



DETERMINATION OF NONSIGNIFICANCE

TITLE OF PROPOSAL: Murray 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 tank and ancillary equipment facility on private property that would be acquired by King County and an underground diversion structure next to King County's existing Murray Pump Station in Lowman Beach Park. Property acquisition and site demolition would take place between late 2011 and mid-2012. Construction of the proposed CSO control facilities would begin in the first half of 2013 and take approximately two and one-half years to complete.

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: The project site would include the six parcels and adjacent public right-of-way across Beach Drive SW from Lowman Beach Park (the storage tank site), the southeastern corner of Lowman Beach Park, and the adjacent portion of Beach Drive SW. The street address of the Murray Pump Station in Lowman Beach Park is 7015 Beach Drive SW. It is located in the City of Seattle, which is in King County, Washington. The project site is located in Section 26, Township 24N, 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:

4/26/11

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 Murray 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 Murray CSO Control Project. Therefore, no administrative appeal of issuance of the DNS will be allowed for the Murray 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.



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

Murray Combined Sewer Overflow Control Project

April 13, 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:

Murray 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 13, 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):

The proposed project would be completed in two phases.

The first phase would include King County acquisition of the private properties on which the proposed combined sewer overflow (CSO) control facility would be constructed; clearing of the site, which would include demolition of six existing residential buildings; and stabilization of the site. It is expected that the private properties located on the proposed CSO storage tank site would be acquired by King County and the residents would be relocated between late 2011 and mid-2012. After the sites were vacated, the buildings would be demolished and the site stabilized in preparation for construction. The buildings may be boarded up prior to demolition.

During the time that the proposed storage tank site was temporarily vacated (the time between demolition and construction), the County would implement measures to ensure that the site is safe. The County would also make temporary aesthetic improvements to the site. These would be discussed with the community during design.

The second phase would include construction of the proposed CSO control facilities, as described in Section A.11. This work is expected to begin in the first half of 2013 and take approximately two and one-half years 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.

The existing underground Murray Pump Station structure and equipment would continue to be maintained and upgraded as necessary, but there are no plans for future expansion of the pump station's footprint. Key components of the previously planned Murray Pump Station Upgrade Project, including the installation of a new odor control system and standby power generator, would no longer be required after the proposed project is completed. The odor control equipment and standby power generator in the proposed ancillary equipment facility would function for the Murray Pump Station as well as the CSO storage facility.

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

Phase I Environmental Site Assessment—Murray Avenue Pump Station, 7015 Beach Drive SW, Seattle, WA, Herrera Environmental Consultants, Inc., March 4, 2004

Archaeological and Historical Resources in the Murray Sub-Basin, Seattle, Washington, Cascadia Archaeology, October 26, 2009

Preliminary Geologic/Geotechnical Evaluation of Murray Alternatives, Seattle, Washington, Shannon & Wilson, Inc., March 26, 2010

Environmental Conditions Technical Memorandum, Murray Basin, Puget Sound CSO Project, E00022E06, ESA Adolfson, April 23, 2010

Lowman Beach Park London Plane Tree Evaluation, 7017 Beach Drive SW, Seattle, Washington, Urban Forestry Services, Inc., June 15, 2010

Draft Barton and Murray Combined Sewer Overflow Control Facilities Plan, Tetra Tech, Inc, and Carollo Engineers, February 2011. This report will be finalized and submitted to Ecology for approval by July 2011.

Murray CSO Control Project Biological Assessment, ESA Adolfson, March 2011

Murray CSO Control Project Biological Assessment—Letter of “No Effect”, ESA Adolfson, March 31, 2011

Earth Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Environmental Justice Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Noise Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Recreation Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Traffic Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Washington State Water Pollution Control Revolving Fund State Environmental Review Process Environmental Issues Checklist—Murray Combined Sewer Overflow Control Project, King County Wastewater Treatment Division, April 28, 2011

Additional environmental information that will be prepared for the proposed project includes reports summarizing the findings of a cultural resources survey, subsurface geotechnical investigations, and a Phase II Environmental Site Assessment that have been or 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.**

Government approvals or permits that may be needed for the proposed Murray CSO Control Project include:

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

Parks and Recreation:

- Revocable 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 Murray Pump Station receives flows of combined sanitary sewage and stormwater from two sources: flows collected in the Murray wastewater basin and flows received from the upstream Barton Pump Station. Both of these sources are located in West Seattle on Puget Sound. The approximately 1,000-acre Murray basin drains to the Murray Pump Station located in Lowman Beach Park. Dry weather flows pumped from the Murray Pump Station are conveyed to the West Point Treatment Plant in the City of Seattle's Magnolia neighborhood for treatment, disinfection and discharge to Puget Sound. Under peak flow conditions, some of the flow pumped from the Murray Pump Station receives primary treatment at the Alki Wet Weather Treatment Facility and is then discharged to Puget Sound.

The Murray Pump Station has the capacity to convey a peak flow rate of 31.5 million gallons per day (MGD). When heavy rains cause flows in the basin to exceed the capacity of the pump station, a combination of stormwater and diluted sewage is discharged to Puget Sound through an outfall located near the pump station. Between the years of 2000 and 2007, there was an average of five such CSOs annually in the Murray basin. The average annual total combined sewer overflow volume for the basin was 5.2 million gallons. King County's current National Pollutant Discharge Elimination System (NPDES) permit for the West Point Treatment Plant requires that the County implement controls to reduce CSOs in the Murray 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 the Murray CSO Control Project. The proposed project would involve the construction of a new approximately one-million-gallon storage tank, diversion structure, and ancillary equipment facility (see attached Site Layout Plan). Prior to constructing the storage tank, King County would acquire the six private properties on which it would be located and demolish all existing structures on the properties. The site would then be stabilized in preparation for construction of the storage tank. The properties, which are located across Beach Drive SW from Lowman Beach Park, are currently in private ownership and contain one single-family and five multi-family residential buildings. Adjacent public right-of-way to the west (Beach Drive SW) and south of the proposed tank site would be used for construction staging.

