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

DETERMINATION OF NONSIGNIFICANCE

TITLE OF PROPOSAL: Sunset and Heathfield Pump Stations and Force Main Upgrade Project

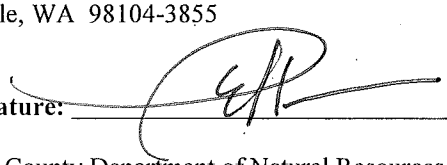
DESCRIPTION OF PROPOSAL: The King County Wastewater Treatment Division (KCWTD) proposes to upgrade its Sunset and Heathfield Pump Stations and associated force main sewer pipe system in Bellevue, WA. The project will upgrade the Sunset and Heathfield Pump Stations by installing four new pumps at each pump station along with supporting equipment. A new 24-inch-diameter force main will be installed to replace the older, existing 12-inch-diameter force main, using a combination of cut and cover (open trench), horizontal directional drilling, and other trenchless installation methods. Project activities are currently expected to commence in Spring 2017, and be complete by Fall 2019.

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: The project area is in Bellevue, WA. The Sunset Pump Station is located at 3810 West Lake Sammamish Pkwy. SE, Bellevue, WA 98008. The Heathfield Pump Station is located at 3541 163rd Ave. SE, Bellevue, WA 98008. The new force main will generally follow this alignment: Exiting the Sunset Pump Station, the new force main will run northwest adjacent to West Lake Sammamish Pkwy. SE, west under SE 38th St., northwest under 164th Pl. SE, and southwest under 163rd Ave. SE into the Heathfield Pump Station. Exiting the Heathfield Pump Station, the new force main will run northeast under 163rd Ave. SE, northwest under 164th Pl. SE, west under SE 35th Pl., and into the Eastgate Interceptor in the northwest corner of the intersection of SE 35th Pl. and SE Eastgate Way.

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: 10 Sept 2015 **Signature:** 

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

Contact Person: Jacob Sheppard, Water Quality Planner
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104
phone: (206) 477-5395; e-mail: jacob.sheppard@kingcounty.gov

Issue Date: September 17, 2015

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 14 days from the issue date. **Comments must be submitted by October 1, 2015.** Submit comments to Katherine Fischer, Supervisor, Community Services and Environmental Planning, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855. Contact Jacob Sheppard, Water Quality Planner, at (206) 477-5395 or jacob.sheppard@kingcounty.gov for information on how to submit comments electronically.

☒ The King County Wastewater Treatment Division intends to submit a Hydraulic Project Approval application to the Washington Department of Fish and Wildlife on September 17, 2015, thus there is no administrative appeal of this DNS pursuant to RCW 43.21C.075, WAC 197-11-680, KCC 20.44.120 and King County Public Rule 7-4-1. The public rule may be viewed at http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx, or contact Jacob Sheppard, Water Quality Planner, at (206) 477-5395 or jacob.sheppard@kingcounty.gov to obtain a copy of the rule.

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

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

King County Wastewater Treatment Division Sunset and Heathfield Pump Stations and Force Main Upgrade Project

September 10, 2015

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) 477-5371 (voice) or 711 (TTY).

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Sunset and Heathfield Pump Stations and Force Main Upgrade Project

2. Name of applicant:

King County Department of Natural Resources and Parks
Wastewater Treatment Division

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

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

CONTACT: Jacob Sheppard, Environmental Planner
Phone: (206) 477-5395
Email: jacob.sheppard@kingcounty.gov

4. Date checklist prepared:

September 10, 2015

5. Agency requesting checklist:

King County Department of Natural Resources and Parks
Wastewater Treatment Division

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

Project construction is scheduled to begin in Spring 2017. Project completion is estimated for Fall 2019.

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

No

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

Jacobs Associates. Initial Geotechnical Investigation Technical Memorandum, February 2014.

McMillen Jacobs Associates. Draft Geotechnical Design Memorandum, July 2015.

Terracon Consultants, Inc. Draft Phase I Environmental Site Assessment, July 2015.

Urban Forestry Services, Inc. Level 2 Basic Tree Assessment and Protection Plan, July 2015.

Environmental Science Associates. Wetland and Stream Technical Memorandum and Critical Areas Report, August 2015.

