King County
Department of Natural Resources and Parks • Wastewater Treatment Division
Community Services and Environmental Planning • 201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104-3855 • Phone 206-684-1714 • FAX 206-684-1278

DETERMINATION OF NONSIGNIFICANCE

TITLE OF PROPOSAL: North Beach Combined Sewer Overflow Control Project

DESCRIPTION OF PROPOSAL: To meet the combined sewer overflow (CSO) control standard of the National Pollutant Discharge Elimination System permit for the West Point Treatment Plant, the King County Wastewater Treatment Division proposes to construct a wastewater storage pipeline in street right-of-way adjacent to the existing North Beach Pump Station and associated facilities including a new diversion structure and ancillary equipment facility on the King County-owned pump station property. Construction of the proposed project is expected to begin in the first half of 2013 and take approximately 18-24 months to complete.

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: The proposal is located at King County's North Beach Pump Station property and adjacent Triton Drive NW and NW Blue Ridge Drive public right-of-way. The street address of the pump station is 9921 Triton Drive NW. It is located in the City of Seattle, which is in King County, Washington. The project site is located in Section 35, Township 26N, Range 3E.

SEPA Responsible Official: Pam Elardo, P.E.

Position/Title: Director, King County Wastewater Treatment Division

Address: 201 South Jackson Street, MS KSC-NR-0501
Seattle, WA 98104-3855

Date: 4-21-11 **Signature:**

Proponent and Lead Agency: King County Department of Natural Resources and Parks
Wastewater Treatment Division

Contact Person: Sue Meyer, Water Quality Planner
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104
phone: 206-684-1171; e-mail: sue.meyer@kingcounty.gov

Issue Date: April 28, 2011

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

☒ This Determination of Nonsignificance (DNS) is issued under WAC 197-11-340 (2); the lead agency will not act on this proposal for 17 days from the issue date. **Comments must be submitted by May 16, 2011.** Submit comments to Wesley Sprague, Supervisor, Community Services and Environmental Planning, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855.

☒ The Director of King County Department of Natural Resources and Parks, consistent with King County Public Rule 7-4-1, Section 6.2.14 and RCW 43.21C.240, has determined that the environmental impacts identified in the SEPA environmental checklist for the North Beach CSO Control Project will be adequately addressed by the development regulations and other applicable requirements of the City of Seattle and by all other applicable state and federal regulations referred to in the environmental checklist for the North Beach CSO Control Project. Therefore, no administrative appeal of issuance of the DNS will be allowed for the North Beach CSO Control Project. The rule may be viewed at http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx, or contact Sue Meyer, Water Quality Planner, at 206-684-1171 or sue.meyer@kingcounty.gov to obtain a copy of the rule.

[Statutory authority: RCW 43.21C.110. 84-05-020 (Order DE 83-39), §197-11-970, filed 2/10/84, effective 4/4/84.]

E

City of Seattle Hearing Examiner
EXHIBIT
Appellant ___
Respondent ✓ ADMITTED ✓
Department ___ DENIED ___
8

FILE #3012914, CF #312299

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
King Street Center, KSC-NR-0505
201 South Jackson Street
Seattle, WA 98104

Environmental Checklist

for the

North Beach Combined Sewer Overflow Control Project

April 14, 2011

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11), and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

This information is available in accessible formats upon request at 206-684-1280 (voice) or 711 (TTY).

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

North Beach Combined Sewer Overflow Control Project

2. Name of applicant:

King County Wastewater Treatment Division (WTD), Department of Natural Resources and Parks (DNRP)

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

King County Wastewater Treatment Division
201 South Jackson Street, MS: KSC-NR-0505
Seattle, WA 98104-3855

CONTACT:
Sue Meyer, Water Quality Planner, telephone: 206-684-1171, email: sue.meyer@kingcounty.gov

4. Date checklist prepared:

April 14, 2011

5. Agency requesting checklist:

King County Wastewater Treatment Division, Department of Natural Resources and Parks

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

Construction of the proposed project is expected to begin in the first half of 2013 and take approximately 18-24 months to complete.

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

In the future, King County plans to identify and evaluate approaches for inspecting the North Beach force main to obtain a current estimate of remaining service life. The inspection of this buried pipeline is complicated by its location in sensitive tidelands and its dedication as the single conveyance line from the North Beach Pump Station to the Carkeek Wet Weather Treatement Facility.

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

Archaeological and Historical Resources in the North Beach Sub-Basin, Seattle, Washington, Cascadia Archaeology, November 2, 2009.

Environmental Conditions Technical Memorandum, North Beach Basin Puget Sound CSO Project, ESA Adolfson, April 23, 2010.

Noise Technical Memorandum, North Beach Basin Alternative 1B; Barton, Murray, Magnolia and North Beach CSO Project, ESA Adolfson, December 6, 2010.

Recreation and Aesthetic Resources Technical Memorandum, North Beach Basin Alternative 1B; Barton, Murray, Magnolia and North Beach CSO Project, ESA Adolfson, December 6, 2010.

Traffic Technical Memorandum, North Beach Basin Alternative 1B; Barton, Murray, Magnolia and North Beach CSO Project, ESA Adolfson, March 10, 2011.

Preliminary Geologic/Geotechnical Evaluation of North Beach Alternatives, Seattle, Washington, Shannon & Wilson, Inc., August 24, 2010.

Draft North Beach Combined Sewer Overflow Control Facility Plan, Carollo Engineers, December 2010. This report will be finalized and submitted to Ecology for approval by July 2011.

North Beach CSO Control Project Biological Assessment—Letter of "No Effect", ESA Adolfson, March 10, 2011.

Washington State Water Pollution Control Revolving Fund State Environmental Review Process Environmental Issues Checklist—North Beach CSO Control Project, King County Wastewater Treatment Division, March 24, 2011.

Additional environmental information that will be prepared for the proposed project includes reports summarizing the findings of a cultural resources survey and subsurface geotechnical investigations that will be performed in the project area.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known

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

City of Seattle

Department of Planning and Development:
- Master Use Permit (includes Shoreline Substantial Development Permit)
- Noise Variance Permit

Department of Transportation:
- Street Use: Major Utility Permit or Street Improvement Permit
- Street Use Permit

King County
- Industrial Waste Permit

Puget Sound Clean Air Agency
- Air Quality Permit

Washington State Department of Ecology
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit
- Underground Storage Tank Notification
- State Environmental Review Process

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description).

King County's North Beach Pump Station receives flows of combined sanitary sewage and stormwater collected in the North Beach Basin, which is located in north Seattle on Puget Sound. The Basin includes Seattle's Loyal Heights, Crown Hill and Greenwood areas. Wastewater in the Basin is collected by City of Seattle facilities and conveyed to the North Beach Pump Station. From there, flows are conveyed by the North Beach Force Main to the Carkeek Pump Station. During dry weather, flows are then routed to the West Point Treatment Plant in the Magnolia neighborhood of the City of Seattle where they are treated, disinfected, and then discharged to Puget Sound. Under peak flow conditions, some of the flow pumped from the North Beach Pump Station receives primary treatment at the Carkeek Wet Weather Treatment Facility and is then discharged to Puget Sound.

