

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Appeal of the Brightwater Final Environmental Impact Statement (FEIS)
DEPARTMENT: Planning and Development Services
PRESENTED BY: Tim Stewart, Planning Director
Rachael Markle, Planning Manager

PROBLEM/ISSUE STATEMENT:

The Brightwater FEIS was released on November 19, 2003. In accordance with SEPA and King County's procedures, parties of record were given seventeen (17) days to file a Notice of Appeal. Staff reviewed King County's responses to the City of Shoreline's comment letter on the DEIS dated January 17, 2003. Although the FEIS appears to respond adequately to most the issues and concerns raised by the City, there are a few impacts that are not fully described or mitigated that have direct effects on the environment and residents of Shoreline. Therefore, a Notice of Appeal was filed on December 8, 2003. The next step in the appeal process is to submit the Statement of Appeal by January 20, 2004. Staff is seeking direction on the following issues:

- Whether to continue or withdraw the appeal of the Brightwater FEIS?; and
- If the direction is to continue with the appeal, confirmation of the specific reasons the FEIS is inadequate, the anticipated harms and remedies sought.

RECOMMENDATION

Staff recommends that Council continue to appeal the Brightwater FEIS and submit a Statement of Appeal based on the impacts and remedies sought as identified in this report or as augmented by Council.

Approved By:

City Manager  City Attorney 

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INTRODUCTION

King County completed the FEIS for the Brightwater Wastewater Treatment facility. The FEIS was released on November 19, 2003. Those persons, agencies or jurisdictions that submitted comments on the Draft Environmental Impact Statement (DEIS) (also known as parties of record) were given the opportunity to review the FEIS to determine if the document accurately identified and analyzed the impacts to the environment and provided for appropriate mitigation. The City as a party of record has standing to appeal the FEIS. The City filed a Notice of Appeal of the Brightwater FEIS with King County on December 8, 2003.

The selected alternative includes the construction of up to five portals (access shafts used to bore the deep tunnels that will house the pipes to carry the treated or untreated effluent to the outfall or the treatment plant); installation of the conveyance system for treated or untreated effluent; and the outfall in Puget sound just north of the City of Shoreline.

BACKGROUND

The Council last discussed the Brightwater project at the January 13, 2003 meeting. At this meeting Council confirmed the content of the City's response on the Brightwater DEIS.

The purpose of the Brightwater project and subject of the FEIS is to carry out the regional policy mandate contained in King County's Regional Wastewater Services Plan, and other regional policy criteria, adopted by the King County Council. The objective is to meet the region's long term wastewater capacity needs with appropriate mitigation and within the public resources available by constructing a Brightwater system, made up of a treatment plant, conveyance facilities, and marine outfall zone in north King County and South Snohomish County.

There were three system alternatives analyzed for Brightwater. On December 1, 2003 King County Executive Sims selected the FEIS preferred alternative, the Route 9 – 195th System, for construction. This alternative has the most impact on the City of Shoreline out of the three alternatives studied. There are two primary Portals 19 (Point Wells) and 5 (Ballinger Road NE/15 Avenue NE area), the outfall Zone 7S (Point Wells) and three secondary Portals 23 (East of 8th Avenue NW and 205th Street), 27 (East of Meridian Avenue N and 205th Street), and 7 (Ballinger Way/Aldercrest School area). Please see Attachment A: Preferred Alternative (now selected Alternative) Route Map.

In the FEIS, King County identifies Portals 23, 27 and 7 as "secondary". Secondary portals are not expected to be constructed, but might be needed for temporary ventilation, ground improvement, and/or supply of backfill grout. Requirements for secondary portals would be based on geotechnical information obtained and reviewed during detailed design. During recent meetings with the King County project team, it was stated that there was only a very small chance that any construction would occur at Portals 23, 27 or 7. In the rare event that any of these portals are deemed a necessity,

King County will undergo a public siting process and perform site specific environmental review.

Construction of the treatment plant could begin as early as 2004. Construction and start up of the basic treatment facilities would be completed in 2010. Conveyance construction would begin in 2004 and continue through 2010. Outfall construction would begin sometime between 2005 and 2008 and last up to 12 months.

The City filed a Notice of Appeal of the Brightwater FEIS on December 8, 2003. The next step is determine whether to continue to appeal the FEIS. If the City decides to continue to appeal the FEIS, the following table outlines the steps and important dates associated with appeal process:

ACTION	DATE
City submits response letter to King County on the Brightwater DEIS	1/13/03
Brightwater FEIS released	11/19/03
King County Executive Sims announces the selected location for the Brightwater Treatment plant, conveyance and outfall: Route 9 –195 th Street	12/1/03
Notice of Appeal of FEIS due to King County	12/8/03
City Submits Notice of Appeal of FEIS	12/8/03
Statement of Appeal due to King County	1/20/04
Appeal Hearing before King County Hearing Examiner	5/10/04
Hearing Examiner Decision	within 15 days of the close of the appeal hearing

ALTERNATIVES ANALYSIS

The purpose of this report is to brief Council on the appeal of the FEIS

Review Focuses

Since staff and Council underwent such an extensive review of the DEIS, the review of the FEIS was narrowed to focus on the following:

1. King County’s response to Shoreline’s Comment Letter on the DEIS.
2. Review of the FEIS did not focus on Portals 23, 27 and 7, since King County assured staff verbally that there is only a very small chance that Portals 23, 27 and 7 would need to be constructed and that if they are needed a new siting and analysis process would be initiated,.
3. Sections of the FEIS pertaining to the Treatment Plant, Portals located outside of Shoreline and the two alternatives that were not selected were not reviewed.
4. Mitigation of impacts of the conveyance and outfall.

Discussion

The following discussion is organized by Chapter of the FEIS. Impacts that have not adequately been addressed are identified. The number (ex. C6-6) refers to the coding King County used in their response to our comments – Please See Attachment B.

General

Error or FEIS inadequacy: Although the FEIS states that there is only a very small chance of needing to construct Portals 23, 27 and 7, the City still supports its position that these Portals should be removed from consideration entirely, especially Portal 23.

Harm Anticipated/Suffered: Displacement of homes and businesses and potential degradation of critical areas including streams, wetlands and steep slopes.

Remedy: **Definitively determine that Portals 23, 27 and 7 are not needed and remove from the project.**

Error or FEIS inadequacy: C6-7 The City requests as mitigation for construction impacts that include the effects of construction noise, increases in construction related traffic and incompatible land use changes, that portions of portal sites not needed for operation be transferred to the City for redevelopment and use. In addition, C6-10 refers to our request that after Portal 19 is complete and environmental remediation occurs, that it be considered for transfer to City of Shoreline for beach access, nature preserve etc.

The FEIS does not mention the transfer of property to affected local jurisdictions. It does state that: "At completion of portal construction, much of the portal area could be restored and made available for other uses."

Harm Anticipated/Suffered: The neighborhoods and businesses adjacent to the construction of portals or the outfall will be impacted by construction noise and traffic for an estimated 3.5 –4 years. In addition, future land uses that are more compatible within the context and character of the neighborhoods are being precluded by the use of the sites for the portals and outfall.

Remedy: **Identify in the FEIS as a mitigation measure that the transfer of property acquired but not needed for the operation of conveyance and outfall be offered for transfer at no cost to the affected jurisdiction.**

Error or FEIS inadequacy: C6-15 refers to the impacts of construction on residents and businesses. King County responds that the specific mitigation measures will be worked out during the permitting phase. The main concern is that Shoreline does not have jurisdiction over permitting at Portal 19.

Harm Anticipated/Suffered: Shoreline is not guaranteed input during the permitting phase due to lack of jurisdiction even though the majority of the impacts identified for the construction of Portal 19 effect Shoreline's residents, environment and infrastructure.

Remedy: Specifically identify Shoreline as an effected jurisdiction that will be consulted as part of the permitting phase for Portal 19 for the purposes of developing specific mitigation.

Chapter 4 Earth and Groundwater

Important Note: C6-20/21 refers to our concerns regarding dewatering during construction of the portals and tunnels. Per the County's response to Washington State Department of Ecology regarding groundwater depletion and contamination, there are new boring and tunneling technologies that "significantly lessen" the need to use dewatering wells or significant pumping. These techniques include slurry walls, ground freezing and sheet piles with watertight joints. The anticipated water loss during portal construction will be 10gpm. And the average groundwater loss during tunneling is approximately 130 gpm. The County claims that the impact will be "negligible" with a new loss of up to 0.1 cfs from the alluvial aquifer. There is no proposed mitigation for surface water impacts. Based on this response, staff feel that it is appropriate to rely on the County's analysis and the regulatory oversight of the Washington State Department of Ecology.

Chapter 5 Air

Error or FEIS inadequacy: C6-24 refers to our comments regarding odor impacts and necessary mitigation. King County does not concur that there will be impacts and therefore does not propose any additional mitigation or monitoring beyond the design of system

Harm Anticipated/Suffered: There may be a greater potential for odor emissions at Portal 5 than at other Portals. This is due to two factors. The first being that this portal is one of the closest to the surface as the effluent begins it's decent to the outfall via gravity. The second factor that may provide greater potential for odor emissions is that per the County's own FEIS, Portal 5 is identified as the sole portal that will require "respiration", or the exchange of air in and out of the portal. If the proposed odor control technologies were to fail for any number of reasons, the rate of untreated release would be approximately 2000 cubic feet per minute. There are a number of "sensitive

receptors” within close proximity to portal 5, including: North Seattle Christian School, Medalia Health Care, Lake Forest Park Montessori and Cornerstone Christian School.

No odor control facilities are proposed at Portal 19, nor the three alternate portal sites. The county’s reasoning for this is that they will be sealed structures without emissions. There is the potential for odor release due to environmental conditions, vandalism, or other unforeseen events.

Remedy: The installation of redundant odor control systems, including back up power sources at Portal 5 to ensure uninterrupted odor management.

The installation of secondary odor control facilities at Portal 19 and alternate sites.

Air quality monitoring at the portal sites during effluent conveyance. Alarmed facilities that notify Brightwater Operations of odor release at the facilities.

Chapter 6 Surface Water

Error or FEIS inadequacy: C6-32 refers to our request for a dock to be built at the proposed outfall site for the purpose of barging materials in and spoils out. The FEIS does not confirm the construction of a dock to mitigate traffic impacts due to onshore construction of Portal 19 and the tunnel. During nearshore and offshore construction of the outfall the FEIS states that moored barges will be utilized.

Harm Anticipated/Suffered: The proposed construction “truck route” begins on I-5, then goes to SR-104, then south on SR-99 to N 185th Street, and continues west to NW Richmond Beach Road, NW 195th Street, and NW 196th Street to Richmond Beach Drive NW. According to the FEIS at the peak of construction in 2007 an anticipated 222 trips per day, 88 of which are identified as trucks will be accessing Portal 19 and Outfall Zone 7S. Construction is estimated to occur at Portal 19 for 3.5 years. The City is very concerned about the impacts on the residential and commercial areas adjacent to the construction route. Although the County has proposed some mitigation measures to reduce the impacts, the City is still concerned about such impacts as:

- The safety of pedestrians and cyclists sharing often narrow roadways in areas with no permanent sidewalks or bike lanes with construction trucks especially on Richmond Beach Drive NW.
- Increased levels of noise along the construction route associated with large trucks and construction equipment
- Increasing east/west traffic delays at the 185th and SR 99 intersection

Remedy: Procure use of the existing TexacoChevron dock or construct a new dock to transport materials, equipment and spoils by barge.

Important Note: C6-35 refers to our request that tunnel/bore construction be used and trench construction methods avoided at the outfall. The County does not propose tunneling/boring construction methods per the City's request. They state in response F1-4 to NOAA that trenching is the standard method of seafloor construction in the Puget Sound region. The response states that "microtunneling" has not been attempted in the Puget Sound due to the inherent risk of seafloor conditions. Unanticipated surface conditions may lead to a greater environmental impact during tunneling than would occur during trenching. This seems contradictory to Appendix 3-F table 1, which states that a microtunnel is the preferred method for onshore and nearshore construction. Additionally, section 1.3.2 of Appendix 3-F discusses specific tunneling methods for outfall at site 7S. It is unclear why the response to NOAA and the FEIS section seem so disparate.

Harm Anticipated/Suffered: Damage to nearshore environment.

Remedy: Although we are very concerned about the impacts to the nearshore environment, this issue seems best addressed and monitored by State and Federal agencies with jurisdiction and the specific expertise to insure the protection of the nearshore resources.

Chapter 11 Land and Shoreline Use

Error or FEIS inadequacy: C6-50 As mitigation for short and long term impacts associated with construction and operation of the outfall, Shoreline requested the development of public access to the beach and/or an interpretative nature component. The City's request for public beach access is not directly addressed in the response. The County states that they are "exploring options" for establishing access to the shoreline for Zone 7S, but the identified locations are not feasible for construction. No further explanation is given other than stating that the County will work with surrounding jurisdictions, residents, etc.

Harm Anticipated/Suffered: Permanent removal of land from public use. Nearly all of the City's shoreline is under private ownership or used for public use not conducive to allowing public access (ex. Burlington Northern Railroad). Point Wells is identified in the City's Comprehensive Plan as a Potential Annexation Area with a Mixed Use land use designation. The City's Comprehensive Plan states: Policy SM12: Use the following criteria if Point Wells is annexed and proposed for redevelopment:

- Consider a mix of commercial, residential, recreational and industrial water oriented uses.
- **Ensure public access and amenities.**
- Ensure adequate infrastructure.
- Protect views of the shoreline from nearby upland uses.
- Ensure clean up of any hazardous materials.

- Minimize impacts on adjacent shoreline and neighborhood uses.
- Allow flexible site design to meet these criteria and to minimize development impacts.

Precluding public access at Point Wells is in conflict with the City's Comprehensive Plan.

In addition, the City's Comprehensive Plan includes a "Public Access Element" Goal SMIV: To provide reasonable opportunity for the public to view and access the amenities of the shoreline area, while assuring that such access does not contribute to intrusions upon private property or fragile natural areas. Policies SM22-31 support the position that public access to the beach is a necessary part of any large development proposed along the City's Shoreline.

King County's Comprehensive Plan also supports public access: King County Comprehensive Plan Policy E-136 – Public access to wetlands for scientific, recreational use, and traditional cultural use is desirable, providing that public access trails are carefully sited, sensitive habitats and species are protected, and hydrologic continuity is maintained.

Remedy: Procure and construct public access to the beach from Point Wells, the King County Pump Station in Richmond Beach or another location in Shoreline yet to be identified.

Chapter 16 Transportation

Error or FEIS inadequacy: C6-65/66- Many of our transportation concerns are being delayed for consideration until the Transportation Management Plan is created. The FEIS states that all affected jurisdictions will be involved in the development of the TMPs during the permitting process.

Harm Anticipated/Suffered: The City inadvertently not be given ample opportunity or status in the development of the TMP because the permitting for construction of Portal 19 is currently within Snohomish County although the transportation impacts are wholly within the City of Shoreline.

Remedy: Request King County to be more specific in defining "affected" jurisdictions – since Shoreline will not necessarily be the permitting agency for the construction of Portal 19 and the outfall.