The underground diversion structure would be constructed next to WTD's existing underground Murray Pump Station in Lowman Beach Park and would direct wet weather flows exceeding the capacity of the pump station to the storage tank through a new 48-inch-diameter influent pipeline. The underground tank would be located across Beach Drive SW from the pump station. It would consist of five approximately 15-foot-wide, 20-foot-high cells ranging in length from 60 to 180 feet. A retaining wall would be constructed along the eastern edge of the tank site to stabilize and protect the existing hillside. The tank would store up to approximately one million gallons of peak flow until system capacity was available. Stored flow would then be pumped back into the local combined sewer system or the diversion structure through a new approximately 12- to 18-inch-diameter effluent pipeline and eventually discharged to the Murray Pump Station wet well.

An above grade approximately 4,900-square-foot one-story (about 15 feet) tall ancillary equipment facility would be constructed on top of the storage tank site to serve the CSO control facility. It would house electrical control panels and motor control centers, an odor control system and standby power generator that would serve both the storage tank and the Murray Pump Station, an approximately 2,000-gallon diesel fuel storage tank for the generator, a ventilation system, and a utility water system.

In addition to achieving the CSO control standard for the Murray basin, the proposed project would reduce the likelihood of wastewater overflows to Puget Sound during power outages at the Murray Pump Station and CSO storage facility, reduce releases of odorous air from the pump station, and improve air quality inside of the pump station. This is because the proposed new standby power generator and odor control facility would function for the Murray Pump Station as well as the CSO storage facility.

- 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 six parcels and adjacent public right-of-way across Beach Drive SW from Lowman Beach Park (the “storage tank site”), the southeastern corner of Lowman Beach Park, and the adjacent portion of Beach Drive SW. The street address of the Murray Pump Station in Lowman Beach Park is 7015 Beach Drive SW. It is located in the City of Seattle, which is in King County, Washington (see attached Vicinity Map). The project site is located in Section 26, Township 24N, Range 3E.

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

The ground in Lowman Beach Park and Beach Drive SW rises gently to the east and north, respectively. The footprint of the proposed storage tank site contains gentle slopes, but is bordered by very steep slopes to the northeast, east, and southeast. To construct the storage tank, excavation would be required near the toes of these steep slopes.

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

The slopes bordering the storage tank site exceed 40 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.**

Based on a review of existing literature, the soils at the project site generally consist of an approximately 7- to 12-foot-deep layer of sand and gravel fill that overlies approximately 10-30 feet of very loose to medium dense alluvium (sands and gravels). The alluvium contains organic materials in its matrices, and soft peat layers that were deposited after the disappearance of the last glacial ice.

These soils are underlain at depths of 21-40 feet by medium dense to very dense recessional outwash consisting of sand and gravel.

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

City of Seattle environmentally critical areas maps identify known landslide areas in the vicinity of the project site and potential landslide areas on the properties adjacent to and southeast of the storage tank site. Additionally, Lowman Beach Park is identified by the City of Seattle as a liquefaction prone area.

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

During demolition of the six buildings on the storage tank site, approximately 100 cubic yards (CY) of soil and 800 CY of building materials (e.g., concrete, wood) would be exported from the site. Up to approximately 50 CY of soil would be imported as fill and placed in voids left by the removal of heating oil tanks and building foundations, if the foundations were removed. Building foundations may be temporarily left in place to stabilize the site until construction of the storage tank begins. Part of the site may be graded and temporary erosion control and stabilization best management practices (BMPs) may be implemented (e.g., seeding or hay bales) until construction activities begin.

Before the storage tank was constructed, an approximately 230-foot-long and 12-foot-tall retaining wall would be installed to protect the existing hillside along the northeast, east, and south edges of the storage tank site.

During construction of the storage tank, diversion structure, and influent and effluent pipelines, a total of approximately 14,000 CY of soil would be excavated, as described below. Excavation in Lowman Beach Park would account for approximately 1,000 CY of the total excavation volume.

The proposed storage tank would be constructed on the other side of Beach Drive SW from Lowman Beach Park. The facility would be a buried five-cell tank, with each cell measuring approximately 15 feet wide and ranging in length from 60 to 180 feet. Excavation for the tank would extend to a depth of approximately 40 feet below ground surface.

The proposed underground diversion structure would be constructed in Lowman Beach Park next to the existing underground Murray Pump Station. Excavation to construct the approximately 700-square-foot, 17-foot-tall underground structure would extend to a depth of approximately 20-25 feet below ground surface.

The influent pipeline would be installed between the diversion structure and the storage tank. It would be approximately 48 inches in diameter and approximately 180 feet long. The trench excavated to install the influent pipeline would be approximately 18 to 20 feet deep and approximately 12-15 feet wide. The effluent pipeline would be installed between the storage tank and either an existing manhole located in Beach Drive SW or the diversion structure. It would be approximately 12-18 inches in diameter and approximately 50-180

feet long, depending on where it terminated. The trench excavated to install the effluent pipeline would be approximately six to 10 feet deep and approximately two to three feet wide. Ducts and conduit that would need to extend from the ancillary equipment facility or storage tank to the Murray Pump Station would likely be placed in one or both of the trenches excavated to install the pipelines.

The excavations required to construct the facilities described above would require some type of 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.

The type of shoring used for construction of the proposed storage tank and diversion structure would depend on soil and groundwater conditions at the sites. Piles would likely be sunk to depths between approximately 50 and 80 feet to support the storage tank excavation and to depths between approximately 30 and 55 feet to support the diversion structure excavation.

The influent pipeline excavation would likely be shored with stacked trench boxes where it is shallow. Soldier piles used to shore the deeper part of the excavation could extend to a depth of up to 30-40 feet.

Construction of the proposed storage tank may require the installation of uplift piles or anchors to control potential uplifting of the tank. Uplift piles, deep foundation elements, or ground improvement may be required to limit the potential for liquefaction-induced settlement of the tank.

Approximately 4,000 CY of fill would be required to backfill the excavations described above. Most of this fill would be placed on top of the new underground facilities. 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.

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

Yes, construction activities such as site grading, excavation, filling, 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).

Excavation for the storage tank could destabilize adjacent uphill soils and increase the likelihood of them slumping or sliding. The measures described in Section B.1.h would be implemented to prevent these types of impacts from occurring.

