UELAND TREE FARM MINERAL RESOURCE DEVELOPMENT

Proposed CUP Modifications
Draft Supplemental EIS

Prepared for:
Kitsap County

July 2014

ESA

Draft Supplemental Environmental Impact Statement (SEIS)

Fact Sheet

PROJECT TITLE

Ueland Tree Farm Mineral Resource Development Project: Proposed CUP Modification

PROJECT DESCRIPTION

This Supplemental EIS (SEIS) updates the Ueland Tree Farm Mineral Resource Development Draft EIS (ESA Adolfson, 2009) and accompanying Final EIS (ESA Adolfson, 2009) (collectively referred to in this document as the "EIS"). The Draft EIS evaluated alternatives for potential mineral resource development at the UTF site and discussed the associated environmental issues, such as air and water quality, noise, traffic, and land use compatibility. The Final EIS provided responses to citizen, Tribe, and agency comments received on the Draft EIS, and provided updated analysis where appropriate. Three alternatives were addressed in the EIS: the No Action Alternative, a Proposed Development Alternative, and a Reduced Scale Alternative.

The adequacy of the EIS was challenged by Concerned Citizens of Chico Creek Water Basin (CCCCWB), and the EIS was determined to be adequate by the Kitsap County Hearing Examiner on April 26, 2010. CCCCWB, a neighborhood group, filed a timely SEPA appeal under the Land Use Petition Act, RCW 36.70C (LUPA) challenging the adequacy of the EIS and the Hearing Examiner's denial of their SEPA appeal. The CCCCWB then filed suit in Superior Court on the adequacy of the EIS and the Hearing examiners decision. On October 14, 2010, the Hon. Leila Mills, Kitsap County Superior Court, entered an Order dismissing "with prejudice" the CCCCWB SEPA appeal. This was a final judicial Order upholding the adequacy of the EIS. The Proposed Development Alternative was approved.

This SEIS describes modifications to the Proposed Development Alternative, referred to as the Werner Road Connection Project. This Supplemental EIS (SEIS) updates the Ueland Tree Farm Mineral Resource Development Draft EIS (ESA Adolfson, 2009) and accompanying Final EIS (ESA Adolfson, 2009) (collectively referred to in this document as the "EIS").

This SEIS describes and evaluates potential adverse environmental impacts associated with proposed modifications to the Proposed Development Alternative. The proposed modifications relate primarily to re-routing of the primary hauling access road from Leber's Lane NW to Werner Road (Werner Road Connection), which provides a shorter and more direct route from the Ueland Tree Farm to State Route 3 (SR 3). The proposed changes to the Proposed Development Alternative require modification of the Conditional Use Permit (CUP) issued by Kitsap County.

PROJECT LOCATION

The UTF site is located in Sections 12, 13, 24, and 25, Township 24N, Range 1W, and Sections 7, 18, and 19, Township 24N, Range 1E (Figure 1-1). Access will be via Werner Road in Section 20, Township 24N, Range 1E. The project area is located in the Chico and Gorst Creek watersheds with the majority of the property in the Dickerson Creek subbasin.

The property is located between large tracts of open space and timber lands to the west with urban residential and industrial development (located in the Bremerton urban growth area (UGA)) along with Mineral Resource and Urban Reserve resource lands to the east. The site is bordered by land owned by the Mountaineers Foundation to the north, the Department of Natural Resources to the northwest and west, the City of Bremerton to the south, the Bremerton Watershed to the southwest, and U.S.A. (Navy) Railroad and Bremerton West Ridge, LLC to the east.

SEPA LEAD AGENCY AND PROJECT PROPONENT

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PERMITS, LICENSES, AND APPROVALS REQUIRED OR POTENTIALLY REQUIRED

State and Regional Permits, Licenses, and Approvals

Washington Department of Ecology

National Pollutant Discharge Elimination System (NPDES) Stormwater Permit
Section 401 Water Quality Certification

Washington Department of Fish and Wildlife

Hydraulic Project Approval

Local Permits, Licenses, and Approvals

Department of Community Development, Kitsap County

Conditional Use Permit
Site Development Activity Permit

Department of Public Works, Kitsap County

Right-of-Way Use Permit

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DATE DRAFT SEIS ISSUED

xxxx, 2014

COMMENTS ON DRAFT SEIS

Comments on the Draft SEIS may be submitted in writing or during the public hearing. Written comments should be submitted to:
XXX, SEPA Responsible Official
Kitsap County Department of Community Development
614 Division Street, MS-36
Port Orchard, Washington 98366-4682

DATE COMMENTS ARE DUE

The deadline for submitting written comments on the Draft SEIS is 4:30 p.m., XXX, 2014 (i.e., 30 days following issuance of the Draft SEIS). Please send written comments to the address of the SEPA Responsible Official, listed above.

DOCUMENT AVAILABILITY

A limited number of hard copies of the document are available from the Kitsap County Department of Community Development, and at the Kitsap Regional Library in Port Orchard (and the Bremerton branch?) free of charge. Compact discs are also available from Kitsap County DCD free of charge. The document is also available on the county's web page, www.kitsapgov.com/dcd.

TABLE OF CONTENTS

TABLE OF FIGURES

Chapter 1 Project Description and Supplemental EIS Summary

1.1 INTRODUCTION

This Supplemental EIS (SEIS) updates the Ueland Tree Farm Mineral Resource Development Draft EIS (ESA Adolfson, 2009) and accompanying Final EIS (ESA Adolfson, 2009) (collectively referred to in this document as the "EIS").

The Draft EIS evaluated alternatives for potential mineral resource development at the UTF site and discussed the associated environmental issues, such as air and water quality, noise, traffic, and land use compatibility. The Final EIS provided responses to citizen, Tribe, and agency comments received on the Draft EIS, and provided updated analysis where appropriate. Three alternatives were addressed in the EIS: the No Action Alternative, a Proposed Development Alternative, and a Reduced Scale Alternative.

The adequacy of the EIS was challenged by Concerned Citizens of Chico Creek Water Basin (CCCCWB), and the EIS was determined to be adequate by the Kitsap County Hearing Examiner on April 26, 2010. CCCCWB, a neighborhood group, filed a timely SEPA appeal under the Land Use Petition Act, RCW 36.70C (LUPA) challenging the adequacy of the EIS and the Hearing Examiner's denial of their SEPA appeal. The CCCCWB then filed suit in Superior Court on the adequacy of the EIS and the Hearing examiners decision. On October 14, 2010, the Hon. Leila Mills, Kitsap County Superior Court, entered an Order dismissing "with prejudice" the CCCCWB SEPA appeal. This was a final judicial Order upholding the adequacy of the EIS. The Proposed Development Alternative was approved.

This SEIS describes and evaluates potential adverse environmental impacts associated with proposed modifications to the Proposed Development Alternative. The proposed modifications relate primarily to re-routing of the primary hauling access road from Lebers Lane NW to Werner Road (Werner Road Connection), which provides a shorter and more direct route from the Ueland Tree Farm to State Route 3 (SR 3). The proposed changes to the Proposed Development Alternative require modification of the Conditional Use Permit (CUP) issued by Kitsap County.

The SEIS format generally follows the section-heading outline used in the EIS. Only new or changed information since the EIS relating to the Werner Road Connection and/or the project area are described in this SEIS. Previously described information contained within the EIS is not repeated and, accordingly, the EIS is incorporated by reference in its entirety.

1.2 BACKGROUND

Ueland Tree Farm, LLC (UTF) applied for a Hearing Examiner CUP in December, 2007, proposing development of two commercial sand and gravel mines (Gravel "A" and "B") and three basalt quarries (Quarries "A", "B" and "C") on approximately 152 acres (UTF Project Site) of the 1,656-acre Ueland Tree Farm. The UTF Project Site is located west of the City of Bremerton and Kitsap Lake in unincorporated Kitsap County (Figure 1-1). Within the UTF Project Site, the active mining sites will be located on approximately 118 acres. Associated and ancillary development includes an aggregate processing facility, concrete batch plant and topsoil facility. The proposed development is anticipated to

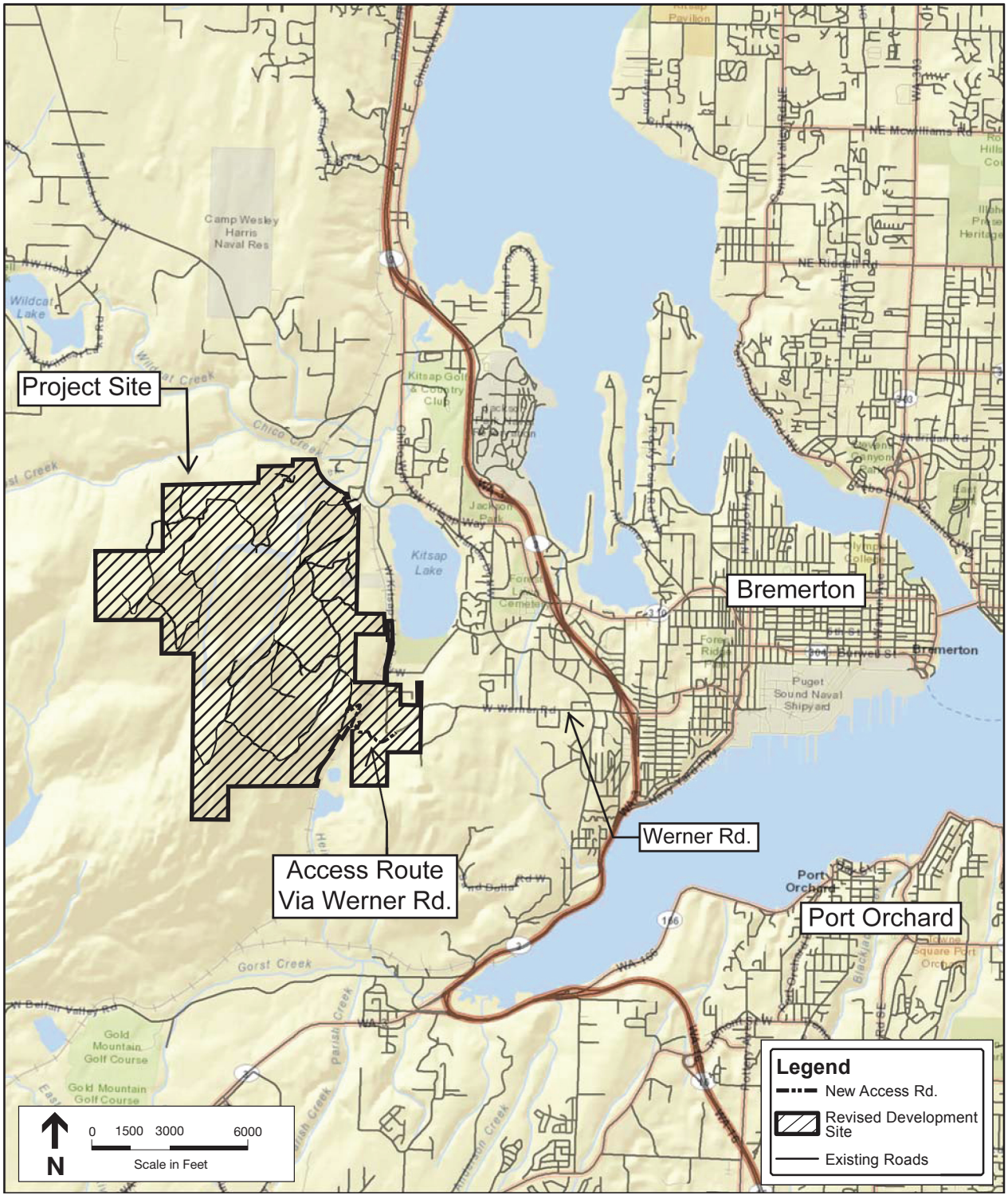
operate for approximately 50 years with phased development and reclamation. Each mining site will be developed in a series of active mining segments and each mining segment will be 10 acres in size. Approximately 11.7 million cubic yards of aggregate material is anticipated to be removed from the mine and quarry sites over the life of the project. Following mineral removal, each mine or quarry segment will be reclaimed consistent with Kitsap County and Washington Department of Natural Resources reclamation standards and returned to commercial timber production within the Ueland Tree Farm.

A variety of trucks will be used to haul mineral products from the UTF Project Site. As approved under the existing CUP, the vehicles would leave Ueland Tree Farm and travel through residential neighborhoods along Leber's Lane NW, Northlake Way, Seabeck Highway, Chico Way and then onto SR 3. Traffic, and neighborhood impacts associated with heavy truck hauling along the existing access route, was a primary issue of CCCCWB, who preferred a southerly hauling route to Werner Road. However, at the time of CUP approval the southerly route was not feasible due to a number of limitations, including lack of ownership of properties necessary to access Werner Road.

The CUP, incorporating the Proposed Development Alternative, was approved on April 26, 2010, subject to approximately 160 mitigation conditions to mitigate otherwise significant adverse environmental impacts including traffic, land use, hydrology, stormwater, wildlife, critical areas, pedestrian and bicyclist safety, air emissions, noise and dust impacts. The CCCCWB filed two LUPA appeals challenging approval of the CUP and denial of their SEPA appeal (challenging the adequacy of the EIS). The Kitsap County Superior Court upheld the Hearing Examiner's approval of the CUP, but remanded for one clarification from the Hearing Examiner. The clarification was made and no further challenge occurred. In addition, as previously described, The EIS appeal was voluntarily dismissed with prejudice, thus establishing the adequacy of the EIS.

UTF now seeks to modify the approved CUP to seek approval of a southerly haul route via the Werner Road Connection. Since final CUP approval, UTF has obtained ownership and access rights over private properties that were necessary to re-route much of the traffic internally through UTF property to the south and ultimately onto Werner Road. This access route was pursued in an effort to address the neighborhood concerns regarding the approved access route from Leber's Lane NW. The new proposed access route provides a more direct access route to SR 3, traverses primarily private property, and avoids traffic impacts to roadways serving the residential neighborhoods.

In addition to the proposed change of the access route via the Werner Road Connection, UTF seeks to remove Gravel "B" from the CUP. Following issuance of the EIS, UTF granted a conservation easement to the Mountaineers Foundation over parcels that comprise Gravel "B". Pursuant to the terms of the conservation easement, Gravel "B" can no longer be developed. Accordingly, UTF is requesting that parcels associated with Gravel "B" be removed from the UTF Project Site. In addition, UTF has discovered that there are a few parcels that were included in the UTF Project Site that are not owned by UTF and not part of the development. Accordingly, UTF seeks by CUP modification to remove those parcels from the UTF Project Site and CUP.



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SOURCE: Cascadia Pacific Group LLC.

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Figure 1-1
Project Vicinity Map
Kitsap County, Washington

1.3 PROPOSED ACTION

1.3.1 PROJECT DESCRIPTION

This SEIS describes and evaluates potential adverse environmental impacts associated with the proposed modifications to the CUP and Proposed Development Alternative. The proposed access road is referred to as the Werner Road Connection.

1.3.2 SITE LOCATION

The UTF site is located in Sections 12, 13, 24, and 25, Township 24N, Range 1W, and Sections 7, 18, and 19, Township 24N, Range 1E (Figure 1-1). Access will be via Werner Road in Section 20, Township 24N, Range 1E. The project area is located in the Chico and Gorst Creek watersheds with the majority of the property in the Dickerson Creek subbasin.

The property is located between large tracts of open space and timber lands to the west with urban residential and industrial development (located in the Bremerton urban growth area (UGA)) along with Mineral Resource and Urban Reserve resource lands to the east. The site is bordered by land owned by the Mountaineers Foundation to the north, the Department of Natural Resources to the northwest and west, the City of Bremerton to the south, the Bremerton Watershed to the southwest, and U.S.A. (Navy) Railroad and Bremerton West Ridge, LLC to the east.

1.4 PURPOSE AND NEED FOR THE PROJECT

The purpose and need for the project remains the same as described in the 2009 EIS.

1.5 SUMMARY OF THE SEPA PROCESS

Chapter 1 of the EIS provides a summary of the public scoping process and comments on the Draft EIS. Scoping was not conducted for the SEIS, because key environmental issues relating to the proposed project have not changed since publication of the EIS. The proposed Werner Road Connection was developed as a means to mitigate one of the major neighborhood concerns associated with the project and traffic impacts on Leber's Lane NW, Northlake Way, Seabeck Highway and Chico Way.

Following the EIS and CUP approval, UTF actively pursued acquisition of additional private properties and access rights necessary to re-route much of the traffic internally to ultimately connect to Werner Road. UTF was successful in securing ownership and access rights and is now requesting a modification to the CUP to facilitate the new access route. Because the project has changed, Kitsap County has determined that a Supplemental EIS should be prepared in conjunction with consideration of the CUP modification. Consistent with WAC 197-11-600 (4), a Supplemental EIS can be prepared for a variety of reasons, including:

- The proposal has changed and is likely to cause new or increased significant adverse environmental impacts that were not evaluated in the original EIS.

- New information becomes available indicating new or increased significant environmental impacts are likely.

- If the proposal is substantially similar to the one covered in an existing EIS, that EIS may be adopted; additional information may be provided in an addendum or SEIS.

Kitsap County regulations require SEPA compliance for approval of the CUP modification. Because the majority of the original proposed development has remained the same, the County determined that a focused SEIS would be the most appropriate avenue for SEPA compliance. Scoping is not required for a Supplemental EIS. Because the major issues and impacts associated with the project have been well documented and have not changed since the issuance of the EIS, scoping was not deemed necessary and was not conducted.

1.6 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

1.6.1 PROPOSED CUP MODIFICATION

As described in the EIS, the approved Ueland Tree Farm Mineral Resource Development Project proposes development of commercial sand, gravel, and basalt mines on the UTF Project Site (Figure 1-2). Development plans consist of one gravel mine, three basalt quarries, aggregate processing facility, concrete batch plant and topsoil facility. The proposed sand and gravel mine is designated Gravel Mine "A". The three quarry areas are designated Quarry Areas "A", "B", and "C". The overall project parameters have not changed, except for deletion of Gravel "B".

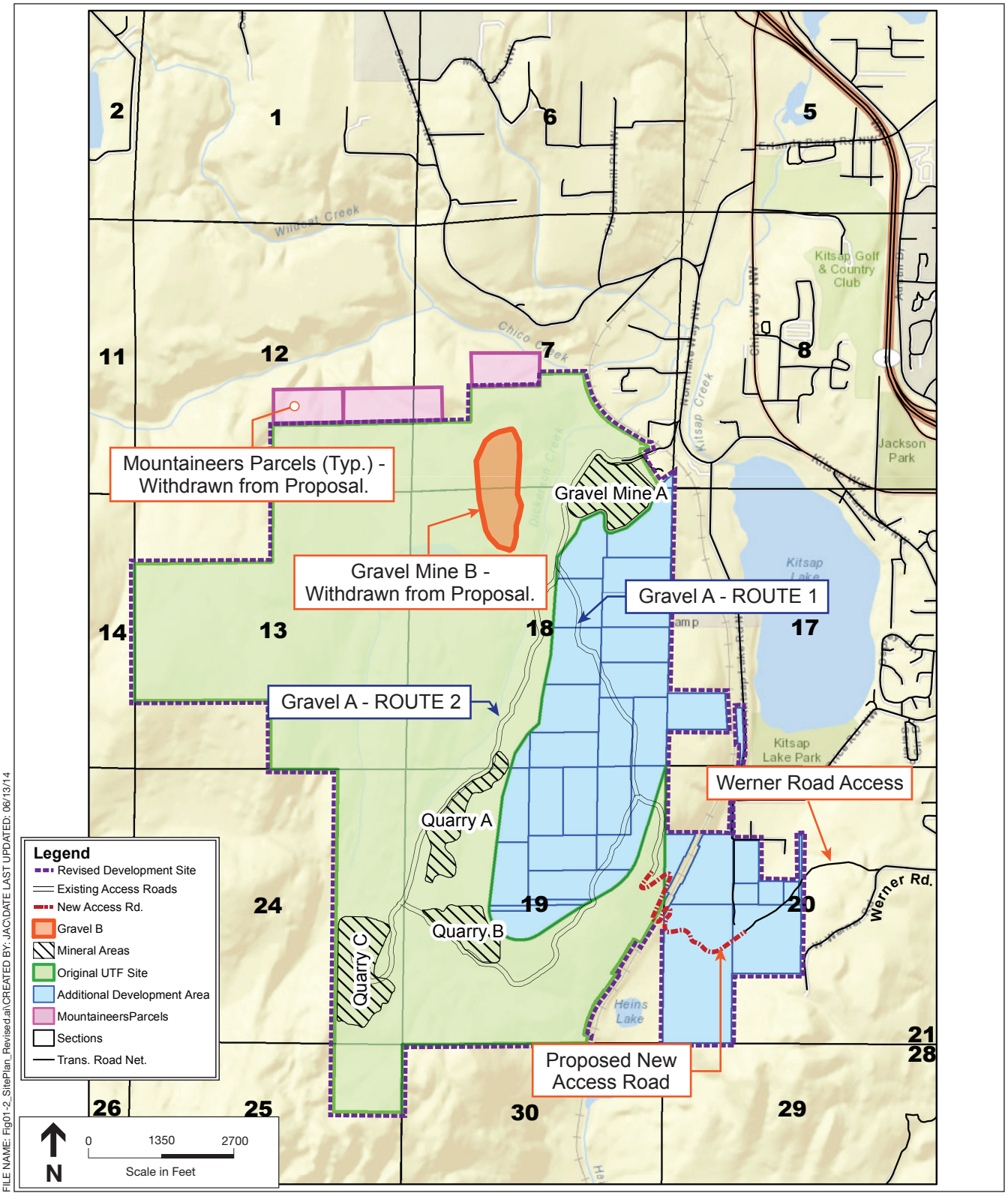
Under the proposed CUP modification for the Werner Road Connection, the transport of rock and aggregate will occur on a new access road, which will connect the UTF property to Werner Road. If the CUP modification is approved, the aggregate processing facility will potentially be constructed off-site at a location not within the UTF Project Site, rather than being constructed on Gravel "A". If required, the off-site aggregate processing facility will be evaluated and permitted under applicable Code requirements, including SEPA review, at the time of any such proposal.

