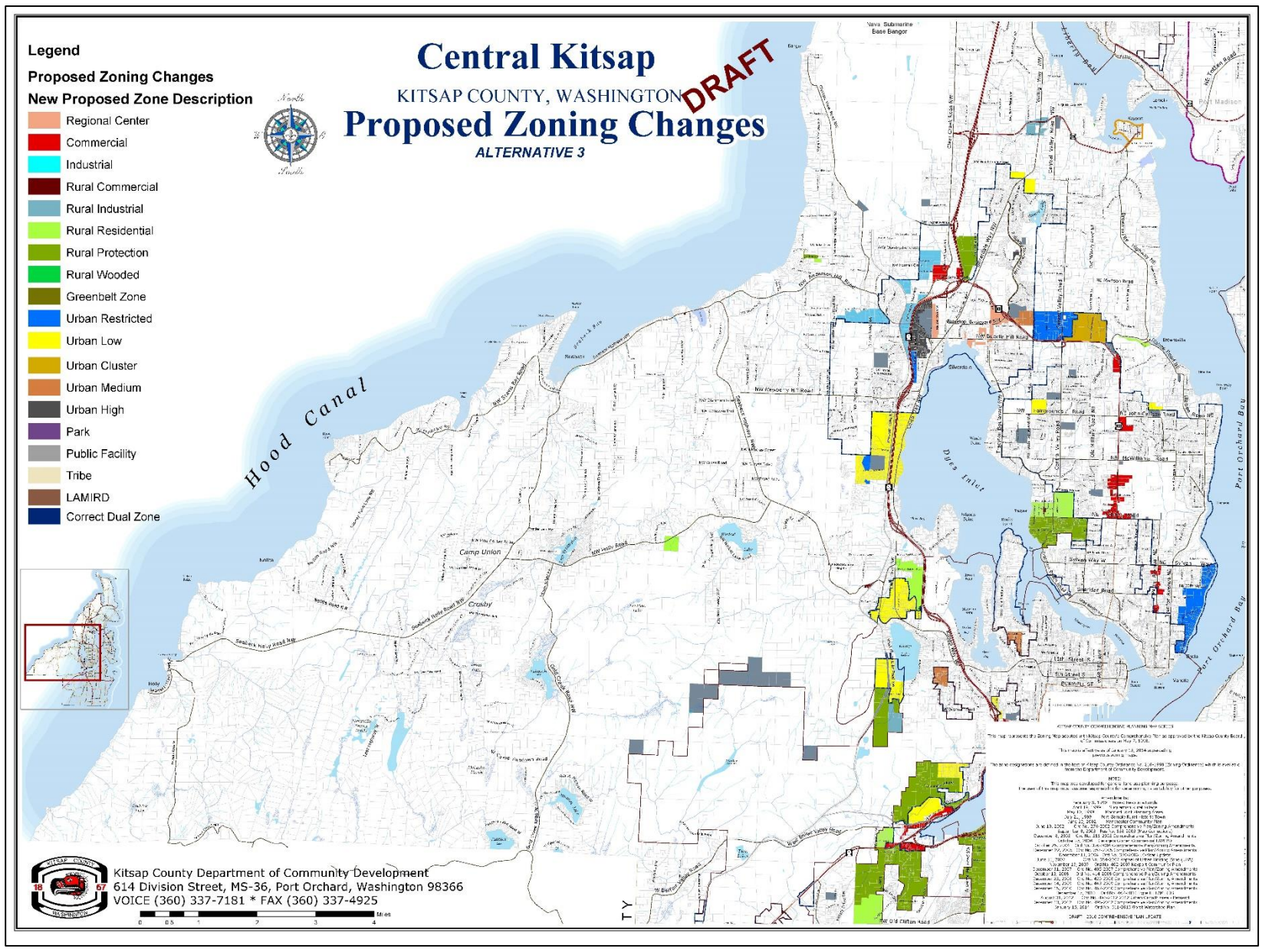
Source: Kitsap County GIS 2015

Exhibit 2.6-33. Alternative 3 All Inclusive District 2 Zoning Changes



Source: Kitsap County GIS 2015

Exhibit 2.6-34. Alternative 3 All Inclusive District 3 Zoning Changes



Source: Kitsap County GIS 2015

Alternative 3 would amend the Kitsap County Comprehensive Plan and development regulations as described above. Countywide, population growth would be generally within 2% of CPP growth targets. Employment growth would be 12% above CPP growth targets. See Exhibit 2.6-35. Also see Appendix B with a method for growth distribution across the county.

Exhibit 2.6-35. Alternative 3 All Inclusive Growth Assumptions

City or UGA	Adjusted Population Growth Target 2012-2036	Alternative 3 Population Growth Assumption	Difference with Population Target	Adjusted Employment Growth Target 2012-2036	Alternative 3 Employment Growth Assumption	Difference with Employment Target
City of Bremerton	12,367	12,985	618	18,276	21,191	2,915
Bremerton UGA	3,972	4,968	996	1,443	1,559	116
Total Bremerton	**16,339**	**17,953**	**1,614**	**19,719**	**22,750**	**3,031**
City of Bainbridge Island	**5,570**	**5,849**	**279**	**2,720**	**2,856**	**136**
City of Port Orchard	8,778	10,358	1,580	3,074	5,570	2,496
Port Orchard UGA	6,110	3,745	(2,365)	1,140	1,302	162
Total Port Orchard	**14,888**	**14,103**	**(785)**	**4,214**	**6,872**	**2,658**
City of Poulsbo	1,192	5,227	249	4,138	4,345	207
Poulsbo UGA	3,786	See above	See above	14	64	50
Total Poulsbo	**4,978**	**5,227**	**249**	**4,152**	**4,409**	**257**
Central Kitsap UGA	6,842	6,822	(20)	1,885	1,398	(487)
Silverdale UGA	8,723	8,860	137	8,928	9,107	179
Kingston UGA	2,926	2,957	31	597	579	(18)
Total City	27,907	34,419	2,726	28,208	33,962	5,754
Unincorporated UGA	32,359	27,353	(1,220)	14,007	14,008	1
Total City and UGA	**60,266**	**61,771**	**1,505**	**42,215**	**47,970**	**5,755**
Rural Non-UGA	16,805	16,805	0	4,432	4,432	0
Total	**77,071**	**78,576**	**1,505**	**46,647**	**52,402**	**5,755**

Note: For most cities, assumptions are based on growth targets plus 5% distributed based on each city's zoned capacity as cities' plan updates are in progress at this time; for Port Orchard, the County and City have been coordinating planning efforts and the results are based on the City's growth capacity and present zoning. The growth capacity estimates in Silverdale are slightly high as some area was included as Urban Low Residential and is correctly designated Urban Restricted on the maps; however the change would result in a less than 0.5% difference in these results.
Source: Kitsap County Community Development Department; BERK Consulting 2015

Unincorporated UGAs are evaluated based on growth capacity below. Under Alternative 3, the unincorporated UGAs would be below target on population by 3% and at target on employment. See Exhibit.

Exhibit 2.6-36. Alternative 3 All Inclusive Unincorporated UGA Capacities and Target

Uninc. UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 3 Population Growth Capacity	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 3 Emp. Growth Capacity	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	4,968	996	25%	1,443	1,559	116	8%
Port Orchard	6,110	3,745	(2,365)	-39%	1,140	1,302	162	14%
Poulsbo City + UGA	3,786	5,227	249	5%				
Poulsbo UGA only					14	64	50	355%
Central Kitsap	6,842	6,822	(20)	0%	1,885	1,398	(487)	-26%
Silverdale	8,723	8,860	137	2%	8,928	9,107	179	2%
Kingston	2,926	2,957	31	1%	597	579	(18)	-3%
Total excl. Poulsbo	32,359	27,353	(1,220)	-4%	N/A	N/A	N/A	N/A
Total with Poulsbo	33,551	32,579	(972)	-3%	14,007	14,008	1	0%

Source: Kitsap County Community Development Department; BERK Consulting 2015

2.6.2.2. Alternatives Overview

As shown in the comparison of alternatives in Exhibit 2.6-37, by 2036 each Alternative would add 25% or more population over the 2012 population and over 38% new jobs over 2012 estimates.

All alternatives have UGA capacities that are slightly to moderately below population targets. Alternatives 1 and 2 exceed employment targets at the UGA level, though Alternative 3 is in balance.

Alternatives 2 and 3 have areas of UGA expansion and reduction but the total UGA acres are reduced in Alternative 2 (by 4%) and slightly expanded in Alternative 3 (by 4%). For both Alternatives 2 and 3 the greater growth in population and employment would be more compact in nature within the Silverdale RGC and along mixed-use corridors, and with higher density single-family and multifamily uses. Commercial and industrial opportunities are found in all alternatives particularly within Silverdale as a RGC, and along major corridors such as SR 303 through Central Kitsap. Rural residential and employment areas would largely be retained and limited new rural residential or employment uses could occur within the framework of County policies and zoning at a smaller share than urban growth (~22% of new population and ~10% of new jobs).

Alternatives 2 and 3 would update the Comprehensive Plan; subarea, LAMIRD, and Community plan goals and policies; and capital facilities plans per GMA requirements and according to BOCC guiding principles.

Exhibit 2.6-37.Comparison of Alternative Growth Assumptions

Topic	Alternative 1 No Action	Alternative 2 Whole Community	Alternative 3 All Inclusive
Growth			
Countywide Population 2036 Assumptions	329,923	331,550	333,076
Countywide Population Growth Targets 2012-2036	77,071	77,071	77,071
Countywide Population Growth 2012-2036	75,423	77,050	78,576
Unincorporated UGA Targets 2012-2036 (range with and without the combined Poulsbo city limits and UGA)	32,359-33,551	32,359-33,551	32,359-33,551
Unincorporated UGA Population Capacity	29,630	25,826- 31,053	27,353- 32,579
Unincorporated UGA Population Capacity % within Target (range with and without the combined Poulsbo city limits and UGA)	-8%	-7 to -8%	-3 to -4%
Countywide Employment 2036 Assumptions	129,760	134,425	131,980
Countywide Employment Growth Targets 2012-2036	46,647	46,647	46,647
Countywide Employment Growth 2013-2036	50,182	54,847	52,402
Unincorporated UGA Targets 2012-2036	14,007	14,007	14,007
Unincorporated UGA Employment Capacity	15,719	16,453	14,008
UGA Employment Capacity % within Target	12%	17%	0%
Unincorporated UGAs			
UGAs with Areas of Expansion	None	Silverdale, West Bremerton	Kingston, Silverdale, Central Kitsap, West Bremerton
UGAs with Areas of Reduction	None	Central Kitsap, East Bremerton, Port Orchard	Central Kitsap, East Bremerton, Port Orchard
Total UGA Acres*	18,949 acres	18,167 acres	19,703 acres
Plans and Policies			
Comprehensive Plan Goals, Policies and Strategies Updated		X	X
Future Land Use Plan and Zoning Amended		X	X
Subarea, LAMIRD and Community Plan goals and policies Updated		X	X
Silverdale RGC Plan Alternatives		X	X
Capital Facility Plan Updated		X	X

Note: *Includes areas of parcels and roads and excludes water.
Source: Kitsap County Community Development; BERK Consulting 2015

A table summarizing the acres of each UGA under each alternative is also provided below. As described by alternative and in the comparison chart in Exhibit 2.6-37, Alternative 1 represents the

status quo. Alternative 2 would reduce UGA acres overall by 4% while Alternative 3 would increase UGA acres by 4%.

Areas of expansion and reduction in individual locations vary between Alternatives.

- Kingston would have no change under Alternative 2 and an increase under Alternative 3.
- Poulsbo UGA would not change under any alternative.
- The amount of the Silverdale UGA changes varies from 25 to 705 acres under Alternatives 2 and 3 respectively.
- Central Kitsap would be reduced under Alternative 2 and increased under Alternative 3.
- The West Bremerton portion of the Bremerton UGA would be increased and the East Bremerton portion reduced for a net increase in the total Bremerton UGA under both Alternatives 2 and 3.
- The Port Orchard UGA would be reduced in both Alternatives 2 and 3 though to a lesser degree under Alternative 3 than Alternative 2.

Exhibit 2.6-38. Unincorporated UGA Acres by Alternative

UGA	Alternative 1	Alternative 2	Alternative 3	Difference Alt 2-Alt 1	Difference Alt 3 – Alt 1
Bremerton UGA	2,563	2,815	2,815	252	252
Bremerton East UGA	1,141	900	900	(241)	(241)
Bremerton West UGA	1,094	1,587	1,587	493	493
Gorst UGA	328	328	328	-	-
Central Kitsap UGA	5,562	5,406	5,967	(156)	405
Kingston UGA	1,070	1,070	1,212	-	142
Port Orchard UGA	3,810	2,907	3,059	(904)	(751)
Poulsbo PUTA	428	428	428	-	-
Silverdale UGA	5,516	5,541	6,221	25	705
Total	18,949	18,167	19,703	(782)	754

Source: Kitsap County GIS; BERK Consulting 2015

2.6.3. Previous and Future Alternatives

A SEIS should not include analysis alternatives studied in the previously prepared EIS. In this case, Kitsap County studied three alternatives in 2006 and again in 2012 to help define its growth level and patterns, particularly UGA boundaries and densities. The prior alternatives are summarized in Appendix D.

It is likely that additional evaluation by the County and community will lead to development of a final preferred alternative, based on proposal objectives, that falls within range of the alternatives analyzed in this SEIS. These alternatives were conceptualized as of fall 2015 to for allow

environmental review which will help refine the draft Plan. A final alternative will be developed after public hearings and will be evaluated as a part of the Final SEIS.

2.6.4. Benefits and Disadvantages of Delaying the Proposed Action

SEPA requires a discussion of the benefits and disadvantages of reserving, for some future time, the implementation of a proposal compared to possible approval at this time. The County must consider the possibility of foreclosing future options by implementing the proposal.

There are several benefits to adopting a comprehensive plan that includes new growth forecasts and updated policies and programs:

- Greater range of housing choices and a diversified employment base, particularly in urban centers.
- Protection of natural resources and critical areas with refreshed policies and codes.
- Updated capital facility plans that accommodate future growth. This includes attraction of infrastructure investment to urban areas such as Silverdale with the RGC designation and updated subarea plan.
- Guidance of land development and County resources to meet forecast trends and the community vision.
- Coordinated planning among jurisdictions.

Delaying implementation would allow for growth to occur on the basis of the current Comprehensive Plan and zoning regulations; however, it would not meet GMA requirements to complete an 8-Year Update and to accommodate growth to 2036.

Delaying implementation of the Proposed Action could delay natural environment impacts on lands associated with UGA expansions under Alternatives 2 and 3, because these expansion areas would not yet be identified for more intense uses. Likewise in areas of potential UGA reduction urban development could continue and limit the areas' abilities to function as urban separators as proposed in East Bremerton and Central Kitsap. The current Comprehensive Plan, capital plans, and development regulations assume a planning period through 2025 and would not result in coordinated land use and infrastructure investment. The plan would not integrate 2014 CPP employment targets established after the adoption of the 2012 Comprehensive Plan.

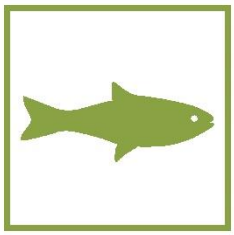
Chapter 3. Affected Environment, Significant Impacts, and Mitigation Measures

This chapter describes the affected environment, potential impacts, and mitigation measures for the following topics:

- Section 3.1: Natural Environment
  - 3.1.1. Earth
  - 3.1.2. Air Quality
  - 3.1.3. Water Resources (Surface and Ground)
  - 3.1.4. Plants and Animals
- Section 3.2: Built Environment: Land Use and Transportation
  - 3.2.1. Land and Shoreline Use
  - 3.2.2. Relationship to Plans and Policies
  - 3.2.3. Population, Housing and Employment
  - 3.2.4. Transportation
- Section 3.3: Built Environment: Public Services and Capital Facilities
  - 3.3.1. Public Buildings
  - 3.3.2. Fire Protection
  - 3.3.3. Law Enforcement
  - 3.3.4. Parks and Recreation
  - 3.3.5. Schools
  - 3.3.6. Solid Waste
  - 3.3.7. Wastewater
  - 3.3.8. Stormwater
  - 3.3.9. Water
  - 3.3.10. Energy and Telecommunications
  - 3.3.11. Library

Following a description of current conditions (affected environment) the analysis compares and contrasts the alternatives programmatically and provides mitigation measures for identified impacts. It also summarizes whether there are significant unavoidable adverse impacts.

3.1. Natural Environment



3.1.1. Earth

Earth resources consist of geologic features, as well as processes such as soil and slope stability during erosion, mass failure, and seismic events. Geologic conditions limit development in some areas. Soil disturbance caused by development can exacerbate geologic hazards; accordingly, development activities in such conditions may require measures to prevent the loss of soils or damage to structures.

3.1.1.1. Affected Environment - Earth

Kitsap County is centrally located in the Puget Sound region on the northern Kitsap Peninsula. The Puget Sound borders Kitsap County on the north, east, and a small area on the south, while the shoreline of Hood Canal stretches along the western border. Unincorporated Kitsap County has 216 miles of marine shoreline, and with the cities the shoreline is 276 miles.

Elevations in the county generally range from 100 to 400 feet above sea level, with the exception of Gold Mountain (elevation 1,761 feet) and Green Mountain (elevation 1,639 feet) in the southwest portion of the county. The upland areas bordering the coastline are generally steep, often terminating in bluffs; however, low-bank shorelines are also common. The coastline extends along bays and inlets and is interspersed with steep sea cliffs, gently rolling lands, and small estuaries where inland streams empty into Puget Sound. The county contains no major rivers but has a number of small lakes.

Climate

The climate in Kitsap County reflects the moderating influence of Puget Sound and the Pacific Ocean. The area experiences short, cool, dry summers and prolonged mild, wet winters. During the winter, the average temperature is 40–50°F during the day and 30–40 °F at night. During the summer, the average temperature is 70–80° F during the day and 50–60° F at night.

Annual precipitation ranges from an average of less than 30 inches on the northern end of the peninsula to more than 70 inches around Green and Gold Mountains. The prevailing winds from the south-southwest and the "rain shadow" effect created by the Olympic Mountains contribute to this geographic variation in precipitation throughout the County. Typically, 80% of the region's precipitation falls between October and March. July is the driest month and December is the wettest. Winter storms may bring strong winds and heavy rains, which can damage trees, buildings, and utility lines and cause flooding. Temperatures rarely drop below freezing; therefore, snowfall accumulation is minimal (Kitsap County Parks and Recreation Department 2000; Kitsap County Department of Community Development, Natural Resources Division 2005).

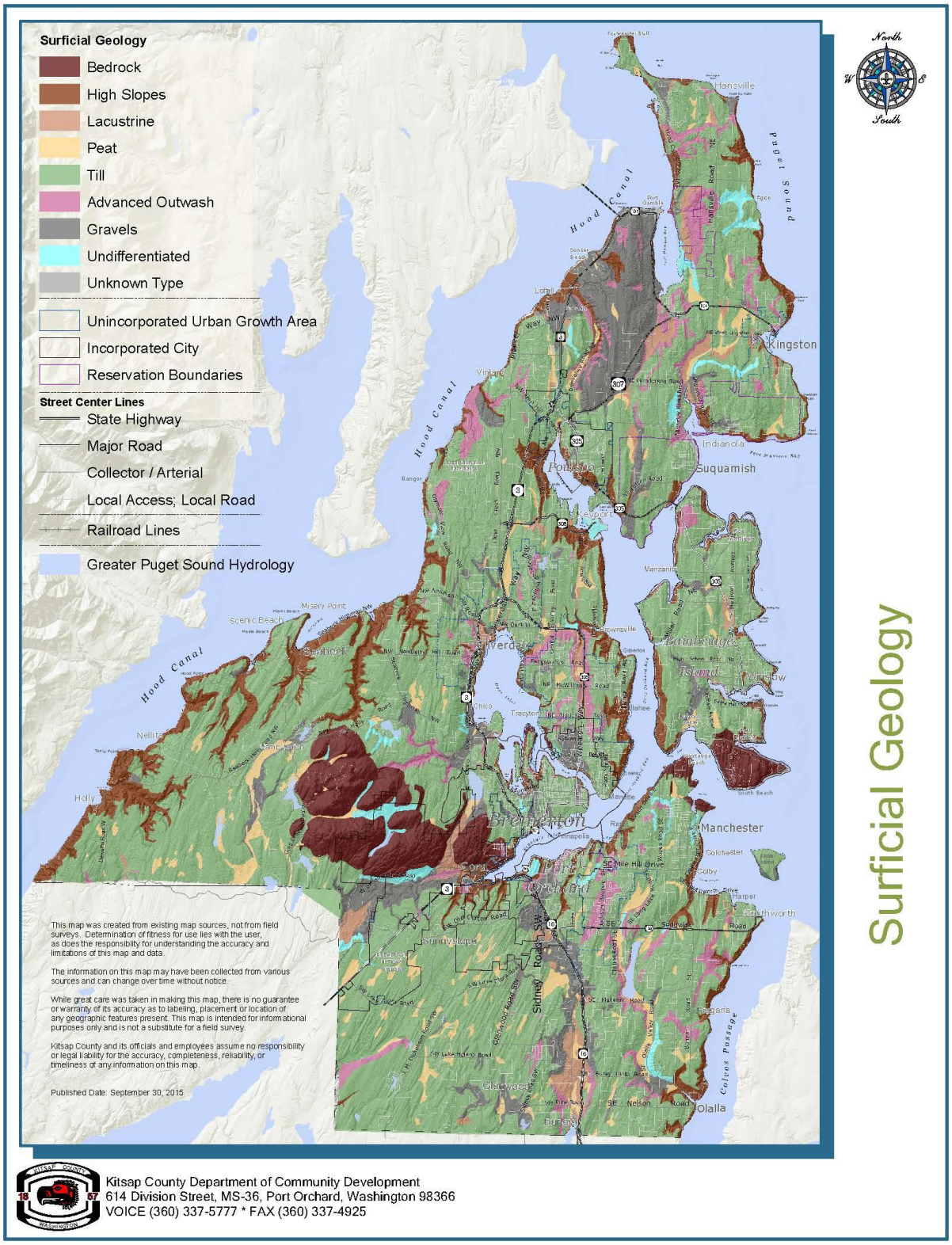
Geology

As in much of the Puget Sound area, glaciers shaped the Kitsap Peninsula over many millennia. Erosion and deposition by these glaciers helped to level the peninsula's landscape. The principal rock formations underlying the county include basalt and sandstone formed millions of years ago. Soil deposits typically consist of silt, sand, clay, and gravel deposits left by glacial ice and subsequent stream action (see Exhibit 3.1-1).

Broad glacial drift plains and gently rolling hills characterize much of the county. The most recent glaciation in the region (ending approximately 12,000 years ago) left a landscape of rolling ridges separated by long valleys, many of which are occupied by wetlands. The ridges and valleys are generally oriented north to south, i.e. parallel to the direction of the ice movement. The Green Mountain–Gold Mountain area, a few miles west of Bremerton, is made of a 40- to 50-million-year-old basalt bedrock formation that resisted glacial erosion. Kettle lakes and ponds with no surface inlets or outlets, such as Island Lake, are located throughout the county. These water bodies formed where large chunks of ice were stranded as the glacier receded to the north.

The county's long marine shoreline has many steep, unstable slopes where wave action is eroding the shoreline. This wave action produces areas of tidal mud and sand flats that provide important nearshore marine habitat. These flat nearshore landforms also place a considerable part of the county at risk from tsunamis (Kitsap County Parks and Recreation Department 2000).

Exhibit 3.1-1. Geology Map – Kitsap County



Source: Kitsap County Department of Community Development, 2015

Soils

Deposits in the county are mostly derived from glacial till or glacial outwash. The area's soils have been classified by the U.S. Departments of Agriculture's Natural Resources Conservation Service (NRCS) in the *Soil Survey of Kitsap County Area, Washington* (1980). The predominant soil in the county is Alderwood gravelly sandy loam, which is a moderately deep (20–40 inches) soil that formed on glacial till. This moderately well drained soil occurs on uplands; it has a slope of up to 30%. Water moves slowly through this soil, and it is categorized as a Hydrologic Group C soil with permeability ranging from 0.6 to 6 inches per hour. This soil has a perched water table at a depth of 20–36 inches from January to March (Natural Resource Conservation Service 2004). Below the Alderwood soil unit, unweathered glacial till exhibits very low permeability that significantly retards vertical drainage.

Soils derived from glacial outwash are often highly permeable, excessively well-drained soils. These soils (sometimes mapped as "gravel") are usually devoid of wetlands or streams unless underlain by impermeable soils with a basin-like upper surface.

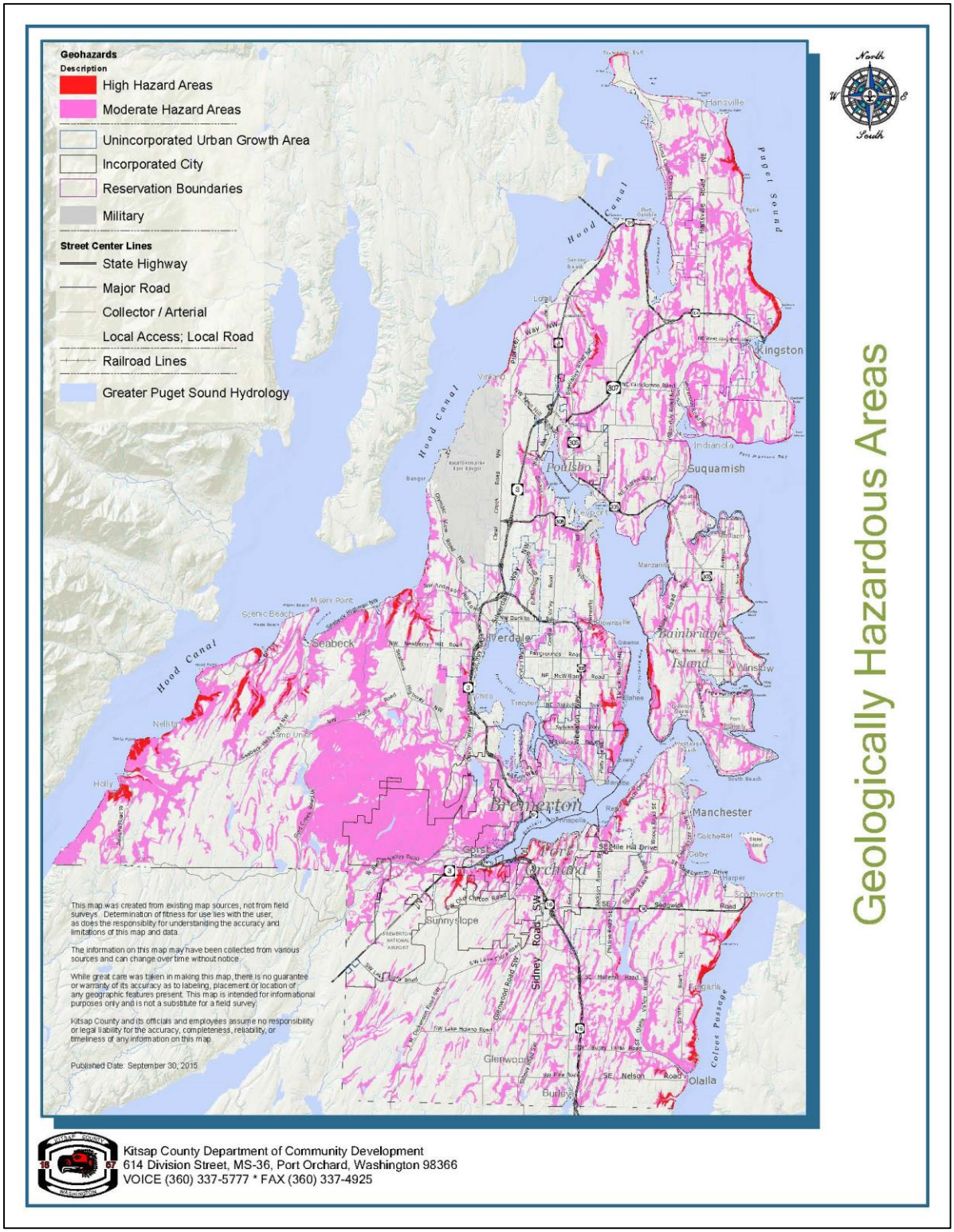
Geological Hazards

Geologically hazardous areas are those areas that, because of their susceptibility to erosion, landslides, debris or mudflows, or other geologic events, are generally not suited for commercial, residential, or industrial development. For example, steep slopes are prone to be unstable, are costly to develop and, in certain areas, are not suitable for development.

Geologically hazardous areas are designated in *Washington Department of Ecology Coastal Zone Atlas* (1979) and *Quaternary Geology and Stratigraphy of Kitsap County* (Deeter 1979) as land that has had recent or historic landslide activity and/or has unstable slopes. In addition, soil classifications published by the NRCS (map 1980, tables updated 2002) identify highly or potentially highly erodible soils and soils subject to liquefaction during seismic events. See current Geologic Hazards Map in Exhibit 3.1-2. Kitsap County is updating their geologic hazard mapping though its general extent is not anticipated to change.

Kitsap County defines and regulates land uses within geologically hazardous areas under the Critical Areas Ordinance (CAO) (Kitsap County Code 19.400) primarily to safeguard property and to minimize human health and safety risks. The CAO divides geologically hazardous areas into two main categories: Areas of High Geologic Hazard and Areas of Moderate Geologic Hazard. The classification is based on factors such as degree of slope and presence of landslides or areas prone to liquefaction. There are approximately 3,415 acres of High Geological Hazard and 60,100 acres of Moderate Hazard Area within unincorporated Kitsap County (Kitsap County Geographic Information System {GIS}), representing 29% of the unincorporated county area. A large fraction of the steep or unstable slope County inventory is on high-bluff waterfront property. These areas and other Geologically Hazardous Areas in the County are shown in Figure 3.1-3.

Exhibit 3.1-2. Geologic Hazards Map – Kitsap County



Source: Kitsap County Department of Community Development, 2015

Erosion and Landslide Hazards

Erosion hazard areas contain soils that are susceptible to severe rill erosion. Rill erosion typically occurs on slopes with little or no vegetation and runs down slopes in small rivulets called rills, creating steep-sided channels. Rill erosion causes downslope movement of silt and sediment and can contribute to landsliding. Erosion hazards also occur along the banks of streams where there are steep drops and high flow velocities.

Landslides usually occur on steep slopes, especially on erosion-prone soils that have been disturbed by human activities and then exposed to rainfall and stormwater runoff.

Development standards for erosion and landslide hazard areas are set forth in the geologically hazardous area section of the CAO and are based on the protection of life, safety, and property. Development in an erosion- or landslide-prone area may be permitted depending upon the findings of a site-specific geotechnical or geologic report prepared by a geotechnical engineer or licensed geologist.

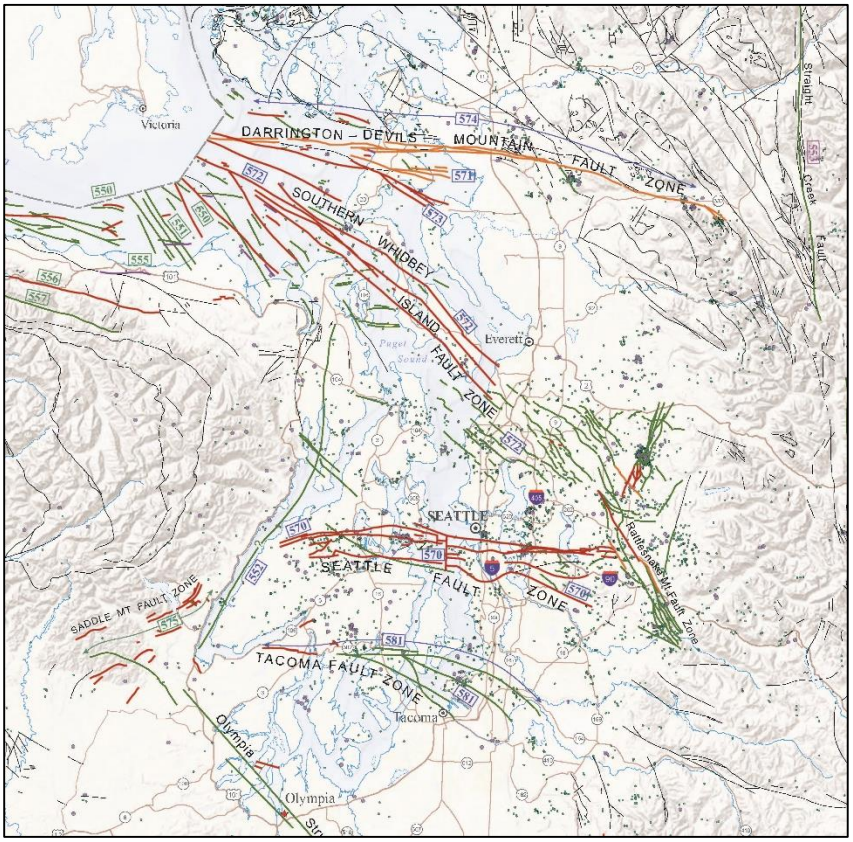
Seismic Hazards

Kitsap County is in a seismically active area. On a scale of 0 to 4, with 4 being highest risk, the Puget Lowland is classed as a Seismic Risk Zone 3. Washington is situated at a convergent boundary between two tectonic plates, the North America plate and the Juan de Fuca plate, making the area subject to earthquakes.

More than 1,000 earthquakes are recorded by seismographs each year in Washington. Of these, 10 or more produce sufficient shaking to be felt by the public. The largest of these recorded were the magnitude (M) 7.1 Olympia earthquake in 1949, the M 6.5 Seattle-Tacoma earthquake in 1965, the M 5.1 Satsop earthquake in 1999, and the M 6.8 Nisqually earthquake in 2001. Strong shaking during the 1949 Olympia earthquake lasted about 20 seconds; shaking during the 2001 Nisqually earthquake lasted about 40 seconds.

A major fault zone, the Seattle fault zone, begins in Kitsap County and runs east across Bainbridge Island and across Puget Sound. The Seattle fault zone affects the Central Kitsap portion of the county as well as the Port Orchard vicinity (Johnson et al. 1999). This fault zone is believed to be recently active and capable of producing both strong shaking and ground-surface rupture, as evidenced by recent field studies of rupture on Bainbridge Island. Exhibit 3.1-3shows the locations of the Seattle Fault Zone and other known, active fault locations in the Puget Sound Vicinity.

Exhibit 3.1-3. Seismic Faults – Puget Sound Vicinity



Source: Washington State Department of Natural Resources, 2007

Earthquakes in the Puget Sound area could cause damage to buildings, roads, utilities, dams, and other facilities as a result of ground shaking, ground failure, surface fault rupture, regional tectonic deformation, seiches (lake waves), and tsunamis. Buildings in Seismic Zone 3/ Design Category D2 are required to be designed to withstand major earthquakes measuring M 7.5. It is anticipated, however, that earthquakes caused from subduction plate stress can reach a magnitude greater than 8.0 (Kitsap County Department of Emergency Management 2004). The Kitsap County Department of Community Development requires that new residential, commercial, and industrial construction be designed to withstand the ground motion effects consistent with those specified in recent versions International Residential Code (IRC) and International Building Code (IBC). The design-level earthquake specified in the IRC and IBC has a 1-in-2475 chance of occurring each year (the 2475-year average return interval); ground motion accelerations for an earthquake with this return interval are mapped at a local level by the United States Geological Survey's National Earthquake Hazards Reduction Program.

Some areas are more prone to seismic activity than others, such as areas of slope instability, slopes greater than 40%, and areas where soils have a high potential for differential settlement and/or liquefaction and cyclic softening, such as hydric soils and loose, saturated sands. Buildings in these areas are more prone to damage from seismic activity, and typically require special design measures to mitigate earthquake hazards.

Summary

Key points of the affected environment are listed below.

- Kitsap County's topography was shaped by glaciation. The county's landscape is characterized by broad glacial-drift plains and gently rolling hills separated by long valleys, many of which harbor streams and wetlands. Kitsap County has 276 miles of marine shoreline; about 216 miles are in unincorporated Kitsap County.
- Kitsap County is in a seismically active area. Areas of slope instability, slopes greater than 40%, and soils with a high potential for differential settlement and/or liquefaction are more prone to seismic damage.
- About twenty-nine percent of the unincorporated county is classified as a high or moderate geologic hazard on the basis of factors such as degree of slope and presence of landslides or areas prone to liquefaction.

3.1.1.2. Impacts - Earth

The selected alternative will establish land use designations that are the basis for zoning of individual parcels on unincorporated county land. Impacts are mainly associated with two patterns of growth: the infilling or intensification of Urban Growth Areas (UGAs) and the expansion of UGA boundaries.

Impacts Common to All Alternatives

All alternatives described in this Draft Supplemental Environmental Impact Statement (Draft SEIS) allocate buildable lands in the unincorporated county into land use designations in order to accommodate population growth. Based on policies and regulations in place or proposed for amendment, all alternatives provide protection of earth resources and protection of public health and safety from geological hazards.

The programmatic land use designations and zoning classifications do not generate impacts on earth resources in themselves. Earth-related impacts would occur from projects that permit any of the following disturbance mechanisms: clearing, grading, erosion and sedimentation, other site disturbance, expanded impervious area, and increased chemical contamination.

Nearly all development removes or modifies plant cover, particularly tree and forest cover, except in some cases of redevelopment. All alternatives would result in reduced plant cover and increased impervious surfaces (roof and pavements, primarily) in concert with the construction of approved development projects. Vegetative disturbance reduces evapotranspiration within a plant community and initiates opportunities for soil disturbance through erosion, compaction, removal, and contamination.

Erosion risk increases with the loss of soil organic matter. Water that might otherwise be held by organic material is available to erode mineral soil, a process that is accelerated when grading directly exposes mineral soil to precipitation and surface water. When eroded particles move off site or into streams, sediment impacts on water quality, channel conditions, and aquatic habitat are

likely. Sedimentation of County-owned drainage infrastructure is also possible, which would create additional Earth impacts.

Soils in developed areas are subject to compaction and disruption of the soil structure necessary to maintain natural drainage processes and to support native vegetation communities. They are also prone to contamination by petroleum spills, fertilizers, and industrial wastes. Soil compaction seals the soil surface, altering soil drainage and precluding any other uses for the soil. Long-term loss of soil productivity (relative to undisturbed conditions) is a subsequent effect of any of these impacts. In particular, compacted soil, or soil covered by impervious surfaces allows for less infiltration of stormwater into the ground at that location. Areas of compacted soil and impervious surfaces create additional surface water runoff that could result in increased downstream flooding, erosion, water quality problems, and aquatic habitat degradation. (See Section 3.1.3.2 for a comparison of impervious surfaces by alternative.)

All alternatives would permit development that is at risk of some degree of catastrophic geologic hazards, including landslides, earthquakes, and tsunamis. These geologic hazards are generally mapped or understood, and may be avoided or minimized by siting developments outside hazard zones, or with special engineering design. Some development may occur within these hazard areas because actual risks are perceived to be at an acceptably low level, or else risks can be mitigated through design. Erosion and landslide hazard areas not have all been mapped accurately, but provisions in the County CAO apply avoidance and minimization measures to individual developments where current mapping is incomplete, and require site-specific analysis by a licensed Engineer or Geologist. Geologic hazard regulations are described in greater detail in *Geologic Hazards* above.

Impacts of Alternative 1

Alternative 1 contemplates total UGA boundaries that are intermediate in acreage to Alternatives 2 and 3, but this does not necessarily imply an intermediate level of the impacts described above. In terms of non-residential construction (i.e. manufacturing, commercial, retail, offices, etc.), Alternative 1 anticipates a growth in square footage greater than Alternatives 2 and 3. In terms of projected housing units, Alternative 1 provides for a level of single-family housing growth that is slightly lower than Alternatives 2 and 3, but a level of multifamily housing growth that is greater than Alternatives 2 and 3.

Residential and non-residential construction would generate new impervious surface areas. The greater amount of multifamily housing and reduced amount of single-family housing under Alternative 1 would generate somewhat less new impervious surface area than Alternatives 2 and 3; however the greater amount of non-residential construction considered under Alternative 1 would generate somewhat more impervious surface area associated with non-residential uses.

As described in *Impacts Common to All Alternatives* above, densification results in loss of soil productivity through the expansion of impervious surfaces, modification of soil structure, and site contamination. While densification may reduce opportunities for soil erosion, it increases the erosion potential on remaining pervious soils by modifying vegetation. Densification on vacant land

could decrease the amount of open space and could diminish the size and/or function of present stream and wetland habitat though critical areas ordinances will apply to new development and mitigation sequencing will be required to minimize impacts. Despite stormwater controls intended to maintain stream flows in ranges consistent with native vegetation cover, stormwater runoff from impervious areas in highly urbanized watersheds requires large stormwater facilities that further diminish the area of remaining pervious soil.

Developments under Alternative 1 are expected to be adequately protected from these geologic hazards using existing Critical Area regulations.

All UGAs under Alternative 1 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. 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 expose more persons to geologic hazards.

Additional development in susceptible low coastal areas could also expose a greater number of people to an increased risk from tsunamis.

Impacts of Alternative 2

Alternative 2 impacts would be generally similar to those of Alternatives 1 and 3, as based on projected residential and non-residential construction growth opportunities described in the discussion of Alternative 1 impacts above. Densification in current UGAs and UGA expansion areas would increase the extent of impervious surfaces, modify soil structures, and allow potential for chronic contamination. This alternative favors vertical development, especially in the Silverdale UGA, which would tend to reduce the impervious surface construction compared with low-rise development of similar capacity. From that standpoint, vertical construction would be a stormwater runoff mitigation strategy in densified areas.

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 and mapped fault lines. In Silverdale, the 25-acre UGA expansion does not have mapped Geologic Hazard Areas. The Bremerton (West) UGA expansion would include additional mapped moderate hazard and hydric soils susceptible to Geologic Hazards. Central Kitsap and East Bremerton UGAs would be reduced slightly where some steep slopes are present. The Port Orchard UGA reduction would reduce areas mapped with high and moderate hazards and hydric soils. In Silverdale, where about one-sixth of the UGA is in a mapped geologic hazard area, further densification could expose additional population to earthquake risks arising from soil liquefaction.

Impacts of Alternative 3

Impacts would be generally similar to those of Alternative 1 and 2, as based on projected residential and non-residential construction growth opportunities described in the Alternative 1 impacts above. As with Alternative 2, densification of current UGAs is encouraged under Alternative 3. Alternative 3 also includes a modest net UGA expansion. UGA expansion would increase the extent of

impervious surfaces, modify soil structures, and allow potential for chronic contamination. As with Alternative 2, Alternative 3 favors vertical development in the Silverdale UGA, though at a somewhat reduced extent. Vertical construction would tend to reduce the impervious surface construction compared with low-rise development of similar capacity under a No Action alternative. From that standpoint, vertical construction would be a stormwater runoff mitigation strategy in densified areas.

All the UGAs under Alternative 3 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 and mapped fault lines. Unlike Alternatives 1 and 2, the Kingston UGA would include an expansion into an area with slope instability and a zoning change to Urban Restricted. The Bremerton (West) UGA expansion would include additional mapped moderate hazard and hydric soils susceptible to Geologic Hazards. The Central Kitsap area would be increased along Barker Creek which has moderate hazards and hydric soils, but the areas in Tracyton would be reduced in areas of moderate hazard. Similarly, areas of the East Bremerton UGA near Tracyton would be reduced in extent in areas of moderate hazard and a small area of high hazard areas.

In Silverdale, UGA expansion would include additional mapped and un-mapped Geologic Hazard areas in the Chico area. In Silverdale, where about one-sixth of the UGA is in a mapped geologic hazard area, further densification could expose additional population to earthquake risks arising from soil liquefaction.

The Port Orchard UGA reduction would be less in extent than Alternative 2, but would also reduce areas mapped with high and moderate hazards and hydric soils.

3.1.1.3. Mitigation Measures- Earth

Incorporated Plan Features

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

- Areas of geologic hazard, including wetlands and areas of fill, steep slopes, and known landslides, will be mapped and development will be located in a manner that avoids hazards to health and property and minimizes impacts on the natural environment and on shorelines and shoreline processes.
- Development proposals undergo review, including geotechnical and/or geologic study and review, to ensure compliance with requirements for protection of public health, safety, and welfare, and with development standards.
- Kitsap County requires building sites to be located away from critical areas such as steep slopes and breaks-in-slopes using minimum buffers and building setbacks.

Regulations and Commitments

- KCC Section 19.400, Critical Areas Ordinance, defines geologic hazards and applies regulations to developments in or near the hazard areas, including specifying geotechnical/geological studies required for development, minimum critical area impact buffers, and building setbacks.
- Federal National Pollution Discharge Elimination System (NPDES) regulations, as well as County stormwater regulations (KCC 12.04.020), require stormwater prevention plans and mitigation, including water quantity and water quality controls for construction and for long-term operation of the built environment.

Other Potential Mitigation Measures

- Reducing UGA expansions in Moderate and High Geologic Hazard areas would reduce the potential number of additional people exposed to risk of damage due to geologic hazards.

3.1.1.4. Significant Unavoidable Adverse Impacts - Earth

All alternatives would result in increased urbanization in the county, with a corresponding increase in impervious surfaces and changes in hydrology. A potential consequence would be an increase in erosion and sedimentation. Sediment reaching lakes, wetlands, and streams could have adverse impacts on the nutrient balances and other water quality indicators in these receiving waters and on the anadromous fish and other aquatic organisms living there. A greater population could also be at risk from the adverse impacts of damage to buildings and infrastructure should an earthquake, landslide, or tsunami occur.

3.1.2. Air Quality

This section describes the current air quality conditions in the region, policies and regulations that govern air pollutant emissions, and regulations and policies that have been developed to reduce greenhouse gas emissions. Impacts of the three alternatives (Alternative 1 – No Action, Alternative 2 – Whole Community, and Alternative 3 – All Inclusive) are analyzed at a programmatic level. Greenhouse gas (GHG) emission rates in Kitsap County generated by the three alternatives, are also forecast at a screening level.

The study area for this evaluation is Kitsap County as a whole. Current air quality regulations would prevent the construction or operation of new developments and commercial and industrial facilities in the county that would generate unacceptable air pollution emissions that would affect nearby areas. However, population is expected to increase in the County regardless of which alternative is selected. Population increases are associated with expansion of commercial and industrial spaces and therefore increased air pollutant emissions in the county. Similarly, vehicle miles traveled (VMT) by vehicles used by residents and people who work in the County would also increase.

3.1.2.1. Affected Environment – Air Quality

Existing Air Pollution Sources

Typical air pollution sources in Kitsap County include commercial and retail businesses, light industry, residential wood-burning devices (such as woodstoves), and vehicular traffic. On-road vehicular traffic along major roadways and in industrial, commercial, and residential areas is expected to be the single largest contributor to criteria pollutant emissions in the County. Vehicles contribute most of the carbon monoxide (CO), nitrogen dioxide (NO_2), and other greenhouse gases (GHGs). Stationary equipment used in commercial and industrial areas are secondary sources of emissions, and space heating (such as gas and diesel heating equipment) and wood-burning appliances contribute background air pollutant emissions as well.

Key Criteria Air Pollutants

The criteria pollutants, described below, are six key air pollutants produced in the combustion of fossil fuels and other processes.

Carbon Monoxide

CO is a product of incomplete combustion generated by mobile sources (such as vehicular traffic and heavy equipment), residential wood combustion, and industrial sources that burn fuel. Of all sources for which short-term health standards exist, CO is emitted in the greatest quantity. The impact of CO is usually limited to the local vicinity of its emission. Since CO is of particular concern with respect to vehicular traffic, the highest ambient concentrations tend to occur near congested roadways and intersections, particularly during wintertime periods of air stagnation.

Ozone

Ozone (O_3) is a highly reactive form of oxygen that is generated by an atmospheric chemical reaction with ozone precursors like nitrogen oxides and volatile organic compounds. These precursors are emitted directly from industrial and mobile sources. Transportation equipment such as automobiles

and trucks also significantly contribute to ozone precursor emissions. Elevated ozone in the atmosphere is a regional issue rather than a localized problem, because the atmospheric reactions take time, and during this delay, ozone precursors may be dispersed far from their point of emission.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter is generated by industrial emissions, residential wood combustion, motor vehicle tailpipes, and fugitive dust from roadways, haul roads, and unpaved surfaces. There are standards for particulate matter less than or equal to 10 micrometers in size (PM_{10}) and particulate matter less than or equal to 2.5 micrometers in size ($PM_{2.5}$), because these sizes of particulate matter contribute the most to human health effects and regional haze. The highest ambient concentrations generally occur near the emission sources, which in Kitsap County would be from motor vehicle tailpipes on major roads. $PM_{2.5}$ has a greater impact than PM_{10} at locations far from the emitting source because it remains suspended in the atmosphere longer and travels farther.

Lead

The main source of lead pollution has historically been the transportation sector, but these tailpipe lead emissions have drastically declined since the U.S. Environmental Protection Agency (EPA) implemented regulatory efforts to remove lead from on-road motor vehicle gasoline. The major emission sources of lead currently include lead smelters and metals processing plants or combustion of aviation gasoline. The Puget Sound Naval Shipyard in Bremerton is the only major industrial source in Kitsap County currently permitted to emit lead.

Nitrogen Oxides and Sulfur Oxides

Nitrogen oxides (NO_x) and sulfur oxides (SO_x) are emitted by mobile sources and fuel-burning stationary sources. Due to the rural nature of Kitsap County and the stringent air quality regulations that limit emissions from the County's major industrial facilities, the ambient concentrations of these pollutants have never approached the National Ambient Air Quality Standard (NAAQS) limits. However, NO_x and SO_x pollution from tailpipe emissions form regional haze and acid deposition in the Olympic and Cascade Mountains surrounding the county, and NO_x is one of the ozone precursors that contributes to ongoing ozone issues in the Puget Sound region.

Greenhouse Gases

GHGs are a group of gases that, when present in the atmosphere, absorb or reflect heat that normally would radiate away from the earth, and thereby increases global temperature. Several GHG constituents are commonly evaluated: carbon dioxide (CO_2), methane, nitrous oxide, water vapor, O_3, and halocarbons. CO_2 is the individual constituent that is normally emitted in the greatest amount and generally contributes the most to climate change. Each individual constituent has its own global warming potential. To express the average emission rate and global warming potential of the combined constituents, GHG emission rates are commonly expressed as the equivalent amount of carbon dioxide (CO_2e).

Air Quality Regulations

Three agencies have jurisdiction over ambient air quality in the study area: the EPA, the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA). The EPA established National Ambient Air Quality Standards (NAAQS), and specified future dates for states to develop and implement plans to achieve these standards. The standards are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of

safety, and the latter to protect environmental values, such as plant and animal life. Ecology established the Washington State Ambient Air Quality Standards (WAAQS) for the six criteria air pollutants that are at least as stringent as the national standards.

Appendix E lists all the ambient air quality standards (AAQS) for the six criteria pollutants: CO, ozone, PM_{10} and $PM_{2.5}$, lead, sulfur dioxide (SO_2), and NO_2. The Northwest Clean Air Agency has set more specific averaging intervals for some of these standards.

Air Quality Attainment Status

Based on monitoring information collected over a period of years, the EPA and Ecology designate regions as being attainment or nonattainment areas for regulated air pollutants. Attainment status indicates that air quality in an area meets the NAAQS, and nonattainment status indicates that air quality in an area does not meet those standards. If the measured concentrations in a nonattainment area improve so they are consistently below the NAAQS, Ecology and EPA can reclassify the nonattainment area to a maintenance area.

Kitsap County is currently designated as an attainment area for all criteria air pollutants (ozone, CO, PM_{10}, $PM_{2.5}$, lead, SO_2, and NO_2). Additionally, the County is not located in a maintenance area. In March 2008, the EPA lowered its 8-hour ozone standard from 0.08 parts per million (ppm) to 0.075 ppm to better protect public health. In January 2010, the EPA proposed a revision to the 2008 ozone standard, and put all area designations to the 2008 standard on hold. Until the revised standard is adopted, the County is still designated an attainment area for ozone.

Similarly, in 2010 the EPA enacted a new, more stringent 1-hour average ambient air quality standard for NO_2. At this time it is not known which regions in the country will be re-designated based on the new standard. Therefore, as of this time, Kitsap County is still considered an attainment area for NO_2.

Air Toxics Issues

Kitsap County includes residential, commercial, and light industrial uses that pose no special issues related to air toxics. Although the county includes only one major industrial facility regulated by the PSCAA, the Puget Sound Naval Shipyard in Bremerton, State Route (SR) 3 and SR 16 pass through the County, and heavy diesel trucks traveling along the highways have the potential to emit toxic air pollutants. It is expected that existing and future air quality in the area of Kitsap County adjacent to SR 3 and SR 16 could be affected by moderate concentrations of toxic air pollutants.

According to the EPA's National Air Toxics Assessment 2005 database, the respiratory cancer risk in Kitsap County is approximately 39×10^{-6} or 39 cancer cases per million population (U.S. Environmental Protection Agency, 2013). This reported respiratory cancer risk is typical of other rural areas in Washington State and lower than the statewide respiratory cancer risk.

Puget Sound Regional Council Transportation Conformity Analysis

Kitsap County is classified as an air quality attainment area; therefore, transportation projects are not subject to state or federal transportation conformity regulations.

Puget Sound Clean Air Agency Regulations

All construction sites in the Puget Sound region are required to implement rigorous emission controls to minimize fugitive dust and odors during construction, as required by PSCAA Regulation 1, Section 9.15, Fugitive Dust Control Measures.

All industrial and commercial air pollutant sources in the Puget Sound region are required to register with the PSCAA. Facilities with substantial emissions are required to obtain a Notice of Construction air quality permit before construction is allowed to begin. The application for this permit requires the facility to install best available control technology (BACT) to reduce emissions, conduct computer modeling to demonstrate that the facility's emissions will not cause ambient concentrations to exceed the NAAQS limits, and minimize the impacts of odors and toxic air pollutants.

Greenhouse Gas Emissions

National Environmental Policy Act Requirement for Climate Change Analysis

On December 7, 2009, the EPA signed the Endangerment and Cause or Contribute findings for GHGs under Section 202(a) of the Clean Air Act (U.S. Environmental Protection Agency, 2009). Under the Endangerment Finding, the EPA determines that the current and projected concentrations of the six key GHGs—CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, the EPA determines that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG emissions that threaten public health and welfare.

On February 19, 2010, the Council on Environmental Quality issued draft National Environmental Policy Act (NEPA) guidance on the consideration of the effects of climate change and GHG emissions (Council on Environmental Policy, 2010). This guidance advises federal agencies to consider opportunities to reduce GHG emissions caused by federal actions, adapt their actions to climate change impacts throughout the NEPA process, and address these issues in their agency NEPA procedures. Where applicable, the scope of the NEPA analysis should cover the GHG emission effects of a proposed action and alternatives and the relationship of climate change effects to a proposed action or alternatives. However, this guidance document does not set numerical thresholds for what levels of GHG emissions would constitute a significant impact, nor does the guidance document specify what types of mitigation measures should be required by local municipalities.

State of Washington Greenhouse Gas Requirements

Washington State Executive Order 07-02 was issued in February 2007, establishing the following GHG reduction goals (Washington State Department of Ecology, 2008):

- Reduce emissions to 1990 levels by 2020, 25 percent below 1990 levels by 2035, and 50 percent below 1990 levels by 2050.
- Increase "green economy jobs" in Washington State to 25,000. The term "green economy jobs" means the design, manufacture, marketing, and installation of equipment to support sustainable development both within and beyond Washington State.
- Reduce expenditures on fuel imported into Washington State by 20 percent by 2020.

The above GHG reduction goals apply statewide, but they do not specify any requirements for local government agencies to implement measures to reduce emissions in their jurisdictions.

Chapter 70.235 of the Revised Code of Washington (RCW), Limiting GHG Emissions, codifies the GHG reduction goals of Executive Order 07-02 and specifies them as "limits" rather than "goals." The new law also adds a fourth requirement to help achieve the GHG reduction targets:

- Decrease the annual per-capita VMT 18 percent by 2020, 30 percent by 2035, and 50 percent by 2050.

The state law applies only to actions taken by Washington State agencies and local governments that receive state funds for their project. State regulations on GHG emissions include prerequisites for distribution of capital funds for infrastructure and economic development projects, where projects receiving funding must be evaluated for consistency with state and federal GHG limits and state VMT goals (RCW 70.235.070).

Ecology issued revised guidance in June 2011 for State Environmental Policy Act (SEPA) reviews regarding actions where Ecology is the SEPA lead agency (Washington State Department of Ecology, 2013). The revised guidance is related to GHG emissions for projects where emissions are presumed not to be significant and outlines measures for mitigation to meet state emission reduction goals. This guidance is applicable only to projects where Ecology is the lead agency or agency with jurisdiction. The 2011 Ecology guidelines do not specify significance thresholds or mitigation requirements for local governmental actions for which the County is the SEPA lead agency. Regardless, the guidelines illustrate the importance of local actions to reduce GHG emissions.

In 2011, the Washington State Department of Commerce released an updated *Washington State Energy Strategy* for 2012 (Washington State Department of Commerce, 2011), which includes short- and long-term policy options to meet the following goals:

1. Maintain competitive energy prices that are fair and reasonable for consumers and businesses and support Washington's continued economic success.
2. Increase competitiveness by fostering a clean energy economy and jobs through business and workforce development.
3. Meet the state's obligations to reduce GHG emissions.

The *Washington State Energy Strategy* outlines strategies to meet these goals in the categories of transportation efficiency, building efficiency, distributed energy, and pricing.

Puget Sound Clean Air Agency and Greenhouse Gases

In 2004, the PSCAA published its strategy document for climate change, entitled *Roadmap for Climate Protection: Reducing GHG Emissions in Puget Sound* (Puget Sound Clean Air Agency, 2004). In this strategy document, the PSCAA recommended a broad range of GHG reduction measures including regional vehicle trip reduction, building energy efficiency improvements, solid waste reduction, forestry and agriculture practice improvements, and community education. This document also encouraged local municipalities to implement their own GHG reduction measures; however, it did not propose a SEPA significance threshold for GHG emissions, nor did it require local governments to impose future mitigation measures for future development projects for which the municipality is the SEPA lead agency. Regardless, this document illustrates the importance of local government actions to reduce GHG emissions.

Climate Change in the Kitsap County Energy Efficiency and Conservation Plan

The 2011 Kitsap County Energy Efficiency and Conservation Plan (Kitsap County, 2011) includes a list of recommended policies and actions to reduce energy use and encourage renewable energy projects. In addition to achieving greater energy efficiency and energy cost reductions, one of the primary goals of the plan is to reduce GHG emissions.

Climate Change in the City of Bremerton SKIA Subarea Plan (Puget Sound Industrial Center-Bremerton)

One of the largest areas of new employment will be within the City of Bremerton's South Kitsap Industrial Area (now known as the Puget Sound Industrial Center – Bremerton or PSIC-Bremerton). The City developed a Subarea Plan in collaboration with Kitsap County. The plan includes development regulations and incentives that are intended to reduce vehicle trips, encourage alternate modes of transportation, increase energy efficiency, and reduce GHG emissions within PSIC-Bremerton (City of Bremerton, 2012). Though implemented by the City, given the size and scope of the area as a Manufacturing Industrial Center, it will be important cumulatively to the county's air quality.

3.1.2.2. Impacts – Air Quality

Impacts Common to All Alternatives

This section describes the qualitative air quality issues associated with all alternatives in Kitsap County.

Methods

Greenhouse Gas Significance Threshold

For the purposes of this analysis, the GHG emissions are expressed in terms of the differences between the countywide future no-action condition and future proposed land use conditions. For this EIS, a tiered significance threshold was adopted based on Ecology's 2011 guidance. For any alternative, the GHG emissions are presumed to be not significant if the alternative causes a "business as usual" increase of less than 25,000 metric tons per year of CO_2e compared to no action. If the alternative causes a "business as usual" emission increase greater than 25,000 metric tons per year, then the GHG emissions are presumed to be not significant if the County implements GHG reduction measures to reduce the "business as usual" increase by at least 11%.

Greenhouse Gas Emission Calculation Methods

This section describes methods used for estimating projected GHG emissions based on the three alternatives.

For this analysis, GHG emissions are expressed as metric tons of CO_2e per year. For purposes of comparing alternatives and determining significance under SEPA, forecast GHG emission increases are based on comparing the future emission rates for each action alternative to the forecast future emission rate of Alternative 1, the No Action Alternative.

The "SEPA GHG Calculation Tool" – available through Ecology's "Guidance Document Including GHG emission in SEPA Reviews" (Washington State Department of Ecology, 2013) – was used to evaluate existing and projected future (2036) GHG emissions for each action alternative. This analysis provides a screening-level estimate of life-cycle "business as usual" emissions for residential, institutional, commercial, and industrial land uses, not including individual large stationary industrial sources or any special project-level emissions reduction measures or other mitigation measures.

The available input data used for the GHG emission calculations was limited to aggregate square footages for commercial, institutional, and industrial land development and aggregate housing units

for single- and multifamily housing. Given those input limitations, this method of analysis is considered an adequate screening-level tool for the purpose of forecasting GHG emission rates.

Three types of life-cycle emissions were estimated using the SEPA GHG Calculation Tool: stationary combustion, energy, and transportation (Washington State Department of Ecology, 2013).

Energy emissions are generated by stationary combustion (i.e., furnace combustion of natural gas for space heating) and electricity consumption throughout the lifespan of a building. These emission estimates are based on the U.S. Energy Information Administration's residential and commercial energy consumption surveys.

Transportation emissions include tailpipe emissions generated by on-road vehicles used by particular building occupants. This evaluation accounts for transportation emissions for the employees, delivery trucks, and customers at commercial or industrial areas.

For projections of 2036 transportation emissions, the default value for the average fuel economy in the calculations listed above was increased to 54.5 miles per gallon (mpg) to reflect the EPA's newly proposed Corporate Automobile Fuel Economy vehicle mileage standard for 2025 (U. S. Environmental Protection Agency, 2015). For the analysis of existing conditions, the spreadsheet's default fuel economy of 22.4 mpg for average passenger vehicles (based on Bureau of Transportation Statistics' national data) was used.

The GHG Calculation Tool calculates emissions based on the number of residential units, students, and square footage of industrial and commercial spaces in the study area. The tool does not account for distances between destinations. One difference between the alternatives is an emphasis on creating denser communities that are more conducive to alternative modes of transportation. Exhibit 3.1-5 illustrates the forecast change in VMT between the three alternatives, which more accurately represents planned changes in traffic volume. More discussion of VMT follows.

For the purpose of calculating GHG emissions for this screening-level programmatic analysis, all of the forecast commercial space was aggregated into the land use categories: residential, institutional, retail, office space, and industrial. The transportation emissions do not account for vehicles passing through the study area unless they are directly associated with the buildings being evaluated.

"Soil Carbon" Greenhouse Gas Emissions from Permanent Removal or Restoration of Biomass

The general term "soil carbon GHG emissions" refers to the effect of permanently removing vegetation for the purpose of constructing new development. This exacerbates global climate change by two mechanisms. First, the biomass consisting of aboveground vegetation and underground root mass is immediately removed and disposed of, which immediately causes the biomass to decay and release carbon dioxide to the atmosphere. Second, the aboveground vegetation that was permanently removed is no longer available to remove CO_2 from the atmosphere during natural photosynthesis. Likewise, the restoration and replanting of vegetation in areas that have already been cleared of vegetation is a way to recapture carbon by locking the carbon into the plant structure and releasing oxygen into the atmosphere.

Land Use Values for Greenhouse Gas Calculations

For the purposes of this analysis, the GHG emissions are expressed in terms of their increase above existing conditions and their increase between the future no-action alternative and future proposed land use conditions in the study area. Exhibit 3.1-4 lists these projected study area land use values used for calculating GHG emissions for each alternative. The values listed under "existing"

represent current land use. The values listed for each alternative represent the net increase compared to existing conditions.

Exhibit 3.1-4: Net Increase in Land Use and Population Growth for Greenhouse Gas Emission Calculations

Land Use Category		Unit	Existing	Net Increase Above Existing (a) Alternative 1	Alternative 2	Alternative 3
Residential						
	Single Family	#DU	78,591	24,978	25,750	26,591
	Multi-Family	#DU	30,094	6,740	5,408	5,503
Institutional						
	Schools (Pre-12, Colleges)	Students	55,050	16,065	15,782	16,256
Industrial						
	Industrial and Manufacturing (b)	1,000 SF	1,822	3,835	1,735	1,853
	Warehousing	1,000 SF	718	598	546	580
Retail						
	General Retail	1,000 SF	5,916	2,937	2,396	2,206
	Bank	1,000 SF	319	301	272	254
	Restaurant (non-fast food)	1,000 SF	446	421	380	355
	Fast-Food Restaurant	1,000 SF	297	280	253	237
	Gas Station	1,000 SF	896	445	363	334
	Auto Repair	1,000 SF	869	820	741	692
Office Space						
	Non-Medical	1,000 SF	14,202	5,626	9,767	9,223
	Medical	1,000 SF	853	805	727	679
Hotel						
	All Hotels	1,000 SF	143	135	122	114

[a] Values are approximate

[b] Not including stack emissions from process equipment

DU = Dwelling unit

Source: Kitsap County Community Development; BERK: Landau Associates Inc. 2015

Construction Impacts

During construction, dust from excavation and grading could cause temporary, localized increases in the ambient concentrations of fugitive dust and suspended particulate matter. Construction activity must comply with PSCAA regulations requiring reasonable precautions to minimize dust emissions (Regulation I, Section 9.15). Regardless, construction activity could cause localized fugitive dust impacts at homes and businesses near the construction site.

Construction activities would likely require the use of diesel-powered, heavy trucks and smaller equipment such as generators and compressors. These engines would emit air pollutants that could slightly degrade local air quality in the immediate vicinity of the activity. However, these emissions would be temporary and localized, and the resulting construction tailpipe emissions would likely be far outweighed by emissions from existing traffic in the County.

Some construction activities could cause odors detectable to some people in the vicinity of the activity, especially during paving operations using tar and asphalt. Such odors would be short-term and localized. Stationary equipment used for the construction activities must comply with PSCAA regulations requiring the best available measures to control the emissions of odor-bearing air

contaminants (Regulation I, Section 9.11). In addition, no slash burning would be permitted in association with construction activities.

Construction equipment and material hauling could temporarily increase traffic flow on city streets adjacent to a construction area. If construction delays traffic enough to significantly reduce travel speeds in the area, general traffic-related emissions would increase.

All new development and some redevelopment will require permanent removal of existing vegetation. As described above, removal of vegetation leads to soil carbon GHG emissions.

Operational Impacts

Emissions from Commercial Operations

Kitsap County is expected to experience commercial growth. It is likely that new commercial development would occur near either current or future residential property, particularly in areas where mixed-use commercial development could be interspersed with mixed-use residential developments. Unless properly controlled, stationary equipment (such as gas stations), mechanical equipment (such as commercial boilers and heating units), and trucks at loading docks at office and retail buildings could cause air pollution issues at adjacent residential property. However, the new commercial facilities would be required to register their pollutant-emitting equipment with the PSCAA (Regulation I and Regulation II). The PSCAA requires all commercial facilities to use BACT to minimize emissions. The agency may require applicants with high emissions to conduct an air quality assessment to demonstrate that the proposed emissions would not expose offsite areas to odors or pollutant concentrations exceeding regulatory limits. Therefore, it is unlikely that new commercial operations would cause significant air quality issues.

Regional Air Quality Impacts

Although population and vehicle travel is expected to increase in Kitsap County, the change in tailpipe emissions for all of the alternatives would be very small relative to the overall regional tailpipe emissions in the Puget Sound air basin. Photochemical smog (the regional haze produced by ozone and fine particles) is caused by regional emissions throughout the Puget Sound region, rather than localized emissions from any individual neighborhood. Photochemical smog was a serious concern in the Puget Sound region before the late 1980s, but federal tailpipe emission regulations have reduced vehicular emissions to the point that the region is currently a designated attainment area for ozone.