In conclusion, Council is being asked to direct staff on the following:

1. Confirmation of the staff recommendation: Continue to Appeal the FEIS or Withdraw Appeal
2. If the recommendation is to continue with the appeal:
 - A. Confirm the list of errors in the FEIS

- B. Confirm the list of harms anticipated or suffered
- C. Confirm the relief sought

STAKEHOLDERS

There are many stakeholders involved or that could be effected by this project, including the following:

- City of Shoreline residents
- City of Shoreline business owners/operators
- City of Shoreline
- The following Shoreline neighborhoods: Ballinger, Echo Lake, Hillwood and Richmond Beach.
- King and South Snohomish County
- Local tribes
- Local utilities and service providers

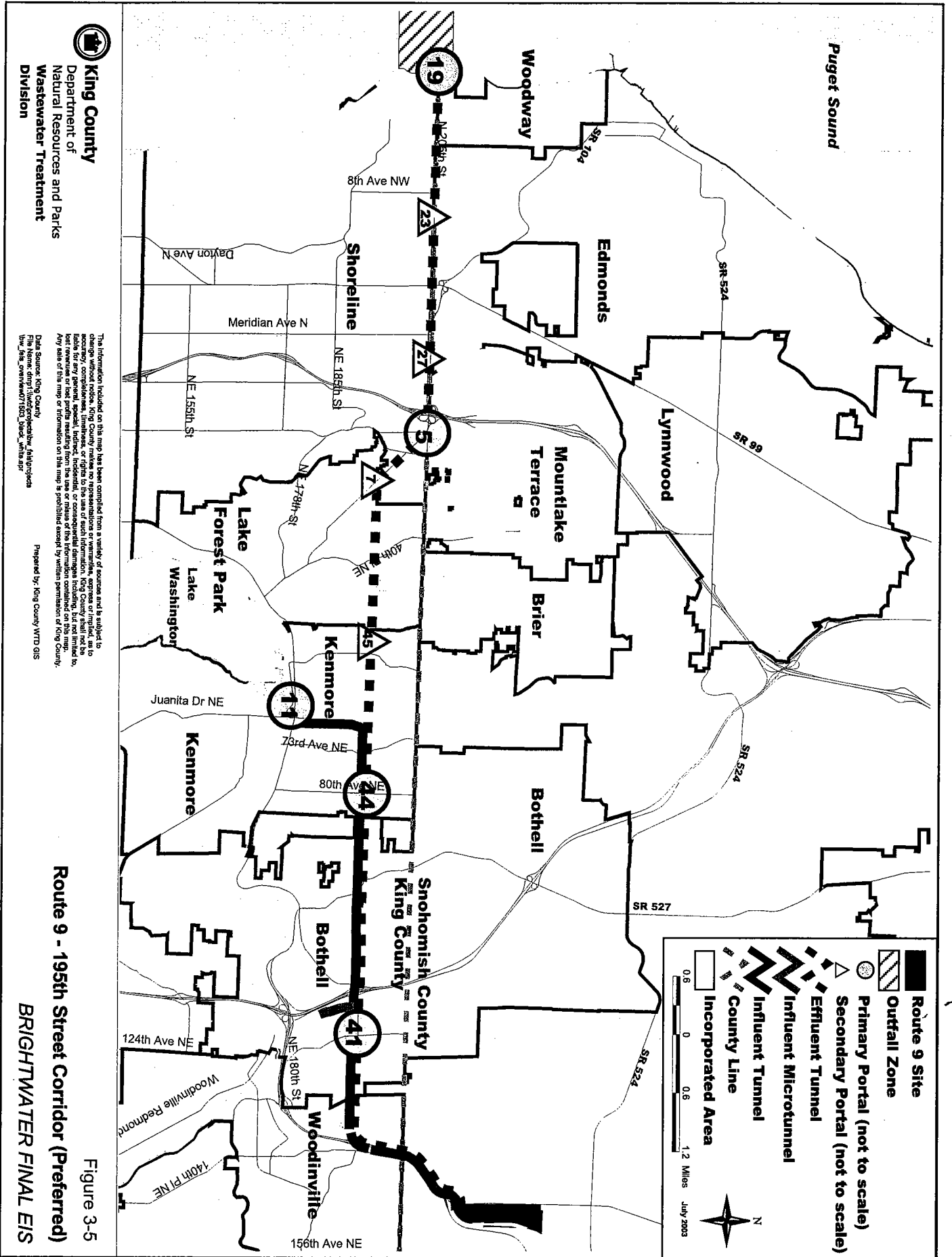
RECOMMENDATION

Staff recommends that Council continue to appeal the Brightwater FEIS and submit a Statement of Appeal based on the impacts and remedies sought as identified in this report or as augmented by Council.

ATTACHMENTS

Attachment A	Map of the Selected Alternative: Route 9 – 195 th Street
Attachment B	King County's response to the City's DEIS comment letter dated 1/13/03

ATTACHMENT A



Puget Sound

Woodway

Edmonds

Lynnwood

Mountlake Terrace

Brier

Bothell

Snohomish County
King County

Woodinville

Lake Forest Park

Lake Washington

Kenmore

Bothell

Woodinville

King County
Department of
Natural Resources and Parks
Wastewater Treatment
Division

This information included on this map has been compiled from a variety of sources and is subject to change without notice. King County makes no representation or warranty, express or implied, as to accuracy, completeness, timeliness, or fitness to the use of such information. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, loss of data or profits, arising out of the use of this information, even if such damages were foreseeable. Any sale of this map or information on this map is prohibited except by written permission of King County.

Data Source: King County
File Name: dmpr:\mwd\pde\plw_AltMapDocs\Map_195th_071503_02.mxd
Prepared by: King County WTD GIS

Legend

- Route 9 Site
- Outfall Zone
- Primary Portal (not to scale)
- Secondary Portal (not to scale)
- Effluent Tunnel
- Influent Microtunnel
- Influent Tunnel
- King County Line
- Incorporated Area

0.6 0 0.6 1.2 Miles July 2003

N

Figure 3-5
Route 9 - 195th Street Corridor (Preferred)
BRIGHTWATER FINAL EIS

ATTACHMENT B

**C6
CITY OF SHORELINE**

**FINAL
ENVIRONMENTAL
IMPACT STATEMENT**
Brightwater
Regional Wastewater
Treatment System
COMMENTS AND RESPONSES



City of Shoreline
17544 Markvale Avenue North
Shoreline, WA 98133-6921
(206) 546-1700 • Fax (206) 546-2200

January 17, 2003

RECEIVED

JAN 21 2003

ENVIRONMENTAL
PLANNING DIVISION

Attn: SEPA Responsible Official
Environmental Planning
KSC-NR-0505
King County Wastewater Treatment Division
201 Jackson Street
Seattle, WA 98104-3588


Dear SEPA Responsible Official:

The City of Shoreline has reviewed the Brightwater DEIS and would like to commend King County on this document as well as the review process to date. The quality of the analysis and the expertise of the staff are apparent. We would also like to thank King County Staff for participating in our local Brightwater meeting on December 17th. The City appreciates Executive Sims' decision not to locate the treatment plant at Point Wells. We do however have many questions and concerns regarding the proposed construction and operation of portions of the conveyance system and possibly the outfall within Shoreline.

The City's detailed response to the DEIS is located in Attachment A. Our comments are focused on the conveyance system and outfall sections of the DEIS since the treatment plant is proposed for location in Edmonds or Woodinville. Our responses are organized by chapter of the DEIS plus an additional category labeled "General". The comments by chapter are further organized by the identification of "errors and inconsistencies", impacts that need to be addressed, and recommended mitigation measures.

Thank you for the opportunity to comment on the Brightwater DEIS. If you have any questions about the issues expressed in this letter, please contact Rachael Markle, Planning Manager, at (206) 546-6778.

Sincerely,


Steven C. Burkett
Shoreline City Manager

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Response to Comment C6-1
Thank you for your comment.

C6-1

Attachment A

GENERAL

1. **Issue or Impact to be addressed:** Based on site analysis and overwhelming public comment, the location and construction of Portal #22 would have devastating impacts on our residents and surrounding neighborhoods. The City requests that Portal #22 not be constructed.

2. **Issue or Impact to be addressed:** The DEIS is, general in nature, and consequently difficult to comment on in regard to specific impacts. For example, while Chapter 16 identifies specific construction corridors, Chapter 3 states that the pipeline (tunnel) alignment corridors represent a 1,000-foot wide path. Additionally, portal locations are referenced by intersection, and would generally be two acres in size. However, per Chapter 3, the final 2-acre site could vary in size (up to 4 acres for Portal 19) and would be located somewhere within a larger undefined 72-acre circle, the center of which is the approximate street intersection(s) noted. This means the actual portal location for a 2-acre site could be approximately 0.2 miles (+) from the referenced intersection.

3. **Issue or Impact to be addressed:** The Preferred Alternative Route 9 – 195th Street System has the most impacts on the City of Shoreline of the three alternatives studied in the DEIS. The Unocal System, which minimizes the number of portals required throughout the project area and locates the outfall in Edmonds instead of Shoreline, appears to have the least impacts on Shoreline. The location of portals as identified in the DEIS in the City of Shoreline is complicated by the presence of critical areas and densely populated neighborhoods. Both the Route 9 – 228th System Alternative and the Unocal System Alternative limit the impacts on Shoreline's natural environment, residents and business owners/operators. In addition, there is limited and restrained surface access to Portal 19 and potential Outfall Zone 7S. The City is still concerned about the environment, residents and business owners located in the vicinity of portals 5 and 7, which are needed to construct the Unocal System. However, there do appear to be locations within these portals that can avoid critical areas and populated neighborhoods i.e. the King County Maintenance Yard on 25th Avenue NE north of Ballinger Way or portions of the Aldercrest School site.

3. **Issue or Impact to be addressed:** The distribution and use of mitigation funds in impacted communities should be proportional, targeted, and flexible to respond to the wide-range of complex impacts that cannot be fully mitigated in the short-term or completely unforeseen.

Recommended mitigation measures:
a. We ask that King County give the highest level of consideration in minimizing impacts to the City, our residents, and our businesses and in providing relocation assistance to parties displaced by the acquisition of properties for facilities, or otherwise temporarily or permanently impacted by this project. Impacts to

Response to Comment C6-2
Portal 22 has now been identified as a secondary portal. Please refer to Chapter 3 of the Final EIS for an updated project description.

Response to Comment C6-3
Updated conveyance and portal information is available in Chapter 3 of the Final EIS.

Response to Comment C6-4
King County recognizes that impacts to critical areas and populated areas are a concern for all communities. These concerns have been included in the candidate portal screening process for each portal siting area. The process is described in the Final EIS, Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation. The candidate portal sites are included in Chapter 3 of the Final EIS.

Response to Comment C6-5
SEPA requires a discussion of measures to mitigate significant adverse environmental impacts identified in the EIS. In the Final EIS, King County has identified proposed and potential mitigation measures. Once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. Ordinance 13680, adopting the Regional Wastewater Services Plan, establishes environmental mitigation policies to guide King County in working with communities to develop mitigation measures for environmental impacts from the construction and operation of wastewater facilities. This ordinance is available on King County's Web site at <http://dnr.metrokc.gov/WTTD/rwsp/documents/13680.pdf>.

Response to Comment C6-6

The Draft EIS identified, for each element of the environment evaluated, reasonable mitigation measures. In response to comments, such as this comment calling for additional specificity, the Final EIS provides additional detail in the discussion of a wide range of reasonable mitigation measures. Under SEPA, the required level of mitigation measures detail is described in WAC 197-11-440(6)(c)(iv). King County will follow applicable federal and state laws and King County policies and procedures for acquiring property for the project. These provisions specify that King County provide just compensation based on fair market value for property purchase and easement acquisition, as well as relocation assistance where eligibility is established. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at <http://dnr.metrokc.gov/wtd/row/acquisition.htm> for more information. Some aspects of the mitigation suggested by this comment may constitute an unlawful gift of public funds depending on the particular circumstances.

residences and businesses should be recognized and compensated in three categories:

1. Those properties that will be taken for the purposes of constructing and maintaining the portal (mitigation: properties will be purchased by King County at a fair and competitive rate and owners will be provide with relocation assistance – moving costs, etc.);
2. Those properties that will not be taken, but will be severely impacted (mitigation: temporary relocation assistance during construction, financial compensation); and
3. Those properties that may suffer some impact or that require easements to the County (mitigation: negotiate on a case by case basis).

C6-6

b. We ask that a mitigation fund be established for Shoreline and that a proportional share of mitigation dollars be placed in this fund based on the short-term and long-term impacts to the City from Brightwater. Shoreline must have flexibility to spend mitigation payments based on our priorities for addressing project impacts that threaten the quality of life in our City.

C6-7

- c. King County should establish and operate a long term monitoring program to assess the impacts of construction and operation of the Brightwater system on surface water, groundwater, marine waters, plants, animals, and wetlands, air and environmental health.
- d. A free mediation process should be provided to jurisdictions, residents, and businesses that feel they have not been adequately compensated.
- e. The project should include a substantial communications component to ensure that timely, useful, and accurate information about the project is made available to Shoreline citizens and businesses. The City should be directly involved in developing and implementing a communications strategy that matches the needs and conditions in our community. Environmental education should be an important part of this communications strategy.
- f. Shoreline, our citizens, and our business owners should be consulted regarding expenditures under the King County 1% for Arts Program. Public art opportunities at areas identified as future gateways by the City of Shoreline, including the intersection of SR 104 and 20th Ave. NE, should be given priority and should be coordinated with City Gateway plans. Shoreline should receive an amount proportionate to the construction dollars expended in Shoreline.

4. **Issue or Impact to be addressed:** The acquisition of private and public property for portal sites would cause a wide range of impacts to the City, its residents, and businesses that must be addressed.

Recommended mitigation measures:

- a. Large landscaped "Good Neighbor" buffers should be included around all above-ground facilities and maintenance access points.
- b. Pump station and portal sites and portions of all facility sites that are not needed following system construction should be improved for public use based on specific input from the impacted community. At a minimum, these sites should

Please refer to the response to Comment C6-5 in this letter for information on mitigation suggestions, plans, and policies.

Response to Comment C6-7

Monitoring programs during construction and operation are discussed throughout the Final EIS. Surface water, groundwater, and marine water monitoring programs are detailed in Chapter 6, plants, animals, and wetlands are in Chapter 7, air is in Chapter 5, and environmental health programs are in Chapter 9. These monitoring programs will be developed in compliance with all applicable federal, state, and local requirements, and will be defined in the permitting process.

Public involvement has been, and continues to be, an important part of the project. King County will continue to consult with local residents and jurisdictions throughout the construction and operation of the Brightwater Treatment Plant. King County appreciates support of an educational facility at the treatment plant and is considering such a facility as part of a mitigation plan.

The 1 Percent for Arts program is not a SEPA-related issue and therefore is not addressed in the Final EIS. The King County Cultural Development Authority's Public Art Program, formerly the King County Public Art Program, manages the One Percent for Arts fund for King County. Please refer to King County Code Chapter 4.40, for more information on King County's public art fund.