The proposed changes to the Proposed Development Alternative include the following:

- Re-routing the primary access and hauling roadway from Lebers Lane NW southerly to Werner Road, including associated road construction, implementation of stormwater best management practices (BMPs) and replacement of two existing culverts.
- Removal of parcels associated with Gravel "B", and removal of several parcels that were inadvertently included in the UTF Project Site that are not owned by UTF and not part of the development.

- Inclusion of several additional parcels that are within the Project Site, but are not going to be utilized in the project.
- Potential to relocate the proposed aggregate processing facility on Gravel "A to a nearby off-site industrial location not within the UTF Project Site, subject to obtaining all necessary governmental permits. The proposed aggregate processing facility would likely include a conveyor system, which would likely be parallel to the proposed haul route.

Because these elements are preliminary at this time, they are not included in the proposed CUP modification. Should these potential components be proposed, they will be subject to site-specific SEPA evaluation and permit conditions as required.



SOURCE: Cascadia Pacific Group LLC.

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Figure 1-2
Site Plan
Kitsap County, Washington

These modifications are further described below.

SAND AND GRAVEL MINES (REMOVAL OF GRAVEL "B")

UTF granted a conservation easement to the Mountaineers Foundation which encompasses Gravel "B". Accordingly, Gravel "B" can no longer be developed. The CUP modification requests elimination of the parcels comprising Gravel "B" from the CUP. In addition, UTF seeks to remove parcels that were inadvertently included in the UTF Project Site that are not owned by UTF, nor involved in the development. Figure 1-2 illustrates the parcels that have been withdrawn from the original proposed development, as well as properties that have been acquired by UTF, including the area proposed for the Werner Road Connection.

WERNER ROAD CONNECTION (RE-ROUTE TRANSPORT OF ROCK AND AGGREGATE FROM LEBER'S LANE NW TO WERNER ROAD)

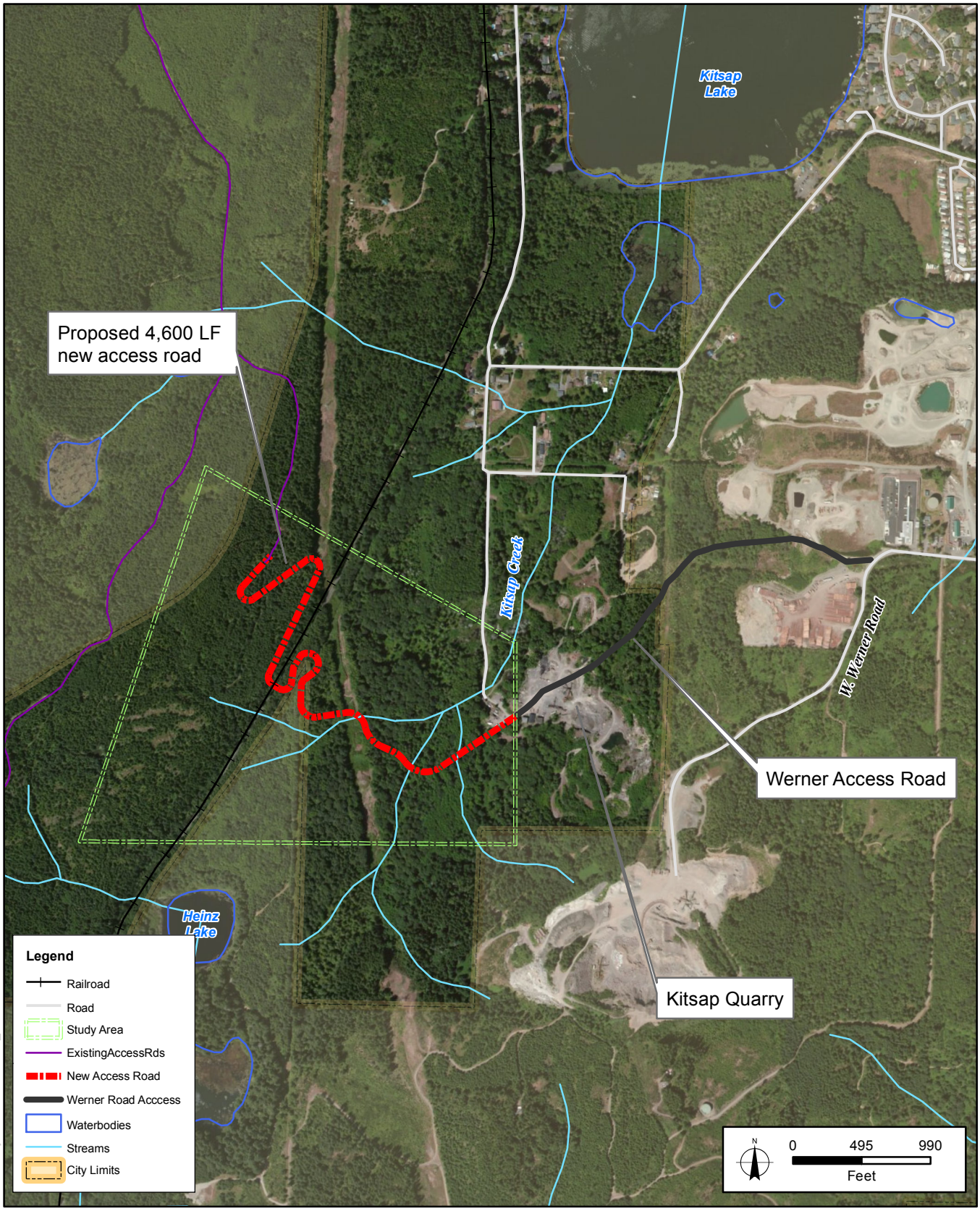
The proposed CUP modification re-routes transportation and hauling of rock and aggregate materials from the access route at Leber's Lane NW southerly over UTF properties directly onto Werner Road in Section 20, Township 24N, Range 1E (Figure 1-3). This new access route bypasses the residential neighborhoods and runs primarily through private UTF properties with a direct route to SR 3. However, while excluding transport and hauling, UTF desires to maintain access for employees, service, maintenance and other ancillary purposes from Leber's Lane NW.

The approximately 3-mile new access route will utilize, in part, an existing historic timber hauling roadway on the UTF property. The remaining roadway will be newly constructed to Kitsap County and/or Department of Natural Resources road standards. UTF has obtained approval from Kitsap County and the City of Bremerton for a roadway connection extending from Ueland Tree Farm to Werner Road.

The new access route includes improving approximately 1,000 LF of existing UTF historic timber hauling roadway and construction of approximately 3,600 LF of new gravel roadway to CUP and Department of Natural Resources road standards. The overall roadway will be 25 feet in width, including stormwater improvements and a 15 foot wide roadway surface. There are currently restrictive culverts in the two streams (Drainages X and W). These culverts will be removed and crossing areas will be replaced with appropriately sized fish-passage culverts. Construction of the access roadway will include management of stormwater and runoff in accordance with Kitsap County stormwater regulations, including (a) installation of low impact design (LID) rain gardens for natural dispersion; (b) a stormwater detention and water quality facility; and (c) three bio-retention facilities.

AGGREGATE PROCESSING FACILITY (POTENTIAL TO MOVE OFF-SITE)

Because this project element is preliminary at this time, it is not addressed in this SEIS. If it is determined that the facility will move off-site, a site-specific SEPA evaluation will be conducted as appropriate.



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SOURCE:ESRI (aerial); Kitsap Co, 2003, 2008; WDNR, 2008; Cascade Pacific 2014.

Figure 1-3 Proposed Access Road Overview

Kitsap County, WA

1.7 IMPACTS AND MITIGATION SUMMARY

The primary impacts and mitigation measures identified in the SEIS are summarized below in Table 1-1.

Table 1-1. Summary of Impacts and Mitigation

ENVIRONMENTAL ELEMENT	Werner Road Connection Project
Geology/Soils Impacts	• Potential for erosion and sedimentation during construction of the access road. • Potential for long-term stability issues along cut and fill slopes, and the access road hillside.
Geology/Soils Mitigation	• Proper design and implementation of a stormwater pollution prevention plan (SWPPP) will avoid erosion-related impacts to surface water resources during construction. • Cut slopes will be developed in a stable manner as determined based on the recommendations of the project geotechnical engineer. Design of any walls greater than 4 feet high will be completed by a licensed engineer and approved by Kitsap County Public Works prior to construction. • Fill slopes will be developed in a stable manner as determined based on the recommendations of the project geotechnical engineer. Native forest cover will be established on fill slopes wherever possible. • Annual inspections and maintenance as necessary of walls and drainage features to identify and address areas of potential concern.
Water Resources Impacts	• Erosion during construction could increase the potential for sediment transport to site streams; however, implementation of BMPs during construction would result in a low potential for impacts to water resources. • Road construction will result in buffer impacts to jurisdictional wetlands K/L J, and E; however, with buffer mitigation, impacts are not expected to be significant. • There will be an interbasin transfer of water from Basin D to E that could change the pathway and timing of delivery of water to Wetland K/L, however, because of flow control measures proposed for this location, the impact is not expected to be significant • The installation of new impervious roadway will result in a modification of the quantity and quality of surface runoff within the project area. Potential impacts to water resources are expected to be minimal. • Grading to install the road will alter surface water pathways, and potentially shallow groundwater pathways in areas not already disturbed by the existing road. Potential impacts to water resources are expected to be minimal.

Water Resources Mitigation	• Avoidance and minimization measures that avoid direct wetland impact and minimize stream crossings, limits the potential scope of impacts. • The project is being designed to comply with all applicable surface water and ground water regulations. • Erosion and sediment control Best Management Practices (BMPs) will be implemented to avoid and minimize the transport of sediment away from the road system. • Stormwater BMPs including a combined detention/wet pond for the steep section of road, and two bioretention facilities along the flat portion of road along the valley bottom will minimize the potential for receiving water impacts. • Culverts at the two stream crossings will be replaced with new structures designed to meet the 2013 Water Crossing Guidelines prepared by WDFW. • Proper design and implementation of a SWPPP will be essential to avoiding impacts to surface water resources during construction. • Annual inspections and maintenance (as necessary) of stormwater BMPs.
Vegetation/Habitat Impacts	• A total of approximately 960 lineal feet (14,370 square feet) of wetland buffer and 850 lineal feet (12,750 square feet) of stream buffer will be impacted by road construction. • Clearing activities associated with road construction will likely result in direct mortality of less mobile wildlife (ground-nesting birds, small mammals, amphibians, and reptiles) due to clearing activities. • Road construction activities will likely result in temporary displacement of more mobile wildlife (birds and large mammals) from the vicinity of road construction activities due to habitat removal, vibration, and noise disturbance. • Potential impacts to a heron rookery at Kitsap Lake from the proposal are expected to be minimal. • Truck traffic along the haul road will create noise, vibration, dust, and visual disturbance, which may affect wildlife populations in the area. • No adverse effects are anticipated to endangered, threatened, or sensitive species because none are found within the UTF Project Site and access road area. • Use of the access road to haul quarry materials can increase particulates in the air, and this fugitive dust has the potential to be deposited in the adjacent tributaries and be carried into Kitsap Creek (fish bearing stream).

Vegetation/Habitat Mitigation	• Mitigation includes establishing appropriate buffers around all wetlands and streams that may be affected by the proposed mineral resource development project and using existing impacted areas of the stream where culverts are already present. • Reduction of impacts at the two stream crossings will be accomplished through actions such as the use of rock walls to narrow the road prism at the drainage crossing, and/or wing walls. • BMPs will be implemented prior to construction activities and will follow the temporary erosion and sediment control plan (TESC) established for the project, and will comply with CUP and Kitsap County requirements. • Impacts to buffer areas associated with streams and wetlands will be mitigated following requirements outlined in the Kitsap County Code. • Actions associated with work inside the ordinary high water marks (OHWM) at the two existing stream crossings (Drainages W and X-Kitsap Creek) are self-mitigating and will follow the requirements of the Hydraulic Project Approval (HPA) when approved by the Washington Department of Fish and Wildlife (WDFW) and will comply with development standards described within KCC 19.300.315 D. • Mitigation for work within the OHWM of the two stream crossings (Drainages W and X-Kitsap Creek) is expected to be satisfied through the removal of two restrictive pipe culverts and replacement with box culverts according to WDFW specifications. • Temporary construction impacts to buffer vegetation will be mitigated by replanting the cleared areas with native shrubs and trees.
Noise/Vibration Impacts	• Construction of the new access road will result in minimal offsite noise impacts. • Trucks operating on the new access road are not expected to result in noise impacts to sensitive residential receivers due to distance and intervening trees from surrounding forest land. • Truck traffic utilizing Werner Road would result in minor daytime noise increases. Predicted noise levels do not meet WSDOT noise impact criteria. • Truck traffic utilizing Werner Road would result in minor nighttime noise increases during periodic nighttime trucking. Predicted noise levels do not meet WSDOT noise impact criteria.
Noise/Vibration Mitigation	• Construction activities would be restricted to hours and levels designated by Kitsap County (KCC 10.28). If construction activities exceed permitted noise levels, the County would instruct the contractor to implement measures to reduce noise impacts to comply with the County Code, which may include additional muffling of equipment.

Land Use Impacts	• Construction of the road will result in increases in construction traffic, dust, and noise in the project area, with the potential to affect adjacent land uses. • Shifting the transport of rock and aggregate to West Werner Road would reduce the potential for noise, dust, odor and truck traffic impacts on residential neighborhoods along Leber's Lane NW, Grover Lane and Northlake Way. • A modification to the CUP will be necessary. The proposed modifications are adjunct to the permitted land uses under the CUP and consistent with existing zoning. Final determination of consistency with Kitsap County's goals and policies will be determined by the County Hearing Examiner as part of the CUP modification process.
Land Use Mitigation	• That portion of the new access route that traverses the Bremerton West Ridge property may be required to be upgraded to City of Bremerton road standards in the event that urban development is proposed on this land in the future. • The haul road for Quarries "A," "B," and "C" will be designated as the primary road for removing rock and aggregate.
Transportation Impacts	• Construction of the new access road would require minimal offsite construction vehicle and worker traffic along Werner Road. • The new access road will have a minimal effect on local traffic operations along Werner Road. The EIS evaluated and analyzed the impacts of traffic and transportation along the existing access route. Shifting heavy truck traffic and hauling to the proposed new access road will significantly reduce traffic and neighborhood impacts along the existing access route along Lebers Lane, Grover Lane, Northlake Way, Seabeck Highway and Chico Way. • The new access road will require one new crossing of the United States Department of Defense (DoD) railroad right-of-way.
Transportation Mitigation	• The City of Bremerton has approved the road approach to Werner Road and imposed conditions deemed necessary to mitigate any traffic impacts associated with the project. While no significant impacts are anticipated on Werner Road in the foreseeable future, the City of Bremerton may reconstruct Werner Road in the future and the City's Concurrency Certificate requires UTF to participate. • An easement will be required from the United States Department of Defense (DoD) (railroad right-of-way owner). Prior to construction of the new access road, the DoD will require establishment of an easement and review and approval of engineering plans.

Aesthetics Impacts	• Construction of the Proposed Development Alternative will reduce visual aesthetics if forested views are replaced by views of cleared areas associated with the new access road, and may reduce visual aesthetics during construction activities as a result of construction equipment, construction debris, etc. Some individuals may perceive the changed viewscape negatively. • The proposed access route is potentially visible from just two of the ten viewpoints: A Kitsap Lake downhill viewpoint and an East Bremerton viewpoint. The access route will be visible as an additional linear feature in the landscape and its view impact minimized when seen within the visual context of existing landscape features.
Aesthetics Mitigation	• The existing topography and tree cover will limit visual impacts from the Proposed Development Alternative, and as such, no additional mitigation is determined to be necessary.

Chapter 2 Geology and Soils

2.1 INTRODUCTION

This chapter evaluates existing geology and soil conditions, potential impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the Werner Road Connection Project. The proposed access route for transportation of rock and aggregate materials will shift from the currently approved Northlake Way access route southerly over UTF-owned land directly onto Werner Road in Section 20, Township 24N, Range 1E. This chapter describes information that is new or modified from the characterization included in Chapter 2 of the 2009 Draft EIS.

The geology and soils along the proposed access road area have been described by several regional sources, and through a site-specific investigation developed by the project proponent. These key data sources have been used as background material to develop this Draft SEIS and include:

- Hydrogeologic Report – Ueland Tree Farm Mineral Resource Development (Parametrix, 2007a). Prepared for Ueland Tree Farm, LLC.
- Ueland Tree Farm Kitsap Lake Property Draft Sub-Basin Assessment (Parametrix, 2007b). Prepared for Ueland Tree Farm, LLC.
- Preliminary Geological Report, Mineral Resource Evaluation, Ueland Tree Farms (GeoResources, 2006). Prepared for Ueland Tree Farm.
- Shallow Subsurface Exploration Results, Port Blakely Kitsap Joint Planning Area (AESI, 1999). Prepared for Port Blakely Communities.
- Deep Subsurface Exploration Reconnaissance Results, Kitsap Central Business District (AESI, 2000). Prepared for Port Blakely Communities.
- Soil Survey of Kitsap County Area, Washington (McMurphy, 1980).
- Geologic Map of the Wildcat Lake 7.5 Minute Quadrangle, Kitsap and Mason Counties, Washington (Haeussler and Clark, 2000).
- Geologic and Hydrogeologic Report Supplement UTF- Werner Road Connector Ueland Tree Farm Mineral Resources Development. (GeoResources, 2014). Included in Appendix A.

2.2 AFFECTED ENVIRONMENT

Geology and soils at the UTF site were characterized in detail in Chapter 2 of the 2009 Draft EIS. Previously described information is not included in this chapter. Only new or changed information relating to Geology and Soils is described in this chapter.

2.2.1 TOPOGRAPHY

The primary topographic features along the proposed access road are the steep hillslopes on the western side of the Kitsap Creek valley site, consisting of rolling hills typical of this portion of the Puget Sound

lowlands. The site includes two north-south trending ridge and valley formations that occur on the slopes of Green Mountain, and are associated with tributary channels within the Chico Creek drainage basin. Overall elevations range from about 280 feet in the eastern portion of the property near Kitsap Lake, to about 1,080 feet on the UTF site.

The proposed access road drains to Kitsap Creek and Kitsap Lake through complex topography on the valley bottom. This area had previously been identified as lacustrine deposits, but more recent mapping suggests that the area consists of outwash deposits that include kame and kettle landforms (GeoResources, 2014). The complex mounds and swales appear to be consistent with the latter interpretation.

There is one subbasin within the Gorst Creek drainage, focused in the southeastern corner of the site. This area drains several intermittent streams and wetlands east to Heinz Lake (also known as Heins Lake). The hydrology in this area is complicated and documentation is inconsistent, however, recent evaluations indicate that Heins Creek flows into Alexander Lake, and Heins Lake is not connected with Alexander Lake. Additional investigation is needed to confirm the hydrology (GeoResources, 2014).

2.2.2 GEOLOGY AND SOILS

The proposed access road site of the Werner Road Connection Project is located within the Puget Sound lowlands, a north-south basin defined on the east by the Cascade mountain range and on the west by the Olympic mountain range. To the south, the basin ends at the drainage divide south of Olympia, and to the north by a drainage divide north of Bellingham (Kruckeberg, 1991). The region has been shaped by tectonic and volcanic processes as modified by a long series of glaciations; both of these general processes are expressed at the project site. Additional characterization of the geology and soils at the UTF site are included in Chapter 2 of the 2009 Draft EIS and in Appendix A.

The proposed access road alignment covers two general types of surficial geology. On the steep hillside on the west side of the alignment, the road traverses bedrock deposits with shallow soil development and high runoff potential. The primary types of bedrock mapped in the vicinity of the site include the Crescent Formation massive basalt flows and submarine basalt and volcaniclastic rocks (GeoResources 2014).