The North Beach Pump Station and Force Main have the capacity to convey a peak flow rate of approximately three million gallons per day (MGD). When heavy rains cause flows to exceed the capacity of the wastewater system, a combination of stormwater and diluted sewage is discharged to Puget Sound through two existing outfalls located near the pump station. Between 2000 and 2007, there was an average of 10 such combined sewer overflows (CSOs) annually in the North Beach Basin. The average annual total overflow volume was 2.2 million gallons (MG). King County's NPDES permit for the West Point Treatment Plant requires that the County implement controls to reduce CSOs in the North Beach Basin to an average of no more than one per year on a long term average.

To meet the CSO control standard, King County proposes to construct a wastewater storage pipeline in street right-of-way adjacent to the existing North Beach Pump Station and associated facilities on the King County-owned pump station property. In addition to the storage pipeline, the proposed project would include construction of a new diversion structure and ancillary equipment facility (see attached Site Layout Plan). Also, site modifications would be made to the North Beach Pump Station site and adjacent public right-of-way where the storage pipeline would be located. Each of these project components is described in more detail below.

Diversion Structure and Storage Pipeline
All flow to the North Beach Pump Station would be routed through a new approximately 12'(l) x 8'(w) x 17'(d) diversion structure which would be located below ground on the North Beach Pump Station site. The structure would divert flows exceeding the capacity of the pump station and downstream force main to a new storage pipeline through a new approximately 20-inch-diameter influent pipeline.

The approximately 325-foot-long, 12-foot-diameter buried storage pipeline would be located in Triton Drive NW and NW Blue Ridge Drive public right-of-way and

provide 0.23 MG of storage volume for combined sewage. The attached Site Layout Plan shows the area where it would be technically feasible to locate the pipeline. The exact location would be determined during design. The pipeline would contain submersible pumps that would be used to empty the pipeline following a wet weather event. Flows would be pumped into a new six-inch-diameter effluent pipeline that would connect to the local sewer system and flow to the North Beach Pump Station. The storage pipeline would also contain a flushing system to facilitate pipeline cleaning, and access features for routine and long-term operations and maintenance.

Ancillary Equipment Facility
An approximately 40'(l) x 20'(w) one-story (about 15 feet) tall ancillary equipment facility would be constructed on the North Beach Pump Station site to support the storage pipeline. The facility would house electrical and motor control panels, a standby power generator and diesel fuel storage tank, an odor control system, a ventilation system, and a utility water system.

Site Modifications
Modifications to the North Beach Pump Station site would include the following items: 1) the existing access road would be relocated from the southwest side of the pump station site to the northeast side in order to make room for the new ancillary equipment facility and provide access to that facility and the pump station for operations and maintenance purposes, 2) the existing fence that surrounds the pump station site would be restored or replaced to restrict public access during construction and after project completion, 3) bioretention facilities would be installed to treat stormwater runoff, and 4) the existing rockery retaining wall along the southwestern property boundary would be modified or replaced to facilitate site grading and construction.

Modifications to the Triton Drive NW and NW Blue Ridge Drive public right-of-way would include the following items: 1) hatches and removable concrete lifting slabs would be installed to provide access to the buried storage pipeline, 2) pavement would be removed and restored, and 3) landscaping would be removed and the area replanted. Additionally, green stormwater infrastructure best management practices (BMPs) may be implemented to control and treat stormwater (for example, use of bioretention facilities).

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project site would include the approximately 10,300 square-foot King County-owned parcel on which the North Beach Pump Station is located and approximately 48,000 square feet of adjacent Triton Drive NW and NW Blue Ridge Drive public right-of-way. The street address of the pump station is 9921 Triton Drive NW. It is located in the City of Seattle, which is in King County, Washington. The project site is located in Section 35, Township 26N, Range 3E. Please see attached Vicinity Map and Site Layout Plan.

Offsite staging areas would be identified by the construction contractor.

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

In the project area, Triton Drive NW rises gently to the southwest and NW Blue Ridge Drive rises gently to the northeast. The North Beach Pump Station property is generally flat.

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

The steepest slope on the site is approximately 10 percent.

c. What general types of soils are found on the site? (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The Seattle geologic map indicates that surface deposits on the project site are Vashon recessional outwash, typically consisting of sand or gravel. The map indicates that this deposit is underlain by glaciolacustrine silt and clay, commonly called the Lawton Clay. Typically, the Lawton Clay in the project area is 50 feet or more thick and contains interbeds of fine sand.

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

The westernmost tip of the North Beach Pump Station Site is identified by the City of Seattle as a potential landslide area. Excavation within this area is not planned.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

A total of approximately 10,000 cubic yards (CY) of soil would be excavated during project construction, as described in the following paragraphs.

Approximately 100 cubic yards of material would be excavated for construction of the proposed diversion structure on the east end of the pump station site. The excavation would extend to a depth of approximately 17 feet and most likely be shored with stacked trench boxes or cantilevered shoring. Shoring is the process of bracing excavation walls in order to prevent their collapse. The use of shoring systems provides safety for workers in excavations and facilitates the excavation process.

An open trench would be excavated for construction of the proposed buried storage pipeline in Triton Drive NW and/or NW Blue Ridge Drive, depending on where the storage pipeline was located. Up to approximately 9,000 CY of material would be excavated and the depth of the excavation would be approximately 25 feet. The excavation would likely be supported by a braced, soldier pile and lagging shoring system in conjunction with dewatering and possible groundwater recharge (see Section B.3.b.1). Soldier pile tie backs may

be required. It is possible that the storage pipeline could also require the installation of piles to support it or tie downs to prevent it from uplifting.

If drawdown-induced settlement-sensitive soils were present and groundwater recharge was not feasible to prevent unacceptable settlement, then a relatively impermeable or watertight shoring system could be required. This would likely consist of soldier piles and sheet piles, secant piles, or a soil-mixed or slurry wall system. Soldier piles are steel beams with an I-shaped cross section. To create a relatively impermeable shoring system, they are installed approximately four to six feet apart and steel plates are placed between them. Secant pile walls consist of intersecting concrete piles. Piles would likely be sunk to depths of between 30 and 60 feet.

Open trenches would also be excavated between the proposed diversion structure and storage pipeline for installation of the proposed influent and effluent pipelines. This would require excavation of approximately 1,000 CY of material. Trench boxes would most likely be used to shore the effluent pipeline excavation. Excavation for the influent pipeline would use the same type of shoring system that was used for the storage pipeline excavation.