King County's goal is to construct regional wastewater facilities that enhance the quality of life in the region and in the local community and are not detrimental to the quality of life in their vicinity. More information on aesthetic mitigation at the treatment plant sites and along the conveyance routes is detailed in Chapter 12 of the Final EIS, specifically the Affected Environment section.

- C6-7
be turned over to the jurisdiction in which they are located and reused as determined appropriate by the jurisdiction and its citizens.
- C6-8
c. The City of Shoreline should be consulted regarding access and maintenance easements needed by the City on properties acquired by King County for Brightwater facility construction and operation. Easements should be granted free of charge and without unnecessary delay.
- d. Suggest locating Portal 7 at the existing King County Maintenance Yard on 25th NE north of Ballinger Way or explore the feasibility of constructing the portal on a portion of the Aldercrest School site for the purposes of preserving homes and businesses. After construction of the portal is complete, these mitigation measures are recommended:
1. Enhance the existing degraded vegetation areas in Bruggers Bog and remove invasive species.
 2. Portions of the King County Maintenance Yard that are not needed for continued portal maintenance should be restored to historical wetland conditions associated with the adjacent Bruggers Bog to the north.
 3. Following restoration, this property should be considered for transfer to the City of Shoreline as part of the compensatory mitigation for reuse in a manner determined to be appropriate by Shoreline and its citizens.
 4. The transfer to the City of Shoreline would also be contingent upon King County being responsible for the cleanup of any environmental hazards found on site.
 5. Improve the athletic fields at the Aldercrest School site.
- e. After the construction of Portal 19 is complete, the following mitigation measures are recommended:
1. The property should be considered for transfer to the City of Shoreline for reuse for public beach access and/or nature and wildlife habitat.
 2. The transfer to the City of Shoreline would also be contingent upon King County being responsible for the cleanup of any environmental hazards found on site.
 3. Conveyance facilities, including pump stations, need appropriate odor and noise mitigation for ongoing operations, an emergency power supply, and other contingencies to mitigate system failure potentials.
 4. Request that King County give the highest level of consideration in developing site specific mitigation measures to address typical construction impacts related to dust, noise, street closures, outdoor lighting/glare, security measures, transit disruption, and construction traffic in the City of Shoreline. The City, our residents, and business owners should be consulted in depth regarding the timing of construction, traffic detours, temporary bus stops and transit route relocation, and the development of other mitigation measures following the design phase of system development.
- C6-10

Response to Comment C6-8

King County has been working with and will continue to work with the City of Shoreline when siting is completed and design work progresses to identify and address project impacts within the City's jurisdiction. Specific property issues will be discussed with the City on a case-by-case basis as they arise.

Response to Comment C6-9

Please refer to the updated information on potential portal locations and related impacts and mitigation measures in Chapters 3 through 17 of the Final EIS, and the response to Comment C6-5, in this letter, regarding mitigation suggestions.

Response to Comment C6-10

Please refer to the updated information on potential portal locations and related impacts and mitigation measures in Chapters 3 through 17 of the Final EIS, and the response to Comment C6-5, in this letter, regarding mitigation suggestions.

CHAPTER 3 DESCRIPTION AND COMPARISON OF ALTERNATIVES

C6-11

1. **Error or Inconsistency Noted:** Table 3-2 (Chapter 3) lists portal depths for both gravity and force main alternatives for all portals located in the City. However, page 3-13 states that the preferred "second option" would have force mains constructed inside the tunnel for 9.6 miles from the Wastewater Treatment Plant to Portal 27, and have a gravity main within the tunnel from Portal 27 to the outfall. This implies the force mains would terminate at an easterly portal location in the City and flow by gravity through the remaining City route. This is inconsistent with Table 3-2.

C6-12

2. **Error or Inconsistency Noted:** Per pages 3-4 (first paragraph 3.2.2), portals would provide "... tunnel maintenance access points, odor control and/or ventilation facilities, and possibly a new pump station...". A pump station was not shown to be located within the City of Shoreline. It is also unclear if either odor control facilities or ventilation systems are proposed within the City of Shoreline. If these are proposed, they should be clearly stated.

C6-13

3. **Issue or Impact to be addressed:** For both effluent pipeline proposals (the 228th and 195th corridor alignments) routed to the Richmond Beach area, references are made to siting of a permanent dechlorination building, approximately 30 feet by 75 feet, located on 0.5 acres. It would have a chlorine monitoring and control system, sodium bisulfide storage, metering system, and mixing box. Presumably, it would also need routine access, security system, fencing, parking, lighting, etc. It is unclear where this facility will be located, but it is likely that it will be located on the Richmond Beach portal site or in an upstream portal site located within the City of Shoreline.

C6-14

Recommended Mitigation Measures: It should be subject to further review and approval by the City and subject to further mitigation consideration. Require the dechlorination facility to be located underground if feasible. If it cannot be located underground, the city will require a Special Use Permit be obtained to address siting, aesthetics, safety, lighting, noise etc. and any construction of a dechlorination facility must include appropriate mitigation measures to buffer noise and the extra lighting referred to in the DEIS.

C6-15

4. **Issue or Impact to be addressed:** The siting of dechlorination facility (sites 19.23, & 27) all within or adjacent to City of Shoreline may pose high risk in the event of an accident to residential areas. Sensitivity is needed in siting this facility to zoning and risks posed to public health and safety.

Recommended Mitigation Measures: It is recommended that any dechlorination facilities not be constructed at portal sites that encompass or that are adjacent to streams, wetlands, and/or significant vegetation areas and associated wildlife habitat.

Response to Comment C6-11

The text has been refined in the Final EIS to clarify the information. The "force main-gravity" designation in the Draft EIS Table 3-2 was to designate the effluent system alternative with force mains in the tunnel from the Route 9 site to Portal 27 and then gravity flow from Portal 27 to Portal 19.

Please note that with subsequent engineering analysis, the Route 9 force main-gravity effluent system alternative has since been eliminated. The Final EIS describes the gravity-only effluent alternative for the Route 9 195th and 228th Street System Alternatives.

Response to Comment C6-12

The paragraph was intended to list all potential equipment that may be constructed in any of the three conveyance system alternatives. The only new offsite pump station proposed is for the Unocal System Alternative.

The number and location of the odor control and tunnel access facilities had not been determined at the time of the Draft EIS publication. Subsequent engineering work has identified the following facilities that could be located within the City of Shoreline:

- Route 9-195th System Portal 5 - odor control and dechlorination facility
- Route 9-195th System Portal 19 - outfall transition structure
- Route 9-228th System Portal 19 - outfall transition structure
- Unocal System Portal 7 - odor control structure

These facilities are described in Chapter 3 of the Final EIS.

Response to Comment C6-13

As described in Chapter 3 of the Final EIS, the dechlorination facility would be located at Portal 5 in

Shoreline or Mountlake Terrace for the Route 9-195th Street System Alternative and at Portal 26 in Mountlake Terrace for the Route 9-228th Street System Alternative.

Response to Comment C6-14

Mitigation measures for the proposed conveyance system would be coordinated with and agreed upon by both King County and the local jurisdictions, including the City of Shoreline. Since the dechlorination facility would be located in either the City of Kenmore (for the Route 9 - 195th Street system) or Mountlake Terrace (for the Route 9 - 228th Street system), mitigation measures for the construction and operation of the facility, such as siting, noise, safety, lighting, and aesthetics, would be coordinated with those jurisdictions in accordance with permitting authority.

Response to Comment C6-15

King County is aware of the potential for increased risks associated with the construction and operation of any of their facilities and does take these risks and agreed-upon mitigation into consideration during the facility siting process. As such, siting of the dechlorination facility would be coordinated with the either the Cities of Shoreline or Mountlake Terrace (for the Route 9-195th Street System) or Mountlake Terrace (for the Route 9-228th Street System).

5. **Issue or Impact to be addressed:** Section 3.7 addresses construction schedules and construction times. Regarding the construction phase, the conveyance system would take up to six years to complete with activity at each portal site taking two to five years to complete (construction). The outfall conveyance system will take two years to construct. The proposed schedules as stated therein further indicate construction times consisting of five work-day, 12-hour work shifts (7:00 AM to 7:00 PM) and reference possible 24-hour shifts (7 days a week). This may prove particularly unerving to businesses and residents inconvenienced by these operations, particularly since additional references in the report indicate the sites will require street lane closures (access issues), have intense noise, be dusty, have night lights, and exhaust fumes.

Recommended Mitigation Measures:

- a. City Staff would like to take a field trip to a tunnel construction site to experience the noise, dust, fumes and vibrations first hand.
- b. If construction noise is audible to nearby residents the construction hours shall be limited per the City's Municipal Code Chapter 9 or appropriate sound barriers or sound baffling devices shall be employed to reduce the noise to a level that is not audible off site.
- c. Road or lane closures must be approved by the City of Shoreline Right-of-Way Permit.
- c. If construction impacts are received by Shoreline residents or businesses either temporarily or permanently they shall be compensated.

6. **Issue or Impact to be addressed:** Table 3-11 states that the treatment plant will adhere to most recent stormwater manual for design and control of storm water runoff. Yet, it does not adopt the same criteria for portal sites during and after construction.

Recommended Mitigation Measures: Use the 2001 King County stormwater manual regardless of the activity planned.

7. **Error or Inconsistency Noted:** City of Shoreline threshold for drainage review is 1,500 square feet. Table 3-11 should reflect this.

8. **Issue or Impact to be addressed:** Table 3-11 sites minimal impacts from effluent discharge to Puget Sound. However, it fails to calculate a budget of anticipated increased levels of pollutants and how this and other sewer outfalls are contributing to cumulative affect to water quality of Puget Sound. Dilution (diffuser) to pollution is the relied upon buffering agent that appears to minimize adverse impacts. This assessment and proposed mitigation could lead to miscalculations of the anticipated impacts.

Proposed Mitigation Measures: Analyze cumulative impacts and develop long term mitigation accordingly.

Response to Comment C6-16

As described in Appendices 6-D, Permanent Stormwater Management at the Treatment Plant Sites, and 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites, which discuss proposed stormwater management at treatment plant sites and portals, all stormwater would be guided by the Washington State Department of Ecology's *Stormwater Management Manual for Western Washington* (August 2001). To the extent that any local stormwater requirements are more stringent, King County will consider and discuss those standards with local jurisdictions.

Response to Comment C6-17

Information on drainage review is now provided in Appendix 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites, of the Final EIS.

Response to Comment C6-18

There are no known plans for additional outfalls in the region so the cumulative impacts of Brightwater effluent include existing (or ambient) conditions plus the Brightwater contribution. The *Phase 3 Brightwater Marine Outfall Water Quality Investigation* (Parametrix and Intertox, 2002) does include the existing conditions of Puget Sound (including all point and nonpoint sources of pollution) in the analysis of the potential impact of Brightwater effluent on aquatic life. It was assumed aquatic life could be exposed to effluent constituents anywhere within the Sound (including the effluent plume itself) and along the shoreline. For people, the worst-case scenario for direct exposure (incidental ingestion and skin contact with water and sand) was assumed to be at the shoreline scenario. For fish ingestion, it was assumed that people may ingest fish exposed to outfall constituents in any of the locations. Since the outfall will discharge 1 mile offshore

and the plume retained below 100 feet, it is unlikely that any SCUBA divers would be exposed to the discharge.

To evaluate the potential future impacts of the proposed outfalls, potential impacts under existing conditions were also evaluated. A key finding was that estimated impacts to people and aquatic life are generally the same under both existing and future conditions.

CHAPTER 4 EARTH AND GROUNDWATER

1. **Issue or Impact to be addressed:** Potential exists for unearthing contaminated soils at the various portal locations, particularly any portal located on or near the Point Wells site. Contaminated soils, once excavated (temporarily stockpiled), or disturbed, provide potential for contaminants leaching into ground or surface waters, or to come into human contact (fugitive dust, etc). Options for treatment of soils depends on the type, nature, and level of contaminants. However, under certain conditions, onsite treatment is permitted. For example, soil can be stockpiled, covered, aerated, etc. for a long period of time.

Recommended Mitigation Measure: Timely removal of all contaminated soils prior to disposal shall be required and/or treatment in coordination with appropriate City reviews. Any contaminated soils removed from portal or outfall construction sites shall be covered during transport.

2. **Issue or Impact to be addressed:** There are likely impacts that cannot be anticipated until the project details are designed and construction is underway. Prevention of potential erosion, groundwater contamination, and groundwater depletion impacts will be particularly important near Portals 5, 7 and 27.

Recommended Mitigation Measure: The future project design needs to incorporate ample safeguards to prevent, limit and hastly provide compensatory mitigation for any unavoidable erosion, groundwater contamination, and groundwater depletion impacts.

3. **Issue or Impact to be addressed:** The DEIS states that groundwater control may consist of pumping groundwater at volumes ranging from just a few to several thousand gallons per minute. If this were to occur at Portals 5, 7 and 27, it would likely impact nearby stream flows and well water supplies. In addition, disposal of this large a volume of dewatering discharge could result in additional impacts to water quality in nearby streams and wetlands.

Recommended Mitigation Measure: Any such proposed action shall be closely coordinated with the City of Shoreline and Washington Department of Fish and Wildlife (WDFW) in order to assure that the City's interests are protected in these areas. Research and analysis must be performed to assess the effects of seasonal variation on dewatering and discharge of these waters in local streams and other surface water features. Flow control measures must be constructed prior to the release of water into local surface water features. Downstream flooding of properties in Shoreline is not an acceptable impact. In some cases, the construction of onsite detention facilities may be appropriate to handle excess water created by dewatering. Note: Any water that is turbid or otherwise contaminated shall not be released into surface or groundwater. This water shall be disposed of in the sanitary sewer system

Response to Comment C6-19

King County is in agreement with the City of Shoreline on management of contaminated soils. Contaminated soil will be handled separately from other excavated soil, with either treatment or offsite disposal in accordance with applicable regulations.

Response to Comment C6-20

As pointed out, not every impact can be anticipated for large complex projects. However, the specific issues of erosion, groundwater contamination, and groundwater depletion will be dealt with in the design phase for the portals listed, and it is King County's goal to prevent any significant adverse impacts associated with these specific elements. Please refer to the response to the Washington State Department of Ecology, Comment W5-9, for additional details regarding assessment of the groundwater issues.

Response to Comment C6-21

Significant additional subsurface explorations and numerical hydrogeology analyses have been conducted as part of this Final EIS related to the conveyance, portals, and treatment plant sites and their potential impacts, if any, to the groundwater regime. Please refer to the responses to the Washington State Department of Ecology, Comments W5-9 and W5-43, for summaries of the subsurface data gathering, numerical analyses, and effect evaluations. Appendices 4-A, Geotechnical Data Report for Proposed Route 9 Treatment Plant Site, and 4-B, Geotechnical Progress Report: Conveyance, of the Final EIS includes geotechnical data gathered for the Route 9 treatment plant site and 195th Street conveyance route, respectively; Appendix 6-B, Geology and Groundwater, provides details on the hydrogeologic analyses.

C6-22

4. **Issue or Impact to be addressed:** The section on vibration and settlement describes various ways to lessen impacts, but does not address the worst case scenario – complete failure of an adjacent structure, a description of how long occupants of an adjacent structure might have to endure the vibration, or when the mitigation techniques are applied.

