

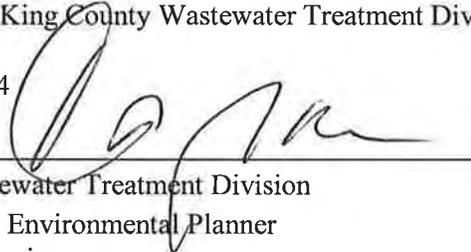
## DETERMINATION OF NONSIGNIFICANCE (DNS)

**TITLE OF PROPOSAL:** Kirkland Pump Station Upgrade

**DESCRIPTION OF PROPOSAL:** The King County Wastewater Treatment Division proposes to increase the pumping capacity at the Kirkland Pump Station to a firm capacity of 6.9 mgd and a peak capacity of 9.4 mgd to meet projected wastewater flows through the year 2050. The aging pump station equipment will be updated by replacement of pumps, electrical system upgrades, modernization of control instrumentation, replacement of the odor control equipment and potential installation of an odor control treatment system. The existing standby generator will also be replaced. Modifications to the inlet sewer pipe and wet well are also planned to improve operating levels. The building's exterior will also be improved and the building slightly reconfigured. A new principle 3,230-foot long force main will be constructed parallel to the existing force main. The existing force main will remain in place for emergencies and to facilitate future inspection of the principle force main. The new force main will run south on Third Street and east along Kirkland Avenue to near Tenth Street South. Replacement of the influent sewer, water main, and storm drain diversion along Third Street are also planned.

**LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY:** The Kirkland Pump Station is located on King County owned property at the corner of Third Street and Park Lane in the City of Kirkland, Washington (address: 77 Third Street). The force main replacement portion of the project will occur in public right of way located along Kirkland Avenue between Kirkland Way and Tenth Street South and the influent pipe replacement portion of the project will occur in public right-of-way along Third Street between Central Way and Kirkland Avenue.

**Responsible Official:** Christie True  
**Position/Title:** Division Director, King County Wastewater Treatment Division  
**Address:** 201 S. Jackson St.  
Seattle, WA 98104

**Date:** 12/18/2008 **Signature:** 

**Proponent and Lead Agency:** King County Wastewater Treatment Division  
**Contact Person:** Meredith Redmon, Environmental Planner  
Environmental Planning  
201 S. Jackson St., MS KSC-NR-0505  
Seattle, WA 98104, (206) 263-6534

**Issue Date:** December 22, 2008

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) 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 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 January 7, 2009.** Submit comments to Wesley Sprague, Supervisor Community Services and Environmental Planning, 201 S. Jackson St., MS KSC-NR-0505, Seattle, WA 98104-3855.

Written appeals of this threshold determination must be received by the SEPA Responsible Official at the above address **no later than 5:00 p.m. January 7, 2009, and must be accompanied by a \$250 fee.** The appeal must follow the procedure established in King County Public Rule PUT 7-4. The rule may be viewed at <http://www.metrokc.gov/recelec/archives/policies/put74pr.htm>, or contact Meredith Redmon at 206.263.6534 or [meredith.redmon@kingcounty.gov](mailto:meredith.redmon@kingcounty.gov) to obtain a copy.

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

## ENVIRONMENTAL CHECKLIST

### A. BACKGROUND

**1. Name of the proposed project:**

Kirkland Pump Station Upgrade

**2. Name of Applicant:**

King County Department of Natural Resources and Parks  
Wastewater Treatment Division

**3. Address and telephone number of applicant and contact person:**

King County Department of Natural Resources and Parks  
Wastewater Treatment Division  
201 South Jackson  
Seattle, WA 98104

Contact: Meredith Redmon (206) 263-6534

**4. Date checklist prepared:**

December 5, 2008

**5. Agency requesting checklist:**

King County Department of Natural Resources and Parks  
Wastewater Treatment Division

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

Upgrades to the Kirkland Pump Station will be completed in two phases. Improvements to the influent sewer and replacement of the force main along Third Street will take place starting in fall 2009. Replacement of the force main from the western intersection of Kirkland Way and Kirkland Avenue to the Eastside Interceptor (near Tenth Street South) and upgrades to the pump station are scheduled to start in fall 2010.