Approximately 100 CY of material would be excavated for construction of the proposed ancillary equipment facility just west of the existing North Beach Pump Station. The facility would likely be supported on spread footings or a mat foundation. Minor over-excavation could be required if soft or loose soils were present at or below the foundation grade elevation. Shoring would probably not be required for construction of the ancillary equipment facility.

Up to approximately 7,500 CY of fill would be required to backfill the excavations described above. If the native materials were suitable, excavation spoils would be stockpiled and used for backfill. Excavated soils not used as backfill would be legally disposed of off-site at a location determined by the contractor. If the excavated soils were not of the appropriate quality for backfill, other material would be brought to the site and used as backfill. The source of imported material would be determined by the contractor and meet all pertinent project and legal requirements.

The existing rockery retaining wall along the southwestern property boundary would be partially or completely removed to facilitate site grading and construction. It would be replaced with a similar three-to five-foot-tall rock or concrete retaining wall following construction of the ancillary equipment facility.

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

Yes, construction activities such as site grading and excavation, materials handling, and stockpiling could cause erosion on a short-term basis. Short-term erosion could also result from the exposure of stockpiled spoils and fill. Erosion control measures would be implemented to minimize potential erosion (see Section B.1.h., below).

Operation of the completed project would not result in any erosion.

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

Approximately 3,800 square feet of the approximately 10,800 square-foot pump station site (where the ancillary equipment facility would be built) is currently covered with impervious surface. After the project was completed, the site would contain an additional approximately 1,400 square feet of impervious surface. It is estimated that the impervious surface on the pump station site would increase from 35 percent to 48 percent.

Approximately 46,000 square feet of the approximately 48,000 square-foot pipeline storage project area is currently covered with impervious surface. After the project is completed, this area could contain an additional approximately 2,000 square feet of impervious surface, depending on permit requirements. The impervious surface on the pipeline storage area could increase from 96 percent to 100 percent.

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

Project construction activities would utilize construction-related BMPs such as temporary erosion and sediment control measures to minimize the potential for erosion and sedimentation. Typical BMPs that could be used include installing silt fences, covering bare soil and stockpiles, and regularly inspecting and repairing erosion and sediment control measures. Additional BMPs and other measures could include using appropriate means to minimize tracking of sediment onto public roadways by construction vehicles and restoring disturbed areas by replanting or repaving as soon as practical after construction is completed.

Temporary erosion and sediment control measures would be identified in the project plans and construction specifications and would be implemented as required by the City of Seattle.

During construction, measures would be taken to ensure that surrounding structures were not damaged as a result of vibration or settlement. These measures would be specified in project plans and construction specifications and could include monitoring for vibration and/or settlement at the project site and/or nearby residences.

King County would conduct subsurface geotechnical investigations during design. Soil and groundwater information collected during these investigations would be used to design a shoring system(s) and dewatering plan that minimized the potential for vibration and settlement that could impact nearby structures.

Groundwater reinjection could be done to limit potential groundwater drawdown-induced settlement (Section B.3.b.1 describes potential excavation dewatering activities).

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile emissions, odors, industrial wood smoke) during construction

and when the project is completed? If any, generally describe and give approximate quantities if known.

During construction of the project, the primary source of air emissions would include fossil fuel combustion by-products from construction equipment and trucks used to haul material to and from the project site, and dust from the excavation and grading activity. Air emissions from engines could increase during certain activities, such as queuing trucks for loading and offloading of materials, or during heavy excavation.

After the project is constructed, it is not anticipated that sewage odors would be noticeable outside of the proposed facility under normal operating conditions. Odors associated with operation and maintenance of the facility would be minimized and mitigated through several design features (see Section B.2.c).

When the project is completed, diesel engine emissions would be emitted through a new exhaust stack on the pump station property during maintenance and operation of the standby power generator. It is anticipated that the generator would be operated for maintenance purposes once a month for approximately one hour. It is anticipated that the generator would be operated during emergency circumstances one or two times per year for a maximum of 24 hours.

A King County Greenhouse Gas Emissions Worksheet is attached.

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

No

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

BMPs would be implemented to control dust during construction. Types of BMPs that would be used include street sweeping, watering exposed soil surfaces, and covering soil stockpiles to help minimize the amount of fugitive dust and particulate pollution to the surrounding areas.

Long-term impacts from odors associated with operation of the proposed project would be minimized and mitigated through several design features. Odor generation in the proposed diversion structure would be minimized by designing the structure to limit turbulence and keeping the hatches to the structure closed. Odors generated at the proposed storage pipeline would be minimized through use of the flushing system that would be installed to clean settled solids from the pipeline after each storage event.

Any odors generated within the pipeline from stored wastewater or solids not removed from the wash-down system would be mitigated through operation of the odor control facility housed in the ancillary equipment facility. The odor control system would consist primarily of a carbon adsorption scrubber vessel, mist eliminator, and fan. Gas concentrations at the odor control facility would be actively monitored to determine the functional performance of the facility and create an accurate schedule for replacement of the carbon filter media.

The standby power generator would use a diesel engine designed to minimize the discharge of gaseous pollutants to the atmosphere. The engine would meet a minimum of Environmental Protection Agency Non-road Tier One diesel engine emissions requirements.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The project site is located next to Puget Sound.

Two streams enter the storm drainage system approximately 200 feet southeast of the proposed project site near the intersection of Marmount Drive NW and NW North Beach Drive. The storm drain that carries the streams crosses through the project area and discharges to Puget Sound.

Stormwater is conveyed by sections of open ditch and pipe along the southeast side of the NW Blue Ridge Drive right-of-way. After the stormwater enters a pipe at the intersection of NW Neptune Place and NW Blue Ridge Drive, it is conveyed to Puget Sound by a stormwater pipe.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. The ditch located along NW Blue Ridge Drive would be in or next to the proposed storage pipeline excavation footprint. Stormwater conveyed by this ditch would likely be diverted around the storage pipeline excavation during construction (See Section B.3.a.4).

The storm sewer pipeline that carries the two streams described in Section B.3.a.2 could be in or next to the storage pipeline excavation footprint. Flow in this pipeline may need to be temporarily bypassed around or over the excavation in order to construct the proposed project.

The proposed project would not require any in-water work or work within 200 feet of Puget Sound.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

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

Yes. During project construction, surface water runoff carried by the ditch along NW Blue Ridge Drive would most likely need to be diverted around the storage pipeline excavation. Street frontage modifications required for the proposed project could involve permanent reconfiguration or replacement of the ditch for stormwater conveyance. Modifications to the right-of-way could also include implementation of green stormwater infrastructure BMPs to control and treat stormwater (for example, use of bioretention facilities).

Flow in the storm sewer pipeline that carries the two streams described in Section B.3.a.2 may need to be temporarily bypassed around or over the storage pipeline excavation in order to construct the proposed project.

Following construction of the proposed project, stormwater runoff on the pump station site would be directed to new bioretention facilities on the property.