Recommended Mitigation Measure: Develop a tiered compensation plan to mitigate permanent and temporary impacts to residents and businesses.

5. **Issue or Impact to be addressed:** The proposed conveyance system and related facilities along the county line would necessitate construction in geologic hazard areas in the City of Shoreline.

Recommended Mitigation Measure: Mitigation of potential seismic hazards in Portals 5 and 7 are not discussed. This could be important due to liquefaction potential near Lyon Creek and McAleer Creek. Impacts to geologic hazard areas must be fully considered and mitigated on-site to the greatest extent practicable to ensure the project does not increase the risk of impacts to human safety, damage to property, or the environment.

C6-23

CHAPTER 5 AIR

1. **Issue or Impact to be addressed:** No modeling was performed or meteorological data collected in regards to air quality along the conveyance route and outfall zones. The DEIS states that there could be temporary air impacts caused by paint and other fumes during construction. In addition, in the worst case scenario, odors may be released at tunnel ventilation facilities and portal locations. The DEIS makes note of such mitigation as installing odor control equipment along the corridor.

Recommended Mitigation Measure: Odors should be monitored and a response plan developed. Funds should be set aside to address odor issues in the future, especially if the portal is located close to residential or commercial property. In addition, portal ventilation systems need to be designed to direct the air flow away from developed areas.

C6-24

CHAPTER 6 SURFACE WATER

1. **Issue or Impact to be addressed:** During tunnel construction ground water interception will undoubtedly occur. The method for handling this water has not yet been identified. The act of dewatering and the method of disposal could have significant impacts on streams, wetlands, lakes and associated plants and animals. (Note: In Appendix C ESA Essential Fish Habitat Evaluation this impact is not identified.) The "what to do with the water" is left unanswered as regulations prohibit the magnitude of the discharge to sewer systems and is greater than any

C6-25

Response to Comment C6-22

Vibration mitigation for construction activities and facilities operation has been expanded and discussed in greater detail in Chapter 10 of the Final EIS. Appendices 10-A, Noise and Vibration: Treatment Plan, and 10-B, Noise and Vibration: Conveyance, address the potential duration of construction activities. Maximum durations for treatment plant construction and for conveyance construction are defined in Appendix 3-G, Construction Approach and Schedule, of the Final EIS. Mitigation of noise and vibration would be applied in the facilities design phase and at the beginning of construction. No compensable permanent noise and vibration impacts would be expected to result from Brightwater facilities, since levels would be mitigated to code requirements. Temporary noise and vibration impacts due to construction would be mitigated by practical means, as described in Appendices 10-A and 10-B of the Final EIS. Construction noise is exempt during daytime hours, as defined by each jurisdiction's codes. Non-exempt construction noise would be mitigated to code requirements, if construction outside of exempt times is permitted, or if a variance is secured by the construction contractor.

Response to Comment C6-23

Mitigation of potential seismic hazards at Portals 5 and 7 is now discussed in Chapter 4 of the Final EIS.

Response to Comment C6-24

Odor and corrosion control are discussed in Chapter 5, and in Appendix 5-B, Odor Analysis: Conveyance, of the Final EIS. As standards are being met at the stack and dispersion is not being relied upon, dispersion modeling will not be performed. All odor control equipment will be sized based upon peak air flow rates and peak H₂S concentrations. King County conducted a H₂S monitoring program in the summer of 2003 to assess dissolved sulfide and H₂S concentrations within the existing tributary flow streams.

Dissolved sulfide and H₂S levels are highest during the summer and will provide worst-case scenario data in order to conservatively design the proposed odor control facilities.

The volume of air outgassing from the underground structures is relatively small, because the size of the conveyance pipes is large relative to the rate of change of the peak wastewater flow rate.

Response to Comment C6-25

Based on more detailed hydrogeologic analyses since the publication of the Draft EIS, dewatering discharge rates have been recalculated and reduced. The dewatering discharge rate for Portal 7 has been changed from 6.7 cfs to a range of 0.002 to 0.25 cfs, with a possible 2-week peak of 0.56 cfs. Please refer to Appendix 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites, of the Final EIS for revised dewatering discharge rates by portal and proposed dewatering discharge disposal options. Please refer to the response to the City of Kenmore, Comment C3-88, for a discussion of alternative dewatering discharge disposal options and Ecology's 10 percent guideline for additional flows to a stream.

preexisting stream flows. No substantial assessment of water quality is given. Some of the City's groundwater is high in sulfur and other dissolved metals and arsenic.

a. The dewatering volume at Portal 7 may be as high as 0.7 cubic feet per second, exceeding the average annual discharge for nearby Lyon Creek, the presumed receiving watercourse. Potential impacts identified in the DEIS include localized flooding and stream channel erosion of Lyon Creek and its tributary (see Table 6-5). The DEIS is unacceptably vague regarding how this potential impact to the Lyon Creek system will be avoided or effectively mitigated, saying at the bottom of page 6-35 that "This will likely require management approaches to minimize potential stream scour." Those management approaches are not yet identified.

b. Dewatering at Portal 3 to McAlister Creek could have significant impacts. Table 6-5 describes flooding and erosion impacts to McAlister Creek due to Portal 3 construction; however, Figure 6-3 shows Portal 3 to be outside of the McAlister Creek drainage basin. Although Portal 3 is outside the City of Shoreline, if the comment in Table 6-5 is correct, the City has a vested interest in the overall health of the creek and its fish populations.

c. Much of the McAlister Creek basin is within the City and fish migrating upstream from Lake Washington and beyond must pass through the lower stream reaches to stream sections in the City. As with Lyon Creek at Portal 7, potential impacts to McAlister Creek from discharge of collected dewatering water are not mentioned in the DEIS and mitigation measures are also not adequately described.

d. This impact is left in such a gray state that adequate mitigation is impossible to determine. This part of the project needs to be rethought as to potential scenarios and outcomes. Primary areas of concern are for portals 7 and 27. Mitigation for proposed work in the Portal 7 should include enhancement of existing degraded vegetation areas in the Lyon Creek stream corridor, including removal of existing invasive species such as reed canarygrass and Himalayan blackberry.

2. **Issue or Impact to be addressed:** The DEIS fails to accurately identify all streams and wetlands within projected project areas. For example Barnacle Creek at Portal Site 19/Outfall (Figure 6-20) is not depicted nor are the associated wetlands.

Recommended Mitigation Measure: Perform a complete inventory of watercourses and wetlands in project area and consult the City of Shoreline resources.

3. **Issue or Impact to be addressed:** Impacts from construction activities are referred to as transient and will no longer be a factor to water quality health. This

The Final EIS text has been corrected to read that the receiving water body for dewatering discharge from Portal 3 is the Puget Sound. The sanitary sewer and the local stormwater conveyance system are proposed discharge options at this location.

For the impacts discussion, please refer to response to the City of Shoreline, Comment C6-25. Measures would be taken to avoid discharging dewatering water at a rate more than 10 percent of the receiving water flow rate. Should the dewatering discharge rate be greater than 10 percent of the receiving water flow rate, additional disposal methods would be used. Please refer to Chapter 7, Impacts section, of the Final EIS for a discussion of impacts to fish populations in McAlister Creek.

For the mitigation discussion at Portal 7, please refer to the response to the City of Kenmore, Comment C3-88, for a discussion of alternative dewatering discharge disposal options and Ecology's 10 percent guideline. Should impacts occur as a result of dewatering discharge, restoration or enhancement would be conducted according to local regulations. King County would coordinate with affected local jurisdictions for appropriate mitigation projects. Also, please refer to the response to Comment C6-25 in this letter.

Due to a change in the project description, Portal 27 is now classified as a secondary portal for the Route 9-195th Street corridor only, and is no longer being considered for the Route 9-228th Street or Unocal corridors. Secondary portal construction is not anticipated to be required. However, this may change due to the relatively long length of the tunnels. The following are scenarios that result in the use of secondary portals: auxiliary ventilation, deep ground improvement, and supply of backfill grout. Please refer to Appendix 3-B, Project Description: Conveyance, of the Final EIS for a description of the four scenarios. The final decision regarding secondary portals would be made during final

design, after the conveyance route has been selected and final locations for portal sites have been chosen.

Response to Comment C6-27

The City of Shoreline has been consulted and a copy of the City of Shoreline Stream and Wetland Inventory and Assessment was obtained. This information has been incorporated into appropriate Final EIS tables, figures, and text.

Response to Comment C6-28

King County proposes to build stormwater treatment facilities for the duration of the construction period at each portal site (2 to 5 years). These facilities would be guided by the Washington State Department of Ecology's (Ecology) *Stormwater Management Manual for Western Washington* (August 2001) guidelines. King County will also be regulated under an Individual NPDES Construction Stormwater Permit by Ecology. Construction activities would also meet or exceed state Surface Water Quality Standards (Chapter 173-201A WAC) in receiving waters. Please refer to Appendix 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites, of the Final EIS, for a discussion of portal stormwater treatment facilities that would provide detention and treatment of stormwater runoff during portal construction. Construction BMPs and stormwater facilities should be adequate to prevent excessive discharges of sediments and petroleum products. Monitoring would be conducted and advanced treatment measures implemented, if necessary to meet Water Quality Standards. Also, please refer to the response to the City of Bothell, Comment C2-9, for a discussion of monitoring that would be conducted during and after construction to ensure the protection of streams, wetlands, and aquifers, and that would establish corrective actions necessary should impacts be detected.

fails to recognize that some impacts, i.e., increase to sediment, peak flows, spills of oils and grease and construction material, can last for generations.

Recommended Mitigation Measure: An accounting of life expectancy for anticipated cumulative and singular impacts should be generated with appropriate mitigation. King County should establish and operate a long term monitoring program to assess these impacts. Mitigation should include a post-construction bond or dedicated a fund account for a period not less than 10 years during which these funds could be used to pay for the costs of monitoring and mitigating these impacts.

4. Issue or Impact to be addressed: The stormwater treatment is planned only for the newly created impervious surfaces at the treatment site. However, Shoreline's redevelopment guidelines require the entire site which includes portals and associated impervious surfaces to achieve 2001 King County Stormwater Manual standards i.e. treat runoff as if the site was being converted from a forested condition to impervious surfaces. This will modify the current plan and design of the conveyance and outfall.

Recommended Mitigation Measure: Design all portions of the project to meet the 2001 King County Stormwater Manual. Note: on page 6-36 and 6-41 fish impacts are not mentioned for McAleer Creek.

5. Error or Inconsistency: On the top of page 6-60 of the DEIS under 6.4 *Significant Unavoidable Adverse Impacts*, a statement is made that "Some unavoidable adverse impacts to surface water resources may occur during construction if mitigation measures are not consistently applied or maintained, however they are not anticipated to be significant." This statement includes several contradictions or inconsistencies. First, it casts doubt on the proponent's commitment to apply the mitigation measures that have been described.

The commitment to provide adequate mitigation needs to be reiterated and emphasized, and a contingency plan should be developed for use if mitigation is either ineffective, insufficient, incorrectly implemented, or not implemented as planned. Second, it is incorrect to call these impacts "unavoidable" if they are the result of inadequate or incomplete mitigation. These impacts could potentially be avoided if mitigation is implemented as planned. Finally, it seems plausible that if mitigation measures are neglected or are insufficient, that some of the impacts could be significant rather than insignificant as stated.

6. Issue or Impact to be addressed: On page 6-17 of the DEIS under 6.1.4.1 *Water Circulation*, it is described that higher salinity, denser water enters Puget Sound at depth from the north and that lower density, less saline waters exit Puget Sound near the surface. Thus, surface waters in Puget Sound are generally moving towards the north while waters at greater depths are generally moving towards the south. The transition from northbound surface waters to southbound deeper waters is reported (bottom of page 6-17) as occurring at approximately 360

Response to Comment C6-29

The Brightwater project would take into account the Guidelines of the Washington State Department of Ecology *Stormwater Management Manual for Western Washington* (August 2001), which calls for stormwater control to forested conditions. Please refer to the response to the City of Bothell, Comment C2-9, and response to Comment C6-28 in this letter. For a discussion of potential impacts to fish habitat, refer to Chapter 7, Impacts section, of the Final EIS.

Response to Comment C6-30

The Final EIS text has been revised (Chapter 6, Significant Unavoidable Adverse Impacts) to discuss the intention of King County to follow the Stormwater Pollution Prevention plan that would be developed as part of the Individual NPDES Construction Stormwater Permit. The SWPPP would outline mitigation measures that would be employed to avoid and minimize impacts; monitoring to track potential impacts as well as proper implementation of mitigation measures; and corrective actions to be implemented if initial mitigation measures are insufficient.

Response to Comment C6-31

King County will design the outfall to accomplish three tasks. First, provide substantial dilution of the effluent with surrounding waters; second, prevent a poorly diluted plume from encroaching on shellfish beds or areas of human activity; and third, provide the opportunity for the effluent to be transported out of Puget Sound. Since the second and third tasks are best accomplished by opposing rise heights, King County has decided that it is best to always keep the plume deep and away from human activity. As a result, the plume will initially flow southward where it will be continually diluted into the northward flowing surface water and out of Puget Sound.

feet of depth. Surface waters tend to have a lower salinity and resulting lower density due to the discharge of fresh water from the rivers and streams entering Puget Sound at the surface.

The outfall for the treated sewage effluent is proposed to discharge at up to 700 feet of depth. At first consideration, it would seem that the deeper the discharge, the better. However, discharging at these depths converts the natural processes described above whereby fresh water from rivers and streams is discharged at the surface and subsequently tends to migrate to the north and out of Puget Sound. The proposed sewage outfall would discharge low-salinity, "fresh" water at depth rather than at the surface, and into the higher salinity water which is moving southward into southern Puget Sound.

Recommended Mitigation Measure: The EIS should consider and evaluate a compromise discharge depth of perhaps around 300 feet which could still be deep enough to minimize effects at the surface, yet shallow enough to allow discharge into a depth zone which would tend to carry the effluent water northward and out of Puget Sound sooner. Questions to be covered: How deep, typically, is the euphotic zone, below which light levels rather than nutrients limit phytoplankton growth? Is it high enough such that water could be discharged below it and still be within the zone of waters tending to move northward and out of Puget Sound?

Issue or Impact to be addressed: A dock is being proposed to be built if Zone 6 is chosen for the outfall to aid in reducing impacts of construction traffic on surrounding neighborhoods. It does not appear that a dock is being proposed in Zone 7. Why is there no dock planned for Zone 7 and the construction of portal 19 as there is only one access road?

Recommended Mitigation Measure: If feasible, a dock should be constructed at Zone 7 to reduce construction traffic in Shoreline if either of the Route 9 alternatives are to be constructed.

Issue or Impact to be addressed: Brightwater construction and operation may significantly and cumulatively adversely impact critical areas and marine shorelines.

Recommended Mitigation Measures:

2. Impacts to streams and wetlands, including impacts to McAleer Creek, Lyons Creek, watercourses in the Richmond Beach neighborhood, and related tributaries, must be minimized. Deep tunneling should be used to minimize impacts to streams and wetlands. Stream and wetland crossings must be designed based on the Best Available Science to minimize impacts. Portals and pump stations should not be located or designed in a manner that impacts critical areas. Where critical areas are impacted, restoration and enhancement ratios must be sufficient to ensure no degradation in the function or value of critical areas on a basin scale.