Replacement of the existing influent sewer along Third Street is scheduled to coincide with the upgrades to the Kirkland Transit Center which, are scheduled to take place starting in fall 2009.

**7. Plans for future additions, expansion, or further activity related to or connected with this proposal:**

There are no plans for future additions or expansions associated with this proposal. Sound Transit proposes to enhance the existing Kirkland Transit Center located on

Third Street between Kirkland Avenue and Central Way. King County will coordinate with Sound Transit to resolve any conflicting construction schedules.

**8. Environmental information that has been prepared, or will be prepared, directly related to this project:**

Tetra Tech/KCM, 2005. Kirkland Pump Station Upgrade Odor Control and Hydrogen Sulfide Corrosion Assessments. Prepared for King County Department of Natural Resources and Parks Wastewater Treatment Division. August 2005.

CivilTech Engineering, 2005. Kirkland Pump Station Upgrade Geotechnical Interpretive Report. Prepared for King County Department of Natural Resources and Parks Wastewater Treatment Division. July 2005.

Tetra Tech/KCM, 2005. Kirkland Pump Station Upgrade Acoustical Report. Prepared for King County Department of Natural Resources and Parks Wastewater Treatment Division. July 2005

**9. Applications that are pending for governmental approvals or other proposals directly affecting the property covered by the proposal:**

No government approvals or other proposals are pending related to this project.

**10. List of governmental approvals or permits that will be needed for the proposal:**

The following permits may be required to carry out the Kirkland Pump Station Upgrade:

Land Surface Modification (LSM) Permit (City of Kirkland)

Building Permit (City of Kirkland)

Mechanical Permit (City of Kirkland)

Electrical Permit (City of Kirkland)

Plumbing Permit (City of Kirkland)

Fire Permit (City of Kirkland)

Street Use Permit (City of Kirkland)

Request for Exception from Normal Construction/Grading Hours (City of Kirkland)

Discharge Permit (City of Kirkland)

Railroad Construction and Pipe Line Crossing Permit (Burlington Northern Santa Fe Railroad)

Industrial Waste Discharge Permit (King County)

Notice of Construction (Puget Sound Clean Air Agency)

NPDES Construction Stormwater Permit (Washington State)

Underground Storage Tank Notification Requirement (Washington State)

**11. Brief, complete description of the proposal, including the proposed uses and the size of the project and site:**

### Project Purpose and Background

The King County Department of Natural Resources and Parks Wastewater Treatment Division proposes to upgrade the Kirkland Pump Station located in Kirkland, WA (Figure 1). The existing Kirkland Pump Station was built in the 1960's. Currently, the firm capacity of the existing station is approximately 5 million gallons per day (mgd) with a nominal peak capacity of 6 mgd. All flows are conveyed from the pump station through a single 14-inch diameter force main that extends 3,230 feet south along Third Street and east along Kirkland Avenue. Wastewater discharges from the force main into King County's Eastside Interceptor near Tenth Street South then flows to the South Treatment Plant in Renton, WA.

The Kirkland Pump Station was identified as a station having potential capacity limitations through King County's Conveyance System Improvements (CSI) Project. The Kirkland Pump Station was also identified by King County's Facilities Management Program as a facility where existing equipment should be evaluated for replacement or modification at this time because of age, condition or other concerns. The force main condition and capacity were also evaluated. It was determined that the existing force main system does not have sufficient capacity to handle the projected flows.