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 50 percent of the proposed storage tank site is currently covered with impervious surface. The existing impervious surface includes the residential buildings that would be demolished as part of the proposed project. After the project is completed, approximately 35 percent of the storage tank site would be covered with impervious surface. Impervious surfaces would include the new ancillary equipment facility, access hatches, lift slabs, and driving surfaces. Surface water runoff from the storage tank site would be collected, detained and treated through new bioretention facilities on the site.

The impervious surface area in Lowman Beach Park would increase by approximately 32-64 square feet (SF) as a result of one or two new access hatches that would be installed on top of the proposed new diversion structure.

The portion of Beach Drive SW right-of-way that lies within the project area currently consists of 100 percent impervious surface. This would not change as a result of the proposed project.

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

Project construction and demolition activities would use 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.

Following demolition of the buildings on the storage tank site, measures would be taken to minimize erosion and sedimentation in the period before construction of the CSO storage tank begins. Voids would be backfilled and the site would be graded to direct runoff to existing catch basins. Additional measures could include the use of quarry spalls, filter fabric fencing, sediment traps at catch basins, and crushed rock surfaces.

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. Additionally, piles would likely be installed in pre-drilled holes in order to minimize vibrations and settlement.

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 minimize 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).

Prior to constructing the storage tank, measures would be implemented to stabilize adjacent uphill soils and prevent them from slumping or sliding. These measures would include the installation of a shoring system for the storage tank excavation and construction of a permanent retaining wall along the northeast, east, and south edges of the proposed storage tank site in order to protect the existing hillside.

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 demolition and construction, 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 demolition, 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 completed, diesel engine emissions would be emitted through a new exhaust stack at the site of the ancillary equipment facility 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.

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).

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:**

During demolition and construction, BMPs would be implemented to control dust. 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 in the proposed storage tank would be minimized through use of the flushing system that would be installed to clean settled solids from the tank after each storage event.

Any odors generated within the tank 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 facility would also reduce releases of odorous air from the Murray Pump Station and improve air quality inside of the pump station. 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 project itself is a measure to reduce odor emissions to the air from the Murray Pump Station.

The standby power generator at the proposed facility 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.

Pelly Creek enters a pipe in the wooded area located across Lincoln Park Way SW from the proposed storage tank site. The pipe crosses under Lincoln Park Way SW; crosses the northern tip of the proposed storage tank site; and then crosses under Beach Drive SW and the northern edge of Lowman Beach Park before discharging to Puget Sound. Pelly Creek appears to be a Type 4 or Type 5 water, as defined by Seattle Municipal Code, due to its small size and relatively low habitat value. It is not known at this point whether the creek flows perennially or intermittently, which would determine its classification as a Type 4 or Type 5 water, respectively.

- 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.**

Excavation in Lowman Beach Park for the new diversion structure and 48-inch-diameter influent pipeline would occur approximately 180 feet from

the Puget Sound shoreline. Construction staging in Lowman Beach Park would occur approximately 125-150 feet from the Puget Sound shoreline. None of these activities would affect Puget Sound.

Construction of the proposed storage tank would occur next to the piped section of Pelly Creek that crosses the northern tip of the tank site. Construction is not anticipated to impact the piped creek.

- 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.**

Following construction of the proposed project, stormwater runoff on the storage tank site would be directed to new bioretention facilities on the site for treatment prior to discharge to the storm drain system.

The completed project would reduce the volume of untreated stormwater and sanitary sewage that is discharged to Puget Sound. During wet weather events where the capacity of the Murray Pump Station was exceeded, sanitary sewage and stormwater would be diverted to the storage tank and then pumped back to the local sewer system when capacity was available. These flows would be conveyed to the West Point Treatment Plant for treatment prior to being discharged to Puget Sound. Additionally, the proposed standby power generator would provide back-up power to the Murray Pump Station and CSO storage facility during power outages, thereby reducing the likelihood of wastewater overflows 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 assumed that groundwater would be encountered during excavation for the proposed storage tank, diversion structure, and pipelines that would connect those two facilities. Some form of dewatering would be required for approximately 10-12 months to keep the excavations free of water.

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, dewatering volumes could reach 2,000 gallons per minute (GPM). 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, dewatering volumes would be closer to approximately 100 GPM.

Dewatering water would be discharged to the King County sewer system or directly to Puget Sound through the existing stormwater drainage system. 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 infiltrates pervious areas in Lowman Beach Park or the storage tank site or 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.

After the proposed project is completed, stormwater on the storage tank site would flow into new bioretention facilities on the site. 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 Beach Drive SW would enter the existing storm drainage system and runoff in Lowman Beach Park would either infiltrate into the park's grassy or landscaped areas or enter the existing storm drainage system.

If, during or immediately after a wet weather event, storm water and sanitary sewage exceeded the capacity of the combined sewer system, it would be discharged to Puget Sound untreated through an outfall located next to the Murray Pump Station. The purpose of the proposed project is to reduce the frequency and volume of such discharges. The project is being designed to reduce CSOs in the Murray basin to an average of no more than one per year on a long-term average.

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

During demolition of the buildings on the storage tank site, waste materials such as heating oil, if encountered, could enter ground or surface waters if precautions were not taken to identify and prevent the release of such materials (see Sections B.7.a and B.7.a.2).

Construction-related materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities are 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 2,000-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:

Measures that would be taken to prevent waste materials such as heating oil from entering ground or surface waters during demolition and excavation activities are described in Section B.7.a.2.

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

Additional BMPs that could be implemented to prevent the introduction of contaminants into surface water or groundwater during demolition and 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; and
- 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. 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 would include implementation of green stormwater infrastructure BMPs. These BMPs would include, but not be limited to, the creation of bioretention facilities for stormwater control and treatment on the storage tank 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 Murray basin. Additionally, the proposed project would reduce the likelihood of wastewater overflows to Puget Sound by providing back-up power to the Murray Pump Station and CSO storage facility during power outages.