The Puget Sound Regional Council (PSRC) set regional transportation emission budgets for three pollutants: CO, NO_x, and $PM_{2.5}$. The corresponding PSRC air quality conformity analyses concluded that its forecast regional emissions for the 2040 planning year will be far below the allowable budgets (Puget Sound Regional Council, 2010). Because the change in tailpipe emissions in Kitsap County for the alternatives is small compared to the overall tailpipe emissions in the Puget Sound region and because the region is currently designated an attainment area, it is concluded that none of the alternatives would result in a significant impact on regional air quality.

Mobile Source Air Toxics

Future development might require future improvements to existing roadways. When a street is widened and, as a result, moves closer to receptors, the localized level of mobile source air toxics emissions could be higher, but this could be offset by reductions in congestion (which are associated with lower mobile source air toxics emissions). Furthermore, on a regional basis, the EPA's vehicle

and fuel regulations (coupled with ongoing future fleet turnover) will over time cause substantial reductions that will cause region-wide mobile source air toxics levels to be significantly lower than today in most cases.

Emissions from Vehicle Travel

Tailpipe emissions from vehicles traveling on public roads would be the major source of air pollutant emissions associated with the growth in Kitsap County. Potential air quality impacts caused by increased tailpipe emissions are divided into two general categories: CO hotspots caused by localized emissions at heavily congested intersections and regional photochemical smog caused by combined emissions throughout the Puget Sound region.

Development under all studied alternatives would increase vehicle travel on existing public roads. However, it is unlikely that the increased traffic and congestion would cause localized air pollutant concentrations at local intersections to form a hotspot (i.e., a localized area where air pollutant concentrations exceed NAAQS). The PSCAA operates ambient air pollution monitors at some of the most heavily congested intersections in the Puget Sound region, and none of those monitors have indicated exceedances over the past several years.

Furthermore, EPA motor vehicle regulations have steadily decreased tailpipe emissions from individual vehicles. Continuing decreases from individual vehicle emissions are expected to more than offset the increase in vehicle traffic, leading to a decrease in total GHG emissions from transportation sources, even as population and commercial development increase, as shown in Exhibit 3.1-6. Because emissions from vehicle travel are the major source of air pollutant emissions, the decrease in total GHG from transportation sources results in a forecast decrease in total GHG emissions. For these reasons, it is unlikely that air quality impacts at local intersections would be significant.

Space Heating Emissions at Residential and Retail/Commercial Buildings

Emissions would be generated by natural gas, fuel oil, and propane combustion used for space heating (stationary combustion) at new and existing dwellings and retail/commercial businesses. However, per-building space heating emissions are expected to decrease in response to energy conservation issues and as future residents purchase more fuel-efficient furnaces. Therefore, future space heating emissions are not expected to cause significant air quality impacts.

Residential Wood Burning

As discussed, residential wood-burning appliances elevate concentrations of particulate matter and toxic air pollutants especially when heavy wood burning is combined with stagnant weather conditions. The ambient air pollutant concentrations caused by residential wood combustion generally occur in the immediate neighborhood. Consequently, residential development with large numbers of wood-burning appliances would represent a potentially significant air pollutant source.

The PSCAA's regulations and policies have been tightened to improve regional air quality related to $PM_{2.5}$. Washington State requires that all new woodstoves installed in the state be certified by more stringent standards than the EPA has set.

The PSCAA now has lower thresholds to trigger the call of Stage 1 and 2 burn bans during unusually stagnant weather conditions with monetary penalties to violators. Programs have been implemented to support community awareness to choose the right wood-burning device, properly prepare wood for cleaner burning, and be informed of burn ban status through voluntary submission to text/email burn ban notifications.

Continued enforcement of these regulations and policies ensures that future emissions from residential wood combustion would prevent ambient pollutant concentrations in heavily populated areas from approaching health-based NAAQS limits. As a mitigating measure, Kitsap County may consider restricting installation of new woodstoves in certain densely populated regions.

Emissions from Future Industrial Operations

Under all of the alternatives, the study area is expected to experience air quality impacts due to commercial/business operations. It is likely that new commercial development would occur near either current or future residential property. Unless properly controlled, stationary equipment (such as gas stations), mechanical equipment (such as commercial boilers and heating units), and trucks at loading docks at retail buildings could cause air pollution issues at adjacent residential properties.

Large stationary pollutant-emitting industrial equipment must be registered and permitted with the PSCAA. The PSCAA requires all commercial and industrial facilities to use BACT on stationary equipment to minimize emissions. The agency may require applicants with high emissions to conduct an air quality assessment to demonstrate that the proposed emissions would not expose offsite areas to odors or pollutant concentrations in air exceeding regulatory limits. Therefore, it is unlikely that new commercial operations would cause significant air quality issues.

Indirect/Cumulative Impacts

Development facilitated by the alternatives would result in indirect effects on air quality. For example, additional people and vehicles in Kitsap County could lead to greater concentrations of pollutants that could adversely affect air quality.

Every alternative would increase regional VMT, which would contribute to tailpipe emissions throughout the Puget Sound region. When added to the forecast population and economic growth throughout the region, the increased emissions caused by development in Kitsap County could slightly contribute to future worsening of regional air quality; however the increase in VMT is expected to be offset by decreased tailpipe emissions, as described above.

Future development in Kitsap County would also contribute to worldwide emissions of GHG, which would contribute to potential future effects caused by global climate change (e.g., changes in seasonal temperature, seasonal precipitation, and local seawater rise).

Impacts of Alternative 1

The direct and indirect impacts of Alternative 1 caused by construction emissions, localized stationary source emissions, localized CO hotspots, and regional tailpipe emissions would be the same as described under Impacts Common to All Alternatives.

Contribution to Regional Air Pollutant Emissions

Population growth and daily VMT can be used as indicators of future transportation-related emissions. Exhibit 3.1-5 shows the future contribution of regional VMT from Kitsap County. The VMT generated by each alternative would increase compared to existing conditions. Alternative 1 would increase daily VMT by 91,292, which would contribute 0.1 % of the Puget Sound regional VMT forecast for 2036. The forecast VMT increase from Kitsap County for Alternative 1 is only a small fraction of the forecast Puget Sound regional total; therefore, this alternative would not result in a significant impact on regional air quality.

Exhibit 3.1-5: Kitsap County Contribution to Forecast 2036 Puget Sound Regional VMT

	Alternative 1	Alternative 2	Alternative 3
Existing Kitsap County		6,641,593	
Increase in Kitsap County VMT (2036)	91,292	302,386	241,917
Puget Sound 2040 daily VMT[a]	85,280,704	85,280,704	85,280,704
Forecast Total Regional VMT	92,013,589	92,224,683	92,164,214
Contribution of Kitsap County Increase to Regional Tailpipe Emissions	0.10%	0.33%	0.26%

Sources: [a] (Puget Sound Regional Council, 2010); (Kitsap County, 2015)

Calculated GHG Emissions

For the purposes of this analysis, the GHG emissions are analyzed by their increase between current conditions and future proposed land use conditions in Kitsap County.

As discussed above, Exhibit 3.1-4 lists the projected Kitsap County land uses that were used for calculating GHG emissions for each alternative. The values listed under "existing" represent current land use. The values listed for each alternative represent the net increase compared to existing conditions.

As listed in Exhibit 3.1-6, Alternative 1 would decrease GHG emissions in Kitsap County from the existing emissions. This decrease is due to the decrease in emissions from vehicular travel resulting from improved fuel efficiency, as discussed above.

Exhibit 3.1-6: Comparison of Annual GHG Emissions – Kitsap County

	Projected Average Annual GHG Emissions (metric tons CO2e per year)		
GHG Emissions Estimates	Alternative 1	Alternative 2	Alternative 3
Existing Emissions	3,962,469	3,962,469	3,962,469
Forecast Emissions			
Change from Existing: Stationary Combustion	156,362	159,342	161,219
Change from Existing: Electricity	249,613	273,098	271,849
Change from Existing: Transportation	-944,434	-1,005,996	-1,012,535
Total Change from Existing	-538,459	-573,557	-579,467
Change from Alternative 1 No Action	--	**-35,098**	**-41,008**

Source: Landau Associates Inc. 2015

Total gross GHG emissions for Washington State were estimated to exceed 101,000,000 metric tons CO_2e in 2008 (Washington State Department of Ecology, 2010). Compared to statewide annual GHG emissions, the relatively small change in GHG emissions in Kitsap County associated with Alternative 1 is not considered to be significant.

Impacts of Alternative 2

The direct and indirect impacts of Alternative 2 caused by construction emissions, localized stationary source emissions, localized CO hotspots, and regional tailpipe emissions would be the same as described under Impacts Common to All Alternatives.

Construction Emissions, Commercial Sources, and Air Toxics

Under Alternative 2, Kitsap County is expected to gain more population and jobs, though contained in fewer dwelling units and less buildable square feet for business than under Alternative 1; therefore, development under Alternative 2 would result in a smaller increase in localized air pollutant emissions from construction activities and a similar decrease in regional tailpipe emissions from vehicle travel. Additionally, this alternative would result in a smaller increase in commercial activities. Air quality impacts from construction activities, commercial operations, and mobile source air toxics would be similar to those described under Impacts Common to All Alternatives.

Emissions from Vehicle Travel

As shown in Exhibit 3.1-5, the forecast VMT increase for Alternative 2 is slightly higher than the forecast value for Alternative 1. However, the Kitsap County VMT forecast increase as a result of this alternative is inconsequentially small compared to the Puget Sound VMT and its impact on regional emissions and photochemical smog. Therefore, regional air quality impacts caused by population growth and transportation emissions in Kitsap County would not be significant under Alternative 2.

GHG Emissions

The annual GHG emissions for Alternative 2 are calculated based on the future land use listed in Exhibit 3.1-4 and the development reduction described previously. Exhibit 3.1-6 lists the life-cycle GHG emission increases caused by future development in Kitsap County under each alternative. Alternative 2 would result in more single-family residential dwelling units than Alternative 1, but fewer multifamily residential dwelling units. Additionally, Alternative 2 would provide less buildable square feet for business use than Alternative 1 as there are more commercial jobs (e.g. Silverdale Regional Growth Center [RGC]) than industrial square footage; commercial jobs generally have half the square footage per employee than industrial.

Therefore, Alternative 2 would decrease localized GHG emissions in Kitsap County compared to Alternative 1.

The change in GHG emissions in Kitsap County for Alternative 2 is 35,098 metric tons CO2e per year *less* than the change in GHG emissions estimated for Alternative 1, as shown in Exhibit 3.1-6. Therefore, this evaluation demonstrates that GHG emissions caused by increased development in Kitsap County associated with Alternative 2 would be less than those caused by Alternative 1.

Impacts of Alternative 3

The direct and indirect impacts of Alternative 3 caused by construction emissions, localized stationary source emissions, localized CO hotspots, and regional tailpipe emissions would be the same as described under Impacts Common to All Alternatives.

Construction Emissions, Commercial Sources, and Air Toxics

Under Alternative 3, Kitsap County is expected to gain more dwelling units, but less buildable square feet for business than under Alternative 1 (more jobs in less space). Development under this alternative would result in a similar increase in localized air pollutant emissions from construction activities and a similar decrease in regional tailpipe emissions from vehicle travel compared to Alternative 1, due to improvements in fuel economy. Air quality impacts from construction

activities, commercial operations, and mobile source air toxics would be similar to those described under Impacts Common to All Alternatives.

Emissions from Vehicle Travel

As shown in Exhibit 3.1-5, the forecast VMT increase for Alternative 3 is higher than the forecast increase for Alternative 1 and lower than the forecast increase for Alternative 2. However, the net increase in VMT as a result of this alternative is inconsequentially small compared to the Puget Sound VMT forecast for 2036 and its impact on regional emissions and photochemical smog. Therefore, regional air quality impacts caused by population growth and transportation emissions in Kitsap County associated with Alternative 3 would not be significant.

GHG Emissions

The annual GHG emissions for Alternative 3 are calculated based on the future land use listed in Exhibit 3.1-4 and the development reduction described previously. Exhibit 3.1-6 lists the life-cycle GHG emission increases caused by future development in Kitsap County under each alternative. Alternative 3 would result in slightly more residential dwelling units than Alternatives 1 and 2, but less buildable square feet for business use (more jobs in less space than Alternative 1; less jobs and less space than Alternative 2). Therefore, Alternative 3 would decrease localized GHG emissions in Kitsap County compared to Alternatives 1 and 2.

The change in GHG emissions in Kitsap County for Alternative 3 is 41,008 metric tons CO_2e per year *less* than the change in GHG emissions estimated for Alternative 1, as shown in Exhibit 3.1-6. Therefore, this evaluation demonstrates that GHG emissions caused by increased development in Kitsap County associated with Alternative 3 would be *less* than those caused by Alternative 1 No Action.

3.1.2.3. Mitigation Measures– Air Quality

Incorporated Plan Features

The Kitsap County Comprehensive Plan includes goals and policies that would reduce air pollutant emissions.

As discussed, vehicles are responsible for the largest amount of CO, NO_2, and GHG emissions in the county. Transportation goals and policies include:

- 8.2.3 Providing the public with alternative modes of travel by giving transit and HOV travel advantages in designated locations.
- 8.2.4 Avoiding and minimizing negative environmental impacts by promoting pedestrian paths and greenbelt links.
- 8.2.5 Designing pedestrian- and bicycle-safe transportation systems.
- 8.2.8 Coordinating land use and transportation planning to encourage walking and improve access to transit stops.
- 8.2.8 Reducing commute trips by developing a transit-supportive transportation system.
- 8.2.10 Maximizing opportunities for safe non-motorized travel, including on- and off-road trails, interconnected open spaces, and connections between residential areas and business centers.

Transportation goals are supported by Land Use (Chapter 2), Housing (Chapter 6), Parks, Recreation and Open Space (Chapter 10), and Silverdale Regional Center goals to create walkable communities with nearby services, recreational opportunities, and open space, as well as facilities for pedestrians, bicyclists, and transit users.

Regulations and Commitments

- **National Ambient Air Quality Standards**: As described above in NAAQS, the EPA establishes NAAQS and specifies future dates for states to develop and implement plans to achieve these standards.
- **State Ambient Air Quality Standards**: Ecology establishes state ambient air quality standards for the same six pollutants that are at least as stringent as the national standards; in the case of SO_2, state standards are more stringent. Appendix D lists the state AAQS for six criteria pollutants.
- **Outdoor Burning:** Burning yard waste and land-clearing debris is not allowed at any time in urbanized areas of Kitsap County. The PSCAA enforces state outdoor burning regulations required by the Washington Clean Air Act (RCW 70.94.743).
- **Puget Sound Clean Air Agency Regulations**: All construction sites in the Puget Sound region are required to implement rigorous emission controls to minimize fugitive dust and odors during construction, as required by PSCAA Regulation 1, Section 9.15, Fugitive Dust Control Measures. All industrial and commercial air pollutant sources in the Puget Sound region are required to register with the PSCAA. Facilities with substantial emissions are required to obtain a Notice of Construction air quality permit before construction is allowed to begin.
- **State of Washington GHG Laws:** As described above in State of Washington GHG Requirements, Washington enacted a new law establishing GHG reduction goals.
- **City of Bremerton SKIA Subarea Plan**: The SKIA/PSIC-Bremerton Subarea Plan, adopted in 2012 through a stakeholder process including Kitsap County, has development incentives and requirements to ensure sustainable development and reduce GHG emissions, including:
    - **Commute Trip Reduction (CTR).** Once total new employment within PSIC-Bremerton has exceeded 2,000 new employees (resulting from actions permitted under the Planned Action Ordinance), all employers with 50 or more employees shall be required to participate in the CTR Program.
    - **Bicycle Facilities.** Bicycle parking shall be provided at 10 % of the required automobile spaces.
    - **Neighborhood Electric Vehicles.** Neighborhood electric vehicles and electric golf carts shall be allowed on all pedestrian pathways within PSIC-Bremerton that are constructed to the standards contained in Section C.5.050 of the plan. Neighborhood electric vehicles shall also be allowed on all public roadways in PSIC-Bremerton where their use is not otherwise prohibited by state or local law (e.g., roadways with a maximum speed limit of 25 miles per hour or less are suitable).
    - **Non-Motorized Facilities.** The trail system in PSIC-Bremerton is intended to form a loop, making non-motorized connections throughout the entire subarea.

- **Energy-Efficient Lighting.** Light-emitting diode (LED) lighting is encouraged. To the greatest extent feasible, all light fixtures and bulbs should meet the requirements for certification by the ENERGY STAR program.

- **Kitsap County Energy Efficiency and Conservation Plan**: In 2011, Kitsap County developed an Energy Efficiency and Conservation Plan, which is focused on achieving greater energy efficiency and reducing GHG emissions. The plan outlines a list of recommendations that once implemented would serve to increase energy efficiency and reduce GHG emissions. Some of the key recommendations include:
  - **Building Design.** Incorporate energy efficiency standards into planning and design for any new construction, renovation project, or lease agreements.
  - **Operations and Maintenance.** Adopt an energy conservation policy setting clear goals and guidelines for maximizing the efficiency of building operations.
  - **External Energy Use.** Survey all parking lot and external building lights and identify retrofit opportunities.
  - **Transportation and Fleets.** Establish goals to increase fuel efficiency and the use of alternative fuels for the County fleet. Enhance the CTR program and associated employee training to reduce fuel use and emissions.
  - **Renewable Energy.** Identify potential opportunities for renewable energy projects on existing and future County buildings. Identify and acquire sources of renewable energy and/or fuel for County operations.
- **Kitsap County Initiatives**: Kitsap County has already pursued a number of local projects related to energy efficiency and climate change including those shown in Exhibit 3.1-7.

Exhibit 3.1-7: Kitsap County Climate Change Responsive Projects

Transportation	Buildings	Infrastructure	Policies/Other
Hybrid vehicles purchased	Building Retrofits	LED Pedestrian Display Retrofits	Using Space Heaters in Kitsap County Facilities
Install Diesel Oxidation Catalysts on Kitsap County Dump Trucks	Solar Hot Water Collector Systems Installed	LED Traffic Signal Retrofits	Home Energy Assessment Incentives
Vehicle Take Home Policy	High efficiency boiler system	Computer Room/Server Energy Efficiency Improvements	Energy Efficiency Loan Program for Homeowners
Vehicle Anti-idling and Fuel Conservation	Energy Efficient Lighting Retrofits	Solar Powered Trash Compactor Installation	Development of Kitsap County Energy Plan
Telecommuting for Employees	HVAC retrofits	Grant Funds Available for Kitsap County Home Builders Association Weatherization	

Source: (Kitsap County, 2011)

Other Proposed Mitigation Measures

Construction Emission Control

Kitsap County could require all construction contractors to implement air quality control plans for construction activities in the county. Kitsap County could require all developers to prepare a dust

control plan that commits the construction crews to implement all reasonable control measures described in the *Associated General Contractors of Washington's Guide to Handling Fugitive Dust from Construction Projects.* Copies of that guidance document are distributed by the PSCAA (1997). The air quality control plans should include best management practices to control fugitive dust and odors emitted by diesel construction equipment.

The following mitigation measures could be used to minimize air quality and odor issues caused by tailpipe emissions.

- Maintain the engines of construction equipment according to manufacturers' specifications.
- Minimize idling of equipment while the equipment is not in use.

If there is heavy traffic during some periods of the day, scheduling haul traffic during off-peak times (e.g., between 9:00 a.m. and 4:00 p.m.) would have the least effect on traffic and would minimize indirect increases in traffic-related emissions.

Burning of slash or demolition debris will not be permitted without express approval from the PSCAA.

GHG Reduction Measures

Washington State has established GHG emission reduction targets for 2020 (1990 levels), 2035 (20% reduction below 1990 levels) and 2050 (50% reduction below 1990 levels) and has adopted requirements for capital investments, an energy strategy, and VMT reduction targets. However, neither Ecology nor the EPA has adopted numerical GHG emission standards, GHG reduction requirements, or numerical GHG significance thresholds that direct local government land use development actions. It is Kitsap County's responsibility to implement its GHG reduction requirements for new developments.

As noted above, development requirements in the PSIC-Bremerton Subarea Plan will help mitigate GHG impacts in Kitsap County. Additionally, Kitsap County has established an Energy Efficiency and Conservation Plan that outlines energy conservation and GHG emissions reduction measures, some of which could reduce GHG impacts in the County. Also, Kitsap County has already implemented many initiatives (as described above) that have increased energy efficiency and are aimed at reducing climate change impacts. GHG emission reductions could be achieved by using building design and construction methods to use recycled construction materials, reduce space heating and electricity usage, incorporate renewable energy sources, and reduce water consumption and waste generation.

Appendix E lists a variety of mitigation measures that could reduce GHG emissions caused by transportation facilities, building construction, space heating, and electricity usage (Washington State Department of Ecology, 2008). The table lists potential GHG reduction measures and indicates where the emission reductions might occur.

Kitsap County could require development applicants to consider the reduction measures shown in Appendix E for their projects. Kitsap County could incorporate potential GHG reduction measures through goals, policies, or regulations.

In addition to the representative GHG reduction mitigation measures listed in Appendix E additional vehicle trip reduction measures and land-use-related GHG reduction measures have been published by various air quality agencies. For example, Appendix E lists the emission reduction measures developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The table lists SMAQMD's estimated "mitigation points" value, where each point value corresponds to the percent reduction in emissions. For example, a mitigation point value of 1.0 corresponds to a 1% reduction in land-use-related emissions. SMAQMD developed this table to quantify reductions in criteria pollutant emissions, but the listed measures would also generally reduce GHG emissions (2015).

3.1.2.4. Significant Unavoidable Adverse Impacts – Air Quality

No significant unavoidable adverse impacts on regional or local air quality are anticipated. Temporary, localized dust and odor impacts could occur during construction activities. The regulations and mitigation measures described above are adequate to mitigate any adverse impacts anticipated to occur as a result of Kitsap County growth.

3.1.3. Water Resources (Surface and Ground)

3.1.3.1. Affected Environment – Water Resources

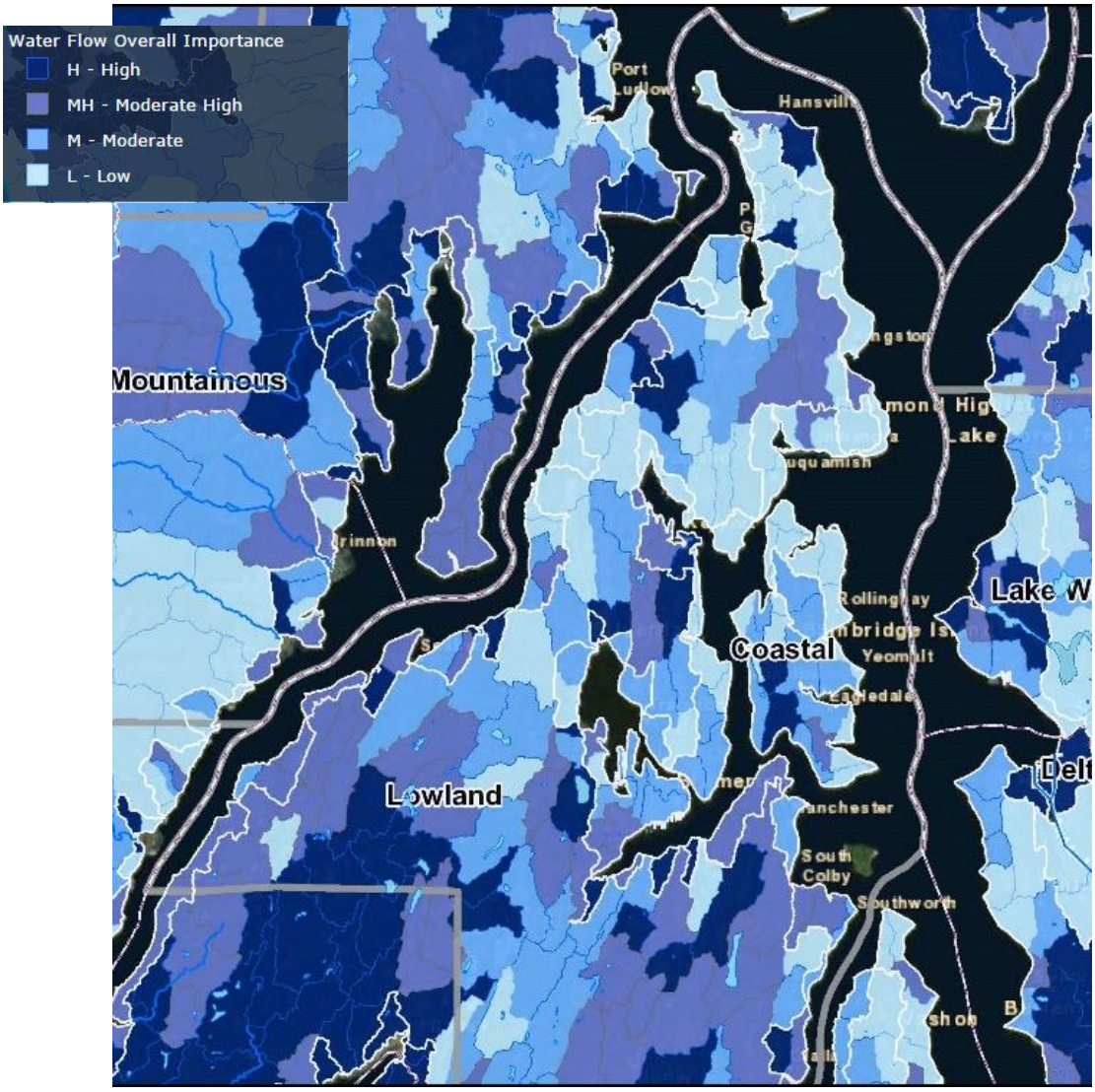
Water resources in Kitsap County include lakes, streams, marine and estuarine waters, frequently flooded areas, groundwater, aquifer recharge areas, wetlands, and stormwater runoff. Water resources in Kitsap County are located within the Kitsap Water Resource Inventory Area (WRIA 15).

Water flow through the landscape is a function of delivery and movement. In Kitsap County, delivery is driven by precipitation. Movement is related to 1) surface water and storage provided by wetlands, lakes, and floodplains, and 2) groundwater recharge, subsurface flow, storage, and discharge, which is provided by slope wetlands and areas of higher permeability. The Washington State Department of Ecology (Ecology) ranked the overall importance of water flow processes in Kitsap County by watershed assessment unit (Exhibit 3.1-8). The ranking, which is based on surface and groundwater storage capacity and groundwater recharge and discharge features on the landscape, indicates how important the watershed (rating unit) functions are relative to other watersheds in the WRIA. The map indicates that the areas of the county with the greatest significance for water resource processes are concentrated in the southwest and southeast regions of the county. More isolated areas of higher importance occur in the vicinity of Silverdale and Keyport, and north of Poulsbo.

Water resources in Kitsap County are described in detail in the 2006 Draft Comprehensive Plan EIS (Jones and Stokes et al. 2006) and the 2012 Draft Supplemental EIS (BERK et al. 2012) (incorporated by reference in Chapter 2).

Shorelines of the State, including major streams and rivers (with a water flow volume of over 20 cubic feet per second mean annual flow), lakes (over 20 acres), floodways, estuarine, and marine waters, as well as associated wetland areas, in Kitsap County are described in the 2010 Kitsap County Final Draft Shoreline Inventory and Characterization Report (Kitsap County 2010), hereby incorporated by reference.

Exhibit 3.1-8. Map of Overall Water Flow Importance.



Source: Ecology, electronic source

Surface Waters

Marine Resources

Unincorporated Kitsap County has approximately 216 miles of marine shoreline (including Blake Island), characterized by many bays, inlets and pocket estuaries. Other coastal landforms such as spits, bluffs, lagoons, tide flats, stream and tidal deltas, and rocky outcrops are also found along the Kitsap County marine shoreline.

The County's shoreforms and nearshore habitats support specific ecological functions and processes. Bays, inlets, and pocket estuaries provide sheltered, productive, shallow-water rearing habitat for juvenile salmonids and other aquatic species. Feeder bluffs provide a source of fine sediment to replenish beaches with sand and gravel, which forage fish use to spawn.

Kitsap County's nearshore area encompasses a wide variety of conditions, ranging from relatively unmodified reaches of natural shoreline to developed parcels with private residences and associated armoring structures, as well as highly developed industrial areas. Shoreline functions are most

impacted in areas near towns, and shoreline impairments are associated with shoreline modifications such as armoring, overwater structures, and pilings (The Watershed Company and BERK 2013). Impaired shoreline areas have higher impervious surface coverage and lower vegetation coverage compared to higher functioning areas.

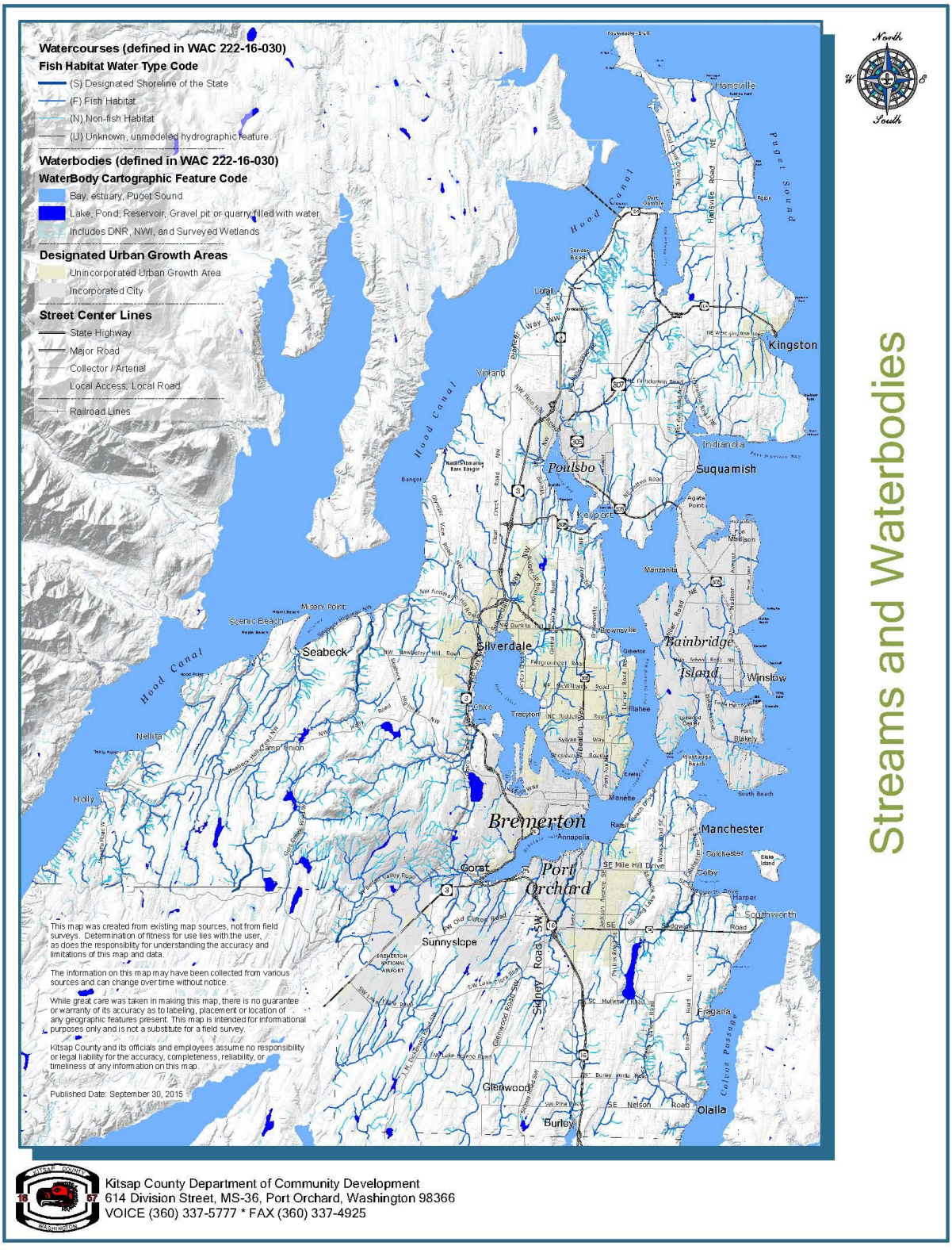
Streams and Rivers

Nearly 1,000 miles of stream are mapped in Kitsap County. 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). 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 recruitment, overhanging vegetation, species composition, canopy cover etc.) vary significantly within and between watersheds.

Streams on the eastern half of the Peninsula drain into several large inlets within western Puget Sound, and streams on the western half drain into Hood Canal. Generally, the eastern streams are smaller than those on the western side (Haring 2000); however, these eastern streams historically still supported substantial salmon runs (Williams et al. 1975). The predominant riverine systems of the east Kitsap Peninsula are Chico, Blackjack and Curley Creeks. 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. Maps of surface waters are provided in Exhibit 3.1-9 and Exhibit 3.1-10.

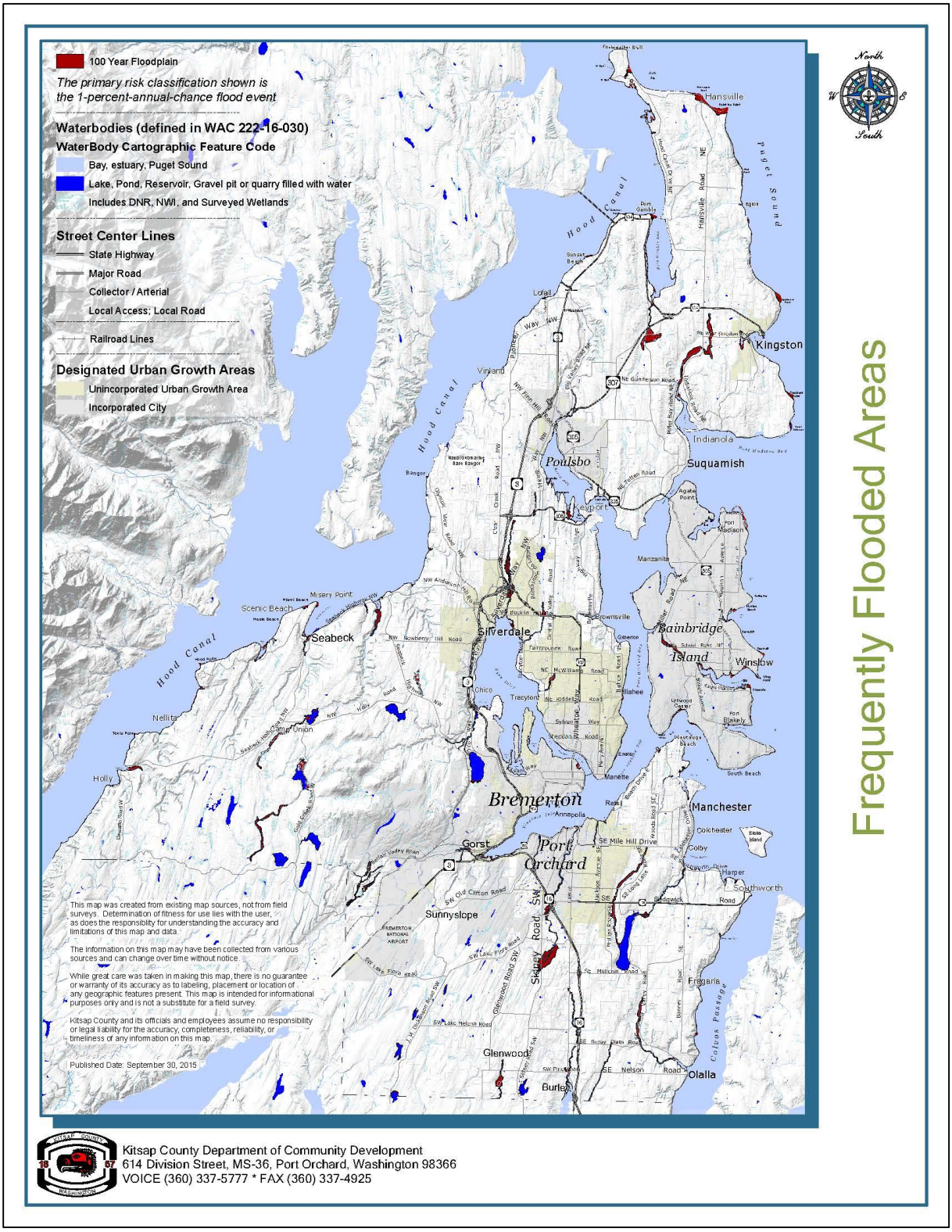
Exhibit 3.1-11 describes ecological and land use conditions along the major streams, large enough to be considered Shorelines of the State in the county. In addition to these larger watercourses, numerous small streams and direct tributaries occur throughout the county. Most streams originate from lakes, headwater wetlands, or groundwater discharge.

Exhibit 3.1-9. Streams and Waterbodies – Kitsap County



Source: Kitsap County Department of Community Development, 2015

Exhibit 3.1-10. Frequently Flooded Areas – Kitsap County



Source: Kitsap County Department of Community Development, 2015

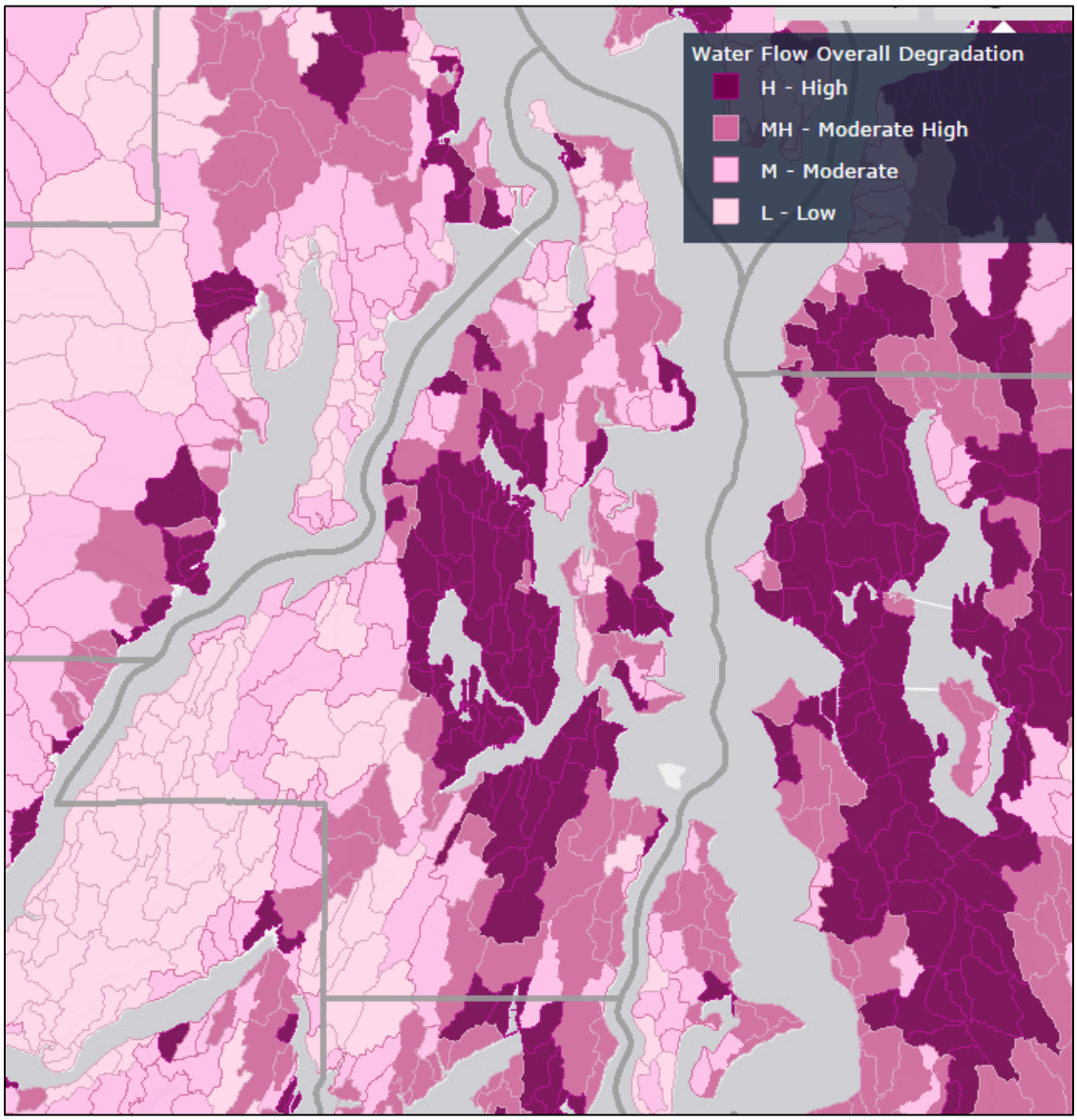
Exhibit 3.1-11. Existing Conditions in Shoreline Jurisdictional Streams in Kitsap County

Stream/River	Description	Land Use Conditions
Central Puget Sound		
Chico Creek	303(d) list for temperature 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
South Puget Sound		
Gorst Creek	Poor riparian cover and LWD in lower reaches; 303(d) list for DO; elevated, but improving 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 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, fecal coliform bacteria, and temperature	Rural protection; Rural residential; Public facility
Burley Creek	Riparian cover is fair to poor; channelized; Summer low flow concerns- closed to further appropriation; increase in flows since 1996; 303(d) list for DO	Rural residential
Coulter Creek	Good riparian cover; 305(b) list for DO, pH, and temperature	Rural wooded
Central Hood Canal		
Lower 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 and temperature	Rural wooded; Rural protection; Mineral resource; Public facility
South Hood Canal		
Union River and floodplain	Headwater wetlands; fair floodplain connectivity; Mixed forest buffer; Moderate LWD abundance; Poor pool frequency	Rural protection
Tahuya River	Wide, intact riparian buffers; Good pool quality	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 are varied 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 3.1-12). 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, among other factors.

Exhibit 3.1-12. Map of Overall Water Flow Degradation



Source: Ecology, electronic source

Lakes

There are twenty-three lakes larger than twenty acres within Kitsap County. The ecological and land use characteristics of each lake are briefly described below in Exhibit 3.1-13.

Exhibit 3.1-13. Existing Conditions in Lakes in Kitsap County

Lake	Description	Land Use Conditions
North Puget Sound		
Buck Lake	Forested throughout, except for some open space/fields at County Park	Rural residential; Public facility
Central Puget Sound		
Island Lake	Wooded on north and south ends; little/no riparian cover on east and west ends and at Barker Creek headwaters through church camp	Urban low density residential; Public facility
Kitsap Lake and Wetland	SFRs with lawns, landscaping, and bulkheads	Mineral resource; Urban reserve
Wildcat Lake	Moderately developed shoreline with some intact riparian areas	Rural residential; Public facility
Chico Headwaters Pond	Mostly vegetated; Surface outflow primarily in winter months	Rural wooded
South Puget Sound		
Square Lake	Forested vegetation with little development; 305 (b) list for invasive exotic species	Public facility
Long Lake & Associated Wetland	Eutrophic; Forested in south; Lawns associated with SFR; Lake provides hydrologic buffer for Curley Creek and Ollala Creek	Rural protection; Rural residential; Public facility
Mace Lake	Shallow lake with extensive aquatic vegetation coverage; Shoreline residential development	Rural protection
Horseshoe Lake	Meso-eutrophic; Riparian cover is lacking	Rural residential
Wicks Lake & Associated Wetlands	Riparian vegetation mostly intact	Public facility
Big Lake (McCormick Woods)	Riparian vegetation mostly intact	Urban low-density residential; Incorporated city; Public facility
Oakridge Lake	Recently logged with a 100-170 foot buffer remaining	Rural wooded; Rural residential
Lake Flora/Sunnyslope Lake and Associated Wetlands	Some surrounding areas logged with approx. 130-foot buffer	Rural wooded
Carney Lake	Developed with SFRs; poor riparian vegetation cover; some LWD on west shore; 305(b) list for total phosphorus	Rural residential (primarily); Rural wooded
Wye Lake	Riparian vegetation lacking due to residential development and land clearing; 305(b) for invasive exotic species	Rural residential
Fern Lake	Riparian vegetation intact	Public facility
North Hood Canal		
Miller Lake	Wide, intact riparian buffer with good floodplain connectivity	Rural wooded
Central Hood Canal		
Lake Symington	Mesotrophic lake; Sparse overhanging vegetation; 50% of the shoreline developed in 1998; Located in an area of historic stream meanders, riparian wetlands, and beaver ponds- these features were eliminated by construction of the lake; 303(d) listed for temperature; 305 (b) listed for DO, bacteria, temperature, fish habitat, and total phosphorus	Rural residential

Lake	Description	Land Use Conditions
South Hood Canal		
Lider Lake	50-75 foot riparian buffer	Rural residential; Rural protection
Tiger Lake	Oligo-mesotrophic lake; receives high levels of runoff and erosion	Rural residential
Mission Lake & associated wetland	Mesotrophic lake with highly erodible soils; Summer low flow concerns; Fair floodplain connectivity and riparian cover; Moderate-high aquatic plant growth; Moderate LWD; 305(b) list for invasive exotic species and total phosphorus	Rural residential; Rural wooded
Panther Lake	Oligo-mesotrophic lake; 50% riparian vegetation; 305(b) listed for total phosphorus	Rural residential; Rural wooded
Lake Tahuya	Meso-eutrophic lake; 305(b) listed for total phosphorus and invasive exotic species	Mineral resource; Rural residential; Rural wooded
Tin Mine Lake	Mixed riparian forest; 303(d) listed for DO	Forest resource lands
Morgan Marsh	Well vegetated buffers; Abundant woody debris	Rural wooded; Rural residential
Hintzville Beaver Ponds	Well-vegetated buffers	Rural wooded; Rural residential
Dewatto Wetland	Riparian corridors in natural conditions	Rural wooded

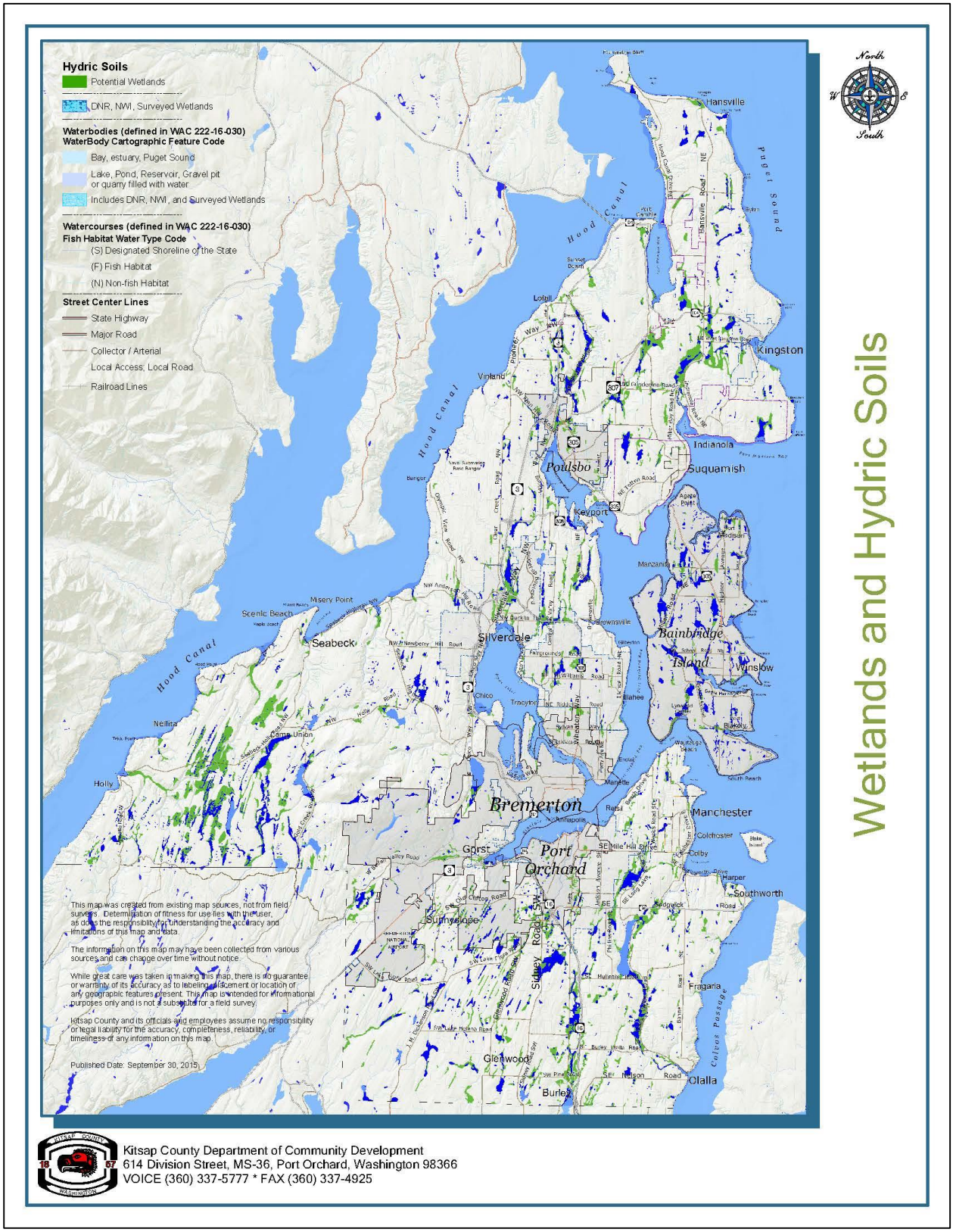
Source: The Watershed Company and BERK 2013.

Wetlands

RCW 36.70a.030 defines wetlands as "areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas…"

Based on existing data sources, there are approximately 9,374 acres of wetlands in Kitsap County (BERK et al. 2012). Exhibit 3.1-14shows approximate locations of wetlands and hydric soils throughout the County. Wetlands may be associated with a variety of geomorphic settings, including depressions, slopes, rivers and floodplains, lakes, and estuaries. High concentrations of wetlands and hydric soils are located in the southwestern portion of the county. These include Morgan Marsh, Hintzville Beaver Ponds, and the Dewatto Wetland, which are discussed in the Shoreline Inventory and Analysis Report (Kitsap County 2010), among others.

Exhibit 3.1-14. Wetlands – Kitsap County



Source: Kitsap County Department of Community Development 2015

Water Quality

303(d) Listings

There are 68 surface water bodies in the county that have been listed as impaired under Section 303(d) of the Clean Water Act. Water bodies are generally listed as impaired for bacteria, dissolved oxygen, and temperature. Kitsap Lake is the only water body in the County impaired by dissolved phosphorus. Big Anderson Creek and Coulter Creek are the only two water bodies listed as impaired by pH. A Total Maximum Daily Load has been established to address high levels of bacteria for the Union River (Ecology 2010) and Dyes and Sinclair Inlets (Ecology 2011).

Hood Canal Dissolved Oxygen

Hood Canal has a history of low dissolved oxygen levels, which have caused periodic fish kills. In 2005, the Washington State Legislature established the Hood Canal Aquatic Rehabilitation Program (Chapter 90.88 RCW), which designated the Hood Canal Coordinating Council (HCCC) as the local management board to coordinate local government efforts for addressing the low dissolved oxygen problem in Hood Canal. Efforts underway to address water quality conditions in Hood Canal include shoreline monitoring by Kitsap County Health, and a regional Pollution Identification and Correction (PIC) program.

Groundwater

The quantity of groundwater resources is determined by the balance of recharge, discharge, and extractive uses.

Groundwater recharge depends on precipitation patterns and the permeability of the land surface. Increased impervious surface coverage reduces the potential for groundwater recharge by rapidly routing precipitation into stream channels or stormwater.

Groundwater discharge occurs at slope wetlands, seeps, and springs, which contribute to cool base flows in streams.

In addition to these natural recharge and discharge processes, approximately 80% of Kitsap County's population relies on groundwater sources for potable water. The remaining approximately 20% of the water supply comes from the Union River, and this source is primarily used for the City of Bremerton water supply (BERK et al. 2012).

Water balance analyses that estimate the relationship between precipitation, evapotranspiration, groundwater recharge, and surface runoff were conducted in 2005 (Golder Associates) and 2014 (Welch et al.). In 2012, an above-average precipitation year, 66 percent of annual groundwater recharge discharged to streams, approximately 4 percent was withdrawn from wells, and 30 percent discharged to Hood Canal and Puget Sound. The areas with the greatest proportion of extractive uses based on total groundwater allocation, actual withdrawals, and net withdrawals based on the 2005 analysis are listed below.

- Total groundwater allocation: Manette (115%), Bainbridge Island (101%), Port Gamble (91%), Bangor (84%).
- Total groundwater withdrawals: Bangor (23%), Manette (19%), Bainbridge Island (18%), Manchester (18%).

- Net groundwater withdrawals: Manette (18.9%), Bangor (15.5%), Bainbridge Island (13.6%), Manchester (11.8%), Gorst (10.9%).

The potable water needs of the residents of Kitsap County are served by a combination of public and private wells or water systems.

The following discussion of the primary threats to groundwater quality was presented in the 2012 DEIS (BERK et al. 2012).

> *"The primary threats to groundwater quality in Kitsap County are seawater intrusion from overpumping 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

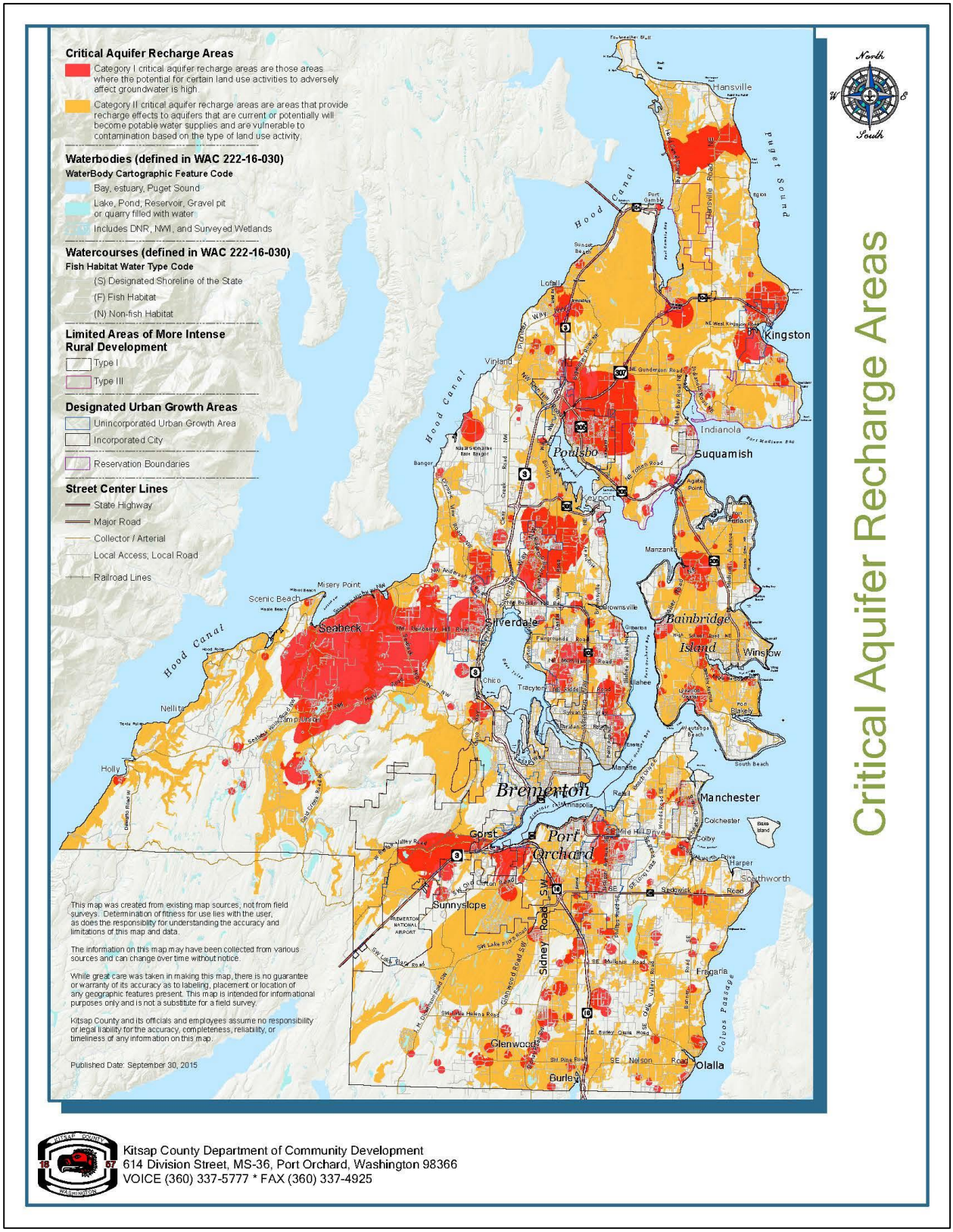
A critical aquifer recharge area (CARA) is designated based on the presence of hydrogeologic conditions that facilitate aquifer recharge or susceptibility of contaminants to reach an underlying aquifer. Groundwater quantity and quality are both critical to the public welfare because of the county's reliance on groundwater for its potable water supply. CARAs are currently designated based on proximity to wellheads, soil characteristics, and proximity and permeability to shallow aquifers and Vashon aquifer areas. However, the WAC 365-190-100 now also includes proximity to marine shorelines as a factor, along with others.

CARAs are categorized as Category I and Category II in the CAO based on the level of risk, where Category I CARAs represent a higher risk of land use activities adversely affecting significant aquifer resources.

Category I critical aquifer recharge areas are specifically identified for Hansville, Seabeck, Island Lake, Gorst, and Poulsbo because of the significant potable water supplies susceptible to contamination in these areas. Large Category I CARAs occur in the vicinity of Bremerton, Port Orchard, and Silverdale, as well as in the Anderson, Big Beef, and Seabeck Creek watersheds that drain to Hood Canal.

Exhibit 3.1-15 shows Category I and Category II CARAs throughout Kitsap County.

Exhibit 3.1-15. Critical Aquifer Recharge Areas – Kitsap County



Source: Kitsap County Department of Community Development 2015

3.1.3.2. Impacts – Water Resources

Impacts Common to All Alternatives

Under each of the proposed alternatives, the population and employed workforce of Kitsap County would increase. Total impervious surface coverage would also increase with each alternative. The nature and extent of impacts to water resources will depend on location of development, the amount of impervious surface created, and the effectiveness of facilities to detain and treat stormwater runoff. Under each of the alternatives, development would be concentrated in Urban Growth Areas (UGAs), although lower density development is expected to continue in areas outside of UGAs. The following analysis considers effects of future development both within and outside of UGAs on surface and groundwater resources.

Surface Waters

Marine Resources

Development along the marine shoreline can affect physical shoreline processes by either accelerating shoreline erosion via stormwater discharges, or by restricting eroding sediments from reaching the nearshore via shoreline armoring. Such changes affect sediment transport and shoreline habitat. Such changes could be expected to occur where low density residential development occurs along previously undeveloped shorelines.

Additionally, the cumulative effects of upland development impact water quality in marine receiving waters. Both urban and rural development can contribute to water quality degradation. Excessive amounts of nitrogen and phosphorus contribute to eutrophication and algal blooms in marine waters, which can deplete the dissolved oxygen in the water and result in poor water quality and fish kills (Mayer et al. 2005, Dethier 2006, Heisler et al. 2008). More frequent occurrences of toxic algal blooms, such as those that cause Paralytic Shellfish Poisoning, are linked to increased eutrophication (Anderson et al. 2002). Also, nitrogen loading can reduce light transmittance by triggering algal blooms and growth of seagrass epiphytes, resulting in a reduction in the size of eelgrass and kelp beds (Steneck et al. 2002, Hauxwell et al. 2007, Mumford 2007).

Streams and Rivers

Development that involves intensification of uses often affects surface water quality and quantity as a result of soil compaction, draining, and ditching across the landscape, increased impervious surface cover, and decreased forest cover (Booth and Jackson 1997, Moore and Wondzell 2005). Urban land cover is correlated with increased high flows and associated flooding, and increased variability in daily streamflow (Burges et al. 1998, Jones 2000, Konrad and Booth 2005, Cuo et al. 2009). In general, where impervious surface coverage in a contributing watershed is below 10 percent, stream channel form and processes tend to be intact; above that threshold, channels tend to become incised and disconnected from the floodplain (Booth et al. 2002). Because the threshold for impairment tends to occur at around 10% impervious coverage, areas most affected by a change in impervious surface coverage are likely to be areas with existing low levels of impervious surfaces (below 10% impervious), which would transition to a more highly developed state. Additionally, development in headwater areas will tend to disproportionately impact water flow processes throughout a watershed or basin.

Reduced infiltration and increased surface flows associated with increased drainage and impervious surface cover results in more direct transport of sediment and contaminants to receiving bodies,

without interacting with natural soil filtration processes. Water quality concerns associated with increased development include increased fine sediment, nutrients, pathogens, and metals. As more land area is developed and managed, impacts from fertilizers, pesticides, nutrients, bacteria, and chemicals become more widely dispersed. Untreated runoff in areas of high road densities contains metals and PAHs, which has been shown to adversely affect salmon, particularly coho salmon (Feist, B. et al 2011; McIntyre, J. et al. 2012). Additionally, development adjacent to streams and source areas contributes to increased stream temperatures. Low dissolved oxygen can result from a combination of high stream temperatures and eutrophication.

Although development is often associated with the impairment of watershed processes, redevelopment can improve water quality and increase infiltration as areas come into compliance with applicable stormwater quality standards. Differences in the effects of the proposed alternatives on water resources will depend on where population growth is directed.

Lakes

The cumulative effects of development affect the water quality in lakes in generally the same ways described above for marine resources and streams. Key water quality concerns in lakes include eutrophication, pathogens, and low dissolved oxygen levels. Development along lakes can also substantially alter terrestrial inputs, including large wood (Francis and Schindler 2006), terrestrial insects (Francis and Schindler 2009), and organic detritus (Francis et al. 2007). Whereas 40% of fish in undeveloped lakes consumed insect prey, only 2.4% of fish consumed insect prey in developed lakes (Francis and Schindler 2009). These changes can substantially alter shoreline structure and food-web linkages in lakes.

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, that 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.

Groundwater

An increase in population will increase the demand for potable water within the county. Where groundwater is depleted along the shoreline, there is the potential for saltwater intrusion to occur. Future sea level rise may exacerbate potential saltwater intrusion. Additionally, groundwater and surface water levels are interrelated; therefore, a reduction in groundwater would also be expected to reduce groundwater discharge to streams. Wetland area loss would contribute to this impact trend.

As the population density grows, pollutant loads will generally tend to increase. The risk of water quality contamination of critical aquifer recharge areas may increase with the intensification of land uses. Groundwater storage, provided by aquifers and wetlands, desynchronizes stream flows and provides clean cool water to surface water flows.

Impacts of Alternative 1

Alternative 1 would retain the existing UGA boundaries and zoning designations. Development would be concentrated in incorporated and unincorporated UGAs.

An analysis of estimated impervious surface by watershed assessed the different outcomes of the three alternatives by applying broad estimates of impervious area to potentially developable acres in a similar method as in the 2006 EIS (Jones & Stokes 2006) and 2012 SEIS (BERK et al. 2012). Details are presented in Appendix F. A low and high estimate of development under each of the zoning designations was used to develop a range of impervious surfaces expected under each alternative. Exhibit 3.1-16 shows the acreage of each basin and low and high estimates of impervious surface area within each basin.

Compared to the other alternatives, impervious surface coverage would be higher in the Blackjack Creek and Puget Basins (Port Orchard UGA) and lower in the Chico (Bremerton West UGA), Northwest Kitsap (Port Gamble Trust Land), and Poulsbo (Suquamish Tribal Land and Poulsbo and Kingston UGA) Basins. Total impervious surface coverage would be slightly lower than Alternative 2 or 3.

Exhibit 3.1-16. Estimated Percent Impervious Surface Coverage by Basin

Basin	Total Basin Acreage	Low Estimate			High Estimate		
		No Action	Alt 2	Alt 3	No Action	Alt 2	Alt 3
Bainbridge Island	17,424	33.5%	33.5%	33.5%	33.5%	33.5%	33.5%
Blackjack Creek	23,414	29.7%	28.5%	28.5%	30.9%	29.7%	29.6%
Chico	15,423	21.7%	22.6%	22.7%	22.5%	24.0%	24.1%
East/Southwest Kitsap	10,663	23.4%	23.4%	23.4%	23.4%	23.4%	23.4%
Elgin	21,522	10.0%	9.8%	10.0%	10.6%	10.6%	10.7%
Northwest Kitsap	27,826	14.6%	15.0%	15.1%	16.9%	17.5%	17.6%
Poulsbo	37,691	14.5%	15.3%	15.2%	15.3%	16.1%	16.1%
Puget	32,580	8.4%	8.3%	8.3%	9.6%	9.4%	9.4%
Silverdale	22,859	30.8%	30.6%	31.8%	36.7%	36.2%	38.0%
Southwest Kitsap	12,008	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
West Kitsap	31,833	4.6%	4.6%	4.7%	4.8%	4.8%	4.9%
Grand Total	**253,709**	**16.5%**	**16.5%**	**16.7%**	**17.8%**	**17.9%**	**18.1%**

Note: For all alternatives, if the Bremerton City utility lands managed for watershed purposes are treated as open space rather than as typical city limits, the impervious areas would be reduced in the Blackjack Creek (-4.9%), Chico (-0.7%), East/Southwest Kitsap (-12.5%), and Southwest Kitsap basins by collectively 2,592 acres (~1% countywide).
Source: Kitsap County GIS; The Watershed Company 2015

Impacts of Alternative 2

Alternative 2 would increase the density of urban corridors and retain similar UGA boundaries, with focused changes that result in a net 4% reduction of UGA area. The UGA boundary would expand in Silverdale and Bremerton by 25 and 252 acres, respectively.

Reductions in the eastern and southern extent of the Port Orchard UGA boundary, totaling 904 acres, would maintain lower levels of development in the vicinity of Beaver Creek, Salmonberry Creek, and associated wetlands. The 241-acre reduction in the East Bremerton UGA and 156-acre reduction in Central Kitsap UGAs will limit development in an existing low-density area with stream resources.

Development intensity would be expected to increase in the Silverdale Regional Growth Center (RGC), as well as in Poulsbo and Bremerton; however, to the extent that these changes occur through redevelopment, effects on water resources would likely be mitigated by required standards

for stormwater treatment that may not have applied to previous development. Transportation programs and facilities that encourage alternative forms of transportation and minimize the need for single-occupant vehicles, as proposed in Alternative 2, would also help mitigate the effects of a growing population on water quality conditions, specifically metals and polycyclic aromatic hydrocarbons associated with vehicle use.

Alternative 2 would allow for increased development in the expanded UGA areas of West Bremerton, including Kitsap Lake. The change in Comprehensive Plan designation and zoning would not be expected to affect shoreline habitat structure along Kitsap Lake since the lake shoreline area is already developed with single-family residential uses. Potential geohazard areas and wetlands may limit actual development potential in the proposed UGA expansion area around Kitsap Lake; nevertheless, increasing the zoning density in the area draining to Kitsap Lake is expected to increase impervious surface coverage. The lake is already listed as impaired for dissolved phosphorus, and additional impervious surface coverage may exacerbates this condition or increase the risk of additional water quality impairments.

Impacts of Alternative 3

Instead of limiting UGA boundaries, Alternative 3 expands UGA acreage by 754 acres, for a net increase of 4%. Expansion would occur in Kingston, Silverdale, Central Kitsap, and West Bremerton. These changes allow for greater growth and higher impervious surface coverage compared to the other alternatives (See Exhibit 3.1-16). In particular, the expanded Central Kitsap UGA boundary would potentially reduce or eliminate the existing gap in urban development between the Silverdale and Central Kitsap UGA, with direct impacts from increased development along Barker Creek. Expansion of the West Bremerton UGA along Kitsap Lake would not be expected to affect shoreline habitat structure along Kitsap Lake shorelines since the lake shoreline area is already developed with single-family residential uses. Potential geologic hazard areas and wetlands may limit actual development potential in the proposed UGA expansion area around Kitsap Lake; nevertheless, increasing the zoning density in the area draining to Kitsap Lake is expected to increase impervious surface coverage. The lake is already listed as impaired for dissolved phosphorus, and additional impervious surface coverage may exacerbate this condition or increase the risk of additional water quality impairments.