### Proposed Project

The King County Wastewater Treatment Division proposes to increase the pumping capacity at the Kirkland Pump Station to a firm capacity of 6.9 mgd and a peak capacity of 9.4 mgd to meet projected wastewater flows through the year 2050. The aging pump station equipment will be updated by replacement of pumps, electrical system upgrades, modernization of control instrumentation, replacement of the odor control equipment and potential installation of an odor control treatment system. The existing standby generator will also be replaced. Modifications to the inlet sewer pipe and wet well are also planned to improve operating levels. The building's exterior will also be improved and the building slightly reconfigured. A new principle 3,230-foot long force main will be constructed parallel to the old section of the existing force main. The existing force main will remain in place for emergencies and to facilitate future inspection of the principle force main. The new force main will run east along Kirkland Avenue from the western Kirkland Way intersection to near Tenth Street South. The force main will be constructed by open cut and backfill construction. Replacement of the influent sewer, water main, and storm drain diversion along Third Street are also planned. The influent sewer will be constructed by open cut and backfill construction in Third Street between Central Way and Park Lane.

**12. Location of the proposal, including street address, if any, and section, township, and range; legal description; site plan; vicinity map; and topographical map, if reasonably available:**

The Kirkland Pump Station is located on King County owned property at the corner of Third Street and Park Lane in the City of Kirkland, Washington. Its address is 77 Third Street. The force main replacement portion of the project will occur in public right of way along Kirkland Avenue. The force main will run east along Kirkland Avenue from the western Kirkland Way intersection to near Tenth Street South. The influent pipe replacement portion of the project will occur in public right-of-way along Third Street between Central Way and Park Lane. The entire project area is located in section 05, township 25 north, and range 5 east.

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

**a. General description of the site (underline):**

flat, rolling, hilly, steep slopes, mountainous, other

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

The Kirkland Pump Station site and influent sewer replacement route are located on flat ground. The force main route is an approximately 3,200-foot long linear path sloping upward from west to east. The steepest slope along the force main route is approximately 11 to 15 %.

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

The soils in the project area consist of Alderwood gravelly sandy loam and Newberg silty loam. No portion of the project area is currently used for agriculture.

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

The City of Kirkland has mapped landslide hazards within the city. The project area does not intersect any areas noted as landslide hazards. The project geotechnical study determined that a potential for soil liquefaction and settlement exists at the pump station site. Soil liquefaction and settlement are not considered hazards to the force main and the influent sewer.

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

At the pump station filling and grading is proposed. Excavation of 1,500 cubic yards is necessary to carry out pump station improvements including modifications to the inlet sewer pipe and wet well. Where possible soil excavated on site would be used as backfill. When engineering requirements necessitate, clean imported fill, inspected by King County staff, would be used. Excess soil would be removed from the site and disposed of in an appropriate manner.

Replacement of the force main will be done by open cut and backfill construction. This will involve excavating about 6,700 cubic yards of soil and replacing it with about the same amount of imported fill material. The excavated material will be hauled off-site by truck. Imported fill will consist mainly of sand and gravel and will be used for pipe bedding and trench backfill. The fill will be obtained from local commercial sources.

Improvements to the influent sewer, water main, and storm drain diversion will involve the excavation and backfill of about 2,700 cubic yards of soil and replacing it with about the same amount of imported fill.

**f. Could erosion occur as a result of clearing, construction, or use?**

Some erosion could occur during excavation and filling for trenches or structures, but erosion control measures will be used to minimize this potential.

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

Upgrades to the Kirkland Pump Station will include modifying the roof configuration, adding an extension to the west side of the building and removing the overhang on the existing roof. The increase in impervious surface area from these modifications is estimated to be less than 100 square feet. The existing planters, lawns, and trees surrounding the pump station will also be removed and the impervious surface area will increase by 1,000 square feet.

The force main replacement and influent sewer modifications will not increase impervious surface area. Once the force main is installed, all areas will be restored to preconstruction conditions.

In total, the project will increase impervious surface area by about 1,100 square feet. The percentage increase in impervious surface area at the pump station is about 53 percent.

**h. Describe the proposed measures to reduce or control erosion, or other impacts to the earth, if any.**

Temporary erosion and sedimentation control measures will be employed throughout project construction. Typical measures that could be used are filter

fabric fences, hay bales, covering soil stockpiles and exposed soils, and use of settling tanks or other means to prevent sediment from leaving the site.