Environmental Science Associates. Biological Evaluation and Essential Fish Habitat Assessment, August 2015.

SSA Acoustics, LLP. Environmental Noise Impact Assessment, August 2015.

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

None known

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

City of Bellevue (COB)

- Land Use Exemption – Amendment to previous approval (Heathfield Pump Station *de facto* Conditional Use Permit)
- Shoreline Substantial Development Permit
- Critical Areas Land Use Permit
- Clear and Grade Permit
- Right of Way/Street Use Permit
- Commercial Building Permits (Sunset and Heathfield Pump Stations)

King County Industrial Waste Program

- Waste Discharge Permit

Washington Department of Fish and Wildlife

- Hydraulic Project Approval

Washington Department of Ecology
- NPDES Construction Stormwater General Permit
- Coastal Zone Management Act Consistency Determination
- Clean Water Act Section 401 Water Quality Certification

Washington Department of Transportation
- Utility Permit

Washington Department of Archaeology and Historic Preservation
- National Historic Preservation Act (NHPA) Section 106 consultation

United States Army Corps of Engineers (USACE)
- Nationwide Permit 12 (Clean Water Act (CWA) Section 404)

US Fish & Wildlife Service / National Oceanic & Atmospheric Admin. - Fisheries
- Endangered Species Act (ESA) Section 7 consultation

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.

To protect public health and the environment, King County proposes to upgrade its Sunset and Heathfield Pump Stations and associated force main sewer pipe system in Bellevue, WA. The Sunset and Heathfield Pump Stations operate in series to convey wastewater originating in Issaquah, the Sammamish Plateau, and some local Bellevue sewers, to King County's Eastgate Interceptor pipeline in the Eastgate area of Bellevue. Flow is conveyed through two parallel 24-in. and 12-in. diameter force main sewer pipes.

The purpose of the project is to increase the capacity and reliability of the wastewater conveyance system to accommodate demand associated with regional population growth. Design of this project is being guided using a holistic framework for incorporating community, environmental, and economic benefits into infrastructure projects, known as Envision.

Pump Station Upgrades
The first major element of the project will consist of upgrades inside the Sunset and Heathfield Pump Station buildings. The eight existing pumps (four in each pump station) will be replaced with eight new pumps (four in each pump station) along with supporting equipment. In addition, the electrical systems and heating, ventilation, and air conditioning (HVAC) systems at each pump station will be updated to maintain code compliance and improve odor control.

The second major element of the project will involve minor modifications to the exterior of each pump station and equipment on each pump station property. At the Sunset Pump Station (total parcel size: 18,024 sq. ft.), the existing standby generator will be replaced with a larger unit to support the new pumps in the event of a power outage. On the pump station roof, new supporting equipment will be installed. Other activities on the Sunset Pump Station property as part of this project will include replacing the fence surrounding the property, updating the site's landscaping to better support native wildlife, installation of stormwater bioretention systems including a green roof, and installing habitat enhancement structures such as root wads and habitat logs on the shoreline.

At the Heathfield Pump Station (total parcel size: 29,900 sq. ft.), the existing standby generator will be replaced with a larger unit, and the above-ground fuel tank to support the generator will be replaced with a larger tank. Adjacent to the pump station building, new electrical conduit will be buried and new supporting equipment will be installed. Other activities on the Heathfield Pump Station property will include the installation of a raingarden to manage stormwater, restoration and stabilization of a surface water drainage channel, and forest habitat restoration.

New Force Main Pipeline

The final major element of the project will be the installation of a new 24-in. diameter force main sewer line between the Sunset and Heathfield Pump Stations, and from the Heathfield Pump Station to the beginning of the Eastgate Interceptor. This new force main will replace the older, existing 12-in. force main, and will operate in conjunction with the existing 24-in. force main. Some segments of the existing 12-in. force main will be removed or decommissioned, and other segments will be reused as a conduit for communication lines between the Sunset and Heathfield Pump Stations.

In total, approximately 6,000 lineal ft. of force main pipe will be installed. The new pipe will be installed using a number of different construction methods, including cut and cover (open trench), horizontal directional drilling (HDD), and other trenchless methods (such as bore and jack or pipe ramming).