Alternative 3 includes elements that promote alternative forms of transportation and clustered development centers, such as the Silverdale Regional Growth Center, but by expanding UGA boundaries, Alternative 3 permits more expansive urban density areas. The proposed changes in Alternative 3 may limit single-occupancy use in clustered areas, but may promote additional vehicle use to expanded urban areas. The net effect on water quality associated with roads and vehicle use is expected to be similar to the No Action Alternative.

Alternative 3 would include reductions in the eastern and southern extent of the Port Orchard UGA boundary, similar to Alternative 2. These areas would maintain lower levels of development in the vicinity of Beaver Creek, Salmonberry Creek, and associated wetlands.

3.1.3.3. Mitigation Measures – Water Resources

Incorporated Plan Features

The Kitsap County Comprehensive Plan Chapter 3– Environment - provides goals and policies to generally 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 and Commitments

Under all three alternatives, new and existing development must comply with the County's critical area regulations, shoreline master program, stormwater design specifications, and other applicable regulatory standards. Current local, state, and federal regulations protecting water resources include the following:

- Critical Areas Regulations (KCC Title 19) identify and protect critical areas, including streams, wetlands, frequently flooded areas, and critical aquifer recharge areas. Critical areas regulations establish mitigation sequencing standards, as well as buffers on streams and wetlands. Regulations establish prohibited and conditional uses within Category I and II critical aquifer recharge areas. Regulations for frequently flooded areas establish safety standards within the floodplain and limit any development within the floodway that would result in a rise of flood levels. Alternative 2 and 3 would include adoption of minor revisions to critical area regulations to align with most recent approach to wetland ranking; however, the substantive regulatory requirements will be consistent across each of the alternatives.
- Shoreline Master Program (KCC Title 22), updated in 2014, applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all shorelines of the state. The updated Shoreline Master Program was adopted to meet the standards of no net loss of shoreline ecological functions. Additionally, the Shoreline Restoration Plan identifies a number of voluntary projects and programs to be implemented to improve shoreline functions over time.
- Storm Water Drainage Regulations (KCC Title 12) requires best management practices for stormwater management associated with major and minor development activity. Standards also apply to redevelopment of roads and to redevelopment projects totaling over 5,000 square feet. The Kitsap County Low Impact Development (LID) Guidance Manual (2009) provides guidance on the implementation of LID in land development projects in Kitsap County. Such practices help to minimize both the area and impacts resulting from impervious surfaces in the county.
- National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. The County's current Phase II Permit became effective on August 1, 2013. The permit requires the County to meet all known, available, and reasonable methods of prevention, control and treatment requirements, and to protect water quality.
- The U.S. Army Corps of Engineers regulates fill of wetlands through the Federal Clean Water Act.
- As a result of a 2008 Biological Opinion by the National Marine Fisheries Service, in order to maintain coverage under the National Flood Insurance Program, 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.

- Consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service may be required for federally permitted or funded actions that could affect endangered species (e.g. salmon or bull trout).
- Kitsap Peninsula Minimum Instream Flow Regulations (WAC 173–515) establish minimum instream flows for 20 streams in WRIA 15; the regulations also restrict diversions from specific over-appropriated and low flow streams. The prohibition against surface water diversions only extends to groundwater withdrawals if the withdrawal would have an adverse impact on the stream.
- Under the State Environmental Policy Act (SEPA), all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in both planning and decision making.
- Kitsap County and the City of Bremerton, in partnership with other state, federal, and tribal agencies, developed a 20-year plan for the future of the Gorst Creek Watershed. This cooperative planning effort developed a land use plan based on the ecological values and functions of the Gorst Creek Watershed, guided by the results of the Puget Sound Watershed Characterization Project.

Other Proposed Mitigation Measures

- In addition to stormwater standards, transportation programs and facilities that encourage alternative forms of transportation and minimize the need for single-occupant vehicles, such as proposed in Alternative 2, could significantly help in mitigating the effects of a growing population on water quality conditions in the county.

3.1.3.4. Significant Unavoidable Adverse Impacts – Water Resources

Each alternative will support a population increase of nearly 25% compared to 2012 population levels, which will create an increased draw on groundwater resources in Kitsap County.

Impervious surface area would increase to a similar extent under all alternatives. Alternative 2 would have the least impacts of the three alternatives as it would reduce UGA boundaries collectively by 4%, including in areas with surface water resources. Alternative 3 would increase impacts in the Silverdale/Central Kitsap UGA boundaries along Barker Creek and reduce them in the Port Orchard UGA area.

The County's stormwater management requirements will minimize the impacts from new impervious surfaces; however, some unavoidable impacts to both surface and ground water resources, such as increasing peak flows, channel incision, and reduced groundwater recharge, are unavoidable as new impervious surfaces are created and vegetation is cleared for new development.

3.1.4. Plants and Animals

3.1.4.1. Affected Environment – Plants and Animals

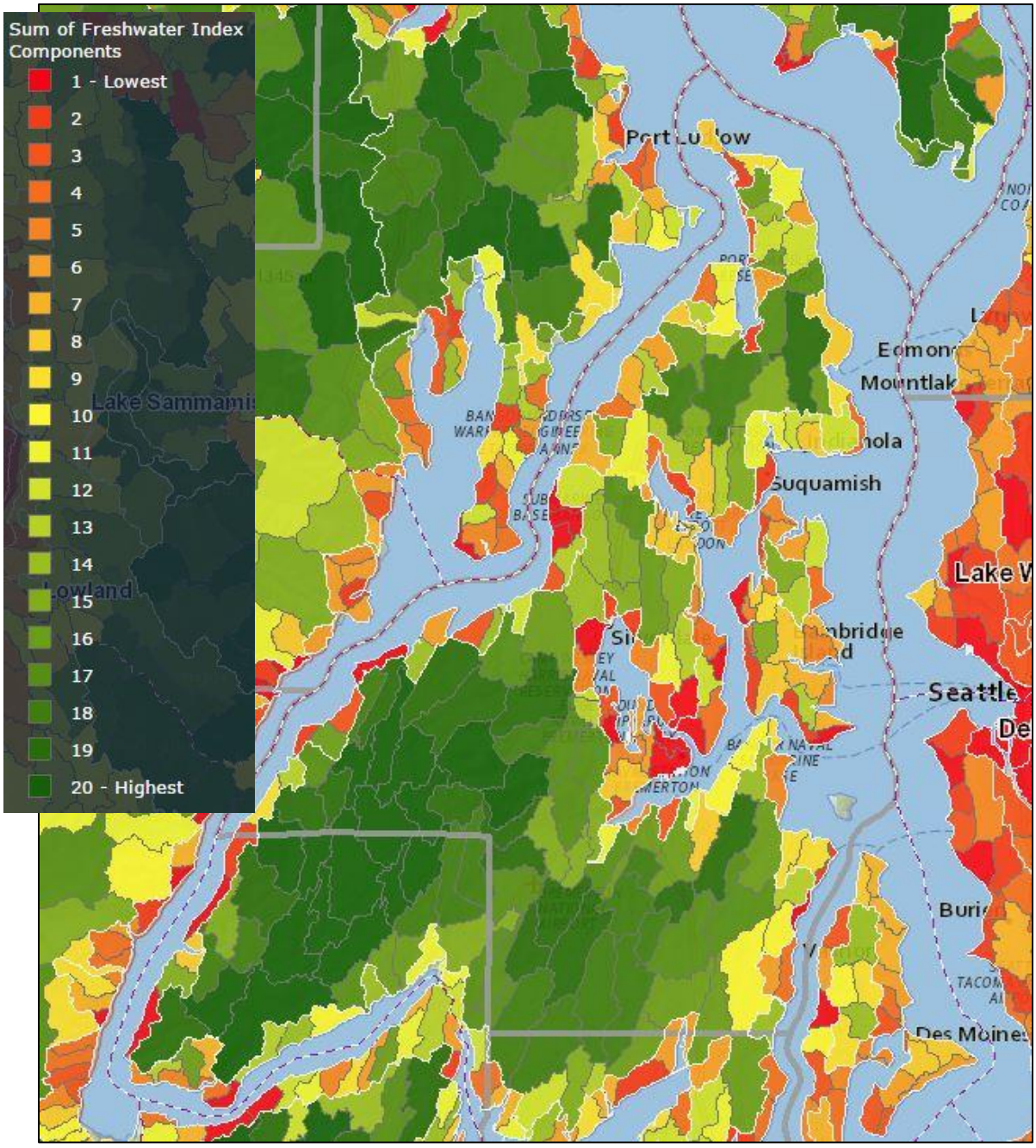
Plants

The 2012 EIS (Kitsap County) described the plant communities of Kitsap County as follows:

> *"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 Department of Community Development 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. lasiandra), madrone (Arbutus menziesii), and cascara (Rhamnus purshiana) are also common (Kitsap County Department of Community Development 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 (Blechnum 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 spp.), Labrador tea (Ledum groenlandicum), and reed canarygrass (Phalaris arundinacea), which are adapted to the hydric soils and wet surroundings (Kitsap County Department of Community Development 2006)."*

Washington State Department of Fish and Wildlife (WDFW) completed a ranking of the condition of freshwater habitat in the county (Exhibit 3.1-17) 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 Urban Growth Areas (UGAs).

Exhibit 3.1-17. Habitat – Sum Freshwater Index Components



Source: Ecology, electronic source

The Kitsap County Parks, Recreation, and Open Space Plan (Kitsap 2012) identifies primary and secondary habitat corridors. The habitat corridors are ranked based on presence/absence of priority species, patch size, condition (intact or degraded), and connectivity to other priority habitats within the landscape. Open space corridors identified in the County's Open Space Plan generally coincide with high value habitat as shown in dark-light green in Exhibit 3.1-17 above.

Rare Plant Species

Seven species of rare plants have been identified by the DNR Natural Heritage Program as occurring in Kitsap County (WDNR 2014). Rare plant species documented within Kitsap County are listed in

Exhibit 3.1-18. No known occurrences of rare plant species occur within existing or proposed UGA boundaries.

Exhibit 3.1-18. Known Occurrences of Rare Plants in Kitsap County

Scientific Name	Common Name	State Status	Federal Status	Habitat
Abronia umbellata ssp. acutalata	Pink sand verbena	Endangered, Possibly Extirpated	Species of concern	Beaches
Utricularia gibba	Humped bladderwort	Under review	N/A	Aquatic
Hypericum majus	Canadian St. John's-wort	Sensitive		Wetlands
Lycopodiella inundata	Bog clubmoss	Sensitive	N/A	Wetlands
Oxalis suksdorfii	Western yellow oxalis	Threatened	N/A	Meadows and moist forests
Boschniakia hookeri	Vancouver ground-cone	Under review	N/A	Young forests
Woodwardia fimbriata	Giant chain fern	Sensitive	N/A	Riparian areas

Source: WDNR 2014

Marine Habitats

The Kitsap County Shoreline Cumulative Impacts Analysis (The Watershed Company and BERK 2013) describes the 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 percent of the County's marine shorelines have invasive vegetation covering greater than 25 percent of the area. Vegetation overhanging the nearshore covers less than 25 percent 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 percent, compared to 57 percent on the west Kitsap County shorelines along Hood Canal."*

In addition to upland vegetation, kelp, eelgrass, and saltmarsh vegetation along the county's marine shorelines provide significant ecosystem functions and habitat for a variety of sea life. Nearshore habitats 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).

Animals

Listed Fish and Wildlife Species

Species in Exhibit 3.1-19 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 3.1-19. Federal- and State- Listed Species in Kitsap County

Species	Federal Status	State Status
Fish		
Chinook Salmon (Puget Sound Evolutionary Significant Unit (ESU))	Threatened	Candidate
Chum Salmon (Hood Canal summer-run ESU)	Threatened	Candidate
Steelhead trout (Puget Sound DPS)	Threatened	Candidate

Species	Federal Status	State Status
Bull Trout (Coastal/Puget Sound ESU)	Threatened	Candidate
Bocaccio, Rockfish (Puget Sound/Georgia Basin DPS)	Endangered	Candidate
Yelloweye Rockfish (Puget Sound/Georgia Basin DPS)	Threatened	
Canary Rockfish (Puget Sound/Georgia Basin DPS)	Threatened	
Marine Mammals		
Humpback Whale	Endangered	Endangered
Killer Whale (Southern Resident Distinct Population Segment (DPS))	Endangered	Endangered
Steller Sea Lion		Threatened
Birds		
Marbled Murrelet	Threatened	Threatened
Northern Spotted Owl	Threatened	
Streaked Horned Lark	Threatened	
Yellow-billed Cuckoo	Threatened	Candidate
Common Loon		Sensitive
Bald Eagle	Species of Concern	Sensitive
Peregrine Falcon	Species of Concern	Sensitive
Plants		
Golden Paintbrush	Threatened	
Marsh Sandwort	Endangered	
Mammals		
Canada Lynx	Threatened	
Gray Wolf		

Source: USFWS Electronic Reference; WDFW 2008, NMFS Electronic Reference

Priority Species

In addition to endangered, threatened, and sensitive species listed above, 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 2008). Many priority wildlife species have been documented to occur in Kitsap County. Priority species in Kitsap County that are not included in Exhibit 3.1-19, above, are listed in Exhibit 3.1-20

Exhibit 3.1-20. Other Priority Species in Kitsap County

Fish	Birds	Mammals
River Lamprey	Common Loon	Dall's Porpoise
White Sturgeon	Common Murre	Gray Whale
Pacific Herring	Marbled Murrelet	Sperm Whale
Longfin Smelt	Tufted Puffin	Harbor Seal
Surfsmelt	Western grebe	Pacific Harbor Porpoise
Cutthroat trout	Great Blue Heron	California Sea Lion

Fish	Birds	Mammals
Coho	Brant	Roosting Concentrations of: Big-brown Bat, Myotis bats, Pallid Bat
Pink Salmon	Harlequin Duck	Townsend's Big-eared Bat
Pacific Cod	Trumpeter Swan	Keen's Long-eared Bat
Pacific Hake	Waterfowl Concentrations	Columbian Black-tailed Deer
Walleye Pollock	Mountain Quail	
Black Rockfish	Sooty Grouse	**Invertebrates**
Brown Rockfish	Band-tailed Pigeon	Pinto (Northern) Abalone
Copper Rockfish	Vaux's Swift	Geoduck
Greenstriped Rockfish	Pileated Woodpecker	Butter Clam
Quillback Rockfish	Purple Martin	Native Littleneck Clam
Redstripe Rockfish	nonbreeding concentrations of: Loons, Grebes, Cormorants, Fulmar, Shearwaters, Storm-petrels, Alcids	Manila Clam
Tiger Rockfish	breeding concentrations of: Cormorants, Storm-petrels, Terns, Alcids	Olympia Oyster
Yellowtail Rockfish	Cavity-nesting ducks: Wood Duck, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Hooded Merganser	Pacific Oyster
Lingcod	nonbreeding concentrations of: Barrow's Goldeneye, Common Goldeneye, Bufflehead	Dungeness Crab
Pacific Sand Lance	nonbreeding concentrations of: Charadriidae, Scolopacidae, Phalaropodidae	Pandalid shrimp
English Sole		Puget Blue
Rock Sole	**Reptiles**	
	Pacific Pond Turtle (Western Pond Turtle)	**Amphibians**
		Western Toad

Source: WDFW 2008

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.

Shellfish are a significant ecological, cultural and economic component of Kitsap County shorelines. Forage fish in the Kitsap County area include surf smelt, sand lance, and Pacific herring.

3.1.4.2. Impacts– Plants and Animals

Impacts Common to All Alternatives

Regional population growth and an associated increase in land use intensity will occur under each of the proposed alternatives. Habitat loss and fragmentation is expected to increase with each alternative. The nature and extent of impacts to plants and animals will depend on location and intensity of development, habitat patch size, and connectivity across the landscape. Under each of the alternatives, development would be concentrated in UGAs, although lower density development is expected to continue within the county outside UGAs.

No change is proposed for the Poulsbo area UGA; it is the same under all three alternatives.

Protections currently in place for shorelines in the SMP and the Gorst Creek Watershed Framework Plan would remain in effect under all three alternatives. Critical areas, including streams and wetlands, would receive similar protection under each of the alternatives, despite minor changes to critical area regulations proposed in Alternatives 2 and 3. Salmon recovery and integrated watershed improvement projects will continue under all of the alternatives through coordinated efforts of the West Sound Watershed Council (2005) and the Hood Canal Coordinating Council (2005, 2014). An impact analysis that considers effects of planned Kitsap County growth on plants and animals under each of the three alternatives is provided below.

Impacts of Alternative 1

Alternative 1 is the No Action Alternative, which means that development would proceed under current zoning and concentrate within the existing UGA boundaries. Development density, particularly within the UGAs, will continue to increase. Under this alternative, development within the Port Orchard UGA would increase over time, resulting in habitat losses. This differs from Alternatives 2 and 3, which would both reduce the Port Orchard UGA. Relatively intact open space would be broken into patches, including forest within the Anderson Creek, Ross Creek, and Blackjack Creek basins.

Impacts of Alternative 2

Targeted reductions to the UGA in Central Kitsap and Port Orchard would occur under Alternative 2. Central Kitsap ranks high for freshwater habitat. Reducing the UGA by 156 acres in that area would limit development intensity, helping to protect existing open space and habitat corridor connections. Likewise, the outer fringe of the Port Orchard area also contains high value open space, and reducing the UGA by 904 acres here would help maintain existing landscape integrity.

UGA expansion would occur in Bremerton and Silverdale, 252 acres and 25 acres, respectively. Although Bremerton contains some of the lowest value habitat in the county, the adjacent land to the west managed largely as City utility lands and managed with the Gorst Creek Watershed Framework Plan is ranked as high value habitat. However, most of the proposed addition to the Bremerton UGA is already developed residential land. Expanding the UGA west of Bremerton would reduce landscape integrity and habitat value as higher intensity land uses are developed. The Silverdale area also includes limited areas of highly valued habitat, which would be incrementally impacted by increased land use density, though most intensity increases would occur in the already developed RGC. Relative to Alternatives 1 and 3, Alternative 2 is the least impactful to plants and animals.

Impacts of Alternative 3

Alternative 3 would manage projected county growth, in part, by expanding UGAs. Kingston, Silverdale, central Kitsap, and Bremerton UGAs would all expand, for a net expansion of 4%. The Kingston UGA would expand by 142 acres to the southeast, impacting habitat in an area currently characterized by moderate- to low-density residential development. The Silverdale UGA would expand by 705 acres to accommodate residential and industrial growth. Increased development in the Silverdale area would diminish open space and further reduce wildlife corridor connections. The Central Kitsap UGA would increase by a net 405 acres. The UGA expansion areas are generally developed and contain a patchy network of vegetated open spaces. Open space patch size and connectivity would be reduced under Alternative 3. Impacts to plants and animals are high under Alternative 3, relative to Alternatives 1 and 2.

Under Alternative 3, the Port Orchard UGA would be reduced by 751 acres. Beyond the intensely developed shoreline areas, Port Orchard is ranked high for habitat value and it is continuous with high value habitat to the south and west. Reducing development here benefits plants and animals by maintaining open space patches and habitat corridor connections. However, Alternative 2 would reduce the Port Orchard UGA by an additional 153 acres, further reducing impacts to intact vegetation and habitat relative to Alternatives 1 and 3.

3.1.4.3. Mitigation Measures– Plants and Animals

Incorporated Plan Features

The Kitsap County Comprehensive Plan Chapter 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.

Regulations and Commitments

Under all three alternatives, new and existing development must comply with the County's critical area regulations, shoreline master program, stormwater design specifications, and other applicable regulatory standards. Current 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 critical aquifer recharge areas. 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 prepared by a qualified biologist that identifies how impacts to wildlife or habitat will be mitigated. Alternative 2 and 3 would include adoption of minor revisions to critical area regulations; however, the substantive regulatory requirements will be consistent across each of the alternatives.
- Shoreline Master Program (KCC Title 22), updated in 2014, applies use and modification standards, as well as mitigation sequencing, vegetation conservation, and critical areas regulations to all shorelines of the state. The updated Shoreline Master Program was adopted to meet the standards of no net loss of shoreline ecological functions. Additionally, the Shoreline Restoration Plan identifies a number of voluntary projects and programs to be implemented to improve shoreline functions over time.
- Storm Water Drainage Regulations (KCC Title 12) require best management practices for stormwater management associated with major and minor development activity. Standards also apply to redevelopment of roads and to redevelopment projects totaling over 5,000 square feet. The Kitsap County Low Impact Development (LID) Guidance Manual (2009) provides guidance on the implementation of LID in land development projects in Kitsap County. Such practices help to minimize both the area and impacts resulting from impervious surfaces in the county.

- National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. The County's current Phase II Permit became effective on August 1, 2013. The permit requires the County to meet all known, available, and reasonable methods of prevention, control and treatment requirements, and to protect water quality.
- The U.S. Army Corps of Engineers regulates fill of wetlands through the Federal Clean Water Act.
- As a result of a 2008 Biological Opinion by the National Marine Fisheries Service, to maintain coverage under the National Flood Insurance Program, 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.
- Consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service may be required for federally permitted or funded actions that could affect endangered species (e.g. salmon or bull trout).
- Kitsap Peninsula Minimum Instream Flow Regulations (WAC 173–515) establish minimum instream flows for 20 streams in WRIA 15; the regulations also restrict diversions from specific over-appropriated and low-flow streams. The prohibition against surface water diversions only extends to groundwater withdrawals if the withdrawal would have an adverse impact on the stream.
- Under the State Environmental Policy Act (SEPA), all state and local agencies must use an interdisciplinary, integrated approach to include environmental factors in both planning and decision making.
- Kitsap County and the City of Bremerton, in partnership with other state, federal, and tribal agencies, developed a 20-year plan for the future of the Gorst Creek Watershed. The cooperative planning effort was based on the ecological values and functions of the Gorst Creek Watershed, guided by the results of the Puget Sound Watershed Characterization Project.
- 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 is also an active member jurisdiction in leading the Hood Canal Coordinating Council and the West Sound Watersheds Council, both of which are responsible for coordinating the implementation of restoration actions within the Kitsap Peninsula and Hood Canal regions.

Other Proposed 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 practices to reduce pollutant loads, which may include "keep it clean, drains to stream" stencils.
  - Native plant resources
  - A campaign to encourage reduction of lawns, as well as low-impact lawn care practices.

3.1.4.4. Significant Unavoidable Adverse Impacts– Plants and Animals

The projected population increase for Kitsap County and associated changes to the landscape will generate unavoidable adverse impacts to native plant communities and wildlife. Focusing high density development in urban cores or UGAs that exclude high functioning habitat patches minimizes impacts to plant and animal resources, but it does not prevent landscape-scale impacts. In particular, increased impervious surface area within a basin alters stream hydrology and water quality, negatively impacting aquatic species, including listed salmonids. Wildlife is consequently displaced as native vegetation corridors are degraded by selective clearing, colonized by invasive plant species, reduced in size, and fragmented by development.

3.2. Built Environment: Land Use and Transportation

3.2.1. Land and Shoreline Use

3.2.1.1. Affected Environment – Land and Shoreline Use

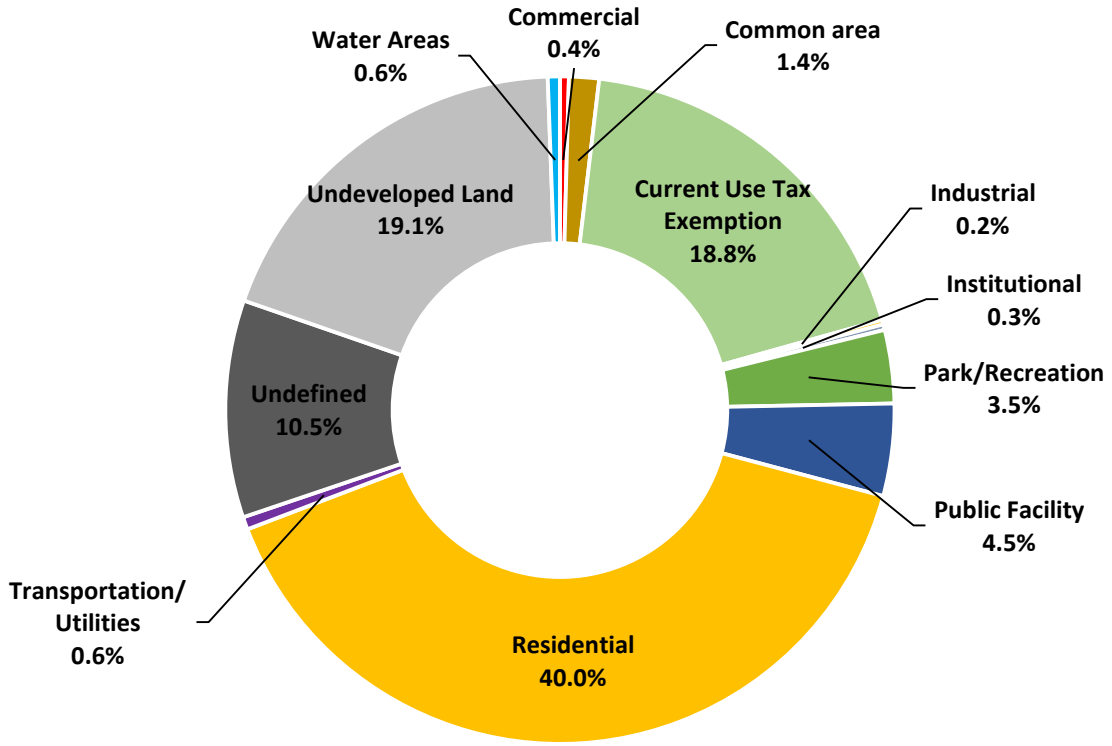
This section addresses planned and existing land uses in the study Urban Growth Areas (UGAs) and within Kitsap County. It also addresses the potential changes to land use under the SEIS alternatives and the impacts of those changes.

Land Use Patterns

Current Land Use Patterns

Current land use patterns, describing the use of property today, were derived from the Kitsap County Assessor's records and the County's Geographic Information System (GIS). Land uses within the unincorporated UGAs consist primarily of residential, undeveloped open space, and resource lands engaged in the current-use taxation program. Exhibit 3.2-1 shows the distribution of current land use categories for the unincorporated areas of the county.

Exhibit 3.2-1. Current Land Use Countywide (Unincorporated)



Source: Kitsap County Assessor, 2015.

Exhibit 3.2-2 shows the distribution of current land use categories within each of the county's UGAs and in the rural county.

Exhibit 3.2-2. Current Land Use Categories by Study Area (Acres)

	Bremerton: East UGA	Bremerton: West UGA	Bremerton: Gorst UGA	Bremerton: SKIA UGA	Port Orchard UGA	Poulsbo PUTA	Kingston UGA	Silverdale UGA	Central Kitsap UGA	Rural County
Commercial	12.20	11.82	26.64	-	48.98	-	20.34	331.74	124.48	285.66
Common Areas	3.70	15.09	-	-	91.28	7.91	32.79	226.31	180.77	2,347.36
Current Use Tax Exemption	78.59	9.72	70.59	23.79	121.78	42.32	341.40	255.09	624.44	36,023.55
Industrial	0.47	12.53	39.37	37.92	36.15	8.75	6.43	54.97	45.55	206.96
Institutional	11.74	11.01	0.58	-	69.75	-	4.89	138.81	42.37	262.13
Park/Recreation	11.00	13.74	-	24.87	264.73	-	53.46	196.72	270.59	6,276.52
Public Facility	-	3.91	0.28	-	109.73	-	58.26	153.32	120.45	8,504.29
Residential	733.37	683.50	67.54	42.80	2,063.10	238.67	368.54	2,186.57	2,835.23	71,007.49
Transportation/ Utilities	18.70	14.88	18.18	26.79	32.37	17.70	21.17	94.69	43.55	932.57
Undefined[1]	10.85	34.83	2.31	17.23	20.74	2.21	29.63	150.40	43.95	20,785.56
Undeveloped Land	165.24	171.80	56.58	89.82	485.24	63.59	148.88	910.83	693.93	35,470.27
Water Areas	3.74	19.99	0.32	-	2.53	-	5.04	47.63	4.23	1,085.71
Total Acres	1,049.60	1,002.84	282.38	263.20	3,346.38	381.14	1,090.82	4,747.08	5,029.56	183,188.08

1. The Undefined category represents land to which the Assessor has not assigned a land use code.

Source: Kitsap County Assessor, 2015.

Planned Land Use

Land use designations describe the types of uses envisioned for the future. The Kitsap County Comprehensive Plan and Comprehensive Plan Land Use Map establish a variety of land use types and their location for urban and rural areas within the county. The land use designations reflect a variety of future land use types and intensity of development envisioned for the area. These designations correspond to zoning and development standards that regulate development in areas under the County's jurisdiction.

Exhibit 3.2-3 lists the County's adopted Comprehensive Plan designations and corresponding zoning.

Exhibit 3.2-3. Comprehensive Plan Designation and Zoning

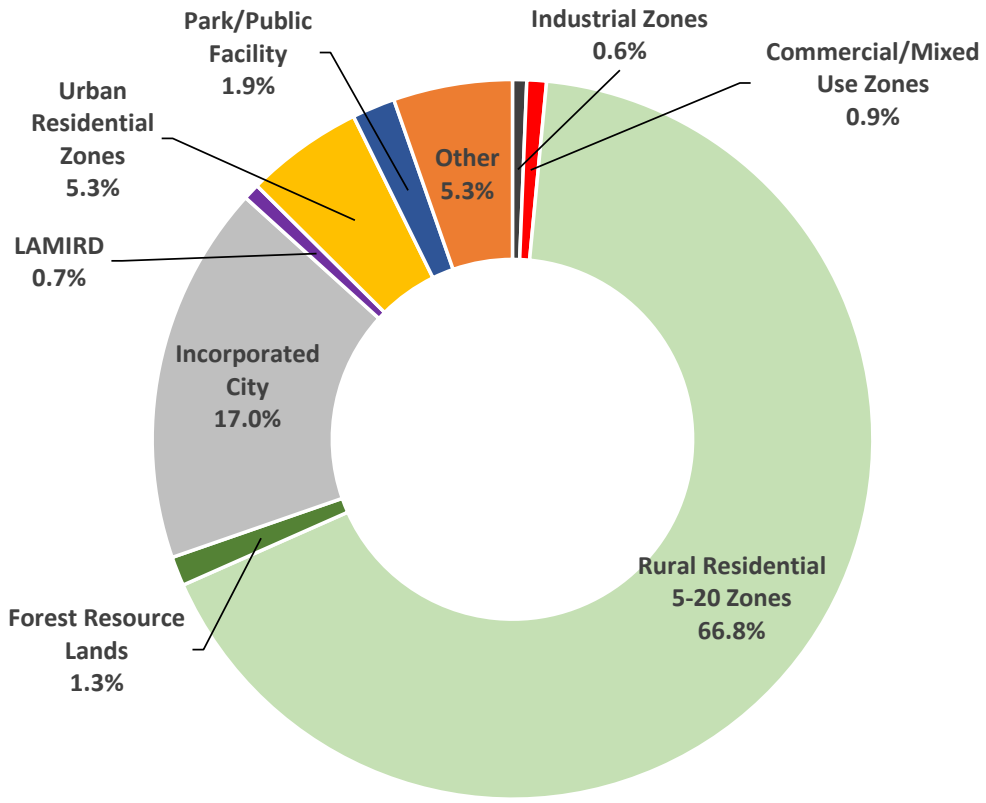
Comprehensive Plan Land Use Designation	Zone Classification	Map Symbol	Density
Forest Resource Lands	Forest Resource Lands	FRL	1 dwelling unit / 40 acres
Rural Wooded	Rural Wooded	RW	1 dwelling unit / 20 acres
Rural Protection	Rural Protection	RP	1 dwelling unit / 10 acres
Rural Residential	Rural Residential	RR	1 dwelling unit / 5 acres
Urban Reserve	Urban Reserve	URS	1 dwelling unit / 10 acres
Urban Low-Density Residential	Urban Restricted	UR	1 – 5 dwelling units / acre
	Illahee Greenbelt Zone	IGZ	1 – 4 dwelling units / acre
	Urban Low Residential	UL	5 – 9 dwelling units / acre
	Urban Cluster Residential	UCR	5 – 9 dwelling units / acre
	Senior Living Homestead	SLH	5 – 9 dwelling units / acre
Urban Medium/High-Density Residential	Urban Medium Residential	UM	10 – 18 dwelling units / acre
	Urban High Residential	UH	19 – 30 dwelling units / acre
Urban Low Intensity Commercial, Mixed Use	Urban Village Center	UVC	Up to 18 dwelling units / acre
	Neighborhood Commercial	NC	10 – 30 dwelling units / acre
	Low-Intensity Commercial	LIC	10 – 30 dwelling units /acre
Urban High Intensity Commercial, Mixed Use	Urban Town Center	UTC	Reserved
	Highway/Tourist Commercial	HTC	10 – 30 dwelling units / acre
	Regional Commercial	RC	10 – 30 dwelling units / acre
	Mixed Use	MU	10 – 30 dwelling units / acre
Industrial	Business Park	BP	Not applicable
	Industrial	IND	Not applicable
	Business Center	BC	Not applicable
	Airport	A	Not applicable
Rural Commercial	Rural Commercial	RCO	Not applicable
Rural Industrial	Rural Industrial	RI	Not applicable
Public Facilities	Parks	P	Not applicable
Mineral Resource	Mineral Resource Overlay	MR	Not applicable
Keyport Rural Village Zoning	Keyport Village Commercial	KVC	5 dwelling units / acre
	Keyport Village Low Residential	KVLR	2 dwelling units / acre

Comprehensive Plan Land Use Designation	Zone Classification	Map Symbol	Density
	Keyport Village Residential	KVR	5 dwelling units / acre
Manchester Limited Area of More Intensive Rural Development (LAMIRD)	Manchester Village Commercial	MVC	5 dwelling units / acre
	Manchester Village Low Residential	MVLR	2 dwelling units / acre
	Manchester Village Residential	MVR	4 dwelling units / acre
Rural Historic LAMIRD	Port Gamble Rural Historic Town Commercial	RHTC	2.5 dwelling units / acre
	Port Gamble Rural Historic Town Residential	RHTR	2.5 dwelling units / acre
	Port Gamble Rural Historic Waterfront	RHTW	2.5 dwelling units / acre
Suquamish LAMIRD	Suquamish Village Commercial	SVC	Not applicable
	Suquamish Village Low Residential	SVLR	2 dwelling units / acre
	Suquamish Village Residential	SVR	2 dwelling units / acre
Type 3 LAMIRDs	Rural Employment Center	REC	Not applicable
	12 Trees Employment Center	12 Trees	Not applicable

Source: Kitsap County Code, Title 17.

Exhibit 3.2-4 shows the relative allocation of countywide land area to various zoning categories, based on the current zoning code. As illustrated below, rural residential zones account for the largest share of land area, encompassing approximately 160,286 acres spread across large areas of the unincorporated county. By contrast, commercial, mixed use, and industrial zones are concentrated in UGAs and combined cover less than 2% of the county's land area. Likewise, zones associated with Limited Areas of More Intense Rural Development (LAMIRDs) are restricted to a small number of locations and encompass less than 1% of the county's land area.

Exhibit 3.2-4. Current Zoning Distribution – Countywide



Source: Kitsap County Community Development Department, 2015.

Exhibit 3.2-5 shows the distribution of zoning types within the county's nine UGAs. As illustrated here, each UGA is characterized by a slightly different mix of zoning types, though urban residential zoning is predominant in all, excepting the Gorst and SKIA UGAs, where commercial and industrial zones are more prevalent.

Exhibit 3.2-5. Current Zoning Distribution by UGA (Acres)

Urban Growth Area	Urban Residential	Commercial/ Mixed Use	Industrial	Other	Total
Bremerton East UGA	1,025.57	27.14	-	-	1,052.71
Bremerton West UGA	896.26	57.90	53.05	0.95	1,008.16
Central Kitsap UGA	4,019.96	294.36	12.28	710.09	5,036.68
Gorst UGA	41.02	132.22	100.68	15.72	289.63
Kingston UGA	852.15	99.90	20.37	33.13	1,005.54
Port Orchard UGA	2,676.19	484.63	60.99	146.83	3,368.64
Poulsbo PUTA	350.91	-	27.75	-	378.66
Silverdale UGA	3,105.33	861.80	808.46	160.32	4,935.92

Urban Growth Area	Urban Residential	Commercial/ Mixed Use	Industrial	Other	Total
SKIA UGA	-	-	227.75	-	227.75

Source: Kitsap County Community Development Department, 2015.

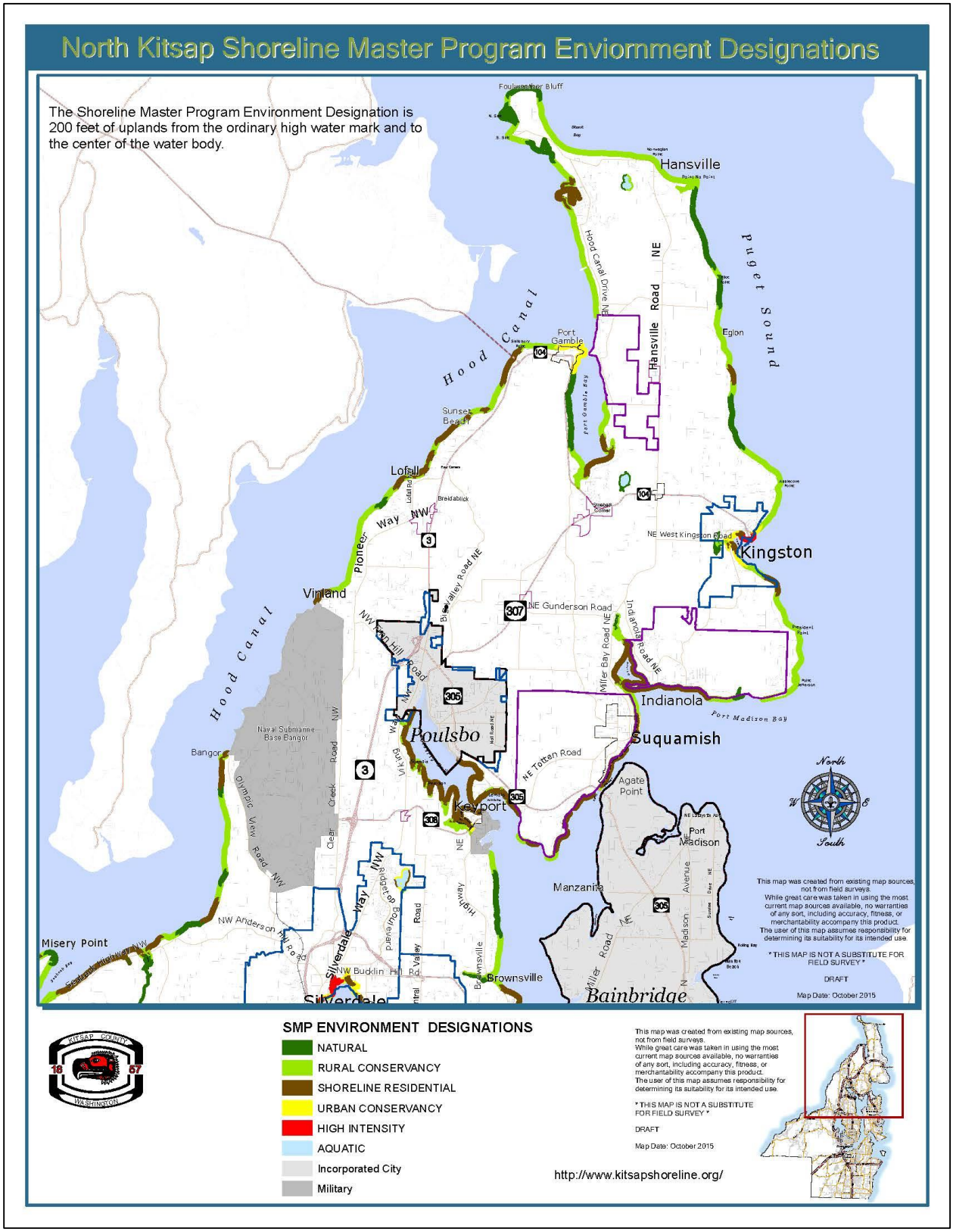
Shoreline Use

Kitsap County has approximately 276 miles of marine shoreline (including Blake Island). Freshwater streams are numerous in Kitsap County, with 975 miles currently mapped. (Kitsap County 2010).

Kitsap County's Shoreline Master Program (SMP) was adopted in 2014 and addresses land uses and development standards for shoreline activities. Exhibit 3.2-6, Exhibit 3.2-8, and Exhibit 3.2-9 illustrate adopted SMP environment designations in the county (north and south); these environment designations function like a zoning overlay and provide added land use and development performance standards. Current environment designations include:

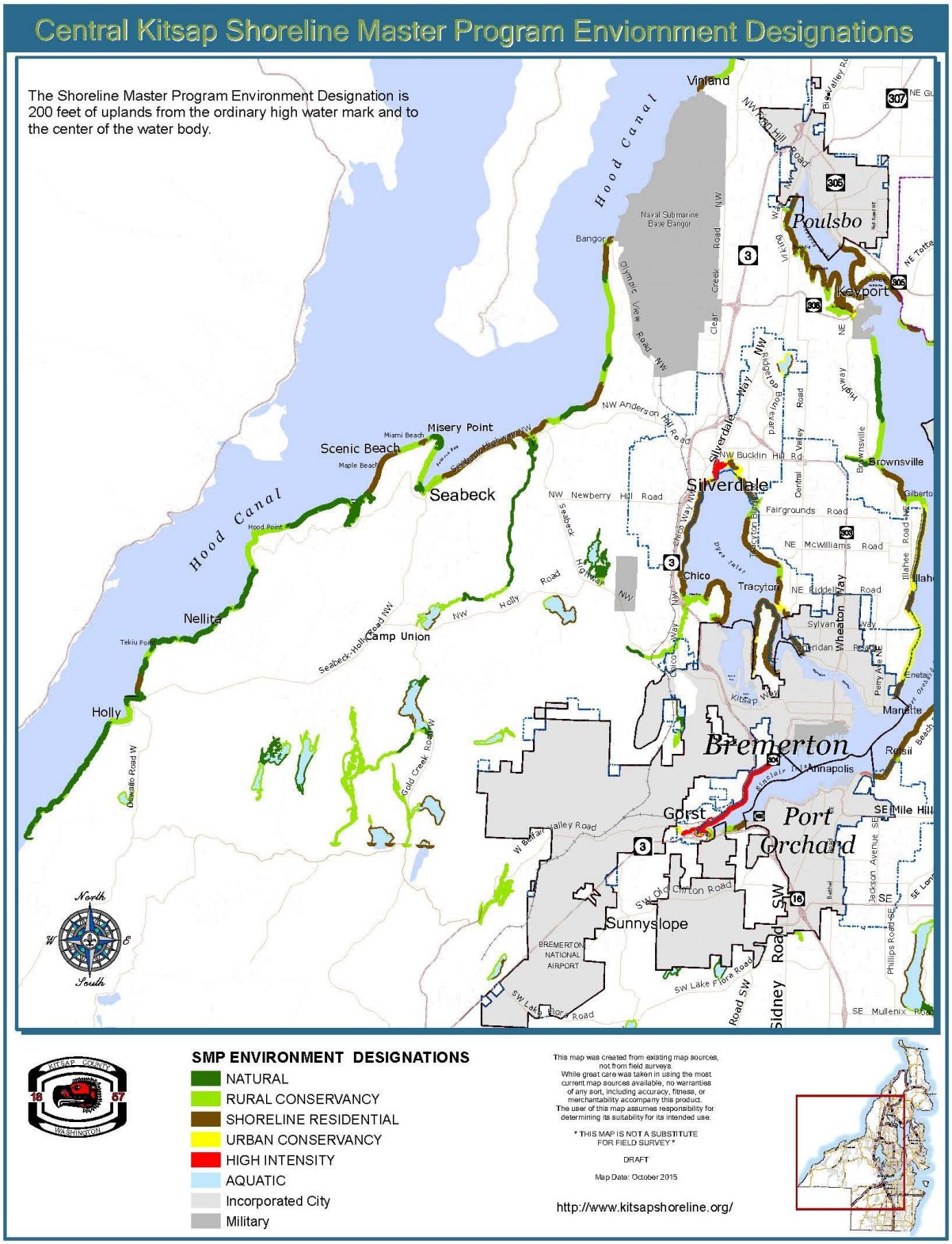
- **High Intensity:** The goal of the High Intensity environment is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological function in areas previously degraded.
- **Shoreline Residential:** The goal of the Shoreline Residential environment is to accommodate residential development and appurtenant structures that are consistent with the policies of the SMP, and to provide appropriate public access and shoreline recreational uses.
- **Urban Conservancy:** The goal of the Urban Conservancy environment is to protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.
- **Rural Conservancy:** The goal of the Rural Conservancy environment is to protect ecological functions, conserve existing natural resources and valuable historic and cultural areas in order to provide for sustained resource use, achieve natural floodplain processes, and provide recreational opportunities.
- **Natural:** The goal of the Natural environment is to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. In order to maintain ecological processes and functions, restrictions on the intensities and types of uses permitted in such areas are required. Restoration of degraded shorelines should be planned within this environment.
- **Aquatic:** The goal of the Aquatic environment is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the Ordinary High Water Mark.

Exhibit 3.2-6. Shoreline Master Program Environment Designations, North Kitsap County



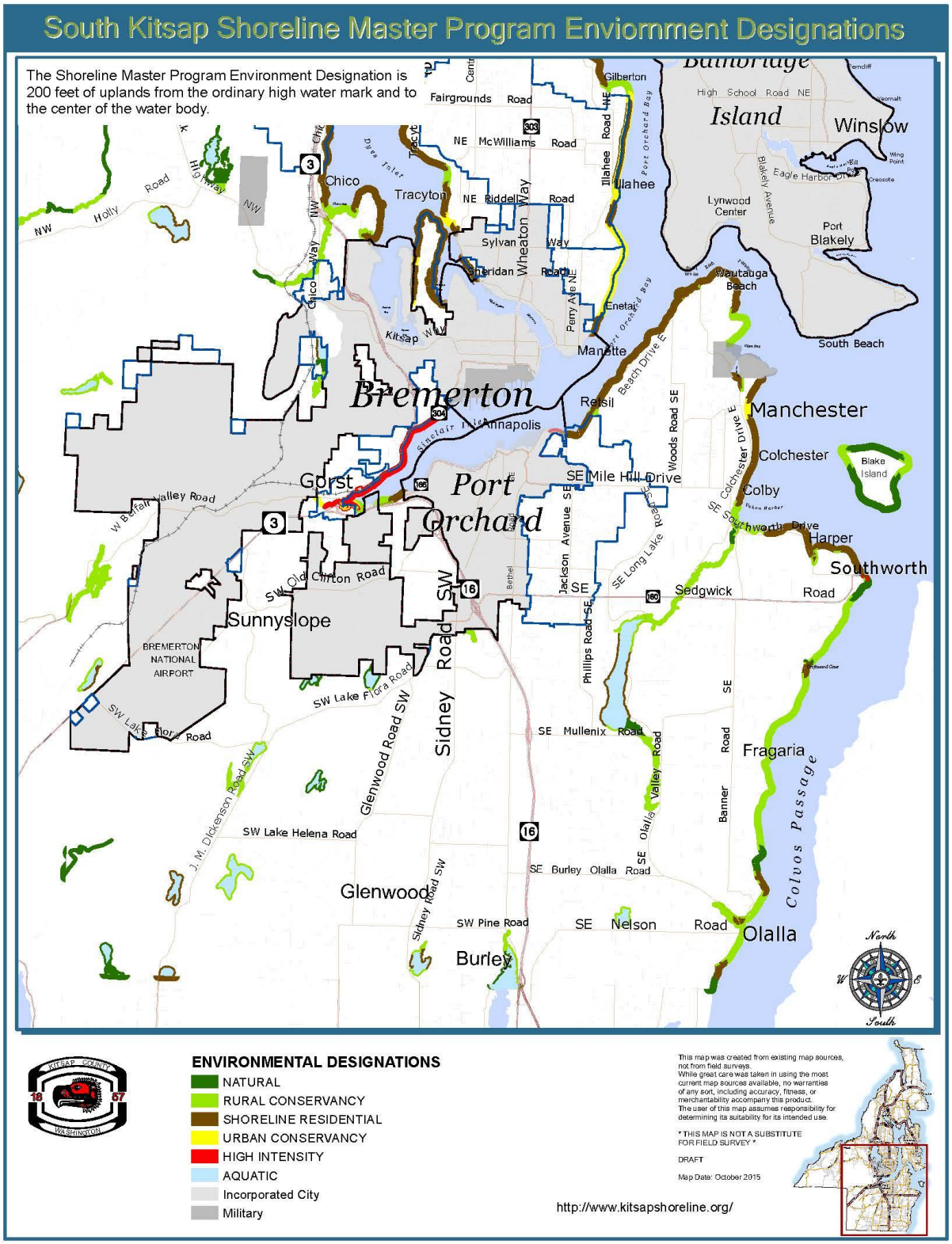
Source: Kitsap County Department of Community Development, 2015

Exhibit 3.2-7. Shoreline Master Program Environment Designations, Central Kitsap County



Source: Kitsap County Department of Community Development, 2015

Exhibit 3.2-8. Shoreline Master Program Environment Designations, South Kitsap County



Source: Kitsap County Department of Community Development, 2015

The current SMP designates much of the shoreline outside urban areas as Natural, Rural Conservancy, or Shoreline Residential. These low-intensity environments apply to some shoreline areas within UGAs, but Urban Conservancy and High Intensity designations primarily occur in urban areas. In particular, the High Intensity environment occupies most of the shoreline in the Gorst UGA, and the Kingston UGA consists of most Urban Conservancy and High Intensity environments.

3.2.1.2. Impacts– Land and Shoreline Use

Impacts Common to All Alternatives

All three alternatives assume increases in population and employment in Kitsap County over the course of the planning period. This growth is anticipated to result in new development, as well as redevelopment of some previously developed areas. Areas experiencing new development or redevelopment would see an increase in local activity. 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, that are likely to have more conflicts. Encroachment can occur within the existing UGAs or in rural areas adjacent to the UGA boundary.

More specific impacts vary by alternative and are discussed in the following sections.

Impacts of Alternative 1

Land Use Patterns

Alternative 1 would maintain existing Comprehensive Plan land use designations, zoning, and UGA boundaries. Unincorporated UGAs would encompass 18,949 acres, and the distribution of zoning categories described under Affected Environment would be maintained. Future growth would continue, in keeping with currently established patterns.

Conversion of Uses

Under Alternative 1, the urban areas of the county would be more compact than Alternative 3, but less compact than Alternative 2. However, as noted in Chapter 2, the current UGA boundaries do not provide sufficient capacity to meet adopted growth targets for these areas. As a result, spillover development may occur in rural areas adjacent to UGAs in response to growth pressures. This spillover growth would likely be of a lower intensity and more dispersed than growth in urban areas, increasing sprawl.

Changes in Activity Level

Potential impacts from growth and changes in activity levels would be similar to what is described under Impacts Common to All Alternatives. However, as Alternative 1 does not provide sufficient urban capacity for projected 2036 population growth levels, a greater portion of increased residential activity may be located in rural areas as spillover development occurs outside UGAs. Alternative 1 has more than sufficient UGA employment capacity and such land may be used less efficiently than if the capacity and growth targets were in greater alignment.

Land Use Compatibility

No changes to land use designations or zoning are proposed under the No Action Alternative. Spillover development in rural areas on the periphery of UGAs could result in some localized incompatibilities of development scale, but the County's adopted development regulations, including use restrictions, setback, and site design standards, are intended to prevent such impacts.

Shoreline Uses

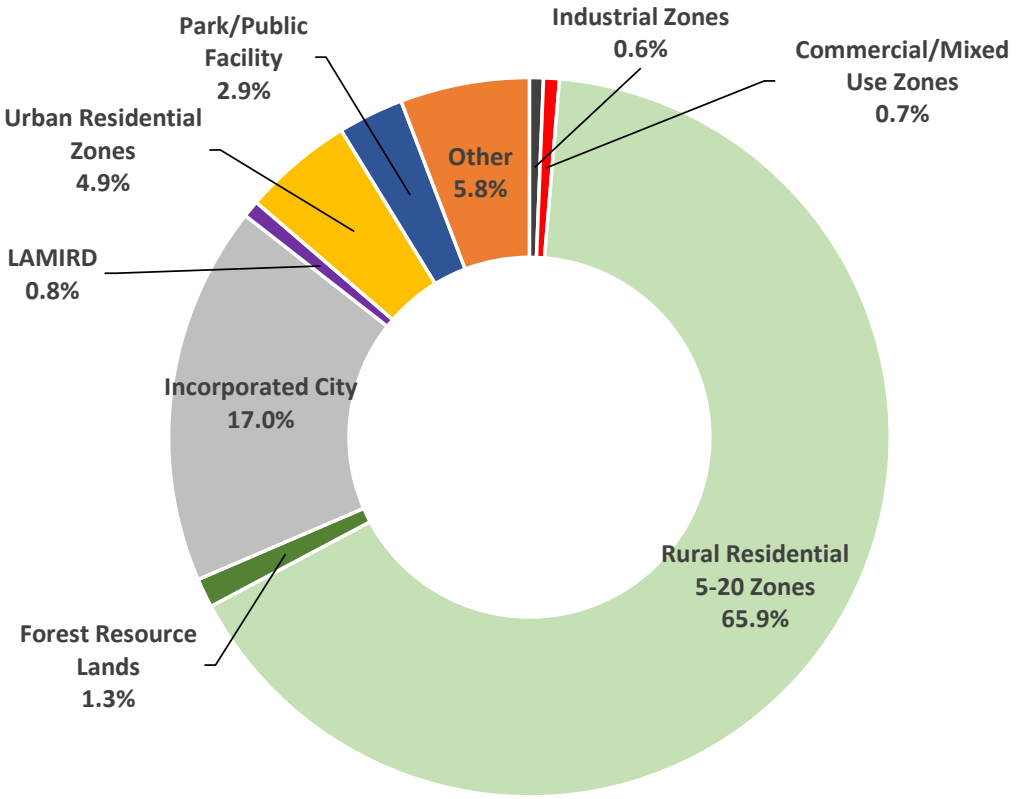
Alternative 1 would maintain existing land use and zoning designations in shoreline areas and would retain the adopted SMP, which was developed with the current UGA boundaries in place. No significant impacts to shoreline land uses are anticipated under the No Action Alternative.

Impacts of Alternative 2

Land Use Patterns

Alternative 2 would reduce the size of the Central Kitsap, Port Orchard, and Bremerton East UGAs. The Silverdale and Bremerton West UGAs would be expanded, and overall UGA acreage would experience a net reduction of 782 acres. As described in Chapter 2, Alternative 2 would also modify land use and zoning designations, primarily for the purposes of consistency and to increase housing and employment capacity in targeted locations (Silverdale, Central Kitsap along SR 303, Bremerton West). As a result of these proposed changes, the countywide zoning distribution would be modified, as shown in Exhibit 3.2-9.

Exhibit 3.2-9. Alternative 2 Zoning Distribution – Countywide



Source: Kitsap County Community Development Department, 2015.

Under Alternative 2, future land use patterns would remain similar to current patterns on a countywide basis. The proportion of land zoned for public facilities and tribal use would increase as a result of consistency and streamlining amendments. Overall, Alternative 2 would balance zoning changes across the county, though the overall amount of urban land would decrease relative to the No Action Alternative; increased acreage in one zoning category in a given location would be mostly offset by changes in another location. For example, as described in Chapter 2, the Silverdale and Bremerton West UGAs would be expanded, and the Central Kitsap, Bremerton East, and Port Orchard UGAs would be reduced. Zoning in expansion areas would be changed to urban categories, but zoning in UGA reduction areas would revert to rural categories. Greater development intensity would primarily occur in Silverdale, while other UGAs would experience rezones of areas with lower-intensity development to be consistent with existing conditions and revision of the UGA boundaries to exclude such areas.

Conversion of Uses

Under Alternative 2, conversion of uses would occur primarily in areas of UGA expansion and in urban locations where zoning would be changed to allow increased density and development intensity. In particular, conversion of uses is most likely to occur in the Silverdale area as Urban Low Residential areas are rezoned for Urban High Residential and as additional land is added to the UGA for industrial zoning. In the Bremerton West UGA, some conversion is likely where the UGA is expanded to allow urban residential uses north and southwest of Kitsap Lake.

Unlike Alternative 1, Alternative 2 provides sufficient population capacity countywide to meet 2036 growth targets (within 1%) but the UGAs would be undersized by 7-8%. Cumulatively between the cities and UGAs, spillover development and the associated conversion of uses anticipated under Alternative 1 is not likely to occur under Alternative 2.

As the cities' Comprehensive Plan Updates are completed, the results should be accounted in the Preferred Alternatives since basic city assumptions in this Draft SEIS are targets plus 5%. If cities anticipate growth closer to their targets and if UGAs remain undersized, then there could be a cumulative undersizing of urban areas, and similar results about spillover pressure into rural areas could apply as for Alternative 1.

Changes in Activity Level

In addition to the general impacts described under Impacts Common to All Alternatives, Alternative 2 would result in increased activity levels associated with increases in allowed development intensities. In areas where UGA boundaries would be expanded or urban areas where development intensity would be increased, overall activity would increase over time as development occurs. As described in the previous sections, these effects would be most pronounced in the Silverdale Regional Growth Center (RGC), as well as the Bremerton West UGA. Those areas targeted for UGA boundary reductions under Alternative 2 would not see a decrease from current activity levels, but exclusion of these areas from UGAs would prevent urban-scale development from occurring in the future.

Overall, due to the net reduction in UGA size compared with Alternatives 1 and 3, Alternative 2 would result in greater increases in activity levels over a smaller area, much of which is already characterized by urban development.

Land Use Compatibility

Projected growth has the potential to create compatibility issues with existing lower density residential, agriculture, and open space uses, particularly during the transition from semi-developed, suburban uses to urban uses. The encroachment of different uses will mainly occur in those UGAs with a large amount of vacant and developable land, which include Silverdale, Central Kitsap, and Port Orchard.

Growth within UGAs may also create conflicts with rural uses on the other side of the UGA boundary. Land uses on the boundaries within the UGAs are mostly Urban Low Density Residential with Rural Residential adjacent to the UGA boundaries. Under Alternative 2, UGA expansions would be for the purpose of adding urban residential zones, with the exception of the small, 25-acre industrial expansion in Silverdale that lies along a railroad corridor. There would be minimal compatibility issues between these new zones and the existing adjacent rural zones.

Shoreline Uses

Alternative 2 would result in relatively few zoning changes in shoreline areas. The zoning changes proposed for shoreline areas would either reduce allowed development intensity or change the existing zoning to a similar zone that is compatible with the adopted shoreline environment designation for those areas. For example, zoning changes in the Gorst area from Highway Tourist Commercial to Commercial zoning would allow similar types of development and would be

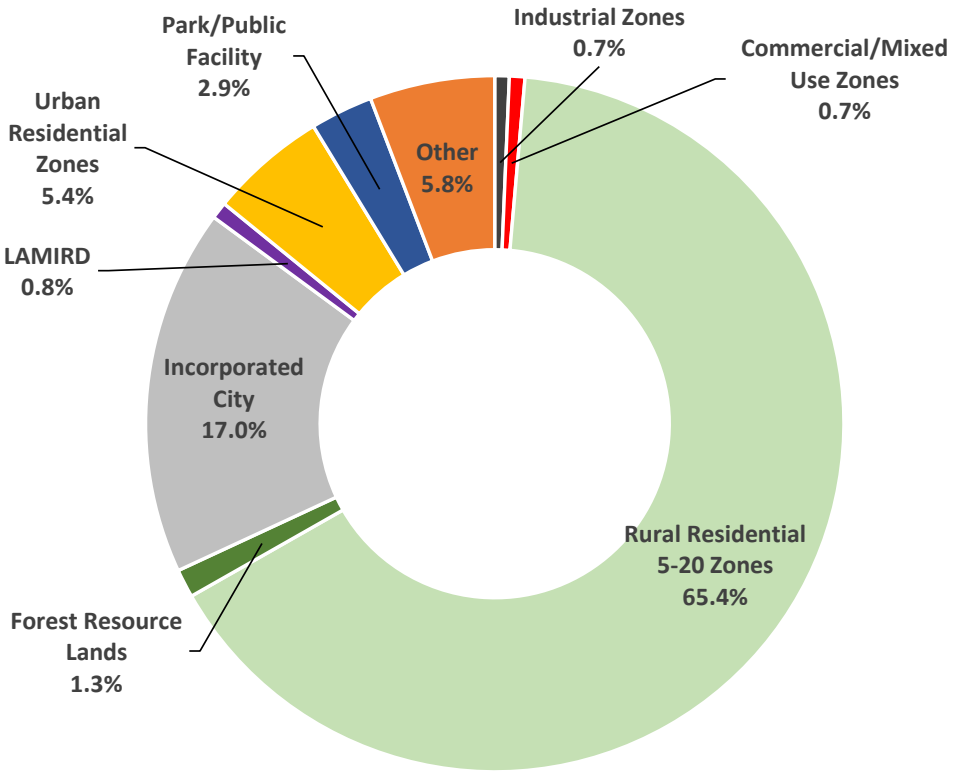
compatible with the High Intensity and Urban Conservancy shoreline designation adopted in that area. No significant impacts to shoreline areas are anticipated under Alternative 2.

Impacts of Alternative 3

Land Use Patterns

Alternative 3 would expand the size of the Kingston, Central Kitsap, Silverdale, and Bremerton West UGAs. The Bremerton East and Port Orchard UGAs would be reduced, and overall UGA acreage would experience a net increase of 754 acres. As described in Chapter 2, Alternative 3 would also modify land use and zoning designations to increase housing and employment capacity and respond to community requests for zoning changes. As a result of these proposed changes, the countywide zoning distribution would be modified, as shown in Exhibit 3.2-10.

Exhibit 3.2-10. Alternative 3 Zoning Distribution – Countywide



Source: Kitsap County Community Development Department, 2015.

Under Alternative 3, future land use patterns would remain broadly similar to current patterns on a countywide basis, but would place slightly more emphasis on urban uses. Similar to Alternative 2, the proportion of land zoned for public facilities and tribal use would increase as a result of consistency and streamlining amendments, and the amount of rural zoning would decrease to allow additional development of urban residential and industrial uses. Overall, Alternative 3 would expand urban zoning across the county; though some UGAs would be reduced, these would be offset by expansions in other areas with the net result being an expansion of urban uses across the county.

Similar to Alternative 2, most of the high intensity zoning changes would occur in Silverdale and the Central Kitsap UGA to make progress toward PSRC goals for the Silverdale RGC and to increase employment opportunities in the SR 303 corridor. Increased zoning intensity in other locations would be primarily tied to UGA expansions and the provision of additional urban residential zoning to provide housing capacity.

Conversion of Uses

Similar to Alternative 2, Alternative 3 would result in conversion of uses primarily in areas of UGA expansion and in urban locations where zoning would be changed to allow increased density and development intensity. However, the effect would be more widespread due to the greater amount of UGA expansion under Alternative 3. Conversion of uses is most likely to occur in the Silverdale area as Urban Low Residential areas are rezoned for Urban High Residential and as additional land is added to the UGA for industrial zoning. In all other UGA expansion areas, conversion is likely to occur as properties currently zoned for rural uses are rezoned for urban residential uses. Overall, Alternative 3 would result in similar types of use conversions as Alternative 2, but over a larger area due to the larger amount of UGA expansion proposed.

Alternative 3 has a countywide population growth that is slightly above targets, but only by 2%; UGAs would be undersized only by 4%. Based on prior County planning efforts, balancing capacity and targets to within 5% of the target is considered a reasonable margin of tolerance. As the cities' Comprehensive Plan Updates are completed, the results should be accounted in the Preferred Alternatives since basic city assumptions in this Draft SEIS are targets plus 5%. If cities anticipate growth closer to their targets and if UGAs remain undersized, then there could be a cumulative undersizing of urban areas, and similar results about spillover pressure into rural areas could apply as for Alternative 1.

Regarding employment, at the countywide level, employment is above the target by 12% due to conservative assumptions about cities' targets having a cushion of 5%. However, the UGAs are essentially at a balance point with planned employment.

Changes in Activity Level

In addition to the general impacts described under Impacts Common to All Alternatives, Alternative 3 would result in increased activity levels over time associated with increases in allowed development intensities. In those areas where UGA boundaries would be expanded or urban areas where development intensity would be increased, overall activity would increase over time as development occurs. As described in the previous sections, these effects would be most pronounced in the Silverdale Regional Center, as well as those areas where UGAs are expanded to provide additional urban residential zoning.

Overall, due to the net increase in UGA size compared with Alternatives 1 and 2, Alternative 3 would result in greater increased activity levels spread over a larger area, including more areas that currently experience lower, rural levels of activity.

Land Use Compatibility

Projected growth has the potential to create compatibility issues with existing lower density residential, agriculture and open space uses, particularly during the transition from semi-developed, suburban uses to urban uses. The encroachment of different uses will mainly occur in those UGAs

with a large amount of vacant and developable land, which include Silverdale, Central Kitsap, and Port Orchard.

Growth within UGAs may also create conflicts with rural uses on the other side of the UGA boundary. Land uses on the boundaries within the UGAs are mostly Urban Low Density Residential with Rural Residential adjacent to the UGA boundaries. Under Alternative 3, UGA expansions would be for the purpose of adding urban residential zones, with the exception of the small, 25-acre industrial expansion in Silverdale. There would be minimal compatibility issues between these new zones and the existing adjacent rural zones.

Shoreline Uses

Similar to Alternative 2, Alternative 3 would result in relatively few zoning changes in shoreline areas. The zoning changes proposed for shoreline areas would either reduce allowed development intensity or change the existing zoning to a similar zone that is compatible with the adopted shoreline environment designation for those areas. For example, zoning changes in the Gorst area from Highway Tourist Commercial to Commercial zoning would allow similar types of development and would be compatible with the High Intensity and Urban Conservancy shoreline designation adopted in that area. No significant impacts to shoreline areas are anticipated under Alternative 3.

3.2.1.3. Mitigation Measures– Land and Shoreline Use

Incorporated Plan Features

- Alternative 2 provides for the most compact development pattern of the three alternatives with the smallest UGA, limiting the potential for long-term conversion of rural uses to urban uses.

Regulations and Commitments

- 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 Shoreline Master Program, consisting of Shoreline Chapter policies in the Comprehensive Plan and regulations in KCC Title 22. This plan was updated in 2014 to meet State shoreline master program laws and guidelines.

Other Proposed Mitigation Measures

- Alternative 3 contains excess capacity for both population and employment. Some of the proposed UGA expansions could be reduced and still meet population and employment targets while avoiding unnecessary conversion of rural lands.

- The County should ensure, through the Silverdale Regional Center Plan update process, that design standards for the area adequately address infill development, buffering between commercial and low-density residential uses, and transitions between the higher-intensity urban uses within the center and the lower-intensity rural uses outside of it.

3.2.1.4. Significant Unavoidable Adverse Impacts– Land and Shoreline Use

Over time, the implementation of any of the alternatives could irreversibly commit vacant, partially developed, and redeveloped properties to additional or new single-family, multifamily, commercial, mixed, and industrial uses. The potential for this is greatest under Alternative 3 due to the greater amount of UGA expansion; this potential is lowest under Alternative 2, which would result in a net reduction of UGA acreage. Under all of the alternatives, the county will experience development, redevelopment, conversion of existing uses, and greater urbanization over time.

3.2.2. Relationship to Plans and Policies

3.2.2.1. Affected Environment – Relationship to Plans and Policies

Washington Growth Management Act

The Washington Growth Management Act (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 13 broad planning goals (Revised Code of Washington [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.

A fourteenth goal of GMA consists of the goals and policies of the Shoreline Management Act as set forth in RCW 90.58.020.

Population and Employment Forecasts

After reviewing Washington State Office of Financial Management (OFM) population projections in 2004, the Kitsap Regional Coordinating Council (KRCC) developed population projections and allocations in consultation with the County and cities. The Kitsap County Countywide Planning Policies (CPPs) establish a population target of 331,571 people by 2036. Based upon an adjusted base year of 2012, this represents a net growth of 77,071 people from the estimated 2012 population of 254,500.