The valley bottom is mapped as outwash materials with relatively limited areas of younger alluvium, based on 1:100,000 DNR mapping. Glacial outwash materials are generated and deposited as part of the meltwater streams that flow from receding continental ice. Recessional outwash materials have not been overridden by ice, are less dense, and can allow significant infiltration. Advance outwash (Qva) consists of materials that ran off of advancing glaciers with materials similar to the recessional outwash, but with deposits that are much denser since they were overridden by glacial ice.

Soil type and extent has been mapped by the Natural Resource Conservation Service (NRCS) (formerly Soil Conservation Service) at a scale of 1:24,000 (McMurphy, 1980). Soils on the UTF site are typically related to the surficial geologies described above. The bedrock areas on the western slope of the road alignment are mapped as having high runoff potential, likely due to the influence of the shallow bedrock.

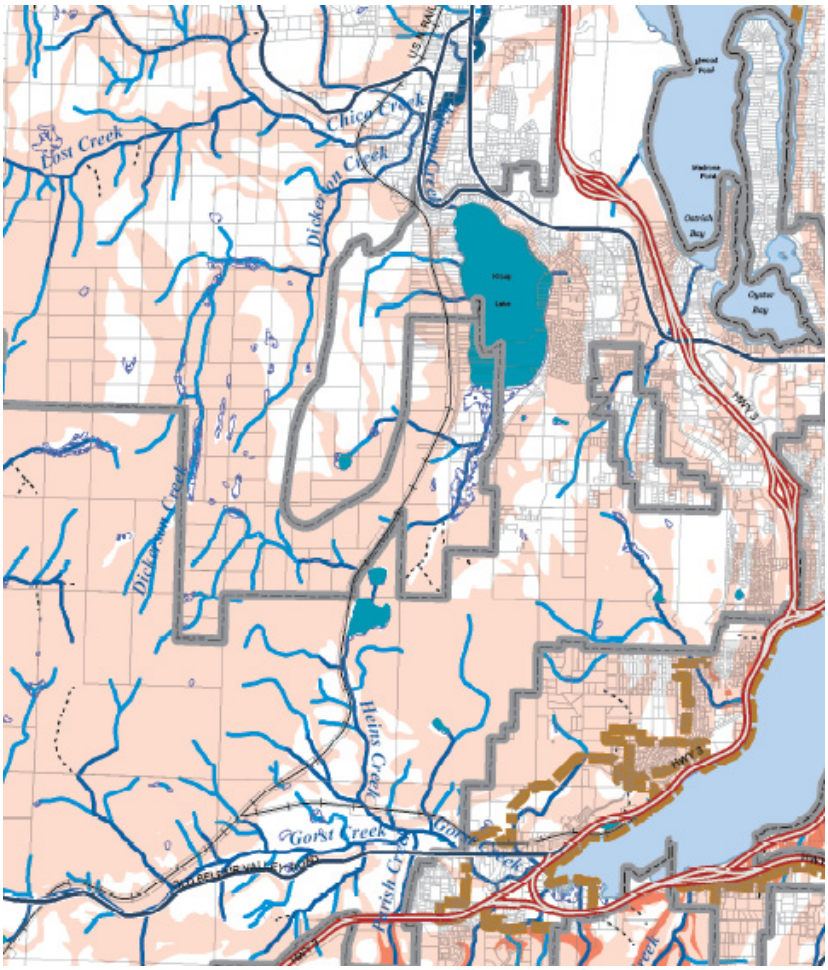
2.2.3 GEOLOGIC HAZARDS

Typical geologic hazards in Kitsap County include areas susceptible to erosion, sliding, and earthquakes. These hazards are typically assessed by considering soil type and topography, as well as past history of these hazards.

The western portion of the proposed access road is mapped as moderate geologic hazard, also defined as designated critical areas (Kitsap County, 2007; KCC 19.400.410) (Figure 2-1). This mapping is likely based on the steep slopes that extend to the valley floor. The Kitsap County GIS mapping is based on the report Quaternary Geology and Stratigraphy of Kitsap County, developed as a graduate thesis at Western Washington University by J. Deeter in 1979.

There do not appear to be any areas along the road alignment that would be especially susceptible to liquefaction during an earthquake (e.g., fill materials over marine or wetland sediments). County-wide mapping of liquefaction susceptibility by Washington Department of Natural Resources maps areas of the site as bedrock. The majority of the site not mapped as bedrock is classified as "very low to low" and "low" liquefaction susceptibility (WDNR, 2004).

Figure 2-1 Portion of Kitsap County Geologic Hazard Map



Source: Kitsap County GIS, June 2007.
Note: Light brown shading indicates moderate hazard areas.

2.3 REGULATORY SETTING

Permits required for the project that are directly applicable to geology and soils are described in Chapter 2 of the 2009 Draft EIS.

2.4 IMPACTS

2.4.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road that crosses two streams. Other portions of the road will be newly constructed. Under the Werner Road Connection Project, access road construction would include (see Figure 1-3):

- Installing an approximately 4,600 foot long lineal foot (LF) access road between the UTF site and the Kitsap Quarry. About 1,000 LF of an existing access road will be improved, and about 3,600 LF will be new road.
- Installation of stormwater management facilities and replacement of two existing culverts.

The primary impacts to earth resources are likely to occur during construction of the road, as installation of the road will require significant ground disturbance. To traverse the steep slope and intersect the existing railroad at grade, it will be necessary for grading to install an appropriate vertical road alignment. Construction of the access road will require earthwork to develop the roadway alignment shown on the preliminary roadway plans prepared by Contour Engineering (2014). To traverse the steep hill on the west side of the project area, the proposed roadway surface will have grades of between 4.2 and 12 percent. Once the roadway intersects the valley bottom, roadway slopes will be between 1 and 2 percent.

To install the proposed roadway, excavation and fill will occur to grade the hillside and meet the existing railroad elevation. The majority of the roadway that traverses the hillside will be fully benched. The deepest cut is expected to occur on the switchback situated at approximately station 12+00 and may exceed 30 vertical feet depending on the accuracy of the LiDAR data. Field observations have indicated that this proposed switch back area is much flatter than what is represented by the LiDAR data. Typical cuts appear to be on the order of 5 to 10 vertical feet on the hillside, and less than 5 feet on the valley bottom. The deepest fill is approximately 25 feet and occurs southeast side of the Navy Railroad near the proposed road station 25+00.

Erosion and sediment control Best Management Practices (BMPs) will be implemented to avoid and minimize the transport of sediment away from the road system.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

During use of the access road, potential impacts include:

- Generation and wash-off of sediments from the road.
- Long term stability of the cut and fill slopes.

The generation and wash-off of sediments from the road is the most likely impact over time to earth resources. The primary method to address this process is the implementation of stormwater BMPs as discussed in more detail in the Surface Water and Wetlands chapter.

The global stability of the hillside and especially the cut and fill slopes along the road alignment is the primary long term potential impact from the proposed construction. At this time, the risk of overall slope failure appears to be low. The Geologic and Hydrogeologic Report found no evidence of significant erosion or slope instability, including in the period post timber harvest (GeoResources, 2014). The report further suggests that the stability is based on the presence of very dense bedrock materials (GeoResources, 2014). Based on this evidence, hillslope stability impacts are most likely to be focused in the cut and fill areas.

2.5 MITIGATION MEASURES

Mitigation measures have been proposed to offset potential impacts to soils and geology from the Werner Road Connection Project. These measures will be consistent with applicable requirements from Kitsap County and the City of Bremerton for roadway design.

MITIGATION MEASURES INCLUDED IN THE PROJECT DESIGN AND/OR REQUIRED FOR PERMIT APPROVAL

Erosion Hazards

To reduce the risk of erosion during construction, a Stormwater Pollution Prevention Plan (SWPPP) will be developed and implemented. As part of the SWPPP, there are a number of recommendations included in the Geologic and Hydrogeologic Report Supplement (GeoResources, 2014) that are incorporated herein as Mitigation Measures, as paraphrased here:

- Limit the removal of vegetation to the minimum area required for construction.
- Graded areas should be shaped to avoid concentrations of water onto erosion sensitive areas
- Implement appropriate source control and cover BMPs, particularly on cut and fill slopes (e.g. wattles, terracing, etc.)
- Implement short and long term approaches to soil stability. BMPs for immediately after grading may include mulch, erosion blankets, or rock. Installation of vegetation, particularly native forest, will be the most effective for long term stability.

Landslide Hazards

To mitigate potential bedrock failure risks during mining, the measures recommended by GeoResources (Appendix A) are incorporated here as Mitigation Measures.

Landslide Hazard Mitigation Measures

As previously discussed, the site and surrounding area has been previously harvested for timber. Based on our data review, no significant erosion or landslide actively was reported or documented during or following the previous harvest. The proposed connector road construction will require significant earthwork to reach the designed grades. As with erosion, the increased risk of slope instability will occur during the active construction activity. The risk of slope instability can be mitigated with the following:

- Limit the amount of open grading or cut slopes.
- Minimize the removal of vegetation to the active construction area.
- Where possible, leave the stumps in place to minimize the amount of upslope ground disturbance.
- Minimize the disturbance of the undergrowth.
- Construct interceptor berms, dikes and/or shallow drainage swales to intercept surface water flow and route the flow away from the cleared/graded areas to a stabilized and approved point of controlled discharge.
- Install collector drains in significant seepage areas.
- Install a berm with collector drain above the slope to prevent uncontrolled runoff from above (only in areas where slopes towards cut slope).
- No stockpiling of excavated soil or fill material directly upgradient from streams or wetlands
- Stormwater management should include the use of ground cover, ditches/swales, berms, check dams, as described above in erosion hazard section.
- Site specific recommendations will be provided at the time of construction by geotechnical professionals.
- The contractor should perform daily site review and maintenance of all erosion and sedimentation control measures at the site to ensure their proper working order.

No change in the risk of erosion or slope instability is expected at the site or the adjacent areas if appropriate mitigation measures are utilized. Best Management Practices (BMPs) as described in the 2010 Kitsap County Stormwater Manual for construction sites and continued monitoring during and after construction should protect the site and the surrounding areas from unwanted erosion and slope instability.

Chapter 3 Water Resources

3.1 INTRODUCTION

This chapter discusses existing water resources in the project area and potential impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the proposed CUP Modification. The UTF site and the proposed access road lie within Water Resource Inventory Area (WRIA 15), which is tributary to a series of inlets in the west-central portion of Puget Sound. Surface water resources on the UTF site include several perennial and intermittent stream channels and wetland areas associated with those drainage patterns. These water resources have been described as part of the site-specific reports provided by the project proponent. The following reports provide the site-specific basis for this analysis:

- Hydrogeologic Report – Ueland Tree Farm Mineral Resource Development (Parametrix, 2007a). Prepared for Ueland Tree Farm, LLC.
- Ueland Tree Farm Kitsap Lake Property Draft Sub-Basin Assessment (Parametrix, 2007b). Prepared for Ueland Tree Farm, LLC.
- Preliminary Drainage Report for Ueland Tree Farm Mineral Resource Development, Kitsap County, WA May 2014 (Contour Engineering LLC, 2014). Included in Appendix A.
- Geologic and Hydrogeologic Report Supplement UTF-Werner Road Connector March 18, 2014 (GeoResources, LLC 2014). Prepared for Ueland Tree Farm, LLC. Included in Appendix A.
- Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan – Ueland Tree Farm/Kitsap Quarry – Private Access Route. April 2014. (Soundview Consultants, 2014) Included in Appendix A.

3.2 AFFECTED ENVIRONMENT

3.2.1 SURFACE WATER HYDROLOGY

Site hydrology was characterized in detail in Chapter 4 of the 2009 Draft EIS, and Earth conditions were described in Chapter 2 of that document. Previously described information is not included in this chapter. Only new or modified information about surface water is included in this chapter. Surficial geologic conditions in the vicinity of the proposed access road have been characterized by Contour Engineering and GeoResources as part of site specific investigations; additional information is included in Chapter 2, Geology and Soils.

The proposed access road of the Werner Road Connection Project occurs within the Kitsap Creek drainage. Streams within this drainage flow into Kitsap Lake. Kitsap Lake is in turn tributary to Chico Creek and eventually Chico Bay within Dyes Inlet. See Figure 1-1 and Exhibit 1 in Appendix A, Preliminary Drainage Report (Contour Engineering, 2014).

Descriptions of Kitsap Lake, Dyes Inlet, and wetlands in the project area are described in Chapter 4 of the 2009 Draft EIS. The proposed access road is aligned through several small subbasins, all of which are

reported to drain north to Kitsap Lake. The water resources in the vicinity of the proposed access road are described further below.

3.2.2 STREAMS

The proposed access road winds down a steep slope to connect the proposed mining area on the UTF site to the Kitsap Quarry (Figure 1-3). The alignment of the road crosses through the upper portions of the Kitsap Creek drainage area. Approximately 2,000 feet to the south, a low divide is present that separates the Kitsap Lake drainage from the Gorst Creek drainage.

There are four small streams in the vicinity of the project area, all tributary to Kitsap Creek/Lake (Soundview, 2014). Two Type F streams (Drainage W and Kitsap Creek [Drainage X]) intersect the proposed haul road. Both streams that intersect the proposed road are relatively small, with active channels less than 3 feet wide, based on field observations. Both existing road bed crossings will be upgraded as part of the proposed access road construction.

Both streams that would be crossed by the road have relatively small contributing basins. Drainage W is reported to have a 35 acre basin, and Drainage X/Kitsap Creek is reported to have a 6.3 acre drainage basin, according to the *Drainage Report* (Contour Engineering, 2014). The relatively small size of the contributing basins suggests that the hydrology of the streams may be primarily supported by groundwater discharge processes at the toe of the significant slope on the western side of the valley. Groundwater discharge appears to support the depressional and headwater wetlands in the area; both channels begin within depressional wetland complexes. The *Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan* (Soundview, 2014) reports that beaver activity is a significant factor in both channel form and hydrologic functioning in both streams.

3.2.3 WETLANDS

Wetland investigations in the vicinity of the proposed access road identified element wetlands; these wetlands are described in detail in the *Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan* (Soundview, 2014). Wetlands that are directly adjacent to the proposed access road include (see Sheet 1 of 2 in Appendix C in Soundview, 2014):

1. Wetland K/L. This Category 3 (under Kitsap County Code) depressional wetland complex is the headwaters of Drainage W. This complex is located south of the proposed road.
2. Wetland J. This Category 3 depressional wetland is located directly south of the proposed road alignment.
3. Wetland H. This Category 4 wetland occurs along Drainage W. Wetlands F, G, and I. These Category 4 depressional wetlands occur along Kitsap Creek, downstream of the proposed road.
4. Wetland E. This Category 3 (as defined by Kitsap County) wetland receives surface drainage from Kitsap Creek, and is located downgradient from the proposed road.

As currently configured, the road will be aligned in a way that will not directly impact any of these wetlands. The proposed road will intersect the regulatory buffers of Wetlands K/L, J, and E. For further discussion of the buffer impacts and proposed mitigation, refer to Chapter 6, Vegetation and Wildlife.

3.2.4 SURFACE WATER QUALITY

A complete discussion of surface water quality, and how existing and historical land use practices can affect water quality, is included in Chapter 4 of the 2009 Draft EIS.

There are several water bodies in and near the project site that are listed as Category 5 waters on the 2004 Clean Water Act 303(d) list (Ecology, 2004). The 303(d) list, maintained by Ecology, is a regularly updated record of water bodies that have documented exceedances of State water quality standards. The Category 5 listing indicates that a water body is impaired for at least one characteristic, tested parameter, or designated use. Inclusion as a Category 5 water triggers a process that requires the development of a cleanup plan which includes the development of a Total Maximum Daily Load (TMDL) for the parameters of concern.

The following water bodies are listed as Category 5 waters on or near the proposed access road:

- Kitsap Lake for total phosphorus and fecal coliform in water, and Total PCBs and 2,3,7,8-TCDD (a dioxin) in tissue samples;
- Kitsap Creek between Kitsap Lake and the confluence with Chico Creek for temperature.

The limited existing information suggests that water quality from the site in the fall and winter in the existing drainages would be expected to be generally good, and consistent with expectations of water quality from managed forestland. It appears that warm summer temperatures are the primary water quality issue in the general project vicinity. Increased temperatures can influence other water quality issues, including depressed dissolved oxygen levels, and increased bacterial production. Increased instream water temperatures often result from removal of riparian vegetation, and through beaver activity, as dams can slow water within open water impoundments. Both conditions exist on and near the proposed access road, which may be affecting existing water temperatures to a minor degree.

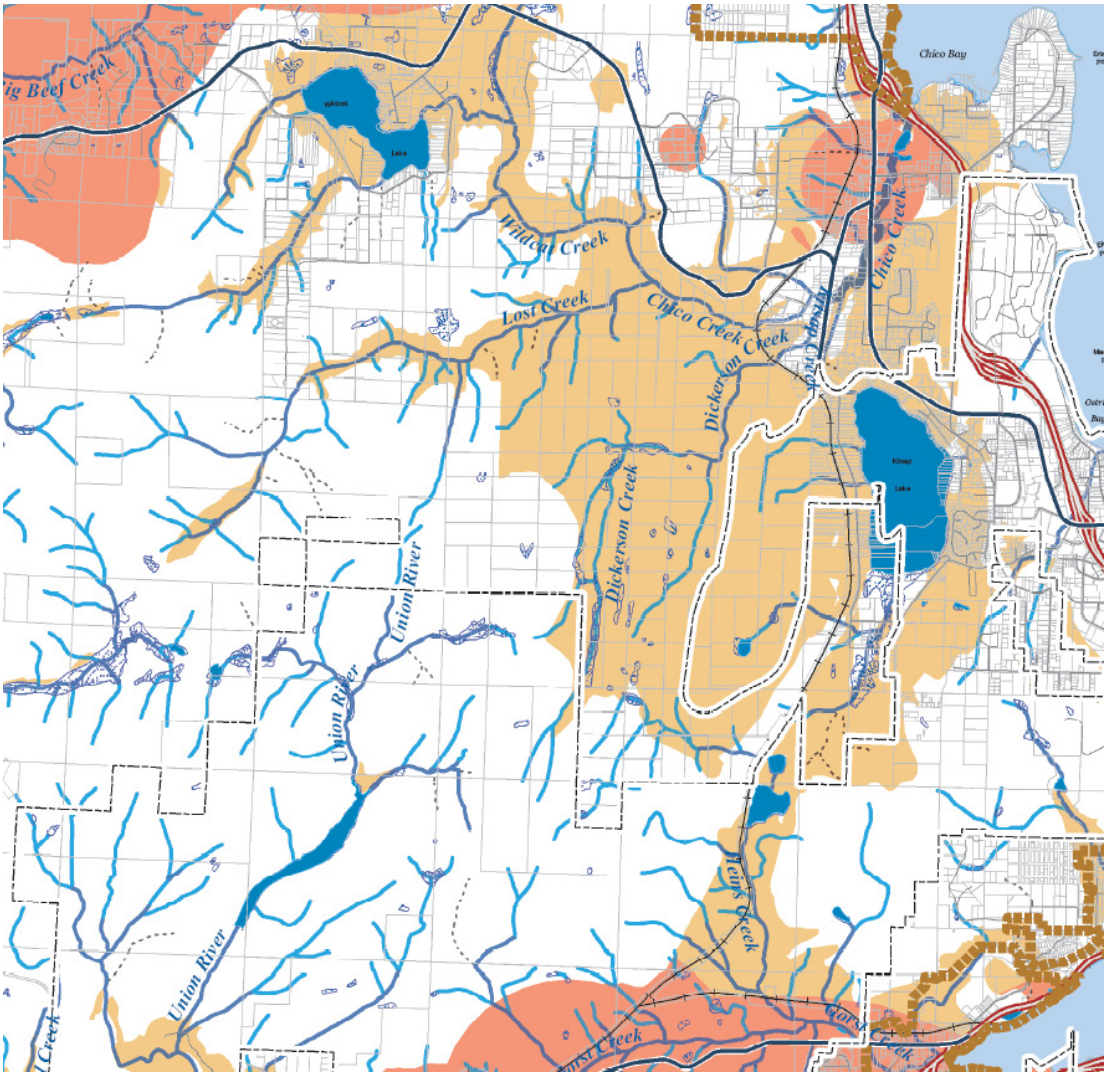
3.2.5 GROUNDWATER

The proposed access road area interacts with groundwater in two general ways: (1) a portion of rainfall that falls on the eastern side of the project area will percolate through the upper soil layers into the upper aquifer, and (2) shallow groundwater appears to discharge along the toeslope, partially supporting the wetlands identified in and around the project area. The Hydrogeologic Report (GeoResources, 2014) identifies two general aquifers in the project area:

1. In the bedrock areas on the western slope, the primary aquifer is confined below the bedrock, and is very deep (potentially greater than 500 feet).
2. In the valley, there is a localized semi-confined aquifer that is generally between 40 and 60 feet below the ground surface. This aquifer occurs within advance outwash sands (GeoResources 2014).