4. Plants

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

- ☒ deciduous tree
- ☒ evergreen tree
- ☒ shrubs
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants
- ☐ water plants:
- ☐ other types of vegetation

Three large trees in Lowman Beach Park (two London planes and one Douglas fir) appear to meet the definition of "exceptional tree" in the City of Seattle Department of Planning and Development (DPD) Director's Rule 16-2008 (DR 16-2008) due to their size and species. The proposed storage tank site may also contain a flowering cherry, several big leaf maples, and several Douglas firs that would be considered exceptional trees. Per DR 16-2008, an exceptional tree has

significant value due to its size, species, condition, age, or other factors. Measures would be taken to protect these trees during construction to the maximum extent practicable (see Section B.4.d).

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

All vegetation on the six parcels that would be acquired on the storage tank site would be removed. Some trees, shrubs and grass in the public right-of-way on the south end of the storage tank site would also be removed. If necessary to construct the proposed project, this could include trees on the storage tank site that meet the definition of exceptional tree in DR 16-2008.

Up to approximately 14,000 SF of grass and landscaping could be removed or disturbed in the southeastern part of Lowman Beach Park by construction of the diversion structure and influent pipeline and limited staging that would occur in that corner of the park. The area and duration of staging in Lowman Beach Park would be limited, to the extent practicable, to what is required to construct the project.

The exceptional trees in Lowman Beach Park would not be removed or altered. Measures such as those described in Section B.4.d would be implemented to protect the 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:

The proposed storage tank site would be landscaped with drought-tolerant or native plantings, or both. Landscaping on the site would include bioretention facilities to control and treat stormwater.

Vegetation removed or disturbed during construction in Lowman Beach Park would be restored except for approximately 32-64 SF of existing grass that would be replaced with one or two at-grade metal hatches on top of the diversion structure. Landscaped areas that were removed or disturbed would be replanted with drought-tolerant or native plantings, or both.

Landscaping on the proposed storage tank site 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.

Impacts to exceptional trees on the project site, including their removal, would be avoided to the maximum extent practicable. Exceptional tree removal, if necessary, and exceptional tree protection measures would be performed consistent with City of Seattle tree protection regulations. Measures that could be implemented during construction to protect exceptional trees located on or adjacent to the project site include demarcating the critical root zones (CRZs) of trees to be protected with high visibility fencing, excluding CRZs from the construction staging areas, and restricting heavy equipment from travelling through the CRZs.

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: seagulls

mammals: deer, bear, elk, beaver, other: domestic dogs and cats, 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.

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

The proposed project is not expected to adversely affect any of these species. No in-water work is proposed as part of the project.

Noise generated by the proposed project could cause some behavioral disturbances to marbled murrelets if they were foraging in marine nearshore waters during construction. However, it is not expected that the proposed project would result in adverse effects to marbled murrelets for the following reasons:

- there have been no documented sightings of marbled murrelets in the project area,
- the project area contains no suitable nesting habitat for marbled murrelets,
- marbled murrelets would not be exposed to noise above identified injury/mortality thresholds,
- no in-water work would be required,

- marbled murrelets, if present, would likely avoid the project area or fly away during construction activities,
- suitable foraging habitat is plentiful in the adjacent waters of Puget Sound outside of the terrestrial zone of effect,
- construction activity that could result in noise disturbance (vibratory pile driving) may not be required,
- an impact pile driver would not be used, and
- the proposed project would not affect prey species for marbled murrelets.

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

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

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

Erosion and sedimentation control measures (see Section B.1.h) and measures to prevent the introduction of contaminants into surface water or groundwater (see Section B.3.d) would be implemented during construction.

An impact hammer would not be used to install piles. This would minimize the potential for noise disturbance to marbled murrelets.

The project itself is a measure to minimize potential impacts on wildlife. Construction of the proposed project would reduce the volume of untreated sanitary sewage and stormwater that is discharged to Puget Sound from the Murray basin, thereby reducing the potential for related adverse affects 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 tank and ancillary equipment facility. This would include the effluent pumps and flushing system equipment, the odor control system, the instrumentation and 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.**

A Phase I Environmental Site Assessment completed for the Murray Pump Station site in 2004 identified several recognized environmental conditions (RECs) on the proposed CSO storage tank site, including a historic gas station and four residences with heating oil tanks. An additional three residences with heating oil tanks were identified near the project site. No releases from these RECs have been documented, but because of their presence it is possible that hazardous material related to the RECs could be encountered during demolition and/or construction activities.

The buildings that would be demolished on the storage tank site could contain materials such as lead paint or asbestos that could present health hazards.

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 2,000-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:**

A Phase II Environmental Site Assessment would be conducted for the proposed project site. It would include testing for hazardous materials at the site. Based on the findings, measures that should be implemented during demolition and construction to minimize exposure to hazardous material, properly dispose of hazardous material, and comply with all pertinent regulatory requirements would be proposed. These measures would be included in the proposed project's construction specifications.

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 buildings to be demolished would be inspected for the presence of materials that could present health hazards, such as lead paint and asbestos, prior to demolition. If such materials were present, they would be properly handled and disposed of when the building is demolished or before the building is demolished. For example, a contractor certified to remove and properly dispose of lead paint could be used for demolition of the buildings.

The project itself is a measure to reduce environmental health hazards. Installation of the CSO storage facilities, including the standby power generator that would provide back-up power to the Murray Pump Station and CSO storage facility during power outages, would reduce the risk of wastewater overflows to Puget Sound.

b. Noise

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

Noise in the project area 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 Lowman Beach Park. Demolition and construction-related noise would include engine and mechanical and scraping noises associated with the use of heavy equipment such as dump trucks, excavators, cranes, concrete mixers, graders and flatbed trucks. 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 shoring systems and uplift piles, if required, would depend on the type of shoring and uplift piles used and the method of installation. This would be determined by the contractor. Vibratory pile driving equipment typically generates noise measuring approximately 95-101 dBA at a distance of 50 feet. Drilling would generate less noise. It is anticipated that it would take several months to install shoring for the proposed excavations, assuming that two rigs were used.

Noise would also be generated during construction by pumps used to dewater excavations. The pumps would generate noise levels measuring less than 70 dBA at a distance of 25 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 and it is anticipated that dewatering pumping would occur for approximately 10-12 months.