As described in Chapter 2, the Kitsap Countywide Planning Policies also establish a net employment growth target of 46,158 new jobs in Kitsap County between 2010 and 2036. Approximately 90% of this growth is expected to occur within cities or UGAs. Based upon an adjusted base year of 2012, employment would need to grow by 46,647 jobs by 2036 to meet the adopted target and make up for a net job loss experienced between 2010 and 2012.

Chapter 2 contain more detail on population distributions by jurisdiction.

Urban Growth Areas

Under GMA, counties must designate Urban Growth Areas (UGAs). These are areas already characterized by urban development or adjacent to areas characterized by urban development. These UGAs should include "areas and densities sufficient to permit the urban growth that is projected to occur in the county or city for the succeeding twenty-year period." (RCW 36.70a.110 (2)) 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. GMA requires county comprehensive plans to include a rural element that addresses lands not designated for urban growth, including agricultural lands, forests, and mineral resources. (RCW 36.70a.070(5)) 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.

GMA does allow for localized clusters of more intense development within rural areas, known as 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. GMA allows three types of development in LAMIRDs:

- Infill, development, or redevelopment of existing commercial, industrial, residential, or mixed use;
- Intensification or new development of small-scale recreation or tourist uses; and
- Intensification or new development of isolated cottage industries and small scale-businesses (RCW 36.70A.070 [5][d]).

Mineral Lands

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))

Reasonable Measures

The Growth Management Act (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 urban growth areas (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 Countywide Planning Policies (2013) indicate each jurisdiction is to implement reasonable measures to support the efficient use of urban lands:

> *Policies for Urban Growth Areas (UGA). 2. Each jurisdiction is responsible for implementing appropriate reasonable measures within its jurisdictional boundaries. If the Buildable Lands Analysis shows that a jurisdiction's Comprehensive Plan growth goals are not being met, that jurisdiction shall consider implementing additional reasonable measures in order to use its designated urban land more efficiently.*

In 2004 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 2007 Buildable Lands Report and 2014 Draft 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 G of the Draft EIS. 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 Growth Management Act (RCW 36.70A.130), generally every eight 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 inter jurisdictional (external) consistency is accomplished by consistency with Countywide Planning Policies (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.

SEPA

SEPA (RCW 43.21C), requires government officials to consider the environmental consequences of actions they are about to take and consider better or less damaging ways to accomplish those

proposed actions. They must consider whether the proposed action would have a probable significant adverse environmental impact on the natural and built environment. This SEIS 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 Chapter 2 of this document.

VISION 2040 and Transportation 2040

VISION 2040, developed by the Puget Sound Regional Council (PSRC) and its member governments, including King, Kitsap, Pierce, and Snohomish Counties, is a regional growth strategy. Transportation 2040 is a transportation plan for the central Puget Sound region. Both plans provide a coordinated framework for guiding growth and transportation actions over the next twenty years.

VISION 2040 is based on a centers concept, encouraging growth to take place within regional centers of growth, and focusing economic development and transportation infrastructure investments there. Under VISION 2040, the PSRC designates the following urban areas/municipalities of Kitsap County.

- Downtown Bremerton as a "RGC."
- Silverdale as a "Regional Growth Center."
- South Kitsap Industrial Area – now known as the Puget Sound Industrial Center-Bremerton – as a "Regional Manufacturing/Industrial Center."

In addition to the Centers concept, VISION 2040 classifies different communities according to the roles they play in the region and allocates population accordingly. The majority of the region's employment and housing growth is allocated to Metropolitan Cities and Core Cities, which include the centers, and thus include Bremerton and Silverdale. Larger Cities also play an important role over time as places that accommodate growth; only Bainbridge Island is considered a Large City. Small Cities provide jobs and housing that support vital and active communities at a less intensive scale; both Port Orchard and Poulsbo are considered Small Cities.

VISION 2040 contains a variety of elements addressing regional growth and development. Each of these topic areas are described below, providing overarching goals where applicable.

- **General Policies:** The general policies address coordination of jurisdictions, monitoring of Vision 2040, and fiscal challenges and opportunities including exploring funding sources for services and infrastructure.
- **Environment:** The region will care for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, reducing greenhouse gas emissions and air pollutants, and addressing potential climate change impacts. The region acknowledges that the health of all residents is connected to the health of the environment. Planning at all levels should consider the impacts of land use, development patterns, and transportation on the ecosystem.
- **Development Patterns:** The region will focus growth within already urbanized areas to create walkable, compact, and transit-oriented communities that maintain unique local character. Centers will continue to be a focus of development. Rural and natural resource lands will continue to be permanent and vital parts of the region.

- **Housing:** The region will preserve, improve, and expand its housing stock to provide a range of affordable, healthy, and safe housing choices to every resident. The region will continue to promote fair and equal access to housing for all people.
- **Economy:** The region will have a prospering and sustainable regional economy by supporting businesses and job creation, investing in all people, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life.
- **Transportation:** The region will have a safe, cleaner, integrated, sustainable, and highly efficient multimodal transportation system that supports the regional growth strategy and promotes economic and environmental vitality, and better public health
- **Public Services:** The region will support development with adequate public facilities and services in a coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives.

VISION 2040 is implemented through PSRC's policy and plan review of each county and city comprehensive plan and their amendment. PSRC also certifies transportation elements, as well as the regional transportation improvement program, and evaluating performance measures.

Transportation 2040 supports VISION 2040 planning for a transportation system supporting the growth strategy. Transportation 2040 is built around three key strategies, as stated in the plan's executive summary:

- **Congestion and Mobility.** The plan improves mobility through a combination of effective land use planning, demand management, efficiency enhancements, and strategic capacity investments. To improve system efficiency, the plan creates "smart corridors" with advanced technology, better information for travelers, and advanced tolling approaches which adjust for actual traffic conditions. Capacity improvements strategically expand roadway, transit, and nonmotorized facilities, with new roadways limited to key missing links and enhancing existing facilities. This plan includes additional attention to monitoring system performance.
- **Environment.** A key focus of the plan is to protect and improve the region's environmental health. This includes ensuring that the region has healthy air that meets all standards, ensuring that transportation projects improve the handling of stormwater runoff to protect Puget Sound and other surface waters, and addressing emerging issues such as transportation's role in reducing greenhouse gas emissions and adapting to climate change. The plan includes a specific strategy to address state greenhouse gas goals and vehicle miles traveled (VMT) reduction benchmarks. The four-part strategy includes Land Use, Transportation Pricing, Transportation Choices, and Technology. In addition, the plan builds on current efforts to protect natural areas and support vibrant, livable communities.
- **Funding.** The Transportation 2040 financial strategy relies on traditional funding sources in the early years of the plan. Over time the region will transition to a new funding structure based on user fees, which could include high-occupancy toll (HOT) lanes, facility and bridge tolls, highway system tolls, vehicle miles traveled (VMT) charges, and other pricing approaches that replace the gas tax and further fund and manage the transportation system. Funding strategies need to include a nexus between the tax, fee, or toll and the use of the revenues.

Kitsap Countywide Planning Policies

The GMA requires that counties adopt countywide planning policies (CPPs) to provide an agreed-upon framework within which cities and the counties containing them can develop comprehensive plans (RCW 36.70A.210). The purpose of countywide policies is to express a regional vision and help measure consistency of local plans. The GMA also specifies subjects that must be addressed, including policies for urban and rural uses.

On August 10, 1992, the Kitsap County BOCC adopted the Kitsap County CPPs, which define the countywide vision and establish the parameters under which the comprehensive plans of Kitsap County and its cities were developed. Seven agencies participated in development of the CPPs through the KRCC. The KRCC is comprised of elected officials representing Kitsap County; the cities of Bainbridge Island, Port Orchard, and Poulsbo; the Port Gamble/S'Klallam Tribe; and the Suquamish Tribe. 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 Pattern.** Establishes the countywide vision which includes livable urban communities and neighborhoods, centers for employment, civic activities and housing; a vital diversified economy; efficient multi-modal transportation system; natural systems protection; maintaining the character of rural areas; and responsive government. The role of Kitsap County in the countywide growth pattern is to:
  - Keep regional vision in mind when making local decisions
  - Promote stewardship of unincorporated urban areas and promote annexation into cities or incorporation
  - Maintain/enhance natural systems and rural character
  - Include a variety of low density rural communities, densities, and uses.
- **Urban Growth Areas.** Includes the outline of the land capacity analysis program, which serves as the basis for UGA expansion, establishes policies on population increments, and establishes process and criteria for expanding and adjusting UGAs. These criteria include:
  - UGAs are areas "within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature" (RCW 36.70A.110 [1]) except under specific circumstances authorized by GMA.
  - Unincorporated UGAs shall be associated with an existing or future city.
  - All UGAs shall be reflected in County and respective city comprehensive plans.
  - Sufficient area must be included in the UGAs to accommodate the adopted 20-year population distribution as adopted by the Kitsap Regional Coordinating Council (KRCC) and consistent with OFM projections.
  - A jurisdiction may define growth tiers within its UGA (RCW 36.70A.110.3) to focus public and/or private investment where growth is desired. Utility development and/or expansion may be phased.
  - The County, city, or interested citizens may initiate an amendment to an existing UGA through the comprehensive plan amendment process as authorized by GMA.
  - Any jurisdiction seeking to expand its UGA shall achieve densities consistent with the GMA and the City's adopted Comprehensive Plan and any interlocal agreement between the City and the County.

  - If an adopted or proposed 20-year projected population distribution requires expansion of its UGA, the respective jurisdiction shall conduct planning and analysis, including a land capacity analysis, assessment of present zoning; consideration of reasonable measures; and ability to provide services first to areas with adequate public facilities and services, second to areas that can be served by a combination of existing and expanded public services and facilities, and last to areas adjacent to the first and second priority areas.
  - A jurisdiction, as part of its Comprehensive Plan amendment or subarea plan process, that proposes an expansion of the UGA shall prepare or update a comparison of potential areas for expansion, including.: Planning and zoning regulations currently in place; an evaluation of how a full range of urban-level infrastructure and services would be provided within potential expansion areas, including appropriate capital facility analysis; and other factors, including but not limited to: environmental constraints; economic development; preservation of cultural, historical, and designated resource lands.
  - Early and continuous public involvement must be carried out when establishing, expanding, or adjusting UGAs.

- **Centers for Growth.** Identifies a hierarchy of areas of the county within which population and employment should be concentrated consistent with VISION 2040.
- **Rural Land Uses and Development Patterns.** Seeks to preserve and enhance the rural character of areas outside of the UGAs, by protecting the natural environment, open space and recreation, scenic and historic areas, and supporting small scale farming, low density residential living and cluster development at an appropriate scale, and with appropriate rural levels of service.
- **Countywide Strategies for Open Space Preservation, Resource Protection and Critical Areas, Air Quality, and Water Quality/Quantity.** Defines these areas and establishes the importance of maintaining, protecting and enhancing these areas.
- **Contiguous, Compatible, and Orderly Development.** Provides policies for cooperative inter-jurisdictional planning, and coordination of land use, transportation, environmental and infrastructure planning. Promotes fiscal equity such as revenue sharing due to changes in municipal boundaries. Provides policies on community design and development that promote the unique character of a community, encourage healthy lifestyles, and support sustainable economic and environmental development techniques.
- **Siting Public Capital Facilities.** Establishes a process for the siting of regional facilities, which would mitigate the potential adverse impacts from the location and development of these facilities.
- **Transportation.** Seeks to promote a transportation system, which would serve the designated centers, preserve the natural environment and provide for a balanced system for the efficient and safe movement of people, goods and services among the centers of Kitsap County and the larger Puget Sound Region. Promotes measures to reduce single occupancy vehicles, and complete streets for all modes.
- **Housing.** Establishes a framework for the provision of housing with in Kitsap County to all income levels at a variety of housing densities. Promotes a jobs/housing balance.

- **Countywide Economic Development.** Encourages coordinated economic growth among all jurisdictions in Kitsap County, a healthy economy with a spectrum of jobs, and diversification. Seeks to add predictability and certainty to private development decisions.
- **Analysis of the Fiscal Impact.** Identifies opportunities for jurisdictions to plan for infrastructure and services such as through comprehensive plans, capital facilities plan, at the time of UGA expansions, and UGA Management Agreements. Special districts should be involved in the planning for UGAs.
- **Coordination with Tribal Governments and the Federal Government.** Seeks to involve and inform these governments in regional and local planning efforts in the county.
- **Coordination with Federal Government including Navy.** Promotes coordination with the federal government on land use and other activities.
- **Roles and Responsibilities.** Establishes the roles and Responsibilities for the various governments and agencies within the county including the KRCC, Kitsap County, the Cities, and Special Districts.

Kitsap County Shoreline Master Program

The Kitsap County Shoreline Master Program (SMP) was adopted in 1976, updated 1998 and underwent a comprehensive update in 2014 to comply with new Shoreline Master Program Guidelines adopted in 2003, as well as to meet the requirements of the Shoreline Management Act of 1971. The updated SMP was adopted after the Washington State Department of Ecology's conditional approval and went into effect in December 2014.

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 those lands and are responsible for developing plans to guide that growth. Other than Tribal lands, the Port Gamble/S'Klallam and Suquamish Tribes have usual and accustom areas throughout the county as well.

3.2.2.2. Impacts– Relationship to Plans and Policies

Impacts Common to All Alternatives

This section compares the impacts associated with each alternative for applicable laws and plans. Impacts unique to each of the alternatives are described under those respective headings later in this chapter.

Growth Management Act

Planning Goals

While all alternatives are generally consistent with the goals of the Growth Management Act, Alternative 2 would more fully realize the goals of guiding growth to urban areas, reducing sprawl, protecting rural character, encouraging multimodal transportation, retaining open space, and protecting the environment. This is primarily due to its proposed reductions in UGA size, resulting in a more compact development pattern that reduces the potential for the conversion of rural areas to urban uses.

Exhibit 3.2-11. Growth Management Act Goal Comparison

GMA Goal	Alt. 1 No Action	Alt. 2 Whole Community	Alt. 3 All Inclusive	Discussion
Guide growth in urban areas	✓[3]	+	+	All alternatives would generally foster the greatest share of growth in urban areas. However, Alternatives 2 and 3 would increase the amount of housing and employment located in cities and unincorporated UGAs over Alternative 1.
Reduce sprawl	✓	+	○	Alternatives 1 and 2 provide for more compact UGA boundaries. Alternative 2 is the most compact, reducing UGA area countywide by 782 acres relative to current boundaries. By contrast, Alternative 3 would expand UGA boundaries by 754 acres, potentially leading to greater conversion of rural areas to urban uses.
Protect rural character	✓	+	○	All alternatives would retain the Rural Element that promotes and protects rural lands, as well as retain a TDR program. Alternative 2 would reduce the size of existing UGAs, placing more land into rural status, while Alternative 3 would expand UGA boundaries, potentially leading to conversion of rural lands to urban uses.
Encourage an efficient multimodal transportation system	✓	✓	✓	All alternatives would add traffic to County and state roads, but all would meet the County's countywide concurrency measure. In addition, Alternative 2 would focus growth in centers with multimodal transportation options. Due to the greater growth in Silverdale's Regional Growth Center relative to Alternatives 1 and 3, Alternative 2's vehicle miles traveled is higher. See Section 3.2.4 of this SEIS.
Encourage a variety of housing types including affordable housing	✓	✓	✓	All alternatives promote housing variety and include goals promoting affordability. Alternatives 2 and 3 preserve most of the higher density and mixed use designations in UGAs and preserve the opportunity for housing in areas being redesignated from Mixed Use to Commercial. Because of the reduction in UGA territory in the Port Orchard UGA, some mixed use land is removed, reducing the share of multifamily housing when comparing Alternative 1 No Action and Action Alternatives 2 and 3. Some opportunity for mixed use is added in the Silverdale Regional Growth Center (RGC) in these Action Alternatives.
Promote economic development	✓	✓	✓	All alternatives provide sufficient capacity to meet established employment growth targets. Alternatives 2 and 3 would both expand the Silverdale UGA and provide additional capacity for employment uses in this area.
Recognize property rights	✓	✓	✓	Under all alternatives, all properties are given a reasonable use of land, with at least a single family residence allowed.

[3] Legend: = generally meets; = greater emphasis; = partially meets; N/A not applicable; TBD = to be determined

GMA Goal	Alt. 1 No Action	Alt. 2 Whole Community	Alt. 3 All Inclusive	Discussion
Ensure timely and fair permit procedures	○	✓	✓	As described in Chapter 2, Alternatives 2 and 3 include plan and zoning corrections to improve implementation of the County's vision, policies, and permitting. The amendments will streamline and simplify the land use map and development code in an effort to improve implementation.
Protect agricultural, forest, and mineral lands	✓	✓	✓	All alternatives avoid designated resource lands in terms of UGA boundaries. Under Action Alternatives mineral resource land designation is under consideration. See Chapter 4.
Retain and enhance open space	✓	✚	✓	All alternatives would implement the County's parks and recreation plans and critical areas regulations. Alternative 2 may promote more land in a rural category which may have an open space character, due to proposed UGA reductions totaling 782 acres.
Support parks and recreation	✓	✓	✓	All alternatives would increase the demand for parks and recreation. The County's parks plans would be implemented to help offset the demand. See Section 3.3.4 for more discussion about the County's LOS and mitigation measures.
Protect the environment	✓	✚	✓	Alternative 2 promotes a net reduction in UGA territory which would allow less intense development that may avoid sensitive areas to a greater degree than other alternatives. Alternatives 2 and 3 propose rezoning of sensitive areas to avoid environmental impacts in the East Bremerton and Port Orchard UGA. Alternatives 2 and 3 add UGA land near Kitsap Lake. Alternative 3 further adds UGA land along Barker Creek. However, under all alternatives, critical area and shoreline regulations would guide development.
Ensure adequate public facilities and services	✓	✓	✓	All alternatives increase the demand for public facilities and services. All would require mitigation measures to ensure adequate facilities and services per Section 3.3 of this SEIS.
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.
Foster citizen participation	✓	✓	✓	All alternatives are undergoing public review as part of the GMA Comprehensive Plan Update and SEPA process. Chapter 2 describes the public participation efforts to date.

Legend: ✓ = generally meets; ✚ = greater emphasis; ○ = partially meets; N/A not applicable; TBD = to be determined

Population Forecasts

Impacts associated with population forecasts vary by alternative and are discussed as part of the impacts specific to each alternative.

VISION 2040 and Transportation 2040

None of the alternatives would affect the status of any designated centers in Kitsap County, and all alternatives are anticipated to continue to meet or exceed the center designation criteria. As described in Chapter 2, Alternatives 2 and 3 consider increased housing and office development in the Silverdale Regional Growth Center (RGC), as well as adjustments to the center boundary to exclude low-density areas on the periphery. These proposals are not anticipated to have any impacts with regard to regional center designation.

VISION 2040 Framework Policies

None of the alternatives would change the growth allocations adopted in the Countywide Planning Policies, nor would any of the alternatives affect the status of any of the county's constituent cities under the PSRC's regional plans.

The consistency of the alternatives with VISION 2040's overarching goals is described below:

- **Environment:** This SEIS considers the impacts of land use, development patterns, and transportation on the ecosystem. Alternative 2 promotes a net reduction in UGA territory which would allow less intense development that may avoid sensitive areas to a greater degree than other alternatives. Alternatives 2 and 3 also propose rezoning of sensitive areas to avoid environmental impacts. However, under all alternatives, critical area and shoreline regulations would guide development.
- **Development Patterns:** Alternatives 1 and 2 provide for more compact UGA boundaries than Alternative 3. Alternative 2 is the most compact, reducing UGA area countywide by 782 acres relative to current boundaries. By contrast, Alternative 3 would expand UGA boundaries by 754 acres, potentially leading to greater conversion of rural areas to urban uses. All alternatives would maintain existing centers and continue to use them as the focus of future growth in Kitsap County. All alternatives would maintain the Rural and Resource Lands Element of the comprehensive plan, which contains policies for the protection of rural areas.
- **Housing:** All alternatives promote housing variety and include goals promoting affordability. Alternatives 2 and 3 preserve most of the higher density and mixed use designations in UGAs and preserve the opportunity for housing in areas being redesignated from Mixed Use to Commercial.
- **Economy:** All alternatives provide sufficient capacity to meet established employment growth targets. Alternatives 2 and 3 would both expand the Silverdale UGA and provide additional capacity for employment uses in this area.
- **Transportation:** All alternatives would add traffic to County and state roads, but all would meet the County's countywide concurrency measure. In addition, Alternative 2 would focus growth in centers with multimodal transportation options. See Section 3.2.4 of this SEIS.
- **Public Services:** All alternatives increase the demand for public facilities and services. All would require mitigation measures to ensure adequate facilities and services per Section 3.3 of this SEIS. The County has coordinated with cities and special districts on capital facilities planning as described in Chapter 2.

Transportation 2040

A review of the alternatives programmatically in relation to the key principles of Transportation 2040 is provided below:

- **Congestion and Mobility.** All alternatives would add traffic to the county's transportation network. Alternatives 2 and 3 would update the Transportation Element to integrate a multimodal level of service standard and would update the Capital Facilities Plan and its associated capital projects list. Alternative 2 would reduce UGA boundaries and focus growth in areas close to multimodal

transit opportunities, though localized increases in vehicle trips may occur in these areas, such as the Silverdale Regional Center.

- **Environment.** Alternatives 2 and 3 propose targeted rezoning of sensitive areas to avoid environmental impacts. Alternatives 2 and 3 would also integrate critical areas review and evaluation into the Environment Element and would integrate the latest SMP update.
- **Funding.** The proposed CFP developed for the Action Alternatives includes funding projections for transportation facilities under County responsibility. The County will continue to partner with the PSRC on transportation planning and funding opportunities.

Countywide Planning Policies

While all alternatives are generally consistent with Kitsap County's adopted Countywide Planning Policies (CPPs), Alternative 2 would be most consistent with the intent of the CPPs for UGAs, providing for urban growth consistent with GMA. Alternative 2 would result in the most compact urban form of the three alternatives and would provide population capacity within 1% of adopted 2036 targets. Alternative 3 would expand UGAs, potentially converting rural lands, and thus is not as consistent with the CPPs as Alternative 2. Both Alternatives 2 and 3 would include the Comprehensive Plan policy updates described in Chapter 2.

See Exhibit 3.2-12 for an analysis of the consistency of the alternatives with the CPPs.

Exhibit 3.2-12. CPP Consistency Analysis

CPP Concept Summary	Discussion
Countywide Growth Pattern: Establishes the countywide vision which includes livable urban communities and neighborhoods; centers for employment, civic activities and housing; a vital diversified economy; efficient multimodal transportation system; natural systems protection; maintaining the character of rural areas; and responsive government. The role of Kitsap County in the countywide growth pattern is to: ▪ Keep regional vision in mind when making local decisions ▪ Promote stewardship of unincorporated urban areas and promote annexation into cities or incorporation ▪ Maintain/enhance natural systems and rural character ▪ Include a variety of low density rural communities, densities, and uses	All alternatives include the County vision and policies addressing livable urban communities and neighborhoods; centers for employment, civic activities and housing; a vital diversified economy; efficient multi-modal transportation system; natural systems protection; maintaining the character of rural areas; and responsive government. Some policies would be updated with Alternatives 2 and 3 to maintain consistency with land capacity and UGA boundary results specific to those alternatives. The County continues to promote stewardship of the UGA until annexation or incorporation and conducts ongoing coordination with its constituent cities. See a discussion of environmental and rural policies elsewhere on this chart.
Urban Growth Areas. Includes the outline of the land capacity analysis program, which serves as the basis for UGA expansion, establishes policies on population increments, and establishes process and criteria for expanding and adjusting UGAs. These criteria include: ▪ UGAs are areas within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature, per GMA. ▪ Unincorporated UGAs shall be associated with an existing or future city. ▪ All UGAs shall be reflected in County and respective city comprehensive plans. ▪ Sufficient area must be included in the UGAs to accommodate the adopted 20-year population distribution in the CPPs developed by the KRCC. ▪ A jurisdiction may define growth tiers within its UGA or phase utility development. ▪ The County, city, or interested citizens may initiate an amendment to an existing UGA.	The County is continuing to follow its ULCA method and completed its latest Buildable Lands Report in 2014 for 2012 conditions. The updated analysis contains updated trend information informing the discount factors and densities that can be used in that methodology. Alternative 2 provides for more compact UGA boundaries than Alternatives 1 or 3, due to a net reduction in UGA size of 782 acres, and would provide population capacity within 1% of the adopted growth target. Alternative 1 would maintain existing UGA boundaries, but would not provide adequate population capacity. Alternative 3 would exceed the population growth target, but would expand UGAs by 754 acres. Alternatives 2 is thus best able to focus growth within already urbanized areas while meeting population growth targets. The County is preparing updated analysis of public facilities and services in a CFP and in Section 3.3 of this SEIS.

CPP Concept Summary	Discussion
▪ Any jurisdiction seeking to expand its UGA shall achieve densities consistent with the GMA and the City's adopted Comprehensive Plan and any interlocal agreement between the City and the County. ▪ If an adopted or proposed 20-year projected population distribution may require expansion of its UGA, the respective jurisdiction shall conduct planning and analysis, including a land capacity analysis, assessment of present zoning; consideration of reasonable measures; and ability to provide services first to areas with adequate public facilities and services, second to areas that can be served by a combination of existing and expanded public services and facilities, and last to areas adjacent to the first and second priority areas. ▪ A jurisdiction, as part of its Comprehensive Plan amendment or subarea plan process, that proposes an expansion of the UGA shall prepare or update a comparison of potential areas for expansion, including planning and zoning regulations currently in place; an evaluation of how a full range of urban-level infrastructure and services would be provided within potential expansion areas, including appropriate capital facility analysis; and other factors, including but not limited to: environmental constraints; economic development; preservation of cultural, historical, and designated resource lands. ▪ Conduct early and continuous public involvement when establishing, expanding, or adjusting UGAs.	
Centers for Growth. Identifies a hierarchy of areas of the county within which population and employment should be concentrated consistent with VISION 2040.	All alternatives maintain center designations for Silverdale, SKIA, and Downtown Bremerton. Alternatives 2 and 3 consider potential reductions to the Silverdale center boundary to exclude lower-density areas on the periphery. Both Alternatives 2 and 3 would increase the amount of high-density residential zoning in Silverdale, as well as commercial, mixed use, and industrial development. All alternatives would continue to meet or exceed the center designation criteria in all existing centers.
Rural Land Uses and Development Patterns. Seeks to preserve and enhance the rural character of areas outside of the UGAs, by protecting the natural environment, open space and recreation, scenic and historic areas, and supporting small scale farming, low density residential living and cluster development at an appropriate scale, and with appropriate rural levels of service.	Alternatives 1 and 2 provide for more compact UGA boundaries than Alternative 3. Alternative 2 is the most compact, reducing UGA area countywide by 782 acres relative to current boundaries. By contrast, Alternative 3 would expand UGA boundaries by 754 acres, potentially leading to greater conversion of rural areas to urban uses. All alternatives would maintain the Rural and Resource Lands Element of the comprehensive plan, which contains policies for the protection of rural areas.
Countywide Strategies for Open Space Preservation, Resource Protection and Critical Areas, Air Quality, and Water Quality/Quantity. Defines these areas and establishes the importance of maintaining, protecting and enhancing these areas.	All alternatives would implement the County's parks and recreation plans and critical areas regulations. Alternative 2 may promote more land in a rural category, which may have an open space character, due to proposed UGA reductions. Alternative 2 promotes a net reduction in UGA territory, which would allow less intense development and may avoid sensitive areas to a greater degree than other alternatives. Alternatives 2 and 3 also propose targeted rezoning of sensitive areas to avoid environmental impacts. Alternatives 2 and 3 would also integrate critical areas review and evaluation into the Environment Element and would integrate the latest SMP update.
Contiguous, Compatible, and Orderly Development. Provides policies for cooperative inter-jurisdictional planning and coordination of land use, transportation, environmental and infrastructure planning. Promotes fiscal equity such as revenue sharing due to changes in municipal boundaries. Provides policies on community design and development that promote the unique character of a community, encourage healthy lifestyles, and support sustainable economic and environmental development techniques.	The County is continuing to participate in the KRCC, and has coordinated with other agencies in the public outreach process and the CFP preparation as described in Chapter 2. See discussions of economic and environment topics elsewhere in this matrix.

CPP Concept Summary	Discussion
Siting Public Capital Facilities. Establishes a process for the siting of regional facilities, which would mitigate the potential adverse impacts from the location and development of these facilities.	The County updating the Capital Facilities Plan (CFP) as part of this comprehensive plan update and is coordinating with its constituent cities and special districts on the CFP.
Transportation. Seeks to promote a transportation system which would serve the designated centers, preserve the natural environment, and provide for a balanced system for the efficient and safe movement of people, goods and services among the centers of Kitsap County and the larger Puget Sound Region. Promotes measures to reduce single occupancy vehicles and complete streets for all modes.	All Alternatives would add traffic to the county's transportation network. Alternatives 2 and 3 would update the Transportation Element to integrate a multimodal level of service standard and would update the Capital Facilities Plan and its associated capital projects list. Due to the greater growth in Silverdale's RGC relative to Alternatives 1 and 3, Alternative 2's vehicle miles traveled is higher. Alternative 2 would also reduce UGA boundaries and focus growth in areas close to multimodal transit opportunities. See Section 3.2.4 of this SEIS.
Housing. Establishes a framework for the provision of housing within Kitsap County to all income levels at a variety of housing densities. Promotes a jobs/housing balance.	All alternatives promote housing variety and include goals promoting affordability. Alternatives 2 and 3 preserve most of the higher density and mixed use designations in UGAs and preserve the opportunity for housing in areas being redesignated from Mixed Use to Commercial. Because of the reduction in UGA territory in the Port Orchard UGA, some mixed use land is removed, reducing the share of multifamily housing when comparing Alternative 1 No Action and Action Alternatives 2 and 3. Some opportunity for mixed use is added in the Silverdale RGC in these Action Alternatives.
Countywide Economic Development. Encourages coordinated economic growth among all jurisdictions in Kitsap County, a healthy economy with a spectrum of jobs, and diversification. Seeks to add predictability and certainty to private development decisions.	All alternatives provide sufficient capacity to meet established employment growth targets. Alternatives 2 and 3 would both expand the Silverdale UGA and provide additional capacity for employment uses in this area.
Analysis of the Fiscal Impact. Identifies opportunities for jurisdictions to plan for infrastructure and services, such as through comprehensive plans, capital facilities plan, at the time of UGA expansions, and UGA Management Agreements. Special districts should be involved in the planning for UGAs.	The County is updating the Capital Facilities Plan as part of this comprehensive plan update and is coordinating with its constituent cities and special districts on the CFP.
Coordination with Tribal Governments and the Federal Government. Seeks to involve and inform these governments in regional and local planning efforts in the county.	None of the studied alternatives alter the projected land use or growth of tribal reservations. The County will continue to coordinate with the tribes through the KRCC and other forums.
Coordination with Federal Government, including the Navy. Promotes coordination with the federal government on land use and other activities.	The County is notifying federal agencies about this planning process as part of public outreach methods, including notices.
Roles and Responsibilities. Establishes the roles and responsibilities for the various governments and agencies within the county including the KRCC, Kitsap County, the cities, and Special Districts.	The County's role is as allowed under GMA – the County in consultation with the cities is allocating growth and developing UGA boundaries, and is continuing periodic monitoring such as the buildable lands analysis.

Impacts of Alternative 1

Growth Management Act

Population and Employment Forecasts

Alternative 1 does not provide sufficient population capacity to meet the adopted 2036 growth target. Countywide, Alternative 1 population capacity would be 2% below the adopted target, as described in Chapter 2. Unincorporated UGA population would be 8% below the adopted target for these areas. Lack of development capacity, both for the county as a whole and within UGAs, could lead to increased development pressures in rural areas, which could have a negative effect on rural land use patterns and development character. Additional discussion of these potential effects is included in Section 3.2.1 – Land and Shoreline Use. In addition, this spillover development in rural areas could pose difficulties for service delivery, due to development being spread over a larger area.

Alternative 1 provides sufficient capacity to meet the adopted 2036 employment growth target. Countywide, Alternative 1 would provide excess employment capacity of 8%, as described in Chapter 2. Unincorporated UGA employment capacity would be 12% above target requirements for these areas. Excess capacity for employment may lead to less efficient employment patterns. Changing some employment land to residential purposes may help alleviate the residential land undersupply and reduce the employment land oversupply.

UGA Criteria

No changes to current UGA boundaries are proposed under Alternative 1. However, as described in the previous section, the current UGA boundaries may not be appropriately sized to address long-term population growth in Kitsap County.

Rural Lands & Character

No changes to rural lands policies are proposed under Alternative 1. However, because current UGAs do not provide sufficient population capacity to meet growth targets, some future development may spill over to adjacent rural areas, which could have a negative effect on rural character and result in the conversion of rural lands to urban development. Additional discussion of these potential effects is included in Section 3.2.1 – Land and Shoreline Use.

Mineral Lands

Alternative 1 would not result in the designation of any additional mineral lands. Commercially significant resource lands would not be set aside for future use, and additional alteration of the landscape resulting from mineral extraction activities would not occur.

Reasonable Measures

Under Alternative 1 No Action, the County would retain its list of 35 reasonable measures. See Exhibit 3.2-13. Several of the measures have been effective in redirecting growth, such as increasing allowable densities in UGAs, and particularly minimum densities. See Appendix F for the evaluation.

Other measures were implemented to create opportunities for more dense growth (e.g. mixed use zones), but have not yet been realized due to market forces such as the Great Recession and availability of other Urban Low development choices in the UGAs. However, the options for mixed use may still be appropriate to retain due to changing demographics and interest in living in urban areas as described in Appendix G.

Exhibit 3.2-13. List of Kitsap County Reasonable Measures

Measures Identified in Kitsap County Resolution 158-2004	
1	Encourage Accessory Dwelling Units (ADU) in single-family zones
2	Allow clustered residential development
3	Allow duplexes
4	Allowing townhouses and condominiums in single-family zone
5	Encourage development of Urban Centers and Villages
6	Encourage Mixed Use Development
7	Create annexation plan
8	Allow manufactured housing development
9	Urban amenities
10	Targeted capital facilities investments

11	Master planning large parcel developments
12	Interim development standards
13	Encourage transportation-efficient land use
14	Density bonuses in UGAs
15	Increase allowable residential densities
16	Urban growth management agreements
17	Locate critical "public" services near homes, jobs and transit
18	Transit-oriented development
Measures Identified in Section 2.3.3 of the Kitsap County Comprehensive Plan 2006 10-Year Update	
19	Increase residential densities within existing UGA boundaries
20	Permit plats of up to nine lots through an administrative short plat process
21	Allow for and monitor alternative sanitary sewer systems in unincorporated UGAs
22	Remove pre-planning allowances in UGAs
23	Provide for regional stormwater facilities in unincorporated UGAs
24	Strengthen and amend policies to promote low impact development (LID)
25	Consolidated Comprehensive Plan land use designations
26	Adopt a new Mixed Use zone
27	Mandate minimum densities for new subdivisions
28	Increased building height limits through incentives
29	Proposed design guidelines for Silverdale
30	State Environmental Policy Act (SEPA) categorical exemptions for mixed use and infill development for Silverdale
31	Increased thresholds for SEPA categorical exemptions countywide
32	Adopt Transfer of Development Rights (TDR) policies and implementing regulations
33	Adopt allowances for density bonuses in policies
34	Adopt policies addressing and promoting reasonable measures
35	Adopt policies addressing association and UGA Management Agreements (UGAMAs)

Source: Kitsap County 2015

Impacts of Alternative 2

Growth Management Act

Population and Employment Forecasts

Projected population capacity under Alternative 2 is estimated to be within 1% of the adopted 2036 growth target countywide, a deficit of approximately 21 persons, as described in Chapter 2. Unincorporated UGA population would be 7% below the adopted target for these areas. Similar to Alternative 1, insufficient population capacity in UGAs to meet growth targets could result in spillover development in rural areas, which could cause problems for service delivery and adversely affect rural character. See Section 3.2.1 – Land and Shoreline Use for additional discussion of this effect. The 7% difference is close to the 5% margin of tolerance considered for UGAs. Small adjustments in the capacity for housing, such as in mixed use areas or the Silverdale RGC could increase housing capacity and avoid undersizing.

Alternative 2 provides sufficient capacity to meet the adopted 2036 employment growth target. Countywide, Alternative 2 would provide excess employment capacity of 18%, as described in Chapter 2. Unincorporated UGA employment capacity would be 17% above target requirements for these areas. Much of the greater supply in employment is based on an intensification of retail and office uses in the Silverdale RGC. If that employment were reduced to a more moderate level, the

employment levels would be within 5% of the target for UGAs and considered in balance within a reasonable margin of tolerance.

UGA Criteria

Alternative 2 would expand the Bremerton West and Silverdale UGAs. In both cases, the lands to be added are adjacent to the existing UGA boundary. The Silverdale UGA expansion area is adjacent to existing industrially-zoned land within the UGA and is intended to provide additional industrial land abutting a road and railroad and would provide additional employment capacity and variety. The Bremerton West expansion areas are currently zoned for a mix of Urban Reserve and Rural Residential and would rezone both to Urban Low Residential. This expansion (and corresponding UGA reductions elsewhere) would provide a more serviceable growth pattern, based on the City of Bremerton's capital facility plans. As such, the UGA expansions under Alternative 2 would meet the expansion criteria under GMA.

Alternative 2 would also reduce UGAs in Central Kitsap, Bremerton East, and Port Orchard. Removing these areas from UGAs recognizes the presence of critical areas and topographic features that would make extension of urban infrastructure more costly. As such, these areas are not suitable for urban development at this time.

Rural Lands & Character

As described in Chapter 2, Alternative 2 would result in a net reduction in UGAs, reserving a larger portion of the county as rural, relative to Alternative 1. This would preserve a greater amount of rural land from development at urban intensities.

Selected Reclassification Applications would result in changes to the rural classifications of several properties for employment or mining purposes as shown in Exhibit 3.2-14.

Exhibit 3.2-14. Reclassification Applications Changing Rural Designations under Alternative 2

Application	Present Land Use	Future Land Use / Zoning Request	Designation in Alternative 2
Port Orchard Airport	Airport with commercial uses	RI to REC	RI to LAMIRD Type III with REC Zoning
Gonzalez	Vacant	RR to RI	RR to LAMIRD Type III with REC in Keyport Junction
Bremerton West Ridge	Existing Gravel Operation since 1962.Some timbered land added into production.	Request MRO, URS to RI	MRO with RP zoning

Source: Kitsap County Community Development Department; Kitsap County Assessor; BERK Consulting 2015

Three sites are associated with a potential Type III Limited Area of More Intensive Development (LAMIRD) under Alternative 2. A Type III LAMIRD, as described in Section 3.2.2.1 Affected Environment involves "[i]ntensification or new development of isolated cottage industries and small scale-businesses." RCW 36.70A.070(5)(d)(iii).

The Port Orchard Airport application is directly requesting a Type III LAMIRD designation with Rural Employment Center (REC) zoning. The request is analyzed in Draft Supplemental Environmental Impact Statement (Draft SEIS) Chapter 4 and in staff reports available under separate cover. The application appears to meet Reclassification application criteria for a designation and zone change as an existing airport with commercial and industrial associated activities that provides employment opportunities in the rural area, 6.5 miles south of Port Orchard.

The Gonzalez applications is requesting Rural Industrial (RI) designations and zoning in place of Rural Residential (RR) designations and zoning. However, the designation proposed in Alternative 2 would be a Type III LAMIRD for the site and surrounding sites. The preferred zoning with the Type III LAMIRD is REC. A potential Type III LAMIRD was considered at the Keyport Junction in 2010. It was recommended by the Planning Commission. The boundaries of the proposed LAMIRD are SR 308 on the north, Silverdale Way NW and NW Katy Place on the east, NW Luoto Court on the south, and other Rural Residential properties to the west.

As the Alternative 2 proposal differs from the Reclassification request, the analysis of the Type III LAMIRD is presented in Exhibit 3.2-15.

Exhibit 3.2-15. Keyport Junction Type III LAMIRD

Type III LAMIRD Criteria	Analysis
Policy RL-24 Consider existing, isolated areas of generally small-scale commercial or industrial activity for designation as a Type III LAMIRD.	There is an existing gas station and self-storage property within the boundary as well as vacant property. The gas station is zoned Rural Commercial and the ministorage site is zoned Rural Industrial.
Policy RL-25 Prohibit designating a LAMIRD adjacent to an UGA.	The site does not abut a UGA. It abuts non-UGA land designated for a variety of rural purposes.
Policy RL-26 Establish a community planning process for the designation of LAMIRDs; the process should include interested parties, community groups and other stakeholders.	The area was considered in 2010 as a Type III LAMIRD called Keyport Junction. The Planning Commission recommended its approval (see minutes October 19, 2010) after public input and testimony. The Board of County Commissioners did not act on the proposal in 2010.
Policy RL-27 Encourage changes to zones in LAMIRDs to occur via a local community planning process. This process should incorporate local knowledge, experience and preferences to determine appropriate area-specific land uses, development standards, design guidelines, and public service needs. Specific issues that should be considered in this planning process include:	See community planning description above.
▪ Appropriate logical outer boundaries as required by GMA	The boundaries include two developed commercial and industrial sites and one small vacant site less than 1 acre in size bounded by common road frontage as the other sites.
▪ Rural character of the subject area and surrounding area.	The site is a crossroads called Keyport Junction. It is well traveled. It is a low-rise commercial area with limited infill opportunity. Therefore, the character of the area is not anticipated to change markedly from its present character.
▪ Appropriate mix of uses, densities and intensities.	The uses existing and proposed are consistent with the Type III LAMIRD as an area for small scale businesses.
▪ Feasibility, cost and need for public services.	A sewer forcemain is located along Silverdale Way NW and NW Katy Place, though the sites are not served by this forcemain. The area is served by Silverdale Water District. Previously, Kitsap Transit was considering a park and ride in this location. The Keyport Subarea Plan notes; “Keyport Junction was identified as a natural crossroads for commuters heading west to Bangor Sub Base, heading north to Poulsbo and Seattle, and for heading south to Bremerton and Port Orchard.”

Type III LAMIRD Criteria	Analysis
▪ Significant natural constraints or features to be preserved.	There are moderate hazards (slopes) mapped in the area. These are not considered significant constraints. Future development would be subject to critical areas and building regulations.
▪ Provision for a monitoring and evaluation process.	The LAMIRDs are evaluated every eight years in the County's Comprehensive Plan Update process.
▪ Benefits to the local community.	The Type III LAMIRD designation would recognize an existing cross road commercial area and would allow additional but limited employment uses serving the rural community. The Keyport Subarea Plan notes the usefulness of the area to serve commuters.
Policy RL-31 Consider designating as a Type III LAMIRD existing employment centers that: ▪ Are served by water and/or sewer. ▪ Provide employment opportunities for the rural residents. ▪ Provide shopping and other services to rural residents. ▪ Are already served, and easily accessed by existing transportation networks.	The area is served by water. The proposed LAMIRD area does provide employment opportunities for rural residents. The area provides services to the rural residents, including presently a gas station, mini-mart, and self-storage facility. The area is served by SR 308 on the north, Silverdale Way NW and NW Katy Place on the east, NW Luoto Court on the south.
Policy RL-32 Allow new or expanded commercial and industrial activities within designated LAMIRDs, as appropriate for limited and contained growth, infill and redevelopment.	Existing uses may potentially expand in the future. A small vacant property may provide additional employment opportunities.

Mineral Lands

The Bremerton West Ridge properties have existing gravel mining operations that may expand in accordance with County and state rules and requirements consistent with a Mineral Resources Overlay, base zones, and County and state permits.

Alternative 2 proposes a Rural Industrial zone for properties within the Mineral Resources Overlay presently; one property to be added to the overlay presently has a Rural Protection zone and this would be retained as the base zone rather than an addition to the Rural Industrial zone. The retention of Rural Protection would still allow for future mining activities, and would provide for greater consistency with abutting properties also designated Rural Protection. The sites appear to meet mineral lands classification criteria as documented in Draft SEIS Chapter 4 and in staff reports available under separate cover.

Reasonable Measures

Alternative 2 would reduce UGA boundaries and increase densities in the Silverdale and Port Orchard UGAs. Alternative 2 would also implement amendments to existing reasonable measures and add new measures as described in Appendix G. Amended measures include an updated Silverdale Subarea Plan to address RGC targets, an improved Transfer of Development Rights program, and continued Comprehensive Plan/Zoning consolidation (e.g. Commercial designation and zones). New measures are under consideration based on regional planning efforts ((Kitsap Regional Coordinating Council, 2008)) and public comment, such as maximum parcel size in urban areas, and rural parcel reconfiguration (see Appendix G).

Impacts of Alternative 3

Growth Management Act

Population and Employment Forecasts

Alternative 3 provides sufficient capacity to meet the adopted 2036 growth target countywide, but not within unincorporated UGAs. Countywide, Alternative 3 population capacity would exceed the adopted target by approximately 2% (a surplus of approximately 1,505 persons), as described in Chapter 2. Unincorporated UGA population would be 3% below the adopted target for these areas. Similar to Alternatives 1 and 2, insufficient population capacity in UGAs to meet growth targets could result in spillover development rural areas, which could cause problems for service delivery and adversely affect rural character, though to a lesser degree than the other two alternatives, due to the smaller shortfall.

Alternative 3 provides sufficient capacity to meet the adopted 2036 employment growth target. Countywide, Alternative 3 would provide excess employment capacity of 12%, as described in Chapter 2. Unincorporated UGA employment capacity would be equal to target requirements for these areas.

UGA Criteria

Alternative 3 would expand UGA boundaries in Kingston, Silverdale, Central Kitsap, and Bremerton West. In all cases, the lands to be added are adjacent to the existing UGA boundary.

- The Kingston expansion area would add an area to the southeast that was removed from the UGA in 2012. The area is currently zoned for rural residential and includes a mix of large and small lots. New zoning would be Urban Restricted, the lowest density urban residential zone (1-5 du/ac).
- The Silverdale UGA expansion would include an area adjacent to existing industrially-zoned land within the UGA, as described under Alternative 2. In addition, the Silverdale UGA would be expanded to include almost 700 additional acres to the southwest along SR 3. This area is currently zoned for rural residential uses, but much of it is already subdivided for relatively small lots. This area would be rezoned for urban low-density residential.
- The Bremerton West expansion areas are currently zoned for a mix of Urban Reserve and Rural Residential and would rezone both to Urban Low Residential, as described under Alternative 2. This expansion (and corresponding UGA reductions elsewhere) would provide a more serviceable growth pattern, based on the City of Bremerton's capital facility plans.
- The Central Kitsap UGA would be expanded to the northwest, extending its boundary to abut the Silverdale UGA. The lands between the two UGAs are currently zoned for rural residential and exhibit a pattern of large lots. New zoning in this location would be a combination of Greenbelt and Urban Restricted.

Alternative 3 would also reduce UGAs in Central Kitsap, Bremerton East, and Port Orchard. Removing these areas from UGAs recognizes the presence of critical areas and topographic features that would make extension of urban infrastructure difficult. As such, these areas are not suitable for urban development at this time.

Rural Lands & Character

Of the three alternatives, Alternative 3 would result in the greatest net increase in UGA acreage, approximately 754 acres. Overall, Alternative 3 would reduce the amount of land in the county reserved for rural uses, and rural areas added to UGAs would ultimately be converted to urban uses, altering the existing rural character of these locations.

Alternative 3 would include all the proposed Reclassification Requests including some that would increase rural residential densities to lesser or greater degrees such as changes from Rural Protection (10 acre lots) or Rural Wooded (20 acre lots) to Rural Residential (5 acre lots). Some would change from Urban Reserve (10 acre lots) to Urban uses. Several requests involve adding rural employment opportunities to change from either Rural Residential to rural employment categories or from one type of rural employment category to another. See Exhibit 3.2-17.

Exhibit 3.2-16. Reclassification Request List

Applicant	Request
Rural Residential Changes	
Porter	RR/RP to RR
Garland	RW to RR
Trophy Lake Golf Club	RW to RR
McCormick Land Company	RW to RR
Fox-Harbor Rentals	RP to RR
Tallman	RW to RR
Rural to Urban Residential Requests	
Curtiss-Avery	URS to UL
Eldorado Hills, LLC	RR to UR
Harris	RR to UL
Edwards-Mt. View Meadows	RR-UL
Rural Employment Requests	
DJM Construction	RP/RR to NC
Bremerton West Ridge	Request MRO, URS to IND
Cornerstone Alliance Church	RR to RI
Gonzalez	RR to RI
Lee	RP to RCO
Bair	RR to RI
Port Orchard Airport	RI to REC
Merlinco	RR to RCO
Rodgers	RR-RCO

Legend: MRO = Mineral Resource Overlay; NC = Neighborhood Commercial; REC = Rural Employment Center; RCO = Rural Commercial; RI = Rural Industrial; RP = Rural Protection; RR = Rural Residential; RW = Rural Wooded; URS = Urban Reserve; BC = Business Center; HTC = Highway Tourist Commercial; Ind = Industrial; RC = Regional Commercial; UL = Urban Low Residential; UM = Urban Medium Residential; UR = Urban Restricted.
Source: Kitsap County 2015

Mineral Lands

Alternative 3 would approve the mineral lands designation request of the Bremerton West Ridge application similar to Alternative 2.

The sites appear to meet mineral lands classification criteria as documented in Draft SEIS Chapter 4 and in staff reports available under separate cover.

Reasonable Measures

While Alternative 2 would increase the emphasis reasonable measures and result in a net reduction of UGA lands, Alternative 3 would assume both proposed reasonable measures and a net addition of UGA lands. The reasonable measures would be similar to Alternative 2 in terms of an amended Silverdale Subarea Plan, amended TDR program, and Commercial zone consolidation. New measures would include maximum parcel size, and parcel reconfiguration; other measures are under consideration (see Appendix G).

3.2.2.3. Mitigation Measures – Relationship to Plans and Policies

Incorporated Plan Features

- Alternative 2 most closely aligns with GMA goals and promotes appropriately sized UGAs to reduce sprawl.
- Alternatives 2 and 3 most closely balance UGA land supply with adopted growth targets.
- Alternatives 2 and 3 include amendments to comprehensive plan elements, development regulations, capital facility plans, and zoning maps based on GMA requirements.

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 Capital Facilities Plan before formally amending UGA boundaries.

Other Proposed Mitigation Measures

- To provide additional population capacity under Alternative 2, the preferred alternative could either reduce the acreage removed from UGAs or increase zoning density to provide additional capacity.
- Alternative 3 provides the greatest amount of population and employment growth capacity, but it has the largest UGAs. To create a more compact development pattern, targeted UGA reductions could be made and zoning density increased in the most urbanized UGAs, such as Silverdale.
- Additional mitigation measures regarding population capacity are discussed in Section 3.2.3 – Population, Housing, and Employment.
- Reasonable measures could be amended or added per Appendix G.

3.2.2.4. Significant Unavoidable Adverse Impacts – Relationship to Plans and Policies

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, and 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 for housing and employment opportunities is analyzed.

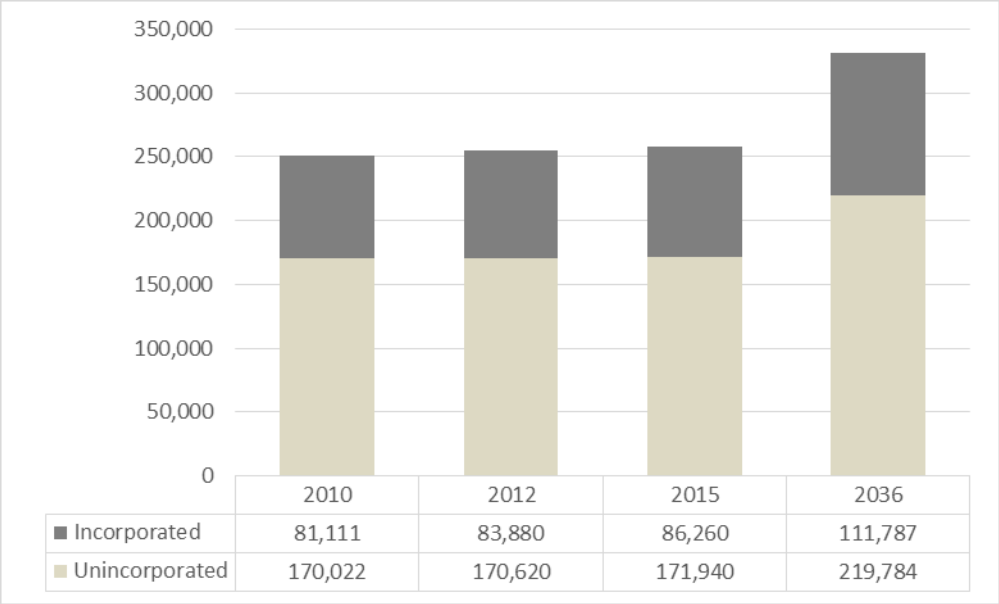
3.2.3.1. Affected Environment – Population, Housing, and Employment

Population and Household Characteristics

Population Estimates and Projections

Kitsap County is home to 258,200 people in 2015, and is anticipated to grow to 331,571 people by 2036 based on Countywide Planning Policy (CPP) population targets, a 22% increase. Current and projected population levels are displayed in Exhibit 3.2-17.

Exhibit 3.2-17. Current and Projected Population

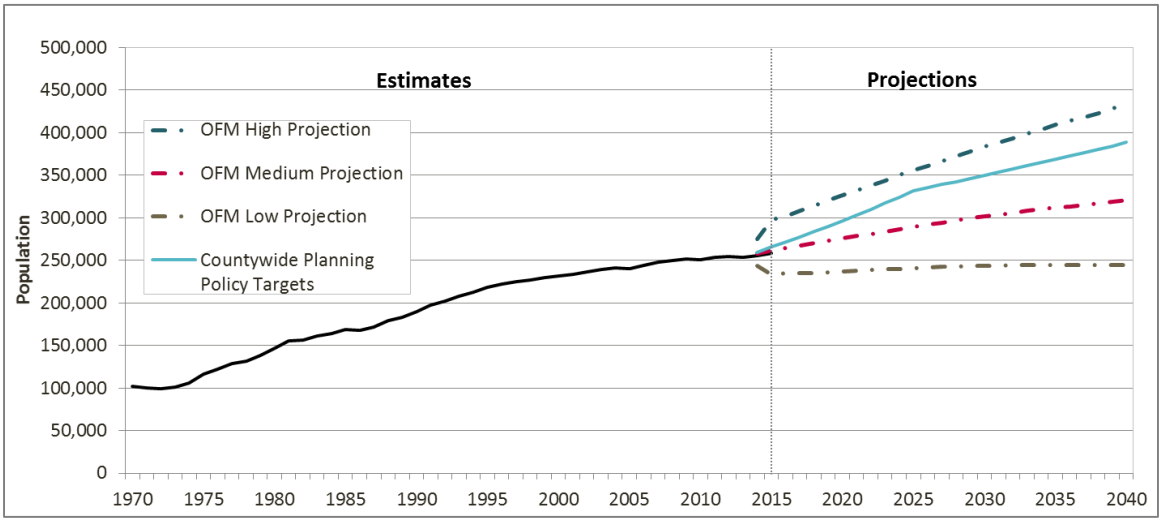


	2010	2012	2015	2036
Incorporated	81,111	83,880	86,260	111,787
Unincorporated	170,022	170,620	171,940	219,784

Sources: (Washington State Office of Financial Management, 2015); (Kitsap Regional Coordinating Council, 2014)

The County's 2036 population target is within the range of the State Office of Financial Management's medium and high projections, as shown in Exhibit 3.2-18.

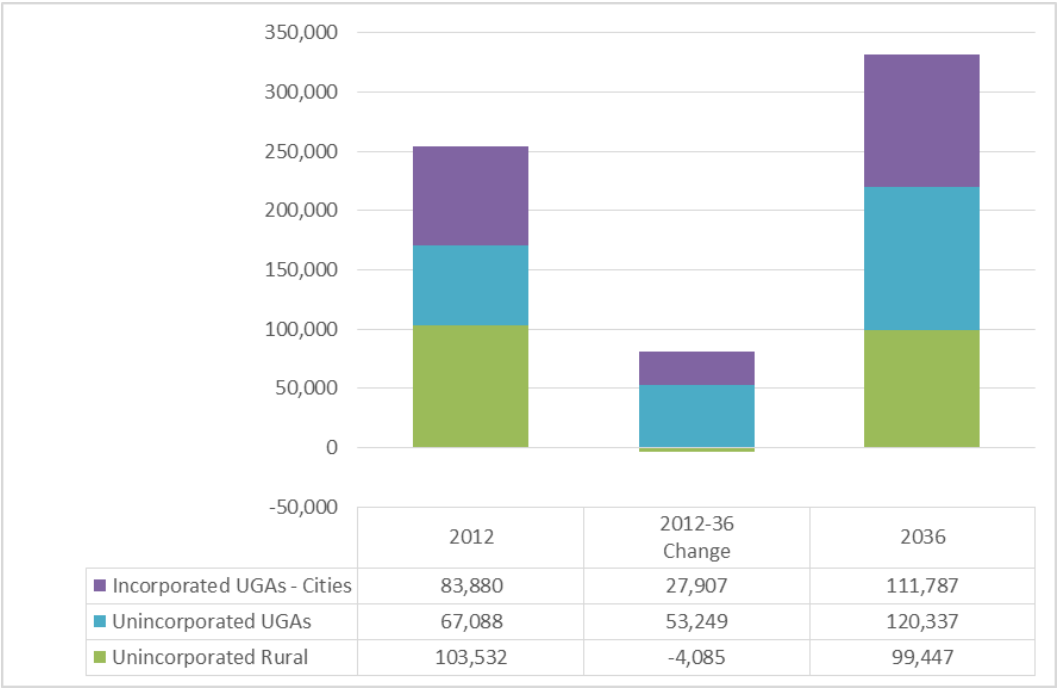
Exhibit 3.2-18. State Population Projections and Kitsap County Growth Target



Source: (Washington State Office of Financial Management, 2012)

In 2012 the county's population was distributed to 41% Rural, 26% Urban Growth Areas (UGAs) and 33% cities. By 2036 the Rural share would decrease to 30% and the population would have a greater focus in UGAs and cities. Over time, the balance of population will shift to UGAs and cities. It is anticipated that most of the UGA area will be annexed to cities or incorporate, depending on resident and property owner preferences.

Exhibit 3.2-19. Growth Projections by City, UGAs, and Rural Areas



	2012	2012-36 Change	2036
Incorporated UGAs - Cities	83,880	27,907	111,787
Unincorporated UGAs	67,088	53,249	120,337
Unincorporated Rural	103,532	-4,085	99,447

Source: (Washington State Office of Financial Management, 2015), (Kitsap Regional Coordinating Council, 2014)

Population Characteristics

The county is becoming more racially diverse and is attracting a greater share of persons 65 years and older. The percent of persons with Hispanic ethnicity has also increased, as shown in Exhibit 3.2-20.

Exhibit 3.2-20. Selected Population and Household Characteristics – Kitsap County

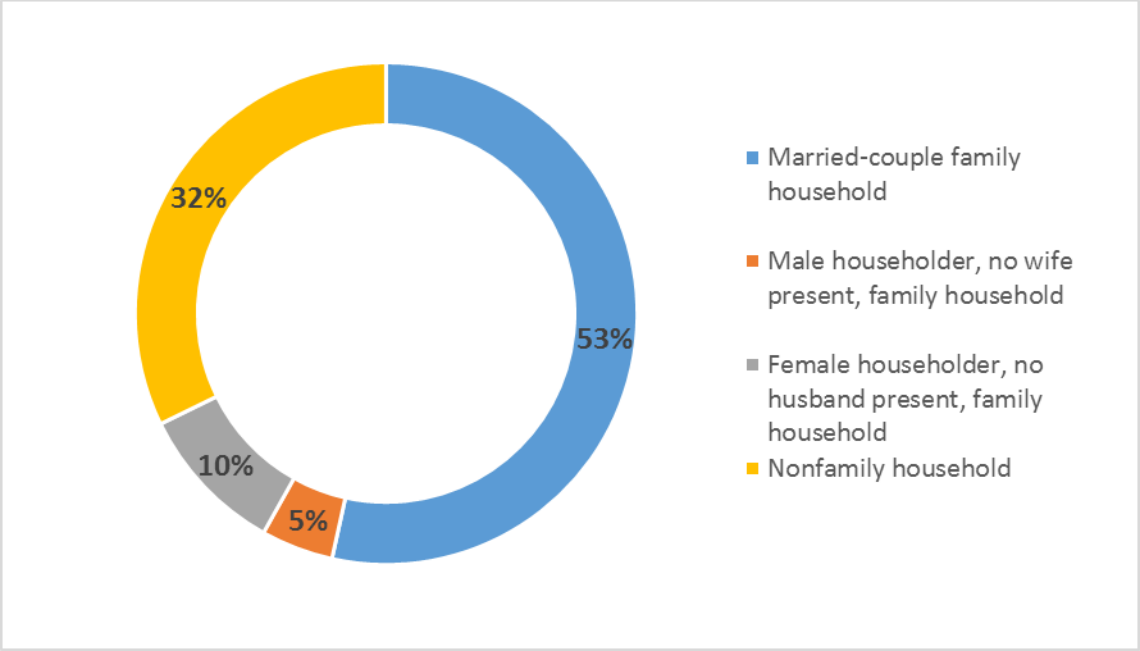
Characteristic	2000	2010	2013
Percent Caucasian	84.2%	82.5%	81.8%
Percent Hispanic Ethnicity	4.1%	6.2%	7.0%
Percent 65 years +	10.5%	13.2%	13.6%
Median Age	35.7	39.3	39.5

Source: (Alteryx, Inc., 2014); US Census 2000 and 2010; American Community Survey 2009-2013

Household Characteristics

Most of Kitsap County's population live in family households with one or two parents and one or more children, though nearly one-third live in a non-family household with no children present, as shown in Exhibit 3.2-21.

Exhibit 3.2-21. Household Types – Kitsap County



Source: American Community Survey: Table S1101: households and Families, 2009-2013 5-Year Estimates

> Family is a household where two or more people are related by birth, marriage, or adoption. There are also households of one person living alone, as well as households where none of the people are related to each other. ~censusreporter.org

Kitsap County's average household size is decreasing. However, as the county grows in a denser pattern, there are more persons per square mile, as shown in Exhibit 3.2-22.

Exhibit 3.2-22. Household Size and Population Density

Characteristic	2000	2010	2013
Average Household Size	2.60	2.49	2.51
Persons Per Square Mile	585.82	635.88	643.14

Source: US Census 2000 and 2010; (Washington State Office of Financial Management, 2015); American Community Survey 2009-2013

Housing Stock and Affordability

Kitsap County's housing stock is largely single-family, and that characteristic has held steady over the last 15 years across the County, as shown in Exhibit 3.2-23.

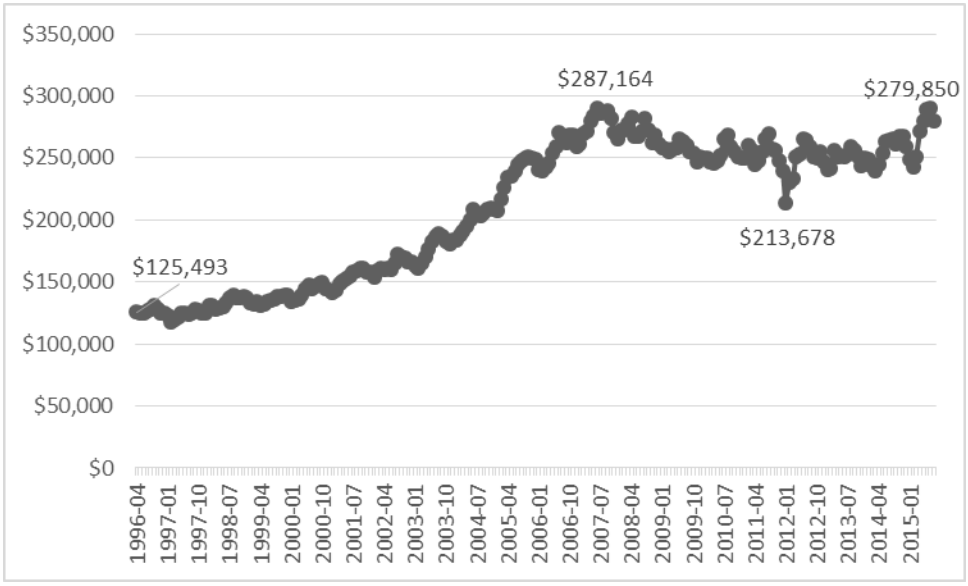
Exhibit 3.2-23. Kitsap County Housing Stock

Kitsap County	2000 One Unit	2000 Two + Unit	2000 Mobile Homes	2010 One Unit	2010 Two + Unit	2010 Mobile Homes	2015 One Unit	2015 Two + Unit	2015 Mobile Homes
Unincorporated	45,294	7,716	8,316	52,145	8,717	9,897	52,945	8,712	9,762
Percent	74%	13%	14%	74%	12%	14%	75%	12%	14%
Incorporated	19,584	10,699	1,035	23,466	12,080	1,062	24,580	12,372	1,131
Percent	63%	34%	3%	64%	33%	3%	65%	32%	3%
Total	64,878	18,415	9,351	75,611	20,797	10,959	77,525	21,084	10,893
Percent	70%	20%	10%	70%	19%	10%	71%	19%	10%

Source: (Wasington State Office of Financial Management, 2015)

The value of homes increased from 1996 to 2007, dipped during the Great Recession, and then rose through 2015, as shown in Exhibit 3.2-24.

Exhibit 3.2-24. Median Sales Price



Source: (Zillow, 2015)

Kitsap County's homes are affordable to middle-income households and first time home buyers. In the fourth quarter of 2014, the county had a housing affordability index measure well above 100, indicating more affordability than other counties in Central Puget Sound for both middle-income households and first-time homebuyers, as shown in Exhibit 3.2-25.

Exhibit 3.2-25. Housing Affordability Index –Fourth Quarter 2014

County	Median Price	Mortgage Rate	Monthly Payment	Median Family Income	HAI	Starter Monthly Payment	Median Household Income	First Time HAI
King	$449,300	4.2%	$1,758	$91,950	109	$1,732	$72,625	61
Kitsap	$243,400	4.2%	$953	$77,525	170	$938	$68,859	107
Pierce	$233,000	4.2%	$912	$73,275	167	$898	$53,642	87
Snohomish	$331,400	4.2%	$1,297	$85,175	137	$1,278	$65,654	75

Source: (Washington Center for Real Estate Research, 2015)

In terms of rental housing, Kitsap County has a relatively lower average rent, though its vacancy rate is relatively low, as shown in Exhibit 3.2-26.

Exhibit 3.2-26. Rental Housing Prices and Vacancy– Fall 2014

County	Average Size (sq. ft.)	Average Rent ($)	Number of Units	Number Vacant	Vacancy Rate (%)
King	811	$1,338	140,559	4,779	3.4
Kitsap	865	$917	6,613	271	4.1
Pierce	849	$900	37,704	1,734	4.6
Snohomish	887	$1,091	31,041	1,397	4.5

Source: (Runstad Center for Real Estate Studies, 2014)

Kitsap County's average rental rates appear to be within a range of fair market rent estimates as of 2014.

Exhibit 3.2-27. Fiscal Year 2014 Fair Market Rents By Unit Bedrooms, Kitsap County

Unit Type	Efficiency	One-Bedroom	Two-Bedroom	Three-Bedroom	Four-Bedroom
Average Rent	$566	$725	$951	$1,366	$1,628

Source: (US Housing and Urban Development, 2015)

However, a closer look at rents and incomes in 2015 shows a potential mismatch:

> *In Kitsap, housing costs are well beyond the affordability of low-income households…: •Affordable rent for a person earning minimum wage is $492. • In Kitsap, the estimated mean renter wage is $11.26; making $586 an affordable rent with a single wage-earner. • For a household of any size earning 30% or less of Area Median Income ($22,380), affordable rent would be no more than $560. • Kitsap fair market rent (FMR) for a two-bedroom apartment is $1,020 (statewide: $1,128). The annual household income needed to make this affordable is $40,800, or $19.62 per hour. (Kitsap County Department of Human Services and Kitsap Continuum of Care Coalition, 2015)*

While Kitsap County's housing and apartment prices are relatively affordable in the region, there are households that are paying more than 30% of their income towards housing costs and earning less than 80% of the area median income. These households are considered cost-burdened. The severely cost-burdened pay 50% or more of household income on housing costs. There are more cost burdened renters (41%) than owners, as shown in Exhibit 3.2-28.