The lower portion of the valley with more infiltrative soils is mapped as a Category 2 Critical Aquifer Recharge Area (CARA) by Kitsap County. The CARA mapping is consistent with an area with highly infiltrative soils overlying a semi-unconfined aquifer.

Figure 3-1 Critical Aquifer Recharge Areas in the Project Vicinity



Source: Kitsap County, June 27, 2007.
Note: Category 1 CARAs are shown in orange; Category 2 CARAs are shown in light brown.

The mapped Category 2 CARA on the UTF property is generally consistent with the presence of glacial outwash materials, but also extends south to incorporate the area of the site that contains many of the tributary streams and wetlands.

The proposed access road appears to have minimal potential to interact with the deeper confined aquifer below the bedrock. Rainfall over the shallow bedrock is likely to flow over the surface or in the shallow subsurface to the toeslope position, rather than infiltrating. Some infiltration is always possible through cracks or fissures, but the volume is likely to be small.

The proposed access road area will convert portions of the lower valley to impervious surface. This will alter, but not eliminate, infiltration pathways. The current proposal to use bioretention for water quality treatment followed by infiltration would retain a similar overall volume of contribution to the valley aquifer. The proposed bioretention facilities will provide water quality treatment. The additional depth

of soil (40 to 60 feet) will then provide additional treatment of water before it reaches the aquifer (GeoResources 2014).

3.3 REGULATORY SETTING

The regulatory setting for wetlands and streams is defined in Chapter 4 of the 2009 Draft EIS, and for groundwater in Chapter 5.

3.4 IMPACTS

3.4.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road that crosses two streams. Other portions of the road will be newly constructed. Under the Werner Road Construction Project, access road construction would include:

- Installation of a 4,600 linear feet (LF) access road that includes improvement of 1,000 LF of existing road and installation of 3,600 LF of new road.
- Stormwater treatment BMPs along the road.
- Replacement of two existing crossings with fish passable crossings.

While replacement of culverts is anticipated to result in long term benefits, impacts from road construction on water resources include potential for erosion or increases in turbidity during access road construction, and replacement of two existing culverts with fish passable crossings.

Construction of the access road will require earthwork to develop the roadway alignment shown on the preliminary roadway plans prepared by Contour Engineering, included in Appendix A. Impacts to Earth are discussed in Chapter 2, Geology and Soils.

To traverse the steep slope and intersect the existing railroad at grade, it will be necessary for grading to install an appropriate vertical road alignment. Construction of the access road will require earthwork to develop the roadway alignment shown on the preliminary roadway plans prepared by Contour Engineering (2014). To traverse the steep hill on the west side of the project area, the proposed roadway surface is projected to have grades of between 4.2 and 12 percent. Once the roadway intersects the valley bottom, roadway slopes are projected to be between 1 and 2 percent.

To install the proposed roadway, excavation and fill will occur to grade the hillside and meet the existing railroad elevation. The majority of the roadway that traverses the hillside will be fully benched. The deepest cut is expected to occur on the switchback situated at approximately station 12+00 and may exceed 30 vertical feet depending on the accuracy of the LiDAR data. Field observations have indicated that this proposed switch back area is much flatter than what is represented by the LiDAR data. Typical

cuts appear to be on the order of 5 to 10 vertical feet on the hillside, and less than 5 feet on the valley bottom. The deepest fill is approximately 25 feet and occurs southeast side of the Navy Railroad near the proposed road station 25+00.

Erosion and sediment control BMPs will be implemented to avoid and minimize the transport of sediment away from the road system.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

Potential long term impacts to water resources from the proposed access road are associated with increases in roadway runoff, and the potential to affect localized groundwater recharge patterns. Modifications to stream flows associated with two culvert replacements are anticipated to improve habitat conditions for fish.

The proposed access road will result in permanent changes in land cover along much of its alignment. The proposed access road will increase the area of impervious surface within Basin E by approximately 7% and approximately 2% in Basin D + E. This increase will alter the amount and quality of rainwater that is transported off the road system. Because the proposed roadway will be a relatively minor percentage of the overall site, and the design and accompanying BMP's will be consistent with Kitsap County requirements, significant impacts are not anticipated. (Refer to Detail 1 Sheet C2 Appendix B for the proposed design).

The installation of the roadway will require the collection of stormwater from along its length to convey runoff to stormwater BMPs to address changes in water quantity and quality. The BMP, which will be designed to match both water volume and flow rates in the affected wetland, will alter how water is delivered from Basin E to Drainage W. Water from the roadway will be routed to the combined detention and water quality pond, then into Wetland K/L. This will modify the existing hydrologic pathways to Drainage W from a distributed pattern to a point drain at the BMP. This has the potential to change the hydroperiod of Wetland K/L and its interaction with Drainage W. If the project focuses what is now a distributed shallow subsurface flow path to a point source, there is the potential to: (1) increase the volume of water being delivered to the wetland, (2) deliver water to the wetland faster via surface flow paths rather than subsurface flow, and (3) increase the frequency and magnitude of water level fluctuations that can negatively influence the ecological functioning of the wetland. By increasing the volume of water discharged to the wetland, it may then deliver more water to Drainage W than currently occurs, which could then result in channel adjustments (erosion) as the stream adjusts to a new hydrologic regime. The combined detention and water quality treatment pond BMP is intended to mitigate these potential changes by providing sufficient detention storage and outlet characteristics to mimic the existing hydroperiod of the wetland. By preserving the pre-project hydroperiod through this mitigation measure, the potential impacts from these changes will be minimal.

The proposed access road will cross Drainages X and W. These drainages now connect headwater wetlands with downstream wetland systems and eventually Kitsap Lake. Both crossings will occur along the alignment of an existing road, and now include relatively small culverts (18 inch diameter).

Riparian vegetation is proposed to be removed from relatively short stretches (approximately 50 ft) of both Drainages X and W, however, much of the area will be re-planted to the new extents of the road and stormwater facilities. The actual road crossings will be covered by the new box culverts. The proposed clearing is not expected to have significant impacts to surface water quality in either drainage.

Based on these project elements, the following potential impacts to surface water resources were identified:

1. There would be direct, permanent impacts to the jurisdictional wetland buffers for wetlands K/L J, and E. These are discussed in the Habitat and Vegetation Chapter, and because applicable permit requirements will be met, impacts are not expected to be significant.
2. There will be an interbasin transfer of water from Basin D to E that could change the pathway and timing of delivery of water to Wetland K/L, however, because of flow control BMP proposed for this location, the impact is not expected to be significant
3. The installation of new impervious roadway will result in a modification of the quantity and quality of surface runoff within the project area. The combination of limited land cover conversion and the proposed flow control and water quality treatment BMPs implemented in accordance with applicable requirements will result in minimal impacts to water resources.
4. Grading to install the road will alter surface water pathways, and potentially shallow groundwater pathways in areas not already disturbed by the existing road. The relatively small footprint of the road, along with avoidance and minimization measures that avoid wetland impacts and minimize stream crossings, will minimize potential impacts to surface and ground water resources.
5. Erosion during construction could increase the potential for sediment transport to site streams, however, implementation of BMPs during construction would result in a low potential for impacts to water resources.

The proposed access road occurs in a relatively small portion of a generally forested subbasin. The relatively small footprint of the road, along with the avoidance and minimization measures that avoid direct wetland impact and minimize stream crossings, limits the potential scope of these impacts. Mitigation measures have been proposed to address all of these impacts, and are specifically discussed in the next section. With proper implementation of the proposed mitigation measures, none of these impacts are anticipated to be significant.

3.5 MITIGATION MEASURES

MITIGATION MEASURES INCLUDED IN THE PROJECT DESIGN AND/OR REQUIRED FOR PERMIT APPROVAL

Mitigation measures that address the impacts identified above are discussed below. In general, mitigation measures revolve around four general themes: stormwater management, stormwater pollution prevention, wetland water level monitoring, and flow monitoring. These measures are a combination of code-required steps (e.g., required drainage improvements), and site-specific measures developed as part of this work.

Stormwater Management

Stormwater management on the site will be implemented to address surface runoff from the proposed access road. These stormwater management measures are required to comply with current Kitsap County Stormwater Design Manual (2010). There are two general methods proposed to provide detention to address water quantity and treatment for water quality. A combined detention/treatment facility is proposed for runoff from the steep hillside where infiltration is likely not possible. Two bioretention facilities are proposed along the valley bottom to treat then infiltrate road runoff (Contour Engineering, 2014). Both BMPs are relatively effective in capturing sediments, which can be an issue associated with forest roads. The proposed access road will also be covered with gravel and continuously maintained, which will reduce sediment generation and transport potential compared to standard timber harvest roads. Impacts are not expected to be significant.

The stormwater management facilities will reduce the potential impacts to the streams within the project area. The proposed changes to land cover are relatively minor and occur in an area where changes in land cover have already occurred. Changes to land cover as a result of the proposed access road are relatively low, given the 15 foot width distributed along the corridor. For example, in Basin E (the northwestern most basin that includes the hillside), the total impervious area is anticipated to be 1.2 acres, which is 7 percent of the basin. This level of impervious coverage is not insignificant as it is above the commonly accepted 5 percent threshold which often suggests the potential for downstream degradation (Booth et al. 2002), however, with implementation of appropriate design and BMPs, the potential for downstream degradation is minimal. The water quantity and quality BMPs proposed are being designed to meet applicable standards. With proper design and implementation of these BMPs and the additional mitigation measures described below, the proposed project will not result in significant impacts to surface waters.

Stormwater Pollution Prevention

The proposed access road project will require a Construction SWPPP that will apply to construction activities to provide source control and treatment BMPs that will be applied throughout the site to avoid and minimize contact and transport of pollutants in stormwater. This SWPPP includes management actions for material delivery, storage, and containment which are intended to address the potential for spills or uncontrolled stockpiles result in discharges to surface water throughout the life of the project. Proper development and implementation of the SWPPP is a key element of preventing impacts to water resources, particularly on the steep hillside where significant grading will occur. The SWPPP shall incorporate the recommendations from the hydrogeologic report (GeoResources, 2014).

Ongoing BMP Maintenance

The proposed stormwater BMPs for the access road will require ongoing maintenance to retain their performance. Therefore, the annual monitoring and maintenance (as necessary) of the combined detention and wetpond and two bioretention and infiltration facilities is included as a Mitigation Measure. This mitigation measure would apply to other BMPs, if changes occur during final design. These inspections shall include the roadway drainage system as well as vegetation re-establishment in temporary clearing areas. Additional operational BMPs may be required for industrial operations as necessary in order to maintain or enhance stormwater BMP performance.

Wetland Protection

There is the potential for modifications to the hydrology of the Wetland K/L complex due to: (1) permanent change in the water delivery pathway, (2) temporary exposed soils during grading in the contributing basin, and (3) placement of excavation spoils in the contributing area to build up the road alignment. The Kitsap County Drainage Regulations (8.3) require that: "*discharges to wetlands shall maintain the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses….*"

The project is being designed to comply with all applicable regulations, including Kitsap County Drainage Regulation 8.3. To determine if hydrologic impacts to the wetland complex are likely, runoff modeling consistent with Guide Sheet 3B of the Stormwater Management Manual for Western Washington (SMMWW; Ecology 2012) will be performed during final design of the pond that will discharge to Wetland K/L. This approach was published after the Kitsap County Drainage Regulations were last updated. Modeling results will be used to assess potential risk to wetlands K/L, and if risks are determined to be present, the detention pond design will be adjusted accordingly.

Crossing Design

As part of the proposed project, culverts will be replaced with new structures designed to meet the 2013 *Water Crossing Guidelines* prepared by WDFW. The design will be reviewed during the building permit application process; this information has not yet been developed. The project applicant shall utilize either the "No-Slope" or "Stream Simulation" approaches outlined in the WDFW Guidelines. As part of the design process, a qualified individual will be used to characterize the existing stream to allow for proper design. Key parameters to establish include, but are not limited to: the establishment of bankfull width, the longitudinal profile of the stream (existing with small culverts and proposed with an equilibrium profile, stream bed sediments, and elevation tie-ins to the existing channel.

Chapter 4 Vegetation and Wildlife

4.1 INTRODUCTION

This chapter evaluates existing habitat conditions for fish and wildlife, potential biological impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the Werner Road Connection Project. The proposed access route for transportation of rock and aggregate materials will shift from the currently approved Northlake Way access route southerly over UTF-owned land directly onto Werner Road in Section 20, Township 24N, Range 1E. This chapter describes information that is new or modified from the characterization included in Chapter 6 of the 2009 Draft EIS. Additional information on streams, wetlands, and water resources on the UTF property can be found in Chapter 4 Water Resources. Information used to characterize the impacts to vegetation and wildlife associated with the proposed access road was obtained by reviewing the following resources and documents:

- Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan – Ueland Tree Farm/Kitsap Quarry – Private Access Route. April 2014. (Soundview Consultants, 2014) Included in Appendix A.
- Soil Survey of Kitsap County Area, Washington (McMurphy, 1980).
- Washington Department of Fish and Wildlife (WDFW), SalmonScape Database (WDFW, 2007a); and
- WDFW, Priority Habitat Species (PHS) Database (WDFW, 2007b).

In addition to reviewing the above resources, ESA staff field-verified the information summarized in existing documents during a site visit in March 2014.

4.2 AFFECTED ENVIRONMENT

4.2.1 EXISTING VEGETATION

The plant communities in the area proposed for the site access road extending from Werner Road and crossing the Bremerton West Ridge Property were described in the Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan (Soundview Consultants, 2014). Site based observations were made within a study area including the UTF access road alignment and all area within 300 feet (Figure 6-1). ESA field-verified the habitat descriptions in March 2014.

UPLAND CONIFEROUS FORESTS

Upland mixed deciduous/coniferous forest is the most common cover type on the UTF access road property. Dominant tree species include Douglas-fir *(Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), red alder (*Alnus rubra*), of big leaf maple (*Acer macrophyllum*), with an understory of salal (*Gaultheria shallon*), and salmonberry (*Rubus spectabilis*), trailing blackberry (*Rubus ursinus*), evergreen huckleberry (*Vaccinium ovatum*), and western sword fern (*Polystichum munitum*) with Himalayan blackberry (*Rubus armeniacus*) in some disturbed areas.

DECIDUOUS FORESTS

Deciduous red alder forests found on the UTF access road property are primarily associated with wetland or riparian habitats. In red alder stands in and adjacent to wetlands, typical understory species include salmonberry, slough sedge (*Carex obnupta*), Pacific water parsley (*Oenanthe sarmentosa*), Dewey's sedge (*Carex deweyana*), salal, American brooklime (*Veronica americana*), giant horsetail (*Equisetum telmateia*), devil's club (*Oplopanax horridus*), deer fern (*Blechnum spicant*), bulrush (*Scirpus sp.*), and skunk cabbage (*Lysichiton americanum*).

4.2.2 SPECIAL HABITAT FEATURES

Special habitat features are biological in nature and play a role in the lives of some animal species. These features include wetlands, ecotones (areas where different plant communities meet), snags, and dead and downed material. This section also addresses streams, which provide habitat for aquatic and amphibious species.

WETLANDS

A detailed description of the wetlands found in the vicinity of the proposed access road can be found in Chapter 4, Water Resources. Soundview Consultants identified and delineated 11 wetlands in the vicinity of the proposed access road area (Figure 6-1). Several of these delineated wetlands correspond to the locations of wetlands identified by the National Wetlands Inventory. Seven of the wetlands (E, F, G, H, I, J, K/L) are located within 300 feet of the proposed access road (Table 6-1). Four of the wetlands rate as Category IV and three rate as Category III. Wetlands E, F, and K/L were given a high habitat score due to large size, habitat complexity; and wetland E contains active beaver lodges. The Categories were determined by Soundview Consultants using the Department of Ecology Wetland Rating System for Western Washington. The rating system categorizes wetlands based on existing functions; wetlands with highest function rate as Category I or II, wetlands with lower levels of function rate as Category III or IV. All wetland areas and ratings were field-verified by ESA staff in March 2014.

Four of the wetlands identified in the Soundview Consultants' report (Wetlands A through D) and other potential wetlands located within the Bremerton West Ridge Property have not been discussed in this evaluation. These wetlands are not expected to be affected by the road construction due to their distance from the proposed road alignment. For these reasons, they will not be discussed further in this chapter.

Table 6-1 Summary of Wetlands identified within 300 feet of the proposed haul road

Wetland Name[1]	Wetland Rating[1]	Area (ac)	Subbasin[2]	Habitat Score[1]
E	III	6.2	Kitsap Lake	25
F	IV	0.11	Kitsap Lake	19
G	IV	0.04	Kitsap Lake	17
H	IV	0.04	Kitsap Lake	17
I	IV	0.04	Kitsap Lake	18
J	III	0.04	Kitsap Lake	12
K/L	III	2.2	Kitsap Lake	22

[1] All results based on the Soundview Wetland Report. Ratings are based on Department of Ecology Wetland Rating System for Western Washington. The rating system categorizes wetlands based on existing functions in three categories: Hydrology, Water Quality, and Habitat. Wetlands with highest function rate as Category I or II, wetlands with lower levels of function rate as Category III or IV.

STREAMS

There are four small streams in the vicinity of the project area, all tributary to Kitsap Creek/Lake (Soundview, 2014). Two Type F streams (Drainage W and Kitsap Creek [Drainage X]) intersect the proposed haul road (Figure 6-1). Both streams that intersect the proposed road are relatively small, with active channels less than 10 feet wide.

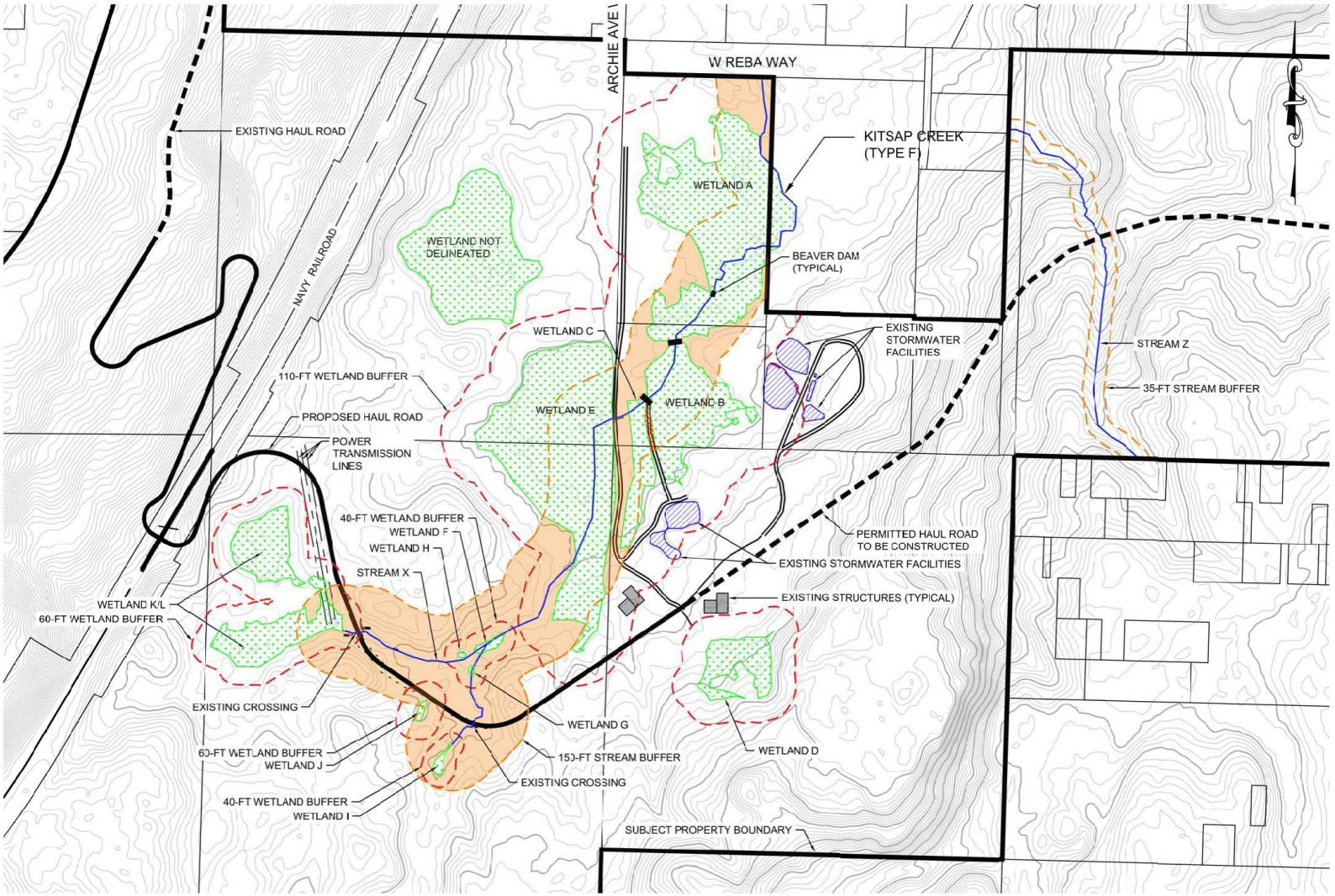
4.2.3 FISH AND WILDLIFE

Because the access road property is connected to relatively large undeveloped parcels and public access is limited, the potential for a wide variety of birds, mammals, reptiles, and amphibians to occur on the property is high. The list of species that may reside and/or use the property is quite large. The following subsections summarize the known and expected occurrence of various fish and wildlife species in the vicinity of the access road. In-field surveys by both Soundview Consultants and ESA confirmed that the appropriate habitat exists on-site for each of the species discussed. A full discussion of fish and wildlife present at the site is included in the 2009 Draft EIS. All of the species of amphibians, reptiles, mammals, birds, butterflies, and moths identified for the 2009 Draft EIS would be expected to continue to be present at the site. The following information describes results of site-specific field evaluations for the proposed access road.