Response to Comment C6-32

Use of a construction barge dock is not part of the proposal for the Unocal System. If the Unocal System alternative is selected for the Brightwater System and if King County decides to pursue using a construction barge dock, the Port of Edmonds will be consulted and the additional necessary environmental review associated with this option, including disposal of materials, will be conducted. Updated information regarding this option is available in the revised project description in Appendix 3-C, Project Description: Outfall, of the Final EIS.

Response to Comment C6-33

In developing the portal locations, measures would be taken to avoid and protect streams, and other critical areas. Please refer to Chapters 6 and 7 of the Final EIS for a discussion of impacts to streams and wetlands and proposed mitigation measures.

C6-31

C6-32

C6-33

C6-34

- b. Because impacts may not be fully or appropriately mitigated on-site, suitable compensatory mitigation sites should be identified within City boundaries, preferably within in the same drainage basin as project impacts. The County should consider restoration of Ballinger Creek where it has been adversely impacted by the development of the King County maintenance facility (near proposed Portal #7). The City needs to be fully involved in any future effort to identify potential mitigation sites.
- c. All efforts should be made to utilize tunnel/bore construction methods and to avoid trench construction methods in Outfall Zone 7S.

C6-35

CHAPTER 7 PLANTS, ANIMALS, AND WETLANDS

C6-36

- 1. **Issue or Impact to be addressed:** On Page 7-28 regarding Portal 7 the DEIS does not identify City of Shoreline as having jurisdiction. The description lacks other stream features and water quality data.
Recommended Mitigation Measure: The City of Shoreline should be consulted for future description and assessment of Portal 7's activities.

C6-37

- 2. **Issue or Impact to be addressed:** On Page 7-35 regarding Portal 19 the description of streams and wetlands is incomplete.
Recommended Mitigation Measure: The City of Shoreline should be consulted with for future description and assessment of Portal 19's activities. A complete survey and inventory should be done to identify wetlands and streams associated with the Ft. Wells property at Portal 19.
- 3. **Issue or Impact to be addressed:** On Page 7-38 Portal 23 contains the upper headwaters to Storm Creek and this is not noted in the DEIS.
Recommended Mitigation Measure: Consult the City of Shoreline and include in the FEIS.

C6-38

- 4. **Issue or Impact to be addressed:** Proposed mitigation for potential impacts to aquatic resources, vegetation and associated wildlife habitat from erosion, sedimentation, turbidity, and/or from dewatering and dewatering water discharge are very generalized and may be somewhat understated. Potential impacts to streams, wetlands, marine habitats, plants and associated wildlife habitats and species could be significant and there are likely impacts that cannot be anticipated until the project details are designed and construction is underway. Prevention of potential impacts will be particularly important in the vicinity of Portals 5, 7, 19 and 27 and in the vicinity of Outfall Zone 7S.
Sedimentation is the only impact identified. Other impacts from portal siting are lost and disruption to the natural hydrology of the sites, increased nutrient runoff (eutrophication of streams) loss or reduction of biodiversity, increases in

Response to Comment C6-34

If restoration or enhancement mitigation is needed due to project-related impacts to streams, wetlands, and/or buffers, replacement ratios would be followed according to local regulations. King County would be open to suggestions for mitigation projects that would satisfy these requirements while mitigating impacts related to the Brightwater project.

Response to Comment C6-35

Please refer to the response to the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries), Comment F1-4.

Response to Comment C6-36

The northern half of Portal Siting Area 7 is in the City of Shoreline and the southern half is in the City of Lake Forest Park. This clarification is presented within Chapter 3 of the Final EIS.

For preparation of the Final EIS, access to streams, wetlands, and upland habitats was limited to observations from public right-of-way. Therefore, information on stream features (i.e., habitat types, physical and biological characteristics) was collected from "windshield" surveys, and from existing documentation, where available. Additional information on water quality is presented in Chapter 6. The City of Shoreline was consulted for preparation of the Final EIS, and the EIS incorporates information from the City of Shoreline Stream and Wetland Inventory and Assessment.

Various detailed baseline studies will be conducted where necessary to support permitting for streams, wetlands, and water bodies prior to construction of the Brightwater conveyance system. Please refer to the response to the City of Kenmore, Comment C3-25.

Response to Comment C6-37

The City of Shoreline was consulted and a copy of the City of Shoreline Stream and Wetland Inventory and Assessment was obtained. Information from this report was used to complete a description of streams and wetlands in the vicinity of candidate portal sites within Portal Siting Areas (PSAs) 19 and 23. Additional site visits were made to PSAs 19 and 23 as necessary to further characterize wetlands and streams. Information gathered from the stream and wetland report and the site visits indicate that there are no aquatic resources located in PSA 23. This information is provided in Chapter 7 and Appendix 7-A, Affected Environment: Plants and Animals, of the Final EIS.

Response to Comment C6-38

Various best management practices (BMPs) will be employed during construction to avoid and mitigate effects on aquatic resources, vegetation, and associated wildlife from dewatering and dewatering water discharge; and erosion and sedimentation. Since issuance of the Draft EIS, substantial progress has been made on the development of these BMPs as part of the Brightwater redesign effort. This information is presented in Appendices 6-C, Management of Water Quality During Construction at the Treatment Plant Sites, 6-D, Permanent Stormwater Management at the Treatment Plant Sites, and 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites.

Many general impacts are discussed in Chapter 7 of the Draft EIS, including construction and operational impacts such as erosion and sedimentation; accidental and incidental discharge of pollutants; removal and discharge of dewatering water; and increased noise, lighting, and human activity; and vegetation clearing. These impacts have been developed further and are presented more specifically in the Final EIS.

In the Final EIS, three or four candidate portal sites are presented within each portal siting area. Candidate portal site selection involved avoiding impacts to high-quality wetlands, streams, and mature upland forests. Based on the approximate boundaries of wetlands, streams, and mature upland forest, impacts were calculated based on an approximate 2-acre

portal construction footprint. Preferred portal sites avoid impacts to the maximum practicable extent. Impacts that are completely avoided include fill impacts to Category 1 and 2 wetlands and displacement/realignment of streams. In some cases, it may be necessary to fill Category 3 or 4 wetlands, or impact buffers.

In the design process, which would follow publication of the Final EIS, various detailed baseline studies would be conducted for streams, wetlands, and water bodies prior to construction of the Brightwater conveyance system. These studies would be used to define specific impacts. In accordance with Section 7 of the Endangered Species Act, a Biological Assessment would be conducted for the project, and would present baseline studies for habitat that supports fish and wildlife species listed as threatened, endangered, proposed, or candidate. In accordance with local, state, and federal regulations, wetland delineation reports and stream special studies would be prepared for each Brightwater construction site proposed near a wetland or a stream. In accordance with local regulations, inventories of significant trees would be conducted for each construction site, and tree retention plans would be developed. Results of the baseline studies would be used to develop appropriate mitigation plans for wetland, stream, and forest impacts.

contaminates from construction equipment and material, increase in stream temperature from loss of shade and decrease in allocthanous material to the streams and wetlands.

Recommended Mitigation Measure: The future project design needs to incorporate ample safeguards to prevent, limit and lastly mitigate any impacts in these areas.

Issue or Impact to be addressed: The section called 7.2.4.2 Operational Impacts seems inconsistent with section 7.3.5.2, which states no need for mitigation due to lack of impacts from operating the outfall. The magnitude of impacts is tied to assumption that effluent will remain 70' below the surface. Freshwater is lighter than seawater and therefore it should rise to the surface. It would mix along the way but eventually there would be a core plume like smoke rising to the surface and exposed to higher mobility and transportation rate.

Recommended Mitigation Measure: This needs to be correctly identified or explained why it is believed that the effluent will only get to within 70' of the surface.

Issue or Impact to be addressed: 7.3.5.2 Operational: no mitigation is planned for operating the outfall yet impacts are anticipated due to "...will add small increment to the overall trend of increased nutrient, metal, and solids inputs to Puget Sound..." (pg. 6-51, 6.2.6). The cumulative impact is present and should be accounted for relative to mitigation.

Recommended Mitigation Measure: Areas to mitigate may be actions to clean up or improve degraded conditions, i.e. lack of shoreline erosion and tidally influenced wetlands. What is the expected recovery time for construction of the outfall? Trenching and excavation of dense eel grass beds is not adequately mitigating. Monitoring and mitigation for construction impacts and post maintenance should be considered.

Issue or Impact Identified: On Page 7-94, maintenance of the diffuser calls for cathodic protection of steel pipelines. This most likely refers to the placing of zinc plates onto the steel to reduce deterioration of steel from electrolysis of seawater. This common practice through out the marine environment could potentially add ions of zinc to the waters.

Recommended Mitigation Measure: This impact from the Brightwater project needs to be analyzed and appropriate mitigation developed.

Error or Inconsistency: On Page 7-94 emergency discharges of untreated effluent are identified without any assessment of impact or needed mitigation. In other portions of the DEIS it is stated that there is no chance of untreated effluent being released at Zone 7. If there is a chance that untreated effluent may be discharged via the outfall this must be addressed in FEIS.

Response to Comment C6-39

The discharge momentum and the density differences between the effluent and the receiving waters control the initial dispersion of the plume. During the initial rise, the effluent will become mixed with the surrounding waters. When it eventually reaches the same density as the surrounding water, it will no longer continue to rise. This is referred to as the trapping depth, and can be controlled by altering the diffuser design. King County will design the diffuser to maintain a trapping depth of 70 feet to assure that the plume stays away from commercial shellfish beds and to minimize the possibility of human contact in the surface waters. For complete analysis of the plume dilution and dispersion, please refer to Appendix 6-H, Pre-design Initial Dilution Assessment, of the Final EIS.

Response to Comment C6-40

Cumulative impacts to Puget Sound surface water quality from the construction and operation of the Brightwater Treatment Plant and outfall were evaluated to account for existing and possible future discharges and contaminant loadings to Puget Sound. More complete discussion of the cumulative impacts is provided in Chapter 6 of the Final EIS.

In the examination of potential impacts to surface water quality, King County added loadings from the Brightwater discharge to existing conditions in Puget Sound to examine cumulative impacts. This quantitative assessment is believed to be a reasonable approach because there are no known plans for additional point source discharges in the area and there are concentrated efforts in the region to improve the water quality of Puget Sound. King County and other municipal governments in the area are continuing efforts to increase the quality of their discharges in response to stricter regulatory requirements of the Endangered Species Act, Growth Management Act, and other environmental regulations. For example, there

are planned improvements to combined sewer overflows; other capital improvement projects will have vastly improved stormwater management infrastructure, which will reduce the loadings to Puget Sound. Both the City of Edmonds and King County have plans to improve the performance of some of the existing outfalls in Puget Sound. Similarly, King County is proposing to use membrane bioreactor treatment technology for the Brightwater System in an effort to minimize the loadings to Puget Sound. Based on this information, it is expected that Puget Sound water quality will continue to improve over time and no additional water quality standard violations will occur due to discharges from the Brightwater Treatment Plant.

King County and other regional governments are committed to improving the water quality of Puget Sound through the improvement of existing infrastructure and using the best available technology for new systems.

Response to Comment C6-41

If the pipeline were constructed of steel, an impressed current cathodic protection system would likely be used to prevent corrosion of the pipeline. Impressed current systems are based on an external source of current (cathodic protection rectifier) to reverse corrosion currents. The rectifier is connected to the pipeline, as well as a group of buried metal rods that are sacrificially corroded instead of the pipeline. The current King County maintenance schedule for cathodic protection systems on other outfalls includes quarterly monitoring of the rectifier and monitoring of the current interceptors every 5 years. Sacrificial-zinc plates will not be used as corrosion protection.

Response to Comment C6-42

Please refer to the response to the City of Edmonds, Comment C9-60, for the estimated emergency discharge frequency to the Sammamish River. By using the effluent outfall in emergency situations before discharge of untreated wastewater to marine waters, impacts to the ecosystem will be minimized because the discharge will still receive the high rates of dilution prior to encountering the nearshore area. While the scientific information regarding the potential impacts of bioaccumulative compounds is unresolved, King County believes that

the high level of treatment and the substantial dilutions that will be achieved with the Brightwater outfall minimize the potential for adverse impacts from these stressors. Many organic compounds are removed during the treatment process. A complete summary of the available information on the removal efficiency of the membrane bioreactor treatment system is detailed in Appendix 6-1, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System.

9. **Issue or Impact to be addressed:** On Page 7.96 "Bioaccumulation of certain chemicals" - Category 3's use of Brightwater's effluent being "relative to other sources" as insignificant masks a potential that a risk is present. The justification that because other sources pollute more thus making Brightwater a cleaner player ignores fundamental assessment of impact. The concentration of these chemicals is at question not who is a larger contributor of these various chemicals. This section is weak and cannot guarantee no or insignificant risk to the environment. What is the fate of antibiotics, growth hormones, steroids, caffeine, prescription drugs, and other typical household generated hazardous waste?

CG-42
Recommended Mitigation Measure: Continually test and monitor the presence and level of such substances as antibiotics, growth hormones, steroids, caffeine, prescription drugs and other household generated hazardous wastes both in the effluent and for accumulation in the biotic community starting with the outfall zone. Also, develop an on-going program to remove these chemicals from the effluent and dispose in a safe manner.

CG-43
 10. **Issue or Impact to be addressed:** In section 7.2.6 Cumulative Impacts, erroneous credit is given to the action of to minimize impervious surfaces at all facilities. It has been stated that even with that, cumulative impacts will occur. Delete this as mitigation for cumulative impacts. Cumulative impacts can be the single largest factor to degradation of air and water qualities.

CG-44
Recommended Mitigation Measure: More needs to be assessed here especially how this impact will be measured and mitigated.

CG-45
 11. **Error or Inconsistency:** In section 7.3.2.1 "Mitigation Measures Common to both sites", impacts of impervious surfaces from direct construction and the operational aspects of the project are mentioned. The increases in impervious surfaces due to increasing the allowable development within the areas served by the sewer are not addressed. The DEIS's policy of not addressing this indirect impact both as a singular and cumulative impact is very significant.

CG-46
 12. **Error or Inconsistency:** Table 7.12 on Page 7-4 attributes the jurisdiction of Bruggers Bog to Lake Forest Park. This area is within the boundaries of the City of Shoreline.

CHAPTER 8 ENERGY AND NATURAL RESOURCES

CG-47
 1. **Issue or Impact to be addressed:** On Page 8-15 of the DEIS, it is stated that diesel generators may be used if power lines or a substation are not available. Although this risk is said to be low, in order to protect our residents, businesses, and natural environment, specific mitigation is requested to reduce the noise and odor impacts associated with the use of a generator should one be required.

Response to Comment C6-43

The frequency at which effluent monitoring occurs will be identified in the NPDES permit. Presently, King County monitors effluent quality semi-annually, as dictated by the NPDES permit, for a suite of organic chemicals. King County is taking a proactive step in monitoring effluent by participating in a nationwide EPA study on endocrine disrupting chemical in municipal wastewater. King County's commitment to improving the quality of its discharge is evidenced by employing state-of-the-art treatment technologies, such as membrane bioreactors.