Exhibit 3.2-28. 2012 Housing Cost Burden – Owners and Renters in Kitsap County

Income by Cost Burden (Owners and Renters)	Cost burden > 30%	Cost burden > 50%
Owners and Renters Combined		
Household Income <= 30% HAMFI	8%	6%
Household Income >30% to <=50% HAMFI	7%	4%
Household Income >50% to <=80% HAMFI	9%	2%
Total	23%	12%
Income by Cost Burden (Renters only)		
Household Income <= 30% HAMFI	14%	12%
Household Income >30% to <=50% HAMFI	12%	5%
Household Income >50% to <=80% HAMFI	14%	2%
Total	41%	19%
Income by Cost Burden (Owners only)		
Household Income <= 30% HAMFI	4%	4%
Household Income >30% to <=50% HAMFI	4%	3%
Household Income >50% to <=80% HAMFI	6%	3%
Total	15%	9%

Note: 2008-2012 American Community Survey 5-year Estimates

Source: (US Housing and Urban Development, 2015)

The cost-burden data above is from 2012, at the end of the Great Recession. However, there are indicators showing housing costs and poverty were still a concern in 2013, following the recession:

> *• 11% of residents are living below the Federal poverty level (2013), an increase from 9% in 1998. • 14% of youth are living below the Federal poverty level (2013), an increase from 11% in 1998. • 35% (2013) of households are spending more than 30% of income on housing, an increase from 32% in 1998.*
> *(Kitsap County Department of Human Services and Kitsap Continuum of Care Coalition, 2015)*

Homelessness

A 2015 point–in-time homeless count found 500 persons in Kitsap County lacked shelter and were living on streets, in shelters, in the woods, in cars, or temporarily with family or friends. This is less than the counts in 2006 (912) or 2009 (800). Other sources show a higher number of homelessness: those requesting Basic Food Assistance who report they are homeless shows a significant increase from 2003 (541) through 2012 (for 9 months: 2,697).

The Draft Kitsap Homeless Housing Plan (Kitsap County Department of Human Services and Kitsap Continuum of Care Coalition, 2015) includes five goals and related strategies and outcomes. The goals are:

> *1) Make homelessness rare (prevention strategies).*
>
> *2) Make homelessness brief (crisis response strategies).*
>
> *3) Make homelessness one-time (ensure long-term housing stability strategies).*

4) Continuously improve the homeless response system (increase capacity and efficiency strategies).

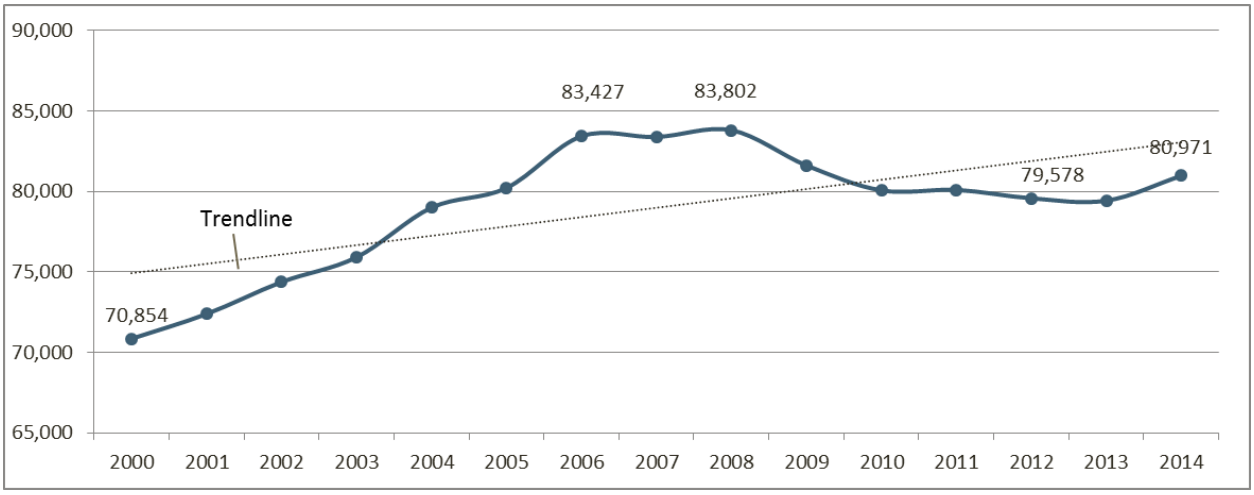
5) Expand community engagement (leadership, planning, and communication strategies).

Homelessness is a result of the breakdown of other social factors, such as economic security, employment, education, and the health care system. The Great Recession that began in 2008 had a huge impact on economic and housing factors that affect homelessness. The resulting economic instability, foreclosure, unemployment, insufficient outreach to some of the most vulnerable citizens including veterans, loss of retirement and savings, and loss of health benefits forced an unprecedented number of households into homelessness. ~ (Kitsap County Department of Human Services and Kitsap Continuum of Care Coalition, 2015)

Employment

Kitsap County's total employment has increased over the last 15 years, though it declined during the Great Recession and is now in recovery, as shown in Exhibit 3.2-29.

Exhibit 3.2-29. Employment Kitsap County: 2000-2014



Source: Employment Security Department; Puget Sound Regional Council 2000-2014

Kitsap County's major sectors of employment include services, government, and retail. The county gained 10,000 jobs between 2000 and 2014, much of it in services and government, as shown in Exhibit 3.2-30.

Exhibit 3.2-30. Employment Sectors: 2000 and 2014

Year	Cons/ Res	FIRE	Manuf-acturing	Retail	Services	WTU	Govern-ment	Educ-ation	Total
2000	3,658	2,580	1,721	10,027	25,321	1,801	18,813	6,933	70,854
2014	3,620	2,485	2,115	9,696	31,752	2,458	22,278	6,567	80,971

Source: Employment Security Department; Puget Sound Regional Council; 2000 and 2014

The largest private employers in Kitsap County in 2013 are shown in Exhibit 3.2-31.

Exhibit 3.2-31. Top Private Employers – Kitsap County 2013

Private Enterprise	Total Jobs 2013
Harrison Medical Center	2,442

Private Enterprise	Total Jobs 2013
Port Madison Enterprises	752
Martha & Mary Health Services	599
Safeway	549
Fred Meyer	500
The Doctors Clinic	476
IBM *(operated by Manpower)*	473
YMCA (two locations)	446
McDonald's *(Laurier Enterprises)*	430
Kitsap Mental Health Services	401
Skookum	396
Stafford Healthcare *(Ridgemont Terrace Nursing Center/Belmont Terrace)*	380
Town and Country Markets *(T&C; Central Market)*	379
Lockheed Martin Space Systems	375
Haselwood Auto Group	364
EJB	361
SAFE Boats International	300

Source: (Kitsap Economic Development Alliance, 2013)

Military jobs are not included in the total jobs figure in Exhibit 3.2-30, though civilian jobs are part of the government sector addressed in Exhibit 3.2-30. Both military and civilian jobs are listed below in Exhibit 3.2-32 for the year 2013. Since 2013, 2000 jobs have been added to the Shipyard. (Makers Architecture et al., 2015); (Wall, 2015)

Exhibit 3.2-32. Military and Related Civilian Jobs - 2013

Department of Defense	Military	Civilian
Naval Base Kitsap (NBK)	**14,953**	**16,392**
Puget Sound Naval Shipyard & Intermediate Maintenance Facility	653	10,952
Naval Base Kitsap[1]	13,500	4,800
Naval Hospital Bremerton	800	640

[1] Ships, Submarines, Tenants (minus PSNS&IMF), Contractors

Source: (Kitsap Economic Development Alliance, 2013)

At the regional or county level, population and employment are typically linked, and grow or decline at similar rates. Growth or decline in population will contribute to growth or decline in employment, and vice versa. The gradual increase in the population-employment ratio between 2000 and 2010, Exhibit 3.2-33, is expected to continue as the population continues to age and the Baby Boom Generation retires.

Exhibit 3.2-33. Population and Employment Ratios: 2000 and 2010

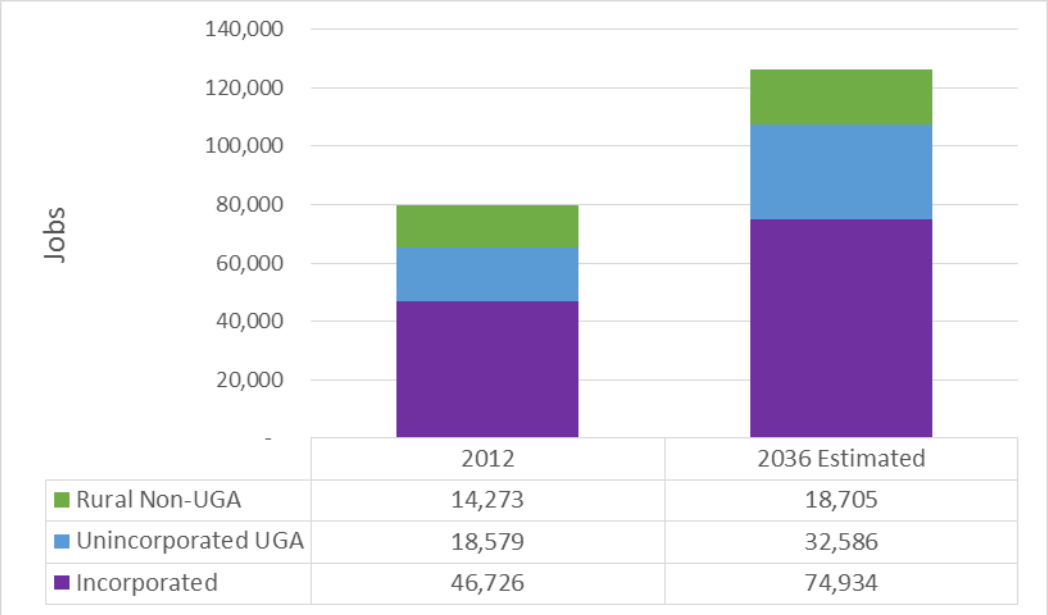
		2000	2010
Washington State	Population	5,894,121	6,724,540
	Total Employed	2,898,680	3,166,880
	Population-Employment Ratio	2.03	2.12
Kitsap County	Population	231,969	251,133
	Total Employed	100,650	113,800
	Population-Employment Ratio	2.30	2.21

Source: Population – Office of Financial Management, 2000 and 2010

Neither the Washington Employment Security Department (ESD) nor OFM generate long-range employment projections for counties, including Kitsap County. Thus, city and county planners examined the historical relationship between employment and population in developing a countywide employment target. Kitsap Countywide Planning Policies include a population/employment ratio of 2.65 for greater consistency with the VISION 2040 Regional Growth Strategy. Applying the 2.65 ratio to the adopted 2036 population target of 331,571, results in a countywide total employment of about 125,100 jobs.

Jobs in Kitsap County are expected to grow through the planning period between 2012 and 2036. In both years, most jobs are located in cities, secondarily in UGAs, and then in Rural areas, as shown in Exhibit 3.2-34. Adding the job growth targets in the Countywide Planning Policies (46,647 adjusted 2012-2036 growth) to the 2012 base jobs (79,578) produces total 2036 jobs at 126,225, a 2.63 population to employment ratio.

Exhibit 3.2-34. Current and Projected Jobs: 2012 and 2036



	2012	2036 Estimated
Rural Non-UGA	14,273	18,705
Unincorporated UGA	18,579	32,586
Incorporated	46,726	74,934

Source: Employment Security Department and Puget Sound Regional Council 2012; (Kitsap Regional Coordinating Council, 2014); BERK Consulting 2015

3.2.3.2. Impacts– Population, Housing, and Employment

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 from the present through 2036 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 semi-developed to developed.

All alternatives would add about 23% to the county's population. About 79% of the new population would occur in cities and UGAs, while about 21% would occur in Rural areas. Alternatives 2 and 3 would generally meet the growth target, but Alternative 1 would be below the target, as shown in Exhibit 3.2-35 and Exhibit 3.2-35.

Exhibit 3.2-35. Population Growth by Alternative

City or UGA	2012	Growth Target 2012-2036	Alt. 1 Growth	Alt. 1 Total Population	Alt. 2 Growth	Alt. 1 Total Population	Alt. 3 Growth	Alt. 3 Total Population
Total City	83,880	27,907	30,117	113,997	34,419	118,299	34,419	118,299
Uninc. UGA	67,088	32,359	29,630	96,718	25,826	92,914	27,353	94,441
Rural Non-UGA	103,532	16,805	15,676	119,208	16,805	120,337	16,805	120,337
Total	254,500	77,071	75,423	329,923	77,050	331,550	78,576	333,076

Source: Kitsap County Community Development; BERK Consulting 2015

All alternatives add employment opportunities, and would exceed the growth target, as shown in Exhibit 3.2-36.

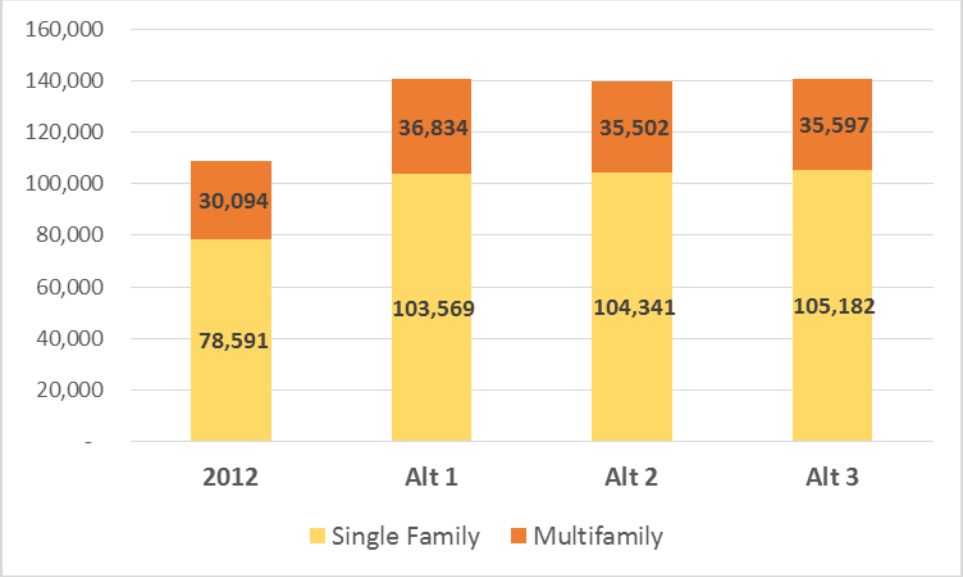
Exhibit 3.2-36. Employment Growth by Alternative

City or UGA	2012	Growth Target 2012-2036	Alt. 1 No Action Growth	Alt. 1 Total Employment	Alt. 2 Growth	Alt. 2 Total Employment	Alt. 3 Growth	Alternative 3Total Employment
Total City	46,726	28,208	30,029	76,755	33,962	80,688	33,962	80,688
Uninc. UGA	18,579	14,007	15,719	34,298	16,453	35,032	14,008	32,587
Rural Non-UGA	14,273	4,432	4,433	18,706	4,432	18,705	4,432	18,705
Total	79,578	46,647	50,182	129,760	54,847	134,425	52,402	131,980

Source: Kitsap County Community Development; BERK Consulting 2015

All alternatives would create opportunities for housing, both single family and multifamily. See Exhibit 3.2-37. Alternatives 2 and 3 would have slightly lower numbers of multifamily than Alternative 1 principally due to the reduction of Mixed Use lands in the Port Orchard UGA.

Exhibit 3.2-37. Housing Units by Alternative



Source: Kitsap County Community Development; BERK Consulting 2015

Impacts of Alternative 1

Under Alternative 1, countywide population growth would be 2% below CPP growth targets and countywide employment growth would be 8% above CPP growth targets. The population to employment ratio would be 2.54, lower than the CPP goal of 2.65.

The rural population is the lowest of the three alternatives. Rural jobs are similar across all alternatives.

Under Alternative 1, the unincorporated UGAs would be below CPP population targets by 8% and above CPP employment targets by 12%. Generally the County has planned for growth within 5% above or below the target, as the 20-year projections and capacities are not precise. Thus, Alternative 1 would be generally in balance with CPP targets for population and high for employment.

Exhibit 3.2-38. Alternative 1 No Action Unincorporated UGA Capacities and Target

Unincorporated UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 1 Population Growth	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 1 Emp Growth	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	4,350	378	10%	1,443	2,456	1,013	70%
Port Orchard	6,110	6,320	210	3%	1,140	3,634	2,494	219%
Poulsbo	3,786	2,095	(1,691)	-45%	14	360	346	2,474%
Central Kitsap	6,842	6,398	(444)	-6%	1,885	1,889	4	0%
Silverdale	8,723	7,644	(1,079)	-12%	8,928	6,801	(2,127)	-24%
Kingston	2,926	2,823	(103)	-4%	597	579	(18)	-3%
Total	32,359	29,630	(2,729)	-8%	14,007	15,719	1,712	12%

Source: Kitsap County Community Development Department; BERK Consulting 2015

Impacts of Alternative 2

Countywide population growth under Alternative 2 would be within 1% of CPP growth targets, while countywide employment growth would be 18% above CPP growth targets, but would occur primarily within smaller UGA boundaries, with a denser pattern. The population to employment ratio would be 2.47, the lowest of the three alternatives and below the CPP goal of 2.65.

Under Alternative 2, the unincorporated UGAs would be below population targets by 7% and above employment targets by about 17%, as shown in Exhibit 3.2-39. However, because Silverdale's employment growth is essentially occurring in present UGA boundaries (with a less than 1% UGA change for industrial lands), growth would largely occur in the existing urban footprint of the Silverdale RGC. If the Silverdale employment growth is excluded, the percentage above employment targets across the County would drop to 3%.

Exhibit 3.2-39. Alternative 2 Whole Community Unincorporated UGA Capacities and Target

Uninc. UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 2 Population Growth	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 2 Emp. Growth	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	3,329	(643)	-16%	1,443	1,983	540	37%
Port Orchard	6,110	4,676	(1,434)	-23%	1,140	1,507	367	32%
Poulsbo City + UGA	3,786	5,227	249	5%				
Poulsbo UGA only					14	64	50	355%
Central Kitsap	6,842	6,234	(608)	-9%	1,885	1,398	(487)	-26%
Silverdale	8,723	8,777	54	1%	8,928	10,924	1,996	22%
Kingston	2,926	2,811	(115)	-4%	597	579	(18)	-3%
Total excl. Poulsbo	32,359	25,826	(2,747)	-8%	N/A	N/A	N/A	N/A
Total with Poulsbo	33,551	31,053	(2,498)	-7%	14,007	16,453	2,446	17%

Source: Kitsap County Community Development Department; BERK Consulting 2015

Alternative 2 provides for some increases in medium density residential in UGAs by adding 20% more such acres, primarily in the Port Orchard UGA.

More clustered housing options would occur with greater application of Greenbelt and Urban Cluster Residential designations. More mixed-use housing opportunities are assumed in Commercial zones as well, particularly in the Silverdale Regional Growth Center (RGC).

The amount of land zoned Urban Low Residential would decrease in favor of rural densities, preserving single-family neighborhood character but in a much less dense fashion.

Impacts of Alternative 3

Under Alternative 3, countywide population growth would generally be within 2% of CPP growth targets. Countywide employment growth would be 12% above CPP growth targets. The population to employment ratio would be 2.52, lower than the CPP goal of 2.65.

Under Alternative 3, the unincorporated UGAs would be below target on population by 3% and at target on employment, as shown in Exhibit 2.6-36.

Exhibit 3.2-40. Alternative 3 All Inclusive Unincorporated UGA Capacities and Target

Uninc. UGA	Adjusted Pop. Growth Target 2012-2036	Alternative 3 Population Growth	Difference with Population Target	% Diff. Population Target	Adjusted Emp. Growth Target 2012-2036	Alternative 3 Emp. Growth	Difference with Emp. Target	% Diff. Emp. Target
Bremerton	3,972	4,968	996	25%	1,443	1,559	116	8%
Port Orchard	6,110	3,745	(2,365)	-39%	1,140	1,302	162	14%
Poulsbo City + UGA	3,786	5,227	249	5%				
Poulsbo UGA only					14	64	50	355%
Central Kitsap	6,842	6,822	(20)	0%	1,885	1,398	(487)	-26%
Silverdale	8,723	8,860	137	2%	8,928	9,107	179	2%
Kingston	2,926	2,957	31	1%	597	579	(18)	-3%
Total excl. Poulsbo	32,359	27,353	(1,220)	-4%	N/A	N/A	N/A	N/A
Total with Poulsbo	33,551	32,579	(972)	-3%	14,007	14,008	1	0%

Source: Kitsap County Community Development Department; BERK Consulting 2015

Alternative 3 would increase the amount of land zoned Urban Medium Residential by 7% and reduce land zoned Urban Low Residential by 6%, which would be reclassified into rural categories.

More clustered housing options would occur with greater application of Greenbelt and Urban Cluster Residential designations. More mixed-use housing opportunities are assumed in Commercial zones as well, particularly in the Silverdale RGC, though not to the same degree as Alternative 2.

3.2.3.3. Mitigation Measures– Population, Housing, and Employment

Incorporated Plan Features

- Alternative 2 reduces the acreage of the unincorporated UGAs countywide, allowing a greater density on buildable lands. This would reduce the consumption of land for urban development and provide a more efficient development pattern for urban services.
- Alternatives 2 and 3 update the Land Use, Housing, and Economic Development Elements to better guide population, housing, and employment growth over the new 2016-2036 planning period.

Regulations and Commitments

- The zoning code provides zones with allowable housing and employment uses and requirements for adequate facilities and appropriate site design.

Other Proposed 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:

- The County could consider measures to increase development capacity through increasing density, such as applying incentives (e.g., density bonuses) and/or upzones (e.g., greater densities).
- 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."

3.2.3.4. Significant Unavoidable Adverse Impacts – Population, Housing, and Employment

Population, employment, and housing will increase under any of the alternatives reviewed, to similar 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 SEIS.

Alternative 2 is projected to have less indirect impacts from growth on the natural environment and public services since it focus growth in smaller more compact UGAs compared to Alternatives 1 or 3.

3.2.4. Transportation

3.2.4.1. Affected Environment - Transportation

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

Moving Ahead for Progress in the 21st Century Act (MAP-21)

The federal Moving Ahead for Progress in the 21st Century Act (MAP-21) authorizes federal funding for numerous surface transportation programs. MAP-21 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, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment, as well as lay the groundwork for addressing future challenges. 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

The Washington State Growth Management Act (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 pedestrian and bicycle 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 and 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

The *Washington Transportation Plan 2035* (*WTP 2035*) 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, 2015a). *WTP 2035* 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 2035* 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.

WTP 2035 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.
- **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 – Transportation 2040

Transportation 2040 is the region's long-range transportation plan developed by the Puget Sound Regional Council (PSRC) that implements VISION 2040 (PSRC, 2015). The transportation plan establishes three integrated strategies:

1. **Congestion and Mobility** – The plan calls for improved mobility through a combination of effective land use planning, demand management, efficiency enhancements, and strategic capacity investments. The plan also calls for capacity improvements that strategically expand roadway, transit, and non-motorized facilities, with new roadways limited to key missing links and enhancing existing facilities. It also establishes a process for monitoring transportation system performance.

2. **Environment** – A key focus of the plan is to protect and improve the region's environmental health. This includes ensuring that the region has healthy air that meets all standards, ensuring that transportation projects improve the handling of stormwater runoff to protect Puget Sound and other surface waters, and addressing emerging issues such as transportation's role in reducing greenhouse gas emissions and adapting to climate change. The plan includes a specific strategy to address state greenhouse gas goals and VMT reduction bench-marks. The four-part strategy includes Land Use, Transportation Pricing, Transportation Choices, and Technology. In addition, the plan builds on current efforts to protect natural areas and support vibrant, livable communities.

3. **Funding** – The plan's financial strategy relies on traditional funding sources in the early years, but over time calls for transition to a new funding structure based on user fees, which could include high-occupancy toll (HOT) lanes, facility and bridge tolls, highway system tolls, vehicle-miles-travelled (VMT) charges, and other pricing approaches that would replace the gas tax and further fund and manage the transportation system. The plan acknowledges that funding strategies need to include a nexus between the tax, fee, or toll, and the use of the revenues.

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. Within these strategies the plan identifies four major categories of investment: (1) preservation, maintenance and operations, (2) safety and security, (3) efficiency, and (4) strategic capacity, which lays out strategies for all modes, including local roads, non-motorized transportation, vehicle and passenger ferries, aviation, and rail.

PRTPO Regional Transportation Plan

The Peninsula Regional Transportation Planning Organization (PRTPO) is a voluntary association of cities, towns, counties, ports, tribes, transit agencies, and major employers that work together to develop transportation plans to meet the Olympic Peninsula region's future economic and population growth. Its *Regional Transportation Plan 2035* (PRTPO, 2015) 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; and
- Providing a safe and reliable transportation system.

Countywide Planning Policies

The Kitsap Countywide Planning Policies (Kitsap Regional Coordinating Council, 2015) 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 miles traveled, and the length of vehicle trips taken, for both commute and non-commute trips;
- Minimize the environmental impacts of transportation facilities and improvements;
- Recognize differences in density, character, and development patterns throughout the county;
- Support transit and pedestrian travel 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; and
- Coordinate intra-county transportation planning efforts.

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 Capital Facilities Plan (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 and 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 State Route (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 north 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. 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)
- SR 16, I-5 (Tacoma) to SR 3 (Gorst)
- SR 104, US-101 to I-5 (note: Kingston-Edmonds ferry route is HSS)
- SR 304, SR 3 to Bremerton Ferry (note: Bremerton-Seattle ferry route is HSS)
- SR 305, SR 3 to Bainbridge Island Ferry (note: Bainbridge Island-Seattle ferry route is HSS)
- SR 307, SR 305 to SR 104
- SR 310, SR 3 to SR 304

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.

- SR 160, Port Orchard to Southworth
- SR 166, Port Orchard to SR 16
- SR 303, Bremerton to Silverdale
- SR 308, Bangor to Keyport.

National Highway System

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, that 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. The classification system is used to determine which roads are eligible for certain state and federal funds.
- **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 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 3.2-41 explains the various federal functional classifications 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 3.2-41. Federal Functional Classifications

Functional Classification	Description
Freeway	A freeway is a multilane, high-speed, high-capacity roadway intended exclusively for motorized traffic. All access is controlled by interchanges and road crossings are grade-separated. The freeways in Kitsap County are all under the jurisdiction of WSDOT.
Principal Arterial	Principal arterials primarily serve a mobility function, and typically have either full or semi-controlled access. Principal arterials provide for movement between 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.
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 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 originates and terminates 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 for 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, no 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.

Source: Kitsap County Public Works Department, 2007.

County Roadway Inventory

Exhibit 3.2-42 summarizes the existing miles of county arterial roadways by County functional classification. The majority of roads in Kitsap County are local streets.

Exhibit 3.2-42. Existing County-Owned Roadway Mileage by Functional Classification within Kitsap County

Functional Classification	Total Miles of Roadway	Percentage of Total
Urban Principal Arterial	9.85	1.1%
Urban Minor Arterial	95.15	10.2%
Urban Collector	48.04	5.1%
Rural Minor Arterial	18.37	2.0%
Rural Major Collector	94.13	10.1%
Rural Minor Collector	51.25	5.5%
Local	614.12	66.0%
Total	**930.91**	**100.0%**

Source: Kitsap County Public Works Department, 2015a.

Appendix G of this Draft SEIS includes the complete Kitsap County roadway inventory, which summarizes the characteristics of all county roadways classified as arterials and collectors. Roadway characteristics are provided for each analysis segment, including length, number of lanes, vehicle capacity, free flow speed, non-motorized facility characteristics, transit characteristics, traffic control, and parking characteristics.

Roadway Level of Service

Level of Service (LOS) 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 level of service. LOS 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 3.2-43.

Exhibit 3.2-43. Level of Service Descriptions

Level of Service	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.

Level of Service	Roadways
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 consistent with the Highway Capacity Manual (Transportation Research Board 2010) definitions and procedures.

County Roadways

Kitsap County's level of service 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 level of service 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 small 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 level of service in urban areas than in rural areas.

The level of service standards shown in Exhibit 3.2-44 are based on the location and functional classification of the roadway facilities to which they apply. Kitsap County uses traditional engineering methodology to evaluate level of service 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 level of service for roadway segments and intersections is described later in the *Impacts* section of this chapter.

Exhibit 3.2-44. County Roadway Level of Service Standards

Functional Classification	Maximum V/C Ratio/LOS Standard	
	Urban[1]	Rural[2]
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

Source: Kitsap County Public Works Department, 2014.

[1] Urban area is located within UGA boundaries.

[2] Rural area is located outside UGA boundaries.

State Highways

WSDOT standards are applied to HSS facilities, and standards established by the PSRC are applied to HRS facilities, as summarized in Exhibit 3.2-45.

Exhibit 3.2-45. LOS Standards for Highways

Area / Facility Type	LOS Standard	Methodology	Application
Highways of Statewide Significance (HSS)[1]			
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) [2]			
Tier 1 (within ~3-mile buffer around most heavily traveled freeways)	LOS E-mitigated	Highway Capacity Manual – latest edition preferred.	Tier 1: SR 166 and SR 303, Tier 2: SR 160, Tier 3: SR 308
Tier 2 (outside 3-mile buffer but within UGA)	LOS D		
Tier 3 (outside UGA)	LOS C		

1. Washington State Department of Transportation, 2010.
2. Puget Sound Regional Council, 2009.

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 15% allowance relates to individual development proposals undergoing a concurrency test. If LOS is equal to or better than the adopted standard, the concurrency test is passed, and an applicant is issued a Capacity Reservation Certificate. For purposes of concurrency determination, the analysis of LOS adequacy would only be applied to County arterials and collectors in rural areas and urban areas under the County's jurisdiction. A Certificate of Concurrency is not issued to any proposed development if the standards in this section are not achieved and maintained within the six-year period allowed by GMA for transportation concurrency. The applicant has the option of accepting the denial of application; appealing the denial of application; or accepting a 90-day reservation period and, within this time, revising the development proposal to bring transportation within concurrency requirements.

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. Consequently, the concurrency test is currently only applied at the countywide level.

Existing County Roadway Operations

Exhibit 3.2-46 summarizes the lane-miles of county roadway (classified as collector or above) that exceed standards under existing conditions (based on 2012 data). Appendix H of this Draft SEIS summarizes the roadway segments on which deficiencies are identified. Approximately 2.2% 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 3.2-46. Existing Roadway Deficiencies on County Roadways

Region	Total Lane-Miles[1,2]	Number of Road Sections with Deficiencies[3]	Lane-Miles of Deficient Segments[3]	Percent of Deficient Lane-Miles	Concurrency Threshold
North	191.0	4	7.9	4.1%	15%
Central	221.3	6	3.4	1..5%	15%
South	263.0	2	3.6	1.4%	15%
Total	**675.3**	**12**	**14.9**	**2.2%**	**15%**

Source: Kitsap County Public Works Department, 2015b.

[1] Segments include all functionally classified roadways (principal arterials, minor arterials, and collectors).

[2] Lane-miles are calculated by multiplying the length of the roadway by the number of travel lanes on that roadway.

[3] Deficient segments are those for which V/C ratio exceeds standards defined in Exhibit 3.2-44.

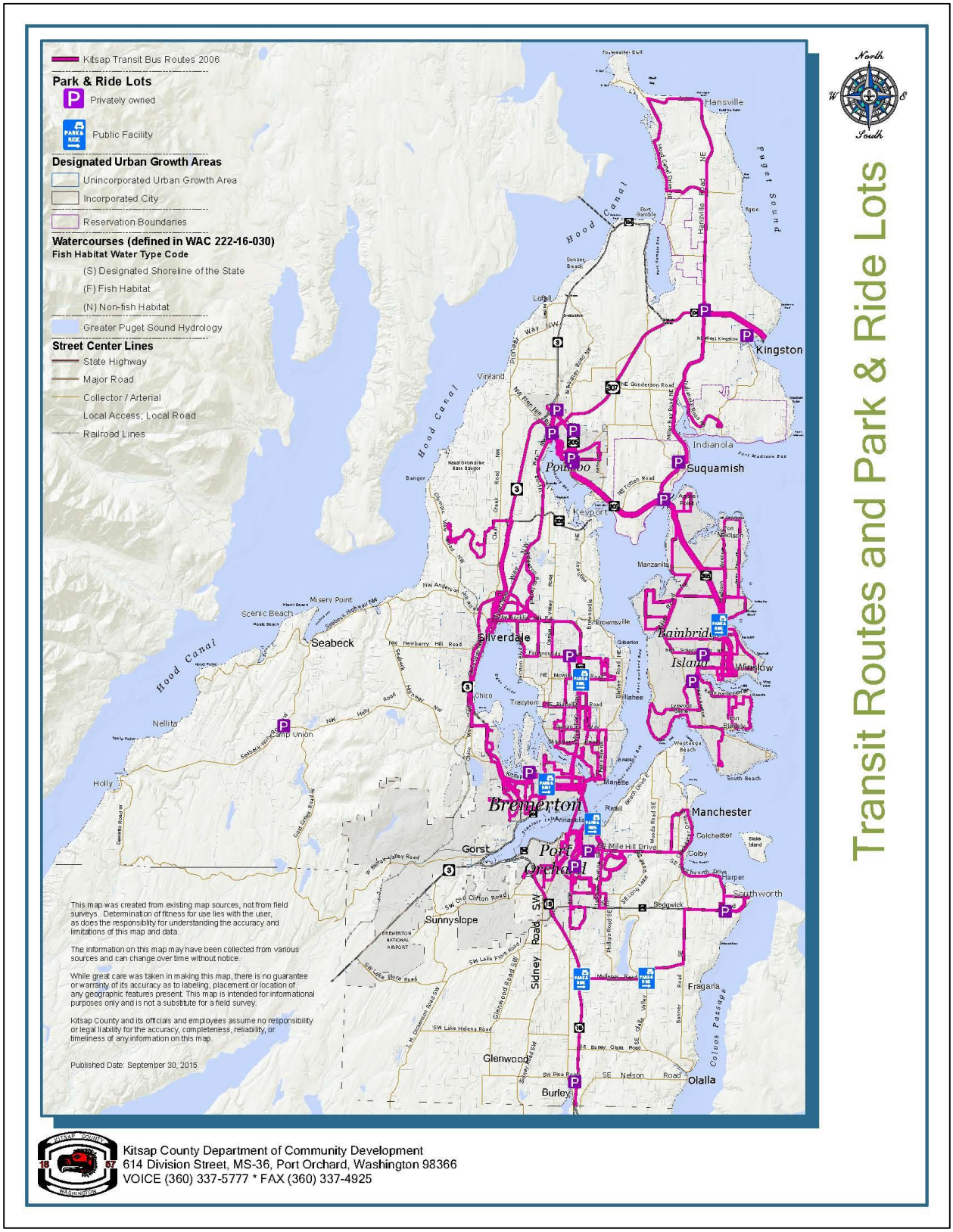
Transit

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, manages a park-and-ride lot system, operates a passenger-only ferry service between Bremerton and Port Orchard, and supports transit-oriented development. The *2015-2020 Transit Development Plan* (Kitsap Transit, 2015), assesses existing service and facilities and lays out a six-year transit improvement plan.

Exhibit 3.2-47 shows existing fixed transit routes and park-and-ride facilities within the county. Transit service and facilities are described in the following sections.

Exhibit 3.2-47. Transit Routes and Park & Ride Lots



Source: Kitsap County Department of Community Development, 2015

Fixed Route Bus Service

Kitsap Transit operates 25 local bus routes throughout the county. Most routes provide everyday service. Saturday service is limited, and there are no Sunday operations. Typical headways (time between buses) range between 15 minutes and 90 minutes, but most commonly are 60 minutes. (Kitsap Transit, 2015a)

Kitsap Transit operates 18 commuter bus routes. Service is provided to support commute travel patterns and times of day. These routes provide weekday service and focus on major employment centers and ferry terminal areas of the county.

Kitsap Transit fixed route buses carried 2,381,079 riders in 2014 (Kitsap Transit, 2015b). Appendix H of this Draft SEIS 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, 2015a).

Dial-A-Ride

Kitsap Transit operates a reservation bus service in areas of the county where commuter bus service may be available, but midday service is not. Kitsap Transit currently only offers Dial-A-Ride service on Bainbridge Island and in the South Kitsap area of the county. If a passenger is traveling to a destination outside the Dial-A-Ride area, Kitsap Transit will provide transport to the nearest transfer center.

Foot Ferry Service

Kitsap Transit operates contract passenger ferries between Port Orchard and Bremerton and between Annapolis and Bremerton. The Port Orchard/Bremerton ferry operates weekdays and Saturdays at 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 2014, the foot ferries carried 458,097 riders (Kitsap Transit, 2015a).

Rideshare

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, summarized in Appendix H of this Draft SEIS. Collectively, these lots have a capacity of 2,286 parking stalls, with average utilization that ranges from below 20% to over 100%, and a countywide average utilization of 63% (Kitsap Transit, 2014).

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 vehicle miles traveled per capita.

There are currently 27 CTR worksites in Kitsap County, including both public and private employers (Kitsap Transit, 2014c). Employer-based CTR programs typically include a combination of incentives to choose alternatives 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 receive a Smart Commuter Discount Card from Kitsap Transit, which provides discounts on a variety of merchandise and services from more than 100 local merchants.

- **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 two routes to Sub Base Bangor.
- **Vanpool 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 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. Members are given a key card that allows them access to any vehicle in the fleet. When a member needs to use a vehicle for personal errands or appointments, he or she makes a reservation via the web or phone. Users pick up the car at a convenient location and return the car once finished.

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, 2009b) 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, 2013). 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 functions, and the majority of non-military freight movement (as well as additional military freight movement) in Kitsap County relies on trucks.

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. The 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 and Bainbridge Island-Seattle ferry routes. King Street Station serves daily trains to/from Vancouver, Chicago, Portland, and a through train to Los Angeles. The Tacoma station is

located near the Tacoma Dome about 45 minutes from Bremerton. Service from Tacoma includes daily trains to Seattle and Portland, with one 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 3.2-48 summarizes ridership in 2014 and 2015 for each route. A description of each route follows.

Exhibit 3.2-48. Washington State Ferries Traffic Statistics

	2014			
	Vehicles	Passengers	Total Riders	% Change from 2010
Edmonds/ Kingston	2,098,533	1,904,234	4,002,767	3.2%
Seattle/ Bremerton	645,628	1,876,988	2,522,616	10.0%
Seattle/ Bainbridge Island	1,953,466	4,367,354	6,320,820	0.5%
Fauntleroy/ Southworth	497,522	321,557	819,079	2.3%
Vashon Island/ Southworth	85,610	80,882	166,492	3.7%

Source: Washington State Department of Transportation, 2015c.

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 vessels on this run are the Sealth and the Kaleetan. The Sealth is an Issaquah Class vessel with a capacity of 90 vehicles and 1,200 passengers, while the Kaleetan Super Class vessel has a capacity of 144 vehicles and 1,868 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 5 a.m. and 1 a.m., with average headways ranging between 60 and 90 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 Puyallup and the Wenatchee. Both are Jumbo Mark II Class vessels 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 30 and 90 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 Issaquah, the Tillikum, and the Evergreen State. The Issaquah is an Issaquah-130 Class vessel with a vehicle capacity of 124 and passenger capacity of 1,200. The Tillicum and Evergreen State are Evergreen State Class vessels with a vehicle capacity of 87 and a passenger capacity of 854. 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 Spokane and the Walla Walla; both are Jumbo Class vessels with capacity of 188 vehicles and 2,000 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.

Non-motorized Facilities

Non-motorized modes include all transportation with a power source other than a motor. In Kitsap County, the main non-motorized modes are walking and bicycling. In addition, equestrian transportation is included in non-motorized modes.

Non-motorized facilities remain mostly undeveloped in Kitsap County; however, a roadway shoulder-paving program has increased safety for pedestrians and bicyclists on numerous roads throughout the county.

Kitsap County has also developed the Draft *Kitsap County Non-Motorized Facility Plan* (Kitsap County Public Works Department, 2013), which seeks to provide a regionwide vision and incorporate by reference the many jurisdictional plans generated over the past 20 years. The plan highlights the importance of partnerships and coordination with the many communities and community organizations for successful implementation. It is intended to be a living document, representing the current and desired non-motorized transportation needs in Kitsap County, and does not purport to provide a comprehensive, prioritized project list. 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. The plan identifies a regional route, along with local priority routes, that establish the spine of a countywide 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.

The *Kitsap County Bicycle Facilities Plan* (Kitsap County Public Works Department, 2001a) is a countywide plan to provide a comprehensive system of non-motorized transportation facilities, primarily on-road, linking county destinations, population centers, and transportation nodes. The plan includes recommendations for policies, routing, design standards and guidelines, a 20-year project priority array, a six-year capital improvement program, and suggestions for funding. Developed in conjunction with the *Mosquito Fleet Trail Master Plan* (Kitsap County Public Works Department, 2001b), it plans for regional, sub-regional and local facilities. Primarily addressing bicycle travel, the plan includes routing and design guidelines for bicycle paths, bicycle lanes, paved shoulders, shared roadways, and shared sidewalks.

The provision of safe and well-located non-motorized transportation facilities is an important concern to the Kitsap County community and to the Kitsap County Department of Public Works. As a consequence of this desire and need, all non-motorized modes of transportation were documented and evaluated in the context of the Kitsap County Greenways Plan. This plan has provided Kitsap

County with a comprehensive review and recommendation list for all types of non-motorized travel, including separated walking and hiking facilities, multipurpose trails, separated bike facilities, and equestrian trails. The plan will integrate non-motorized facilities into the existing and future roadway network.

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 in Appendix H identifies the sidewalks and shoulders currently present along county roads. In general, sidewalks are present in the urbanized areas of Silverdale and Kingston and along most arterials. Roadways in rural areas generally do not have sidewalks, but many have shoulders that can be used for non-motorized travel.

Bicycle Facilities

Exhibit 3.2-49 shows existing bicycle routes in Kitsap County. The Bicycle Facilities Plan strives to provide non-motorized transportation/commuter facilities for bicycle and mixed bicycle/pedestrian user groups with the understanding that many of these facilities should also meet recreational needs. Recommended goals and policies related to non-motorized transportation facilities are outlined in the *Kitsap County Bicycle Facilities Plan* (Kitsap County Public Works Department, 2001).

Multi-Use Trails

For more than 20 years, the County has had planning programs for non-motorized modes, including several trail plans. Major trails within the county include the Clear Creek Trail in central Kitsap, the Hansville Greenway Trails in north Kitsap, and the Mosquito Fleet Trail between north and south Kitsap, described as follows.

Clear Creek Trail

The Clear Creek Trail 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 extension starts. The extension begins on the north side of the SR 303 underpass to the Skateboard Park and then west through County-owned property along SR 3 to Trigger Avenue.

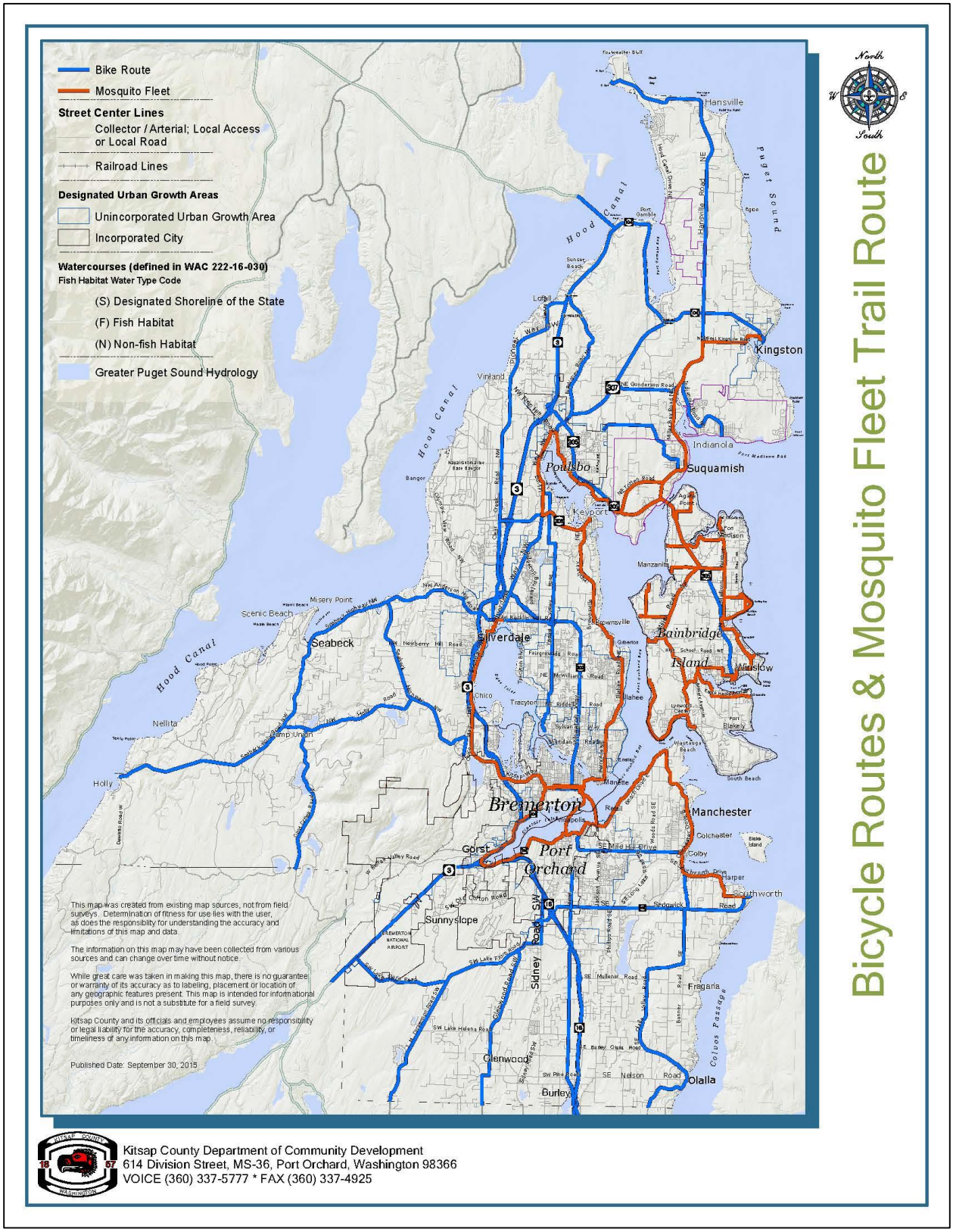
Hansville Greenway Trails

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.

Mosquito Fleet Trail

The Mosquito Fleet Trail is an approximately 100-mile roadside hike and bike route along the shores of the Kitsap Peninsula, shown on Exhibit 3.2-49. The route will be marked with distinctive signs, making it easy to follow on foot, by bicycle, or by automobile. It links the old Mosquito Fleet docks from Kingston to Southworth and provides access to many other interesting stopping points including villages and towns, parks, historic sites, and scenic vistas.

Exhibit 3.2-49. Bicycle Routes & Mosquito Fleet Trail Route



Source: Kitsap County Department of Community Development, 2015

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 seven miles southwest of the city of Bremerton and is owned and operated by the Port of Bremerton. Charter, rental, flight instruction, maintenance, 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 the 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.

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. 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.

Apex Airpark

Apex Airpark is located two miles northwest of the Silverdale urban core. The airport's only 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, 2009c).

Other Small Airstrips

The Port Orchard Airport and several other small, privately-owned airstrips throughout the county serve small private planes.

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 Draft SEIS, 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 they were included in the Washington Transportation Plan.

3.2.4.2. Impacts - Transportation

Methodologies

Travel Demand Forecasts

The current Kitsap County travel demand forecasting model was calibrated based on 2012 data, and uses TransCAD software. A primary goal of the Kitsap County model has been to maintain the highest compatibility with the PSRC regional travel demand forecasting model. To achieve this goal, the core structure of the PSRC model was maintained as much as possible.

A detailed description of the Kitsap County model is provided in the technical report *Kitsap County Travel Demand Model Development Report* (Kitsap County Public Works Department, 2012). Each major component of the model, as described in the technical memorandum, is summarized in the following sections.

Existing Land Use

Land use data were compiled for Kitsap County for 2012. For purposes of transportation modeling, land use data are categorized as residential and nonresidential. Each category is further divided into several land use types. Residential land use is divided into single-family and multi-family households. This was developed from 2010 US Census block data.

Nonresidential land use is converted into employment data, which is divided into the following categories (units are employees):

- Financial, insurance, and real estate (FIRES)
- Manufacturing (MAN)
- Government and Education Facilities (public sector) (GOVED)
- Warehouse, transportation, utility (WTU)
- Construction and Resources (CONRES)
- Retail development (RETAIL)

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, as well as the PSRC model from which it was derived. To achieve this, the PSRC transportation analysis zones outside of the county were aggregated to develop 10 external zones. PSRC to Kitsap TAZ equivalencies were maintained for consistency in data aggregation. This reduced the size of the model and improved operating efficiency. The Kitsap County models disaggregates the Kitsap zones in the PSRC model to develop a smaller internal zone system, which adds much needed detail to the model. These refinements provide the Kitsap model the geographic detail needed to better estimate and forecast local traffic, while maintaining consistency with the PSRC model for data input, such as trip rates, population and land use forecasts.

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 started with the PSRC network as the base, but a more detailed network was developed inside Kitsap County.

Trip Generation

The trip generation step estimates the total number of trips produced by and attracted to each TAZ in the study area. The trips are estimated using statistical data that take into account population and household characteristics, employment information, economic model output, and land use information. Trip generation in the Kitsap model is based on the procedures developed by PSRC, which cross-classifies residential land uses by income groups, number of workers, number of college-aged persons, and number of school-aged persons. For non-residential land uses, it uses a linear regression procedure. The PSRC procedure applied only to the Kitsap internal zones. For other zones outside the county border, trip data from the PSRC model was directly imported. For its output, the trip generation model estimates the total number of trips produced in each TAZ and the total number of trips attracted to each TAZ, categorized by trip purpose.

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).

Travel Mode Choice

The modal choice model reflects the total zone-to-zone person trips resulting from the trip distribution model, split into trips using each available mode between each zone pair. Modes included in the Kitsap County model are listed below.

- Automobile—drive alone
- Automobile—carpool
- Transit —drive access
- Transit—walk access

Factors that are considered in the modal choice model are travel time and distance; out-of-vehicle time (including walk, wait, and transfer time); and cost (transit fare, parking cost). The mode-specific trip tables are converted into vehicle trips by using auto-occupancy factors, and loaded onto the roadway network in the trip assignment process.

Network Assignment

The arterial 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 functional 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.

Model of Future Traffic Conditions

Using the same general process described for modeling existing conditions, the forecast 2036 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. 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, level of service 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 3.2-50. 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 *Development of Capacity Calculation Spreadsheet – Kitsap County Road Capacity Analysis* (ICF Jones & Stokes, 2010). 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

These multimodal characteristics of each county analysis roadway are summarized in the roadway inventory provided in Appendix H.

Roadway Segment Level of Service

Kitsap County uses a traditional engineering methodology to evaluate level of service of roadway segments, which are sections of roadway located between major intersections. Level of service is based on V/C ratios, by which roadway travel volumes are compared to roadway capacity. Exhibit 3.2-50 shows the relationships between LOS, V/C ratios, peak hour, and free-flow speed on a roadway segment.

Exhibit 3.2-50. V/C Ratio Ranges as They Relate to Level of Service

Region	Percent of Deficient Lane-Miles	Concurrency Threshold
A	0.50 and below	90% or greater
B	0.60 to 0.69	70% to 89%
C	.70 to .79	50% to 69%
D	.80 to .89	40% to 49%
E	.90 to .99	26% to 39%
F	1.00 and above	25% or less

Source: Kitsap County, 2012.

To calculate V/C ratio on a roadway segment, the projected daily traffic volume that travels on the roadway is divided by its capacity.

Impacts Common to All Alternatives

The three 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 three alternatives. Potential impacts on other modes of travel are also discussed.

System-wide Travel Impacts

Exhibit 3.3-51 summarizes a number of 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 three alternatives are expected to have similar overall impacts, with No Action resulting in a slightly lower number of vehicle-miles-travelled (VMT) and higher number of transit person trips, although all three alternatives are expected to result in transit increases that are much higher in proportion than increases in vehicle travel. In particular, even with projected

population growth of 30% to 31%, and projected employment growth of 63% to 69%, the expected VMT growth is comparably low (1% to 5%). In addition, larger increases are projected for transit use, as well as rideshare vehicle trips.

Exhibit 3.2-51. Summary of Countywide Travel Statistics

Category	Alternative 1 (No Action)	Alternative 2	Alternative 3
Countywide Population			
Existing (2012)	254,500	254,500	254,500
2036	329,923	331,550	333,076
% Increase	30%	30%	31%
Countywide Employment			
Existing	79,578	79,578	79,578
2036	129,760	134,425	131,980
% Increase	63%	69%	66%
Lane-Miles of County Roadways[1]			
Existing	2,246	2,246	2,246
2036	2,254	2,254	2,254
% Increase	0.35%	0.35%	0.35%
Daily Vehicle Trips			
Existing	701,395	701,395	701,395
2036	894,062	900,135	896,375
% Increase	27%	28%	28%
Daily Vehicle Miles of Travel (VMT)			
Existing	6,641,593	6,641,593	6,641,593
2036	6,732,885	6,943,979	6,883,510
% Increase	1%	5%	4%
Daily Rideshare Vehicle Trips			
Existing	15,239	15,239	15,239
2036	19,772	19,855	19,781
% Increase	30%	30%	30%
Daily Transit Person Trips			
Existing	8,243	8,243	8,243
2036	14,684	13,317	13,515
% Increase	78%	62%	64%
PM Peak Hour Vehicles			
Existing	67,334	67,334	67,334
2036	85,830	86,413	86,052
% Increase	27%	28%	28%

Source: Kitsap County Public Works Department, 2015b.

[1] Includes functionally classified arterial and collector roadways, and local access roadways.

LOS Impacts

Operational impacts were assessed by calculating the LOS of roadways and intersections in 2036 under traffic conditions projected to result from build-out of each of the three alternatives.

County Roadways

Exhibit 3.2-52 summarizes the lane-miles of deficient county roadway segments projected by 2036 for the three 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 3.2-44).

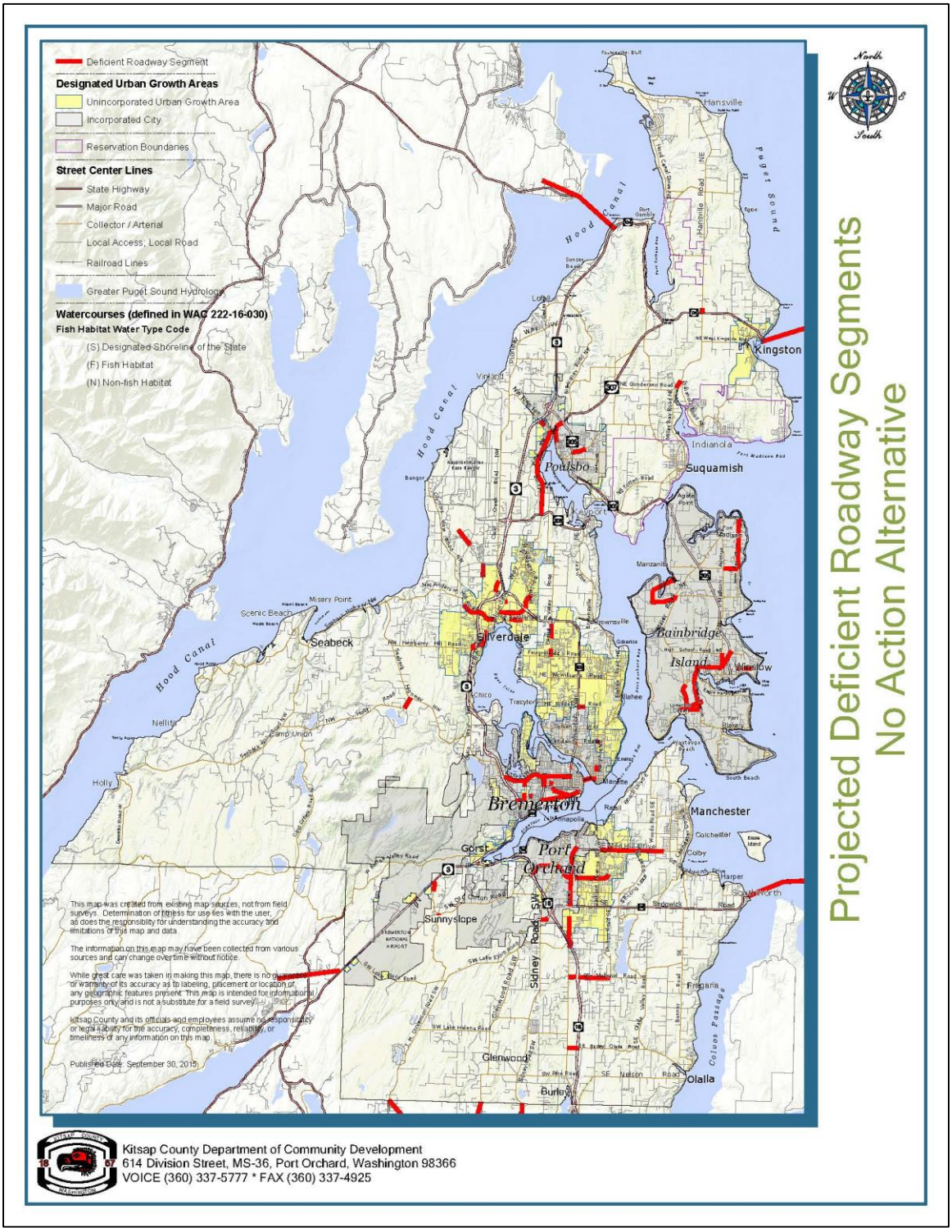
Exhibit 3.2-52. Projected 2036 Roadway Segment Deficiencies

	Alternative 1 (No Action)	Alternative 2	Alternative 3
North County	7.2 lane-miles	10.9 lane-miles	7.8 lane-miles
Central County	12.5 lane-miles	18.9 lane-miles	18.4 lane-miles
South County	13.9 lane-miles	14.5 lane-miles	13.7 lane-miles
Total Deficient Lane-Miles	**33.6 lane-miles**	**44.3 lane-miles**	**39.9 lane-miles**
Total 2036 County Roadway Lane-Miles	675.3 lane-miles	675.3 lane-miles	675.3 lane-miles
Percent of Deficient Lane-miles	5.0%	6.6%	5.9%
Exceeds Countywide Concurrency Standard of 15%	No	No	No

Source: Kitsap County Public Works Department, 2015b.

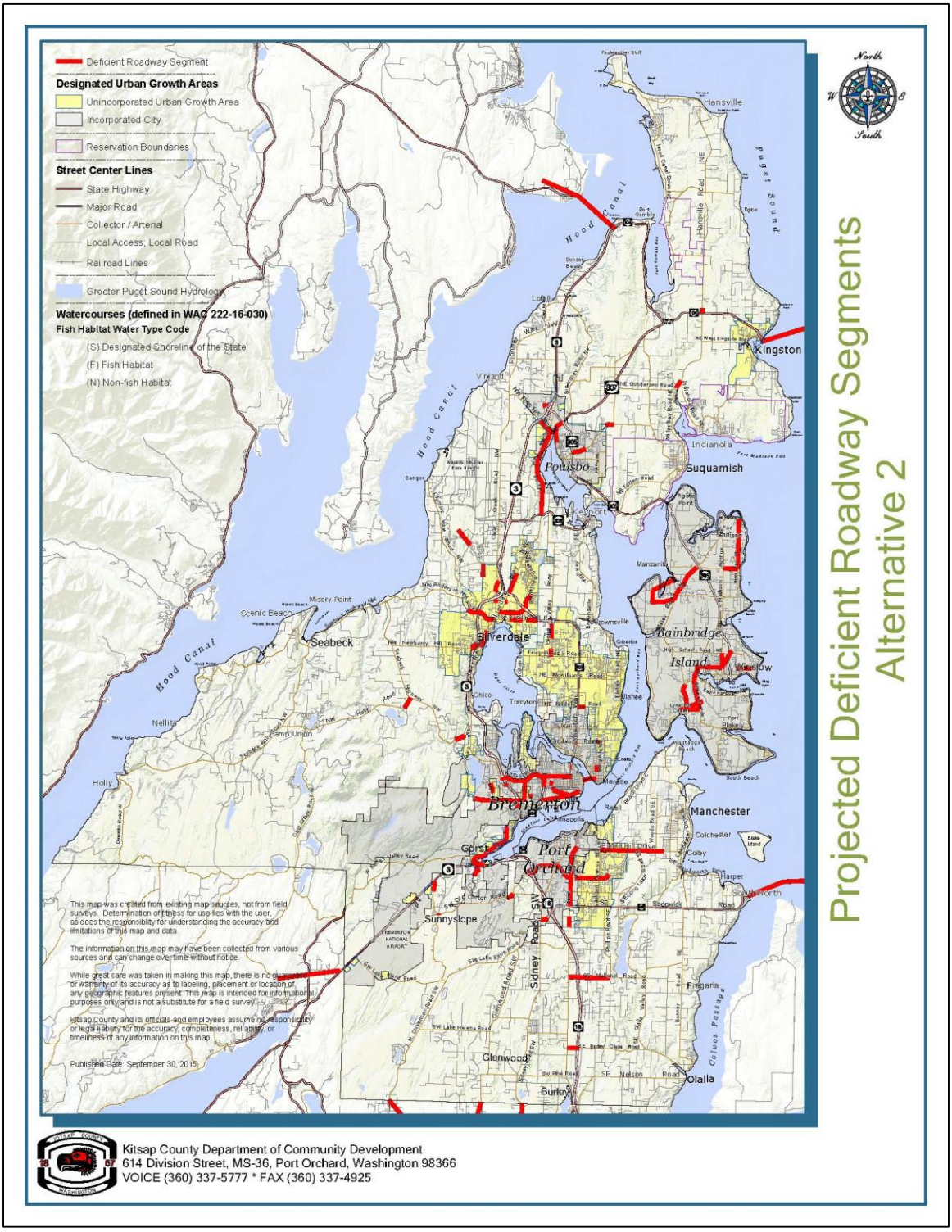
Locations of deficient segments with the Alternative 1 (No Action), Alternative 2, and Alternative 3 are shown on Exhibit 3.2-53, Exhibit 3.2-54, and Exhibit 3.2-55, respectively. Exhibit 3.2-52 shows that the percentage of deficient lane-miles of roadway is expected to be lowest with the Alternative 1 (No Action) and highest with Alternative 2, with Alternative 3 in-between. However, the differences between the alternative varies by less than 2%. 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%.

Exhibit 3.2-53. Projected 2036 Deficient Roadway Segments – Alternative 1 (No Action)



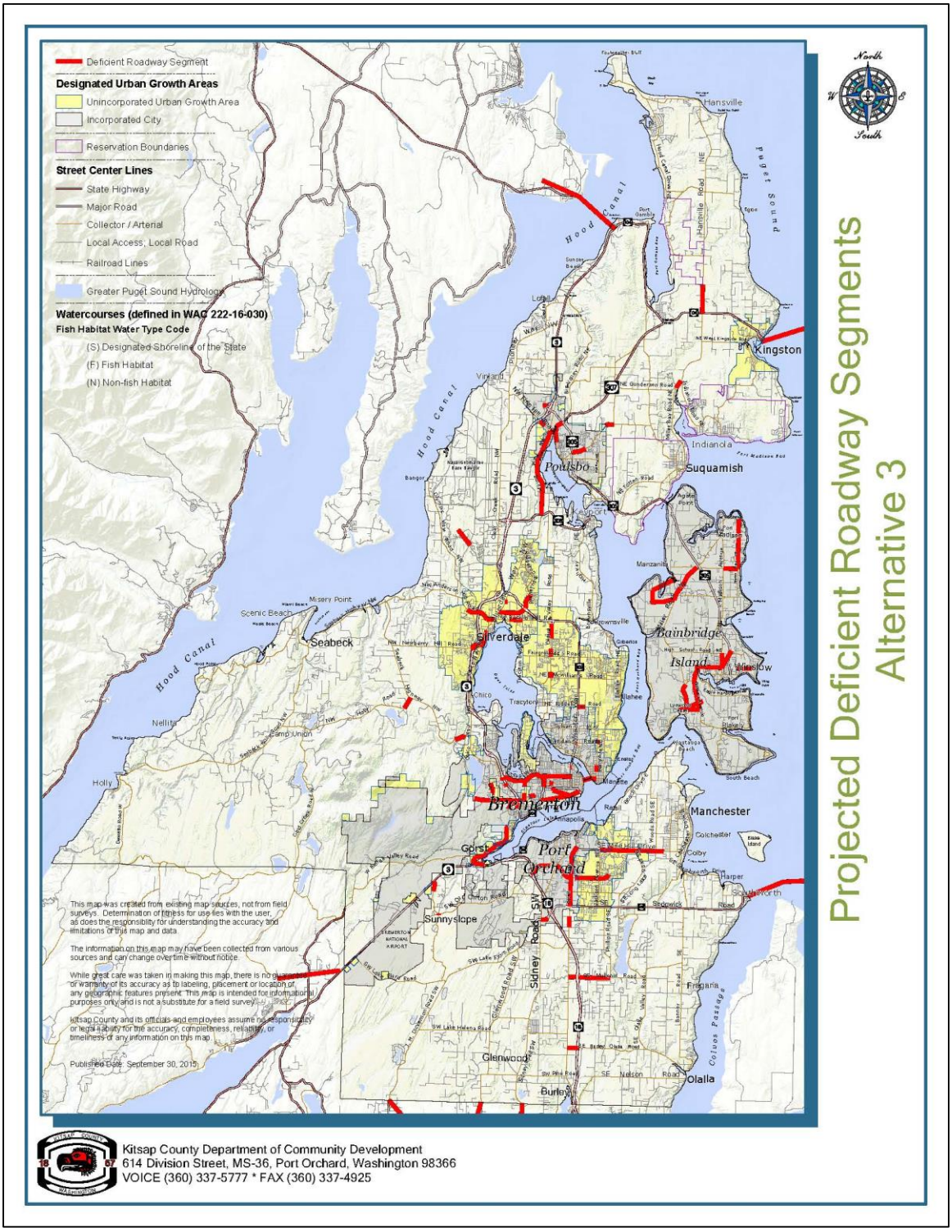
Source: Kitsap County Department of Community Development, 2015

Exhibit 3.2-54. Projected 2036 Deficient Roadway Segments – Alternative 2



Source: Kitsap County Department of Community Development, 2015

Exhibit 3.2-55. Projected 2036 Deficient Roadway Segments – Alternative 3



Source: Kitsap County Department of Community Development, 2015

Impacts on State Facilities

State Highways

Exhibit 3.3-56 summarizes the miles of deficient state highway segments projected by 2036 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 54% 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, with about with about 59% of highway miles projected to be deficient. The County has ongoing coordination with WSDOT and cities to identify and fund improvements to state highways.