Following construction, noise would be generated by equipment such as the standby power generator and the effluent pumps for very limited durations when maintenance occurred and during the estimated one to five

times each year that this equipment is expected to operate. Operation of the odor control unit would also generate noise.

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

All demolition and construction activities would be performed consistent with the City of Seattle's Noise Control Ordinance. All impacts from noise generated by demolition and construction would be short-term and temporary in nature and would not constitute a substantial effect on the surrounding land uses. Construction BMPs would be used to minimize demolition and 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 demolition and construction activities; and
- creating a 24-hour construction hotline to promptly respond to questions and complaints.

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

An impact hammer would not be used to install piles.

New equipment that generates noise would be enclosed in buildings, thereby minimizing noise impacts resulting from operation of the proposed project.

8. Land and Shoreline Use

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

The proposed project site is located in a multi- and single-family residential waterfront area of West Seattle. The proposed storage tank and ancillary equipment facility site currently contains single- and multi-family residences. The six parcels that comprise the site would be acquired by King County as part of the proposed project. The site is bordered to the northeast by Lincoln Park Way SW, beyond which is the lower portion of the Pelly Creek ravine. The tank site is bordered to the southeast by single- and multi-family housing and to the west by Beach Drive SW and Lowman Beach Park. Lowman Beach Park is a 4.1-acre park that contains lawn/open space, a tennis court, and a tidal beach area. King County's Murray Pump Station is located below ground in the southeast corner of the park. The park is bordered to the north and south by single family residences and to the west by Puget Sound.

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

No

c. Describe any structures on the site.

The proposed storage tank site contains single- and multi-family residential structures. The following are the approximate types of buildings found on the six parcels:

- two three-unit buildings,
- one five-unit building,
- two two-unit buildings, and
- one one-unit building.

King County's existing approximately 2,140-square-foot Murray Pump Station is located below ground in the southeast corner of Lowman Beach Park.

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

All of the structures on the proposed storage tank site (identified above in Section B.8.c) would be demolished. It is expected that this would occur sometime between late 2012 and the start of construction of the proposed CSO storage facility in the first half of 2013. It is expected that it would take approximately 6-8 weeks to prepare the structures for demolition (e.g., remove hazardous and recyclable materials), demolish the structures, remove debris, and stabilize and secure the site.

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

The current zoning classification of Lowman Beach Park is Single Family Residential (SF 5000). The six parcels on which the storage tank would be built are zoned Lowrise 1.

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

The current comprehensive plan designations of Lowman Beach Park and the proposed storage tank site are "City-Owned Open Space" and "Multi-Family Residential," respectively.

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

Lowman Beach Park is designated as "Conservancy Recreation" under Seattle's Shoreline Master Program.

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

City of Seattle environmentally critical area (ECA) maps identify Lowman Beach Park as a liquefaction prone area. The northern approximately one-third of the proposed storage tank site is identified as riparian corridor because Pelly Creek is piped near this area.

City of Seattle maps identify several ECAs adjacent to the proposed project site. These include steep slopes on parcels adjacent to the proposed storage tank site,

riparian corridor along the northern section of Lowman Beach Park (related to the piped section of Pelly Creek), and shoreline habitat area in the western half of Lowman Beach Park.

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 on a weekly basis for normal operation and maintenance purposes.

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

The proposed project would permanently displace all people residing in the buildings located on the six parcels that comprise the proposed storage tank site. These buildings would need to be demolished in order to construct the proposed project and it is expected that residents would vacate the buildings sometime between late 2011 and mid-2012. The project would permanently displace 15-30 people.

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

Residents and property owners displaced by the proposed project would receive relocation assistance from King County, if eligible for relocation benefits, in accordance with the provisions of King County WTD's adopted WTD Resident Relocation Program.

King County would acquire all necessary properties at fair market value and provide relocation assistance to qualified property owners and qualified tenants. The County would follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act (49 Code of Federal Regulations Part 24) and the Washington State law covering property acquisition (Chapter 8.26 Revised Code of Washington, Title 468-100 Washington Administrative Code) to provide consistent treatment, to minimize hardship of persons displaced as a direct result of the proposed project, and to seek cooperative settlements of property acquisitions and relocation claims.

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

Landscaping, architectural treatment, odor and noise control equipment, and compliance with the City of Seattle's permitting requirements would help ensure that the proposal is compatible with existing and projected land uses.

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.

The proposed project would permanently eliminate approximately 16 units. The residential displacements would include the following parcels (unit sizes and configurations are approximations):

- 7004 Beach Drive SW (APN 198120-0080): 2,570-square-foot apartment building with three residential units,
- 7010 Beach Drive SW (APN 198120-0070): 4,842-square-foot apartment building with five residential units,
- 7018 Beach Drive SW (APN 198120-0060): 1,660-square-foot duplex with two residential units,
- 7024 Beach Drive SW (APN 198120-0055): 3,830-square-foot building with three residential units,
- 7030 Beach Drive SW (APN 198120-0032): 1,130-square-foot duplex with two residential units, and
- 7034 Beach Drive SW (APN 198120-0035): 1,090-square-foot single-family residence (one residential unit).

The income levels of these units have not yet been determined. However, based on 2000 United States Census data obtained for the project area (the area located within an approximately 0.5-mile radius of the proposed project site), the project area has a lower percentage of low-income individuals than the City of Seattle as a whole (5 percent and 12 percent, respectively). The median income of the project area is \$64,126, which is higher than the median income of the City as a whole (\$50,866).

None of the buildings are considered low-income housing, as defined by the Seattle Housing Authority.

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

See Section B.8.k.

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 4,900 SF. The height of the building would be approximately 15 feet (one story). Exhaust stacks for the odor control system and standby power generator would extend above the roofline. The facility's principal exterior building material would be determined during the final design phase.

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

The visual quality of the immediate project area would be temporarily altered for up to three years—from the time of demolition through the end of construction. After the properties on the storage tank site are acquired by King County and the tenants are relocated, the buildings would likely be boarded up until they were demolished. The site may also be fenced for safety and security reasons during that time. Temporary visual impacts during demolition and 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 would be located on the proposed storage tank site during demolition and for most of the approximately two and one-half-year construction period.