King County's field monitoring program is detailed in Appendix 3-I, Proposed Routine Monitoring Plan for the Receiving Environment in the Vicinity of the Brightwater Treatment System Marine Outfall, of the Final EIS. This plan includes the monitoring of surface water, sediments, and biota in the vicinity of the outfall.

Response to Comment C6-44

Thank you for your comment. The cumulative impact discussions for all chapters in the Final EIS have been revised.

Response to Comment C6-45

Please refer to Chapter 6 and Appendix 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS, for a discussion of impervious surface impacts and stormwater management at the treatment plant sites. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-82.

Response to Comment C6-46

The Final EIS text in Chapter 7 has been revised to state that Bruggers Bog is in the jurisdiction of the City of Shoreline.

Response to Comment C6-47

King County will work with appropriate jurisdictions and agencies to obtain permits required for the construction and operation of the Brightwater System, including emergency generators.

C6-47
Recommended Mitigation Measure: A Temporary Use Permit should be obtained from the City of Shoreline to approve and condition the siting of a generator to ensure protection of neighboring property owners.

CHAPTER 9 ENVIRONMENTAL HEALTH

The DEIS seems to adequately and accurately identify impacts to environmental health.

CHAPTER 10 NOISE AND VIBRATION

Comments on impacts and mitigation concerning noise and vibration as these could potentially affect aquatic environments, vegetation and associated wildlife are provided above in the discussion of Chapter 7. Mitigation measures must consider the noise and vibration emanating from the construction and operation of portals, pump stations, and a desalination facility to protect and restore the ambience to surrounding neighborhoods.

CHAPTER 11 LAND AND SHORELINE USE

1. **Issue or Impact to be addressed:** Short and long term impacts associated with the construction and operation of the outfall on the marine environment, residents, and public recreation.

Recommended Mitigation Measure: Public shoreline access improvements should be incorporated into the design of the outfall facility or provided in a location near the Outfall Zone 7S area based on input from the City and citizens impacted by outfall construction and operation. Public access to the shoreline in the Outfall Zone 7S area is currently restricted due to limited public access points, the Burlington Northern railroad tracks, and rugged terrain. Policy EN66, in the *Environmental Element* of the City of Shoreline's Comprehensive Plan states that additional public access shall be provided to Shoreline's natural features, including the Puget Sound Shoreline. As mitigation the City requests the County to: construct a pedestrian overpass or tunnel at the pump station or on the southern portion of the Pl. Wells property; develop the pump station site or Pl. Wells site for public access and use; secure beach access rights from the railroad; and provide safety fencing along both sides of the tracks if it is required by BNSF Railroad.

CHAPTER 14 RECREATION

1. **Issue or Impacts to be addressed:** The City has concerns about potential impacts to the park at Bruggers Bog from the construction of a portal at the adjacent King County Maintenance Yard. This is the only city park in this area and it serves several multi-family complexes.

Thank you for your comment.

Response to Comment C6-48

Response to Comment C6-49

Due to the close proximity of the nearest residences to the Brightwater facilities, construction noise and vibration would have impacts to residences during the exempt weekday hours. The Final EIS shows that the nearest residence to the Unocal site could be subject to 82 dBA, which is 23 dBA above the maximum ambient L10 level of 59 dBA. The Final EIS shows that the nearest residence to the Route 9 site could be subject to 84 dBA, which is 17 dBA above the maximum ambient L10 level of 67 dBA. Construction activities outside of exempt hours would only occur if a permit or variance were issued by the appropriate jurisdiction; noise levels outside of normally exempt periods, if allowed, would conform to the noise level requirements specified in the permit or variance. Operational noise levels would have some impact on existing minimum hour ambient noise levels. The operational noise level impact is limited to a 5 dBA increase in the minimum hour ambient noise level by mitigation of facility noise sources. This level of increase would be audible, but would be within permissible noise limits established in local codes. Also, please refer to the responses to the Snohomish County Planning and Development Services, Comments S3-132 and S3-133.

Response to Comment C6-50

At the City of Shoreline's request, King County is exploring options for establishing public access to the shoreline associated with the Zone 7S outfall including a pedestrian overpass. To date, King County has evaluated several locations for an overpass, but construction at the locations is not feasible. King County will work with local jurisdictions, surrounding residents, businesses, and other key stakeholders on mitigation and design issues related to portal siting areas.

The issue of proposed access improvements will be coordinated during these efforts.

Response to Comment C6-51

Screening conducted as part of the Brightwater Conveyance Pre-design identified candidate portal sites that best met engineering needs and minimized environmental and community impacts. Brugger's Bog Park was not selected as a portal site; however, a parcel directly south of the park has been identified as a portal site. Best management practices discussed in Chapter 7 of the Final EIS would be utilized to ensure construction activities and portal operation would not adversely affect the adjacent natural environment of the park. Please refer to Appendix 2-B, Portal Screening Level 1 and 2 Documentation, of the Final EIS for additional discussion of the portal screening process.

C6-51

Recommended Mitigation Measures: Improvements to the existing Bruggers Bog Park should be included as project mitigation for construction at Portal 7. Improvements should be implemented by King County in consultation with the City of Shoreline. The City expects that there will be no net loss in area at this park. Should access to the park be restricted during construction, the City expects to be compensated.

C6-52

Issue or Impacts to be addressed: Construction of Portal 19 and the outfall and the operation of the outfall in zone 7S could have short and long term impacts on the near shore environment including Richmond Beach Saltwater Park or any public of private beachfront.

C6-53

Recommended Mitigation Measures: Development of an environmental interpretive component should be considered for public education if the outfall zone is located at zone 7S. This property should be designated for a nature preserve to encourage the return of wildlife displaced from their habitat during the construction of the portal and outfall.

C6-54

2. **Issue or Impact to be addressed:** The City is concerned about potential impacts to the Aldercrest School site located within the Portal 7 area such as: restricted access, construction site risks for school age children, increased traffic around the school etc. In addition, the City understands that the School District will begin construction on improvements at the Aldercrest School site in the near future. It will be important to coordinate with the School to minimize the impacts of construction at both sites on the neighborhood. This is especially important since 25th Avenue NE is the primary access to this neighborhood.

Recommended Mitigation measures: Coordinate with the Shoreline School District should this portal be constructed north of Ballinger Way to identify if there will be any risks to the school associated with the construction or operation of the portal and mitigate accordingly. Explore with the School District the feasibility of constructing the portal on a portion of the Aldercrest School site. Improve the athletic fields at the Aldercrest School site.

CHAPTER 15 CULTURAL RESOURCES

C6-55

The DEIS seems to adequately and accurately identify impacts to cultural resources in Shoreline. The mitigation proposed for these impacts also seems adequate.

C6-56

CHAPTER 16 TRANSPORTATION

1. **Issue or Impact to be addressed:** The traffic analysis used P.M. peak hour traffic to evaluate worst-case traffic conditions. However, unique characteristics of the various neighborhoods should also be considered, for example Saturday traffic at Costco, morning peak traffic, traffic near schools (beginning at 2:30), etc.

Response to Comment C6-52

Where possible, King County has tried to avoid recreational areas with sensitive environmental features in the identification of candidate portal sites associated with the Unocal and Route 9 Systems. SR 104/Ballinger Way NE is a primary arterial that will be used by construction vehicles. Users of Bruggers Bog Park would be subject to intermittent delays in accessing the park during construction. Mitigation measures would be implemented to ensure that pedestrian and motorist access to the park is maintained at all times. Please refer to Chapter 16 of the Final EIS for a complete description of mitigation measures to ease traffic delays and number of construction vehicle trips calculated on various roadways.

King County would need to assess impacts and work with the City of Shoreline during the permitting process to determine if providing improvements to Bruggers Bog Park is a necessary and feasible mitigation measure.

Response to Comment C6-53

Please refer to the response to Comment C6-50 in this letter. As discussed in Chapter 7, short-term impacts to the nearshore environment would be unavoidable during and immediately after completion of construction. Please refer to this chapter for a discussion of best management practices that would be utilized throughout the duration of construction to ensure that adverse impacts to the surrounding environment are minimized. King County would need to assess impacts and funding allocated to mitigation to determine mitigation measures related to outfall construction in Zone 7S.

Response to Comment C6-54

Portal Sting Area 7 is designated as a primary portal for the Unocal System and as a secondary portal for the Route 9-195th Street System. Recent Level 2 portal screening that was conducted as part of the Brightwater Conveyance Pre-design identified the Aldercrest School site as one of the candidate sites to carry forward for further screening. King County will

work with local jurisdictions, surrounding residents and businesses, and other key stakeholders on mitigation and design issues.

Response to Comment C6-55

Thank you for your comment.

Response to Comment C6-56

Additional analysis was conducted for the weekday AM peak hours for intersections in the City of Shoreline. It is anticipated that all major construction staging and hauling operations would be scheduled on weekdays, with some onsite construction on weekend days depending on the work days and hours determined during the permitting process. Impacts to Costco shoppers on Saturdays would be minimal. The traffic management plan would address safety concerns related to construction truck traffic during school release times and would be finalized during the local permitting process. Additional detailed analyses of construction traffic related to specific portal locations are included and construction traffic routes and traffic impacts are identified in Chapter 16 of the Final EIS. Please refer to Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS for greater detail.

For determining level-of-service in the Draft EIS, a passenger-car-equivalency (PCE) of 2.0 was used for all trucks. For the Final EIS, an increased level of detail was included in the analysis. A PCE of 2.0 was used for concrete and material delivery trucks, while earthwork trucks were assigned a PCE of 4.0. Chapter 16 of the Final EIS has been revised to include the description of the truck types assumed and the PCE factors used for each.

C6-56
Recommended Mitigation Measures: The County traffic analysis should include this site specific analysis in the FEIS. Additionally, passenger car equivalents shall be clearly stated for construction trucks (trucks, trucks and trailers, etc.).

2. **Issue or Impact to be addressed:** The portal locations will have other adverse impacts to abutting roadways and intersections based on their actual location and the type of trucks used (trucks with trailers for example) to remove spoils, turning radii, etc. The short and long term impacts to the physical condition of the local roadway system are not addressed. The current condition of these roads is variable and would be severely impacted by this type of heavy vehicle traffic.

C6-57

Recommended Mitigation Measures:
 a. Widen roadways as required to provide adequate turning radii for construction vehicles. Perform structural analysis of roadways, prior to use to determine pre-construction structural integrity. Overlay affected streets prior to construction and overlay or reconstruct roadways that are damaged or compromised (design life reduced) by hauling operations, construction related activities, or operational activities associated with the Brightwater project.
 b. Provide construction site maneuvering for the truck traffic and remove them from the transportation system as quickly as possible for standard loading and unloading activities.

C6-58

3. **Issue or Impact to be addressed:** The DEIS traffic analysis evaluated impacts at two separate base years, 2010 and 2040. The 2010 year was assumed to represent the baseline for both construction impacts and opening year operational impacts (see page 16-30). However, this does not necessarily reflect a "worst case scenario" in regard to LOS impacts since construction activities are noted to commence in 2004 and last up to six years at each portal location. More particularly, LOS may exceed local standards adopted by the City for the year 2004, 2005, 2006, etc., and thereby require additional mitigation.

Recommended Mitigation Measures: As such, truck and employee trips should be evaluated at 2004 to access overall LOS impacts to the existing streets and intersections during construction. As currently stated, their analysis calculates LOS failures in 2010 without their project, and as such, the Brightwater Project would not make matters worse (once they have failed), ergo no mitigation required. However, this project might cause LOS detriments in the construction phase, which was not analyzed.

C6-59

4. **Issue or Impact to be addressed:** Truck traffic and haul impacts were restricted by the County in regard to the "regional transportation system", as stated on page 16-30. However, the number of truck trips utilized (worst case scenario) would appear inaccurate for the following reasons:

Response to Comment C6-57
 Please refer to the response to Comment C6-56 in this letter. State route and arterial roadways were assumed to be structurally adequate to accommodate the construction traffic from the project.

A traffic management plan (TMP) addressing the proposed mitigation measures for the portal construction traffic impacts would be developed and is described further in the Final EIS. This plan would include construction scheduling, hours of work, necessary improvements to the roadway network to maintain adequate traffic operating conditions, traffic control, and circulation plans to ensure safety to all travel modes along the affected roadways. These measures would be finalized by King County in conjunction with the affected jurisdictions during the construction permitting process. The TMP would also include a plan for monitoring and restoration of streets to pre-existing conditions, access for emergency services, and safe access for pedestrians and bicyclists, and would control the movement of workers, equipment, and delivery materials to minimize the traffic impacts along project access corridors. Construction-related activities, such as loading and unloading, would occur onsite and not on the transportation system.

Response to Comment C6-58

The Draft EIS analysis assumed that all portal sites would be under construction at the same time and overlaid peak construction traffic that was expected to occur sometime prior to 2010 on the 2010 background traffic. This effectively established a "worst-case" scenario for traffic impacts associated with portal site construction. Use of a 2004 analysis year as suggested could not be worse than the condition analyzed. The current proposed construction schedule would be from 2005 to 2009. Based on peak construction periods for portal and site construction, the detailed analyses of construction traffic were updated to represent the peak construction year of 2007. Please refer to

Appendix 3-G, Construction Approach and Schedule, of the Final EIS for information on schedule and sequence of construction and to Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS for greater detail on the traffic impact analyses.

Response to Comment C6-59

Spoils generated at a portal site and the resulting truck trips were correct as stated in the Draft EIS. The estimations of spoils generated at primary portal sites, resulting truck trips produced, and the traffic analysis for arterial and non-arterial streets have been updated. Additional detailed analyses of construction traffic related to specific portal locations, including Portal 19, have been included and construction traffic routes and traffic impacts are identified in Chapter 16 of the Final EIS. Only one site at Portal 19 would be constructed for the outfall, not two.

Tunneling would be accomplished in only one direction from each primary portal. Please refer to Appendix 3-G, Construction Approach and Schedule, of the Final EIS for information regarding schedule and sequence of construction.