The completed project would reduce the volume of untreated stormwater and sanitary sewage that is discharged to Puget Sound in the form of CSOs. During wet weather events where the capacity of the North Beach Pump Station and Force Main was exceeded, sanitary sewage and stormwater collected in the North Beach Basin would be diverted to the storage pipeline then pumped back to the local sewer system when capacity was available. These flows would be conveyed to the Carkeek and/or West Point Treatment Plants for treatment prior to being discharged to Puget Sound.

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

No

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No. As described above in Section B.3.a.4, the proposed project would reduce the discharge of untreated sanitary sewage and stormwater to Puget Sound.

b. Ground:

1) **Will ground water be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

The depth to groundwater at the project site is not currently known, but it is probably close to the ground surface because the project site is located at the bottom of the North Beach surface water drainage basin. It is assumed that groundwater would be encountered during excavation for the proposed storage pipeline, diversion structure, and pipelines that would connect those two facilities. Some form of dewatering would be required to keep the excavations free of water. It is expected that dewatering would be required for approximately 12-16 months.

The amount of dewatering required would depend, in part, on the type(s) of shoring system used for the excavations and selection of shoring methods would be determined, in part, by groundwater conditions. If a permeable shoring system was used, such as soldier piles and wood lagging, dewatering volumes could be 700,000 gallons per day or more. Some of this water may be reinjected into the ground to limit potential groundwater drawdown-induced settlement. If a relatively impermeable shoring system was used, such as secant piles, dewatering volumes would be closer to approximately 25,000 gallons per day.

Dewatering water would be discharged to the King County sewer system or directly to Puget Sound through the existing stormwater drainage system. The stormwater drainage system would only be used if capacity were available. Some dewatering water could also be reinjected into the ground. Discharge of dewatering water to the sewer system would require a King County Industrial Waste Discharge Permit. Any dewatering water discharged directly to Puget Sound would have to meet Washington State Water Quality Standards.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example, Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

None

c. **Water Runoff (including storm water):**

1) **Describe source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The source of runoff during and after construction would be rainfall. Runoff on the site currently enters a storm drainage system that either discharges to Puget Sound or flows into the sewer system. Runoff control measures during and after construction would comply with the City of Seattle's stormwater management requirements.

Stormwater conveyed in the existing drainage ditch located along the southeast side of NW Blue Ridge Drive right-of-way would likely be diverted around the storage pipeline excavation. It would then be directed back into either the wastewater system or a storm drain that discharges to Puget Sound.

After the proposed project is completed, stormwater on the pump station site would flow into new bioretention facilities on the property. The soils and plantings in the bioretention facilities would settle, absorb, and filter the stormwater runoff prior to infiltration. Runoff from the construction area in Triton Drive NW and NW Blue Ridge Drive would continue to enter the existing stormwater drainage system or a new system that would

consist of a combination of pipe, ditch and/or bioretention facilities in the right-of-way.

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

Construction-related materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities were performed outside specified conditions.

Following completion of the project, diesel fuel could enter ground or surface waters if accidentally spilled during filling of the approximately 200-gallon storage tank. It is anticipated that the storage tank would be filled one or two times per year.

See Section B.1.h and B.3.d for measures to minimize the potential for these impacts.

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

Erosion and sedimentation control BMPs would be used during construction to reduce and control stormwater runoff impacts. Examples of typical BMPs that would be used during construction are presented in Section B.1.h.

Additional construction BMPs that could be implemented to prevent the introduction of contaminants into surface water or groundwater during construction include:

- maintaining spill containment and clean up materials in areas where equipment fueling is conducted
- refueling construction equipment and vehicles away from surface waters whenever practicable
- containing equipment and vehicle wash water associated with construction and keeping it from draining into surface waters
- storing fuels and other potential contaminants away from excavation sites and surface waters in secured containment areas
- conducting regular inspections, maintenance and repairs on fuel hoses, hydraulically operated equipment, lubrication equipment, and chemical/petroleum storage containers
- establishing a communication protocol for the unlikely event of a spill

If dewatering water were discharged to the King County sewer system, reinjected, or discharged directly to Puget Sound, it would be monitored to ensure that it met applicable standards. If necessary to meet those standards, measures would be taken to improve the water's quality before it was discharged. Dewatering water would only be discharged to the sewer system if adequate capacity was available. Discharges of dewatering water directly to Puget Sound would be routed through a settling tank, if necessary, to reduce turbidity.

Measures would be taken to minimize the potential for fuel spills associated with the standby power generator's diesel fuel storage tank. These measures could include installation of a double-walled tank, automatic shut-off valves, a leak detection system, or a concrete spill containment berm. In addition, appropriate BMPs would be implemented to minimize the risk of fuel spills. These could include installation of a fuel level indicator, signage to discourage overfilling, and staff training.

The proposed project includes implementation of green stormwater infrastructure BMPs to the maximum extent feasible. These BMPs would include, but not be limited to the creation of bioretention facilities for stormwater control and treatment on the project site.

The project itself is a measure to reduce surface water impacts. The purpose of the proposed project is to reduce the number of CSOs that are discharged to Puget Sound from the North Beach Basin.

4. Plants

a. Check or circle types of vegetation found on the site:

_X_ deciduous tree
_X_ evergreen tree
_X_ shrubs
_X_ grass
_____ pasture
_____ crop or grain
_____ wet soil plants
_____ water plants:
_____ other types of vegetation

The pump station property is sparsely landscaped with grass and shrubs. The edges of the right-of-way along Triton Drive NW and NW Blue Ridge Drive are landscaped with grass, shrubs and small trees.

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

Most of the vegetation on the pump station property and near the storage pipeline location in the right-of-way would be removed during construction. This would include grass, small shrubs, and small trees.

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

None known

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

Vegetated areas removed or disturbed during construction would be replanted with drought-tolerant or native plantings, or both. Bioretention facilities would be created to control and treat stormwater on the pump station property and possibly in the right-of-way. Landscaping would be consistent with City of Seattle standards and King County would consider input from the community

when developing the landscaping plan. Temporary irrigation systems would be used for one or two years following construction to reduce plant mortality.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other: rodents

fish: bass, salmon, trout, herring, shellfish, other:

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

The following species are listed under the federal Endangered Species Act (ESA) and could be near the site. The proposed project is not expected to adversely affect these species.