Additional Best Management Practices and other measures could include the following:

- Designate personnel to inspect and maintain temporary erosion and sediment control measures;
- Store materials away from surface waters;
- Maintain spill containment and clean up material at the construction site;
- Contain equipment and vehicle wash water associated with construction and keep it from draining into surface waters;
- Use appropriate means to minimize tracking of sediment onto public roadways by construction vehicles;
- Restore disturbed areas by repaving or replanting as soon as practical after construction is completed.

Temporary erosion and sediment control measures will be identified in the project's construction plans and specifications. Appropriate erosion and sediment control measures will be installed prior to clearing, grading, or excavation activities.

## 2. Air

- a. **What types of emissions to the air would result from the proposal (e.g., dust, automobile, odors, industrial, wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.**

During construction, there may be a small increase in exhaust emissions from construction vehicles and equipment and an increase in fugitive dust. These impacts are anticipated to be temporary.

Modifications to the Kirkland Pump Station are being undertaken to ensure consistent and reliable operation. The new equipment being installed at the Kirkland Pump Station will remain essentially of the same type as the equipment it will replace; therefore, operational emissions will not be changed from current conditions.

The existing force main has air vacuum and air release valves at several locations along its route, which can emit odors. The new force main will not have these valves. Therefore, the potential for odor emissions along the route of the new force main will be significantly reduced.

The discharge structure that connects the existing force main to the Eastside Interceptor is an existing odor source. The new discharge structure that will be

constructed at the new force main connection point to the Eastside Interceptor will also be a potential odor source. The upgrades to the Kirkland Pump Station and replacement of the force main will not change this potential.

A King County Greenhouse Gas Emissions worksheet is attached.

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

No.

**c. Describe proposed measures to reduce or control emissions or other impacts to air, if any.**

Short-term, construction-related air pollutant emissions would be reduced by requiring proper maintenance of equipment, using electrically powered equipment where practical, and avoiding prolonged idling of vehicles and equipment. Spray water may be used to minimize dust if necessary.

The air from the existing pump station is routed through odor control units. The existing carbon scrubber at the pump station will be replaced with a new carbon scrubber.

**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, and wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

There are no surface waters in the immediate vicinity of Kirkland Pump Station. Lake Washington is approximately 1,000 feet to the west of Kirkland Pump Station. Several streams are present to the east of the Kirkland Pump Station and while the streams pass a few hundred feet north and south of the Kirkland Pump Station they are confined to buried pipes. The closest "daylighted" portion of a stream is over 1,000 feet to the east of the Kirkland Pump Station.

A search of local, state, and federal wetland inventories was conducted for the project area. These included the *Kirkland's Streams, Wetlands, and Wildlife Study* (City of Bellevue, 1987), the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) database (WDFW, 2004), and the National Wetlands Inventory (NWI) (USFWS, 1983).

No wetlands are inventoried or mapped on the Kirkland Pump Station Site, force main path, or the influent sewer route.

- 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.**

No work will occur over, in or near surface waters

- 3. Estimate the amount of fill and dredge material that could 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 materials.**

No material will be placed in or removed from surface waters or wetlands associated with this project.

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

No surface water withdrawals or diversions will occur as a result of the construction or operation of this project.

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

No.

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

No discharges of waste materials to surface waters are proposed.

**b. Ground**

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

The project geotechnical study determined that dewatering of proposed excavations would be necessary. It is anticipated that dewatering for work at the pump station, including replacing the influent sewer, and wet and dry well excavation, will require dewatering volumes in excess of 75,000 gallons over the course of the project. Dewatering for the open-cut force main installation and construction of the discharge structure may also require dewatering volumes at the rate of 10-20 gallons per minute (gpm) per 100 feet of open trench.

King County plans to discharge the project's dewatering water to the sanitary sewer system. Discharge of dewatering volumes to the sanitary sewer system would require a King County Industrial Waste discharge approval. Depending on the timing of this work, wet versus dry season, a variance to discharge more than 25,000 gallons per day (gpd) to the sewer may be required. If a variance could not be obtained dewatering volumes could be discharged to the local stormwater drainage system or captured and hauled away for treatment at a King County approved facility.