Response to Comment C6-60

Please refer to the response to Comment C6-59 in this letter. A traffic management plan (TMP) addressing mitigation measures would be prepared for all agencies affected by construction and is included as a mitigation measure in the Final EIS. This plan would include time-of-day restrictions, necessary improvements to the roadway network, types of closures, pedestrian and bicycle detours, traffic routing/circulation management, and traffic control measures for safety on the affected roadways. These measures would be finalized by King County and would be coordinated with affected agencies during permitting. The TMP would include a plan for monitoring and restoration of streets to pre-existing conditions, access for emergency services, safe access for pedestrians and bicyclists, and would direct the movement of employees, equipment, and materials to reduce impacts along project traffic corridors. Please refer to Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS for greater detail on construction impacts and mitigation measures. The traffic analysis used an assumption concerning transportation mode share for construction employees that was based on typical commute patterns for construction projects. These patterns indicate that about one out of three vehicles would carry a second rider, which results in an average vehicle occupancy of 1.3. At primary portal sites, all parking would be provided onsite. Due to the limited area that can be set aside for employee parking at the Unocal site, a remote offsite parking location with a dedicated shuttle service would be used to transport construction employees to and from the site. A detailed analysis of three possible remote offsite parking locations with shuttle bus service for Unocal site construction workers and the resulting impacts have been included in Chapter 16 of the Final EIS. None of the potential remote offsite parking sites were located within the City of Shoreline. The locations of the sites and access routes

- a. Portals can be used to tunnel in opposite directions. As such, spoils generated at an individual site could be higher than the report suggests based on their stated production rate of 50 linear feet of tunneling (14-foot diameter tunnel per day). One tunnel could effectively generate 300 CY/day. Two tunnels depositing spoils from the same portal could generate 600 CY/day (±). This converts to 60 round trips per day (single, 10-CY dump truck). This would be in addition to other equipment and material delivery needs and employee generation trips. The traffic impact analysis should reflect same. This is also true of portal 19 where two portals are likely to be constructed, and, open excavation of the outfall may occur which would generate significantly more spoils than tunneling operations.
- b. No traffic analysis was found for the construction traffic generated on surface streets (non-arterial) which may be used to access portal sites, or for the Richmond Beach Road/Aurora/175th Street route likely to be utilized for a haul route for the Richmond Beach site (site of 2 portals).

Recommended Mitigation Measure: Perform additional analysis based on the above comments and develop appropriate mitigation in conjunction with the City of Shoreline.

Issue or Impact to be addressed: The employee traffic impact analysis appears to have utilized an assumption concerning mode share transportation (transit, carpool, vanpool, walking, or bicycle). The County should identify if these assumptions were used to evaluate trips generated by construction workers. Construction workers typically do not utilize these alternate means of transportation, therefore, construction employees generate more trips which do not represent a "worst case scenario" as implied.

Recommended Mitigation Measures: Recalculate construction worker trips and bus construction workers to the site. If the parking area for the construction workers will be located in Shoreline, the City's approval must be obtained via a temporary use permit or equivalent measure to insure that impacts are not merely shifted to another area of the City.

Issue or Impact to be addressed: Section 16.2.1.4 identifies that conflicts with other planned or programmed projects were evaluated and assessed in terms of schedule and physical impacts. In review of the Shoreline CIP, as well as other on-going City maintenance projects, the DEIS fails to reference projects the City of Shoreline has programmed through 2008.

Recommended Mitigation Measures: The traffic analysis should reflect the City's programmed projects. Some of these projects include:

- City Gateway Plans
- Rechannelization of Richmond Beach Road to three lane corridor

between the Unocal site and these lots were identified. No existing park-and-ride locations were considered for construction worker parking. Please refer to Appendix 16-B for greater detail.

Response to Comment C6-61

The list of projects identified in your comment has been reviewed to assess potential impacts to those projects and/or benefits for Brightwater construction traffic. Please refer to Chapter 16, Impacts and Mitigation section, of the Final EIS for the list of projects considered and the cumulative impacts. King County is proposing to develop a traffic management plan (TMP) to address mitigation of traffic impacts during construction of the Brightwater Treatment Plant project. In that plan, King County would formally identify other major projects that would be under construction during the same time period. King County would coordinate construction traffic activities with these other projects to ensure reasonable traffic operations.

- C6-61
- Interurban trail, from its southerly terminus (N. 145th Street) to its northerly terminus (N. 205th Street)
 - Interurban trail crossing at 155th Street and Aurora Avenue
 - Aurora Avenue Improvements (\$30,000,000 project) between N. 145th and N. 165th Streets
 - Aurora Avenue North Improvement between N. 165th Street and N. 205th Street
 - 15th Avenue NE Improvements (between NE 146th Street and NE 196th Street)
 - Signal installation at 15th Avenue NE and NE 165th Street
 - North City Business District Improvements
 - 175th Street sidewalks

C6-62

7. **Error or Inconsistency:** The planned and programmed regional projects referenced in Section 16.2.2.1, were included in the County's traffic analysis even though some are currently unprogrammed (PSRC). Since construction is slated to begin in 2004, these unprogrammed regional capacity improvements will not be complete during the construction phase. The traffic analysis should not assume that the projects would be completed.

C6-63

8. **Issue or Impact to be addressed:** Trip generation numbers shown in Table 16-16 appear inaccurate due to "worst case scenario" projections. Additionally, earthwork trucks for portal construction do not reflect functioning in opposite directions (creates twice as many cubic yards of spoils). Nor do they appear to account for earthwork spoils generated from the portal construction itself. What does the County predict will be production rates for the portal construction? Did the County assume for tunnel construction production rates, that it was for an 8 hour work day, 12 work day, 24 work day, five or seven days a week, etc.?

Recommended Mitigation Measures: Additional mitigation shall be warranted based on a revised / detailed traffic plan and City review of the schedule of construction activities (production hours, days and weeks) haul routes, final location of portal, etc.

C6-64

9. **Issue or Impact to be addressed:** The traffic analysis utilized a PSRC projection for population growth rate of 1% (page 16-40). The County should model growth rates projected in the next 2 to 10 years based on current adopted City plans.

Recommended Mitigation Measures: Consult with the City of Shoreline to recalculate population growth.

10. **Issue or Impact to be addressed:** The County's estimate of the average daily traffic for each portal of 106 trips may not represent the "worst case" scenario as stated in the text. The worst case scenario may be 24 hour shifts with tunneling in both directions, and open-cutting method of the outfall section. It is unclear if the

Response to Comment C6-62

The Final EIS background traffic condition includes the planned and programmed regional projects only if they are anticipated to be completed during the Brightwater construction period.

Response to Comment C6-63

Please refer to the response to Comment C6-59 in this letter. Construction work levels would be single (8-hour) or double (16-hour) shifts depending on the type of activity and work weeks are expected to be either 5 or 6 days depending on the affected jurisdiction's restrictions. Work schedules would be finalized during the local permitting process. Please refer to Appendix 3-G; Construction Approach and Schedule, of the Final EIS for greater detail on construction work activities and schedules. Analyses of construction traffic related to specific portal locations was based on specific production rate, trip generation, and work shift assumptions included in Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS.

Response to Comment C6-64

The traffic analysis was prepared using the travel demand model developed by Puget Sound Regional Council (PSRC) in order to comprehensively reflect traffic growth trends resulting from regionally coordinated land use growth projections and planned transportation system development. Thus the 1 percent growth rate is for regional traffic growth, not population growth, but contained in that forecast are the official growth expectations of the various cities. PSRC's model included the short range or adopted plans from all jurisdictions within King, Pierce, and Snohomish counties. It was assumed that construction workers would stay onsite during the entire work shift. Please refer to the response to Comment C6-63 in this letter. The traffic analyses for portals have been revised to account for specific construction activity levels at each portal. The results are summarized in Appendix

16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS.

C6-64

daily trips shown for workers in Table 16-16 account for lunch breaks, personal use, etc. It is unclear if the DEIS assumed that an employee never leaves the site during his work shift. It is unclear if the trip-generated numbers stated in the DEIS account for only an 8 hour shift or multiple shifts?

C6-65

11. **Issue or Impact to be addressed:** Section 16.2.4.1 (page 16-45) states "lane closures could occur on roads...particularly in portal areas." It further states "construction could restrict access to homes or businesses," and "temporary closures could affect the movement of police, fire, and emergency vehicles." The mitigation measures proposed to deal with this impact are discussed in Section 16.3.2.1. However, these impacts as stated do not discuss the meaning of the word "restricted access" or the duration of "temporary closures."

Recommended Mitigation Measures: Other mitigation, which cannot be specifically identified at this time due to the generality of site specific locations, will be mandated. No traffic lane closures shall be allowed without the approval of the City of Shoreline Right of Way permit.

C6-66

12. **Issue or Impact to be addressed:** The report states (page 16-46) that the projected truck volume on Richmond Beach Road, in the primarily residential neighborhood area(s), will be nearly 10% of background traffic levels. This 10% figure needs to be reassessed. We do not concur with the County using the baseline year of 2010 (since construction will be completed), nor are they clear regarding the construction sequencing (multiple work crews at Point Wells site - outfall and tunnel construction), or on the number of hours of crews used in their production calculations. Even so, 10% is high truck traffic volume in a residential neighborhood. The "quality of life" in this neighborhood could be greatly affected, as will structural impacts to portions of this roadway. There are also areas where bicyclists and pedestrians share the roadway as no separate facilities are available for their use causing safety concerns with high truck traffic changes.

Recommended Mitigation Measures:

- a. (Preferred method of reducing traffic) A reduction of significant truck trips would be realized with construction of a railroad spur or the use of barges at the Point Wells site, which would be utilized for the import and export of materials. The City requests that all equipment, materials, and excavated soil required to construct portal 19 and the outfall are transported by barge and/or rail.
- b. (Alternative method to reduce traffic) The County should reconstruct and reopen Hebaslein Road through Woodway for construction traffic only, which would provide alternate access and additional emergency access. The additional traffic, particularly truck traffic will generate noise, odor (emissions) and safety concerns primarily through the residential neighborhoods of Richmond Beach.
- c. Look at identified transportation projects in the area to be complete prior to the start of construction and indicate which are necessary for effective

Response to Comment C6-65

During portal and site construction, access to roads adjacent to treatment plant and portal sites would be maintained. Access restrictions to homes and businesses refer to emergency vehicle access that would be maintained at all times during all construction phases of the Brightwater project. A traffic management plan (TMP) would be prepared with the City of Shoreline during the permitting process. The TMP would include measures for maintaining and coordinating emergency vehicle access and would include traffic control plans. The TMP would provide for continuous coordination with emergency service providers to address their needs. Please refer to Chapter 16 of the Final EIS for a more complete discussion of the TMP and other mitigation measures for construction traffic impacts. Please refer to the response to C6-57 in this letter.

Response to Comment C6-66

Please refer to the response to Comment C6-58 in this letter. The construction schedule would be from 2005 to 2009. Based on peak construction periods for portal and site construction, the detailed analyses of construction traffic were updated to represent the peak construction year of 2007. With respect to the truck percentage, the low volume nature of the roadway results in a high percentage value for a small addition of traffic. Safe access and adequate non-motorized facilities would be provided for bicyclists and pedestrians during construction. Final traffic management plan approval would be coordinated with the City of Shoreline. Re-opening Haberslein Road has been removed from consideration for the construction of Portal 19 because of the steep grades of the roadway. Additional detailed analyses of production rates, work shift assumptions, construction traffic routes and traffic impacts related to specific portal locations

have been included in Chapter 16 and Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS.

Specific mitigation measures have been proposed for portal sites to reduce construction-related traffic impacts and are also described in Chapter 16. The level of mitigation measures was designed to address the specific impacts attributable to the Portal 19 construction using land based truck access. However, King County is evaluating the possibility of barge access to Portal 19 for transport of construction materials and earthwork spoils to reduce construction traffic through local neighborhoods. Construction of the Brightwater project would be coordinated with the cited programmed transportation projects.

C6-66

construction of this project. Potentially assist in funding any projects that may lag behind the schedule of this project.

13. **Issue or Impact to be addressed:** Roadways, stormwater facilities, and pedestrian access and safety may be severely impacted by the construction of Brightwater. These include, but are not limited to, Ballinger Way, 205th, 25th Avenue and Richmond Beach Road. Disruption to our community must be minimized, but many impacts will be impossible to fully mitigate in the short-term without improvement to the impacted City assets.

Recommended mitigation measures:

- a. Roadways, pedestrian improvements, and stormwater improvements that are impacted by facility construction should be completely reconstructed to current standards in all areas where public right-of-ways are impacted by this project.
- b. Pedestrian and stormwater facilities should be extended up to several blocks where needed to make appropriate transitions to existing facilities and ensure public safety.
- c. Any reconstruction of 205th necessary for this project should consider the existing needs in this corridor to safely move people more efficiently and the existing problems with signal timing and transit viability in this corridor.
- d. Any reconstruction of State Route 104 (including portions of 205th and Ballinger Way) necessary for this project should incorporate the unfunded pedestrian and HOV improvements planned by WSDOT for this corridor that have been identified by the Puget Sound Regional Council in Destination 2030.
- e. Construction and operation of the proposed outfall near Pt. Wells would increase the existing transportation burden on the City of Shoreline, which currently supplies the only road access to this site via Richmond Beach Road. All materials and equipment necessary for construction and the removal of excavated soil at the Pt. Wells outfall and portal 19 should be imported and exported to the site by barge or rail. Workers should be bused to the site to reduce traffic during construction. Consistent with the Shoreline Comprehensive Plan, the development of alternative road access to Point Wells should be included as project mitigation.
- f. Connection of the planned Interntran Trail in Shoreline and Snohomish County with the Burke Gilman Trail in Lake Forest Park should be considered as a compensatory mitigation measure to address short-term impacts to pedestrian access and safety that cannot be fully mitigated during construction.
- g. Opportunities for improving east-west pedestrian access along the western portion of the King-Snohomish County line should also be included as compensatory project mitigation.

C6-67

Response to Comment C6-67

The Brightwater conveyance system would be constructed by tunneling; surface impacts would be limited to portal sites only. Roadways such as Ballinger Way, 205th, 25th Avenue, and Richmond Beach Road, stormwater facilities; and pedestrian access on public right-of-way would not be disrupted.

- Roadways, pedestrian improvements, and stormwater improvements in the public rights-of-way would not be impacted by Brightwater portal construction footprints. As such, these facilities would not require reconstruction.
- Pedestrian and stormwater facilities would not be extended to connect to existing facilities because Brightwater portal construction footprints would not impact them.
- No reconstruction of 205th would be necessary as a result of the Brightwater project.
- No reconstruction of SR-104 (including portions of 205th and Ballinger Way) would be necessary as a result of the Brightwater project.
- The local roadways affected by construction traffic associated with Portal 19 and the outfall may require mitigation of pavement impacts and temporary provision of pedestrian and non-motorized facilities. All concrete would be transported by truck. Construction material delivery and removal of excavated soil have also been assumed to be by truck; however, King County is reviewing the feasibility of barging for these latter two activities. The level of mitigation measures was designed to address the specific impacts attributable to the portal site construction. All construction worker parking for Portal 19 would be provided onsite. The development of an alternative road access to Portal 19 would not be included as project mitigation. Re-opening Haberman Road is not possible because of the steep grade of the roadway and extending 205th is not possible because of the surrounding topography.
- The traffic management plan (TMP) would include specific mitigation measures that would reduce traffic

- impacts that are a direct result of the Brightwater Treatment Plant project only along construction access routes. These mitigation measures do not include compensatory mitigation such as connecting the Interurban and Burke Gilman Trails.
- The traffic management plan (TMP) would include specific mitigation measures that would reduce traffic impacts that are a direct result of the Brightwater Treatment Plant project only along construction access routes. These mitigation measures do not include compensatory mitigation such as improving pedestrian access along the King-Snohomish County line.

CHAPTER 17 PUBLIC SERVICES AND UTILITIES:

The DEIS seems to adequately and accurately identify impacts to public services and utilities.