Common Name	Scientific Name	ESA Status	Jurisdiction
Puget Sound ESU Chinook Salmon	*Oncorhynchus tshawytscha*	T	NMFS
Puget Sound DPS Steelhead	*Oncorhynchus mykiss*	T	NMFS
Coastal-Puget DPS Bull Trout	*Salvelinus confluentus*	T	USFWS
Canary Rockfish	*Sebastes pinniger*	T	NMFS
Yelloweye Rockfish	*Sebastes rubberrimus*	T	NMFS
Boccaccio Rockfish	*Sebastes paucispinis*	E	NMFS
Southern DPS North American Green Sturgeon	*Thaleichthys pacificus*	T	NMFS
Steller Sea Lion	*Eumetopias jubatus*	T	NMFS
Humpback Whale	*Megaptera novaeangliae*	E	NMFS
Southern Resident Killer Whale	*Orcinus orca*	E	NMFS
Marbled Murrelet	*Brachyramphus marmoratus*	T	USFWS

ESU = Evolutionarily Significant Unit
DPS = Distinct Population Segment
T = Threatened
E = Endangered
NMFS = National Marine Fisheries Service
USFWS = United States Fish and Wildlife Service

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

The entire Puget Sound is part of the Pacific flyway migration route.

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

The project itself is a measure to minimize potential impacts on wildlife. Construction of the proposed CSO storage facility would reduce the volume of untreated sanitary sewage and stormwater that is discharged to Puget Sound from the North Beach Basin, thereby reducing the potential for related adverse effects on aquatic life.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, woodstove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Temporary project energy needs would be limited to those required to operate construction equipment. Construction equipment would use fossil fuels.

In the completed project, electricity would be used for lighting and to operate equipment in the storage pipeline and ancillary equipment facility. This would include the effluent pumps and flushing system equipment, the odor control system, and the ventilation system. The standby power generator would be powered by diesel fuel.

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

No

c. What kind of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The proposed lighting systems would be energy efficient.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Potential exposure to construction-related materials such as fuel and hydraulic fluid could occur as the result of accidental spills, mechanical failures, or if the construction activities deviate from the project construction specifications or permit conditions.

Diesel fuel could be spilled when the approximately 200-gallon storage tank is filled.

1) Describe special emergency services that might be required.

None

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

Section B.3.d discusses typical BMPs that could be implemented to prevent spills of contaminants and minimize exposure to environmental health hazards in the event of a spill.

The project itself is a measure to reduce environmental health hazards. Installation of the CSO storage pipeline and associated facilities would reduce the risk of CSOs, which can present a public health hazard.

b. Noise

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

The project site is located in a residential community where the primary regular sources of noise include light automobile traffic along surrounding roadways and train traffic along the adjacent Burlington Northern Santa Fe (BNSF) railroad tracks. Noise generated by these sources would not affect the proposed project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction of the proposed project would create a new, temporary source of noise in the project area that would be audible to nearby residences and within Blue Ridge Park. Construction-related noise would include engine and mechanical and scraping noises associated with the use of heavy equipment such as bulldozers, graders, loaders, excavators, and concrete mixers. These types of equipment typically generate noise in the range of 80-90 dBA at a distance of 50 feet. Hauling activities to and from the project site would contribute to traffic noise.

Noise levels associated with the installation of the shoring system(s) and storage pipeline support piles (if necessary) would depend on the type of shoring used and the method of pile installation. This would be determined by the contractor. An impact pile driver can generate noise measuring up to approximately 100 dBA at a distance of 50 feet. Other installation tools, such as a vibratory hammer or drilling, would generate less noise. It is anticipated that it would take three to four months to install a shoring system that used soldier piles.

Noise would also be generated during construction by pumps used to dewater the storage pipeline excavation. The pumps would generate noise levels measuring approximately 80 dBA at a distance of 23 feet. Exact noise levels would depend on the dewatering method used, which would be determined by the contractor, and the amount of dewatering required. The dewatering pumps would likely be powered by a generator that would create noise levels measuring up to 60 dBA at a distance of 23 feet.

Construction activity would take place during daytime hours. It is anticipated that nighttime construction activity would not be required. Dewatering pumps would run 24 hours per day during storage pipeline excavation and move as the excavation proceeded. It is anticipated that dewatering pumping would occur for approximately 12-16 months.

Following construction, noise would be generated by equipment such as the odor control unit, effluent pumps, and the standby diesel generator for very limited durations when maintenance occurred and during the one to two times each year that this equipment is expected to operate.

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

During construction, all activities would be performed consistent with the City of Seattle's Noise Control Ordinance. All impacts from noise generated by construction would be short-term and temporary in nature and would not constitute a significant effect on the surrounding land uses. Construction BMPs would be used to minimize construction noise. Examples of BMPs that could be used include:

- using effective vehicle mufflers, engine intake silencers, and engine enclosures, and shutting off equipment when not in use
- locating activities away from sensitive receptors when possible
- using portable noise barriers placed around stationary equipment
- encouraging equipment drivers to avoid backing up as much as possible to reduce the use of back-up alarms
- using broadband back-up alarms to eliminate impacts of single-frequency high-pitched alarms
- notifying residents and businesses near the project area of upcoming noisy construction activities
- creating a 24-hour construction hotline to promptly respond to questions and complaints

Additionally, King County would notify adjacent residences in advance of project construction scheduling and sequencing of construction activities.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The project site is located in a residential waterfront community. King County's North Beach Pump Station site, which would house the ancillary equipment facility and diversion structure, is bordered to the northwest by railroad tracks and Puget Sound, to the southwest by single family residences, and to the southeast by Triton Drive NW and single family residences. It is bordered to the northeast by Blue Ridge Park, an open space owned by the Blue Ridge Homeowners' Association.

The storage pipeline site is in City of Seattle right-of-way under Triton Drive NW and NW Blue Ridge Drive. Adjacent properties on the southeast side of the right-of-way contain single family residences. Adjacent properties on the northwest side of the right-of-way contain single family residences, Blue Ridge Park, and the North Beach Pump Station.

b. Has the site been used for agriculture? If so, describe.

No

c. Describe any structures on the site.

King County's North Beach Pump Station is located on the project site. It is an approximately 1,600 square-foot below-grade structure.

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

No

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

The current zoning classification of the site is Single Family Residential.

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

The current comprehensive plan designation of the site is Single Family Residential.

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

The current shoreline master program designation of the site is Urban Residential.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Yes. The westernmost tip of the North Beach Pump Station property is identified by the City of Seattle as a potential landslide area. Excavation within this area is not planned.

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

No people would reside in the completed project. It is estimated that the completed project would be visited by King County staff between one and three times per month for routine operation and maintenance purposes. The proposed storage pipeline would be intensively cleaned approximately once every three to five years. This would require the temporary closure of one lane of traffic in Triton Drive NW and/or NW Blue Ridge Drive for approximately one or two weeks.

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

None

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

None needed

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

The proposed project would be consistent with current and projected land uses. The ancillary equipment facility would be designed with community input on architectural design features and materials to ensure that it is consistent with the residential waterfront setting. The other project components (for example, storage pipeline and diversion structure) would be located below grade.

9. Housing

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

None

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

None

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

None

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennae; what is the principal exterior building material(s) proposed?

The footprint of the proposed ancillary equipment facility would be approximately 40 feet by 20 feet and the height of the building would be approximately 15 feet. Exhaust stacks for the odor control system and standby generator would extend above the roofline. The facility's principal exterior building material would be determined during the final design phase with consideration of community input.