Wildlife

The access road vicinity contains habitat features identified during the 2009 assessment, such as standing snags and mature trees and dense shrub cover in most places, notable for use by priority avian and mammal species. Several tree snags of various conifer and deciduous species that could provide forage areas and shelter for avian species were identified onsite in addition to the delineated wetlands. Aquatic habitats were observed to contain various amphibians, water-fowl and small mammals. Small passerine bird nests and Douglas squirrel (*Tamiasciurus douglasii*) nests were identified throughout the subject property along with evidence of black bear (*Ursus americanus*), beaver (genus *Castor*), black-tailed deer (*Odocoileus hemionus*). Observed evidence included scat, foot prints, scratched trees, beaver dams, cut trees, and dens. Considering the subject property borders an existing residential community, it is also likely habitat for more opportunistic species such as coyotes (*Canis latrans*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), opossum (*Didelphis virginiana*), voles and mice, among others.

Areas of particular value for wildlife on the access road property occur in Wetlands E and K/L, which rate as Category III. These wetlands have greater biological value due to large size, presence of beaver (at Wetland E), many large snags, location in the landscape, and vegetative complexity. These wetlands are headwaters to Kitsap Creek and also provide a source of water to a variety of wildlife during the fall, winter, and spring. The surrounding forested upland is suitable habitat for many species of songbirds, and the open water behind the beaver dams provides breeding and foraging habitat for waterfowl species. Downed logs and snags are also abundant in these wetlands. For additional information on wetlands, see also Chapter 4 Water Resources.



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SOURCE: Soundview Consultants LLC.

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Figure 4-1
Wetlands
Kitsap County, Washington

BIRDS

A great blue heron rookery has been reported on the south end of Kitsap Lake, approximately 0.5 mile north of the proposed access road (WDFW, 2007b). Herons are likely to forage in some of the wetlands in the vicinity of the access road but not likely in great numbers. It is likely that the estuarine wetlands in Dyes Inlet and Sinclair Inlet to the east provide a substantial proportion of the foraging habitat for the herons that use the Kitsap Lake rookery. An Osprey nest and Lacustrine littoral and palustrine habitat are in the general vicinity of the access road alignment.

FISH

WDFW's Priority Habitats and Species (PHS) database lists cutthroat trout occurrence and migration, coho occurrence and breeding and Steelhead occurrence and migration all within Kitsap Creek. Juvenile salmonids were observed in Kitsap Lake during UTF site investigations.

Kitsap Creek is tributary to Chico Creek, which supports the largest populations of chum and coho salmon in Kitsap County, as well as rainbow and cutthroat trout (WDFW, 2007b).

4.2.4 THREATENED, ENDANGERED, AND PRIORITY SPECIES

Several sources were consulted for information regarding endangered, threatened, sensitive, and other priority species. Data from the Washington Natural Heritage Program (WNHP) were reviewed for plant species lists and information on plant species of special concern (i.e., threatened, endangered, or sensitive species) along with habitats of special interest that might be found on the access road site. Current PHS data were obtained from WDFW to describe known occurrences of protected and priority fish and wildlife species. Other species accounts and general reference documents were consulted to determine habitat preferences of species that may occur on the access road site and to evaluate the likelihood of their occurrence on the property.

The WNHP has developed a list of plant species considered to be endangered, threatened, or sensitive within the state of Washington. A number of species on the list may occur in Kitsap County. The USFWS also maintains a list of threatened and endangered plant species.

Based upon field observations by Soundview Consultants and ESA and a review of existing information, no plant species listed as threatened, endangered, or sensitive by the WNHP are known or likely to occur on the proposed new access road alignment. The nearest records of threatened or endangered plant species are more than one mile from the UTF property.

The fish species of concern include coho (occurrence and breeding) and Steelhead (occurrence and migration) within Kitsap Creek. Priority resident species within Kitsap Creek include cutthroat trout.

WDFW PHS data indicate a great blue heron rookery within a one mile radius of the UTF site. The heron rookery is along the shores of Kitsap Lake approximately ½ mile north of the proposed access road alignment. No other priority wildlife species were shown to occur in the area (Soundview Consultants, 2014)

4.3 REGULATORY SETTING

The regulatory setting for fish, wildlife and vegetation is discussed in Chapter 6 of the 2009 Draft EIS.

4.3.1 FISH AND WILDLIFE (KITSAP COUNTY)

Kitsap County regulates activities in fish and wildlife habitat conservation areas (KCC 19.300.310). The KCC includes three categories within the definition of fish and wildlife habitat conservation areas: Streams, Shorelines, and Wildlife Habitat Conservation Areas (Class I and Class II WHCA).

Based on the available data taken from the wildlife databases listed in Section 7.1 of the 2009 Draft EIS and on the site observations conducted by Soundview Consultants and ESA, it does not appear that any Class I or Class II Wildlife Habitat Conservation Areas or shorelines occur within the access road vicinity. The two streams (described above) that occur within the access road vicinity, do not meet the definition of Class I or Class II WHCA. Final determination on fish and wildlife habitat area classifications will be made by Kitsap County staff.

4.4 IMPACTS

4.4.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

Potential impacts from the access road construction on the general vegetation and fish and wildlife habitat conservation areas are discussed below. The following discussion was based upon the site conditions described in the Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan (Soundview Consultants, 2014) and includes an analysis of the effect of the proposed development upon wildlife species and habitat identified for protection. Based on the information presented in Section 6.2.5, above, streams are the only fish and wildlife habitat conservation areas that occur within the planned access road construction area. The rationale for this determination, based on the definitions of fish and wildlife habitat conservation areas in the Habitat Management Plan, is as follows:

- *Streams* – Two streams will be crossed by the proposed access road. The streams are tributaries to Kitsap Creek and do not appear to have anadromous fish access (Soundview Consultants, 2014). Old logging roads with existing culverts occur at both of the planned stream crossing locations. Soundview Consultants report that the culverts are restrictive and the plan is to replace both culverts with larger box culverts.
- *Shorelines* – No shorelines occur anywhere on the access road property, and none would be affected by proposed road construction.
- *Habitats for federally and/or state-listed endangered, threatened, or sensitive sp*ecies – No documented records of any listed species are known for the access road area, and no suitable breeding habitat for any of these species was observed.
- Habitats for state-listed candidate or monitored species documented in maps or databases available to Kitsap County and its citizens, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term – No documented records of any candidate or monitored species are known for the proposed access road area. Suitable habitat may be present for some species (e.g., western toad, great blue heron), but none of the proposed development sites provide seasonal range areas or habitat elements that, if altered, may reduce the likelihood that any of these species would persist and reproduce in the project area over the long term.
- *Areas targeted for preservation by the federal, state, and/or local government that provide fish and wildlife habitat benefits* – No such areas have been identified on the proposed access road area or on the remainder of the UTF access road property.

- *Habitats and species of local importance* – No cliffs, talus, or wetlands would be directly affected by construction of the access road, although wetlands occur in the vicinity of the proposed access road. *The following subsections provide a gene*ral discussion of the anticipated impacts of the access road on vegetation, wildlife, and fish in the project area. A full discussion of impacts associated with mine development and operation is included in Chapter 6 of the 2009 Draft EIS.

The general impacts of the Werner Road Connection Project are further discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

4.4.2 WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road that crosses two streams. Other portions of the road will be newly constructed. Impacts from road construction on wildlife habitat include permanent and temporary vegetation clearing of general coniferous forest, wetland and stream buffer, as well as replacement of two existing stream culverts. The road footprint will avoid any direct wetland impact.

The road surface will be 15 foot wide; however, when accounting for road side stormwater swales and the road prism, the road will be 25 feet wide. Road construction will likely require a 50 foot corridor/ clearing limit; therefore, temporary vegetation clearing will occur and a total of 50 linear feet of stream crossing will be required at each of the drainages. Box culverts or bridges will be used for the drainage crossings in the culvert replacement areas to minimize impacts. Existing restrictive culverts in the two streams (Drainages X and W) will be removed and crossing areas will be replaced with appropriately-sized box culverts. The box culverts are expected to reestablish fish access to upstream habitat.

The proposed crossings were designed to perform in a manner that will allow for unimpeded continuation of downslope drainage hydrology under the crossing, thus helping to protect downstream functions. Two of the proposed crossings will be located on an existing roadway footprint and will involve replacement of two less-functional culverts, resulting in improved flow. In addition, any disturbed areas and the entire road prism (excluding the roadbed and a maintenance shoulder) will be replanted with native vegetation.

Construction of the access road will impact wetland buffer areas associated with Wetlands E, J, and K/L. A total of 958 lineal feet (14,370 square feet) of wetland buffer and 850 lineal feet (12,750 square feet) of stream buffer will be impacted by road construction. The road placement and necessary grading were designed to minimize stream and buffer impacts within the design standards of both Kitsap County and the City of Bremerton. The primary access road will connect off-site Werner Road along the east edge of the site.

The construction of the access road will include management of stormwater and runoff by installing low impact design (LID) rain gardens for natural dispersion. One stormwater detention and water quality facility and three bio-retention facilities are proposed. All proposed facilities are outside wetland buffer areas or within areas of the wetland buffers that will be interrupted by the proposed roadway.

Access road construction activities are expected to have the following effects on wildlife:

- Direct mortality of less mobile wildlife (ground-nesting birds, small mammals, amphibians, and reptiles) due to clearing activities.
- Temporary displacement of more mobile wildlife (birds and large mammals) from the vicinity of road construction activities, due to construction-related vibration, and noise disturbance.

- Displacement of more mobile wildlife (birds and large mammals) from the vicinity of road construction activities due to habitat removal because the area of habitat loss is small, impacts are not expected to be significant.

Although noise and human activity have the potential to cause herons to modify their flight paths, it is unlikely that such effects would carry the risk of reducing the nesting success of herons at the nearby rookery. Numerous studies have documented reductions in nesting productivity associated with human disturbance at heron nesting colonies (Gebauer and Moul, 2001; Vennesland and Norman, 2006), but there is no evidence of adverse effects associated with disturbance between nesting areas and foraging areas. WDFW management recommendations for great blue herons identify measures for protecting important foraging areas within 2.5 miles of heron rookeries, but do not address flight paths to and from foraging areas (Quinn and Milner, 2004). Impacts to a heron rookery at Kitsap Lake from the proposal are therefore expected to be minimal.

Population numbers of some species may decline in the access road site due to direct mortality, noise disturbance, and habitat loss. As noted above, however, none of the proposed development sites supports seasonal range areas or habitat elements that, if altered, may reduce the likelihood of any particular species persisting and reproducing in the access road site over the long term. Also, wetland and stream buffer areas designated throughout the access road area would help maintain water quality and stream temperatures, and would provide habitat and travel corridors for wildlife. For additional discussion of issues associated with water quality and water quantity, refer to Chapter 4 Water Resources.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

Many of the operational activities to be conducted on the proposed haul road will create noise, vibration, dust, and visual disturbance, which may affect wildlife populations in the area. Vehicle traffic could pose a threat to wildlife through injury or death along the roadways. However, no adverse effects are anticipated to endangered, threatened, or sensitive species because none are found within the access road area.

Use of the access road to haul quarry materials can increase particulates in the air, and this fugitive dust has the potential to be deposited in the adjacent tributaries and be carried into Kitsap Creek (fish bearing stream). A variety of dust suppression techniques will be used to prevent significant amounts of dust from leaving the roadway. A Temporary Erosion and Sediment Control Plan (TESC) that includes BMPs would be put into place to protect the water quality of tributaries that flow into fish-bearing streams. Refer to Chapter 3 in the 2009 Draft EIS for additional discussion of this issue, and proposed mitigation. Priority resident and anadromous fish located downstream are not expected to experience any adverse effects if proper BMPs are followed.

4.5 MITIGATION MEASURES

Mitigation measures for specific elements are described below.

MITIGATION MEASURES INCLUDED IN THE PROJECT DESIGN AND/OR REQUIRED FOR PERMIT APPROVAL

Mitigation has been defined by the State Environmental Policy Act (WAC 197-11-768), and more recently in a Memorandum of Agreement between the Environmental Protection Agency and the U.S. Army Corps of Engineers. In order of desirability, mitigation may include the following:

1. Avoidance – avoiding impacts by not taking action or parts of an action;
2. Minimization – minimizing impacts by limiting the degree or magnitude of the action and its implementation; and
3. Compensatory Mitigation – which may involve
    a) repairing, rehabilitating, or restoring the affected environment,
    b) replacing or creating substitute resources or environments, or
    c) mitigation banking.

The application of each of these mitigation elements for the UTF access road construction is discussed in greater detail below.

Impact Avoidance

Mitigation measures at the access road are directed at avoiding impacts by protecting the vegetation communities and wildlife habitat associated with all wetlands and streams near the proposed access road. This includes establishing appropriate buffers around all wetlands and streams that may be affected by the Werner Road Connection Project and using existing impacted areas of the stream where culverts are already present. Wetland buffers are discussed in Chapter 4 Water Resources.

Impact Minimization

Reduction of impacts at the two stream crossings will be accomplished through actions such as the use of rock walls to narrow the road prism at the drainage crossing, and wing walls may be used to minimize impacts and to maintain functional attributes of the drainage. BMPs, including a construction entrance and silt fencing, will be implemented prior to construction activities and will follow the TESC plan established for the project, and will comply with Kitsap County requirements.

The following habitat management plans are recommended to minimize impacts and protect stream hydrology and riparian areas:

- Reduce road footprint to the minimum safe width to retain natural functions and preserve critical areas;
- Use footprint of existing unimproved roads to avoid additional impacts to critical areas;
- Use replacement culverts of sufficient size to allow unobstructed passage of fish and wildlife, flow of hydrology, small woody debris and sediment including cobble and small rocks that meet WDFW bankfull width standards;
- Limit fill or dredging within streambeds to no more than ten (10) cubic yards below OHW;
- Avoid fill within the streambed below Ordinary High Water;
- Temporary construction fencing at least thirty (30) inches tall should be erected around the perimeter of any impact areas to protect buffer/native vegetation areas prior to the initiation of any clearing or grading activities. The fencing should be posted with signage clearly identifying the buffer/native vegetation protection areas and should remain in place through site development and construction;
- All restoration actions should be overseen by a qualified fisheries biologist;

- Replant and seed the road prism and any disturbed areas with native vegetation excluding the road bed and shoulder approximately six (6) feet on either side;
- Limit work within ephemeral and seasonal stream beds to the dry season during the summer months to avoid in-water work and prevent downstream turbidity;
- Limit work in fish-bearing streams to June 15 through March 14 to avoid impacting juvenile salmonid species;
- Erosion and sediment control that meets or exceeds the standards set forth in the Kitsap County Storm Water Design Manual shall be provided in the Temporary Erosion and Sediment Control Plan prior to project implementation;
- The soil duff layer should remain undisturbed to the greatest extent possible near all critical areas;
- Vehicles, construction materials, fuel, and/or other hazardous materials should not be placed in buffer/native vegetation protection areas. Movement of any vehicles within buffer/native vegetation protected areas should be limited to the greatest extent possible;
- Any disturbed areas within the proposed project area should be replanted using native shrubs and/or groundcovers to help retain soils and increase biodiversity of macroinvertebrates (i.e.-insects), and
- Use only pesticides, fertilizers, or herbicides approved by the U.S. EPA or Washington Department of Ecology, and only as necessary. Where approved, herbicides should be applied by a licensed applicator in accordance with the safe application practices on the label. These items should also be stored as far as possible from the shoreline. Avoid use of chemicals banned by the EPA in all areas (DDT; creosote; lindane; silvex; aldrin; dieldrin; mirex; 2,4,5-T; Chlordane; kepone; pentachlorophenal (penta); toxaphenezax, et cetera).

Compensatory Mitigation

No direct wetland impacts are proposed by the access road construction; therefore compensatory wetland mitigation is not required. Impacts to buffer areas associated with streams and wetlands will be mitigated following requirements outlined in the Kitsap County Code. Actions associated with work inside the ordinary high water marks (OHWM) at the two existing stream crossings (Drainages W and X-Kitsap Creek) are self-mitigating and will follow the requirements of the Hydraulic Project Approval (HPA) when approved by the Washington Department of Fish and Wildlife (WDFW) and will comply with minimal development standards described within KCC 19.300.315 D.

Mitigation for work within the OHWM of the two stream crossings (Drainages W and X-Kitsap Creek) is expected to be satisfied through the removal of two restrictive pipe culverts and replacement with box culverts according to WDFW bankfull width specifications. This action will restore fish access to upstream habitat. Final details of the crossing will be approved by WDFW prior to commencement of construction.

Permanent impacts to stream and wetland buffer vegetation will be mitigated through use of buffer averaging, as allowed by Kitsap County Code 19.200.220. Soundview Consultants has provided an analysis of pertinent buffer averaging code requirements and determined that all five requirements outlined below will be met (Section 5.1, Soundview Consultants, 2014). The KCC allows for reduced buffer width through buffer averaging given the following conditions are met:

1. The decrease in buffer width is minimized by limiting the degree or magnitude of the regulated activity.

2. For wetlands and/or required buffers associated with documented habitat for endangered, threatened, or sensitive fish, or wildlife species, a habitat assessment report has been submitted that demonstrates that the buffer modification will not result in an adverse impact to the species of study *(no documented habitat on access road site)*.
3. Width averaging will not adversely impact the wetland.
4. The total buffer area after averaging is no less than the buffer area prior to averaging.
5. The minimum buffer width will not be less than 50 percent of the widths established after the categorization is done and any buffer adjustments applied.

Temporary construction impacts to buffer vegetation will be mitigated by replanting the cleared areas with native shrubs and trees. The objective of the proposed mitigation actions are to maintain and/or restore hydrological, sediment transport and habitat functions associated with on-site wetlands, drainages, and associated buffer areas. Plantings and seeding will occur as soon after crossing construction as possible to prevent erosion and maintain and restore habitat functions.

The areas cleared within the wetland and stream buffers (excluding the road surface and six (6) feet of shoulder on either side) and any other disturbed areas outside of the buffers will be replanted with the native species and quantities detailed in the Wetland and Fish and Wildlife Habitat Assessment and Habitat Management Plan (Soundview Consultants, 2014). After planting, the entire area will be hand-seeded with a native upland seed mix. Plantings and seeding will occur as soon after crossing construction as possible to prevent erosion and maintain and restore habitat functions.

Chapter 5 Noise and Vibration

5.1 INTRODUCTION

This chapter evaluates existing noise and vibration conditions, potential impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the Werner Road Connection Project. The proposed access route for transportation of rock and aggregate materials will shift from the currently approved Northlake Way access route southerly over UTF-owned land directly onto Werner Road in Section 20, Township 24N, Range 1E. This chapter describes information that is new or modified from the characterization included in Chapter 7 of the 2009 Draft EIS.

Most of the affected environment information included in the 2009 Draft EIS, including descriptions of sound, relevant noise regulations and guidelines, land uses, and existing sound levels remain relevant to this SEIS. However, additional information is provided related to land uses, zoning, and existing sound levels along Werner Road, the new proposed truck access route.

Information used to characterize the noise and vibration impacts associated with the proposed project revision was obtained by reviewing the following resources and documents:

- Revised Noise Impact Assessment – Ueland Tree Farm Mineral Resource Development Project Revision (ENVIRON, 2014). Included in Appendix A.
- Land Use Element of the Kitsap County Comprehensive Plan (Kitsap County Departments of Community Development and Public Works, 2012).
- Kitsap County Code, current as of December 9, 2013 (Kitsap County, 2013).
- City of Bremerton Municipal Code, current as of April 2, 2014 (City of Bremerton, 2014).