C6-68

APPENDIX B – CONSTRUCTION METHODS

1. **Issue or Impact to be addressed:** The report (page B-1) indicates that trucks used to remove the material from the site would vary in size: 10 CY single dump trucks, 15 CY semi dump trucks, and 20 CY combination truck and tractors. However, the types of trucks utilized will have various impacts regarding speed (upgrades), number, turning radii, ingress, egress, safety, etc. It is unclear which trucks (10, 15, or 20 CY) were used in the intersection analysis (Chapter 16) regarding de-acceleration time, and acceleration time?

C6-69

Recommended Mitigation Measure: Update analysis to reflect the above factors.

3. **Issue or Impact to be addressed:** Portal activity will include temporary buildings or trailers, parking, storage, grout mixing equipment and materials, and heavy equipment, such as excavators, loaders, crane, trucks, tunnel boring machine, etc.

C6-70

Recommended Mitigation Measures: A "typical" site plan (including profile) should be provided for review and drawn to scale (need not include full depth of portal). The site plan should identify a typical site with temporary parking, fencing, temporary utilities, delivery, turn around area, lighting, storm facilities, ventilation ports, structures, equipment, dewatering ports (as required), etc., and other items pertinent to the site, such as staging areas, storage areas, construction office, etc. In addition, such permits as Temporary Use, Special Use, and/or Right-of-Way permits may be required by the City of Shoreline to further regulate and protect our community from negative impacts.

C6-71

3. **Issue or Impact to be addressed:** The DEIS discusses open excavation for the outfall both on the natural shoreline and offshore. What is the slope of the ground in these areas (minimum and maximum)? Is erosion a concern? In regards to outfall zone 7S, in-water trench construction could kill many of the clams and other invertebrate species contained in, and on the surface of, bottom sediments along the outfall route. Impacts would be greater in shallower waters where the abundance of various clam species is higher, although geoducks may occur at depths greater than 300 feet (page 88 of the DEIS). In addition, clams and invertebrates that are located outside of, but within the vicinity of, the trench may still be impacted from suspended sediments. Tunneling would have far less impact than trenching on shellfish and aquatic vegetation and is, therefore, the preferred construction method for this near-shore area.

Response to Comment C6-68

Thank you for your comment.

Response to Comment C6-69

For determining the level-of-service during construction in the Final EIS, the unique characteristics of truck traffic were taken into account. For concrete, a standard mixing truck with a capacity of 10 cubic yards was assumed. For earthwork spoils, a truck-and-trailer combination with a capacity of 16 cubic yards was assumed. Please refer to the response to Comment C6-56 in this letter.

Response to Comment C6-70

Typical scaled site layouts for both the launching and recovery portals are included in the Final EIS. Refer to Chapter 3 of the Final EIS for a description of the project. Further detail will be determined during the preliminary and final design process after the publication of the Final EIS and the King County Executive has selected a system alternative for construction.

King County will work with applicable local jurisdictions to obtain required local construction and operating permits.

Response to Comment C6-71

Please refer to the response to the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries), Comment F1-4.

Response to Comment C6-72

Outfall construction in Zone 7S would be supported from a staging area located near the final land-based conveyance tunnel portal within Portal Staging Area 19. Prior to construction, this staging area could be utilized to store pipeline segments and backfill material. The material and equipment procurement process, including material ordering, manufacturing, and shipping, could last up to 12 months. The staging area would likely be used for storage for a period of 1 to 3 months before construction. Pipeline segments would likely be made of steel or high density polyethylene (HDPE). The final material selection will be made during predesign and final design after issuance of the Final EIS. Pipeline segments would be approximately 40 feet long and 60 inches in diameter. Pipeline segments could be delivered to the site by flatbed trucks or by rail. The number of segments stored at the staging area would depend on the length of the onshore outfall alignment (it is unlikely that pipeline segments for the in-water construction would be stored at the land-based staging area). The preferred outfall alignment within Zone 7S includes 1,000 feet of onshore pipeline; thus, it is anticipated that 25 segments would be required.

C6-71

Recommended Mitigation Measures: All efforts should be made to utilize tunnelbore construction methods and to avoid trench construction methods. Deep tunneling appears to offer many benefits over surface construction, including fewer impacts to critical areas, fewer overall environmental impacts, less disruption to the community, lower capital costs, and lower operation and maintenance costs.

C6-72

Issue or Impact to be addressed: Page B-11 indicates the outfall storage area may be used for mobilization of equipment and materials for up to 12 months prior to the scheduled construction period. What type and quantity of material does this temporary storage represent? At this time, this portal may be located in a City residential neighborhood and be cause for concern. Estimated quantities of rock armoring (up to 4,000 CY), pipe bedding (up to 2,000 CY), and pipe leveling course material (up to 1,500 CY) is referenced to be utilized for the outfall. This material could be imported via the railroad with the construction of a new railroad spur or barge.

C6-73

Recommended Mitigation Measure: Sec #2 above.

Issue or Impact to be addressed: Construction of the portals both short- and long-term may, and likely will, remove economic opportunities from both the citizens (businesses) and City as the property will be committed to public use, will not be subject to certain tax opportunities (R&O), will likely generate less property tax revenue, potentially require enhanced population density in other areas of the City (mandated by GMA) as this property is removed from current use.

C6-74

Recommended Mitigation Measure: Work with the City, business owners/operators to determine the extent of the economic impacts. Compensate affected parties fairly.

C6-75

Issue or Impact to be addressed: The DEIS states that during construction contaminated soils may be encountered.

Recommended Mitigation Measures: Onsite treatment of contaminated soils shall not be allowed in Shoreline. In most areas of proposed construction, the interaction with residents creates safety concerns. In some cases, the best course of action for contaminated soils is to encase them onsite. However, that would have to be addressed on a site by site basis. Construction debris that is removed from portal or outfall constructions sites shall be covered during transit.

12,500 cy of granular fill material would be required. It is not likely that the entire volume of material calculated above would be stored at the staging area at one time. It is more likely that a portion of these materials would be onsite prior to construction, with the remaining backfill material delivered during construction. It is unlikely that backfill materials for in-water trench construction would be stored at the land-based staging area. King County is evaluating potential construction material delivery methods including truck, barge, and rail transportation. Selection of material delivery methods will be made after issuance of the Final EIS, and based upon planning considerations such as construction method selection, material source, and construction site access.

King County Property Acquisition and Relocation Web site at <http://dnr.metrokc.gov/wtd/row/acquisition.htm> for more information.

Response to Comment C6-73

The Draft EIS and Final EIS identify, for each element of the environment evaluated, probable significant adverse environmental impacts and reasonable mitigation measures. The EIS analyzes environmental impacts (WAC 197-11-448). City taxes, revenues, and potential economic impacts were not an element discussed in the Draft EIS and will not be addressed as part of the Final EIS as it is not an environmental impact. SEPA does require evaluation of land use issues, including "relationship to existing land use plans" (WAC 197-11-444(b)). This analysis is found in Chapter 11 of the Final EIS.

Response to Comment C6-74

It is correct that contaminated soils may be encountered. Thank you for providing guidance on handling contaminated soils in the City of Shoreline.

Response to Comment C6-75

This comment seeks information about property easements and valuation that is beyond the scope of an EIS. The EIS is designed to present environmental information and information relating to environmental impacts, not the legal or contractual information associated with property rights. For all necessary easements, King County will follow applicable state and federal laws and King County policies and procedures. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the

8. **Recommended Mitigation Measures General:**
- a. Shoreline should have their own construction monitoring personnel onsite. There are numerous ways to make this a positive contribution to the construction process, but they should be hired by and represent the City of Shoreline. This project could pay their salaries as part of the mitigation.
 - b. As identified, some of the portals could create large construction footprints. At a minimum, during construction, the sites should be visually concealed from the traveling public to prevent distraction. This could be similar to the "plywood fencing" used at building construction sites in urban downtown settings.

APPENDIX C – ENDANGERED SPECIES/ESSENTIAL HABITAT EVALUATION

- C6-77
1. **Error or Inconsistency:** Appendix C failed to identify the City of Shoreline as a source of water quality data. As part of our ambient monitoring the City does have data that can be reviewed for use in assessing impacts.
 2. **Issue or Impact to address:** For possible outfall construction using trenching methods, mitigation for temporary turbidity increases and possible temporary loss of eelgrass beds and clam beds is not specifically provided.
Recommended Mitigation Measure: We strongly recommend utilizing tunneling to place the outfall in nearshore areas, which would avoid most of these impacts. However, contingency mitigation should be identified in advance in case tunneling proves to be infeasible. Possible mitigation measures include resceding clam beds, replanting eelgrass, or possible freshwater salmonid habitat improvements. A nature preserve should be created to encourage the return of wildlife displaced from its habitat during construction.
 3. **Issue or Impact to address:** Mitigation for flow increases and resulting erosion in McAlister Creek and the Lyon Creek system due to dewatering discharges needs to be provided and the impacts more thoroughly addressed.
Recommended Mitigation Measure: See Chapter 6 Surface Water comments.
 4. **Issue or Impact to address:** The evaluation does not appear to provide sufficient discussion of potential impacts on winter foraging bald eagles and great blue herons that may be affected by noise and other disturbances during construction, and makes only a vague reference to the potential for noise impacts in Table 5-6. In general, the discussion of impacts to listed wildlife species relies on avoidance of the disturbing activity to justify the low level of impact. This may be adequate for these species, but additional support for these statements should be included in the formal BE or BA. It is anticipated that USFWS and/or WDFW will apply appropriate timing restrictions during federal and state review of the project intended to protect bald eagles, great blue herons and the other wildlife species as needed.

C6-78

23

23

Response to Comment C6-76
Please refer to the response to Comment C6-5, in this letter, regarding mitigation suggestions.

Response to Comment C6-77
Water quality data collected by the City of Shoreline has been included in Appendix 6-A, Affected Environment: Surface Water, of the Final EIS.

Response to Comment C6-78
Potential mitigation for the construction and operation of the proposed Brightwater outfall are discussed in the Impact and Mitigation Summary Tables in Chapter 7, specifically, as well as in each of the individual chapters of the Final EIS.

Mitigation discussed includes the replanting of eelgrass beds and monetary compensation for loss of clam beds. Other mitigation measures under consideration include the improvement of degraded habitat outside of the impact areas, which could include freshwater salmonid habitat, and the installation of interpretive nature signs along the beaches.

The Preferred Alternative was selected, in part, to minimize impacts to eelgrass. Risks associated with tunneling are discussed in Appendix 3-F, Nearshore Alignment and Construction Methods Alternatives. The impacts associated with these risks exceed the impacts due to trenching.

Response to Comment C6-79
Since the publication of the Draft EIS, more detailed hydrogeologic analyses have been conducted, and the dewatering discharge rates have been reduced. Please refer to Appendix 6-F, Groundwater and Stormwater Management at the Candidate Portal Sites, for corrected dewatering discharge rates by portal and proposed dewatering discharge disposal options. Should dewatering

discharge rates exceed Washington State Department of Ecology's 10 percent guideline detailed stream studies would be conducted or alternative disposal methods would be used. Please refer also to the response to the City of Kenmore, Comment C3-88. Should impacts occur as a result of dewatering discharge, restoration, or enhancement would be conducted according to local regulations. King County would work with local jurisdictions to determine appropriate mitigation measures for project-related impacts.

Response to Comment C6-80

Impacts to winter foraging bald eagles and great blue herons due to noise were discussed in Chapter 7 of the Draft EIS. King County concurs that USFWS and/or WDFW timing restrictions will be applied if necessary to protect the nest sites of bald eagles, great blue herons, and other special status wildlife species. These impact analyses and mitigation measures are included in Chapter 7 of the Final EIS. King County intends to prepare a Biological Assessment for the project and will continue to work with NOAA Fisheries and USFWS.



SHORELINE CITY COUNCIL
February 13, 2003
Anthony Poland
2433 NW 198th
Shoreline WA 98177-2419

Dear Mr. Poland:

Several weeks ago you raised a question regarding the City's response to the Brightwater Draft EIS. Specifically, you were asking about the City's comment that traffic analysis should reflect the City's programmed projects, which included "the rechannelization of Richmond Beach Road to a three-lane corridor". This reference is from a CIP project that was to be completed in 2002, but will now be completed in early 2003. This project is in our current CIP on page 101, and I have included a copy for your reference. It is a study project designed to analyze traffic options in the vicinity of Richmond Beach Road and Third Avenue NW. The scope of the study is to analyze three traffic options:

1. Reduce the four-lane to a three-lane section between Dayton Avenue N and 8th Avenue NW
2. Create split phasing at the Richmond Beach Road and 3rd Avenue NW signal
3. Widen to five lanes with left turn lanes

There is no design or construction money for this work. It is intended as a study item only.

Our Brightwater response on this item was incomplete and a follow-up clarification note will be forwarded to the County staff responsible for analyzing draft EIS comments. I hope this answers your question, but please feel free to give me a call if you have any additional concerns or comments.

Sincerely,

Robert L. Olander
Deputy City Manager

Enclosure

C: Mayor and Council
Steve Barkert, City Manager
Paul Haunes, Public Works Director
Jill Marilley, City Engineer

17544 Midvale Avenue North * Shoreline, Washington 98133-4921
Telephone: (206) 546-1700 * www.cityofshoreline.com

Response to Comment C6-81

The background traffic conditions have included all currently known funded projects that would affect the roadway network associated to the development of the proposed Brightwater project. Refer to Chapter 16 of the Final EIS for projects included in the analysis.

Ordkey: 2318102 J.L.S. ST102807 Dept. Priority Total Project Budget \$14,483
 Project Location: NE 145th St - NE 198th St
 Project Scope: A revised scope would analyze 3 traffic options:
 (1) reducing the 4 lane to a 3 lane section between Dayton Ave N and 8th Ave NW,
 (2) split phasing the Richmond Beach Rd/3rd Ave signal (separate east and west),
 (3) widening to 5 lanes with left turn lanes.
 Traffic alternatives and findings would be reviewed and stakeholder (users, residents, businesses) input obtained. The analysis findings and stakeholder input would be used to select an improvement alternative.
 Project Justification: The high amount of accidents at 3rd Ave with 2.59 collisions per million approach vehicles and left turn accidents and conflicts between Dayton and 8th Ave NW would be improved with a 3 lane section.

101

Phase	Fiscal Year/Expenditures	2002 Budget	2002 Projected	2003 Budget	2004 Budget	2005 Budget	2006 Budget	2007 Budget	2008 Budget	Total Project Cost
Project Expenditures:										
Planning	\$2,790									\$2,790
Pre-Design		\$11,673	\$11,673							\$11,673
Design										
Real Estate Acquisition										
Construction										
Total Project Expenditures	\$2,790	\$11,673	\$11,673							\$14,463
Revenue Sources:										
State Capital Fund	\$2,790	\$11,673	\$11,673							\$14,463
Total Project Revenue	\$2,790	\$11,673	\$11,673							\$14,463
Impact on Operating Budget	\$0	\$0								\$0

The operation and maintenance impact to the operating budget cannot be determined until this project is fully defined.

Project Time Line:	2002				2003				2004				2005				2006				2007				2008			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Planning																												
Pre-Design																												
Design																												
Real Estate Acquisition																												
Construction																												

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