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

The visual quality of the immediate project area would be temporarily impacted during the approximately 18- to 24-month construction period. The most intensive construction work would occur during a six-month period when excavation for the storage pipeline is performed. Temporary visual impacts during construction would include the presence of construction equipment, work crews, dust/exhaust, materials, signage, temporary fencing, staging areas in the construction zone, and traffic congestion along haul routes. An approximately 50-foot-tall crane could be located on the project site for approximately four months.

After the project was completed, views of the North Beach Pump Station site would continue to be partially screened by a chain-link fence and landscaping. However, the ancillary equipment facility would be noticeable from surrounding properties that currently have views of the site and from vehicles traveling on Triton Drive NW, NW Blue Ridge Drive, and NW Neptune Place. The presence of the new above grade facility would alter views, but not block them.

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

The design process for the ancillary equipment facility would follow City of Seattle policies and guidelines for incorporating aesthetic considerations into design. King County would also consider input from the community on exterior materials and architectural elements of the facility to ensure that it is consistent with the residential waterfront setting. The design would likely include plantings of shrubs around the exterior which would provide partial screening of the facility.

Any areas where landscaping was removed to construct the proposed project would be replanted. Bioretention facilities may be installed in some of these areas. This will depend, in part, on City of Seattle stormwater management requirements.

The large decorative "Blue Ridge" rock sign located in front of Blue Ridge Park would either be protected in place or moved and temporarily stored in a secure place to avoid damage during construction. If moved, the sign would be returned to its existing location at the end of the construction period.

11. Light and Glare

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

Temporary lighting may be used at the beginning and end of work days when daylight hours are short. No nighttime construction is anticipated.

The proposed ancillary equipment facility would include exterior security lighting that could result in light and glare effects. This would mainly occur during nighttime hours.

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

The ancillary equipment facility's exterior security lighting would be noticeable from surrounding properties that currently have views of the site.

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

None

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

Full cutoff, low-intensity light fixtures would be used for the ancillary equipment facility's exterior security lighting. The light fixtures would be configured so that light was not cast beyond the edge of the pump station property and to minimize light and glare that would be noticeable from surrounding properties.

The use of highly reflective building materials and/or finishes in the design of the ancillary equipment facility exterior would be restricted.

12. Recreation

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

Blue Ridge Park is located northeast of and adjacent to the North Beach Pump Station site at the intersection of NW Neptune Place and Triton Drive NW/NW Blue Ridge Drive. The 1.4-acre park is a private, covenant-restricted, members-only facility that includes playground equipment, a playfield, picnic tables, and a picnic shelter.

Other nearby parks include Golden Gardens Park and Carkeek Park. Both of these City of Seattle parks are located along the shore of Puget Sound and approximately 0.75 mile from the project site to the southwest and northeast, respectively.

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

Activities required for construction of the proposed facilities would result in temporary visual and noise impacts on recreational users of Blue Ridge Park. Impacts could also include temporary and intermittent access disruptions when construction is occurring in the right-of-way next to the park. It is possible that the contractor would occasionally not be able to provide safe pedestrian access to the park for several days at a time during construction. Measures would be implemented to minimize impacts to park access (see Section B.12.c). Additionally, the approximately five to six on-street parking spaces in front of the park along Triton Drive NW would be unavailable for use during most of the construction period.

Operation of the proposed facilities would not displace any existing recreational uses.

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

The contractor would be required to maintain safe pedestrian access to Blue Ridge Park during construction, to the maximum extent practicable. Measures to ensure pedestrian safety could include the use of signage regarding park access routes, the placement of steel plates over open excavations to provide access, the use of temporary fencing or ecology blocks to designate safe walkways, and the use of flaggers or escorts to assist people accessing the park through or near the construction area. It is possible that access to the park could be intermittently unavailable for several days at a time during the construction period. Measures that could be taken to limit the number and duration of access restrictions to the park include considering the ability to maintain park access during design (siting) of the storage pipeline and development of construction sequencing. Additionally, a second park gate could be installed in a location where pedestrian access could be safely provided when access to the existing gate is blocked by construction activity.

Construction BMPs would be implemented to minimize construction noise (see Section B.7.b.3). Likewise, traffic control measures would be implemented to ensure that people could access Blue Ridge Park safely (see Section B.14.g).

King County would provide advance notification of construction activities to all residents adjacent to the construction area, including notification of periods during which the contractor could not provide safe access to Blue Ridge Park. Advance notifications would include posting signage at the site, as well as written notification to the Blue Ridge Club, Incorporated, Board of Directors. The notification would include the name and phone number of the King County staff to be contacted regarding questions or concerns about construction activity.

13. Historic and Cultural Preservation

a. **Are there any places or objects listed on, or proposed for, national, state or local preservation registers known to be on or next to the site? If so, generally describe.**

None known

b. **Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural importance known to be on or next to the site.**

None known

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

The proposed project would comply with the requirements of the National Historic Preservation Act. This would include the completion of a cultural resources survey at the project site. If artifacts were uncovered during excavation, work would be stopped pending notification of and response from appropriate agencies.

14. Transportation

a. **Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

Access to the project site is primarily provided by Triton Drive NW and NW Blue Ridge Drive via NW Neptune Place and 24th Avenue NW. These roadways are two-lane residential streets that serve limited residential access only. Access to 24th Avenue NW is provided by NW 96th Street and 15th Avenue NW.

The proposed storage pipeline and associated influent/effluent pipelines would be constructed in the Triton Drive NW and NW Blue Ridge Drive rights-of-way.

b. **Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

Yes. King County Metro Transit provides bus service to the area. Route 18 provides service along 24th Avenue NW, NW Neptune Place, and Triton Drive NW. There is a transit stop located on Triton Drive NW in front of the North Beach Pump Station site.

c. **How many parking spaces would the completed project have? How many would the project eliminate?**

During construction, most of the on-street parking on the sections of Triton Drive NW and NW Blue Ridge Drive that lie within the project site, including the parking area for five to six cars in front of Blue Ridge Park, would be temporarily unavailable. The duration of disruption would vary depending upon the location and stage of construction activity. The majority of the residences in the area have off-street parking and on-street parking is available just outside of the project area.

The completed project would not create any parking spaces. Between approximately two and four parking spaces within the public right-of-way on Triton Drive NW and/or NW Blue Ridge Drive would be permanently eliminated. Two approximately 4'(w) x 8'(l) metal hatches would need to be placed on top of or near the proposed CSO storage pipeline to provide access for operation and maintenance staff. If these hatches were placed outside of the travelled right-of-way, parking would not be allowed on top of the hatches. Additionally, one or two on-street parking spaces could be permanently reserved for WTD operations and maintenance staff to ensure that they could safely and quickly access the proposed storage pipeline with the necessary equipment

At each end of the proposed storage pipeline, an approximately 10'(w) x 12'(l) opening would be covered with concrete lifting slabs. These slabs would be removed approximately once every three to five years so that the pipeline could be intensively cleaned. The slabs would most likely be located in the travelled right-of-way, but on-street parking spaces next to the slabs could be temporarily unavailable for approximately one or two weeks when this maintenance is occurring.