The appearance of the proposed storage tank site would be permanently altered. The existing buildings on the site would be replaced with the buried storage tank and above grade ancillary equipment facility. The site would also contain a large retaining wall on the adjacent hillside, security fencing, bioretention facilities, and additional landscaping that would be designed to screen the new structures to the maximum extent practicable. The ground surface on top of the storage tank would need to be able to support heavy equipment, and one or two access hatches would be located on top of each of the five storage tank cells.

Because the storage tank site is bordered on all sides except for the west side by steep slopes, the completed project would not block any views.

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

The ancillary equipment facility would be designed to minimize the visual impact of the building and the large retaining wall that would be constructed to support the hillside behind it. Design considerations would include where the facility is placed on the site and how it is configured. Placing the facility next to the hillside could reduce its visual presence and screen part of the retaining wall. King County would consider input from the community on exterior materials, architectural elements, and landscaping of the ancillary equipment facility to ensure that it is consistent with the residential waterfront setting. The design would include plantings around the exterior of the facility which would provide partial screening of the facility. Bioretention facilities would also be installed on the site.

The design process for the ancillary equipment facility would follow City of Seattle policies and guidelines for incorporating aesthetic considerations into design.

The removal of exceptional trees, as defined by the City of Seattle DPD Director's Rule 16-2008, would be avoided to the maximum extent practicable.

Any area in Lowman Beach Park where grass and landscaping were removed to construct the proposed project would be replanted, except for an approximately 32- to 64-square-foot area over the diversion structure where one or two access hatches would be installed. Any other surface improvements impacted by construction would also be restored.

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 would be used 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 is not cast beyond the edge of the storage facility site to minimize light 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?

The proposed project would take place in and adjacent to Lowman Beach Park, a 4.1-acre waterfront park located on the west side of Beach Drive SW, north of Lincoln Park. It includes lawn/open space, a tennis court, a swing set, and a tidal beach area on Puget Sound. The park provides views of the Olympic Mountains, Alki Point, and Williams Point.

Several parks are located near the project area. Lincoln Park, which is Seattle's second largest park at 133 acres, is located on Puget Sound approximately 0.25 mile south of the project site. Solstice Park, a 7-acre park on the east side of Fauntleroy Way SW, is approximately 0.25 mile from the project site. It contains tennis courts and a community p-patch garden. Pelly Place Natural Area, which is located less than 0.25 mile to the northeast of the project site contains one acre of green space.

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

Yes. The proposed project would involve construction in and next to Lowman Beach Park. Recreational users of the park would be impacted by temporary visual and noise impacts associated with demolition and construction activity, as well as temporary closure of part of the park. The southeast section of the park, including a portion of the existing lawn area, would be disturbed for excavation and construction of the diversion structure and influent pipeline. This portion of the park would also be used as a staging area for a limited time during construction. The area and duration of staging in the park would be limited, to the maximum extent practicable, to what is required to construct the project. Staging in the park would not impact the exceptional trees in the park, the tennis court, or the beach. The actual duration of closure, and extent of park use by the contractor, would be determined during final design.

The approximately 25 on-street parking spaces in front of the park along Beach Drive SW would be unavailable for use during most of the construction period. During construction, park users could use on-street parking spaces located just north of the project area on Beach Drive SW and 48th Avenue SW. During construction, park users would be able to access the beach and use part of the open space.

Operation of the proposed facility would not displace any 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 the section of Lowman Beach Park that remained open during construction, to the maximum extent practicable. Measures to ensure pedestrian safety could include the use of signage regarding park access routes and the use of temporary fencing or ecology blocks to designate safe walkways through or near the construction area.

Construction BMPs would be implemented to minimize construction noise (see Section B.7.b.3).

King County would provide advance notification of demolition and construction activities to all residents adjacent to the project site. Advance notification would include posting signage at the site and written notification. 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.

A preliminary assessment of archaeological and historical resources in the Murray basin was completed for the proposed project in October 2009. The assessment identified two buildings in the vicinity of the project site that are on the Seattle Historic Inventory. These buildings are the Kenney Presbyterian Home for the Retired, which is located approximately 0.1-mile east of the site on Fauntleroy Way SW, and the Gatewood School, which is located approximately 0.2-mile east of the project site on SW Myrtle Street. The proposed project is not expected to impact these structures.

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

Lowman Beach Park is located within an area classified as an "Archaeological Buffer Overlay District" by the City of Seattle because it is located within the United States Government Meander Line and its 200-foot buffer. The meander line provides an indication of where the saltwater shoreline existed prior to recent fill or alteration. The area within 200 feet of the meander line has a high potential to contain archaeological resources such as Native American and early European settlements.

The preliminary archaeological and historical resources assessment completed for the proposed project in October 2009 identified the entire project site as having a high probability for archaeological resources.

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.

The project site includes the section of Beach Drive SW located between Lowman Beach Park and the proposed tank site located across Beach Drive SW from the park. The project site is accessed via Fauntleroy Way SW, Lincoln Park Way SW, and Beach Drive SW. The paved access road along the southern boundary of Lowman Beach Park is also used to access the project site.

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

Yes. The project site is served by King County Metro Transit bus route 54 along Fauntleroy Way SW and by routes 37 and 53 along Beach Drive SW.

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

The completed project would not create any parking spaces. It may result in the net permanent loss of up to two parking spaces on the east side of Beach Drive SW in front of the storage tank site. This would be associated with a driveway entrance to the proposed site.

Street parking along Beach Drive SW would be unavailable or restricted for approximately 12-18 months of the two and one-half year construction period. This would affect approximately 25 on-street parking spaces. Parking on the east side of Beach Drive SW could also be temporarily unavailable during the time that demolition is taking place on the storage tank site. Several parking spots on the south side of Lincoln Park Way SW adjacent to the storage tank site could be intermittently and temporarily unavailable during demolition and/or construction so that trucks could load and unload material from a conveyor belt that extended from the street to the storage tank site. On-street parking is available just north of the project site on Beach Drive SW and 48th Avenue SW.