It is anticipated that discharge of dewatering volumes to the local stormwater drainage system would require approval from the City of Kirkland

If contamination is found dewatering volumes would be pumped into a storage tank and delivered to a King County approved facility for treatment and disposal. There will be no discharge of water to the ground associated with this proposal.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any. 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) is expected to serve.**

Small spills or leaks of motor oil, diesel fuel, or hydraulic fluid could occur during construction. See item d. below for measures to minimize the potential for these materials to be discharged into the ground.

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

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

The source of runoff will be storm water. During construction and operation this runoff will be directed to the existing stormwater collection and detention system at the pump station. Runoff from the newly developed areas will be collected and managed in the same manner as the existing developed area.

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

Runoff from construction sites and, during operation, the pump station site, has the potential to contain small amounts of motor oil, diesel fuel, hydraulic

fluid, and other equipment-related materials, as well as sediment. These items could enter ground or surface waters.

After construction, potential waste discharges could be spills or leaks of petroleum hydrocarbons from vehicles using the small parking lot, vehicles delivering fuel to the underground standby generator, from the generator fuel tank, or from vehicles delivering chemicals to the pump station. Chemical spills during delivery are another potential waste discharge source. See item d. below for measures to minimize these potential discharges.

**d. Describe proposed measures to reduce or control surface, ground, and runoff water impacts, if any.**

The project will be constructed in accordance with applicable state and local permits, which specify a range of measures designed to reduce or control potential surface, ground, or runoff water impacts. Potential best management practices (BMPs) and other erosion and sediment control measures are described in item B.1.h. above.

Structural and operational measures will be taken to minimize the potential for fuel spills associated with the standby generator's underground fuel tank. The tank will be double-walled and have automatic shutoff valves and a leak detection system. Appropriate BMPs, such as a fuel level indicator, signage to discourage over-filling, and staff training will be implemented to minimize the risk of fuel spills.

Any chemical storage at the pump station will comply with requirements of the Uniform Building Code and the Uniform Fire Code. Safety features could include secondary containment, leak detection systems, alarms, overflow protection, clear labeling, splash guards, eyewash, and cabinets for goggles and other personal protection equipment.

**4. Plants**

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

- X deciduous tree: alder, maple, aspen, other
- X evergreen tree: fir, cedar, pine, other
- X shrubs
- X grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other

X   other types of vegetation: himalayan blackberry

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

Planters, lawn areas, and trees will be removed or altered as part of Kirkland Pump Station upgrades and construction of the new force main. Ornamental landscaping could be removed and/or altered if construction activities for the force main extend beyond the road prism. Where possible disturbed areas will be restored to preconstruction conditions.

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

No sensitive plant species or rare ecosystems are known to occur within a one-mile radius of the proposed site.

**d. Describe proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on site.**

The site plan has been developed to preserve vegetation where possible. Disturbed areas not occupied by improvements will be restored to current conditions following construction.

**5. Animals**

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

**Fish:** bass, salmon, trout, herring, shellfish, other

**Amphibians:** frogs, salamanders, other

**Reptiles:** lizards, snakes, turtles, other

**Birds:** hawks, heron, eagle, songbirds, ducks, other

**Mammals:** deer, bear, elk, beaver, raccoon, other

**b. List any threatened or endangered species or critical habitat near the site.**

No threatened or endangered species are known to exist on or near the project site.

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

The entire Puget Sound area is part of the Pacific Flyway for migratory birds. The proposed project is not expected to affect these migratory routes.

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

The proposed project is not expected to result in any impacts to wildlife or wildlife habitat; therefore, mitigation measures have not been developed.

**6. Energy and Natural Resources**

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

Electricity provided by Puget Sound Energy is used to power the Kirkland Pump Station. During electrical power outages a diesel generator will supply electricity to the Kirkland Pump Station.

**b. Would the project affect the potential use of solar energy by adjacent properties? If so, explain.**

The proposal would not affect the potential use of solar energy by adjacent properties.