Exhibit 3.2-56. Projected State Highways by 2036

State Highway	Total Length (miles)	Alternative 1 (No Action)		Alternative 2		Alternative 3	
		Length of Deficient Segments (miles)	Percentage of Total Length	Length of Deficient Segments (miles)	Percentage of Total Length	Length of Deficient Segments (miles)	Percentage of Total Length
SR 3	31.8	12.8	40%	14.6	46%	14.6	46%
SR 16	14.1	7.1	50%	10.1	72%	10.1	72%
SR 104	9.4	2.6	28%	2.6	28%	2.6	28%
SR 160	7.7	1.5	20%	1.5	20%	1.5	20%
SR 166	4.8	4.8	100%	4.8	100%	4.8	100%
SR 303	8.8	8.0	90%	8.3	94%	8.3	94%
SR 304	3.9	2.7	70%	2.7	70%	2.7	70%
SR 305	15.1	11.2	74%	11.6	77%	11.6	77%
SR 307	5.3	5.3	100%	5.3	100%	5.3	100%
SR 308	4.2	0	0%	0.3	7%	0.3	7%
SR 310	1.8	1.5	86%	1.5	86%	1.5	86%
Total	106.9	57.6	54%	63.3	59%	63.3	59%

Source: Kitsap County Public Works Department, 2015b.

Washington State Ferries

Long-range capacity and service needs for state ferry routes are identified by the WSDOT Ferries Division in its *Long-Range Plan* (Washington State Ferries, 2009). An update to the Long-Range Plan is currently underway. Forecasts are based on the regional population and employment projections that form the basis for the other projections presented in this SEIS; as well as financial analysis of projected future ferry fares. The WSDOT Ferries Division projects that system-wide, ferry ridership will increase from 23.7 million (based upon 2006 counts) to 32.3 million passengers per year; and vehicle demand will increase from 10.8 million to 14.1 million vehicles per year. (WSDOT Ferries Division 2009) Exhibit 3.2-57 summarizes the peak hour 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 one-third in 2030.

Exhibit 3.2-57. Projected PM Peak Ferry Demand for Kitsap Service Area

Ridership	Existing (based on 2006)	Projected 2030 Demand	Percentage Increase
Vehicles	4,980	6,490	30%
Walk-On Passengers	4,790	6,420	34%
In-vehicle Passengers	2,440	3,370	38%
Total Ridership	**12,210**	**16,280**	**33%**

Note: Represents ridership totals for Vashon-Southworth, Fauntleroy-Southworth, Seattle-Southworth, Seattle-Bremerton, Seattle-Bainbridge Island, and Edmonds-Kingston routes.

Source: Washington State Ferries, 2009

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, 2009). Regular review and update of this plan will help ensure that the capacity and services needed to meet the increased demand is 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 area 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 Draft Non-Motorized Facility Plan. Planning programs for trails are maintained in trail plans, such as the Mosquito Fleet Trail Master Plan. Regular review and update of these plans 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.

The County's level of service 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 any of the alternatives. The travel statistics summarized in Exhibit 3.2-51 project that transit person trips would increase by greater than 60% under all of the alternatives. These increases would require a substantial increase in hours of operations and some capital facilities such as park-and-ride lots. Expansion of the urban areas would result in new or extended bus routes in addition to more frequent service. Commuter routes would also see increased demand, affecting park-and-ride lots, transit centers, and flyer stops. Transit priorities and improvements are identified in the *Transit*

Development Plan, a six-year plan developed by Kitsap Transit that is updated annually (Kitsap Transit, 2015b).

Rail and Airports

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 commerce reflected in increased employment. 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 2004 and is currently being updated (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. 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 higher projected increases in transit and rideshare trips, relative to lower increases in VMT, reflect a more efficient use of the transportation system. In addition, higher increases in the number of vehicle trips, relative to lower increases in VMT, indicate that vehicle trips are expected to be shorter on average. 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%.

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. It reflects the highest level of employment growth, and a population growth between Alternatives 1 and 3. It has the highest level of projected vehicle trips (about 4% higher than Alternative 3) and the highest projected VMT (about 9% higher than Alternative 3). Similar to Alternative 1, the higher projected increases in transit and rideshare trips, relative to the level of projected increases in VMT, reflect a more efficient use of the transportation system; average vehicle trip lengths are also expected to be shorter. 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%.

Impacts of Alternative 3

Alternative 3 considers adjustments to the land use plan and several UGAs to address 20-year growth targets. All private site-specific land use requests would be included. It reflects lower employment growth than Alternative 2 but higher population growth. Overall, it is expected to result in lower growth in vehicle trips and roadway deficiencies than Alternative 2. Similar to Alternatives 1 and 2, the higher projected increases in transit and rideshare trips, relative to lower increases in VMT, reflect a more efficient use of the transportation system; average vehicle trip lengths are also expected to be shorter. 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%.

3.2.4.3. Mitigation Measures- Transportation

Incorporated Plan Features

Project Improvements as Mitigation

Recommended Roadway Improvements

Exhibit 3.3-58 summarizes the roadway segments identified for improvement under the three alternatives in order to meet adopted County roadway segment LOS standards.

Exhibit 3.2-58. Recommended Roadway Improvements by 2036

Roadway	Location	Improvement Needed		
		Alt 1 (No Action)	Alt 2	Alt 3
North County				
Clear Creek Road NW	Greaves Way – Clearcreek Court NW		X	
NE Lincoln Road	Stottlemeyer Road NE – Noll Road NE		X	X
Viking Way NW	SR 308 - Poulsbo City Limits	X	X	X
	Total Number of Improvement Locations – North County	**1**	**3**	**2**
Central County				
Anderson Hill Road NW	Apex Road NW – Stoli Lane NW	X		
Anderson Hill Road NW	Apex Road NW – Bucklin Hill Road NW	X	X	X
Bucklin Hill Road NW	Anderson Hill Road NW – Silverdale Way NW	X	X	X
Central Valley Road NW	NW Fairgrounds Road – SR 303 On-Ramp	X	X	X
Kent Avenue W	Sherman Heights Road – 3rd Avenue		X	X
Newberry Hill Road NW	Provost Road NW - Silverdale Way NW	X	X	X
Riddell Road NE	SR 303 – Almira Drive NE	X	X	X
Ridgetop Boulevard NW	Silverdale Way NW – SR 303	X	X	X
Sherman Heights Road	Belfair Valley Road – Kent Avenue		X	X
Silverdale Way NW	NW Newberry Hill Road – NW Byron Street	X	X	X
	Total Number of Improvement Locations – Central County	**8**	**9**	**9**
South County				
Belfair Valley Road	Sam Christopherson Ave W – SR 3		X	X
Bethel Road SE	SE Lider Road – Cedar Road E	X		
Bethel Road SE	Cedar Road E – Ives Mill Road SE	X	X	X
Burley-Olalla Road	Bethel-Burley Road SE – SR 16	X	X	X
Lund Avenue	Madrona Drive SE – Cathie Avenue SE	X	X	X
Mile Hill Drive SE	Woods Road E – Whittier Avenue SE	X	X	X
Mullenix Road SE	Bethel-Burley Road SE – Phillips Road SE	X	X	X
Sunnyslope Road SW	SW Rhododendron Drive – SR 3	X	X	X
	Total Number of Improvement Locations – South County	**7**	**7**	**7**
	Countywide Total Number of Improvement Locations	**16**	**19**	**18**

Source: Kitsap County Public Works Department, 2015b.

Cost of Roadway Improvements

Exhibit 3.3-59 summarizes the total cost of the projects recommended countywide. Alternative 1 (No Action) has the highest estimated cost, primarily because it includes improvement of a section of Anderson Hill Road that would require replacement of a railroad trestle. The total cost of

recommended improvements under Alternatives 2 and 3 are similar, with Alternative 2 slightly higher.

Exhibit 3.2-59. Summary of Cost of Roadway Improvements Recommended by 2036 (in $ Millions)

	Alternative 1 (No Action)	Alternative 2	Alternative 3
North County	$9.8	$16.5	$11.1
Central County[1]	$107.1	$76.7	$76.7
South County	$48.3	$43.3	$46.8
Total	$165.2	$136.5	$134.6

1 Excludes a cost for a project addressing Silverdale Way, which would be added to all three alternative totals.
Note: Based upon 2015 dollars.

Exhibit 3.3-60 presents strategies the County is considering 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 in order to accommodate future population and employment targets, could also result in higher demand at other locations.

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.

Exhibit 3.2-60. Potential Strategies to Achieve Balance between Transportation LOS, Financing, and Land Use

Potential Mitigation Measure	Effect of Mitigation Measure	Implementation
FINANCIAL MEASURES: Reallocation of Expenditures, Expenditure Reductions, and Other Measures		
Shift Resources from Other Transportation Capital Programs – This measure involves a shift of resources among different transportation capital improvement priorities.	Traditionally, a significant portion of Kitsap County's capital expenditures for roads has gone to non-capacity projects 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).
Shift Resources from Maintenance and Operations to Capacity Improvements – 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
End Redirects to Sheriff and Development Engineering - 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.	
FINANCIAL MEASURES: Generating Additional Revenue		
Property Tax Levy Override – The County may consider increasing the amount of property tax collected for the road fund beyond its current allowable 1% 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 1% 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 1%; 2) increase the amount collected by more than 1% 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.
Increased Impact Fees – 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.
Local Option Fuel Tax –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.
Motor Vehicle License Fee – 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.
Local Transportation Improvement District (LTID) - County 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 Standards and/or Measurement		
Lower LOS Standards, General Consideration - 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.	Reduced availability of capital resources for roads will be an important factor in evaluating the 2036 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	This measure would require adoption within the transportation element of the comprehensive plan, an implementing ordinance and changes to implementing regulations.

Potential Mitigation Measure	Effect of Mitigation Measure	Implementation
	could lead to developments not being deemed concurrent, not just for a few years, but until sometime beyond the 2036 planning horizon. However, lower LOS standards would also mean increased levels of congestion compared to the present.	
Transfer of County Roads to WSDOT – This measure involves transferring certain County roads to the state so that the County is no longer directly responsible for capacity improvements on them or LOS impacts.	Deficient LOS on state highways is not considered when making concurrency determinations for County developments. Some County roads may more appropriately function as State Highways than as County Roads. Thus, transferring certain County roads to WSDOT jurisdiction could shorten the list of County projects needed to support the land use plan and maintain concurrency.	This measure would require legislative action by the State Legislature and the Kitsap County Board of Commissioners.
Set LOS on a corridor-by-corridor basis – Some corridors could be excluded from capacity expansion to discourage excessive growth in rural areas.	This measure would result in a reduction of capacity projects in rural areas.	This measure would require a change to the County Code to allow for corridor-based LOS standards.
LAND USE MEASURES: Adopting or Amending County Land Use Polices		
Intensification of Existing UGAs and Urban Centers –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.	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.	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.
Proactive City Annexation of Growth Areas – 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.	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.	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.
CONCURRENCY MANAGEMENT SYSTEM		
Revise Concurrency Management System (CMS) – The County may consider updates to the concurrency management system to implement changes in LOS standards and/or other aspects of development concurrency determinations.	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: ▪ Alternatives to the conventional A-F LOS standards ▪ Different LOS standards on different road types ▪ Different LOS standards in different geographic areas ▪ Use of inadequate road condition criteria	This measure would require adoption in an implementing ordinance and/or changes to Administrative Rules adopted by the Director of Public Works.

Potential Mitigation Measure	Effect of Mitigation Measure	Implementation
	▪ Limits on what roads LOS standards apply ▪ Use of alternative measurements (e.g., volume-to-capacity, density, congestion indices)	

Source: Heffron Transportation, Inc. 2015; (Kitsap County, 2012)

Potential Policy Measures as Mitigation

The Growth Management Act 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 a number of 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.

In the event that revenue from one or more of the potential sources does not provide the additional revenue needed to fund the roadway improvements listed in Table 3.2-37, 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.

Regulations and Commitments

County

The County would continue to implement a concurrency management system, impact fees, traffic impact analysis for individual developments, regular updates of a TIP, and roadway design standards. These could be subject to amendment or change depending on the alternative (e.g. TIP could change based on needed improvements).

- **Concurrency Management System**. Apply rules that guide LOS and concurrency threshold determinations, developer responsibilities, impact analysis and reporting, and required databases.
- **Impact Fees**. Implement roadway impact fees per KCC 4.110.200.
- **Traffic Impact Analysis**. Continue to require a traffic impact analysis study for any development proposal countywide that the Director of Public Works determines could have significant effects on county roadway traffic operations.
- **TIP and Annual Construction Program**. Update the TIP regularly each year. The TIP could be affected by changes in project priorities and availability of revenues to fund needed improvements.
- **Roadway Design Standards**. Continue to apply roadway design standards. Alternatives to traditional design standards could be considered and, if adopted, would require amendment to County design standards.

State

The following state laws guide transportation planning and policy in Kitsap County.

- Growth Management Act, Chapter 36.70A RCW
- Commute Trip Reduction, Chapter70.94.527 RCW
- Level of Service Standards, RCW 47.06.140

Other Proposed Mitigation Measures

- The County could maintain the current countywide concurrency test, or it could amend the Kitsap County Code to define the area of impact for proposed developments, so that the concurrency test may be applied on a sub-area basis.

3.2.4.4. Significant Unavoidable Adverse Impacts - Transportation

Implementation of any of the growth alternatives would result in increased traffic within the county, with the lowest increase occurring under Alternative 1 (No Action), the greatest increase occurring under Alternative 2, and Alternative 3 in-between. Although the effects of additional vehicles on traffic congestion can be mitigated to varying degrees through the recommended transportation improvements, the actual increase in traffic is considered a significant unavoidable adverse impact.

3.3. Built Environment: Public Services and Utilities

3.3.1. Public Buildings

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.

3.3.1.1. Affected Environment – Public Buildings

Inventory of Current Facilities

The 2015 inventory shows that the County has approximately 193,350 square feet of administrative courthouse campus space, 106,417 square feet of administration space, 69,560 square feet of buildings serviced by parks space, 89,456 square feet of maintenance facilities, and 50,850 square feet of community centers space. In total, Kitsap County has approximately 509,633 square feet of public building space.

A detailed inventory is included in the Draft Capital Facilities Plan available under separate cover.

3.3.1.2. Impacts– Public Buildings

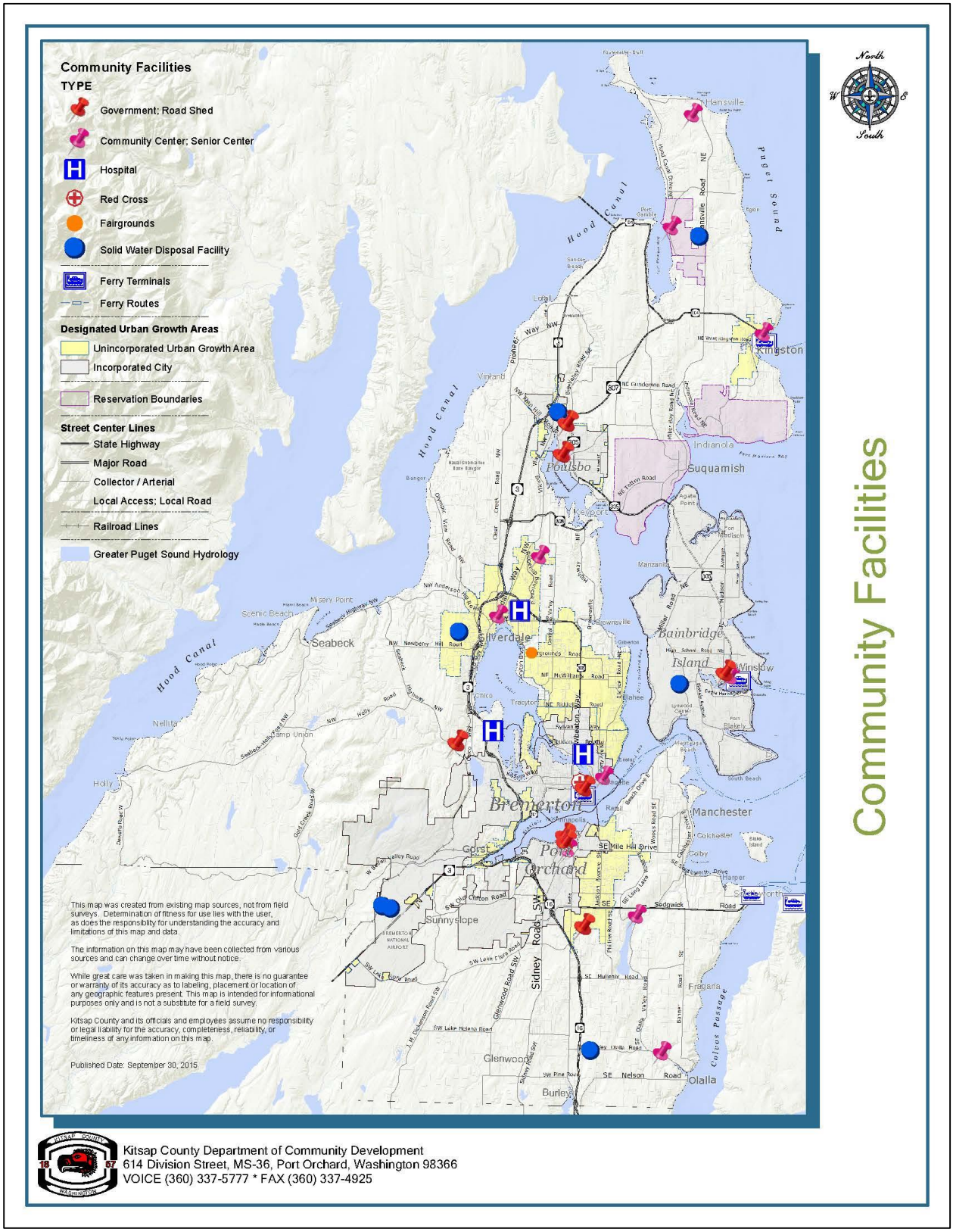
Impacts Common to All Alternatives

Under all alternatives, growth in population and employment could result in increased demand for government facilities, including administrative offices, maintenance facilities, district and superior courtrooms and community centers.

Increased demand would result in a need for adaptive management of current spaces, or expansions and improvements to existing facilities or new facilities. Construction of new facilities would require the County to acquire additional property or reconfigure existing facilities, depending on where the specific need is located.

Under all alternatives, if 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.

Exhibit 3.3-1. Public Buildings



Source: Kitsap County Department of Community Development 2015

Level of Service Analysis

County Administration Buildings

The County's Level of Service (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 under any of the alternatives.

Exhibit 3.3-2. LOS Requirements Analysis – 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				
2015	258,200	245,806	106,417	(139,389)
2021 Alternative 1 No Action	277,903	264,564	106,417	(158,147)
2021 Alternative 2 Whole Community	278,313	264,954	106,417	(158,537)
2021 Alternative 3 All Inclusive	278,697	265,320	106,417	(158,903)
2036 Alternative 1 No Action	329,923	314,087	106,417	(207,670)
2036 Alternative 2 Whole Community	331,550	315,635	106,417	(209,218)
2036 Alternative 3 All Inclusive	333,076	317,089	106,417	(210,672)

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

To address future LOS deficiencies, the County can lower its LOS standards to reflect space efficiencies. See Exhibit 3.3-3.

Exhibit 3.3-3. Potential LOS Adjustments for County Administration Buildings

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/ 1000 people)
2015	952 square feet per 1,000 population	(139,389)	412
2021 Alternative 1 No Action	952 square feet per 1,000 population	(158,147)	383
2021 Alternative 2 Whole Community	952 square feet per 1,000 population	(158,537)	382
2021 Alternative 3 All Inclusive	952 square feet per 1,000 population	(158,903)	382
2036 Alternative 1 No Action	952 square feet per 1,000 population	(207,670)	323
2036 Alternative 2 Whole Community	952 square feet per 1,000 population	(209,218)	321
2036 Alternative 3 All Inclusive	952 square feet per 1,000 population	(210,672)	319

Source: Kitsap County, 2015; BERK, 2015.

County Maintenance Facilities

Currently and within the 6-year and 20-year planning periods, the County will be able to meet the County Maintenance Facility LOS standard. See Exhibit 3.3-4.

Exhibit 3.3-4. LOS Requirements Analysis – 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				
2015	258,200	28,144	89,456	61,312
2021 Alternative 1 No Action	277,903	30,291	89,456	59,165
2021 Alternative 2 Whole Community	278,313	30,336	89,456	59,120
2021 Alternative 3 All Inclusive	278,697	30,378	89,456	59,078
2036 Alternative 1 No Action	329,923	35,962	89,456	53,494
2036 Alternative 2 Whole Community	331,550	36,139	89,456	53,317
2036 Alternative 3 All Inclusive	333,076	36,305	89,456	53,151

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

County District Courtrooms

The LOS for County District Courtrooms is currently 0.012 courtrooms per 1,000 population. In 2036, the County will have a reserve of zero district courtrooms and may need to build new courtrooms to accommodate population growth. See Exhibit 3.3-5. A space needs analysis is pending.

Exhibit 3.3-5. LOS Requirements Analysis – 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				
2015	258,200	3	4	1
2021 Alternative 1 No Action	277,903	3	4	1
2021 Alternative 2 Whole Community	278,313	3	4	1
2021 Alternative 3 All Inclusive	278,697	3	4	1
2036 Alternative 1 No Action	329,923	4	4	0
2036 Alternative 2 Whole Community	331,550	4	4	0
2036 Alternative 3 All Inclusive	333,076	4	4	0

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

County Superior Courtrooms

The LOS for County Superior Courtrooms is 0.021 courtrooms per 1,000 population. Currently, the County does not show a deficit of County Superior Courtrooms over the next 20 years; however, in 2036, the County

will have a reserve of zero County Superior Courtrooms and may need to build new courtrooms to accommodate population growth. See Exhibit 3.3-6. A space needs analysis is pending.

Exhibit 3.3-6. LOS Requirement Analysis – 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				
2015	258,200	5	7	2
2021 Alternative 1 No Action	277,903	6	7	1
2021 Alternative 2 Whole Community	278,313	6	7	1
2021 Alternative 3 All Inclusive	278,697	6	7	1
2036 Alternative 1 No Action	329,923	7	7	0
2036 Alternative 2 Whole Community	331,550	7	7	0
2036 Alternative 3 All Inclusive	333,076	7	7	0

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

Juvenile Jail Facility

The Juvenile Jail facility is overseen by the Superior Court. The current LOS for juvenile facilities is 0.0.084 beds per 1,000 population. The County is meeting the LOS standard, and has a surplus of 13 beds. This surplus is projected to decrease but still remain at 7 beds by 2036. See Exhibit 3.3-7.

Exhibit 3.3-7. LOS Requirement Analysis – Juvenile Jail Facility

Time Period	Kitsap Countywide Population	Beds Needed to Meet LOS Standards	Beds Available	Net Reserve or Deficit
Current LOS Standard = 0.084 Beds per 1,000 Population				
2015	258,200	22	35	13
2021 Alternative 1 No Action	277,903	23	35	12
2021 Alternative 2 Whole Community	278,313	23	35	12
2021 Alternative 3 All Inclusive	278,697	23	35	12
2036 Alternative 1 No Action	329,923	28	35	7
2036 Alternative 2 Whole Community	331,550	28	35	7
2036 Alternative 3 All Inclusive	333,076	28	35	7

Source: David J. White, Chief of Detectives at Kitsap County Sheriff's Office, 2015; BERK, 2015.

County Community Centers

The LOS for County community centers is 200 square feet per 1,000 population. The County currently has a community center deficit of 790 square feet. Additionally, there is no community center space in Silverdale as the prior center was closed due to water damage, the community center in North Kitsap (Kingston) will require a move and replacement due to a road project, and the South Kitsap (Givens) facility is outdated and undersized.

The Kingston Community Center will be relocated due to the realignment of state route 104, and will be re-built with private funding.

Following a successful partnership with the YMCA of Pierce and Kitsap Counties to construct a 85,785 square foot YMCA recreational facility on the Central Kitsap Community Campus, the

County is currently discussing with multiple public and private stakeholders on a future replacement of the Silverdale Community Center and redevelopment of the Central Kitsap Community Campus as a whole through a public-private partnerships.

In addition is possible that there will be a South Kitsap Community Center developed in partnership between the YMCA, City of Port Orchard, and Kitsap County. A market analysis is pending on this potential center. The projected deficit in community center space under each alternative for 2021 and 2036 is shown in Exhibit 3.3-8.

Exhibit 3.3-8. LOS Requirement Analysis – County 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				
2015	258,200	51,640	50,850	(790)
2021 Alternative 1 No Action	277,903	55,581	50,850	(4,731)
2021 Alternative 2 Whole Community	278,313	55,663	50,850	(4,813)
2021 Alternative 3 All Inclusive	278,697	55,739	50,850	(4,889)
2036 Alternative 1 No Action	329,923	65,985	50,850	(15,135)
2036 Alternative 2 Whole Community	331,550	66,310	50,850	(15,460)
2036 Alternative 3 All Inclusive	333,076	66,615	50,850	(15,765)

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

If the County elected to adjust its LOS to a base level, the standards shown in Exhibit 3.3-9 would allow the County to meet the base standards under each alternative for the 2016-2021 period and also for the 2022-2036 period. See Exhibit 3.3-9.

Exhibit 3.3-9. Potential LOS Adjustments for County Community Centers

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/ 1000 people)
2015	200 square feet per 1,000 population	(790)	197
2021 Alternative 1 No Action	200 square feet per 1,000 population	(4,731)	183
2021 Alternative 2 Whole Community	200 square feet per 1,000 population	(4,813)	183
2021 Alternative 3 All Inclusive	200 square feet per 1,000 population	(4,889)	182
2036 Alternative 1 No Action	200 square feet per 1,000 population	(15,135)	154
2036 Alternative 2 Whole Community	200 square feet per 1,000 population	(15,460)	153
2036 Alternative 3 All Inclusive	200 square feet per 1,000 population	(15,765)	153

Source: Personal Communication with Bud Harris, Director of Kitsap County Department of Information Service, 2015; BERK, 2015.

Comparison of Alternatives

All alternatives increase population to similar levels though Alternative 3 would increase population to greater degree than Alternatives 1 or 2. Under Alternatives 2 and 3, the level of demand for services at administrative buildings, courthouse, maintenance facilities and community centers would spatially differ, with increased intensity planned in central county such as in Silverdale and less in south county with the reduction of the Port Orchard UGA.

Alternative 2 with its more intense development in smaller UGA boundaries would benefit from the strategic location of amenities such as community centers to serve a population that would be seeking community gatherings and recreation. This would highlight a reasonable measure under evaluation in Appendix G.

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, and would be addressed in the space needs analysis for such facilities.

3.3.1.3. Mitigation Measures– Public Buildings

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 and 3 update the Capital Facilities Plan for the 20-year planning period 2016-2036.

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 associate staffing needs.

Other Proposed Mitigation Measures

- In order to address future deficiencies, the County could adjust its LOS standards to reflect the likely service levels in 2036, given estimated population growth and planned facilities.
- With the adoption of Six Sigma tools, backing up data to the cloud rather than keeping physical files, and flextime and telecommuting options for workers, the County has been moving towards a more lean administration process. A portion of the recent budget's requisition process included a study to consider how best to use County administration space. The County could consider a reduction in the LOS to reflect greater efficiencies in space use in the future.
- 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.
- To meet criminal justice facility needs, the County plans to build a new complex, which will house the courthouse with additional courtrooms, as well as the Human Services Office and the Aging and Long-Term Care Office. A space needs analysis is pending.
- The County plans to build a new courthouse complex, which will house the courthouse with additional courtrooms as well as the Human Services Office and the Aging and Long-Term Care Office. A space needs analysis is pending.
- The Kingston Community Center will be moved and replaced due to a highway rerouting. It is anticipated to be funded with private funds. 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.

3.3.1.4. Significant Unavoidable Adverse Impacts– Public Buildings

Demand for public services will increase under all studied alternatives. With advanced planning, no significant unavoidable adverse impacts on public buildings would be anticipated within the range of alternatives reviewed.

3.3.2. Fire Protection

3.3.2.1. Affected Environment – Fire Protection

Inventory

Kitsap County is served by Central Kitsap Fire and Rescue (CKFR), Fire District 18/Poulsbo Fire Department, North Kitsap Fire and Rescue (NKFR), and South Kitsap Fire and Rescue (SKFR). The Cities of Bremerton and Bainbridge Island have their own fire departments. The cities of Port Orchard and Poulsbo, as well as unincorporated areas within the County, receive fire protection from SKFR and Fire District 18/Poulsbo Fire Department, respectively.

Excluding the Bainbridge Island Fire Department, there are a total of 34 fire stations in the county, 20 of which are staffed with career personnel.

Exhibit 3.3-10. Staffed and Non-Staffed Fire Stations in Kitsap County

Fire District	Staffed Stations	Volunteer Stations
North Kitsap Fire and Rescue (NKFR)	4	1
Poulsbo Fire Department	2	2
Bainbridge Island	1	3
Central Kitsap Fire and Rescue (CKFR)	5	5
Bremerton	3	0
South Kitsap Fire and Rescue	6	6
Total	**21**	**17**
Total Excluding Bainbridge Island	**20**	**14**

Source: North Kitsap Fire and Rescue, 2015; Poulsbo Fire Department Website, 2015; Bainbridge Island Fire Department Website, 2015; Central Kitsap Fire and Rescue, 2015; Bremerton Fire Department, 2015; South Kitsap Fire and Rescue, 2015.

Kitsap County has adopted levels of service based on fire/emergency units per 1,000 population in its CFP. Fire/emergency units include fire engines, water tenders, and medic units. Fire stations are included in CFP when considering capital facilities housing fire units and personnel; however, fire stations themselves are not included in the LOS calculation.

Exhibit 3.3-11 summarizes the capital facilities available for each fire district and includes each district's fire rating, presence of EMS service, fire units, and service area population.

Exhibit 3.3-11. Kitsap County Fire Protection Facilities Inventory

Fire Protection Provider	Number of Stations	WSRB 2012 Fire Rating	Fire Units*	EMS Services	2014 OFM Service Area Population**
North Kitsap Fire and Rescue (NKFR)	5	5	22	Y	19,387
Poulsbo Fire Department	4	4 - Within City Limits 5 - Outside City Limits	13	Y	14,705
Central Kitsap Fire and Rescue (CKFR)	10	4	36	Y	69,753
Bremerton Fire Department	3	3	13	Y	39,410
South Kitsap Fire and Rescue	12	4	34	Y	72,046***

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 2015.

**** The estimate shown is provided by the district. 2014 OFM Service Area Population estimate is 60,688 for the South Kitsap Fire and Rescue District.

Source: North Kitsap Fire and Rescue, 2015; Poulsbo Fire Department Website, 2015; Bainbridge Island Fire Department Website, 2015; Central Kitsap Fire and Rescue, 2015; Bremerton Fire Department, 2015; South Kitsap Fire and Rescue, 2015.

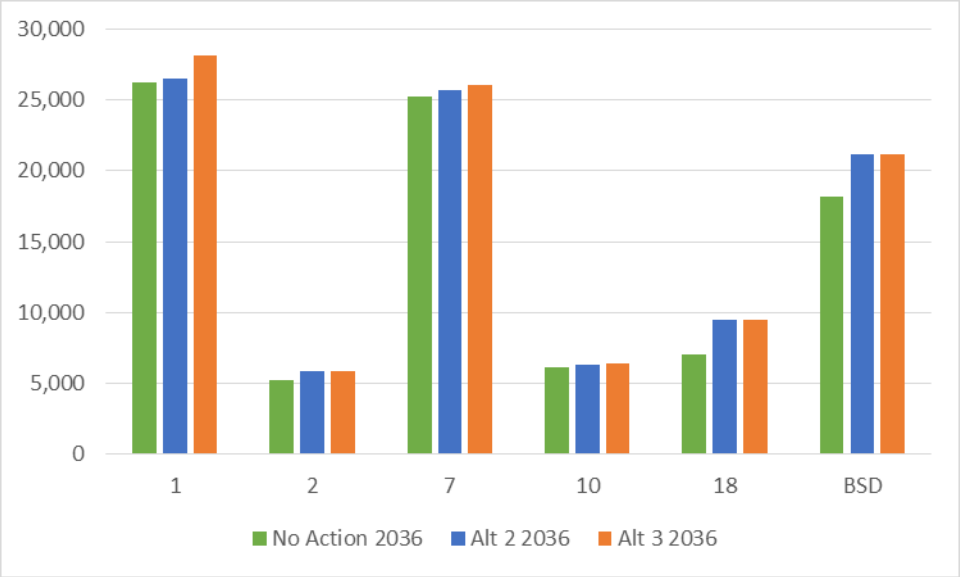
3.3.2.2. Impacts– Fire Protection

Impacts Common to All Alternatives

New development and population growth will result in an increased demand for fire protection. Future growth estimates for each alternative are based on a land capacity analysis for the period 2016-2036 as described in Chapter 2 and the Kitsap County Buildable Lands Report (Kitsap County, 2014). Districts may have their own projections that are based on the needs of their own services. However, for a consistent planning effort, this analysis starts with a 2012 base year using a standard methodology with state population estimates and geographic information system (GIS) analysis. These figures have been shared with the districts through the CFP coordination process.

The relative population growth is shown in Exhibit 3.3-12. For all alternatives, growth would increase in districts under Action Alternatives compared to the No Action Alternative. CKFR, SKFR and the Bremerton Fire Department are slated for the greatest share of growth under alternatives. This would increase the need for fire personnel and equipment.

Exhibit 3.3-12. Fire Districts and Growth 2016-2036 by Alternative



District 1: Central Kitsap Fire and Rescue | District 2: Bainbridge Island | District 7: South Kitsap Fire and Rescue
District 10: North Kitsap Fire and Rescue | District 18: Poulsbo Fire Department | BSD = Bremerton Fire Department

Source: Kitsap County Community Development Department; BERK Consulting 2015

Greater infill development will allow for greater efficiency of fire protection service as compared to UGA expansion, which could increase driving distance and response time to the larger population. The capital facilities planning conducted within this Plan update will allow the County and fire districts to better anticipate funding needs and sources for future fire protection needs. A greater tax base will also allow for increased funding.

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 Standards

Fire Units

As described in Section 3.3.2.1 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 3.3-13. Response Time Objectives

District / Department	Response Time Objective
Bremerton Fire Department	5 minute response time, City Services Element
Central Kitsap Fire & Rescue	Turnout time goal: 90 seconds, met 90% of the time. Travel time goals: suburban (fire/EMS 8:00), rural (fire/EMS 12:00), and wilderness areas (fire/EMS 20:00).
North Kitsap Fire & Rescue	The first unit, capable of beginning mitigation of the emergency, arrive on scene within 7:59 minutes of dispatch on 90% of all priority alarms.
Poulsbo Fire Department	Turnout Time: 2:00 minutes for fire and priority 1 and 2 events and 1:30 minutes for medical events. Response time of units to suburban calls for service at 8:00 minutes. Rural response time goals, at 11:00 minutes.
South Kitsap Fire & Rescue	Turnout time, the district has a goal of 90 seconds or less 90% of the time. Travel times for fire responses range from 5:00 minutes to 10:50 minutes depending on the urban, suburban, or rural nature of the call. Travel times for EMS services ranged from 6:20 to 11:15 minutes also depending on the urban, suburban, or rural nature of the call.

Source: Bremerton Fire Department, 2015; Central Kitsap Fire and Rescue, 2015; North Kitsap Fire and Rescue, 2015; Poulsbo Fire Department, 2015; South Kitsap Fire & Rescue, 2015.

Proposed LOS

The *Kitsap County UGA Sizing and Composition Remand Draft Supplemental Environmental Impact Statement* (Draft SEIS) (Kitsap County, 2012)anticipated the preparation of a new LOS for the 2016 update:

> *… the County could work with the fire districts to develop a joint LOS measure that accounts for personnel, fire units, fire station spacing that would best allow them to achieve response time service objectives. This could be developed in association with the regular Comprehensive Plan review next due in 2016.*

Accordingly the Draft CFP proposes a new LOS standard based on the WSRB rating that addresses 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 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.

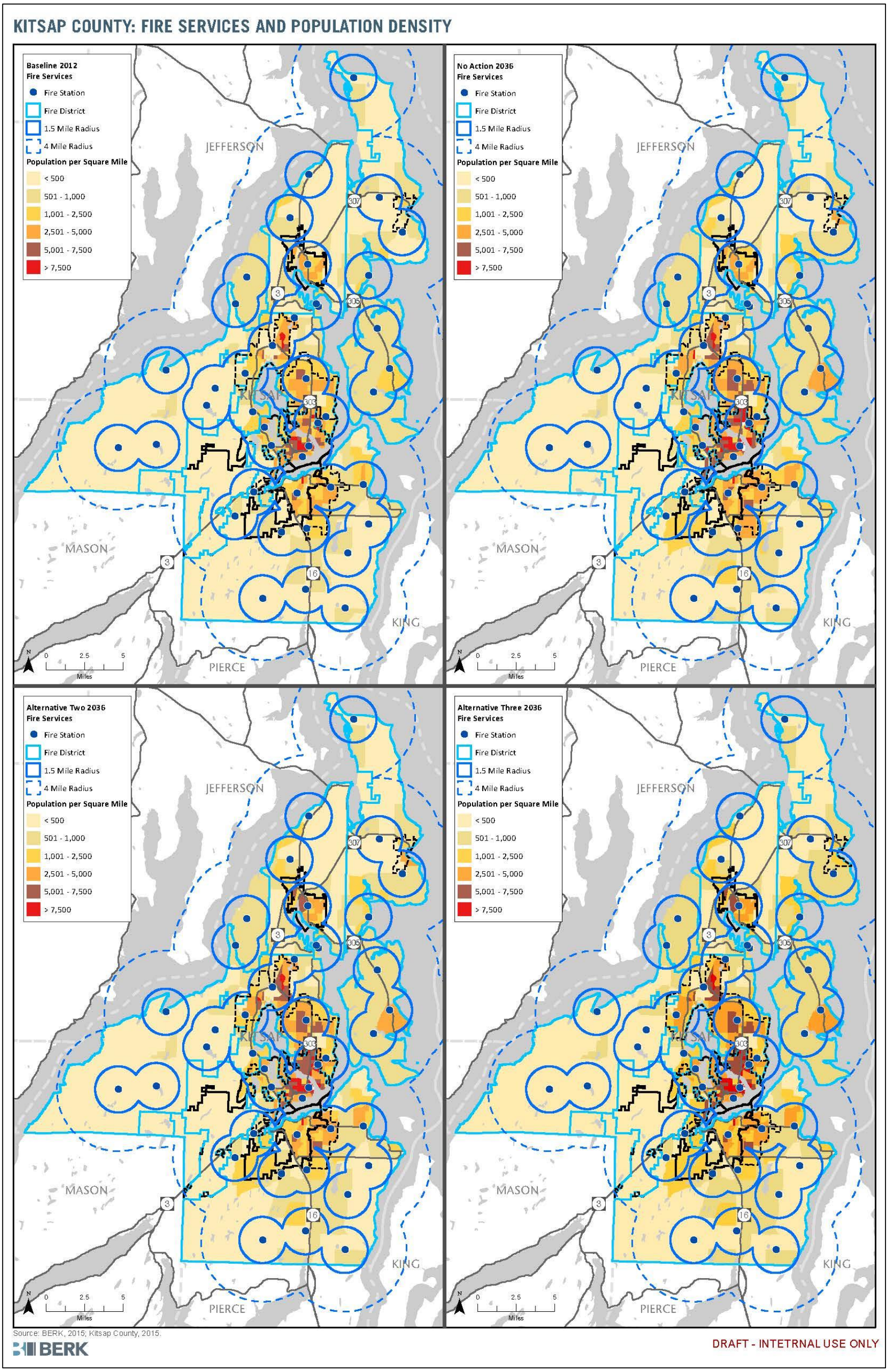
Alternatives Comparison

A criteria relevant to the proposed LOS and the WSRB rating includes whether stations are spaced within 1.5 miles in urban areas and 4 miles for rural areas. This SEIS includes a map of stations with 1.5 and 4 mile radii (though this does not account for road miles). See Exhibit 3.3-14. The spread of stations based on buffers appears to well cover urban and rural areas under present and future conditions under all alternatives. The actual access based on road miles and staffing by career personnel would vary across the county.

The density of population would increase across all alternatives particularly in central Kitsap County, and calls for service would increase. Alternative 2 would have the greatest increase in intensity of population and jobs in Silverdale in particular. Alternatives 2 and 3 would see a slight lessening of population density with UGA changes in the Port Orchard UGA.

The WSRB is a non-profit agency that evaluates fire protection capabilities of cities and fire protection districts. In turn, insurance companies use WSRB Protection Classes to help establish fair premiums for fire insurance. The evaluation process includes a review of the following that are relevant to capital facilities: distribution of fire stations and fire companies, apparatus equipment, water supply, and water pressure. Other activities reviewed include personnel and training, response to alarms, dispatching, code enforcement, and public education.

Exhibit 3.3-14. Kitsap County Fire Services and Population Density



Source: Kitsap County, 2015; BERK Consulting 2015

3.3.2.3. Mitigation Measures – Fire Protection

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 new planning period and establish updated LOS standards in consultation with fire districts. Planned investments in fire suppression and emergency medical facilities and equipment are included in the CFP.
- Alternative 2 focuses growth and concentrate densities, allowing for improved efficiency of service, such as potentially lower response times.

Regulations and Commitments

- New development would be required to meet city and County codes, as well as International Fire Code and International Building Code regulations, regarding the provision of fire hydrants, fire flow, alarm systems, sprinklers, and emergency vehicle access.

Other Proposed Mitigation Measures

- Expanded fire and emergency medical services could be provided concurrent with new development.
- Specific impacts of future development proposals should be assessed and appropriate mitigation measures imposed through the County's SEPA authority. These may include impact fees, building access and lighting, right-of-way access, and other measures to support rapid emergency response.
- The County could increase fire impact mitigation fees and apply them through SEPA or land use permits.
- Fire districts may propose levies for stable funding sources to address sufficient operations.

3.3.2.4. Significant Unavoidable Adverse Impacts– Fire Protection

Future population growth and development will continue to increase the need for fire protection/EMS services under any studied alternative. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

3.3.3. Law Enforcement

3.3.3.1. Affected Environment – Law Enforcement

The Kitsap County Sheriff Department serves the population of unincorporated Kitsap County. The Department is responsible for law enforcement, maintaining order, crime investigation and prevention, traffic control, marine enforcement, process and service of civil papers for the courts, service of criminal warrants, and other emergency services.

Inventory of Current Facilities

Law enforcement facilities include sheriff administration and operations offices (23,540 square feet), sheriff's office storage space (13,210 square feet), and sheriff's office corrections jail facility (519 beds).

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 the evidence/ storage rooms. The Patrol Chief has an office at the courthouse. Satellite offices include the North Office in Kingston which has been closed and is anticipated to be relocated in the future. The Sheriff's Office used to staff a storefront in Silverdale Mall that is now closed. The Silverdale office remains open.

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 Superior Court operates the Juvenile Jail Facility.

Exhibit 3.3-15. Law Enforcement Current Facilities Inventory

Name	Location	Size/Quantity (SF and beds)
Sheriff's Office Space		
Main Office	614 Division Street, Port Orchard, WA	16,500
Central Office	3133 Randall Way, Silverdale, WA	5,620
Kitsap Community Resources	Jackson Avenue, Port Orchard, WA	110
Station 17	7990 McCormick Woods Dr. SW, Port Orchard	110
Drug Task Force/ SIU*		1,200
Total Sheriff's Office Space		**23,540**
Sheriff's Office Storage Space		
Readiness Center Space*	West Bremerton	10,000
Silverdale Storage Container*	3951 Randall Way, Silverdale, WA	250
Vehicle Impound lot, Carport and Storage Building	South Road Shed off Cedar Street	2,960
Total Sheriff's Office Storage Space		**13,210**
Sheriff's Office Corrections		
Jail	614 Division Street, Port Orchard	519
Total Sheriff's Office Corrections		**519**

Notes: The Drug Task Force/ SIU location will not be released for Office Safety Reasons. The Juvenile Correctional Facility is under the jurisdiction of the Superior Court.
* The County leases these spaces.
Source: David J. White, Chief of Detectives at Kitsap County Sheriff's Office, 2015; Ned Newlin, Chief of Corrections Division at Kitsap County Sheriff's Office, 2015; BERK, 2015.

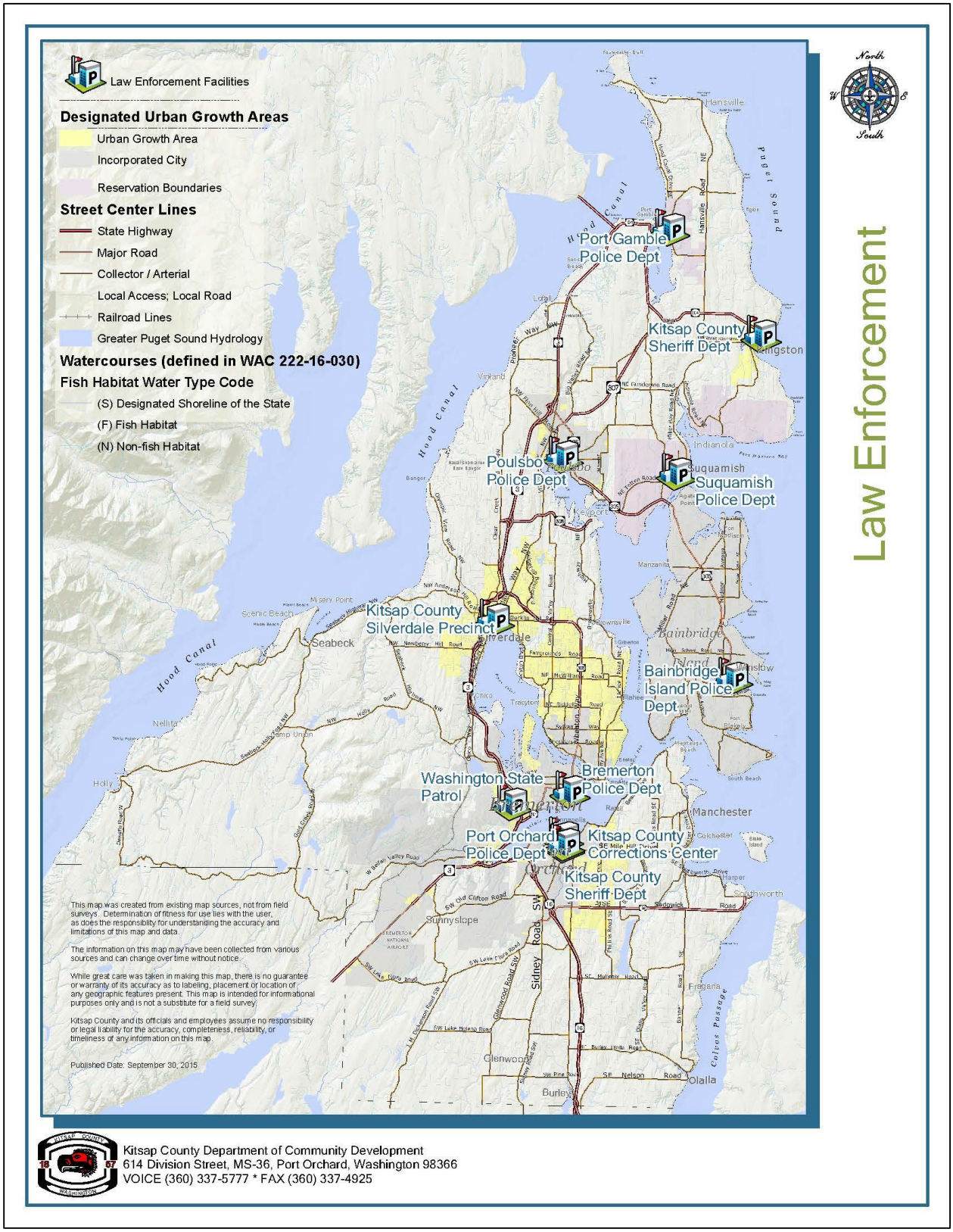
Currently, the Sheriff's Office-operated Jail Facility does not use 40 of the 591 beds listed, because it does not need them to meet the regional incarceration needs of Kitsap County. It is anticipated that the jail will be at full capacity within the next 15 years depending on population trends and changes in criminal laws.

Sheriff's Office Car

Kitsap County Rescue Boat

A map of County and other law enforcement facilities provided by city and state agencies is provided on Exhibit 3.3-16.

Exhibit 3.3-16. Law Enforcement Facilities



Source: Kitsap County Department of Community Development, 2015

3.3.3.2. Impacts– Law Enforcement

Impacts Common to All Alternatives

New development and population growth would result in an increased demand for law enforcement and correctional facilities under all alternatives at similar levels given similar population estimates.

Increased densities would allow for greater efficiency of service in urban areas. A more compact development pattern allows for smaller patrol areas and faster response times. A greater tax base would also allow for increased funding.

If urban areas of the county are annexed into adjoining cities or incorporated as new cities, patrol-related functions may be assumed by the cities while joint use of some facilities (e.g., jails) could be retained at the county level.

The ratios of commissioned offices and corrections officers to population served would decrease as the population increases in each of these alternatives, unless there is a commensurate increase in law enforcement staffing.

The adopted LOS standards relate the amount of office space (for the Sheriff's Office facilities) and number of beds (in the correctional facilities) to population. The County may review its LOS standards annually, according to policies defined in Chapter 11 of the Comprehensive Plan, Capital Facilities.

Currently, there are no planned capital projects for the Sheriff Department that would increase office space or correctional facility bed capacity. However, a needs assessment is proposed to determine the future capital facilities projects for Sheriff facilities including offices, supporting facilities, and the jail.

Level of Service Capacity Analysis

Sheriff's Office

The current Level of Service (LOS) for the sheriff's office space is 129 square feet per 1,000 unincorporated population. The County currently has a 1,360 feet surplus of office space; however, that surplus will become a deficit in 2021 under all alternatives. This deficit is expected to grow through 2036 as the unincorporated population increases. As noted in Chapter 2, under Alternatives 2 and 3 there may be greater demand for sheriff services in the central county than in south county given greater growth planned in the Regional Growth Center (RGC) of Silverdale and a lessened demand Port Orchard UGA than with Alternative 1. This may mean a different demand for space and equipment.

Exhibit 3.3-17. LOS Requirement Analysis – Sheriff's Office Space

Time Period	Kitsap Unincorporated County Population	Square Feet Needed to Meet LOS Standard	Square Feet Available	Net Reserve or (Deficit)
Current LOS Standard = 129 square feet per 1,000 population				
2015	171,940	22,180	23,540	1,360
2021 Alternative 1 No Action	183,503	23,672	23,540	(132)
2021 Alternative 2 Whole Community	182,850	23,588	23,540	(48)
2021 Alternative 3 All Inclusive	183,223	23,636	23,540	(96)
2036 Alternative 1 No Action	215,926	27,854	23,540	(4,314)
2036 Alternative 2 Whole Community	213,251	27,509	23,540	(3,969)
2036 Alternative 3 All Inclusive	214,778	27,706	23,540	(4,166)

Source: David J. White, Chief of Detectives at Kitsap County Sheriff's Office, 2015; BERK, 2015.

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. The County Sheriff's Office is planning to conduct a Needs Assessment of its facilities and space. If the County elects to make an LOS adjustment, even for the interim until the Needs Assessment is completed, the LOS standards that would be needed to address the deficiency through 2036 are shown in Exhibit 3.3-18.

Exhibit 3.3-18. Potential LOS Adjustments for Sheriff's Office

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/ 1000 people)
2015	129 square feet per 1,000 population	1,360	137
2021 Alternative 1 No Action	129 square feet per 1,000 population	(132)	128
2021 Alternative 2 Whole Community	129 square feet per 1,000 population	(48)	129
2021 Alternative 3 All Inclusive	129 square feet per 1,000 population	(96)	128
2036 Alternative 1 No Action	129 square feet per 1,000 population	(4,314)	109
2036 Alternative 2 Whole Community	129 square feet per 1,000 population	(3,969)	110
2036 Alternative 3 All Inclusive	129 square feet per 1,000 population	(4,166)	110

Source: David J. White, Chief of Detectives at Kitsap County Sheriff's Office, 2015; BERK, 2015.

County Jails

The current LOS for County Jail Facilities is 1.43 beds per 1,000 countywide population. Based on this standard there would be a surplus of jail beds. The Sheriff's Office operated jail facility does not use 40 out of the 591 beds listed. It is anticipated that the jail will be at full capacity within the next 15 years or sooner depending on population trends and changes in criminal laws that may occur during that time frame (Newlin, 2015)).

Exhibit 3.3-19. LOS Requirement Analysis – 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				
2015	258,200	369	519	150
2021 Alternative 1 No Action	277,903	397	519	122
2021 Alternative 2 Whole Community	278,313	398	519	121
2021 Alternative 3 All Inclusive	278,697	399	519	120
2036 Alternative 1 No Action	329,923	472	519	47
2036 Alternative 2 Whole Community	331,550	474	519	45
2036 Alternative 3 All Inclusive	333,076	476	519	43

Source: David J. White, Chief of Detectives at Kitsap County Sheriff's Office, 2015; BERK, 2015.

Kitsap County is considering an alternative level of service for its jail facility based on incarceration rates. The Bureau of Justice Statistics (BJS) for jails shows a typical incarceration rate of 234 inmates per 100,000 population in 2014 (Zhang, 2015). Kitsap County's incarceration rate was only 168 per 100,000 population in 2014. In 2013, it was 170 and 2012 it was 167. Kitsap County incarcerates 28% fewer people than other jurisdictions in the nation. The average daily population (i.e. beds used per day) for the jail for the past several years is as follows.

- 2014 – 426
- 2013 – 427
- 2012 – 417
- 2011 – 417

Using an incarceration rate of 168/100,000 population there would be adequate space in the six-year period but a deficit in the 7-20 year period under all alternatives.

Exhibit 3.3-20. 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: 168/100,000 Population				
2015	258,200	434	519	85
2021 Alternative 1 No Action	277,903	467	519	52
2021 Alternative 2 Whole Community	278,313	468	519	51
2021 Alternative 3 All Inclusive	278,697	468	519	51
2036 Alternative 1 No Action	329,923	554	519	(35)
2036 Alternative 2 Whole Community	331,550	557	519	(38)
2036 Alternative 3 All Inclusive	333,076	560	519	(41)

Source: Kitsap County Sheriff's Office, 2015; BERK, 2015.

In order for the County to change the alternative LOS based on the historic incarceration rate, the County would need to spend more resources educating and preventing individuals from becoming incarcerated or reoffending.

Exhibit 3.3-21. Potential LOS Adjustments for the Incarceration Rate

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (SF/ 1000 people)
2015	168 people/ 100,000 population	85	201
2021 Alternative 1 No Action	168 people/ 100,000 population	52	187
2021 Alternative 2 Whole Community	168 people/ 100,000 population	51	186
2021 Alternative 3 All Inclusive	168 people/ 100,000 population	51	186
2036 Alternative 1 No Action	168 people/ 100,000 population	(35)	157
2036 Alternative 2 Whole Community	168 people/ 100,000 population	(38)	157
2036 Alternative 3 All Inclusive	168 people/ 100,000 population	(41)	156

Source: Kitsap County Sheriff's Office, 2015; BERK, 2015.

Comparison of Alternatives

The level of growth is similar across all alternatives. Greater growth is anticipated in central county and less in south county under Alternatives 2 and 3. The Silverdale RGC would be a focus of growth in Alternative 2 in particular. Generally a more compact footprint of UGA territory under Alternative 2 would allow for more efficient services, though access and congestion could be a concern in selected areas. Under both Action Alternatives, the Port Orchard UGA would be decreased. Other UGA changes proposed under Alternative 3 would allow incremental expansion such as in Kingston, Bremerton, and Central Kitsap.

3.3.3.3. Mitigation Measures– Law Enforcement

Incorporated Plan Features

- The Comprehensive Plan Capital Facilities Chapter defines LOS standards for Sheriff's Office and correctional facilities. Future needs and costs can be determined based on these standards.
- Alternatives 2 and 3 update the Capital Facilities Plan and associated LOS standards to reflect more recent trends.
- The Comprehensive Plan focuses growth and concentrates densities, allowing for improved efficiency of service. Creating a more compact development pattern allows for smaller patrol areas and faster response times.

Regulations and Commitments

- The Sheriff's Office and facilities are maintained primarily through the County's general fund, which is funded through sales and property tax revenues. The increased tax base associated with increased population and development would increase tax revenues and bonding potential, providing additional funding for law enforcement services and facilities.

Other Proposed Mitigation Measures

- In order to address future deficiencies, the Sheriff's Office could choose to adjust their LOS standards on an interim or permanent basis to reflect the likely service levels in 2036, given estimated population growth and planned facilities.
- A needs assessment is proposed to determine the future capital facilities projects for Sheriff facilities including offices, supporting facilities, and the jail.

- Staffing will need to be increased as population increases. However, as urban areas are annexed, personnel and/or facilities may need to transfer to the annexing city. If urban areas are annexed into adjoining cities or incorporated into new cities, patrol-related functions may be assumed by the cities, while joint use of some facilities (e.g., jails) could be retained at the County level.
- Building and site designs known as Crime Prevention through Enhanced Design (CPTED), which would reduce opportunities for crimes to occur, could be encouraged through regulations, as would adequate street lighting for residential and commercial development.
- Development of community crime prevention programs could also help mitigate some of the impacts of increased demand for police services.
- The County would continue to implement a mutual aid agreement with other law enforcement agencies.

3.3.3.4. Significant Unavoidable Adverse Impacts– Law Enforcement

Future population growth and development will continue to increase the need for law enforcement services and facilities under all alternatives. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

3.3.4. Parks and Recreation

3.3.4.1. Affected Environment – Parks and Recreation

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.

Playground

Inventory of Current Facilities

Kitsap County owns approximately 11,704acres of parkland, and other agencies own approximately 19,847 acres of parkland in the county, as shown in Exhibit 3.3-22. 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. Park space is generally used by all county residents. Out-of-county and out-of-state visitors and tourists also use a significant portion of these regional sites and facilities.

Exhibit 3.3-22. County-Owned Parks, Shoreline Access, and Trails

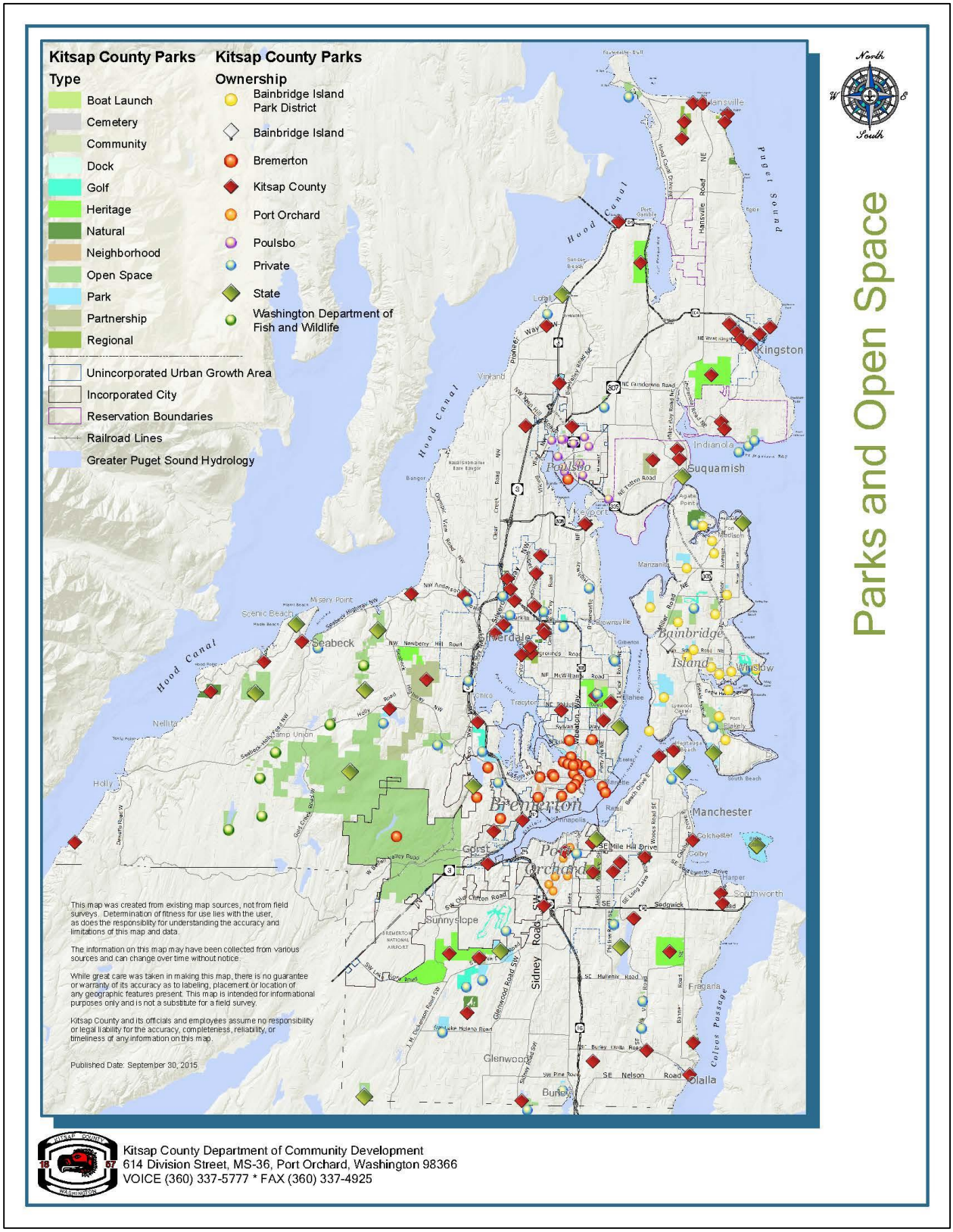
Type of Park	Kitsap County Capacity (Acres)	Other Agencies Capacity (Acres)	Total Capacity (Acres)
Natural Resource Areas	5,617	16,699	22,316
Heritage Parks	4,699	0	4,699
Regional Parks	590	2,342	2,932
Community Parks	339	806	1,145
Partnership Properties	459		459
Total Acres	11,704	19,847	31,551
Shoreline Access (Miles)	8.5	18	26.5
Trail Miles (Paved and Unpaved)	100	57	157

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

A more detailed inventory of parks facilities is included in the Draft CFP under separate cover.

A map of parks facilities provided by Kitsap County and other agencies is provided on Exhibit 3.3-23.

Exhibit 3.3-23. Parks Facilities Map



Source: Kitsap County Department of Community Development, 2015

3.3.4.2. Impacts– Parks and Recreation

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 specific facilities most affected by increased use would depend in part on the location of growth, which would vary by alternative. 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. For most of the parks and recreation facilities include two forms of LOS: The "target" LOS is from PROS, and "base" LOS was the standard adopted in the 2012 based on the fundable plan.

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. With the additional Kitsap Forest and Bay Project properties discussed below, the County is currently meeting this standard, as shown in Exhibit 3.3-24. In 2036, the County will have a Natural Resource Areas deficit based on the target LOS but can meet the base LOS described below.

Exhibit 3.3-24. Target LOS Requirement Analysis – Natural Resource Areas

Time Period	Kitsap Countywide Population	Acres to meet Target LOS Standard	Acres Available	Net Reserve or Deficit
Natural Resources Area LOS Standard = 71.1 Acres per 1,000 population				
2015	258,200	18,332	22,316	3,984
2021 Alternative 1 No Action	277,903	19,731	22,316	2,585
2021 Alternative 2 Whole Community	278,313	19,760	22,316	2,556
2021 Alternative 3 All Inclusive	278,697	19,787	22,316	2,529
2036 Alternative 1 No Action	329,923	23,425	22,316	(1,109)
2036 Alternative 2 Whole Community	331,550	23,540	22,316	(1,224)
2036 Alternative 3 All Inclusive	333,076	23,648	22,316	(1,332)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

The 2012 CFP included a base LOS of 57.1 acres per 1,000 population. The County has sufficient capacity to meet this LOS standard now and in the future, as shown in Exhibit 3.3-25. The alternatives have similar effects given similar population estimates.

Exhibit 3.3-25. Base LOS Requirement Analysis – Natural Resource Areas

Time Period	Kitsap Countywide Population	Acres to meet Target LOS Standard	Acres Available	Net Reserve or Deficit
Natural Resources Area LOS Standard = 57.1 acres per 1,000 population				
2015	258,200	14,743	22,316	7,573
2021 Alternative 1 No Action	277,903	15,868	22,316	6,448
2021 Alternative 2 Whole Community	278,313	15,892	22,316	6,424
2021 Alternative 3 All Inclusive	278,697	15,914	22,316	6,402
2036 Alternative 1 No Action	329,923	18,839	22,316	3,477
2036 Alternative 2 Whole Community	331,550	18,931	22,316	3,385
2036 Alternative 3 All Inclusive	333,076	19,019	22,316	3,297

Source: Kitsap County CFP 2012; BERK, 2015.

Towards the target LOS, the County is working on a community effort called the Kitsap Forest and Bay Project that could double the County's open space and passive recreational acres and create a surplus under the target LOS. The Forest and Bay project is anticipated to add up to 4,910 acres where Pope Resources land would be purchased with public and private resources for public use:

- Port Gamble Upland Block – 3,316 acres
- Port Gamble Shoreline Block - 564 acres, including 1.8 miles of shoreline (already acquired)
- Divide Block - 664 acres (180 acres already acquired)
- Park Expansion Block - 366 acres (already acquired)

Working with DNR, some State land may also be transferred to County ownership through the legislatively funded Trust Land Transfer (TLT) Program. Under this program DNR's timbered properties are transferred to another public agency that will manage and protect it for public use and enjoyment. Some proposals include:

- Burley Olalla proposed TLT - 320 acres
- Eglon proposed TLT - 640 acres
- Kingston proposed TLT - 68 acres
- Olympic View proposed TLT - 50 acres

Regional Parks

The adopted target LOS for regional parks is 16 acres per 1,000 population, including County and non-County facilities. The County currently has a deficiency of 1,199 acres, and this deficiency continues through 2036, as shown in Exhibit 3.3-26, under all alternatives.

Exhibit 3.3-26. Target LOS Requirement Analysis – Regional Parks

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Regional Parks LOS = 16 acres per 1,000 population				
2015	258,200	4,131	2,932	(1,199)
2021 Alternative 1 No Action	277,903	4,446	2,932	(1,514)
2021 Alternative 2 Whole Community	278,313	4,453	2,932	(1,521)
2021 Alternative 3 All Inclusive	278,697	4,459	2,932	(1,527)
2036 Alternative 1 No Action	329,923	5,279	2,932	(2,347)
2036 Alternative 2 Whole Community	331,550	5,305	2,932	(2,373)
2036 Alternative 3 All Inclusive	333,076	5,329	2,932	(2,397)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

In 2012, the CFP identified a base LOS of 8.9 acres per 1,000. At this standard, the County would meet the needs of growth in the 2016-2021 period, as shown in Exhibit 3.3-27, and would have a slight deficit by the 2022-2036 period. The deficit would be small under all alternatives in the 2022-2036.

Exhibit 3.3-27. Base LOS for Regional Parks

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Regional Parks LOS = 8.9 acres per 1,000 population				
2015	258,200	2,298	2,932	634
2021 Alternative 1 No Action	277,903	2,473	2,932	459
2021 Alternative 2 Whole Community	278,313	2,477	2,932	455
2021 Alternative 3 All Inclusive	278,697	2,480	2,932	452
2036 Alternative 1 No Action	329,923	2,936	2,932	(4)
2036 Alternative 2 Whole Community	331,550	2,951	2,932	(19)
2036 Alternative 3 All Inclusive	333,076	2,964	2,932	(32)

Source: Kitsap County CFP, 2012; BERK, 2015.

The deficit may be addressed by additions in non-County regional parkland or by a small change in the base LOS to 8.8 acres per 1,000 persons for the outer years of the planning period. If the County elected to adjust its LOS to a base level, the standards shown in Exhibit 3.3-28 would allow the County to meet the base standards under each alternative for the 2016-2021 period and also for the 2022-2036 period.