5.2 AFFECTED ENVIRONMENT

5.2.1 EXISTING ZONING AND LAND USES

In addition to the nearest receivers and land uses identified in the 2009 Draft EIS, there are varying land uses, jurisdictions, and zoning designations for the properties along the proposed new access route. Land uses in the vicinity of the new access route through the UTF site consist of undeveloped forested lands, a railroad, and a transmission line easement. Zoning designations in this area include City Utility Lands, and Rural Wooded. An existing portion of road that would be used for the new access is within the City of Bremerton's Employment Center Comprehensive Plan designation and Low Density Residential zoning designation (see Figure 8-1). All of the zoning designations are considered as Class A EDNA source properties per Kitsap County code (KCC 10.28.030) and District I source properties per City of Bremerton code (BMC 6.32.010). Environmental Designations for Noise Abatement (EDNAs) refer to maximum environmental noise levels established by the State of Washington (WAC 173-60) according to the land use associated with noise sources and receiving properties. Class A EDNA properties generate less noise and contain uses sensitive to noise (e.g., residential neighborhoods).

The new access route from UTF to Kitsap Quarry is primarily on undeveloped, forested lands at least 800 to 1,000 feet from any residential receivers. The access route segment from Kitsap Quarry to Werner Road was permitted previously by the City of Bremerton and may be built in 2014. The access route connection point at Kitsap Quarry is designated as Mineral Resource under the 2012 Kitsap County Comprehensive Plan.

Along Werner Road, in the City of Bremerton, most parcels are undeveloped or used for industrial or shipping/warehousing purposes, and are zoned Industrial, Industrial Park, and Freeway Corridor. A portion of Werner Road, in unincorporated Kitsap County, and includes several residences and a church as well as a few undeveloped parcels. These parcels are primarily zoned Urban Low Residential with some Medium Residential and Industrial zoning.

5.2.2 EXISTING SOUND LEVELS

The long-term sound levels identified in the 2009 Draft EIS representing residences north of the UTF site remain relevant to this assessment. In addition to the two long-term measurements taken in 2007, an additional long-term (i.e., 24-hour) sound level measurement was taken in February 2014 to represent residences and a church adjacent to Werner Road (LT 3).

The measured long-term sound levels from 2007 and 2014 are presented in Table 7-1.

Table 5-1 Existing Sound Level Measurements

SOUND LEVEL MEASUREMENT	TIME	Leq	Lmax	Ldn	L2	L8	L25	L90
Measurements identified in 2009 Draft EIS								
LT-1	Day	38-51	55-77	45-46	43-61	40-57	37-44	32-38
	Night	32-42	45-60		36-48	34-44	32-42	29-38
LT-2	Day	49-54	64-71	54	56-60	53-58	50-56	37-44
	Night	41-52	60-70		51-58	45-56	37-54	33-41
Measurements taken for 2014 Supplemental EIS								
LT-3	Day	50-59	67-88	58	58-67	52-63	48-59	40-49
	Night	46-56	69-74		53-63	45-61	40-54	37-49

Source: ENVIRON, 2014.

Notes: The Leq is the "energy-averaged" sound level. The L90 is the sound level exceeded 90% of the time and is often considered representative of the background sound level. The Lmax, L2, L8, and L25 correspond to the Lmax, L2.5, L8.3, and L25 State noise limit levels that are defined in the 2009 Draft EIS.

"Day" refers to the hours between 7 a.m. and 10 p.m. "Night" refers to the hours between 10 p.m. and 7 a.m

No site specific vibration analysis was conducted, given there are no significant sources of vibration in the vicinity.

5.3 REGULATORY SETTING

5.3.1 KITSAP COUNTY

Relevant noise criteria for this evaluation are included in KCC Chapter 10.28. The County code establishes limits on the levels and durations of noise crossing property boundaries. The "maximum permissible" noise levels (Lmax) are the limits for a regulated noise source at its boundary with the other land uses, not the total of the project and background sound levels. Kitsap County identifies the EDNAs as follows:

- Class A EDNAs (Residential) – shall include all single- and multi-family residential zones, residential mobile home zones, agricultural zones, forestry zones, and undeveloped land zones,
- Class B EDNAs (Commercial) – shall include business neighborhood zones, business general zones, commercial zones, and light manufacturing zones.
- Class C EDNAs (Industrial) – shall include manufacturing zones.

Allowable sound levels depend on the EDNA of the source of the noise and the EDNA of the receiving property. The maximum permissible noise levels for Kitsap County EDNAs are shown in Table 7-2.

Table 5-2– Kitsap County Maximum Permissible Environmental Noise Levels

EDNA of Noise Source	EDNA of RECEIVING PROEPRTY (dBA)		
	CLASS A (DAY/NIGHT)	CLASS B	CLASS C
Class A	55/45	57	60
Class B	57/47	60	65
Class C	60/50	65	70

5.3.2 CITY OF BREMERTON

Chapter 6.32 of the Bremerton Municipal Code (BMC) contains noise regulations similar to those in Kitsap County, except that the BMC identifies noise source and receiving preoprties as "Districts" ionstead of EDNAs. BMC Chapter 6.32.010 (c) defines District I as residentially-zoned properties, District II as properties zoned for commercial or business use, and District III as properties zoned for industrial use. The noise limits defined in both codes are the same.

Additional information, including information on allowable day/night exceedances and exemptions from noise limits, is included in the 2009 Draft EIS.

5.4 IMPACTS

5.4.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road. In addition, this section revisits the assessment on which conclusions in the 2009 Draft EIS were based for noise receivers near Gravel Mine "A."

IMPACTS AT RECEIVERS NEAR GRAVEL MINE "A"

Sensitive noise receivers near Gravel Mine "A" were the only sensitive receivers identified in the 2009 Draft EIS likely to be adversely affected by on-site operations. Analysis of potential impacts under was rerun with the on-site roadway revised to reflect the new proposed access route as included in the Proposed Development Alternative Modification. The aggregate processing facility could potentially be relocated from the proposed Gravel Mine "A" location to an off-site location, which would further reduce noise levels at Gravel Mine "A". Because a decision about relocating the aggregate processing facilities has not been made yet, Gravel Mine "A" noise sources are assumed to include aggregate processing facilities as included in the 2009 Draft EIS.

Shifting the trucking route from Northlake Way to Werner Road would eliminate the need for proposed improvements to Leber Lane NW, as described in the 2009 Draft EIS, and would reduce both the development and operational noise impacts at residences adjacent to the roadway.

Under the original development proposal described in the 2009 Draft EIS, all predicted sound levels complied with the Kitsap County daytime noise limit of 55 dBA (daytime) and 45 dBA (nighttime) under

full worst-case operation. With truck traffic now shifted to traverse the revised haul route to the south, rather than north to Leber Lane, sound levels would be expected to be reduced over those predicted in the 2009 Draft EIS.

Similarly, cumulative increases in noise levels would be expected to be lower than those identified for the in the 2009 Draft EIS. Consequently, rerouting the truck access route from Leber Lane NW to Werner Road would reduce noise impacts to residences north of Gravel Mine "A" when compared to the analysis conducted for the 2009 Draft EIS.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

Construction of the new access road is expected to result in minimal noise impacts. The activity would occur at least 800 to 1,000 feet away from the closest residences, would have intervening trees to reduce noise, and would not be a stationary source of noise for any meaningful length of time since construction would proceed along the route. Given these factors, construction is expected to result in minimal noise impacts.

As described in the 2009 Draft EIS, sounds originating from temporary construction activities are exempt from the County noise limits during daytime hours (i.e., between 7 a.m. and 10 p.m.). Construction activities for the proposed new access road are expected to occur only during daytime hours. Therefore, construction-related noise is not expected to result in significant noise impacts.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

The new access route through the UTF to Kitsap Quarry is primarily on undeveloped, forested lands. Trucks operating on the new road are not expected to result in noise impacts to sensitive residential receivers due to distance and intervening trees from surrounding forest land. As a result, no noise analysis was conducted for this portion of the new access route.

A portion of Werner Road in unincorporated Kitsap County includes several residences and a church as well as a few undeveloped parcels. Although the residences and church on Werner Road are not expected to be affected by noise from on-site operations, they may be affected by noise from trucking related to the revised access route from the UTF site to SR-3. A new noise assessment was conducted for the sensitive receivers near Werner Road to identify any potential noise impacts. Because these receivers are only expected to be affected by trucks traffic traveling on an existing road (Werner Road) no onsite sources were considered. Vehicles traveling on public roadways are exempt from the noise limits. As part of this assessment, the noise implications of periodic nighttime trucking were also considered.

To estimate daytime trucking sound levels, it was assumed that 27 truck trips could occur on Werner Road during any hour between 7 AM and 6 PM. The estimated sound level (hourly Leq) of 27 truck trips is 56 dBA. The addition of 56 dBA to the existing measured levels of 55 to 59 dBA results in hourly cumulative sound levels ranging from 59 to 61 dBA. This could result in hourly increases ranging from 2 to 4 dBA. Neither the loudest overall level of 61 dBA nor the highest increase of 4 dBA would be classified as an impact using WSDOT noise impact criteria, which define a sound level of 66 dBA or an increase of 10 dBA or more as a traffic noise impact.

To estimate periodic nighttime trucking event sound levels, it was assumed that 16 truck trips could occur on Werner Road during any hour between 10 PM and 6 AM. The estimated sound level (hourly Leq) of 16 truck trips is 54 dBA. The addition of 54 dBA to the existing measured levels of 46 to 54 dBA results in hourly cumulative sound levels ranging from 55 to 57 dBA. This could result in hourly increases

ranging from 3 to 9 dBA. As with daytime trucking, neither the loudest overall level of 59 dBA nor the highest increase of 9 dBA would be classified as an impact using WSDOT noise impact criteria.

Therefore, the revision of the truck route to Werner Road would not result in significant noise impacts to sensitive receivers adjacent to Werner Road.

5.5 MITIGATION MEASURES

Mitigation Measures Included in the Project Design and/or Required For Permit Approval

Construction activities would be restricted to hours and levels designated by Kitsap County (KCC 10.28). If construction activities exceed permitted noise levels, the County would instruct the contractor to implement measures to reduce noise impacts to comply with the County Code, which may include additional muffling of equipment. No other mitigation would be required.

Most of the mitigation measures in the 2009 Draft EIS would remain the same. If UTF elects not to develop the aggregate processing facility on Gravel "A" site, then the mitigation conditions in the current Project approval may be amended or deleted as they relate to the aggregate processing facility on the Gravel "A" site. For example, the mitigation measure requiring a stockpile or berm around the processing and wash plants would no longer be applicable, since the Project revisions would no longer include processing the aggregate on-site. Also, the restriction of operating hours could be revised as follows:

- General pit operations would occur only during daytime hours, between approximately 7:30 AM and 5:00 PM. However, periodic nighttime trucking events could occur to support special projects such as nighttime roadway construction. Nighttime trucking operations would entail the use of a front-end loader in addition to the trucks.

Chapter 6 Land Use

6.1 INTRODUCTION

This chapter updates the Ueland Tree Farm Mineral Resource Development Final EIS (ESA Adolfson, 2009) and accompanying Draft EIS (ESA Adolfson, 2009). Unless otherwise noted in this chapter, current land uses in the project area, applicable state and local plans, policies, and regulations; impacts to land use associated with the proposed development; and mitigation measures have not changed from what is described in Chapter 8 of the Draft EIS.

Land use information used to characterize the project environment and to assist with this supplemental analysis was obtained by reviewing the following resources and documents:

- Kitsap County Code, current as of December 9, 2013 (Kitsap County, 2013).
- City of Bremerton Municipal Code, current as of April 2, 2014 (City of Bremerton, 2014).
- Rural and Resource Lands element of the Kitsap County Comprehensive Plan (Kitsap County Departments of Community Development and Public Works, 2012).
- Land Use Designations element of the City of Bremerton Comprehensive Plan (City of Bremerton, 2004).
- Land Use and Visual Impact Assessment Ueland Tree Farm Mineral Resource Development Supplement (Cascadia Pacific Group LLC, 2014).Included in Appendix A.
- Land Use and Visual Impact Assessment Ueland Tree Farm Mineral Resource Development (Parametrix, 2009).

6.2 AFFECTED ENVIRONMENT

6.2.1 COMPREHENSIVE PLAN AND ZONING DESIGNATIONS – PROJECT SITE

The route of the proposed new access road is within the following Kitsap County and City of Bremerton Comprehensive Plan and zoning designations: Urban Reserve (URS), City Utility Lands (CUL) and Rural Wooded (RW). A portion of the URS lands has a Mineral Resource Comprehensive Plan overlay. An existing portion of the road that would be used for the UTF Mineral Resource Development is within the City of Bremerton's Employment Center Comprehensive Plan designation and Low Density Residential (R-10) zoning designation (see Figures 8-1 and 8-2). This area is within the city limits of Bremerton and referenced in this chapter as the Bremerton West Ridge property.

The objective of the URS zoning designation is to "be located along the boundaries of existing urban growth areas (UGAs). The zone is intended to allow 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. This zone may also apply to properties which are being considered for non-residential use" (Kitsap County, 2013).

The following goal and policies apply to the UR Comprehensive Plan designation:

- Identify land that is potentially suitable for inclusion in the UGA (Goal 6).
    - Use the Urban Reserve designation to indicate areas that may be suitable for inclusion in the Urban Growth Area (UGA). Urban Reserve lands are intended to recognize lands adjacent to designated UGAs that may be considered for potential future inclusion within an UGA in response to future needs, as reflected in revised or updated population or employment forecasts or distributions (Policy RL-20).
    - Prevent the establishment of land uses or land use patterns in the Urban Reserve designation that could foreclose planning options and eventual development or redevelopment at higher urban densities (Policy RL-21).
    - Redesignate Urban Reserve lands if they are determined to not be needed or appropriate for urban development (Policy RL-22) (Kitsap County Departments of Community Development and Public Works, 2012).

The intent of the CUL zoning designation is to "preserve resource-related functions of land, and to protect watersheds and timberlands. The CUL zone is also intended to ensure healthy forest cover and provide habitat for wildlife. The zone will accommodate some limited commercial and recreational activities, which adhere to a high standard of environmental best management practices, and low impact development" (City of Bremerton, 2014).

The following policy applies to the CUL Comprehensive Plan designation:

- Maintain the primary character of this land as resource-related. All development should be limited, and demonstrate no significant environmental impact.
    - Discussion: While the primary use of this land shall continue to be used for the protection of natural resources, there will continue to be a limited amount of commercial and recreation development within the lands designated as "utility." Wherever possible, colocation should be utilized for commercial structures such as antennas. Minimal footprints shall be required. Any future development that associates with current adjacent recreational uses (such as the Gold Mountain Golf Course or Jarsted Park) should be limited to that portion of the designation south of Old Belfair Highway and adjacent to existing similar development. Moreover, any development within this fairly pristine environment shall conform to shoreline and critical lands ordinances and be designed in an environmentally sensitive way. All developments should go through rigorous environmental review. Where development can be allowed should conform to the recommendations made by other regional watershed planning efforts such as the Chico Watershed Alternative Futures Project (City of Bremerton Community Development, 2004).

The objective of the RW zoning designation "is to encourage the preservation of forest uses, retain an area's rural character and conserve the natural resources while providing for some rural residential use. This zone is further intended to discourage activities and facilities that can be considered detrimental to the maintenance of timber production. Residents of rural wooded (RW) residential tracts shall recognize that they can be subject to normal and accepted farming and forestry practices on adjacent parcels" (Kitsap County, 2013).

The following goals apply to the RW Comprehensive Plan designation.

- Provide ongoing opportunities for continued management of these lands for forestry, open space, or other compatible uses to promote a large-scale, connected landscape. These lands are important for their rural character, economic values, natural resource uses, ecological functions and values, and public benefits.
- Preserve rural character, allow a variety of levels of rural residential densities, and encourage innovative rural planning techniques, while meeting the intentions and requirements of GMA.
- Provide a high standard of environmental protection, facilitate the creation of open space corridors, minimize shoreline impacts, and promote residential development that is sensitive to the physical characteristics of the land (Kitsap County Departments of Community Development and Public Works, 2012).

The intent of the Mineral Resource Comprehensive Plan overlay "is to protect sand, gravel, and rock deposits identified as significant. Commercial-quality deposits should be recognized as non-renewable resources and managed accordingly." The following goals and policies apply to the MR overlay:

- Discourage inappropriate land uses in the vicinity of commercial quality mineral deposits in the County through regulatory means (Goal 13).
    - Allow industrial uses associated with mineral resource extraction and forestry activities in the Mineral Resource overlay (Policy RL-53).
- The County and the cities should establish Best Management Practices to protect the long-term integrity of the natural environment, adjacent use, and the productivity of resource lands (Goal 16) (Kitsap County Departments of Community Development and Public Works, 2012).

The intent of the R-10 zoning designation "is to accommodate single-family housing by infilling at a range of lot sizes consistent with urban growth patterns. Some attached single-family housing may be appropriate when responding to sensitive areas or with innovative design. Residential development at higher densities is encouraged at the edge of designated centers" (City of Bremerton, 2014).

The following policy applies to the Employment Center designation:

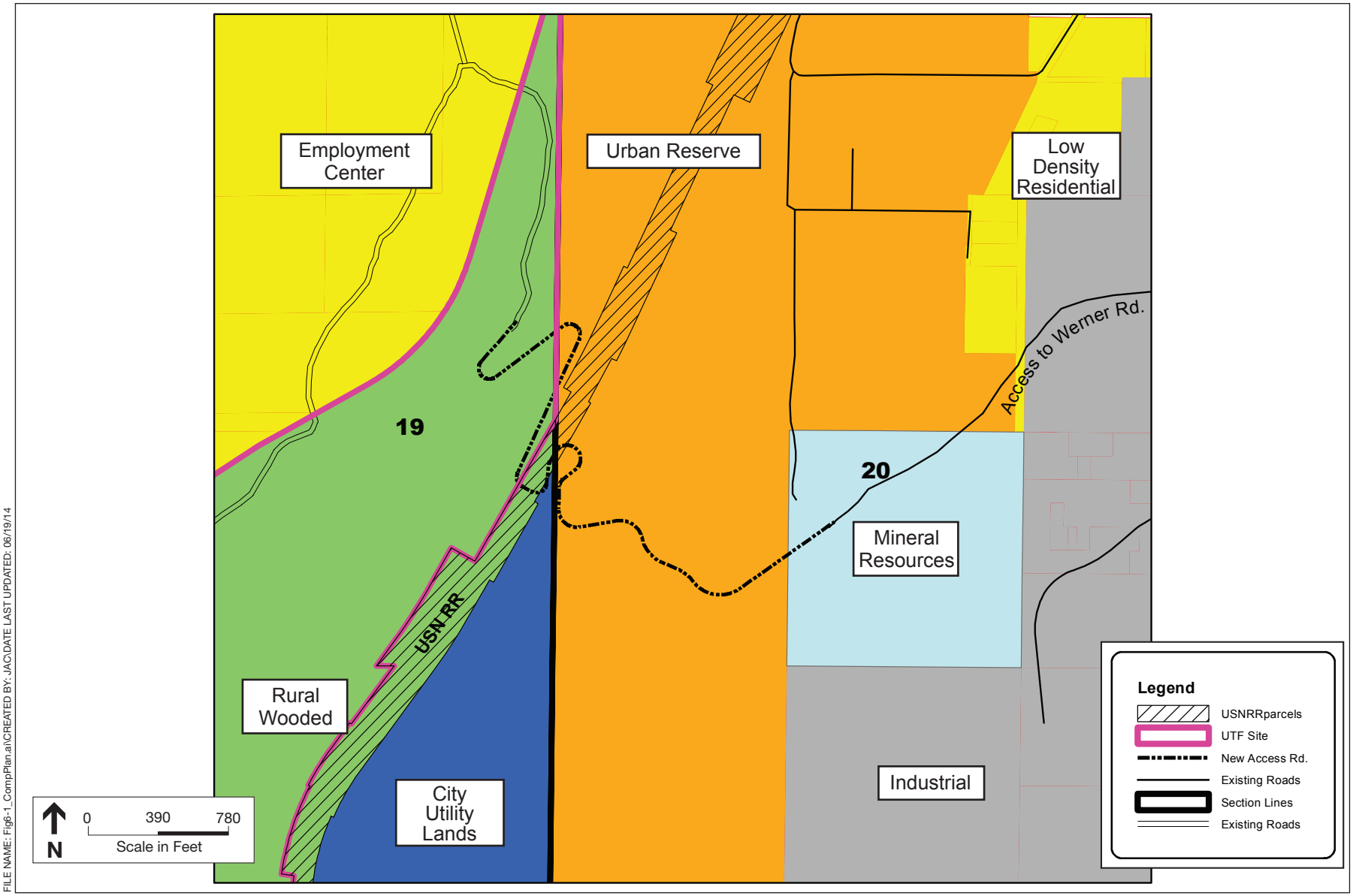
- Provide areas for large scale employment activities that may draw workers from a large geographic area, where workers can also choose to live and shop near work.
    - Discussion: The EC designation delineates Employment Centers. Employment Centers are mixed-use environments characterized by co-location of employment activities and residential and commercial amenities for workers. Employment Centers will have significant office, light industrial and industrial activities that create large numbers of jobs, well integrated with areas providing a mix of housing types, that provide living opportunities nearby. Small to medium scale commercial uses will also be provided, allowing residents and workers easy access to services (City of Bremerton Community Development, 2004).