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

None.

**7. Environmental Health**

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

During construction, petroleum products, including fossil fuels, lubricants and solvents, will be used. It is possible that spills of these substances could result in health hazards, however the potential for adversely affecting the environmental health of workers and nearby residents is very low. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented throughout construction. The SWPPP will specify BMPs to minimize the risk of spills or leaks, as well as procedures for prompt containment and clean-up should a leak or spill occur.

During pump station operation, 1,300 gallons of diesel fuel will be stored in an underground storage tank.

**1. Describe special emergency services that might be required.**

No special emergency services are anticipated as a result of this proposal.

**2. Describe proposed measures to reduce or control environmental health hazards.**

Upgrades to the Kirkland Pump Station will comply with requirements of the Uniform Fire Code and all applicable sections of the Kirkland Fire Code. Permit guidelines for storage, use, dispensing, and handling of chemicals including spill control, secondary containment, ventilation, and fire extinguisher systems will be implemented. Pump station operators will receive training in chemical handling protocols and the use of personal safety equipment.

See Item B.3.d above for additional measures that will be taken to minimize potential environmental health hazards.

**b. Noise**

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

Noises in the project area are consistent with a typical suburban neighborhood including traffic and overhead airplanes.

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

Short-term temporary increases in noise levels may be experienced during construction. Construction noise will consist of engine noise, reverse gear warning systems, and mechanical and scraping noises associated with the use of heavy construction equipment such as bulldozers, graders, scrapers, and loaders. Based on previous construction projects, typical noise levels can be expected to range from about 70 to 90 dBA measured at a distance of 50 feet from the source.

At distances greater than 50 feet, these maximum sound levels would be further reduced. Actual reduction would depend on the distance and orientation of the equipment with respect to line of sight of the receptors through terrain, berms, barriers and existing buildings.

Operation of the Kirkland Pump Station is governed by the Kirkland City Code for noise compliance. Section 115.95 adopts, by reference, the State Washington Administrative Code (WAC) to quantify maximum permissible environmental noise levels. The Kirkland Pump Station property is zoned Commercial with all neighboring properties also zoned Commercial; therefore, the maximum permissible level at neighboring property lines is 60 dBA.

The main noise source from the completed Kirkland Pump Station Upgrade will be from mechanical equipment. Normal pump station operation will be designed to not exceed 60 dBA at the nearest receiver property line. A new diesel engine generator will also be installed at the pump station. The generator will only operate during unanticipated electrical power outages and periodic testing. Periodic testing will typically be for one hour once per month during weekday working hours. Operation of the diesel generator during an emergency power outage at the pump station would be exempt from compliance with the noise code. It is expected that periodic non-emergency testing of the generator would require compliance with the code.

Because the new force main will be underground, it is not expected to cause any noise impacts.

**3. Describe proposed measures to reduce or control noise impacts, if any.**

All construction activities will comply with applicable noise regulations. There will be noise generated from construction at the pump station and the replacement of the force main and influent sewer. There is no specified code limit for construction during the daytime. Some limited operations may require weekend or nighttime work when necessary to reduce traffic impacts or when low flow conditions are essential for construction activities. The hours of this work will be in compliance with State of Washington and City of Kirkland regulations.

Measures to reduce or control noise impacts during construction could include the following:

- Use noise attenuation barriers / enclosures around certain equipment
- Require mufflers on all gas powered equipment;
- Limit the times of certain construction activities, which produce high noise levels;
- Encourage the use of electric or hydraulic tools whenever practicable; and
- Notify residents and businesses near active construction areas of upcoming noisy construction activities.

Normal pump station operation will be designed for 60 dBA at the nearest receiver property line. Additional mitigation measures to achieve this noise level could include:

- acoustic lining on ceiling of generator room and wall panels
- silencers on air intake vents
- silencers on air exhaust vents

**8. Land and Shoreline Use****a. What is the current use of the properties adjacent to the site?**

The Kirkland Pump Station is located at the corner of Third Street and Park Lane in Kirkland. Surrounding land uses include commercially developed property and a city park. Land uses along the force main route and influent sewer route include single and multi-family residential and industrial use areas

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

The site has not been used for agriculture.