Exhibit 3.3-28. Potential LOS Adjustments for Regional Parks

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (Acres/ 1000 people)
2015	16 acres/ 1,000 people	(1,199)	11.4
2021 Alternative 1 No Action	16 acres/ 1,000 people	(1,514)	10.6
2021 Alternative 2 Whole Community	16 acres/ 1,000 people	(1,521)	10.5
2021 Alternative 3 All Inclusive	16 acres/ 1,000 people	(1,527)	10.5
2036 Alternative 1 No Action	16 acres/ 1,000 people	(2,347)	8.9
2036 Alternative 2 Whole Community	16 acres/ 1,000 people	(2,373)	8.8
2036 Alternative 3 All Inclusive	16 acres/ 1,000 people	(2,397)	8.8

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

Heritage Parks

The adopted target LOS for heritage parks is 19 acres per 1,000 population and assumes the full acres owned by the County. The County is currently deficient in heritage parks, as shown in Exhibit 3.3-29. Heritage parks are only provided by Kitsap County; no other agencies provide heritage parks in the county.

Exhibit 3.3-29. Target LOS Requirement Analysis – Heritage Parks

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Heritage Parks LOS = 19 acres per 1,000 population				
2015	258,200	4,906	4,699	(207)
2021 Alternative 1 No Action	277,903	5,280	4,699	(581)
2021 Alternative 2 Whole Community	278,313	5,288	4,699	(589)
2021 Alternative 3 All Inclusive	278,697	5,295	4,699	(596)
2036 Alternative 1 No Action	329,923	6,269	4,699	(1,570)
2036 Alternative 2 Whole Community	331,550	6,299	4,699	(1,600)
2036 Alternative 3 All Inclusive	333,076	6,328	4,699	(1,629)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

The 2012 CFP base LOS is 11.5 acres per 1,000 population. Using this standard, the deficits would be reversed, as shown in Exhibit 3.3-30. Due to heritage park additions since 2012, it is likely the County could increase its base LOS.

Exhibit 3.3-30. Base LOS Requirement Analysis – Heritage Parks

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Heritage Parks LOS = 11.5 acres per 1,000 population				
2015	258,200	2,969	4,699	1,730
2021 Alternative 1 No Action	277,903	3,196	4,699	1,503
2021 Alternative 2 Whole Community	278,313	3,201	4,699	1,498
2021 Alternative 3 All Inclusive	278,697	3,205	4,699	1,494
2036 Alternative 1 No Action	329,923	3,794	4,699	905
2036 Alternative 2 Whole Community	331,550	3,813	4,699	886
2036 Alternative 3 All Inclusive	333,076	3,830	4,699	869

Source: Kitsap County CFP 2012; BERK, 2015.

The County could reassess its LOS standards for heritage parks and adopt base LOS standards for the six-year planning period reflecting its larger inventory since 2012; from 2015 to 2021 the County could have a base LOS of 17 acres per 1,000 persons and by the close of the 2036 planning period, the County could have a base LOS of 14 acres per 1,000 persons. If the County elected to adjust its LOS to a base level, the standards shown in Exhibit 3.3-31 would allow the County to meet the base standards under each alternative for the 2016-2021 period and also for the 2022-2036 period.

Exhibit 3.3-31. Potential LOS Adjustments for Heritage Parks

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (Acres/ 1000 people)
2015	19 acres/ 1,000 people	(207)	18
2021 Alternative 1 No Action	19 acres/ 1,000 people	(581)	17
2021 Alternative 2 Whole Community	19 acres/ 1,000 people	(589)	17
2021 Alternative 3 All Inclusive	19 acres/ 1,000 people	(596)	17
2036 Alternative 1 No Action	19 acres/ 1,000 people	(1,570)	14
2036 Alternative 2 Whole Community	19 acres/ 1,000 people	(1,600)	14
2036 Alternative 3 All Inclusive	19 acres/ 1,000 people	(1,629)	14

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

Community Parks

The adopted target LOS for community parks is 4.65 acres per 1,000 population. There is a small deficit in 2015 that grows by 2036, as shown in Exhibit 3.3-32. The level of need is similar among all alternatives.

Exhibit 3.3-32. Target LOS Requirement Analysis – Community Park

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Community Parks LOS = 4.65 acres per 1,000 population				
2015	258,200	1,201	1,145	(56)
2021 Alternative 1 No Action	277,903	1,292	1,145	(147)
2021 Alternative 2 Whole Community	278,313	1,294	1,145	(149)
2021 Alternative 3 All Inclusive	278,697	1,296	1,145	(151)
2036 Alternative 1 No Action	329,923	1,534	1,145	(389)
2036 Alternative 2 Whole Community	331,550	1,542	1,145	(397)
2036 Alternative 3 All Inclusive	333,076	1,549	1,145	(404)

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

In 2012, a base LOS of 3.50 acres per 1,000 was adopted. That LOS would be sufficient through the 6-year period and result in small deficiencies in the 20-year period under all alternatives, as shown in Exhibit 3.3-33. A small change in the base LOS to 3.44 acres per 1,000 persons would address deficiencies in the outer years of the planning period.

Exhibit 3.3-33. Base LOS Requirement Analysis – Community Park

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Acres Available	Net Reserve or Deficiency
Community Parks LOS = 3.5 acres per 1,000 population				
2015	258,200	904	1,145	241
2021 Alternative 1 No Action	277,903	973	1,145	172
2021 Alternative 2 Whole Community	278,313	974	1,145	171
2021 Alternative 3 All Inclusive	278,697	975	1,145	170
2036 Alternative 1 No Action	329,923	1,155	1,145	(10)
2036 Alternative 2 Whole Community	331,550	1,160	1,145	(15)
2036 Alternative 3 All Inclusive	333,076	1,166	1,145	(21)

Source: Kitsap County CFP 2012; BERK, 2015.

If the County elected to adjust its LOS to a base level, the standards shown in Exhibit 3.3-34 would allow the County to meet the base standards under each alternative for the 2016-2021 period and also for the 2022-2036 period. See Exhibit 3.3-34.

Exhibit 3.3-34. Potential LOS Adjustments for Community Park

Alternative	Target LOS	Estimated Deficiency	LOS Needed to Address Deficiency (Acres/ 1000 people)
2015	4.65 acres/ 1,000 people	(56)	4.4
2021 Alternative 1 No Action	4.65 acres/ 1,000 people	(147)	4.1
2021 Alternative 2 Whole Community	4.65 acres/ 1,000 people	(149)	4.1
2021 Alternative 3 All Inclusive	4.65 acres/ 1,000 people	(151)	4.1
2036 Alternative 1 No Action	4.65 acres/ 1,000 people	(389)	3.5
2036 Alternative 2 Whole Community	4.65 acres/ 1,000 people	(397)	3.5
2036 Alternative 3 All Inclusive	4.65 acres/ 1,000 people	(404)	3.4

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

Shoreline Access

The adopted LOS for shoreline access is 0.061 miles per 1,000 population and includes County and non-County miles of shoreline access. The County currently has a surplus of shoreline access, considering both County and non-County miles of shoreline access, as shown in Exhibit 3.3-35.

Exhibit 3.3-35. LOS Requirement Analysis – Shoreline Access

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Miles Available	Net Reserve or Deficiency
Shoreline Access LOS = 0.061 miles per 1,000 population				
2015	258,200	16	26.5	10.7
2021 Alternative 1 No Action	277,903	17	26.5	9.5
2021 Alternative 2 Whole Community	278,313	17	26.5	9.5
2021 Alternative 3 All Inclusive	278,697	17	26.5	9.5
2036 Alternative 1 No Action	329,923	20	26.5	6.4
2036 Alternative 2 Whole Community	331,550	20	26.5	6.3
2036 Alternative 3 All Inclusive	333,076	20	26.5	6.2

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

Trails

The adopted LOS for trails is 0.2 miles per 1,000 population and relies on the County's inventory of trails. The County has a reserve of trail miles through 2036, as shown in Exhibit 3.3-36. Other agencies provide approximately 57 miles of trails in the county, which, if included in the adopted LOS standard, would increase the surplus.

Exhibit 3.3-36. LOS Requirement Analysis – Trails

Time Period	Kitsap Countywide Population	Acres to Meet Target LOS Standard	Miles Available	Net Reserve or Deficiency
Trails LOS = 0.2 miles per 1,000 population				
2015	258,200	52	157	105
2021 Alternative 1 No Action	277,903	56	157	101
2021 Alternative 2 Whole Community	278,313	56	157	101
2021 Alternative 3 All Inclusive	278,697	56	157	101
2036 Alternative 1 No Action	329,923	66	157	91
2036 Alternative 2 Whole Community	331,550	66	157	91
2036 Alternative 3 All Inclusive	333,076	67	157	90

Source: Kitsap County Parks, Recreation & Open Space Plan, 2012; Kitsap County Parks Department, 2015; BERK, 2015.

Comparison of Alternatives

The level of demand for park acreage and facilities is similar countywide across alternatives. However, the pattern of growth shows increased densification in the Silverdale Regional Growth Center (RGC) in both Alternatives 2 and 3 compared to Alternative 1. There would be lesser growth in the Port Orchard UGA and less demand in that location in both Alternatives 2 and 3 than Alternative 1.

Under Alternative 2 the level of growth is nearly the same as Alternatives 1 and 3 but contained in a smaller urban footprint (-4%); thus parks and open space amenities for recreation and respite may be

more important to attracting growth to UGAs and meeting the needs of the community (see Appendix G regarding reasonable measures and amenities/infrastructure investment).

On the other hand, there would be a net increase in UGAs in Kingston, Silverdale, Central Kitsap and Bremerton (West) UGAs in Alternative 3 where more distributed park resources would be needed.

3.3.4.3. Mitigation Measures– Parks and Recreation

Incorporated Plan Features

- The 2012 PROS Plan sets forth strategies, goals, and objectives for development and management of parks, open space, and recreational facilities for a 5-year planning period.
- Alternatives 2 and 3 update the CFP and include additional LOS objectives and guiding principles for facilities, acquisition, and healthy communities.

Regulations and 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 such as the Silverdale UGA.

Other Proposed 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. Significant Unavoidable Adverse Impacts– Parks and Recreation

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. Affected Environment - Schools

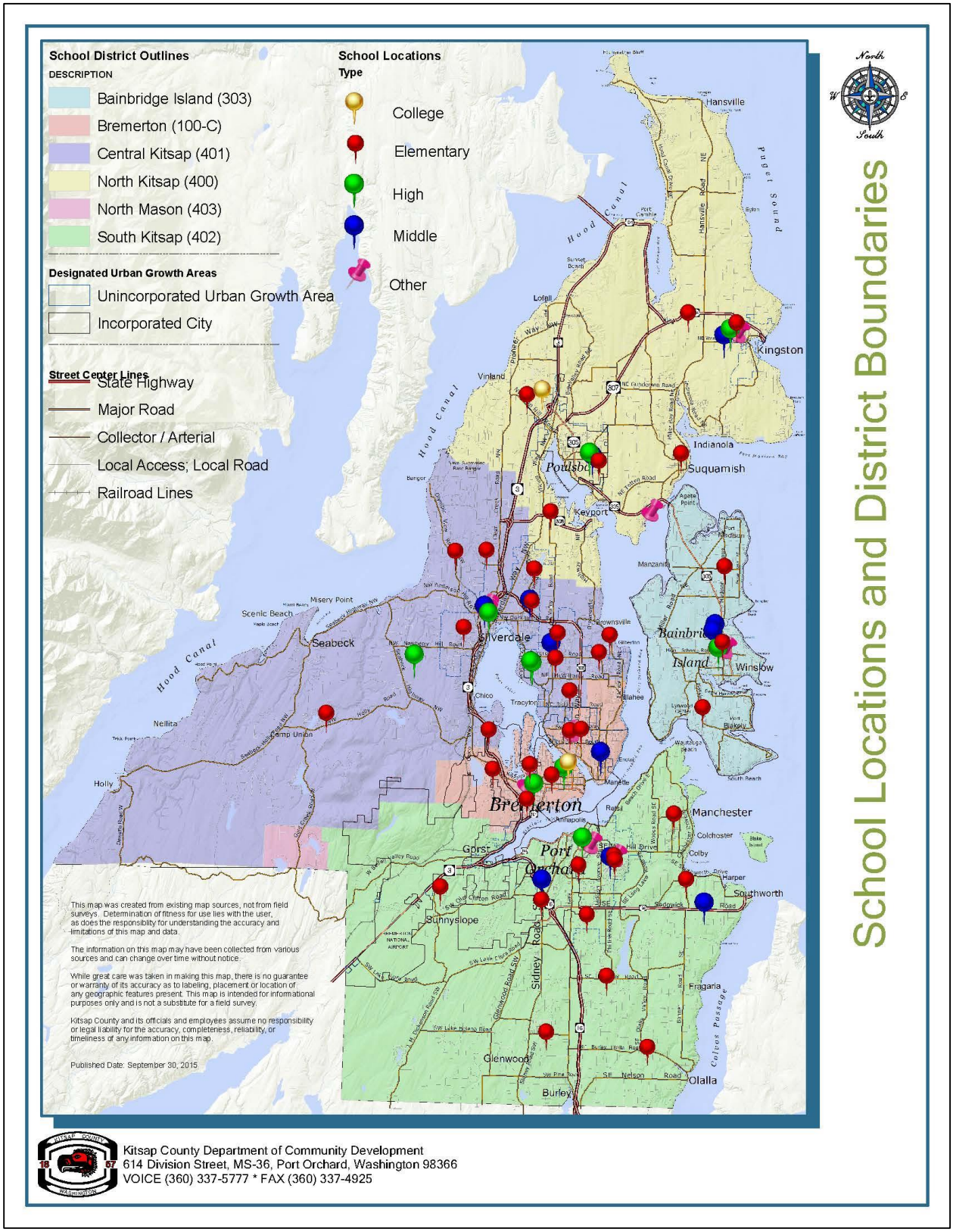
This section evaluates the four school districts that serve unincorporated Kitsap County: North Kitsap (NKSD), Central Kitsap (CKSD), South Kitsap (SKSD), and Bremerton (BSD). Two districts were excluded: Bainbridge Island Schools because the entire district is located in the City of Bainbridge Island, and the North Mason School District because it does not have schools or facilities located in Kitsap County and serves only a very small area in the southwestern corner of the County. Exhibit 3.3-37 shows the school district boundaries.

Inventory of Current Facilities

Inventories of the school districts' existing facilities in Kitsap County are presented in this section. The capacity of portable rooms is presented to show the interim facilities the districts use (1) to meet short-term enrollment fluctuations, or (2) to serve as temporary facilities until permanent facilities are built.

Capacity figures are generally based on teacher-to-student ratios (expressed as students per classroom) that the school district determines to be most appropriate to accomplish its educational program. These ratios are often contained in employment agreements between districts and their teachers.

Exhibit 3.3-37. Kitsap County School District Boundaries



Source: Kitsap County Department of Community Development 2015

North Kitsap School District

NKSD is located at the north end of the Kitsap Peninsula and is almost completely surrounded by water. To the west, the district is bordered by Hood Canal and includes the Port Gamble Inlet. To the north and east, Puget Sound borders the district. Port Madison and Liberty Bay surround the district on its southernmost borders. NKSD schools are generally clustered around the City of Poulsbo and the unincorporated community of Kingston. The district currently uses the following grade level configurations: K–5 housed in elementary schools, 6-8 housed in middle schools, and 9-12 housed in senior high schools. Exhibit 3.3-38 lists North Kitsap Schools and their enrollment capacity.

Exhibit 3.3-38. North Kitsap School District Current Enrollment Capacity

Schools	Current Enrollment Capacity
Elementary Schools (K-5)	
Breidablik	391
Gordon	320
Pearson	296
Poulsbo	382
Suquamish	345
Vinland	467
Wolfle	391
Total Elementary Permanent Facilities	**2,592**
Total Elementary Interim (Portable) Facilities	**1,200**
Total Elementary Permanent and Interim Facilities	**3,792**
Middle School	
Kingston	958
Poulsbo	721
Total Middle School Permanent Facilities	**1,679**
Total Middle School Interim (Portable Facilities)	**525**
Middle School School Permanent and Portable Classrooms	**2,204**
High School	
Kingston	806
North Kitsap	1,313
Spectrum School	75
Total High School Permanent Facilities	**2,194**
Total High School Interim (Portable Facilities)	**250**
High School School Permanent and Portable Classrooms	**2,444**
Overall Total Permanent Facilities Capacity	**6,465**
Overall Total Interim (Portable) Facilities	**1,975**
Overall Total Permanent and Interim Facilities	**8,440**

Source: North Kitsap School District Facility Master Plan, 2015.

Central Kitsap School District

Central Kitsap School District is located on the Kitsap Peninsula, surrounding Dyes Inlet and extending west to the Hood Canal. Currently, there are twelve elementary schools, three junior high schools, one 7–12 secondary school, and two senior high schools in the district. The District also provides alternative junior high and high school programs. The grade configuration is based on grades K–6, elementary; grades 7–8, middle school that will include grade 6 in the future; and 10–12, high school. Exhibit 3.3-39 presents the schools of Central Kitsap and their enrollment capacity.

Exhibit 3.3-39. Central Kitsap School District Inventory

School	Current Enrollment Capacity
Elementary Schools (K–6)	
Brownsville	408
Clear Creek	480
Cottonwood	384
Cougar Valley	480
Emerald Heights	528
Esquire Hills	432
Green Mountain	432
Jackson Park	480
Pinecrest	504
Silverdale	432
Silver Ridge	432
Woodlands	432
Total Elementary Permanent Facilities	**5,424**
Total Elementary Interim (Portable) Facilities	**456**
Total Elementary Permanent and Interim Facilities	**5,880**
Middle Schools (7–8)	
Central Kitsap	875
Fairview	750
Ridgetop	1,025
Total Middle School Permanent Facilities	**2,650**
Total Middle School Interim (Portable Facilities)	**325**
Middle School School Permanent and Portable Classroo	**2,975**
High Schools (9–12)	
Central Kitsap	1,200
Olympic	1,050
Klahowya (7-12)	725
Total High School Permanent Facilities	**2,975**
Total High School Interim (Portable Facilities)	**850**
High School School Permanent and Portable Classrooms	**3,825**
Overall Total Permanent Facilities Capacity	**11,049**
Overall Total Interim (Portable) Facilities	**1,631**
Overall Total Permanent and Interim Facilities	**12,680**

Source: Central Kitsap School District, 2015; BERK, 2015.

Bremerton School District

The Bremerton School District (BSD) is located on the Kitsap Peninsula between Port Orchard Bay, Dyes Inlet, and Sinclair Inlet. The district is adjacent to the Puget Sound Naval Shipyard, and its enrollment is directly related to the military base. The school district serves the City of Bremerton and unincorporated areas adjacent to the city.

BSD comprises six elementary schools, one middle school, one traditional high school, and one alternative high school. The district also administers a vocational skills center that serves other school districts. The current grade configuration in the district is based on grades K–5, elementary; grades 6–8, middle school; and grades 9–12, high school. Exhibit 3.3-40 lists the schools of Bremerton School District and their enrollment capacity.

Exhibit 3.3-40. Bremerton School District Inventory

Schools	Current Enrollment Capacity
Elementary Schools	
Armin Jahr	481
Crownhill	528
Kitsap Lake	528
Naval Avenue Early Learning Center	484
View Ridge	528
West Hills S.T.E.M. Academy (K-8)	528
Total Elementary Permanent Facilities	**3,077**
Total Elementary Interim (Portable) Facilities	**840**
Total Elementary Permanent and Interim Facilities	**3,917**
Middle Schools	
Mountain View Middle School (7-8)	1,274
Total Middle School Permanent Facilities	**1,274**
Total Middle School Interim (Portable Facilities)	**120**
Middle School School Permanent and Portable Classrooms	**1,394**
High Schools	
Bremerton High School	1,671
Renaissance High School	136
West Sound Technical Skills Center	515
Total High School Permanent Facilities	**2,322**
Total High School Interim (Portable Facilities)	**120**
High School School Permanent and Portable Classrooms	**2,442**
Overall Total Permanent Facilities Capacity	**6,673**
Overall Total Interim (Portable) Facilities	**1,080**
Overall Total Permanent and Interim Facilities	**7,753**

Notes: The West Sound Technical Skill Center may include students enrolled at Bremerton and Renaissance High Schools.

Source: Bremerton School District No. 100-C Study and Survey, 2012; BERK, 2015.

The Bremerton School District has identified that their classrooms are listed with a certain capacity, however the rooms tend to be overcrowded at that capacity and are often not utilized at capacity numbers. This should be taken into consideration for future capital planning. (Steedman, 2015)

South Kitsap School District

South Kitsap School District (SKSD) is located in the southern portion of Kitsap County. Pierce County and Mason County border the District to the south and west. To the north and east, the District is bordered by the Sinclair Inlet, Rich Passage, Colvos Passage, and Puget Sound. The district includes 10 elementary schools, three junior high schools, and one alternative and one comprehensive high school. The majority of the schools are located throughout the southern portion of unincorporated Kitsap County, while South Kitsap High School, Cedar Heights Junior High School, and Sidney Glen Elementary School are located within the Port Orchard city limits. The grade configuration is based on grades K–6, elementary; grades 7–9, junior high; and grades 10–12, senior high school. Exhibit 3.3-41 lists the schools of the South Kitsap School District and their enrollment capacity.

Exhibit 3.3-41. South Kitsap School District Inventory

Schools	Current Enrollment Capacity
Elementary Schools	
Burley-Glenwood	528
East Port Orchard	467
Hidden Creek	526
Manchester	441
Mullenix Ridge	480
Olalla	408
Orchard Heights	729
Sidney Glen	467
South Colby	216
Sunnyslope	417
Total Elementary Permanent Facilities	**4,679**
Total Elementary Interim (Portable) Facilities	**456**
Total Elementary Permanent and Interim Facilities	**5,135**
Junior High Schools	
Cedar Heights	605
John Sedgwick	839
Marcus Whitman	796
Total Middle School Permanent Facilities	**2,240**
Total Middle School Interim (Portable Facilities)	**325**
Middle School School Permanent and Portable Classrooms	**2,565**
High Schools	
South Kitsap	1,972
Alternative High School	174
Total High School Permanent Facilities	**2,146**
Total High School Interim (Portable Facilities)	**850**
High School School Permanent and Portable Classrooms	**2,996**
Overall Total Permanent Facilities Capacity	**9,065**
Overall Total Interim (Portable) Facilities	**1,631**
Overall Total Permanent and Interim Facilities	**10,696**

Source: Personal Communication with Tom O'Brien, Director of Facilities and Operations at South Kitsap School District, 2015; BERK, 2015.

3.3.5.2. Impacts - Schools

Impacts Common to All Alternatives

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.

Level of Service Analysis

An LOS capacity analysis was applied to each county school district based on a student-to-household ratio that was developed by comparing the enrollment numbers from the Washington State Office of Superintendent of Public Instruction (OSPI) to household estimates by school district. The results, expressed as the number of students a school is able to accommodate based on the enrollment capacity inventories above, are shown below. Where numbers are positive, a school district is projected to have a net reserve of school capacity. Where numbers are negative, a school district is projected to have a deficit of school capacity.

The analysis in this SEIS is conservative by assuming that total growth estimated in 2021 and 2036 occurs in a "lump." However, depending on the timing of the development in the planning period and the total amount of growth, districts with strained capacity may need to split attendance boundaries, add portables, or ultimately develop new schools.

Enrollment Projections

Enrollment data is measured by OSPI, which conducts student counts in October and May of each school year. The current enrollment levels presented in this section reflect the May 2015 student count for each district.

This SEIS analysis bases future enrollment levels on a student-per-household ratio using the number of households projected from the County's land capacity analysis. The net change in household growth for each alternative based on the County's growth alternatives and land capacity analysis was added to the 2012 base household number from OFM's small area estimates. The SEIS estimates are conservative, and Districts have a refined approach for determining future enrollment and space needs, which they generally revisit every six years. The student-per household ratios were developed as follows:

- Three of the districts, SKSD, NKSD, and BSD developed their own student generation rates for use in their capital facility plans. These estimates were incorporated into this analysis and applied to the projected growth in households, separating out multifamily (MF) and single-family (SF) dwelling unit growth. Estimates of future enrollment may differ from those used in these Districts' CFPs since the projected growth in households is different from those based on this land capacity analysis.
- For CKSD, which did not include their own student-per-household generation assumptions in their adopted CFPs, this analysis assumes that the current student-per-household ratio observed in the district will continue going forward.

North Kitsap School District

NKSD 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 in 2021 or 2036, as shown in Exhibit 3.3-38. Of the school districts, North Kitsap would have the second highest increase in student population, largely due to the growth in Silverdale UGA. Alternative 3 would place greater growth in the district than the other alternatives, though deficits would be similar to other alternatives.

Richard Gordon Elementary

North Kitsap High School

Central Kitsap School District

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. With expected enrollment growth within the district, CKSD will have a deficit under all planning alternatives, even with the addition of portable capacity, as shown in Exhibit 3.3-43.

Student growth in the 2021 timeframe are very similar among all alternatives. By 2036, Alternative 1 would place greater growth in the district than the other Alternatives 2 and 3, and Alternative 2 the least.

Central Kitsap High School

Exhibit 3.3-42. North Kitsap School District Level of Service Analysis – Student Capacity

Time Period	Student per SF Household Ratio	Student per MF Household Ratio	SF Households	MF Households	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2015	0.52	0.36	15,890	4,934	6,137	6,465	328	8,440	2,303
2021 Alternative 1 No Action	0.52	0.36	17,194	5,371	10,874	6,465	(4,409)	8,440	(2,434)
2021 Alternative 2 Whole Community	0.52	0.36	17,460	5,471	12,837	6,465	(6,372)	8,440	(4,397)
2021 Alternative 3 All Inclusive	0.52	0.36	17,440	5,471	13,474	6,465	(7,009)	8,440	(5,034)
2036 Alternative 1 No Action	0.52	0.36	20,899	5,471	12,837	6,465	(6,372)	8,440	(4,397)
2036 Alternative 2 Whole Community	0.52	0.36	22,064	5,559	13,474	6,465	(7,009)	8,440	(5,034)
2036 Alternative 3 All Inclusive	0.52	0.36	22,276	5,574	13,590	6,465	(7,125)	8,440	(5,150)

Notes:

2015 Total Enrollment is from May 2015.

The 2015 SF Households and MF Households are 2012 household numbers.

Source: OSPI, 2015; OFM, 2015; BERK, 2015.

Exhibit 3.3-43. Central Kitsap School District Level of Service Analysis: Student Capacity

Time Period	Student per Household Ratio	Households	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2015	0.46	27,081	11,108	11,049	(59)	12,680	1,572
2021 Alternative 1 No Action	0.46	29,216	13,439	11,049	(2,390)	12,680	(759)
2021 Alternative 2 Whole Community	0.46	29,242	13,451	11,049	(2,402)	12,680	(771)
2021 Alternative 3 All Inclusive	0.46	29,274	13,466	11,049	(2,417)	12,680	(786)
2036 Alternative 1 No Action	0.46	35,255	16,217	11,049	(5,168)	12,680	(3,537)
2036 Alternative 2 Whole Community	0.46	34,515	15,877	11,049	(4,828)	12,680	(3,197)
2036 Alternative 3 All Inclusive	0.46	34,969	16,086	11,049	(5,037)	12,680	(3,406)

Notes:

2015 Total Enrollment is from May 2015.

The 2015 SF Households and MF Households are 2012 household numbers.

Source: OSPI, 2015; OFM, 2015; BERK, 2015.

Bremerton School District

Bremerton High School Graduation 2015

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 3.3-44. BSD will see a surplus in 2021 due to projected enrollment growth if temporary capacity is considered and a deficit with permanent capacity. With permanent or temporary capacity there would be a deficit by 2036, and the District does not have adequate portable facilities to serve total enrollment under all planning alternatives.

South Kitsap School District

SKSD is currently meeting the LOS standard through the use of portables, which gives it a total available capacity greater than current enrollment. It is not meeting its standard through permanent facilities alone.

Exhibit 3.3-45 shows the estimated level of service under each alternative.

If growth in households occurs as predicted with the land capacity analysis, SKSD would need to increase capacity to meet its LOS standard. The District would have the greatest student growth of any district, under any alternative. Alternative 1 has the greater impact as it retains the Port Orchard UGA boundary, whereas in Alternatives 2 and 3 the UGA boundary is reduced and the student population accordingly would be reduced.

Students at a Festival

Orchestra Students

Comparison of Alternatives

Typically Alternative 3 would produce greater growth in most districts with the exception of Central Kitsap where Alternative 1 has slightly more growth. There would be an intensification of population in existing UGA boundaries under Alternative 2 which may result in particular capacity needs at existing schools, such as in the central county. There may be less but still substantial growth in south county with the reduction of the Port Orchard UGA.

Exhibit 3.3-44. Bremerton School District Level of Service Analysis: Student Capacity

Time Period	Student per SF Household Ratio	Student per MF Household Ratio	SF Households	MF Households	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2015	0.37	0.22	13,801	7,821	5,111	6,673	1,562	7,753	2,642
2021 Alternative 1 No Action	0.37	0.22	15,194	8,668	7,529	6,673	(856)	7,753	224
2021 Alternative 2 Whole Community	0.37	0.22	14,998	8,553	7,431	6,673	(758)	7,753	322
2021 Alternative 3 All Inclusive	0.37	0.22	15,098	8,603	7,479	6,673	(806)	7,753	274
2036 Alternative 1 No Action	0.37	0.22	18,605	11,065	9,318	6,673	(2,645)	7,753	(1,565)
2036 Alternative 2 Whole Community	0.37	0.22	17,098	10,632	8,665	6,673	(1,992)	7,753	(912)
2036 Alternative 3 All Inclusive	0.37	0.22	17,595	10,712	8,867	6,673	(2,194)	7,753	(1,114)

Notes:

2015 Total Enrollment is from May 2015.

The 2015 SF Households and MF Households are 2012 household numbers.

Source: OSPI, 2015; OFM, 2015; BERK, 2015.

Exhibit 3.3-45. South Kitsap School District Level of Service Analysis: Student Capacity

Time Period	Student per SF Household Ratio	Student per MF Household Ratio	SF Households	MF Households	Total Enrollment	Permanent Capacity	Net Reserve or Deficit	Total Capacity	Net Reserve or Deficit
2015	0.52	0.36	20,208	6,994	9,628	9,065	(563)	10,696	1,068
2021 Alternative 1 No Action	0.52	0.36	22,163	7,612	14,265	9,065	(5,200)	10,696	(3,569)
2021 Alternative 2 Whole Community	0.52	0.36	22,220	7,650	14,309	9,065	(5,244)	10,696	(3,613)
2021 Alternative 3 All Inclusive	0.52	0.36	22,209	7,657	14,305	9,065	(5,240)	10,696	(3,609)
2036 Alternative 1 No Action	0.52	0.36	28,530	8,084	17,746	9,065	(8,681)	10,696	(7,050)
2036 Alternative 2 Whole Community	0.52	0.36	29,280	7,268	17,842	9,065	(8,777)	10,696	(7,146)
2036 Alternative 3 All Inclusive	0.52	0.36	29,340	7,268	17,873	9,065	(8,808)	10,696	(7,177)

Notes:

2015 Total Enrollment is from May 2015.

The 2015 SF Households and MF Households are 2012 household numbers.

Source: OSPI, 2015; OFM, 2015; BERK, 2015.

3.3.5.3. Mitigation Measures- Schools

Incorporated Plan Features

- Alternatives 2 and 3 amend the CFP to address the new 2016-2036 planning period.
- The County's regular review of the CFP in coordination with the school districts should allow for ongoing long-range planning for educational services.

Regulations and 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 Proposed 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. Significant Unavoidable Adverse Impacts - Schools

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. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

3.3.6. Solid Waste

3.3.6.1. Affected Environment – Solid Waste

Washington State law (RCW 70.95) requires counties to plan an integrated solid waste management system that emphasizes waste reduction and recycling. Chapter 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 system is a combination of private companies and public agencies. Exhibit 3.3-46 shows the current inventory of solid waste facilities. The facilities are owned and operated by different entities in Kitsap County.

Exhibit 3.3-46. Current Facilities Inventory – Solid Waste

Name	Owner	Operator	Location
Solid Waste Disposal			
Olympic View Transfer Station (OVTS)	Kitsap County Public Works (KCPW)	Waste Management Washington, Inc. (WMWI)	City of Bremerton
Olalla Recycling and Garbage Facility (RAGF)	KCPW	Contractor Operated	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	Contractor Operated	Central Kitsap
Bainbridge Island Transfer Station	Bainbridge Disposal	Bainbridge Disposal	City of Bainbridge Island
Moderate Risk Waste Disposal			
Household Hazardous Waste Collection Facility	KCPW	KCPW	City of Bremerton
Residential Recyclables Collection			
OVTS Recycling Area	KCPW	WMWI	City of Bremerton
Olalla RAGF	KCPW	Contractor Operated	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	Contractor Operated	Central Kitsap
Bainbridge Island Transfer Station	Bainbridge Disposal	Bainbridge Disposal	City of Bainbridge Island
Poulsbo Recycle Center	KCPW	KCPW	City of Poulsbo

Source: Keli McKay-Means, Projects and Operations Manager of Kitsap County Public Works Solid Waste Division, 2015.

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 2011, Kitsap County adopted its Comprehensive Solid and Hazardous Waste Management Plan, entitled *Waste Wise Communities: The Future of Solid and Hazardous Waste Management in Kitsap County* (Kitsap County 2011). 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.

Olympic View Transfer Station

Silverdale RAGF

Solid Waste Landfill

The County is currently under contract with Waste Management, Inc. to operate the County's Olympic View Transfer Station (OVTS) and send solid waste by rail to Waste Management's Columbia Ridge Landfill. This contract expires in 2022. OVTS is designed for a maximum daily processing of 1,000 tons of waste, which exceeds the maximum projected volume of 800-900 tons per day in 2036. The landfill has capacity for 50 to 100 years and has additional acreage that could be permitted to increase its capacity further.

Planning at Kitsap County and Waste Management occurs on a yearly basis based on future projected needs. The County has adequate time to plan for 2036 levels of waste generation, and projected levels could be accommodated at OVTS and the current landfill site. Prior to the expiration of the existing contract, the County will issue a Request for Proposals for qualified contractors to continue to maintain solid waste levels of service.

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 capital facilities planning 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 2025 and beyond if a new or extended contact is enacted.

Level of Service Capacity Analysis / Comparison of Alternatives

The existing level of service 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 Kitsap County's Solid and Hazardous Waste Management Plan. If the generation rates from this plan are carried forward in 2021 and 2036, the tons of solid waste and recycling generated per year would be lowest with Alternative 1 and highest with Alternative 3.

Exhibit 3.3-47. Level of Service Requirement Analysis – Kitsap County Solid Waste System

Time Period	Countywide Populations	SW Disposal Rate (lbs/ cap/ day)	SW Tons Disposed per Year	SW Recycling Rate (lbs/ cap/ day)	Recycled Tons per Year
2015	258,200	5	235,608	2	94,243
2021 No Action	277,903	5	253,586	2	101,435
2021 Alternative 1	278,313	5	253,961	2	101,584
2021 Alternative 2	278,697	5	254,311	2	101,724
2036 No Action	329,923	5	301,055	2	120,422
2036 Alternative 1	331,550	5	302,539	2	121,016
2036 Alternative 2	333,076	5	303,932	2	121,573

Notes: *SW Generation Rate shown is calculated from SW produced within Kitsap County and North Mason County.

** SW generated does not include recyclables

Source: Personal Communication with Keli McKay-Means, Projects and Operations Manager, Kitsap County Public Works Solid Waste Division, 2015; BERK, 2015.

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. Alternative 2 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 Proposed Mitigation Measures

- Based on available landfill capacity at the County's current contracted landfill location a new or extended contact could be enacted to provide landfill capacity well beyond the 2036 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. With Solid Waste Management Plans, regularly updated as appropriate, no significant unavoidable adverse impacts are anticipated.

3.3.7. Wastewater

3.3.7.1. Affected Environment - Wastewater

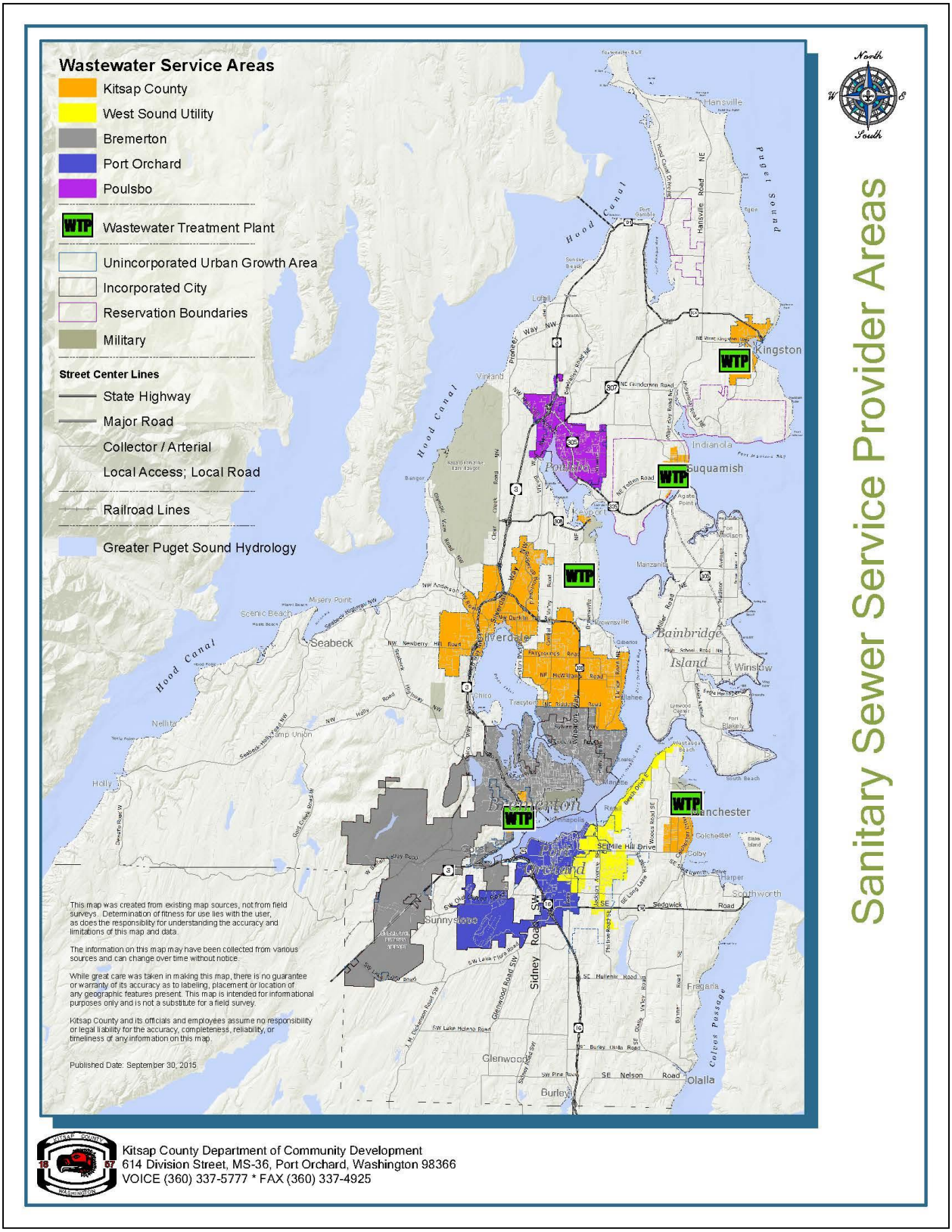
According to the *2012 Kitsap County Capital Facilities Plan*, there are a total of 13 wastewater collection systems and 10 wastewater treatment facilities in Kitsap County, which serve approximately 40% of the total County population. The majority of the rural population uses on-site septic systems.

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 millsite;
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 3.3-48.

Exhibit 3.3-48. Wastewater Service Areas



Source: Kitsap County Department of Community Development 2015

Inventory of Current Facilities

An inventory of the existing municipal, county and private wastewater facilities located in Kitsap County is presented in this section. This inventory is summarized in Exhibit 3.3-49. Columns (4) – (6) show the LOS as flow design capacity in millions of gallons per day (mgd), 2014 existing flow capacity, and corresponding 2014 flow capacity surpluses or deficits for each of the 10 major wastewater management systems in the County. Column (7) shows the existing populations served within each wastewater system and Column 8 identifies existing connections. Surplus or deficits in the ability to serve equivalent residential units are stated in Column 9. Additional descriptions and maps of systems are provided in the Draft CFP under separate cover.

Exhibit 3.3-49. Kitsap County Public Sewer System Inventory

	Collection System		Treatment Plant			Service Area		
Name	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2015 Population Served	Existing Connections ERU (2)	Surplus/ Deficit ERU (3)
CITY SEWER SYSTEMS								
City of Bremerton [2013]	176	Completed improvements to reduce overflows to one event per year, per outfall on 5-year avg. during design storm, in all drainage basins. Minor overflows to be reduced to one event/yr in 5 years.	10.0	15.5	5.5	38,309		
City of Port Orchard	70	5 pump station upgrades are included in the 6-year CIP. 1 pump station upgrade and 8,500 LF of gravity pipe upgrades are included in the 20-year CIP. 1 additional pump station will be upgraded with developer funding.	0.9	2.1	1.1	11,550	5,509	6,100

	Collection System		Treatment Plant			Service Area		
Name	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2015 Population Served	Existing Connections ERU (2)	Surplus/ Deficit ERU (3)
NOTE: Treatment plant is jointly owned by the City of Port Orchard and WSUD with a design flow capacity of 4.2 mgd. WSUD is responsible for daily operation of the plant.								
City of Poulsbo	31	The City currently pumps sewage for Central Kitsap Wastewater Plant.	0.61	0.95	0.34	9,950	4,540	1,940
NOTE: The 6.0 mgd design flow for CKTP includes the 0.95 mgd allocated to the City of Poulsbo. Kitsap County reserves treatment capacity to Poulsbo for0.95 mgd ADF. City of Poulsbo currently removes infiltration and inflow.								
West Sound Utility District	55	Upgraded to replace mains with insufficient capacity. Can meet current community needs.	1.0	2.1	1.1	14,000	5,705	6,100
NOTE: Treatment plant is jointly owned by Port Orchard and the District. The District is responsible for operation of the plant. The plant capacity has been increased.								
KITSAP COUNTY SYSTEMS								
Central Kitsap Wastewater Facilities	145	Several flow capacity and aging infrastructure problems have been identified.	4.44	6.0	1.56	44,476	14,042	6,240
NOTE: The Central Kitsap treatment plant serves the Silverdale and Central UGAs (existing connections), as well as is contracted to receive sewage from US Navy at Bangor and Keyport and also from City of Poulsbo.								
Kingston Sewer Facilities	14.1	Wastewater collection system has sufficient capacity for projected future flows.	0.127	0.292	0.165	1,900	754	660
NOTE: The Kingston treatment plant serves the Kingston UGA.								
Suquamish Sewer System	10	No critical pipe flow problems identified. Average of 3 highest monthly	0.43	0.40	-0.03	2,248	944	-120

	Collection System		Treatment Plant			Service Area		
Name	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2015 Population Served	Existing Connections ERU (2)	Surplus/ Deficit ERU (3)
		flows at WWTP is 0.37 mgd.						
NOTE: The Suquamish treatment plant serves the Suquamish LAMIRD and is contracted to receive sewage from the Suquamish Tribal community.								
Manchester Sewer Facilities	12.3	Facility Plan does not address existing conditions of the collection system.	0.28	0.46	0.18	2,193	925	720
NOTE: The Manchester treatment plant serves the Manchester LAMIRD.								
Navy Yard City (Sewer Dist. #1)	9.2	Significant amount of I/I identified in the older sewers in this service area.		0.40 (see notes)		2,947	2,258	
NOTE: The Navy Yard City sewer system serves a portion of the West Bremerton UGA. The conveyance systems is owned and managed by Kitsap County and current discharge contract with the City of Bremerton limits flows to 0.40 mgd ADF.								
Port of Bremerton Industrial Area	1.6		10,000-15,000 gpd	72,500 gpd	57,000-62,500 gpd	400	160	1000

Sources: Kitsap County; Cities of Bremerton, Port Orchard, and Poulsbo; West Sound Utility District; Parametrix 2012; BHC Consultants 2015

Notes:

mgd = million gallons per day

1. Based on the average day flow during the peak flow month (ADF: basis of National Pollutant Discharge Elimination System [NPDES] permits)

2. "ERU" means equivalent residential unit. For Kitsap County owned and operated WWTPs, ERUs include residential, multi-family, commercial and restaurant accounts as provided by Kitsap County Public Works.

3. Residential connections assume 100 gallons per capita per day and an average of 2.5 persons per residence (250 gpd/ERU).

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3.3.7.2. Impacts - Wastewater

Level of Service

The adequacy of existing sewer facilities to meet present and future needs is based on the estimated gallons per day of wastewater for the current sewered population and for the projected future sewered population. It is also based on an assumed existing and planned Level of Service (LOS) for sewer service. There is an average of 2.5 people per household in Kitsap County. Current wastewater flow data indicates that an average of 70 to 100 gallons per capita per day (GPCD) is used. With an average of 2.5 people per dwelling unit, a residential connection will generate a demand for treatment of 250 gallons per day. These characteristics serve as a planning standard or LOS for sewer service during the next 20-year planning period. Based on this standard and sewered population allocation, it is possible to identify future

deficiencies in various sewer systems and the capital projects necessary to correct those deficiencies. Current wastewater flow data from Kitsap County facilities indicates that approximately 70 GPCD may be a more representative of typical sewer service demand, so the 250 gpd LOS standard is likely somewhat conservative.

Impacts of UGA Alternatives on Kitsap County Sewer Utility

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.

For summary purposes, Exhibit 3.3-50 provides an overview of capital costs by study alternatives. 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.

Exhibit 3.3-50. Sewer Cost Comparison by Provider and Alternative 2016-2036 (All Amounts in $1,000)

UGA	No Action	Alternative 2	Alternative 3
Bremerton (City)	$225,406	$225,406	$225,406
Port Orchard (City)	$7,470	$7,470	$7,470
WSUD*	$36,410	$31,810	$31,810
Poulsbo (City)	$9,075	$9,075	$9,075
Kitsap County	$353,816	$348,416	$369,416

Note: A capital project list in the Draft Capital Facilities Plan shows approximately $31,685 for the No Action; and it is assumed the order of magnitude difference would be similar to this table. This would equal $27,085 for the Action Alternatives. This will be clarified with the capital list associated with a Preferred Alternative.

Source: WSUD 2015; BHC 2015

Impacts of Alternative 1

Kitsap County Sewer Facility

Exhibit 3.3-51 provides a comparison of Kitsap County Sewer Utility costs by alternative, and shows the relative demand for sewer facilities. Under the Alternative 1 No Action, the Kitsap County Public Works has identified 28 capital sewer projects for the existing sewer system infrastructure, including treatment facilities, at a cost of approximately $104,200,000 for the 6-year CIP and $185,400,000 for the 20-year CIP (Exhibit 3.3-51). Most of these projects are for replacement of aging infrastructure and capacity increases to accommodate growth. A relatively small fraction of the costs is related to upgrade of treatment facilities to produce reclaimed water.

The extension of sewer service beyond the existing County sewer systems for the No Action Alternative is estimated to consist of the construction of an additional 9 medium sized pump stations, 34 small pump stations, 14.8 miles of new force mains and 44.2 miles of gravity sewer pipe. These facilities would be constructed as growth occurs in the new service areas. The cost for the new infrastructure is estimated to be approximately $168.4 million.

Capacity upgrades at the four wastewater treatment plants would be constructed when increasing wastewater flows and/or loadings approach the threshold limits stated in the discharge permits issued for each facility.

Exhibit 3.3-51. Kitsap County Sewer Utility Cost Comparison by UGA Alternative (Thousands $)

UGA	No Action	Alternative 2	Alternative 3
Central County Sewer Service Area			
Central Kitsap UGA (Conveyance)	116,991	111,591	125,791
Silverdale UGA (Conveyance)	132,731	132,731	136,131
Keyport LAMIRD (Conveyance)	13,328	13,328	13,328
Central Kitsap WWTP	43,443	43,443	43,443
Kingston			
Kingston Conveyance	28,480	28,480	31,880
Kingston WWTP	4,300	4,300	4,300
Manchester Conveyance	13,093	13,093	13,093
Suquamish WWTP	1,450	1,450	1,450
TOTAL	353,816	348,416	369,416

Source: BHC 2015

Other Municipal Systems

There would be no change in UGA boundaries and current municipal system plans would apply.

Impacts of Alternative 2

Kitsap County Sewer Facility

Improvements to the existing sewer system infrastructure, including treatment facilities, for Alternative 2 would be the same as those identified for the No Action Alternative with the following major service area exceptions (see Draft CFP for additional details):

- Reduction of the UGA and associated removal of sewer service area in the southwest region of the Central Kitsap UGA

The extension of sewer service beyond the existing County sewer systems for Alternative 2 is estimated to consist of the construction of an additional 6 medium sized pump stations, 36 small pump stations, 15.5 miles of new force mains and 42.0 miles of gravity sewer pipe. These facilities would be constructed as growth occurs in the new service areas.

The total costs for Alternative 2 County sewer utility infrastructure improvements are estimated to be approximately $5.4 million less than the costs for the Alternative 1 No Action Alternative improvements.

Other Municipal Systems

The reduction of the East Bremerton UGA would mean less sewer facility costs for the City of Bremerton should the area be annexed as documented in the Kitsap County Sewer Facility discussion above. The expansion of the West Bremerton UGA would require sewer service, and the City has analyzed its system in its Kitsap Lake Basin in the 2014 Wastewater Comprehensive Plan.

The reduction of the Port Orchard UGA would reduce sewer extension costs for WSUD; the sewer rates to support the treatment plant may rise depending on the customer base. The intensification of housing in the Port Orchard UGA under Alternative 2 with the increased Urban Medium Residential zoning may mean greater population to be served in a smaller boundary.

Impacts of Alternative 3

Kitsap County Sewer Facility

Improvements to the existing sewer system infrastructure, including treatment facilities, for Alternative 3 would be the same as those identified for the No Action Alternative except as follows (see Draft CFP for additional details):

- Addition of sewer service area in the Tracyton (Barker Creek) area and in the Central Valley area north of Waaga Way in the Central Kitsap UGA
- Addition of sewer service area to serve the Chico area in the Silverdale UGA
- Addition of sewer service area to the southwest region of the Kingston UGA that would serve development north of Jefferson Point Road.

The extension of sewer service beyond the existing County sewer systems for Alternative 3 is estimated to consist of the construction of an additional 10 medium sized pump stations, 37 small pump stations, 16.2 miles of new force mains and 48.8 miles of gravity sewer pipe. These facilities would be constructed as growth occurs in the new service areas and are estimated to cost approximately $184 million. (See Appendix C) The

total costs for Alternative 3 County sewer utility infrastructure improvements are estimated to be approximately $15.6 million more than the costs for the Alternative 1 No Action Alternative improvements.

Other Municipal Systems

The reduction of the East Bremerton UGA would mean less sewer facility costs for the City of Bremerton should the area be annexed as documented in the Kitsap County Sewer Facility discussion above.

The expansion of the West Bremerton UGA would be greater than under Alternative 2 and would require sewer service.

- The City has analyzed its sewer system needs in its Kitsap Lake Basin in the 2014 Bremerton Wastewater Comprehensive Plan.
- Alternative 3 proposes a UGA expansion in the Sherman Heights area of West Bremerton based on a private reclassification request. The City has indicated it does not wish to add the reclassification request Curtiss-Avery. See Chapter 4, Section 4.2.7. The City's sewer plans do not address the area west of its assigned UGA in this location.

Alternative 3 reduces the Port Orchard boundary though to a lesser degree than Alternative 2. The reduction of the Port Orchard UGA would reduce sewer extension costs for WSUD; the sewer rates to support the treatment plant may rise depending on the customer base. The density is more predominantly Urban Low Residential than for Alternative 2.

3.3.7.3. Mitigation Measures- Wastewater

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 and 3.
- 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. Alternative 3 provide for lesser expansions in some locations and greater expansions in others which may increase the demand for service locationally and reduce it in others.

Regulations and 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 Proposed 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. Significant Unavoidable Adverse Impacts - Wastewater

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 would be anticipated within the range of alternatives reviewed.

3.3.8. Stormwater

3.3.8.1. Affected Environment - Stormwater

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. See Exhibit 3.3-52.

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 3.3-52.

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. Approximately 43% of the 2016 Stormwater Division Program budget is slated for inspection, maintenance, and retrofitting of County stormwater facilities.

Exhibit 3.3-52 Current Stormwater Facilities Inventory

Type of System	Quantity
Detention Pond	**259**
Detention Tank or Vault	**74**
Retention Pond	**71**
Water Quality Wet-Pond	**34**
Biofiltration Swale	**139**
Bioretention Facility	**6**
Infiltration Basin	112
Infiltration Trench	31
Underground Water Quality Filter	**7**
Tidegate	13
Hydro-Dynamic WQ Treatment Device	**25**
Tree-Box Filter	**??**
Total Facilities	**771**

Source: Kitsap County Stormwater Division 2015.

3.3.8.2. Impacts - Stormwater

Impacts Common to All Alternatives

Level of Service

The goals and objectives of the County's Stormwater Program reflect the level of service (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 level of service expectations.

The current level of service complies with applicable state regulations. Under all alternatives, land development activities requiring land use approval from Kitsap County would be conditioned to meet the water quality, runoff control, and erosion control requirements of Kitsap County's Stormwater Design Manual, which was adopted by the Board of Commissioners, amended in August of 2009 and implemented in February of 2010.

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 National Pollution Discharge Elimination System permit for Western Washington as of 2007. Alternative design criteria are pending by December 2016 based on the National Pollution Discharge Elimination System permit for Western Washington Phase II, issued by the Department of Ecology in 2013. The 2013 permit requires flow control down to 8% of the 2-Year storm. Kitsap County intends to adopt that standard by December 2016.

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 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 the 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

Alternative 1 would likely result in increased levels of urbanization, adding impervious surfaces and the need for stormwater drainage and treatment facilities. See Section 3.1.3 for an analysis of impervious surface area.

Impacts of Alternative 2

Alternative 2 would result in slightly higher levels of urbanization than in Alternative 1 but within smaller UGA boundaries. The amount of development and impervious surface would be similar to Alternative 1. See Section 3.1.3 for an analysis of impervious surface area.

Impacts of Alternative 3

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 UGA boundaries compared to Alternatives 1 and 2. See Section 3.1.3 for an analysis of impervious surface area.

3.3.8.3. Mitigation Measures- Stormwater

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 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 and 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 regulations addressing clearing and grading, critical areas, and flood hazard areas also direct how stormwater mitigation will be implemented.
- The 2013-2018 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, revised by Ecology in 2016.
- Kitsap County 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 Proposed Mitigation Measures

See Section 3.2.

3.3.8.4. Significant Unavoidable Adverse Impacts - Stormwater

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 determine whether adequate supplies and facilities are available for water service in the county as its population increases.

3.3.9.1. Affected Environment – Water Supply

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 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 connections or serving less than 25 people, serve approximately 5% 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. Exhibit 3.3-53 below shows the breakdown of population in the County served by the various types of water systems.

Exhibit 3.3-53. Percent Connections Served by Type of Water Supply System

Type of Water Supply System	Percent (%) Public Connections
Group A Public Water Systems	**95**
Group B Public Water Systems	**5**
Total	**100**

Source: Washington State Department of Health, 2015.

Kitsap County Water Planning Programs

Kitsap Public Utility District (KPUD) has been designated by the Kitsap County Board of Commissioners 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. The District, 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).

The September 2011 CWSP Update addresses only those eight water systems that meet the Department of Health definition of "expanding." These include the Indian Hills, Indianola, Keyport, North Bainbridge, North Peninsula, Suquamish, Vinland, and West Kitsap systems.

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.

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.

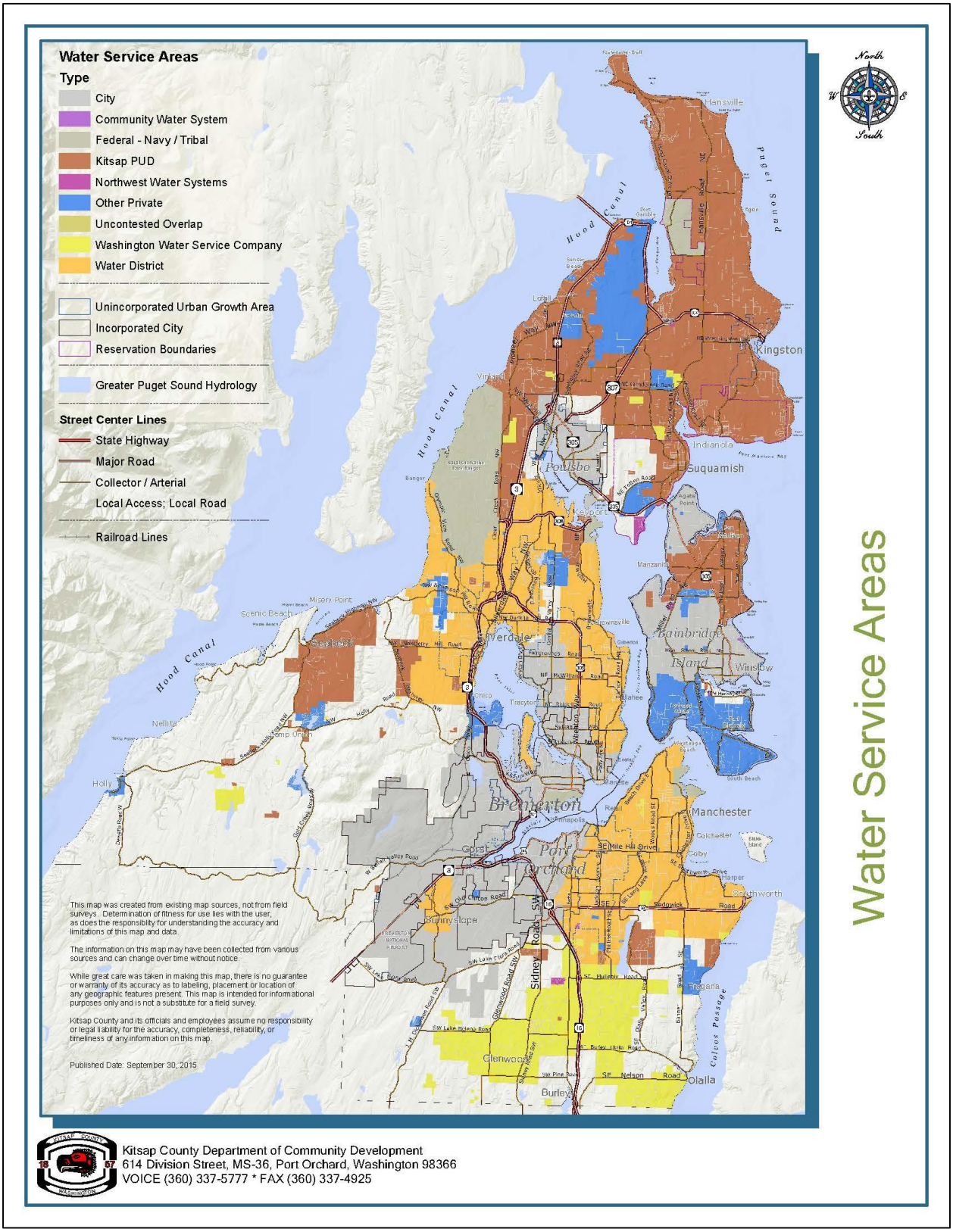
Water utilities conduct leak detection programs that identify problem water losses in distribution systems. The Kitsap County WATERPAK plans to evaluate a regional approach to leakage analysis efforts.

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

Major providers are shown in Exhibit.

Exhibit 3.3-54. Water Service Areas – Kitsap County



Source: Kitsap County Department of Community Development 2015

Exhibit 3.3-55 shows the current inventory and capacity for the Group "A" Community Water Systems that currently serve the County with 50 approved DOH connections or more. The inventory includes the name of the water system, existing and approved DOH connections, and the capacity of each system.

Exhibit 3.3-55. Current Facilities Inventory – Group "A" Community Water Systems Over 50 Connections

50+ Connections	Connections[1]		Water Rights [2]			System Information		
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)[2]	Storage Capacity[1] (gal in 1,000)	System Owner/ Op [1,3]
Alpinewood	98	99	44.6	161		300	0	WW
Bainbridge Island, City of	2,709	Unspec	2,564	3,456	0.35	1,993	2,800	COBI
Bear Cub	55	70	49.5	107		160	17	NWW
Bethel East	52	55	17	20		120	11	NWW
Bill Point Water	84	84	64.2	42		66	30	NWW
BKS	71	73	35	126		180	0	WW
Bremerton West 517 Zone, City of	137	Unspec	6,658	5,743		8,820	1,210	
Bremerton, City of	18,063	Unspec	N/A	17,952	40	13,200	33,200	COB
Bucklin	92	121	42.5	139		114	117	WW
Cedar Glen Mobile Home Park	137	137	31	100		120	32	NWW
Cedarbrook	34	56	30	600		232	0	WW
Driftwood Cove	67	120	32	50		50	83	KPUD
Eldorado Hills	153	157	69	225		210	254	KPUD
Emerald Heights	84	92	90	150		152	95	
Erland Point Water Co	936	Unspec	1344	900	0.25	500	385	
Foss Road	42	51	-	-		-	35	WW
Fragaria Landing	85	86	32	98		177	28	
Gala Pines Water	52	52	54	154		150	50	KPUD
Glenwood Station	60	62	25	100		100	47	WW
Harbor Heights	71	71	22	100		135	20	WW
Hintzville Acres	66	66	32.5	105		82	11	WW
Holly	84	107	26	110		85	30	NWW
Horizons West	998	Unspec	449	856		1,210	555	WW
Indian Hills Estates	141	148	75	100		110	31	KPUD
Indianola Water	699	Unspec	300.4	500		481	287	KPUD
Island Lake	316	441	92	80		140	209	AU
Island Utility	171	455	336	300		310	406	KPUD
Jackson Park Naval Hospital	320	Unspec	-	-		-	3,500	
Johanson	54	56	-	-		-	35	WW
Keyport Water	422	Unspec	858	650		600	401	KPUD

50+ Connections	Connections[1]		Water Rights [2]			System Information		
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)[2]	Storage Capacity[1] (gal in 1,000)	System Owner/ Op [1,3]
Kitsap Memorial State Pk	38	50	-	-		-	20	
Kitsap West MHC Water Co	96	146	45	250		80	7	
Little Tree	54	54	36	100		70	35	WW
Long Lake View Est 2 5	364	399	152.4	260		212	187	KPUD
Mainland View Manor	54	57	32.5	150		150	0	WW
Manchester Water District	3,253	Unspec	1,673.7	2,260		3,630	3,200	
Martell Mobile Manor	79	79	39.5	171		140	38	NWW
McCormick Woods	803	Unspec	450	600		1,830	569	
Meadowmeer	306	335	150	250		320	225	
Miller Bay	420	460	112	200		170	167	KPUD
Minter Creek Rapids	49	55	93	250		235	0	WW
Naval Base Kitsap At Bangor (Subase Bangor)	2,348	Unspec	N/A	N/A		3,050	3,500	
Naval Base Kitsap At Bremerton (Puget Sound Naval Yard)	1,042	Unspec	N/A	N/A		INPORT	2,500	
Naval Base Kitsap At Keyport (Navy Undersea War Ctr.)	176	Unspec	N/A	N/A		1,000	600	
Navy Yard Park	105	121	48	52		52	110	KPUD
Newberry Hill	76	140	1,720	1,950		100\200	749	KPUD
North Bainbridge Water Co	1,800	Unspec	1974	1475		911	842	KPUD
North Peninsula	4,975	Unspec	2,341.5	1,880		1,880	2,602	KPUD
North Perry Ave Water District	7,589	Unspec	4,089.6	4,540		3,560	4,750	
Olalla	74	99	55	130		130	24	WW
Olympic View Mobile Manor	76	76	13	26		70	5	PLC
Parkview Terrace	806	1067	587.1	748		1,580	699	WW
Pine Lake Mobile Home Est 1 3	79	82	48.6	112		138	0	
Port Gamble	48	61	-	-		-	46	KPUD
Port Madison Water Company	100	144	80	30		158	65	KPUD
Port Orchard Water Dept	3,132	Unspec	2,330	1,600		2,600	4,300	
Poulsbo, City Of	5,396	Unspec	2,147	1,940	1.2	2,060	3,050	
Priddy Vista	83	85	56	47		123	47	KPUD
Rockaway Beach Water	69	88	80	34		80	132	
Rocky Point Water District 12	687	1,000	N/A	N/A		INPORT	0	

50+ Connections	Connections[1]		Water Rights [2]			System Information		
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)[2]	Storage Capacity[1] (gal in 1,000)	System Owner/ Op [1,3]
Sandy Hook Park Community Club	97	189	80	160		57	61	NWW
Seabeck	212	300	3,000	2,000		600	580	KPUD
Silverdale Water Dist 16	8,688	Unspec	4,664.9	4,835	0.78	6,730	5,184	
South Bainbridge	1,145	1,416	902.5	767	0.11	625	807	KPUD
Strattonwood	80	99	40.5	160		160	37	WW
Strawberry Hill	94	94	83.7	125		125	80	KPUD
Sunnyslope	375	455	1,456.6	200		270	375	
Suquamish	1,470	Unspec	800	1,650		1,240	816	KPUD
Surfrest Park Water Company	48	54	47	105		110	50	KPUD
Tahuyeh Lake Community Club	224	259	2,000	334		196	106	NWW
Viewside Community	49	64	36	125		175	40	KPUD
Vinland	1,258	Unspec	1,008	1,183		1,530	1,150	KPUD
West Kitsap	665	740	596	1,475		-	278	KPUD
West Sound Utility District #1	7,707	Unspec	-	-		-	4,100	
Wicks Lake Ranches	228	355	142	300		225	56	WW
Total	88,741	11,282	57,680.8	56,239	42.94	63,216	84,898	

(1) Data obtained from Department of Health Drinking Water Sentry Database September 2015

(2) Data from 2012 Kitsap County Capital Facilities Plan

(3) System Operator or Owner: AU –Aquarius Utilities; COB – City of Bremerton; COBI – City of Bainbridge Island; COPO – City of Port Orchard, KPUD – Kitsap Public Utility District; NWW – Northwest Water; PLC – Peninsula Light; WW – Washington Water Service

Qa = Annual Quantity; Qi = Instantaneous Quantity; afy = Acre Feet per Year; gpm = gallons per minute; cfs = cubic feet per second.

Unspec – Unspecified by DOH – System sets capacity; NA = Not Applicable

Note: Totals are shown for systems with multiple water rights, not by water system name. This table may not present water rights information pertaining to those systems for which the owner's name differs from the water system name.

All of the Group "A" water systems inventoried in Exhibit 3.3-55 for Kitsap County have sufficient water resources to meet existing average demand. See Exhibit 3.3-56.

Exhibit 3.3-56. Summary of Existing Water Rights Information[1,2]

	North Kitsap	Bainbridge Island	Central Kitsap	South Kitsap	Total
Ground Water Rights					
Qa (afy)	10,965	10,282	26,649	17,044	64,940
Qa (mgd)	9.78	9.17	23.77	15.2	57.93
Qi (gpm)	12,864	11,618	26,424	23,452	74,358
Qi (mgd)	18.52				
Surface Water Rights					

	North Kitsap	Bainbridge Island	Central Kitsap	South Kitsap	Total
Qa (afy)	762	102	715	626	2205
Qa (mgd)	0.68	0.09	0.64	0.56	1.97
Qi (cfs)	28.89	2.71	38.13	41.26	110.99
Qi (mgd)	0.04	0	0.05	0.06	0.16
Total					
Qa (mgd)	10.46	9.26	24.41	15.76	59.9
Qi (mgd)	18.57	16.73	38.1	33.83	107.24

Notes:

(1) Data from 2012 Kitsap County Capital Facilities Plan.

(2) All water rights, permits, and certificates within Kitsap County, including municipal, commercial/industrial, domestic, irrigation, and rights for all other purposes of use.

Qa = Annual Quantity; Qi = Instantaneous Quantity; afy = acre-feet per year; cfs = cubic feet per second; mgd = million gallons per day

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

Exhibit 3.3-57 from the CWSP, shows the projected water demands for the county in 2010, 2020 and 2030. These calculations were based on the Puget Sound Regional Council's (PSRC) demographic forecasts for each forecast analysis zone (FAZ), on past water consumption rates and peaking factors, estimates of future commercial/industrial demand, and effects of conservation. Each of these is described in more detail in the following paragraphs.