Additional on-street parking spaces could be permanently replaced by the installation of bioretention facilities. These modifications to the right-of-way would be determined during design and depend, in part, on City of Seattle requirements.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

A portion of the project site in Triton Drive NW and NW Blue Ridge Drive public right-of-way would be excavated during construction for the storage pipeline and influent/effluent pipelines. Following construction, the right-of-way in the project area would be repaved (travelled portion) or otherwise restored (non-travelled portion) to meet current City of Seattle Department of Transportation pavement and street restoration requirements. Restoration of the disturbed right-of-way would include the installation of landscaping and stormwater control and/or treatment facilities that would meet City of Seattle standards and requirements. The restored right-of-way would also include the access hatches described in Section B.14.c.

The existing access road on the southwest side of the King County-owned pump station property would be relocated to the northeast side of the property to make room for the new ancillary equipment facility.

Northwest Neptune Place, which could be identified as part of a construction haul route for the proposed project, has recently experienced numerous failures (sinkholes). Improvements to this road, and to any other roads near the project site that are proposed for use by heavy equipment, may be required before and/or after construction to ensure that they can be travelled safely.

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

Yes, construction at the North Beach Pump Station property would occur somewhat near the active BNSF railroad tracks that border the park to the northwest. The project would not disrupt railroad activity.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Construction of the proposed project would require hauling of excavated soil from the site and delivery of construction materials by truck to the site. Excavation hauling and delivery of concrete/piping would require approximately 3,600 one-way truck trips. The most intense truck traffic would occur during a six- to eight-month period. It is estimated that during peak months, the project would generate up to approximately 60 one-way truck trips per day. The number of trips would be dependent on contractor planning and sequencing, and the daily average noted above could be exceeded at times. Additional vehicular trips would occur related to materials delivery, as well as workers going to and coming from the site.

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

Temporary localized traffic impacts are anticipated during the approximately 18- to 24-month construction period. Temporary traffic impacts in the project area would include street closures, traffic and parking restrictions, and restricted access to residences and Blue Ridge Park. These impacts and measures that could be implemented to reduce or control them are described generally in the following paragraphs.

Construction of the proposed approximately 325-foot-long, 12-foot-diameter storage pipeline in Triton Drive NW and NW Blue Ridge Drive would entail large open excavations in the right-of-way. This would require the temporary closure of portions of Triton Drive NW and NW Blue Ridge Drive in the project area for approximately six to twelve months. The road segments closed would change as excavation for the storage pipeline progressed. During the six- to twelve-month period, vehicular access to residences on the northwest and southeast sides of NW Blue Ridge Drive closest to the active construction zone may be limited and, at times, unavailable. The contractor would be required to provide safe pedestrian access to all residences at all times.

The duration of road closures and specific impacts to individual homes would be determined during final design and would depend upon the final location of the storage pipeline, the type of construction methods used, and construction sequencing. Impacts to specific properties would depend upon the extent and duration of construction activities next to each parcel, as disturbance at each parcel could vary greatly. King County would work with residents during final design to evaluate residential access needs. Siting of the storage pipeline and construction sequencing would be developed so as to minimize the impacts to residential access.

If necessary, contractor parking in and near the project area would be limited in order to ensure adequate on-street parking for residents and visitors. Contractors could be required to park off-site and carpool or shuttle to the project area.

Temporary impacts to bus service would occur as a result of road closures, particularly along Triton Drive NW and NW Blue Ridge Drive. Detours and/or

temporary bus routes would be required to maintain service to the area. School bus routes, garbage and recycling service, mail delivery, and other services requiring vehicular access in this area would also be temporarily disrupted. The extent and duration of the road closures, as well as temporary revisions to bus routes and other services, would be determined prior to the start of construction.

To construct the proposed project, a street use right-of-way permit would be required from the City of Seattle. Permit conditions would require a traffic control plan to be submitted and approved prior to the start of construction. The plan would identify traffic and parking restrictions and the locations of traffic control devices and signage. It would include detailed measures to address residential access, emergency vehicle access, road closures and detours, temporary bus route changes, and pedestrian safety. Potential measures that could be implemented include the use of protective barriers, fences, flaggers, foot and/or vehicle bridges, specified hours of residential vehicular access during active construction, provisions for emergency access, and steel plating.

King County would provide advance notification of construction activity to all residents adjacent to the construction area. Advance notification would include posting signage at the site, as well as written notification of the Blue Ridge Club, Incorporated, Board of Directors and impacted residences. The notification would include the name and phone number of the King County staff person to be contacted regarding questions or concerns about construction activity.

After the proposed project is completed, maintenance of the storage pipeline would require infrequent, intensive cleaning. To provide adequate work space for crews to perform this work, one lane of traffic in Triton Drive NW and/or NW Blue Ridge Drive would need to be closed temporarily. It is anticipated that intensive cleaning of the storage pipeline would take one or two weeks to complete and occur approximately once every three to five years.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No

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

The contractor would be required to maintain access to residences by fire, emergency medical technician, and police vehicles and personnel at all times during construction.

16. Utilities

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

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The completed project would use water and electricity provided by the City of Seattle.