Although parking spaces on Beach Drive SW and possibly Lincoln Park Way SW would be temporarily unavailable while demolition and construction activities were occurring, the demand for parking on Beach Drive SW could also be reduced during this time as a result of the residential buildings on the storage tank site being vacated.

- 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 new temporary lane of travel may be created on the west side of Beach Drive SW for use during the 12-18 months that the eastern lane of Beach Drive SW would be closed to traffic (see Section B.14.g).

A permanent new access road would likely be created in the right-of-way on the south end of the storage tank site to provide access to the tank and ancillary equipment facility.

Following construction, the right-of-way in the project area would be repaved as necessary to meet current City of Seattle Department of Transportation pavement and street restoration requirements. New sidewalks and curb cuts would comply with requirements of the Street Improvement Permit that would be obtained for the project.

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

No

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

Demolition of the residential buildings on the storage tank site would require approximately 160 one-way truck trips to haul away demolition debris and approximately 20 one-way truck trips to bring in material needed to fill in voids and stabilize the site. Additional vehicular trips associated with construction workers would also occur.

During construction of the proposed storage tank and associated facilities, excavation hauling and delivery of concrete would require up to approximately 3,400 one-way truck trips. Most of these truck trips would occur during a six-month period. Additional vehicular trips associated with construction workers and delivery of other materials would also occur. During the six-month period, the project could generate up to 50 one-way truck trips per day. The number of truck trips would depend on contractor planning and construction sequencing.

Operation and maintenance of the completed project is not expected to impact traffic in the area.

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

Temporary localized traffic impacts are anticipated for approximately 12-18 months of the two and one-half year construction period. Temporary traffic impacts in the project area would include street closures, traffic and parking restrictions, and restricted access to residences and Lowman Beach Park. These impacts and measures that could be implemented to reduce or control them are described generally in the following paragraphs.

The eastern lane of Beach Drive SW adjacent to the storage tank site would be required for use by construction equipment during construction. There are no alternate routes to properties south of the project site along Beach Drive SW. The contractor would be required to provide safe vehicular and pedestrian access to these properties during construction, although access could be limited at times. Access could be provided by creating a new temporary lane of travel on the west side of Beach Drive SW and/or by placing steel plates over open excavations.

The southern lane of Lincoln Park Way SW adjacent to the storage tank site could also be closed intermittently and temporarily during construction so that trucks could load and unload material from a conveyor belt that extended from Lincoln Park Way SW to the storage tank site.

Intermittent and temporary closure of the paved access road along the southern boundary of Lowman Beach Park may occur during construction of the diversion structure and influent pipeline. The contractor would be required to provide safe vehicular and pedestrian access to properties along the road during construction, although access could be limited at times.

A portion of Beach Drive SW public right-of-way would be excavated to install the influent and effluent pipelines, and utilities required for the proposed project.

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.

The proposed project would require several street use permits from the City of Seattle Department of Transportation. Permit conditions would require a traffic control plan and pedestrian 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, 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 and to residents that use Beach Drive SW to access homes located to the south of Lowman Beach Park. Advance notification would include posting signage at the site as well as written notification of 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.

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 (EMT), and police vehicles and personnel at all times during construction.

16. Utilities

- a. **Circle the utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, 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 Beach Drive SW right-of-way may need to be temporarily or permanently relocated to construct the proposed project. This could cause temporary, short-term disruption of some utility service to some residences.

C. SIGNATURE

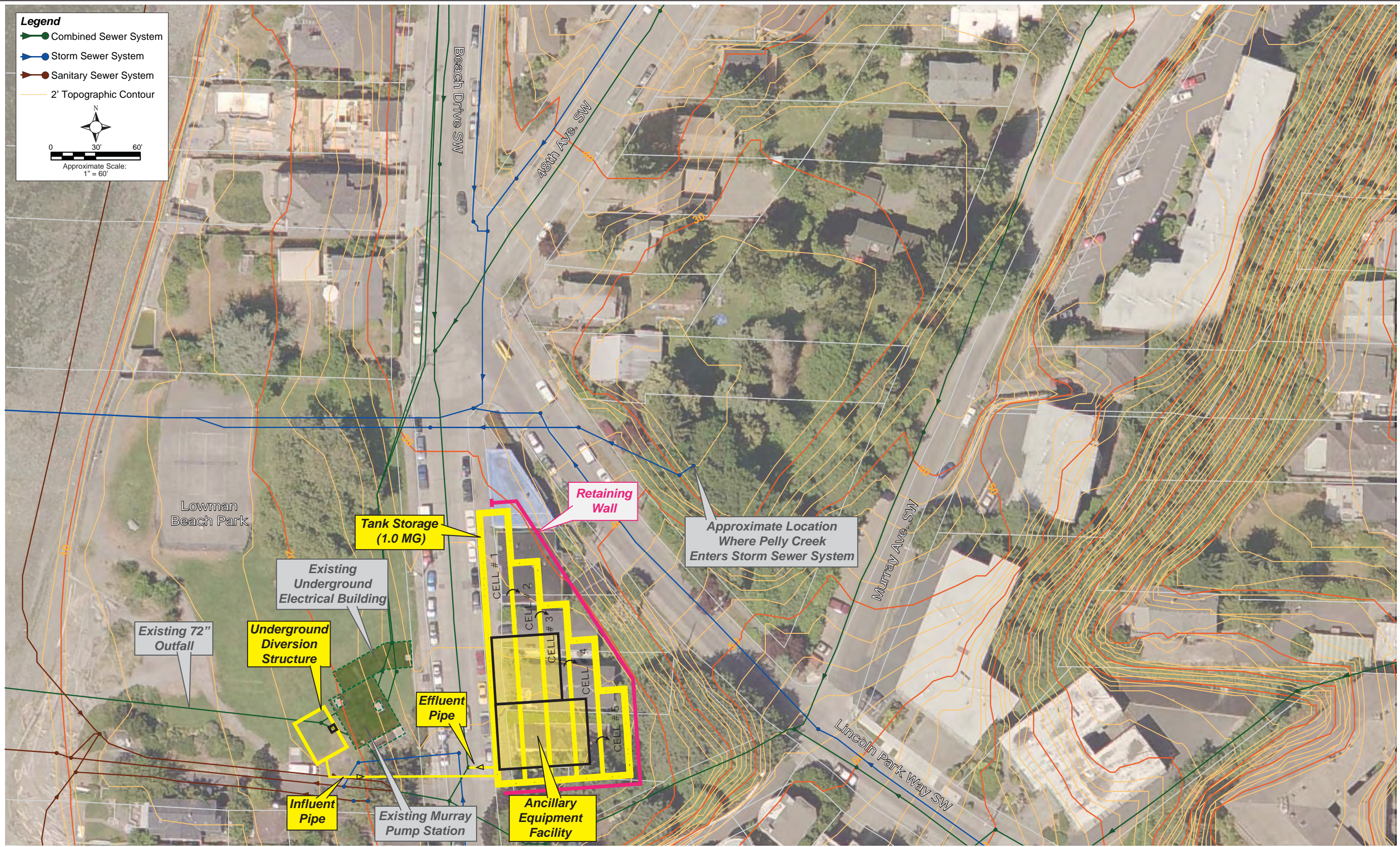
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Wesley Sprague