**c. Describe any structures on the site.**

There are currently two structures on the pump station site: a pump station (559 square feet) and a generator building (677 square feet). A portion of the Kirkland Pump Station property is enclosed within a fenced area.

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

No structures would be demolished at this site.

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

The City of Kirkland zoning designation for the pump station site is Central Business District (CB1). The force main route and influent sewer route pass through right of way abutting areas zoned as Central Business District (CB1,3,4), Professional Office and Residential (PR2.4), Single Family (RS 8.5), Multi Family (RM 3.6) and Light Industrial Technology (LIT).

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

The Kirkland Comprehensive Plan designates the pump station site as Commercial. The force main route and influent sewer route travel through right of way abutting Park/Open Space, Commercial, Office/Multi-Family, High Density Residential, Low Density Residential, Medium Density Residential, and Industrial designated areas.

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

The Kirkland Pump Station Upgrade project area is not within the Shoreline Overlay District.

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

No portion of the project site has been classified as an "environmentally sensitive" area.

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

No people will reside in the completed project. Most of the time the pump station will not be staffed. As is the case for the existing pump station, King County staff will make one or two visits per week to the upgraded station for inspection and maintenance.

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

None.

**k. Describe proposed measures to avoid or reduce displacement impacts, if any.**

None will be needed.

**l. Describe proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

This project includes improvements to existing facilities; changes to facility type or use are not proposed. King County will work with the City of Kirkland during project permitting to keep the upgrades 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.**

None.

**c. Describe proposed measures to reduce or control housing impacts, if any.**

None will be needed.

**10. Aesthetics**

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

No change in the height of the building is proposed. The new force main and the influent sewer will be buried.

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

None.

**c. Describe proposed measures to reduce aesthetic impacts, if any.**

At the Pump Station mitigation measures could include matching new exterior building materials with the existing building and holding the building faces flush with existing buildings to maintain coherence of the entire building. The City of Kirkland will require design review of the project as part of the building permit process.

**11. Light and Glare****a. What type of light and glare will the proposal produce? What time of day would it mainly occur?**

Exterior lighting installed on new Kirkland Pump Station buildings will illuminate the site in a manner similar to existing conditions. No lights are associated with the force main portion of the project.

Project construction will use operation and safety lighting at the beginning and end of workdays during seasons of the year when it is dark at those times of day. This type of lighting will be used if work on the force main is required during nighttime hours

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

Neither the current nor the proposed lighting at the Kirkland Pump Station pose a safety hazard or interfere with views in the area.

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

No off-site sources of light or glare will affect this proposal.

**d. Describe the proposed measures to reduce or control light and glare impacts, if any.**

During construction, lights will be angled in the direction of work. To reduce disturbance of residents in the area, the contractor may provide shielding to reduce glare if necessary.

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

No recreational opportunities exist on the site. The City of Kirkland Peter Kirk Park is located immediately east of the pump station site. The park is

approximately 12 acres in size, and contains a playground area, athletic fields, basketball court, and performing arts center.

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

The project will not displace any existing recreational uses. Access to Peter Kirk Park may be restricted during construction activities.

- c. Describe proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant.**

Noise and construction activities have the potential to affect the use of Peter Kirk Park. See section B.7.b.3 for a discussion of the noise mitigation measures. Possible mitigation measures to reduce impacts to the park could include providing alternative routes for accessing the park during construction.

### 13. Historic and Cultural Preservation

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

No places or objects listed on or eligible for preservation registers are known to exist at or near the site. Several historic objects and one historic place are in the vicinity. The project will not affect any of these.

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

No places or objects of cultural or historical significance are known to exist at or next to the site.

- c. Describe proposed measures to reduce or control impacts, if any.**

It is not expected that any archaeological or historic resources will be encountered. However, if artifacts are uncovered during excavation, work will be stopped pending notification of and response from appropriate agencies. The project construction contract will include language that will address inadvertent discovery of archaeological materials.