The CUL and RW land use designations are implemented by the corresponding CUL and RW zones. The URS land use designation is implemented by the Mineral Resource (MR) overlay zone. Forestry is an allowed use in the MR and RW zones. Aggregate extraction sites are a conditional use in the RW zone and permitted in the MR zone. Low density residential development, at a maximum of one dwelling unit per 20 acres, is also allowed in the RW zone. Higher density residential (1 dwelling unit per 5 acres) is allowed in the RW zone provided a portion of the development acreage is designated as "permanent open

space" through the County's Rural Wooded Incentive Program. Forest practices are an allowed use in the CUL zone.

6.2.2 COMPREHENSIVE PLAN AND ZONING DESIGNATIONS – ADJACENT AREAS

The existing land uses adjacent to the proposed access road include mining and related services, forest land, undeveloped land, and railroad tracks. See Section 8.2.2 in the Draft EIS for additional information on adjacent land uses and zoning designations.



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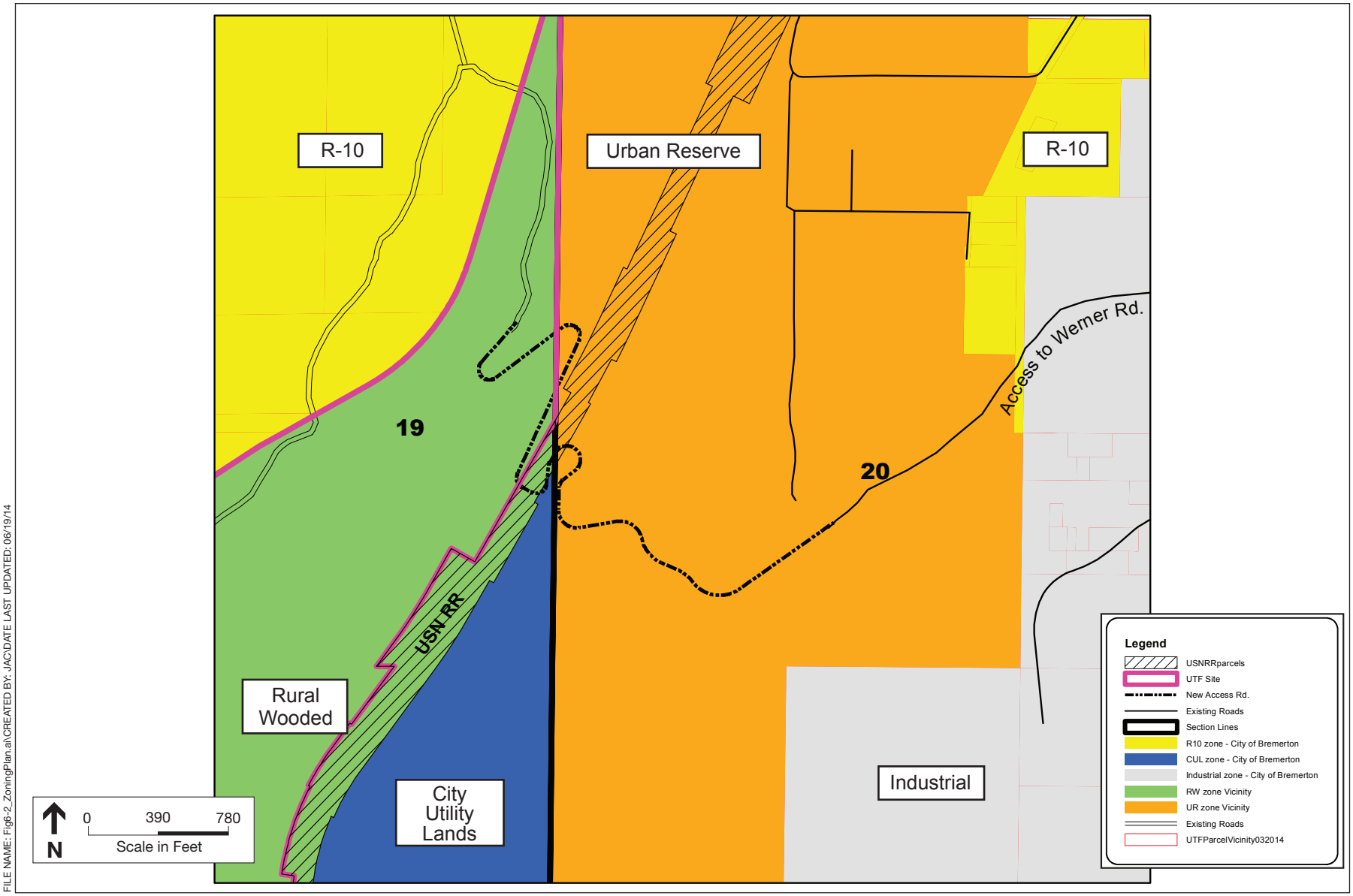
SOURCE: Cascadia Pacific Group LLC.

Ueland . 208487

Figure 6-1

Ueland Tree Farm Comprehensive Plan Designations - Proposed Access Road Construction Vicinity
Kitsap County, Washington



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SOURCE: Cascadia Pacific Group LLC.

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Figure 6-2

Ueland Tree Farm Zoning Designations - Proposed Access Road Construction Vicinity
Kitsap County, Washington

6.3 REGULATORY SETTING

A Hearing Examiner Conditional Use Permit (CUP) was approved for the mineral resource development project, effective on April 13, 2011. Because the proposed project description has changed, a Revision of the CUP is required. The Kitsap County Code distinguishes revisions to CUPs as either major or minor. ESA has determined that the revision in this case is considered major because the project site has expanded, and is processed as a Type III application. A major revision is defined as "any expansion of the lot area covered by the permit or approval, or any proposed change whereby the character of the approved development will be substantially altered. A major revision exists whenever intensity of use is substantially increased, performance standards are reduced below those set forth in the original permit, detrimental impacts on adjacent properties or public rights-of-way are created or substantially increased, including increased trip generation of ten percent or more, or the site plan design is substantially altered, including dimensional or gross floor area increases of ten percent or more."

The process to obtain a Revision of the CUP includes issuance of a SEPA threshold determination by the County and an open record pre-decision hearing with the Hearing Examiner.

6.4 IMPACTS

6.4.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road. Other portions of the road will be newly constructed. Construction of the road will result in increases in construction traffic, dust, and noise in the project area. The majority of the work would occur on site on UTF property adjacent to undeveloped lands, and mining and forest uses where residences and other sensitive receivers are not present. Road construction would begin at Kitsap Quarry and gradually move north towards Gravel Mine "A." Gravel construction truck traffic would not occur on public roads because the gravel will be sourced from Kitsap Quarry. Werner Road would be used for delivering all other construction material. Lebers Lane would be used only for service vehicle access. Off-site construction vehicle and worker traffic would result in temporary, short-term increases in construction traffic, dust, and noise principally along Werner Road, with minimal increases along Northlake Way, and Lebers Lane. Construction would not result in significant off-site traffic generation. Increased noise and dust during key construction periods will be mitigated to the extent practicable through the implementation of Best Management Practices.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

The proposed new access road would shift the transport of rock and aggregate from the Northlake Way route to West Werner Road reducing potential land use conflicts with residential streets. Lebers Lane/Grover Lane/Northlake Way would be used by employees, service, and maintenance vehicles. Shifting the transport of rock and aggregate to West Werner Road would reduce the potential for noise,

dust, odor and truck traffic impacts on residential land uses along Lebers Lane/Grover Lane/Northlake Way.

The new access road would pass through the URS, RW, and CUL Comprehensive Plan and zoning designations and the Mineral Resource Overlay Comprehensive Plan designation. Providing access for resource-related activities is generally consistent with Kitsap County's goals and policies for these designations. However, the final determination of consistency will be determined by the County Hearing Examiner as part of the CUP modification process. Potential impacts of daily operation of the new road include dust, odor, and truck traffic. Mitigation measures and BMPs listed in the Draft EIS would ensure compatibility with the proposed uses within these zoning districts.

The existing portion of the access road that would be improved and used for the UTF Mineral Resource Development is within the City of Bremerton's Employment Center Comprehensive Plan designation and R-10 zoning designation. The access route is approximately 1 linear mile long within the R-10 zone and is referenced as Gravel A-Route 1 (see Figure 1-2). Access route construction will most likely precede urban development in this zone. This *de facto* sequencing will avoid land use impacts that could have occurred if the access route was built within an already-urbanized environment. The UTF Mineral Resource Development is expected to generate approximately 136 daily truck trips. Potential impacts of daily operation in this zone could include dust, odor, and truck traffic that can be incompatible with residential uses. However, once R-10 is developed with residential land uses, truck traffic for hauling aggregate will be moved from the Bremerton West Ridge property to the UTF property using Gravel A-Route 1 (see Figure 1-2). Materials will continue to be transported to Werner Road. Mitigation measures and BMPs outlined in the 2009 EIS and included below are intended to ensure compatibility with the land uses affected by the proposed changes of the proposed action.

6.5 MITIGATION MEASURES

Mitigation Measures Included In the Project Design and/or Required For Permit Approval

- Upgrading the haul road in the Bremerton West Ridge property to City of Bremerton road standards once the property is subdivided for residential land uses.

- Designate the haul road for Quarries "A," "B," and "C" as the primary road for removing rock and aggregate. When the Bremerton West Ridge property is developed the primary haul road will shift to existing roads on Ueland Tree Farm.

Chapter 7 Transportation

7.1 INTRODUCTION

This chapter evaluates existing transportation conditions, potential impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the Werner Road Connection Project. The proposed access route for transportation of rock and aggregate materials will shift from the currently approved Northlake Way access route southerly over UTF-owned land directly onto Werner Road in Section 20, Township 24N, Range 1E. This chapter describes information that is new or modified from the characterization included in Chapter 2 of the 2009 Draft EIS. Unless otherwise noted in this chapter, transportation conditions in the project area; applicable local plans, policies, and regulations; impacts to transportation associated with the proposed development; and mitigation measures are the same as described in Chapter 9 of the Draft EIS.

Information used to characterize the project environment and to assist with this supplemental analysis was obtained by reviewing the following resources and document:

- Traffic Study - Ueland Tree Farm Proposed Werner Road Connection Technical Memorandum (Jake Traffic Engineering, Inc., 2014). Included in Appendix A.
- Concurrency Approval (Developer Agreement for Ueland Tree Farm, LLC Proportionate Share of Maintenance for Werner Road) by City of Bremerton, June 18, 201 (City of Bremerton, 2014b). See Appendix B.
- Lakeside Industries Asphalt Plan Traffic Impact Analysis (Parametrix, 2012).
- Kitsap Quarry Access Revision Relocation Traffic Letter (Jake Traffic Engineering, Inc. 2012).

Information in this document was also obtained from existing printed documentation, published traffic control standards, and through discussions with City of Bremerton and Kitsap County staff.

7.2 AFFECTED ENVIRONMENT

7.2.1 ROADWAY SYSTEM

The proposal is to re-route the transportation of rock and aggregate materials from the Northlake Way route of Lebers Lane/Grover Lane/Northlake Way to Werner Road via the Kitsap Quarry facility. Kitsap Quarry has an approved private access road between the quarry and Werner Road. With the new access route under Werner Road Connection Project, UTF proposes to tie into this approved private street connection (see Figure 1-3). The new access road will shift truck traffic away from the Lebers Lane/Grover Lane/Northlake Way over UTF-owned lands and directly onto Werner Road.

A recent study, *Lakeside Industries Asphalt Plant Traffic Impact Analysis* (2012), was used to identify the study area for the new access road. Both projects would utilize Werner Road from the road's western terminus. The study identified the following five roadway segments:

Werner Road/ W Loxie Eagans Boulevard – The Werner Road/W. Loxie Eagans Boulevard study corridor provides east-west travel and connects the local area to the regional transportation system and downtown Bremerton via State Route 3 (SR-3), National Avenue S, and SR-310. From the western terminus of Werner Road to Skylark Drive W the roadway is under City of Bremerton jurisdiction as a Collector Arterial. From Skylark Drive W, to west of Union Avenue W, Werner Road is under Kitsap County jurisdiction as an Urban/Rural Major Collector. From west of Union Avenue W to just west of SR-3, the roadway is under City of Bremerton jurisdiction.

East of SR-3, the roadway is W Loxie Eagans Boulevard. From the SR-3 northbound ramps to the SR-3 southbound ramps the W Loxie Eagans Boulevard overpass is under WSDOT jurisdiction as an Urban-Principal Arterial. East of SR-3 to Arsenal Way, W Loxie Eagans Boulevard is in Kitsap County jurisdiction.

SR-3 – SR-3 is classified by WSDOT as a U1 (Urban-Principal Arterial) roadway. SR-3 provides north-south travel and is a primary route for access to the Olympic Peninsula.

National Avenue S - This City roadway is a minor arterial that provides north-south travel. National Avenue S is the primary connection on the east side of SR-3 that connects the W Loxie Eagans Boulevard and SR-310 interchanges with SR-3.

Union Avenue W/Kean Street - Union Avenue W/Kean Street is a City roadway that is classified as a Collector Arterial. This north-south roadway provides the roughly half of the access to the commercial/retail areas west of SR-3 and north and south of Werner Road.

Auto Center Way - This City roadway is classified as a Collector Arterial and provides much of the same function and access as Union Avenue W/Kean Street to commercial/retail areas on the west side of SR-3.

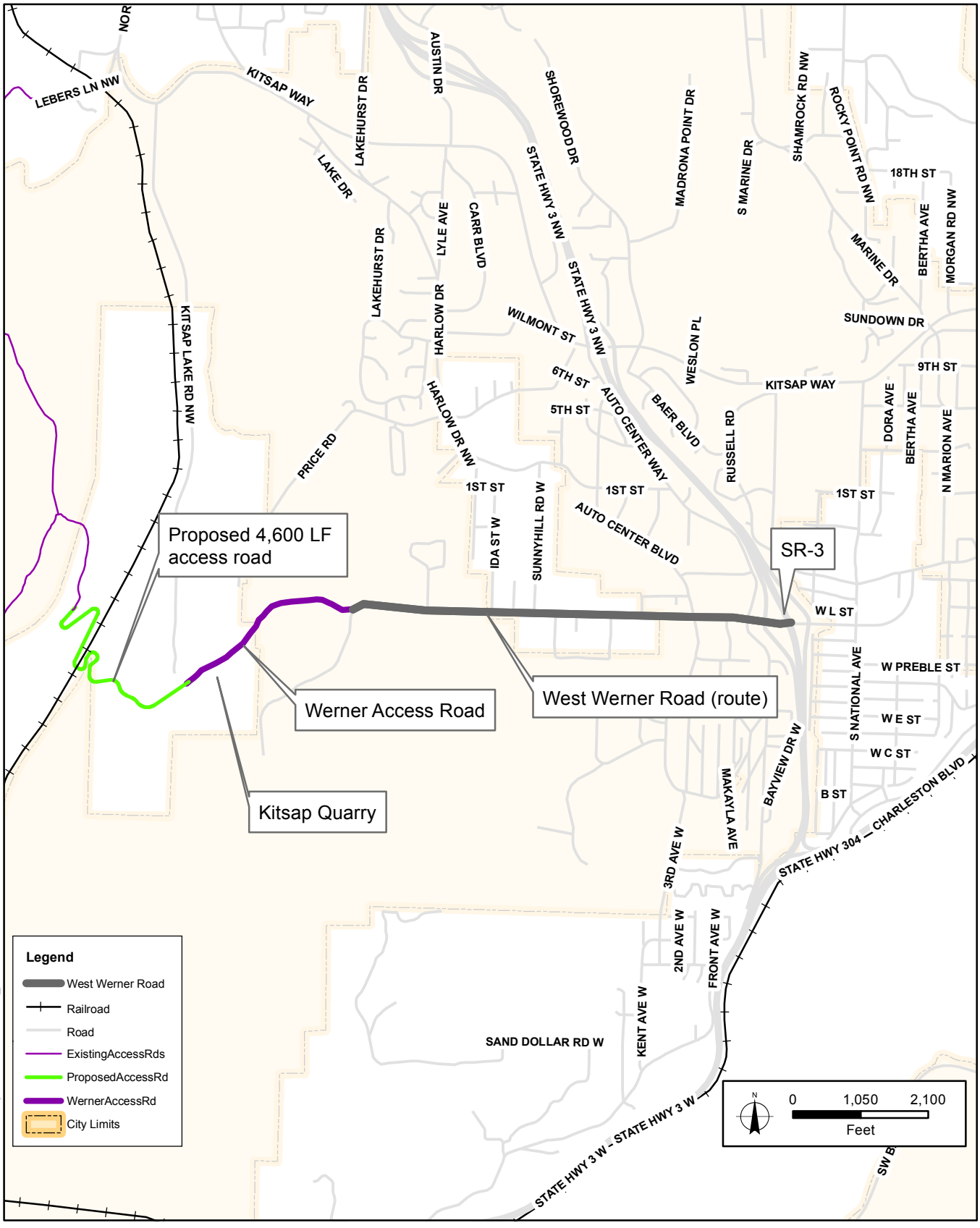
The haul route along Werner Road and study area roadways and intersections are shown in Figure 7-1.

7.2.2 TRAFFIC VOLUMES

The recent study completed for an asphalt plant development along Werner Road, *Lakeside Industries Asphalt Plant Traffic Impact Analysis* (2012), was used to identify existing traffic volumes and background growth along Werner Road.

Existing traffic volumes along Werner Road (west of Union Ave W) were counted in 2012 (Parametrix, 2012). The existing 2012 background average eastbound daily traffic on Werner Road was 1,392 trips. The total bi-directional daily traffic volume was 2,780. For context, a typical two-lane arterial street in Kitsap County has a daily capacity of 15,000 vehicles per day (JTE, 2014). The road serves a high percentage of trucks (approximately 36 percent of total traffic) (Parametrix, 2012).

It is anticipated that background growth associated with projected population growth in the City and County will continue to occur in the study area. To estimate the non-specific traffic growth that will occur, a compound annual growth rate of 2 percent was applied to existing (2012) traffic volumes for forecast 2032 traffic volume (Parametrix, 2012).



SOURCE:ESRI (aerial); Kitsap Co, 2003, 2008; WDNR, 2008; Cascade Pacific 2014.

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Figure 7-1 West Werner Road (route)

Kitsap County, WA

7.2.3 TRAFFIC OPERATIONS

The operation of study area intersections was analyzed in *Lakeside Industries Asphalt Plant Traffic Impact Analysis* (Parametrix, 2012). The study area intersections along the Werner Road route operate at City of Bremerton level of service (LOS) standards except for the stop controlled south-bound to west-bound left turn movement at the SR–3/W. Loxie Eagans Boulevard intersection (Parametrix, 2012). Levels of service are quantitative measures that characterize the operating conditions a driver will experience while traveling through a particular intersection during a specific time interval. They are considered as part of the local transportation concurrency system to ensure that LOS standards are maintained by development proposals. LOS ranges from "A" (very little delay) to "F" (long delay and congestion). The City of Bremerton identifies LOS D or better at the study intersections as acceptable.

The analysis identified the SR-3/W. Loxie Eagans Boulevard southbound intersection as currently having substantial delays. These delays are expected to increase in the future under background growth conditions. The intersection is stop sign-controlled and the delay is associated with the high southbound left turning movement volumes that must wait for gaps in the high westbound and eastbound traffic volumes. Intersection LOS was calculated using the methodology outlined in the *Highway Capacity Manual* (HCM). As shown in Table 9-1, the analysis found that the southbound to westbound left turn movement at this intersection operates at LOS F during both peak hours with an average control delay of 121.7 seconds per vehicle in the AM peak hour and greater than 200 seconds per vehicle in the PM peak hour (Parametrix, 2012). State law exempts highways of statewide significance – including SR-3 – from local concurrency regulation.

The feasibility of signalizing the SR-3/W. Loxie Eagans Boulevard intersection was previously explored with WSDOT as part of potential mitigation for a proposed project by Lakeside Industries, but was determined to not be preferred at this intersection.

Table 7-1. Existing 2012 LOS

Intersection	Control	LOS Standard	AM Peak Hour		PM Peak Hour	
			LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Werner Rd/Union Ave W	Signal	D	B	13.2	C	22.7
Werner Rd/Auto Center Way	Signal	D	B	11.5	B	15.5
W Loxie Eagans Blvd/SR-3 SB Ramps	Stop Sign (SB LT)	D	F	121.7	F	>200
W Loxie Eagans Blvd/SR-3 NB Ramps	Signal	D	B	10.3	A	9.8
W Loxie Eagans Blvd/National Ave S Ramps	Signal	D	B	17.6	C	21.5

Source: Parametrix, 2012

7.2.4 RAILROAD SYSTEM

A railroad line owned by the U.S Navy traverses the UTF site along the West Ridge, and would be crossed at one location by the new access road under a private crossing easement. There is an existing public crossing at Lebers Lane between the UTF site and the intersection.