The CWSP used water consumption rate estimates of 356 gallons per household per day (gphpd) inside UGAs and 237 gphpd outside UGAs, and a peaking factor of 2.32 to calculate future water demand. These figures are based on average trends in several representative water systems within the county. PSRC demographic forecasts were made at the FAZ level and then FAZs, UGAs and sub-areas were used to assess water demand and water use characteristics. When water districts plan for future growth, each calculates future demand based on past water use trends within the individual district.

Since rate estimates are based on past water consumption rates and do not account for the possibility of a new, large commercial or industrial water consumers, it was assumed in the CWSP that between 2000 and 2010, new industries with a total demand of 1.25 mgd would locate in the City of Bremerton's service area, while an additional 0.25 mgd of new industrial demand would develop elsewhere throughout the County. Additional new industrial demands of these same amounts were estimated to develop between the years of 2010 and 2020, and between 2020 and 2030 an additional 0.5 mgd industrial demand would develop in the City of Bremerton.

Effects of conservation were also incorporated into demand calculations to account for implementation of conservation and efficiency measures. WATERPAK, an organization of the larger water purveyors, has pursued an effective conservation program over the past decade. In most cases, larger systems have reduced water losses below ten percent of their water production. For the CWSP, a one percent per year reduction in water supply requirements was assumed for years 2001 through 2010. Further reductions

beyond 2010 were not included, based on the assumption that the majority of conservation gains, using current technology, will likely be realized by that time.

Exhibit 3.3-57. Water Demand Projections (in mgd) from the CWSP

Year	Average Day Demand (1)	Maximum Day Demand (2)
2010	30.03	69.67
2020	37.57	87.16
2030	42.89	99.5

Notes:

(1) Based on per household approach, including conservation and additional industrial water supply requirements.
(2) Based on peak day factor of 2.32

Source: Kitsap County Water Utility Coordinating Committee. 2005 (CWSP Table 7-10 Kitsap County Water Supply Requirement Projections (in mgd))

3.3.9.2. Impacts– Water Supply

Impacts Common to All Alternatives

Demand for water service would increase under any of the alternatives. See Exhibit 3.3-58. Water demand associated with residential, commercial and industrial land uses would be concentrated within UGAs under all alternatives. Capital projects to serve each alternative are noted in the Draft CFP under separate cover.

When reviewing Exhibit 3.3-58 below it is more important to consider the order of magnitude difference. The County's population estimates for each district are based on transportation analysis zones which overlap but do not coincide with the district's water service area boundaries. The result is a likely overestimation of the current and future population of each district. Further, water districts' baseline population estimates are taken from existing connections, which are converted to population estimates through persons per household assumptions. This approach does not account for households served by private systems and therefore may result in an under-estimate of actual population located within the district service area (but not an under-estimate of actual population served by the district).

Exhibit 3.3-58. Relative Growth in Households by Alternative and Water Provider

District	Total HHs 2012	Alt 1 No ActionTotal HH 2036	% Change Over 2012	Total HH 2036	% Change Over Alt 1	Total HH 2036	% Change Over Alt 1
90	243	297	22%	298	0%	298	0%
Annapolis (West Sound)	10,280	13,558	32%	13,075	-4%	12,721	-6%
City of Bainbridge Island	7,640	9,443	24%	9,487	0%	9,487	0%
City of Bremerton	19,531	26,755	37%	25,489	-5%	26,065	-3%
City of Port Orchard	5,135	9,440	84%	9,260	-2%	9,235	-2%
City of Poulsbo	5,054	6,332	25%	7,342	16%	7,342	16%
Crystal Springs	4,267	4,991	17%	5,399	8%	5,399	8%
Kitsap PUD	3,841	4,383	14%	4,670	7%	4,670	7%
Manchester	4,028	4,633	15%	4,749	3%	4,749	3%
North Peninsula - KPUD	8,357	10,608	27%	10,868	2%	10,936	3%

District	Total HHs 2012	Alt 1 No ActionTotal HH 2036	% Change Over 2012	Total HH 2036	% Change Over Alt 1	Total HH 2036	% Change Over Alt 1
North Perry	11,254	15,834	41%	14,598	-8%	14,661	-7%
Old Bangor	349	401	15%	411	2%	411	2%
Rocky Point	773	1,071	39%	1,038	-3%	1,111	4%
Silverdale	8,401	11,204	33%	11,403	2%	12,029	7%
Sunnyslope	681	2,507	268%	2,420	-3%	2,422	-3%
Tracyton	3,012	4,196	39%	3,711	-12%	3,710	-12%
Washington Water	3,488	4,013	15%	4,079	2%	4,079	2%
West Hill	2,637	3,078	17%	3,377	10%	3,377	10%

Note: HH = Household
Source: BERK Consulting 2015

Impacts of Alternative 1

Alternative 1 would create new demand for water across service provider districts, and would require additional water distribution infrastructure. See Exhibit 3.3-58.

Impacts of Alternative 2

Alternative 2 would concentrate growth within the smallest UGA boundaries, thereby limiting the amount of growth that could occur in 2036 in several districts (e.g. North Perry, Tracyton, Anapolis, Bremerton, Rock Point, Sunnyslope). In other areas the population would increase based on the approximate distribution of growth targets in the Countywide Planning Policies and the capacity of the Alternative in UGAs. Alternative 2 would require water distribution infrastructure to serve this development.

Impacts of Alternative 3

Compared to the other alternatives, Alternative 3 would have a net addition to UGAs in several locations, and reductions elsewhere. Alternative 3 would place greater growth in the Silverdale district than other alternatives. Other effects are similar to but greater in magnitude than Alternative 2.

3.3.9.3. Mitigation Measures– Water Supply

Incorporated Plan Features

- 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 expansion of distribution systems.
- 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 and 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.

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. Significant Unavoidable Adverse Impacts– Water Supply

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 and Telecommunications

3.3.10.1. Affected Environment – Energy and Telecommunications

Natural Gas

Overview

Natural gas provision 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, 2015)

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, 2012)

CNG's service area in Kitsap County includes Bangor, Bremerton, Chico, Gorst, Keyport, Manchester, Port Orchard, Poulsbo, Silverdale, and Sunnyslope. (Cascade Natural Gas, 2015) 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, 2015)

Projects – Local Improvements

The location, capacity and timing of improvements to the natural gas system provided by CNG depend on growth in the area and demand for expansion of the system. How the system expands will depend on right-of-way permitting, environmental impact, and opportunities to install gas mains as new development or utility maintenance occurs.

Cascade Natural Gas uses computer software to model individual service systems to determine constraint areas based on forecasts for demand. This allows CNG to determine where investments need to be made to meet demand for natural gas supplies. CNG has to manage both demand side (such as distribution capacity) and supply side (such as storage capacity) investments in its system since it is both receiving and distributing natural gas resources. (Cascade Natural Gas, 2015)

Increasing capacity on the existing system can occur through the following methods:

- Increasing pressures in the existing lines to add supply and distribution capacity
- Adding new supply and distribution mains for reinforcement
- Increasing capacity through replacing existing mains with larger mains
- Adding regulators from supply mains to add pressure gas sources that will meet the needs of new development

The 2014 Cascade Natural Gas Integrated Resource Plan includes a table of proposed distribution system projects for the 2015-2019 period, including several pipeline, valve, and reg projects in Kitsap County. (Cascade Natural Gas, 2015)

These projects include, but are not limited to:

- Silverdale Reinforcement @ HWY3
- Reg station in vault in street in Silverdale
- Highway 3 Casing Removal
- Chico Check Meter, Leaking Cameron valves
- Port Orchard Reinforcement
- Manchester Reinforcement
- Valve in Sidney Avenue and Radey Street in Port Orchard
- Relocation associated with County project to restore fish habitat. May replace or remove and add piping.
- Tremont Road relocation

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, 1% nuclear, and 1% other. (Puget Sound Energy, 2015)

PSE in Kitsap County

PSE serves over 115,000 electric customers in Kitsap County and maintains over 132 miles of high-voltage transmission and distribution lines throughout the county. (Puget Sound Energy, 2015) (Brobst, 2015)

Power is supplied to western Washington primarily from hydrogenerating 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, 2012) (Brobst, 2015)

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, 2012)

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 come 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, minus conservation reductions, minus demand side management, plus forecast of new load.

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.

Current and Planned Projects

The following information on current and planned facility projects is from (Kitsap County, 2012) and (Brobst, 2015).

BPA Transmission Improvements: BPA is planning to reinforce the Olympic Peninsula with two additional 230 kV transmission lines between the Olympia area and Shelton.

Foss Corner Salisbury #2 115/230 kV Line: This project will provide service to a future 115/230 kV transmission system line between Salisbury cable station and Foss Corner switching station. A transmission tap to Kingston substation in north Kitsap County will be integrated to form a 115 kV looped transmission to Foss Corner.

South Bremerton–Foss Corner 115/230 kV Transmission: This project will entail constructing a 115/230 kV transmission line between the South Bremerton transmission station and the Foss Corner switching station. The major portion of this line will be located on a right-of-way parallel to the Kitsap Bangor BPA line. One of the 115/230 kV transmission lines will link the South Bremerton transmission station to the BPA Fairmount transmission substation (Jefferson County) via the Foss Corner switching station and a submarine cable across Hood Canal. A second line from South Bremerton along the corridor will connect to Valley Junction via Silverdale substation. This project is currently in planning.

Silverdale Tap Transmission Extension to Valley Junction: This project improves the reliability of transmission service to the Silverdale area by extending the Silverdale transmission line to Valley Junction switching substation. The project will be staged, beginning with right-of-way acquisition for 115 kV transmission followed by construction of the project as determined by the need date. As of September 2015, this project is in the planning stage.

Bainbridge Island Transmission Reliability and Substation Capacity Improvements: This project timing will be driven by the need for a fourth distribution substation south of Port Madison to serve increased loads on Bainbridge Island. The project will connect the existing Winslow and Murden Cover substations so that power can automatically be restored following a transmission-related outage. Presently, a separate 115 kV transmission line from the Port Madison substation serves each substation (and its customers), without backup capability. As of September 2015, this project is in the planning stage.

Distribution Substations: Several new distribution substations are planned to serve the forecasted load. In North Kitsap, distribution substations are proposed in Tower, Sunset, Newberry, Werner, Brownsville, Agate Pass, and Fletcher. In South Kitsap, distribution substations are proposed in Helena, Colby, Bethel, Phillips, and Sunnyslope. These projects are currently all in planning.

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 require 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 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.

3.3.10.2. Impacts– Energy and Telecommunications

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 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 master 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

Alternative 1 has the lowest countywide population growth of the three alternatives and thus would result in slightly lower demand for energy and telecommunications services. Under Alternative 1, more population growth would occur in the City of Bremerton and the Port Orchard UGA individually; Alternative 1 also has the most unincorporated UGA population collectively, which would lead to more demand for energy and telecommunications services in these areas.

Impacts of Alternative 2

Alternative 2 has slightly more population growth countywide than Alternative 1 and slightly less than Alternative 3; demand for energy and telecommunications services would thus be slightly higher than under Alternative 1 and lower than under Alternative 3. Under Alternative 2 there would be more population growth in the City of Poulsbo and the Silverdale UGA than Alternative 1, leading to more demand for energy and telecommunications services in those areas.

Alternative 2 would have the highest job growth countywide and in the UGAs, particularly in the Silverdale UGA due to the Regional Growth Center.

Impacts of Alternative 3

Alternative 3 has the highest level of countywide population growth, which would result in higher demand for energy and telecommunications services. Under Alternative 3 there would be more growth in the Bremerton UGA, the City of Poulsbo, the Central Kitsap UGA, the Silverdale UGA, and the Kingston UGA, relative to the other alternatives. This would likely lead to higher local demand for energy and telecommunications services in these areas.

Alternative 3 would have the lowest job growth of the three studied alternatives in the UGAs but countywide the second highest job growth of the alternatives.

3.3.10.3. Mitigation Measures– Energy and Telecommunications

Incorporated Plan Features

- All alternatives, particularly Alternatives 2 and 3, focus growth and concentrate densities, allowing for improved efficiency of service for natural gas, electricity, and telecommunications.

Regulations and 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 regulate utilities.

Other Proposed Mitigation Measures

The County could:

- 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 area 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. Significant Unavoidable Adverse Impacts– Energy and Telecommunications

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. Library

3.3.11.1. Affected Environment - Library

The Kitsap Regional Library (KRL), established in 1955, serves Kitsap County residents with nine library locations, online access to library materials and services, a traveling bookmobile, and outreach services for homebound and youth residents. (Kitsap Regional Library, 2015)

In 2014 KRL had 86,280 active library card accounts, 455,152 items in its physical collection, and 256,486 downloads of eMaterials. Total items borrowed were 2,687,172, with the average patron borrowing 31 items during the year. Attendance at all Library programs was 115,051 and there were 174,751 public computer sessions in 2014. (Kitsap Regional Library, 2015)

Library locations are summarized below.

- The Kingston Library is located in the Kingston Community Center building, which is owned by Kitsap County. The building was built in 1959 as a church, and became the community center with the library in 1985. Construction is currently under way on a new 4,000 square foot library, scheduled to open in early 2016. (Whitford, 2015)
- The Little Boston Library building was built in 2007 and is owned by the Port Gamble S'Klallam Tribe.
- The Poulsbo Library building was built in 1980, and was renovated and expanded in 1998. The building is owned by the City of Poulsbo.
- The Bainbridge Island Library building is owned by a non-profit group, Bainbridge Public Library. This building was originally built in 1962 with a children's library built in 1968. The building was expanded in 1982.
- The Silverdale Library building is owned by Kitsap Regional Library and was built in 1973 and expanded in 1980; it is now 4,950 square feet. KRL recently completed a feasibility study for a new 10,000 square foot library in Silverdale, and is currently in the process of raising money. (Whitford, 2015)
- The Sylvan Way Library building houses the administrative offices, the service departments, and a branch library. This building is owned by Kitsap Regional Library and was built in 1978.
- The Downtown Bremerton Library building, built in 1938, is owned by the City of Bremerton. It was renovated in 2006.
- The City of Port Orchard owns the Port Orchard Library building, which was built in 1954.
- The Manchester Library building is owned by a non-profit group, the Friends of Manchester Library. The building was built in 1980 and was expanded in 2006.

The size, circulation and patronage of each branch is shown in Exhibit 3.3-59.

Exhibit 3.3-59. Kitsap Regional Library Locations, Size, Circulation, and Patrons, 2014

Branch	Size (square feet)	Annual Circulation	Patron Visits
Bainbridge Island	15,500	383,563	247,597

Branch	Size (square feet)	Annual Circulation	Patron Visits
Downtown Bremerton	5,514	73,871	60,221
Kingston	1,860	67,321	60,364
Little Boston	2,735	33,372	37,367
Manchester	2,800	60,597	36,410
Port Orchard	8,000	287,879	179,721
Poulsbo	11,835	312,837	169,269
Silverdale	4,950	233,229	123,161
Sylvan Way - Library	18,150	298,815	202,600
Sylvan Way - Service Ctr	18,150	13,438	n/a
Outreach	N/A	41,227	n/a
Bookmobile	N/A	40,384	12,466
Digital Branch	N/A	840,648	n/a
Totals	89,494	2,687,181	1,129,176

Source: (Dye, 2015)

The total area of these facilities is 89,494 square feet. Total circulation in 2014 was 2,687,181.

New facilities

As described above, KRL is in the process of replacing two library buildings, in Kingston and in Silverdale. Construction is currently under way on a new 4,000 square foot library in Kingston (replacing the existing 1,860 square foot facility), scheduled to open in early 2016. (Whitford, 2015) KRL completed a feasibility study for a new 10,000 square foot library in Silverdale (to replace the current 4,950 sf facility) and is in the process of raising money. (Whitford, 2015)

With the new Kingston library, the total size of facilities in the KRL system increases to 94,634 square feet, and also with the 10,000sf Silverdale library (not currently funded), total size of facilities rises to 98,824 square feet.

Funding

Kitsap Regional Library is primarily supported through property taxes, accounting for more than 90% of the total library budget. (Kitsap Regional Library, 2015) Under Washington law, library levies may be no higher than $0.50 per thousand dollars of valuation for operations and maintenance; the 2015 library levy is $0.39. (Kitsap County Assessor, 2015)

3.3.11.2. Impacts - Library

Level of Service

This study analyzes library Level of Service by facility space. Library facility space per capita is illustrated in Exhibit 3.3-60, showing both current (2015) facility space, total space with the new Kingston library (expected to open in 2016) and total space with the proposed new Silverdale library (not currently funded).

However, because library services have been changing to focus more on digital format, it is not clear that the same square footage per capita would be needed for the future population.

Because all three alternatives have relatively similar countywide population figures, the facility space level of service 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 proposed new Silverdale library. These levels are all well below the current level of service 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 2036 to keep up with population growth.

Exhibit 3.3-60. Library Facility Space Per Capita, Current and Proposed, by Alternative

Topic	2015	Alternative 1	Alternative 2	Alternative 3
Countywide population	258,200	329,923	331,550	333,076
Current facility space (square feet)	89,494	89,494	89,494	89,494
Facility space with new Kingston library	91,634	91,634	91,634	91,634
Facility space with new Kingston and Silverdale libraries	98,824	98,824	98,824	98,824
Facility space per capita, 2015 facilities	0.35	0.27	0.27	0.27
Facility space per capita, with new Kingston library		0.28	0.28	0.28
Facility space per capita, with new Kingston and Silverdale libraries		0.30	0.30	0.30

Source: BERK 2015, (Kitsap Regional Library, 2015)

It should be noted that libraries across the country are in a transition period, as the public desires and uses different services from libraries, technology advances and the population ages and diversifies. Thus new metrics for measuring service may be created in the future.

Impacts Common to All Alternatives

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 level of service, 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 1

Alternative 1 has the lowest countywide population growth of the three alternatives and thus would result in slightly lower demand for library services. Under Alternative 1, more population growth would occur in

the City of Bremerton and the Port Orchard UGA individually, and to all UGAs collectively, possibly leading to more demand at the Downtown Bremerton and Port Orchard library branches.

Impacts of Alternative 2

Alternative 2 has slightly more population growth county-wide than Alternative 1 and slightly less than Alternative 3. Under Alternative 2 there would be more population growth in the City of Poulsbo and the Silverdale UGA than Alternative 1, which could lead to higher demand for library services at the Poulsbo and Silverdale library branches.

Impacts of Alternative 3

Alternative 3 has the highest level of countywide population growth, which could result in slightly higher demand for library services. Under Alternative 3 there would be more growth in the Bremerton UGA, the City of Poulsbo, the Central Kitsap UGA, the Silverdale UGA, and the Kingston UGA, relative to the other alternatives. This could lead to higher local demand for library services at the Sylvan Way, Poulsbo, Silverdale, and Kingston branches.

3.3.11.3. Mitigation Measures- Library

Incorporated Plan Features

- Alternatives 2 and 3 would concentrate population growth in smaller more compact urban areas, where population may find more easy access to library services.

Regulations and 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 Kitsap Library System is replacing the Kingston library branch with a facility of double the size, helping serve the increased population in that area. In addition KRL is raising funds to replace the Silverdale library with larger facility which, if built, would help serve demand from projected population increases.

Other Proposed Mitigation Measures

- None.

3.3.11.4. Significant Unavoidable Adverse Impacts - Library

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

Chapter 4. Reclassification Requests

4.1. Overview

As part of its 2016 Comprehensive Plan Update, Kitsap County solicited requests for land use plan and zoning reclassifications. Based on an initial screening and consultation with affected cities, the County is carrying forward review of 27 reclassification requests. See Exhibit 2.6-11 below for a list of reclassification requests and Chapter 2 for a location map. This section provides summary environmental analysis of each application.

Each application will be evaluated for consistency with criteria from the Kitsap County Code, which must be met for approval. See preliminary staff reports under separate cover for details of how each application relates to the County's reclassification criteria.

The Chapter 4 subsections provide a summary analysis regarding the relationship of the applications to the natural environment, land use, transportation, and public services.

Exhibit 4.1-1. Reclassification Request List

Num	Permit #	Applicant	Request	Vicinity Zip Code	Alt 2	Alt 3
Residential						
Rural						
A.	15 00461	Porter	RR/RP to RR	Ollala 98359		X
B.	15 00686	Garland	RW to RR	Port Orchard 98367		X
C.	15 00710	Trophy Lake Golf Club	RW to RR	Port Orchard 98367		X
D.	15 00714	McCormick Land Company	RW to RR	Port Orchard 98367		X
E.	15 00738	Fox-Harbor Rentals	RP to RR	Port Orchard 98366		X
F.	15 00742	Tallman	RW to RR	Bremerton 98312		X
Urban						
G.	15 00641	Curtiss-Avery	URS to UL	Bremerton 98312		X
H.	15 00692	Eldorado Hills, LLC	RR to UR	Bremerton 98312		X
I.	15 00722	Royal Valley LLC	Text Change Only	Poulsbo 98370	X	X
J.	15 00724	Harris	RR to UL	Bremerton 98311		X
K.	15 00737	Edwards-Mt. View Meadows	RR-UL	Poulsbo 98370		X
Commercial						
Rural						
L.	15 00378	DJM Construction	RP/RR to NC	Kingston 98346		X

Num	Permit #	Applicant	Request	Vicinity Zip Code	Alt 2	Alt 3
M.	15 00522	Bremerton West Ridge	Request MRO, URS to IND	Bremerton 98312	X	X
N.	15 00607	Cornerstone Alliance Church	RR to RI	Poulsbo 98370		X
O.	15 00657	Gonzalez	RR to RI	Poulsbo 98370	X	X
P.	15 00689	Lee	RP to RCO	Poulsbo 98370		X
Q.	15 00697	Bair	RR to RI	Bremerton 98312		X
R.	15 00703	Port Orchard Airport	RI to REC	Port Orchard 98367	X	X
S.	15 00711	Merlinco	RR to RCO	Port Orchard 98366		X
T.	15 00736	Rodgers	RR-RCO	Bremerton 98312		X
Urban						
U.	15 00380	Ryan	UR to HTC	Bremerton 98312		X
V.	15 00550	Unlimited	BC to RC	Silverdale 98383	X	X
W.	15 00701	Prigger	UR to IND	Bremerton 98311		X
X.	15 00725	Dumont-Tracyton Tavern	UL to NC	Bremerton 98311	X	X
Y.	15 00739	Schourup	UM to IND	Bremerton 98312		X
Z.	15 00740	Laurier Enterprises, Inc.	UL to HTC	Port Orchard 98366		X
AA.	15 07354	Sedgwick Partners	UL to HTC	Port Orchard 98366		X

Legend: MRO = Mineral Resource Overlay; NC = Neighborhood Commercial; REC = Rural Employment Center; RCO = Rural Commercial; RI = Rural Industrial; RP = Rural Protection; RR = Rural Residential; RW = Rural Wooded; URS = Urban Reserve; BC = Business Center; HTC = Highway Tourist Commercial; Ind = Industrial; RC = Regional Commercial; UL = Urban Low Residential; UM = Urban Medium Residential; UR = Urban Restricted.
Source: Kitsap County 2015

4.2. Reclassification Summary Analysis

4.2.1. Porter

Natural Environment

There are no significant critical areas. There could be a reduction in forest cover under present or proposed designations; however, the use of low impact development techniques could allow added residences while retaining natural soils and stormwater and minimizing the reduction in forest cover.

Land Use

Currently, the subject property is split zoned; on the western half one home per 10 acres is allowed (Rural Protection – RP), and on the eastern half one home per 5 acres is allowed (Rural Residential – RR). Currently, a total of three homes is allowed on the property, including the existing home. A Comprehensive Plan and zoning change to RR in full would allow a total of four homes including the existing home – one unit more than under present split zoning. The proposed designation and zone, RR, is appropriate for the conditions and context of the properties. The subject properties are adjacent to other properties zoned RR to the northeast, east, and southeast.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The difference of adding one more potential lot beyond the present allowance would not result in a significant adverse impact on adopted level of service standards such as police, fire and emergency medical services, as the potential number of new residences on the property would not be substantial. Many adjacent properties are already zoned RR.

4.2.2. Garland

Natural Environment

The subject property contain some areas with potential moderate geologically hazardous areas. A significant wetland system containing a fish-bearing stream also exists. The buffers associated with this system would limit the land available for future residential development on this area.

There could be a reduction in forest cover under present or proposed designations that could alter ecological conditions. The use of low impact development techniques could allow added residences while retaining natural soils and stormwater and minimizing the reduction in forest cover.

Land Use

The proposed Comprehensive Plan Map/Designation reclassification to Rural Residential (RR) would allow for up to 21 lots to be created at 5 acres per lot, instead of 5 lots at 20 acres each under the current Rural Wooded (RW). There are presently 5 lots under review in the application that are around 20 acres each and no new lots could be created under the RW zone. Because of its proximity to the urban areas and city boundaries of Bremerton and Port Orchard, creating a new pocket of RR zoning may encourage more growth in rural areas, whereas County policies are to promote growth in urban areas.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The site is currently undeveloped forest land and are not served by municipal water or sewer facilities. Well water is available, and septic systems are proposed. The site is served by both SW Lake Flora Road and JM Dickenson Road SW. The 16 increased lots above existing lots would lead to

an increase in the demand for police, fire and emergency medical services, as the number of new residences on the property would increase. An increase in residential development on the subject properties could also create an incremental demand for transportation maintenance and services within this rural area to reach services in the surrounding communities.

4.2.3. Trophy Lake Golf Club

Natural Environment

County building limitation maps indicate the presence of wetlands, two streams, and a bald eagle nest on the subject properties. The properties occur within a Category II critical aquifer recharge area.

Land Use

The subject property is currently developed as a golf course and have been in use as a golf course since at least 2005. The properties were undeveloped, cleared land in 1990. Three adjacent properties are also part of the golf course and are currently zoned Rural Residential (RR). Adjacent properties to the east are zoned RR and are in residential use. Adjacent properties to the north, west and south are zoned Rural Wooded (RW) and are mainly in resource (forest) production. Golf courses are a prohibited use under RW zoning and are a conditional permitted use under the proposed RR zoning.

RR zoning would accommodate the existing golf course use. Alternatively, the County could make a zoning code text change to allow golf courses in RW zones established prior to 1998, as a permitted or conditional use. This action would recognize the golf course use and would not change the density or allow new golf courses to be developed in RW.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The subject properties are currently developed as a golf course and have existing water, sewer and electric services. The sites are served by SW Lake Flora Road. A zoning change to RR would not result in a significant adverse impact on adopted level of service standards such as police, fire and emergency medical services, as the subject properties will continue in their existing use as a golf course. Should the properties be changed to residential use in the future, additional project-level analysis would be needed. However, at 32 additional homes at RR zoning, the incremental effect is not anticipated to be large.

4.2.4. McCormick Land Company

Natural Environment

There are minimal critical areas mapped on the site. There could be a reduction in forest cover under present or proposed designations; however, the use of low impact development techniques could allow added residences while retaining natural soils and stormwater and minimizing the reduction in forest cover.

Land Use

The subject properties are located along Sunnyslope Road to the east of the City of Bremerton city limits near the airport. The properties are in use for forestry purposes, but are not currently designated as resource lands of long-term commercial significance. The number of potential lots under the proposed Rural Residential (RR) zoning on the site is 16. Under the current Rural Wooded (RW) zoning, the number of potential lots is 4.

A change to RR zoning may hinder the long-term continuation of resource uses by allowing a higher intensity residential use under RR than is currently allowed in RW. In addition, allowing 5-acre minimum lot sizes along UGA boundaries may make the expansion of public facilities, annexation, and future re-subdivision at desired urban densities difficult, potentially hindering the logical expansion of urban growth areas in the future.

However, the RW zone abuts city limits and is currently a discontinuous island of RW zoning. The RR zoning is considered a low-density residential use that preserves rural character and can be sustained by rural service levels. RR zoning would be consistent with current use of adjacent land to the north.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

There are currently no sewer or water utility services developed on the property. The applicant proposes to build septic systems and well water facilities. A zoning change to RR would not result in a significant adverse impact on adopted level of service standards such as police, fire and emergency medical services.

4.2.5. Fox-Harbor Rentals

Natural Environment

The property contain numerous critical areas, including a stream, wetlands, and moderate geologically hazardous areas.

Land Use

The subject property, located along Garfield Ave SE, east of Port Orchard and near the rural community of Colby, is currently undeveloped. The applicant seeks to develop the land for residential use in Rural Residential (RR) zoning. Under the current Rural Protection (RP) zoning designation, residential development is a permitted use.

The current RP zoning designation is appropriate for the site and surrounding context of the property. The property is adjacent to other land zoned RP to the east, south, and west. If zoned RR as requested, this would be the only property zoned RR south of Garfield Avenue SE. Land east of the site are at higher rural density, but are zoned RP.

A zoning change to RR would double the amount of lots on the property, from 2 in the current RP zone to 4 in the proposed RR zone. This could set a precedent of increasing residential density in rural areas.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The site is currently undeveloped land with water and power services. The applicant would provide septic system facilities. An increase in residential development on the subject properties would create more demand for transportation maintenance and services within this rural area to reach services in the surrounding communities.

4.2.6. Tallman

Natural Environment

County building limitation maps indicate the presence of two non-fishbearing streams feeding into a fish-bearing stream in the northeastern property corner, as well as potential wetlands along the westerly property edge. The property occurs within a Category I and Category II critical aquifer recharge area.

Land Use

The subject property is undeveloped and treed, but not designated as forest land of long-term commercial significance. The applicant seeks a reclassification request to change the Comprehensive Plan Map and zoning designation of the property from Rural Wooded (RW) to Rural Residential (RR). The property is located on NW Holly Road within a large contiguous block of land zoned RW.

Adjacent properties are zoned RR and RW. Much of the surrounding area is in recreational use, undeveloped, or non-commercial forest. It is also adjacent to land within the Green Mountain State Forest. A change to RR would leave a small RW-zoned area north of Holly Road isolated.

The current RW zoning allows for residential use, with a maximum of 1 dwelling unit per 5 acres and a minimum lot size of 20 acres. Under RR, there is a potential for higher density residential use with a minimum lot size of 5 acres. Under RR zoning, there are more permitted and conditional allowed uses, such as a day care center, animal hospitals, golf course, and schools.

The proposed RR zoning is not compatible with RW zoning and uses on adjacent and surrounding properties; uses include undeveloped forest and the Green Mountain State Forest. RR zoning permits higher-density residential development that may not preserve long-term agricultural or forest use.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The property is currently undeveloped forest land with no sewer and water utility services developed. While potential new residential development could develop septic and well water, future land use in the RR zoning designation may require public utilities.

4.2.7. Curtiss-Avery

Natural Environment

According to Kitsap County GIS data, the subject properties are within a moderate hazard area (steep slopes), and a Category II critical aquifer recharge area.

Land Use

The applicant seeks a reclassification request to change the Comprehensive Plan Map and Zoning Designations of 16 properties from Urban Reserve (URS) to Urban Low (UL) and add the property to the Bremerton UGA (West). The properties are currently undeveloped land. The properties are adjacent to land zoned Urban Medium Density Residential (UM) to the east, UL to the south, and the City of Bremerton to the north.

The current zoning designation, URS, is appropriate for the conditions of the property. This zone allows for "continued rural development while discouraging land use patterns that could foreclose options for inclusion into future UGAs and their higher densities and land use intensities."

The City of Bremerton does not support expanding the UGA to include this property, as they already have sufficient land capacity to meet growth targets.

Transportation

The Alternative 3 includes residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are expected to be negligible.

Public Services and Utilities

The site does not currently have public sewer services. The site is evaluated cumulatively as part of Alternative 3. The site has not been planned for sewer service by the County or City. Cities are to be the primary providers of urban services to UGAs in the future, and the intent is for areas in UGAs to annex to cities or to incorporate; the City is not in favor of including the property in the UGA.

4.2.8. Eldorado Hills, LLC

Natural Environment

The subject properties are located along Lenea Drive NW, near NW Eldorado Blvd and adjacent to the Silverdale UGA southern boundary west of Dyes Inlet and Chico Bay. The property contains moderate geologically hazardous areas, including steep slopes and three streams which may complicate urban development pattern.

Land Use

The request would add Urban Restricted (UR)-zoned land to the Silverdale UGA. By itself the request would add two separated islands of property to the UGA.

The current zoning designation, RR, is appropriate for the conditions of the property. Adjacent properties are zoned Rural Residential (RR) and Urban Low Residential (UL) and are mainly in residential use. RR-zoned lands bisect the property but are also urban in nature and under consideration for UL zoning in SEIS Alternative 3.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are not expected to be significant.

Public Services and Utilities

Higher density on the subject property will increase the demand for services such as police, fire and emergency medical services. The Central Kitsap Fire District, Silverdale Water District, Kitsap County Public Works, Kitsap Transit, and Kitsap County Sheriff's Department serve the adjacent property to the north, which is inside the UGA, as well as properties to the south and west which are outside the UGA.

The cumulative demand for services is now under review with Alternative 3, which requires more capital facilities due to the UGA expansion, within which the property is located.

4.2.9. Royal Valley LLC

Natural Environment

There are potential and mapped wetlands on the property as well as some mapped slopes.

Land Use

The subject property is predominantly in agricultural use. In 2012 the subject properties were redesignated from Rural Residential (RR) to Urban Low-Density Residential (ULDR) with an implementing Senior Living Homestead (SLH) zone as part of the County's Comprehensive Plan Remand. The site is located within the Central Kitsap UGA. The site had been studied in various UGA alternatives in 2006. The designation and zone were created to apply in any UGA but have only been applied at this location to date.

The applicant is proposing a modification to the "Senior Living Homestead" intent statement in the Comprehensive Plan (and by extension the zoning code) in order to "provide for the development of age-diverse communities that integrate land use, transportation, and housing options for all ages while specifically focusing on opportunities for aging in place."

The overall density would not change from that allowed today – between 5 and 9 units per acre.

Transportation

Encouraging more multi-generational housing instead of more exclusive senior housing could result in additional traffic (the average PM peak hour trip generation rate for senior housing is about 25% to 27% of the average rate for detached single family housing[4]). Alternative 2 and Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are not expected to be significant.

[4] Institute of Transportation Engineers, 2012, Trip Generation Manual, 9th Edition.

Public Services and Utilities

No change in the level of density is proposed. The subject properties were studied cumulatively for capital facilities needs in 2012 and continues to be included in the UGA. It is part of the comprehensive analysis of Alternatives 2 and 3. Under any development, the applicant would need to extend water and connect to sewer. Services are or can be made available to the site per the CFP.

4.2.10. Harris

Natural Environment

A stream runs through the middle of the property, and stream and wetland studies may be needed before development could occur to urban densities; the location of the stream could limit development ability or could require clustering techniques.

Land Use

The applicant seeks a reclassification request to change the Comprehensive Plan Map/Designation from Rural Residential (RR) to Urban Low Residential (UL) within the Central Kitsap UGA. The subject property is adjacent to land zoned RR to the north and land zoned UL to the south and west. The subject property is adjacent to an established UGA boundary.

The current zoning designation, RR, is appropriate for the conditions of the property. This zone allows for "continued rural development while discouraging land use patterns that could foreclose options for inclusion into future UGAs and their higher densities and land use intensities."

The proposed Comprehensive Plan Map/Designation of Urban Low-Density Residential (ULDR) and UL is also compatible with adjacent areas to the west and south, which are currently zoned UL. Adjacent land to the east are urban in nature though also designated RR; these small abutting areas and the roadway could become transition points to the urban/rural area.

Transportation

The Alternative 3 residential growth projections for the transportation analysis zone in which this site is located, and the resulting 2036 travel demand forecasts, are sufficient to cover the proposed change in use. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are not expected to be significant.

Public Services and Utilities

The subject property is adjacent to existing sewer systems on its southern boundary. The site was studied cumulatively in 2006, 2008, and 2012 for urban services including sewer, and now with the 2016 Comprehensive Plan Update in Alternative 3. It would be serviced by a pump station that is presently under solicitation for a construction bid for a capacity increase.

4.2.11. Edwards – Mt. View Meadows

Natural Environment

The subject property is 17.99 acres and currently is undeveloped land. According to 2013 satellite imagery, the site was wooded. At present, the site has been cleared. It is currently designated and zoned Rural Residential (RR) and is adjacent to the Silverdale UGA boundary along its southern and western boundaries.

Land Use

The request is to redesignate and rezone the subject property of 17.99 acres from RR to Urban Low Density Residential (ULDR) and Urban Low Residential (UL) on the Comprehensive Plan Map/Designation. This request would also require expansion of the Silverdale UGA.

The subject property is adjacent to properties that is designated and zoned RR and UL. It is part of a large contiguous area of RR zoning that transitions to Rural Protection (RP) zoning further north. The proposed Comprehensive Plan Map of ULDR and zoning designation of UL is compatible with adjacent areas to the west and south, which are currently zoned UL.

Transportation

The Alternative 3 residential growth projections for the four transportation analysis zones in the vicinity of the site, and resulting 2036 travel demand forecasts, are likely sufficient to cover the proposed use. The site is located less than one mile south of a segment of Viking Way NW with existing and projected 2036 deficiencies under Alternative 3. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The property is currently undeveloped and does not have sewer or water. However, there are public utilities within a reasonable distance to the subject property. The site was studied cumulatively in 2006, 2008, and 2012 for urban services including sewer, and now with the 2016 Comprehensive Plan Update as part of Alternative 3. It could be served by the sewer system in the abutting UGA; extension would be required.

4.2.12. DJM Construction

Natural Environment

The subject property has extensive environmental constraints, including wetlands, a stream corridor, and moderate geologic hazard areas. The complex of wetlands is directly associated with Grover's Creek, an important fish-bearing stream which empties into Miller Bay. The subject property is currently undeveloped forested land.

Land Use

The applicant seeks a reclassification request to change the Comprehensive Plan Map/Designation from RR and RP to Low-Intensity Commercial/Mixed-Use. The applicant seeks a zoning designation reclassification from RR and RP to Neighborhood Commercial and to extend the adjacent Type I LAMIRD boundary to include the subject property. The subject property is adjacent to the George's Corner Type I LAMIRD to the west and properties zoned Neighborhood Commercial (NC).

The Comprehensive Plan intends to focus growth in UGAs. Type I LAMIRDs are only provided to recognize existing development not to create added capacity for growth. The subject property was not developed prior to July 1, 1990. The appropriate logical outer boundary of the existing George's Corner LAMIRD was subject to review by the Growth Management Hearings Board in 2005 and upheld. The proposed reclassification would expand the logical outer boundary to undeveloped forested land that contains wetlands and a stream corridor.

Transportation

The site is located near segments of Hansville Road NE and SR 104 with projected 2036 deficiencies under Alternative 3. Increased commercial density at the proposed site would add trips beyond what was reflected in the 2036 travel demand forecasts. Therefore, the proposal would result in an impact to transportation. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the additional impacts resulting from the proposal.

Public Services and Utilities

The LAMIRD area currently has water service, but not sanitary sewer. While the expansion of the LAMIRD would not significantly impact levels of service for public services overall within the County, it would expand the area that is to be served by urban services.

4.2.13. Bremerton West Ridge

Natural Environment

The subject property contain surveyed and potential wetlands and steep slopes. It is largely forested but also contains a rock quarry.

Land Use

The request is to apply a mineral resource overlay (MRO) with Rural Industrial (RI) zoning. However, Alternatives 2 and 3 apply the MRO with Rural Protection (RP) zoning in accordance with the proposed change for adjacent land in Alternatives 2 and 3.

Currently only a portion of the property has an MRO designation, however, the entire property is part of the Kitsap Quarry mining operation (access road and stormwater retention facilities) and currently do not have a MRO.

The subject properties have access from Werner Road and are adjacent to the City of Bremerton. Adjacent sites within the city limits are currently being used for mining. Areas to the west of the subject site are undeveloped and within the Ueland Tree Farm property. In accordance with the Washington State DNR earth resource permit data there are four active permits in addition to the Kitsap Quarry in the surrounding area.

The subject properties were purchased by UTF in 2012 and 2013, after the original Conditional Use Permit (CUP) was issued for aggregate extraction on the UTF site. The Kitsap County Hearing Examiner issued a CUP modification, which includes the subject property for the designated South Haul Route, on September 22, 2015.

No documentation was provided by the applicant to demonstrate the mineral resources existing on the subject properties. Policy RL-56 indicates the County can apply the MRO as an interim protection of mineral resource areas until a comprehensive geologic study is undertaken to determine the extent of mineral deposits. Policy RL-58 allows that geologic study to be submitted by the second annual review of the adopted Comprehensive Plan.

Transportation

The expanded mining operation could generate more truck trips. A 2014 letter from the City of Bremerton confirms that the road network can accommodate the increased truck traffic. The site is not located in proximity to any roadways with existing or projected future deficiencies under Alternative 2 or Alternative 3. Transportation impacts are not expected to be significant.

Public Services and Utilities

The zoning reclassification would not have adverse impacts on adopted level of service standards. County standards for permits would be met.

4.2.14. Cornerstone Alliance Church

Natural Environment

Some geologic hazards are mapped on the eastern and southern portions of the site.

Land Use

The applicant seeks a Comprehensive Plan Map/Designation reclassification from Rural Residential (RR) to Rural Industrial (RI). The property is along a major crossroads between SR 308 (NW Luoto Road) and Silverdale Way NW.

The properties are currently developed with a church and a parking lot containing 94 spaces. The current use as a church facility is a prohibited use in the proposed RI zone. It would become a nonconforming use under the proposed zone.

The applicant proposes a rezone for no specific use, but foresees the potential for rural industrial land uses. The surrounding land is used for agriculture, rural industrial, and commercial uses.

There is already Rural Commercial (RCO) and RI zoning and land use in adjacent areas, including a gas station and self-storage facility.

Transportation

The site only has access from local access streets and not from SR 308, even though the property fronts along SR 308.

Conversion from RR to RI at the proposed site would add a small number of trips beyond what was reflected in the 2036 travel demand forecasts. Based upon an average light industrial rate of 7.26 trips per acre, an additional 26 PM peak hour trips are estimated to result from the proposal, above the1 PM peak hour trip that would be expected with RR.[5] The site is located near a segment of Viking Way NW with existing and projected 2036 deficiencies under Alternative 3. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The site has water services, septic sewer, and a retention pond on site.

4.2.15. Gonzalez

Natural Environment

According to Kitsap County maps, the site has moderate geological hazards on the western edge of the property and is immediately adjacent to Scandia Creek, an important fish-bearing stream that empties into Liberty Bay. Further, the subject property lies within a Category II Critical Aquifer Recharge Area and, as such, any new land use must comply with the applicable development standards found in Kitsap County Code 19.600.

Land Use

The subject property is approximately 1.5 acres and currently undeveloped and forested. The applicant is requesting a Comprehensive Plan Map/Designation reclassification from Rural Residential (RR) to Rural Industrial (RI). The applicant has not identified a specific future land use for the property, but foresees the potential for rural industrial land uses, including a small general office, small retail, personal service, self-storage, or a private parking lot.

The property is adjacent to RR, RI, and Rural Commercial (RCO) zoning. Existing land use on adjacent properties include residential, trade, government and services, and cultural/recreational uses.

[5] Institute of Transportation Engineers, 2012.

The property is designated RI in Alternative 2 and Alternative 3. Alternative 2 includes a Type III LAMIRD designation for the subject property and surrounding properties that is analyzed in Section 3.2.2 Relationship to Plans and Policies in the 2016 SEIS.

Transportation

The intersection carries relatively high traffic volumes as the surrounding roads provide key access between the communities of Banger and Keyport, State Highway 3, Silverdale, and Poulsbo.

Conversion from RR to RI at the proposed site would add a small number of trips beyond what was reflected in the 2036 travel demand forecasts. Based upon an average light industrial rate of 7.26 trips per acre, an additional 10 PM peak hour trips are estimated to result from the proposal, above the 1 PM peak hour trip that would be expected with RR.[6] The site is located near a segment of Viking Way NW with existing and projected 2036 deficiencies under Alternative 3. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The site is currently undeveloped land with water service. The applicant would provide septic facilities. Power and telephone service is proposed.

4.2.16. Lee

Natural Environment

Kitsap County maps show several areas of potential wetlands on the property with a significant wetland area surveyed on the adjacent properties to the northeast.

Land Use

The applicant is requesting a change in the Comprehensive Plan Future Land Use and Zoning Maps from Rural Protection (RP) to Rural Commercial (RCO). The applicant is seeking the reclassification to construct a 160 square foot building to be used as a drive-through espresso stand. The proposed project would take up 0.25 acres of the subject property. However, if approved, the applicant would be able to develop the 17.84-acre property consistent with the allowed uses and development standards in the RCO District.

No commercially or industrially zoned land is in proximity.

The subject property and surrounding neighborhood is served with goods and services by the nearby Type III LAMIRD, the City of Poulsbo to the South, and the Kingston UGA to the north.

[6] Institute of Transportation Engineers, 2012.

Transportation

The Alternative 3 retail growth projections for the transportation analysis zone in which this site is located, and resulting 2036 travel demand forecasts, are sufficient to cover the proposed use. Espresso stands primarily divert existing vehicles already on the road network (about 89% of total trips generated, based on ITE average pass-by trip data[7]), and generate minimal new trips. The site is not located in proximity to any roadways with existing or projected future deficiencies. Transportation impacts are not expected to be significant.

Public Services and Utilities

The subject property is in the rural area and will not be served by urban services at this time. The proposed reclassification involves a relatively small land area and is not likely to impact levels of service for public facilities and services. However, the reclassification would add a new commercially zoned area that may increase service needs, such as police, fire, and emergency medical services.

4.2.17. Bair

Natural Environment

The property occurs within a Category II critical aquifer recharge area.

Land Use

The applicant is requesting a Comprehensive Plan Map/Designation reclassifcation from Rural Residential (RR) to Rural Industrial (RI). The future land use and zoning map designations are the same for the subject property. The applicant has stated that the request is intended to allow for the storage of recreational vehicles not accommodated at the applicant's other mini-storage site.

The subject property is approximately 0.73 acres. The property is not contiguous to other commercially or industrially zoned properties. Adjacent properties are currently used predominantly for single family residential use. The land immediately adjacent to the south is currently used for government and services, and there is a single property in commercial use to the southeast.

While the reclassification would establish a limited area for industrial uses, it would constitute an expansion of industrial zoning into an area that has historically been designated for low-density rural residential use.

Transportation

Alternative 3 industrial growth projections for the transportation analysis zone in which site is located, and resulting 2036 travel demand forecasts, are sufficient to cover the proposed use. The site

[7] Institute of Transportation Engineers, 2014, Trip Generation Handbook, 3rd Edition, August.

is not located in proximity to any roadways with existing or projected future deficiencies under Alternative 3. Transportation impacts are not expected to be significant.

Public Services and Utilities

By itself, if the reclassification is approved, it is not anticipated to result in significant adverse impacts on adopted levels of service standards or other public facilities and services. The use may require additional fire and EMS response. A greater impact could occur if this spot rezone sets a precedent for concentrating employment uses in this location.

4.2.18. Port Orchard Airport

Natural Environment

Areas of moderate geological hazard and critical aquifer recharge areas have been identified on-site, and future development must be consistent with critical area regulations.

Land Use

The applicant proposes to create a Type III LAMIRD for a Rural Employment Center (REC). The proposed LAMIRD boundary includes the parcels listed in Attachment A, which total 103.56 acres. Additionally, the applicant proposes that aviation-related activities, facilities, and services be added as permitted commercial/business uses within the REC LAMIRD designation (KCC 17.381.040(D)). This would allow for the construction of new hangars and the expansion of services to support the Port Orchard airport, in operation since 1946.

The subject property is located along Sidney Road SW in Port Orchard, about 8 miles south of the City of Port Orchard. Most of the property is zoned Rural Industrial (RI). The property is currently being used as a private use airport with associated commercial uses. Most of the property make up the landing strips and 2600-foot long runway and adjacent taxi areas. The property area in the north contain the airport hangers and structures that house commercial and industrial businesses that benefit from proximity to the airport.

The site provides employment opportunities for rural residents and has potential to expand employment. The site is suitable for the requested land use designation as it is already developed as an airport with supporting commercial uses, such as light manufacturing and a restaurant.

The proposed Type III LAMIRD REC designation is consistent with GMA and County criteria as it is an isolated, existing developed area that is consistent with rural character, small in scale, does not include residential development, does not require urban services, and is compatible with adjacent resource-based industries including the adjacent mining operation.

The County could make a reclassification to the REC zoning to permit or conditionally permit uses that support airport operations to treat this accessory use similar to the RI zone.

Transportation

Increased employment density resulting from the proposed change from Rural Industrial to Rural Employment Center could potentially exceed the employment growth projections for the transportation analysis zone in which the site is located, and the resulting 2036 travel demand forecasts for adjacent roadways. However, the site is not located in proximity to any roadways with existing or projected future deficiencies, and the adjacent roadways have sufficient excess capacity to accommodate the level of traffic increase expected to result from the proposal. Transportation impacts are not expected to be significant.

Public Services and Utilities

The site is served by water service, but not sanitary sewer service. Sewer service is not proposed. Future development would be subject to County Code requirements for adequate septic service, access to water, compliance with stormwater standards, etc.

The proposed reclassification will not will not significantly affect the service providers' ability to meet adopted level of service standards. The airport use is existing. The current zoning for the property already allows a wide range of commercial, industrial, and institutional uses and the development standards are the same between the existing and proposed zoning districts. Project-specific impacts from future development or changes in land use will be addressed during project permitting.

4.2.19. Merlinco

Natural Environment

The subject property occurs within a Category I critical aquifer recharge area due to proximity to an offsite well.

Land Use

The applicant is requesting a Comprehensive Plan Map/Designation reclassification to change the zoning from Rural Residential (RR) to Rural Commercial (RCO). The property is approximately 0.38 acres and located along SE Mile High Dr.

The subject property contains a single-family residential use, and is contiguous to RCO-zoned properties to the west and south. A significant area of undeveloped land designated RCO is located to the south of the subject property. The adjacent commercially-designated area is intended to principally serve the rural area.

The property is relatively small at approximately 0.38 acres and is more characteristic of a single-family zone than a commercial zone. However, two of the adjacent RCO properties on the north side of SE Mile Hill Drive appear to be similar in size to the subject property and support existing commercial uses.

While the proposed reclassification may support additional economic development in the area, there may be other economic development opportunities in the Port Orchard UGA or other RCO sites that may have vacancies.

Transportation

The site is located adjacent to a segment of SE Mile Hill Drive with projected 2036 deficiencies under Alternative 3, although no existing deficiencies are identified. Increased commercial density at the proposed site would add trips beyond what was reflected in the 2036 travel demand forecasts. Therefore, the proposal would result in an impact to transportation. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the additional impact resulting from the proposal.

Public Services and Utilities

The subject property is in the rural area and will not be served by urban services at this time. The reclassification request, if approved, would increase the demand for services in comparison to the existing single-family residential use. However, the increases in demand for services would be relatively minor and would not likely impact the County's ability to meet adopted level of service standards for public facilities. There could be a greater demand for fire/EMS services to a commercial site.

4.2.20. Rodgers

Natural Environment

Moderate geological hazard areas surround the property and overlap a large portion of the western section of the property. Wildcat Creek, a fish-bearing stream, flows along the southern property boundary.

Land Use

The applicant seeks a Comprehensive Plan Map/Designation reclassification to change the current zoning from Rural Residential (RR) to Rural Commercial (RCO). The subject property contains a nursery retail use. According to the applicant, the property has been used for a retail nursery for approximately 20 years. A nursery retail use is prohibited in the RR Zone. A nursery retail use is an administrative conditional use (ACUP) in the RCO Zone. The subject property is adjacent to RCO-zoned properties to the east.

There are undeveloped RCO-designated properties adjacent to the subject property that could be developed for commercial use. Because the subject property already supports a commercial use, it may be more desirable to designate the property as RCO, compared to other adjacent undeveloped sites.

Transportation

The site is located adjacent to a segment of Seabeck Highway NW with projected 2036 deficiencies under Alternative 3, although no existing deficiencies are identified. The proposed change in designation could result in future addition of a small number of trips. However, the transportation improvement project identified to address deficiencies expected without the proposal would also be expected to address the additional impact resulting from the proposal.

Public Services and Utilities

The subject property is in the rural area and will not be served by urban services at this time. While the subject property has been used as a retail nursey for over 20-years, approval of the reclassification request would result in a wider range of commercial uses allowed on the property. Therefore, the proposed amendment would likely result in relatively minor increases in the demand for services depending on the future land use and associated development.

4.2.21. Ryan

Natural Environment

According to Kitsap County maps, the property subject has environmental constraints including Gorst Creek, a fish-bearing stream with associated floodplain running through the northerly portion of the property; potential areas of wetlands, a potential moderate geologically hazardous area, and a Category I critical aquifer recharge area.

Land Use

The applicant is requesting a Comprehensive Plan Map reclassification from Urban Low-Density Residential to Urban High-Intensity Commercial/Mixed-Use and a Zoning designation reclassification from Urban Restricted (UR) to Highway Tourist Commercial (HTC). The subject property of 0.67 acres is located along State Highway 16 (Sam Christopherson Avenue W) near the intersection with SR 3, and is within the Bremerton (Gorst) UGA.

The site is also within the Gorst subarea planning area and the land use and zoning designation were amended following completion of the Gorst Subarea Plan in 2013.

The subject property is adjacent to land zoned UR and Mixed-Use (MU). While there are some areas zoned HTC to the south across state roadways, the subject property is not adjacent to or contiguous to land currently zoned HTC.

Transportation

The property was cumulatively studied in the Gorst EIS (City of Bremerton, AECOM, and BERK 2013). The adopted plan, which included UR for the site, had a greater balance between residential and commercial uses and reduced projected transportation congestion on state routes.

> *In terms of reducing congestion, the mixed use pattern and lower commercial growth … provides less congestion and may in the future provide more support to transit use. (Applies to Alternative 3 and Preferred, Final EIS, p. 1-29)*
>
> *…69.25 percent of the state highway miles in Gorst are projected to be deficient under Alternatives 1 and 2 and 61.48 percent are projected to be deficient under Alternative 3 and the Preferred Alternative. (Final EIS, p 3-10)*

The proposal for HTC is studied in this 2016 SEIS. Alternative 3 residential and employment growth projections for the transportation analysis zone in which this site is located, and resulting 2036 travel demand forecasts, are sufficient to cover the proposed use. The site is located within close proximity of SR 3, which has projected 2036 deficiencies under Alternative 3. However, any transportation improvement projects identified (in cooperation with WSDOT) to address deficiencies expected without the proposal, would also be expected to address the impact resulting from the proposal.

Public Services and Utilities

The subject property already has public water and sewer services. The HTC zoning allows higher-intensity development and land uses compared to the UR zone. Future development would be required to meet County utility standards.

4.2.22. Unlimited

Natural Environment

This property is undeveloped and largely covered by designated wetlands, potential wetlands, hydric soils, and associated buffers. The southern area of the property has been cleared and graded. The remaining areas are wetlands, stream corridor, and forested. The property lies within a Category II Critical Aquifer Recharge Area as described in Kitsap County Code Title 19 (Critical Areas) Chapter 600.

Any future development under the present or proposed designations and zones would require mitigation sequencing in conformance with the County's critical area regulations. An updated wetland delineation would likely be required prior to any future development.

Land Use

The applicant is requesting a Comprehensive Plan Map reclassification from Urban Industrial to Urban High-Intensity Commercial/Mixed-Use and a zoning designation reclassification from Business Center (BC) to Regional Commercial (RC). The subject property is adjacent to RC, Highway Tourist Commercial (HTC), and Rural Residential (RR) zoning.

The applicant proposes a rezone from BC to RC in an area with a variety of existing commercial land uses. The proposed reclassification would increase the range of land uses that are allowed on the property and in the immediate neighborhood.

The wider range of uses that are allowed in the RC District, including housing, may allow for further economic development and provide for housing and jobs within proximity to one another.

The proposed reclassification would result in a reduction of lands designated for industrial use in the Silverdale UGA, but would result in an increase in employment capacity.

Transportation

Alternative 2 and Alternative 3 growth projections for the transportation analysis zones in which the site is located, and resulting 2036 travel demand forecasts, are sufficient to cover the proposed use. The site is located adjacent to a segment of Clear Creek Road NW with projected 2036 deficiencies under Alternative 2, although no existing deficiencies or Alternative 3 deficiencies are identified. However, the transportation improvement projects identified to address Alternative 2 deficiencies expected without the proposal, would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The subject property is located within the Silverdale UGA and is currently zoned for a wide range of commercial uses. Since the property is already within the UGA, the County has an obligation to provide urban public services. Project-specific impacts from proposed future development will be addressed during local permitting. Sewer gravity lines would need extension by a developer to the site for about 1,000 feet. A nearby pump station is being upgraded in the County's sewer plans; the County would confirm at the time of development if existing pump stations are sufficient or if a new pump station would be needed. (BHC 2015)

4.2.23. Prigger

Natural Environment

The subject property is currently undeveloped and in a relatively natural state. According to Kitsap County Maps, the property has significant areas of moderate geological hazards. The applicant indicates that a stream, steep slopes, and a Category 1 Critical Aquifer Recharge Area are on or near the site.

Land Use

The applicant is requesting a Comprehensive Plan Map reclassification from Urban Low-Density Residential to Urban Industrial and a zoning designation reclassification from Urban Restricted (UR) to Industrial (I). The property is adjacent to a variety of zoning and land uses, including an area zoned Industrial to the south that is currently used for government and services.

Transportation

The Alternative 3 retail growth projections for the transportation analysis zone in which this site is located, and resulting 2036 travel demand forecasts, are sufficient to cover the proposed use. The site is not located in proximity to any roadways with existing or projected future deficiencies under Alternative 3. Transportation impacts are not expected to be significant.

Public Services and Utilities

The subject property is located within the Central Kitsap UGA and is currently designated for Urban Low-density Residential uses in an environmentally sensitive pattern required by the UR zone.

Since the property is within the UGA the County already has an obligation to provide urban facilities services; however the site has been considered for residential uses in the current Capital Facility Plan (CFP). The 2016 CFP does consider an employment use (commercial) in Alternatives 2 and 3. Light industrial may result in less or comparable sewer flows than the residential use. Pump Station 23 appears to have capacity. Connection to the sewer system would be required. Project-specific impacts from proposed future development will be addressed during local permitting.

4.2.24. Dumont-Tracyton Tavern

Natural Environment

The subject property exists within a Category I Critical Aquifer Recharge Area, the only critical area present.

Land Use

The subject property is located within the Central Kitsap UGA, and consists of a single family home and parking lot that supports the Tracyton Tavern.

The restaurant is designated as Urban Low-Intensity Commercial/Mixed-Use and zoned as Neighborhood Commercial (NC). The associated parking lot, however, is currently designated Urban Low Density Residential (ULDR) and zoned Urban Low Residential UL. The UL district does not allow a restaurant as a permitted use and therefore the existing parking lot is a non-conforming use.

The applicant is requesting to designate the north 80 feet of the subject lot Urban Low-Intensity Commercial/Mixed Use on the Comprehensive Plan Future Land Use Map and rezone the same area to NC on the official zoning map. If the reclassification request is approved, the applicant intends to request a boundary line adjustment to combine the area proposed for rezoning with the lot that contains the restaurant.

The surrounding neighborhood is predominantly single family residential with a neighborhood commercial district to the north and east.

The site is already developed with single family residence and a parking lot that serves the adjacent restaurant. In the near term, it is unlikely that the use of the property would change. However, the expansion of the NC Zoning District would allow for more intense land uses and development than the existing UL designation.

In Comprehensive Plan Alternatives 2 and 3 the subject property and surrounding neighborhood are proposed to be removed from the Central Kitsap UGA. The existing tavern property and surrounding commercial properties would be designated as Rural Commercial on the

Comprehensive Plan Future Land Use Map and Zoning Maps. The surrounding residential neighborhood also would convert to RR in both Alternatives 2 and 3.

Transportation

The proposed change in designation is not expected to generate additional traffic, but could allow future redevelopment that would generate a small number of additional trips. The site is not located in proximity to any roadways with existing or projected future deficiencies under Alternative 2 or Alternative 3. No transportation impacts are expected.

Public Services and Utilities

The property is currently served with water service, but not sanitary sewer service. The relatively small amount of property that is proposed for conversion from the UL District to the NC District would not likely impact the provision of services in the area. Any future conversion from a parking lot to a commercial business would require adequate public services per the Kitsap County Code.

4.2.25. Schourup

Natural Environment

According to Kitsap County Assessor online maps, the subject property has moderate geological hazards. Hydric soils indicate a small area of potential wetlands in the northeast corner. The property to the east has identified, surveyed wetlands.

Land Use

The property is currently used as a gravel parking area to serve the adjacent industrial use within the City of Bremerton. The applicant is requesting a Comprehensive Plan Map reclassification from Urban Medium-Density Residential to Urban Industrial and a zoning designation reclassification from Urban Medium Residential (UM) to Urban Industrial (I).

Transportation

Alternative 3 employment growth projections for the three transportation analysis zones in the vicinity of the site location, and resulting 2036 travel demand forecasts, are likely sufficient to cover the proposed use. The site is located adjacent to a segment of Werner Road with projected 2036 deficiencies under Alternative 3, although no existing deficiencies are identified. However, any transportation improvement projects identified (in cooperation with the City of Bremerton) to address deficiencies expected without the proposal would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The subject property is located within the Bremerton UGA. The applicant indicates sewer lines are available to the property, as is water and power. Presumably the gravel parking lot is not currently connected to the water and sewer system, and hook-up charges would apply if the site were

developed with uses creating a demand for services. City sewer plans also address current and future water and sewer service to the West Bremerton UGA. Development of the site would likely mean additional fire/EMS service, which is presently provided by South Kitsap Fire and Rescue. Project-specific impacts from proposed future development will be addressed during local permitting.

4.2.26. Laurier Enterprises, Inc.

Natural Environment

According to Kitsap County maps there are no environmental constraints on the site.

Land Use

The property is within the Port Orchard UGA. The applicant is requesting a Comprehensive Plan Map reclassification from Urban Low-Density Residential to Urban High-Intensity Commercial/Mixed-Use and a zoning designation reclassification from Urban Low Residential (UL) to Highway Tourist Commercial (HTC).

The subject property sits directly north of Highway-Tourist Commercial Zone and south of the Urban Low Residential (UL) Zone.

The property is currently undeveloped and appears to provide a buffer of trees between the adjacent residential area and the existing land uses of trade and government and services. The subject property is part of a mixed-use neighborhood and the southern boundary is also the border between residential and commercial/mixed-use zoning.

The proposed HTC designation would be compatible with the surrounding mixed-use neighborhood. The HTC Zone already abuts the single-family neighborhood to the north. Future commercial development on the subject property will be subject to the buffer requirements in Section 17.385.027 of the Kitsap County Code. Buffers are required between commercial and residential zones.

Transportation

Alternative 3 employment growth projections for the transportation analysis zone in which this site is located, and resulting 2036 travel demand forecasts, are likely sufficient to cover the proposed use. The site is located adjacent to a segment of SE Mile Hill Drive with existing and projected 2036 deficiencies under Alternative 3. However, the transportation improvement projects identified to address deficiencies expected without the proposal would also be expected to address the contribution to the cumulative impact resulting from the proposal.

Public Services and Utilities

The proposed reclassification of the relatively small property of approximately 1.21 acres would not impact the County's ability to meet adopted level of service standards for public facilities and services.

4.2.27. Sedgwick Partners

Natural Environment

The subject property has potential wetlands and nearby moderate geological hazard areas.

Land Use

The applicant is requesting to amend the Comprehensive Plan Future Land Use Map from Urban Low-Density Residential to Urban High-Intensity Commercial/Mixed Use. The applicant is also requesting a Zoning Map reclassification from Urban Low Residential (UL) to Highway Tourist Commercial (HTC), in order to locate a small office or retail use on the property.

The Port Orchard city limits are west of the property, and a state highway runs parallel to it. The subject property is within the Port Orchard UGA. The property is surrounded by residential uses to the east, south, and west, and undeveloped land/water to the north, across the highway.

While the vision for urban areas is to create mixed-use neighborhoods, introducing a single high-intensity commercially-zoned property into an established single-family neighborhood is not desirable. Mixed-use neighborhoods should be coordinated such that there are compact and well-defined commercial and residential areas rather than isolated commercially-zoned properties in an otherwise residential neighborhood.

Transportation

Alternative 3 employment growth projections for the transportation analysis zone in which this site is located, and resulting 2036 travel demand forecasts, are likely sufficient to cover the proposed use. The site is located on SR 160 (SE Sedgwick Road) which has projected 2036 deficiencies under Alternative 3. However, any transportation improvement projects identified (in cooperation with WSDOT and the City of Port Orchard) to address deficiencies expected without the proposal, would also be expected to address the impact resulting from the proposal.

Public Services and Utilities

By itself, the proposed reclassification for a property of approximately 0.57 acres is not anticipated to impact the County's ability to meet adopted level of service standards for public facilities and services. However, if this change sets a precedent for increasing commercial development in this location, additional fire/EMS services may be required.

Chapter 5. Acronyms, Abbreviations, and References

5.1. Acronyms and Abbreviations

BLR	Buildable Lands Report
BNSF	Burlington Northern and Santa Fe
BOCC	Board of County Commissioners
BPA	Bonneville Power Administration
BSD	Bremerton School District
CARA	critical aquifer recharge area
CFP	Capital Facilities Plan
cfs	cubic feet per second
CKFR	Central Kitsap Fire and Rescue
CKSD	Central Kitsap School District
CNG	Cascade Natural Gas
CPP	Countywide Planning Policies
CPTED	Crime Prevention through Enhanced Design
Commerce	Washington State Department of Commerce
CTR	Commute Trip Reduction
CWSP	Coordinated Water System Plan
DNR	Washington Department of Natural Resources
DPS	Distinct Population Segment
DU	dwelling unit

EIS	Environmental Impact Statement
EMS	Emergency Medical Services
ERU	equivalent residential units
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FFC	Federal Functional Classification
FPZ	fire protection zone
GIS	Geographic Information System
GMA	Growth Management Act
GPCD	gallons per capita per day
gpd	gallons per day
gphpd	gallons per household per day
GWMP	Groundwater Management Plan
HOV	high-occupancy vehicle
HRS	Highway of Regional Significance
HSS	Highway of Statewide Significance
ISTEA	Intermodal Surface Transportation Efficiency Act
KCC	Kitsap County Code
KCSD	Kitsap County Sewer District
KPHD	Kitsap Public Health District
KRCC	Kitsap Regional Coordinating Council
LAMIRD	Limited Areas of More Intensive Development
LCA	land capacity analysis
LID	low impact development
mgd	million gallons per day
MRW	moderate risk waste

NHS	National Highway System
NKFR	North Kitsap Fire and Rescue
NKSD	North Kitsap School District
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
OFM	Office of Financial Management
OSPI	Washington State Office of the Superintendent of Public Instruction
OVTS	Olympic View Transfer Station
PSNS	Puget Sound Naval Shipyard
PSRC	Puget Sound Regional Council
PROS	Kitsap County Parks, Recreation, and Open Space Plan
PSE	Puget Sound Energy
PUD	Public Utility District
RAGF	Recycling and Garbage Facilities
RCW	Revised Code of Washington
REET	Real Estate Excise Tax
SCOOT	Smart Commuter Option of Today
SD	school district
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Policy Act
SKFR	South Kitsap Fire and Rescue
SKIA	South Kitsap Industrial Area
SKSD	South Kitsap School District
SMP	Shoreline Master Program
SOV	single-occupancy vehicle
STEM	Science, Technology, Engineering and Mathematics Academy
TAZ	Transportation Analysis Zone
TDM	Transportation Demand Management

TIP	Transportation Improvement Program
UGA	Urban Growth Area
ULID	Uniform Local Improvement District
USFWS	United States Fish and Wildlife Service
v/c	vehicle to capacity
VMT	vehicle miles traveled
WAC	Washington Administrative Code
WATERPAK	Water Purveyors of Kitsap County
WMI	Waste Management Inc.
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries
WSUD	West Sound Utility District
WTP	Washington State Transportation Plan
WUCC	Water Utility Coordinating Committee
WUTC	Washington Utilities and Transportation Commission
WWTP	wastewater treatment plant

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