Date Submitted: _____

4/13/11



MURRAY COMBINED SEWER OVERFLOW CONTROL PROJECT PRELIMINARY SITE LAYOUT PLAN

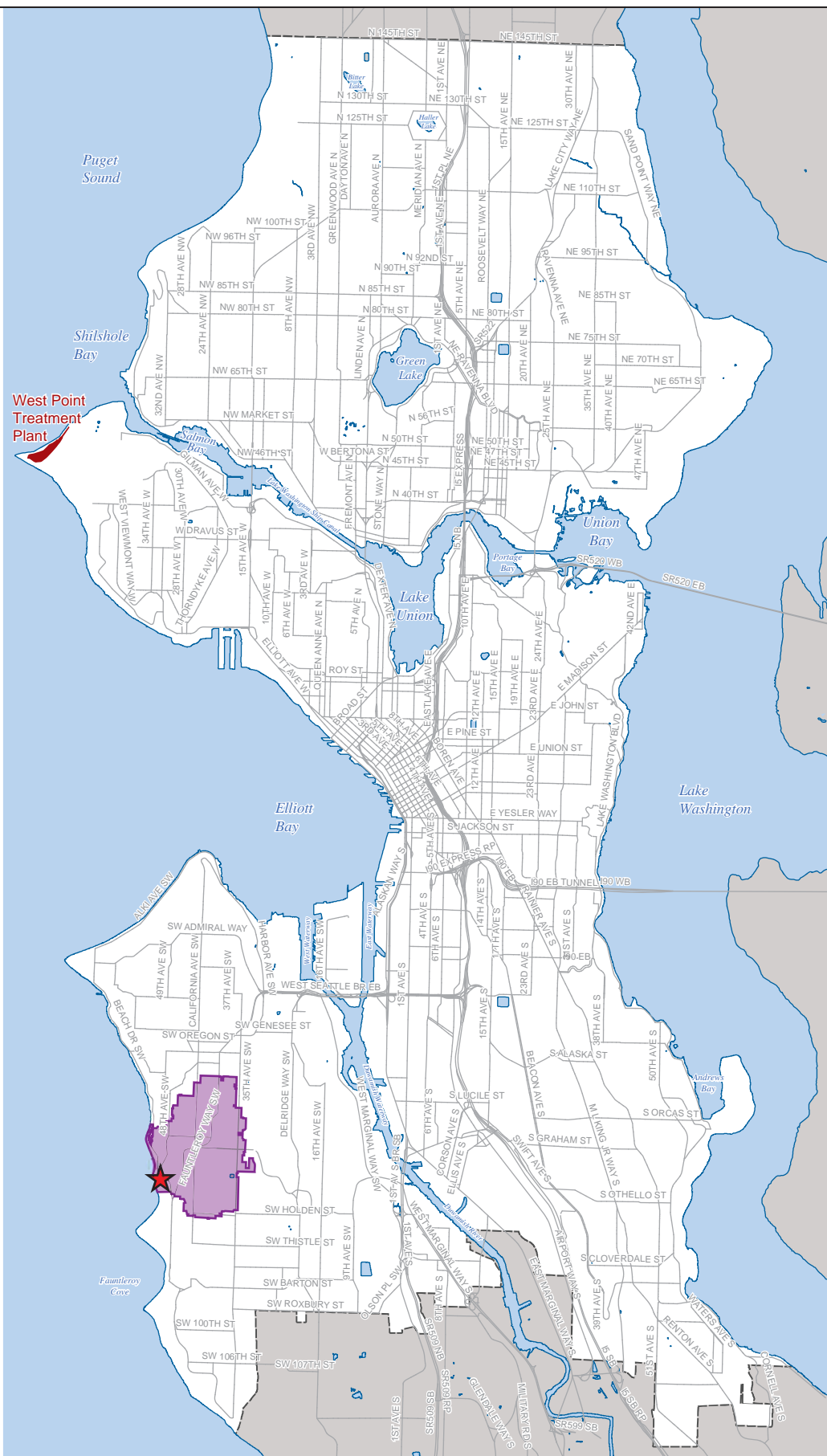
Legend



Proposed Murray CSO
Control Project Site



Murray Basin



3630023/VicinityMap_Murray.ai

MURRAY COMBINED SEWER OVERFLOW (CSO) CONTROL PROJECT VICINITY MAP



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

King County Greenhouse Gas Emissions Worksheet—Murray 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)			Lifespan Emissions (MTCO2e)
			Embodied	Energy	Transportation	
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		0.0	39	1,278	257	0
Vacant		16.0	39	162	47	3959

Section II: Pavement.....

Pavement.....		60.00				3000
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Total Project Emissions:

6959

Note: The proposed project consists of a new approximately 10,500-square-foot buried storage tank, an approximately 700-square-foot diversion structure, and an approximately 4,900-square-foot ancillary equipment facility. It also includes restoration of the existing street and sidewalks adjacent to the proposed storage tank site.