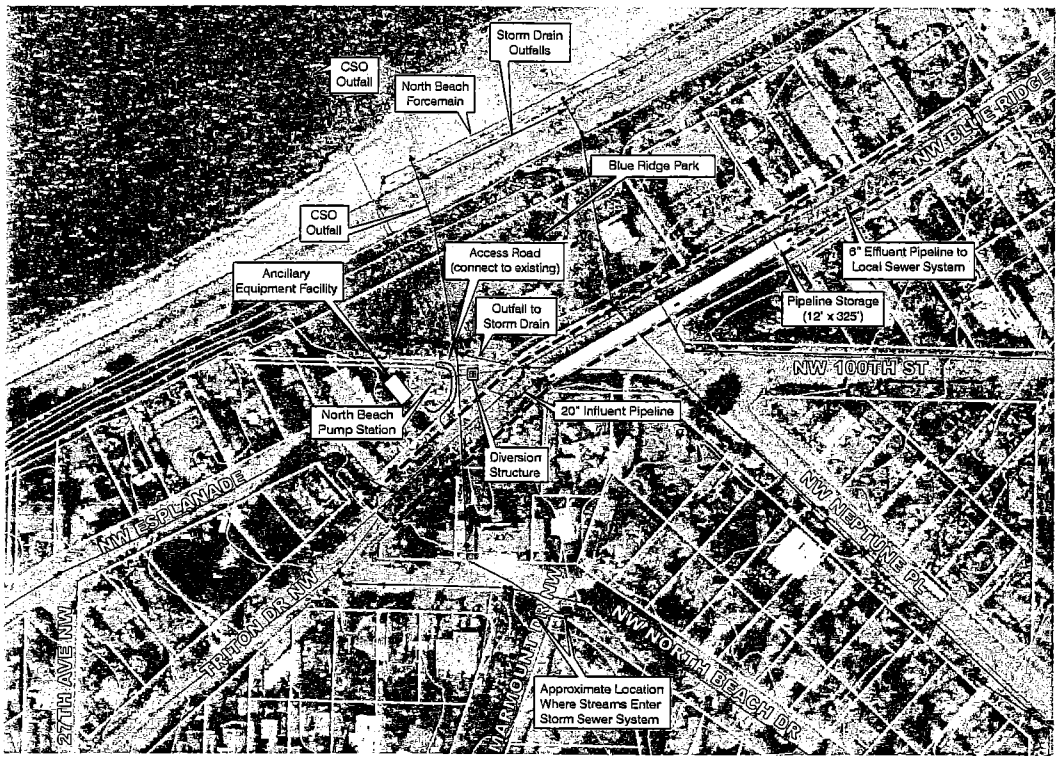
Some of the utilities in Triton Drive NW and NW Blue Ridge Drive would most likely need to be relocated to construct the storage pipeline and influent/effluent pipelines. This could cause temporary, short-term disruption of some utility service to some residences.

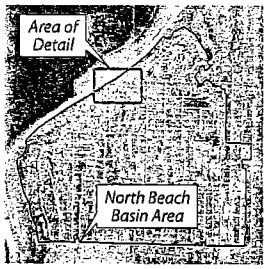
C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Wesley Sprague

Date Submitted: 4/15/11





N

0 50 100 150'
Approximate Scale

Legend

- Combined Sewer System
- Storm Sewer System
- Sanitary Sewer System
- 10' Topographic Contour
- Feasible Area for Pipe Location

NORTH BEACH COMBINED SEWER OVERFLOW CONTROL PROJECT SITE LAYOUT PLAN

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

Figure 6-1_North.ai

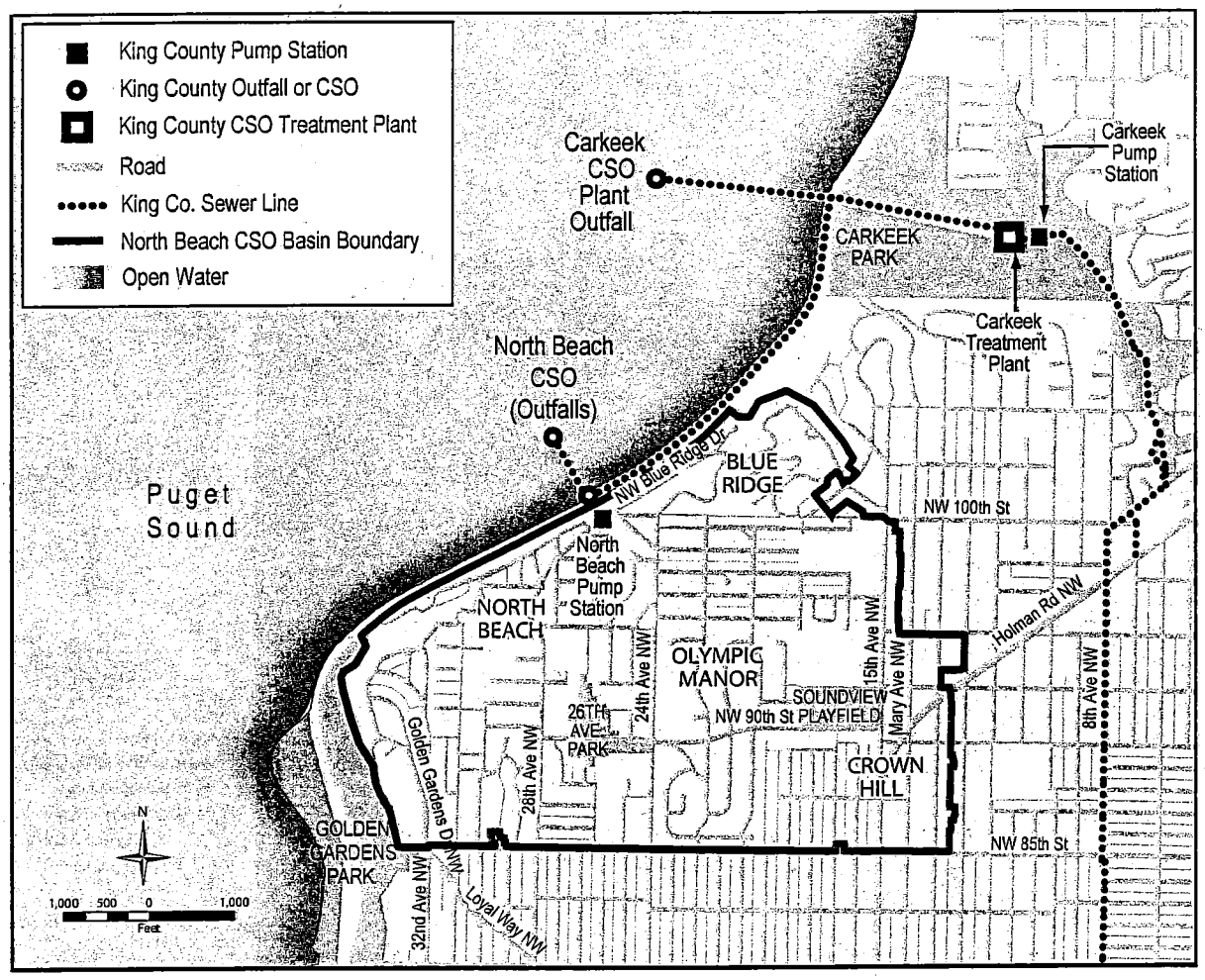


Figure 2-1_new.ai

NORTH BEACH COMBINED SEWER OVERFLOW CONTROL PROJECT VICINITY MAP

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

King County Greenhouse Gas Emissions Worksheet—North Beach CSO Control Project

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e) Embodied	Energy	Transportation	Lifespan Emissions (MTCO2e)
Single-Family Home	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other Than Mall)		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		1.0	39	1,278	257	1574
Vacant		4.0	39	162	47	990

Section II: Pavement

Pavement		10.00				500

Total Project Emissions: 3064

Note: The proposed project consists of a new approximately 325-foot-long, 12-foot-diameter buried storage pipeline, an approximately 96-square-foot diversion structure, and an approximately 800 square foot ancillary equipment facility. It also includes restoration of the existing street above the proposed storage pipeline and, possibly, the installation of curbs, gutters and sidewalks.