7.2.5 TRANSIT

Public transportation in the study area is provided by Kitsap Transit, Route 20 – Navy Yard City. Along Werner Road, transit stops are generally located on both sides of the street between major intersections.

7.2.6 NON-MOTORIZED FACILITIES

From the western terminus of Werner Road to Union Avenue W, paved shoulders are generally present, but no sidewalks, trails or other designated pedestrian and bicycle facilities are provided. Complete non-motorized facilities are located along both sides of Werner Road between Union Avenue W and National Avenue S.

7.2.7 REGULATORY SETTING

The proposed new access road would traverse areas of City of Bremerton and Kitsap County jurisdiction. As part of the Transportation Element of the City of Bremerton's Comprehensive Plan (2004), the City establishes level of service goals for all transportation facilities in accordance with the requirements of the Growth Management Act (GMA) under the Revised Code of Washington (RCW) 36.70A.070 (City of Bremerton, 2004). As part of their comprehensive plan (August 2012), Kitsap County also establishes service goals for all transportation facilities in accordance with the GMA and state law.

7.3 IMPACTS

7.3.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road. Other portions of the road will be newly constructed. Under the Werner Road Connection Project, access road construction would include installing an approximately 4,600 foot long lineal foot (LF) access road between the UTF site and the Kitsap Quarry. About 1,000 LF of an existing access road will be improved, and about 3,600 LF will be new road (see Figure 1-3).

Excavation and grading for site preparation and construction of the proposed access road would require the use of large equipment. The majority of the work would occur on site on UTF property adjacent to undeveloped lands, mining, and forest land where residences are not present. Access road construction

would start from Kitsap Quarry. Kitsap Quarry will also source the rock for the road construction, thereby avoiding any gravel truck traffic on public roads. The only construction truck traffic on public roads (Werner Road) will be associated with supplies (e.g., culverts, filter fabric, etc.). As a result, construction would result in minimal off-site traffic generation.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

A detailed Traffic Study was prepared for the proposed gravel mine and bedrock quarry in 2007. The report, *Traffic Study – Ueland Tree Farm Mineral Resource Development*, identified that the project would generate on average 186 daily trips with 136 noted as truck trips, 32 employee trips and 18 other trips (vendors, service/delivery and guests) type trips (Parametrix, 2007a). Access to the facility was proposed via Lebers Lane/Grover Lane/Northlake Way (Northlake Way route). The County approved the Ueland Tree Farm Mineral Resource Development CUP in April 2011.

The proposed new access road would shift the transport of rock and aggregate from the Northlake Way route to Werner Road. The new access road would traverse property owned by UTF directly onto Werner Road, eliminating the Northlake Way access route for transportation of rock and aggregate materials. Lebers Lane/Grover Lake/Northlake Way would continue to be utilized for limited access by employees, service, and maintenance vehicles for the mining operation. In general, the proposed new access road reduces transportation impacts to residential streets relative to what was described in the EIS, and provides a more direct route to SR-3.

As described in the EIS, traffic expected to be generated by the UTF Mineral Resource Development is below Kitsap County's threshold of 50 PM peak hour trips for requiring a traffic impact analysis. However, operational analysis at the intersection of Lebers Lane was performed to ensure that appropriate design features were provided for the project. Because shifting the access road to the south reduces potential traffic impacts when compared to the originally-proposed route, a more general operational analysis was performed for the Proposed Development Alternative CUP modification in this SEIS, as described below.

Traffic Operations

This analysis of operational impacts of the new access road builds upon two recent traffic studies conducted for industrial facilities located off of Werner Road. The study, *Kitsap Quarry Access Revision Traffic Letter* (JTE, 2012), analyzed the effect of shifting the existing Kitsap Quarry site traffic from the west side of the site via Archie Avenue W to Werner Road. Werner Road is a more direct route to the State Highway system. The Proposed Development Alternative CUP modification would tie into Kitsap Quarry's approved private street connection to Werner Road. The study, *Lakeside Industries Asphalt Plant Traffic Impact Analysis* (Parametrix, 2012), analyzed the effect of locating an asphalt plant off of Werner Road.

The UTF Mineral Resource Development is an approved project estimated to generate 186 daily trips (136 truck trips) with 35 trips during the PM peak hour. The Kitsap Quarry site currently generates approximately 40 daily trips per day, 30 of them being trucks. Four of the Kitsap Quarry trips would occur during the PM peak hour (JTE, 2012).

The UTF Mineral Resource Development and Kitsap Quarry operations combined are expected to generate up to approximately 226 daily trips in a high activity month (typically in the summer). Of the 226 daily trips, approximately 166 would be truck trips. The combined PM peak hour trips by the approved UTF Mineral Resource Development and the existing Kitsap Quarry would add 39 PM peak hour trips (35 by UTF + 4 by Kitsap Quarry). The combined 226 daily trips represent approximately 8

percent of the existing traffic along Werner Road and less than 2 percent of the capacity of the arterial street. No impacts to LOS standards of any study area intersections subject to local concurrency standards have been identified.

During the peak construction season (June through September) more shipments would occur. The work days would be Monday through Saturday with exceptions being special projects which would generate trips outside of the peak traffic flows, typically during the dry season. (For example, night road construction projects that need material delivered at night to avoid day time street/road closures is an example of a special project that could alter the timing of peak trips). During other times of the year, fewer shipments would occur.

The amount of traffic expected on Werner Road with the new access road traffic, even with the conservative trip generation assumptions, is well below the capacity of the roadway. Based on the projected traffic volumes of the approved UTF Mineral Resource Development (and in combination with the existing Kitsap Quarry traffic), and considering the capacity of Werner Road and other study area roadways, the new access road will have a minimal effect on local traffic operations. Shifting the UTF traffic to Werner Road results in a more direct route. Consequently, there will be a substantial reduction in vehicle miles of travel on County roads and City streets when compared with the original development proposal.

Railroad Systems

Approvals for the railroad crossing by the new access road will consist of an easement from the United States Department of Defense (DoD) (railroad right-of-way owner). The DoD will consider requests for easements after land use approvals are obtained. Prior to construction of the access road crossing, the DoD would require completion of an easement, and review and approval of engineering plans. These construction plans would include drainage and roadway components that would require a Site Development Activity Permit from Kitsap County.

7.4 MITIGATION MEASURES

MITIGATION MEASURES INCLUDED IN THE PROJECT DESIGN AND/OR REQUIRED FOR PERMIT APPROVAL

A Hearing Examiner Conditional Use Permit (CUP) was approved for the mineral resource development project, effective on April 13, 2011. Certain conditions were applied to the approval based on the approved Northlake Way access route. Because the proposed project has changed, a Revision of the CUP is required. UTF requests that if Kitsap County approves the relocation of the access route to Werner Road, then the traffic mitigation conditions in the current Project approval be amended or deleted as they relate to the prior Northlake Way access route.

The following additional measures are proposed to avoid and minimize potential impacts to transportation from the revised project:

- Construct the re-located site access in accordance with applicable standards.
- Coordinate appropriate Traffic Mitigation with the City based on prior accord.
- In accordance with BMC 11.12.070(c), mitigation funding may be required to address increased truck traffic on City roadways in the form of a proportional share contribution to a future Werner Road maintenance project.

Chapter 8 Aesthetic Quality

8.1 INTRODUCTION

This chapter evaluates existing aesthetic and visual conditions, potential impacts, proposed mitigation measures, and best management practices (BMPs) for the proposed access road associated with the Werner Road Connection Project. The proposed access route for transportation of rock and aggregate materials will shift from the currently approved Northlake Way access route southerly over land controlled by UTF directly onto Werner Road in Section 20, Township 24N, Range 1E. This chapter describes information that is new or modified from the characterization included in Chapter 10 of the 2009 Draft EIS.

The following resources and documents were used to characterize the aesthetic and visual impacts associated with the proposed development:

- Land Use and Visual Impact Assessment Ueland Tree Farm Mineral Resource Development Supplement (Cascadia Pacific Group LLC, 2014). Included in Appendix A.
- Land Use and Visual Impact Assessment Ueland Tree Farm Mineral Resource Development (Parametrix, 2009).
- Land Use Vision statement of the City of Bremerton Comprehensive Plan (City of Bremerton, 2004).

8.2 AFFECTED ENVIRONMENT

8.2.1 SETTING

The topography, natural resources, and general setting of the proposed access route is described in several chapters of the SEIS, including Chapter 2 Geology and Soils, Chapter 4 Water Resources, and Chapter 6 Vegetation and Wildlife. The access route is situated along the eastern slopes of Green and Gold Mountains. The property faces the major population centers and transportation corridors of the greater Bremerton area and Kitsap County, however, the topography and tree cover provide visual screening.

8.2.2 VIEWSHED ASSESSMENT

A Viewshed Analysis of the proposed access route was conducted by Cascadia Pacific Group LLC (2014) using a Geographic Information System (GIS) computer modeling program and Digital Elevation Model data from the United States Geological Service. The GIS-based analysis identified surrounding areas that can be seen from a single viewpoint. The modeling program assesses views based on bare ground conditions. Trees, buildings, or other aboveground features were not factored into the Viewshed Analysis. The analysis modeled the same ten selected viewpoints as the Viewshed Analysis conducted by Parametrix in 2009. The study area for this SEIS is the proposed access route, including the valley floor near Kitsap Creek and the adjacent hillsides between Kitsap Quarry and the UTF site.

8.2.3 REGULATORY SETTING

The City of Bremerton and Kitsap County Comprehensive Plans do not provide specific guidance on impacts to views of forested areas. The City of Bremerton's Vision Statement does provide guidance on the relative value of scenic views: "Accessible waterfronts, water and mountain views, and urban parks add to the city's setting for everyone's enjoyment" (City of Bremerton, 2004).

8.3 IMPACTS

8.3.1 PROPOSED DEVELOPMENT ALTERNATIVE MODIFICATION

The general impacts of the Werner Road Connection Project are discussed below. Impacts are discussed in terms of both construction (site development) and operational impacts. Construction impacts would occur at the beginning of the project, and consist of access road construction. Operational impacts would be associated with the ongoing transport (haul) activities along the new access road.

WERNER ROAD CONNECTION PROJECT DEVELOPMENT IMPACTS

The proposed access route would utilize, in part, an existing logging road. Other portions of the road will be newly constructed. Construction of the new access road could reduce visual quality through the presence of construction equipment, workers, materials, debris, signs and staging areas on surrounding areas with unobstructed views of the project site. If visible, existing forested views would be replaced by views of cleared areas, construction equipment, construction debris, etc. The altered views would likely be seen as negative by some individuals; however, the impacts are not likely to be considered significant on a regional or county-wide scale due to the distance to most viewers. Due to retention of forest adjacent to the proposed road construction and across the regional landscape, views of cleared areas are likely to be limited to a limited set of potential viewpoints. The most common sights are likely to be occasional dust, or equipment exhaust seen in the foreground or middle ground views during construction.

WERNER ROAD CONNECTION PROJECT OPERATIONAL IMPACTS

Ten separate sites in the Central Kitsap area were modeled to determine how much, if any, of the proposed access road is visible from each location. The ten sites are the same viewpoints as those studied in the Viewshed Analysis conducted by Parametrix in 2009. They were chosen to capture the largest number of potential viewers of the UTF property based on population concentrations and transit routes. The representative sites include local neighborhoods, major transportation routes, and major population centers, and are shown below (see Figure 10-1). The proposed access route is potentially visible from just two of the ten viewpoints.

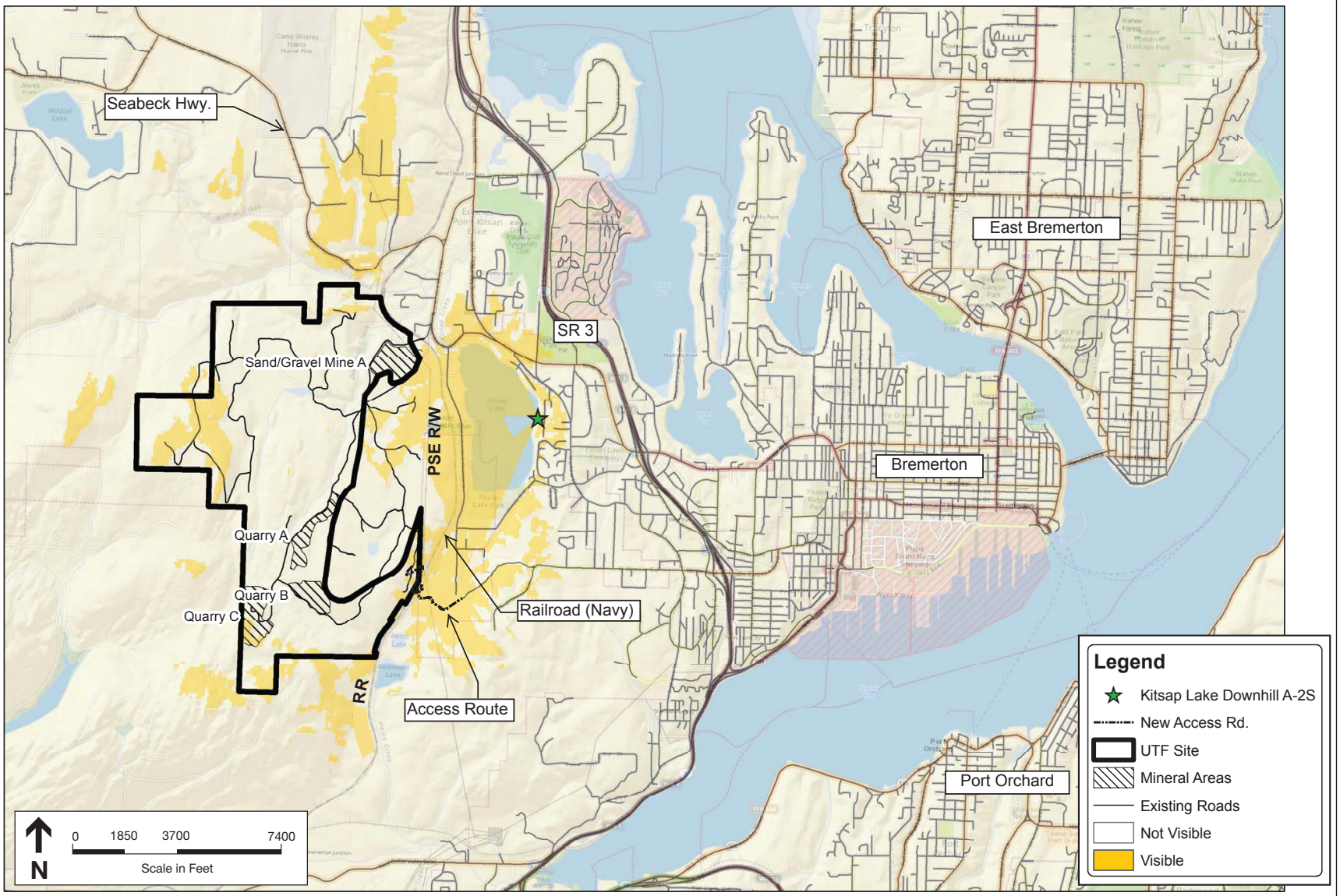
The Kitsap Lake (#1) Downhill viewpoint (see Figure 10-2) and the East Bremerton viewpoint (#8) have views of the proposed access route (see Figure 10-3). The proposed access route will appear as a thin linear opening in the forest canopy amidst a rural, forested landscape. Current views from these viewpoints contain similar linear features from existing roads, powerline corridors, and railway corridors. The access route will be visible as an additional linear feature in the landscape and its view impact minimized when seen within the visual context of existing landscape features. The Kitsap Lake (#1) Downhill viewpoint is approximately 7,500 feet (1.4 miles) from the centerline of the proposed road. The East Bremerton viewpoint (#8) is approximately 26,000 (4.9 miles) feet from the centerline of the proposed road.

The roadway prism, embankments and other physical features of the access route will be screened by the forested landscape immediately adjacent to the route. Truck traffic will also be screened by the trees in close proximity to the route.

SOURCE: City of Bremerton, 2005; Kitsap Co. 2008; USGS, 2003; WSDOT, 1997, 2007.

Ueland . 208407

Figure 8-1
Viewshed Analysis
Kitsap County, WA



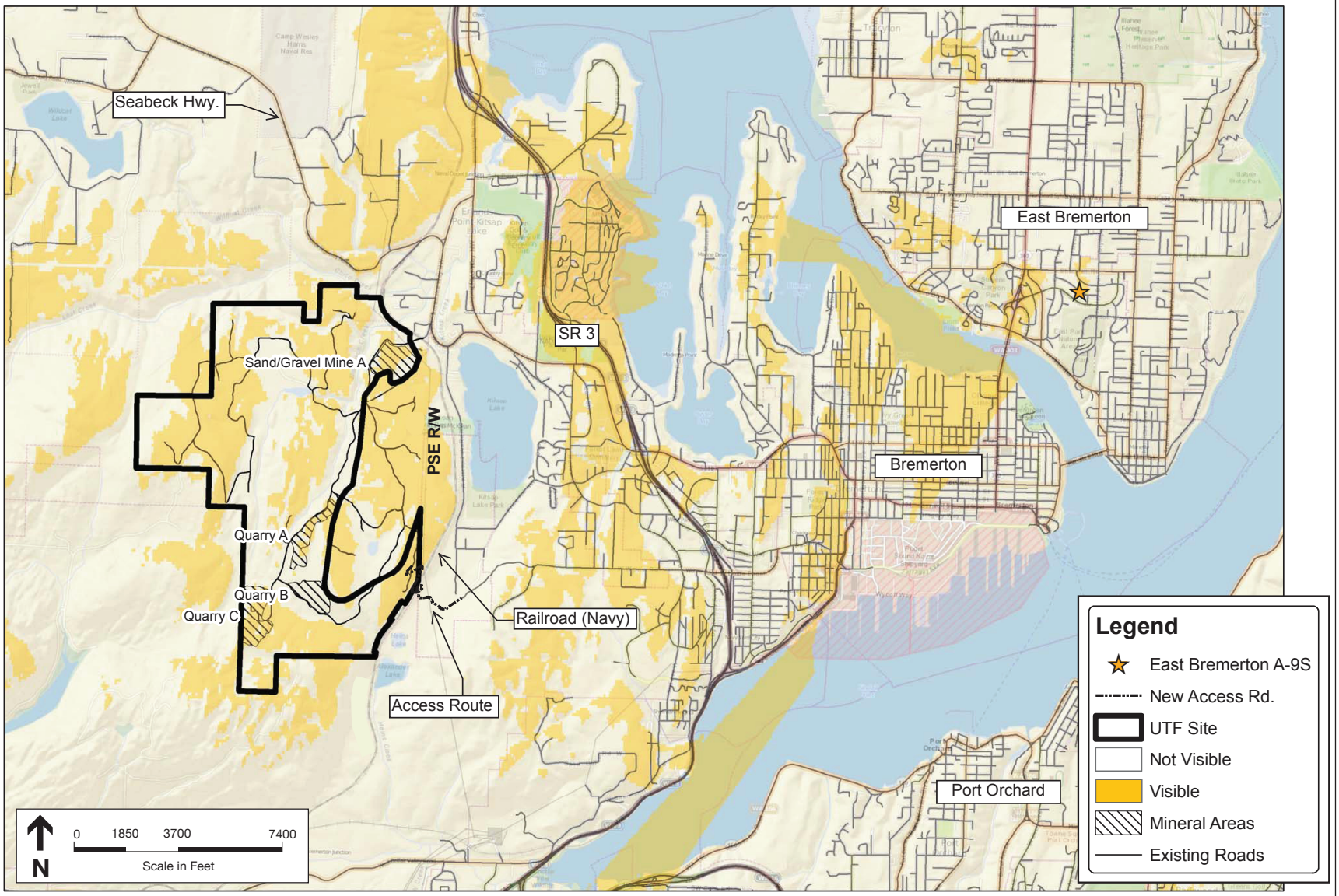
FILE NAME: Fig8-2_KitsapLakeDownhillViewpointViewshedAnalysis.ai / CREATED BY: JAC / DATE LAST UPDATED: 06/19/14

SOURCE: Cascadia Pacific Group LLC.

Ueland . 208487

Figure 8-2

Kitsap Lake Downhill Viewpoint - Viewshed Analysis
Kitsap County, Washington



FILE NAME: Fig08-3_EastBremertonViewpointViewshedAnalysis.ai / CREATED BY: JAC / DATE LAST UPDATED: 06/19/14

SOURCE: Cascadia Pacific Group LLC.

Ueland . 208487

Figure 8-3
East Bremerton Viewpoint - Viewshed Analysis
Kitsap County, Washington

8.4 MITIGATION MEASURES

Mitigation Measures Included In the Project Design and/or Required For Permit Approval

None proposed

Chapter 9 References

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