### 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.**

Streets serving the site are Third Street, Park Lane, Kirkland Way and Kirkland Avenue. Access to the site during pump station upgrades and construction of the

force main and influent sewer will be from these streets, Central Way and nearby arterials.

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

The Kirkland Transit Center is located at 3rd Street and Park Lane near Peter Kirk Park east of the Kirkland Pump Station (Figure 1). Metro bus routes 230, 234, 236, 238, 245, 251, 254, and 255 and Sound Transit, Route 540 serve the Kirkland Transit Center. Metro bus routes 234, 251, and 254 serve a small portion of the force main alignment on Kirkland Ave. Construction activities associated with improvements to the influent sewer, force main, and pump station upgrades may affect transit service on Kirkland Ave.

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

The completed project will neither create nor eliminate any parking spaces. On-street parking on the sections of Kirkland Avenue occupied by construction activities will be temporarily displaced during construction of the force main. Park Lane may be used as a staging area and on-street parking on Park Lane between Main Street and Third Street will be unavailable during both phases of the Kirkland Pump Station and Sewer Upgrade project.

**d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe.**

No new roads, or improvements to existing roads, are planned associated with this proposal.

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

The project will not use water, or air transportation. A portion of the force main will pass under the Burlington Northern Santa Fe railroad tracks at the intersection of Kirkland Avenue and 10<sup>th</sup> Street. King County will work with Burlington Northern Santa Fe railroad to coordinate construction of the portion of the force main that will pass under the railroad tracks.

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

The completed project would not generate any additional vehicular trips above current conditions.

It is estimated that there will be an average of 12 to 15 daily one way truck trips to the site throughout each phase of the project construction period.

**g. Describe proposed measures to reduce or control transportation impacts, if any.**

Construction traffic impacts would be temporary and intermittent. King County will develop a traffic control plan. The traffic control plan will be submitted to the City of Kirkland for approval as part of the Right-of-Way/Street Use Permit.

There would be truck and vehicle trips to and from the project site during construction. Temporary obstruction of Third Street and some lanes of Kirkland Avenue may be necessary for construction of the new force main. Because force main construction will move along Kirkland Avenue, only a one to two-block section of this street may be affected by construction at any one time. The traffic control plan would comply with City of Kirkland requirements. Short-term transportation impacts could be mitigated during construction by minimizing major material delivery or removal during peak travel hours when possible, temporary traffic lane shifting, and routing material delivery and removal traffic to minimize travel on surface streets. Advance notice of the project could be provided through postings and other means to alert users of affected roadways to the project.

During the 1 to 2-day period when active force main and influent sewer construction is taking place opposite individual homes or businesses, access to them will probably be restricted during working hours. The contractor will be required to notify affected homeowners and businesses in advance when their access could be blocked and to work with them to minimize inconvenience.

**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 explain.**

No.

**b. Describe proposed measures to reduce or control direct impacts on public services.**

None will be needed.

Access to residences and businesses along the force main route will be maintained during project construction so that emergency services (fire, police, ambulance, etc.) can reach them.

**16. Utilities**

**a. Underline utilities currently available at the site:**

Utilities available at the site:

Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic systems, 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 Kirkland Pump Station is powered by electricity supplied by Puget Sound Energy. Improvements to Kirkland Pump Station will include a new, larger electrical service and a new diesel generator. The onsite transformer will also be relocated.

**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: 12/8/08

REFERENCES

WDFW (Washington Department of Fish and Wildlife). 2004. *Priority Habitats and Species data*. August 24, 2004. Olympia, WA.

United States Department of Interior, US Fish and Wildlife Service (USFWS). 1983. *National Wetland Inventory, Bellevue quadrangle*.

**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 .....			39	1,278	257	0
Vacant .....		0.0	39	162	47	0

**Section II: Pavement.....**

Pavement.....		32.00				1600
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**Total Project Emissions:**

**1600**