Cut and cover installation methods, which are currently expected to be used for approximately 4,000 lineal ft. of the pipeline, will involve the excavation and shoring of a relatively uniform linear trench, pipe installation, trench filling, and subsequent surface restoration. Cut and cover installation will generally follow road rights-of-way between Sunset Pump Station, Heathfield Pump Station, and the Eastgate Interceptor.

Installation using HDD methods, which are currently expected to be used for approximately 1,800 lineal ft. of the pipeline, will involve the excavation and shoring of entry and exit pits, using a guided drill system and drilling fluid to create a bore hole into which the force main pipe will be installed, pulling the pipe into the borehole, subsequent collection and disposal of drilling fluid, and filling and surface restoration of entry and exit pits. Horizontal directional drilling will be used as a

lower-impact alternative to cut and cover methods in specific segments of the pipeline, in order to reduce project impacts to traffic flow on West Lake Sammamish Pkwy. SE, avoid existing underground utility infrastructure on SE 38th St., and protect significant trees, forest habitat, and steep slopes on the south side of SE 38th St.

Other trenchless installation methods, which are currently expected to be used for up to 500 lineal ft. of the pipeline, will involve the excavation of entry and exit pits, soil boring and installation of a steel casing, pipe installation, and subsequent filling and surface restoration of entry and exit pits. Other trenchless installation methods will generally be used in areas of the alignment where King County seeks to reduce project impacts to sensitive environmental resources, existing private or public property interests, or other elements of the project area. Segments of the new pipe that cross Vasa Creek will be installed using trenchless methods.

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 area is in Bellevue, WA, in Sections 11 and 12, Township 24 North, Range 5 East. The Sunset Pump Station is located at 3810 West Lake Sammamish Pkwy. SE, Bellevue, WA 98008 (King County Parcel Number 1224059131). The Heathfield Pump Station is located at 3541 163rd Ave. SE, Bellevue, WA 98008 (King County Parcel Number 3211900050). The new force main will generally follow this alignment:

> Exiting the Sunset Pump Station, the new force main will run northwest adjacent to West Lake Sammamish Pkwy. SE, west under SE 38th St., northwest under 164th Pl. SE, and southwest under 163rd Ave. SE into the Heathfield Pump Station.
>
> Exiting the Heathfield Pump Station, the new force main will run northeast under 163rd Ave. SE, northwest under 164th Pl. SE, west under SE 35th Pl., and into the Eastgate Interceptor in the northwest corner of the intersection of SE 35th Pl. and SE Eastgate Way.

See Figures 1 and 2 for vicinity maps of the project.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____.

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

100% (Vasa Creek ravine below SE 35th Pl.)

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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Soils in the project area include alluvial fan deposits – consisting of sand, gravel, and silt – as well as glacial deposits including recessional outwash, till, and advance outwash. These soils are underlain by a sandstone, siltstone, claystone, and conglomerate bedrock unit. The area is not used for agriculture.

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

There are no indications or history of unstable soils in the immediate vicinity of the project area.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project will involve approximately 1.5 acres of soil disturbance through excavation, fill, or grading. Most of the excavation, fill, and grading for the project will be related to installing the new force main pipeline. Approximately 6,100 cu. yd. of soil will be excavated in order to install the pipe using cut and cover installation methods, with an approximately equal amount of subsequent fill. The trench will be approximately 4 ft. wide with a depth varying from approximately 5 to 20 ft. It is expected that the trench will be shored using a trench box during pipe installation.

Approximately 1,120 cu. yd. of soil will be excavated for HDD and other trenchless pipe installation methods, with an approximately equal amount of subsequent fill. Entry and exit pits for trenchless installation will be approximately 10 ft. wide, between approximately 10 and 30 ft. long, and

between approximately 10 and 40 ft. deep. It is expected that the entry and exit pits will be shored using pre-augering and augercast pile methods.

Another approximately 390 cu. yd. will be excavated in order to connect the new pipe to the Eastgate Interceptor.

Construction at the Sunset and Heathfield Pump Station sites will consist of small amounts of excavation, grading and fill, likely less than 100 cu. yd. of excavation and subsequent fill in total.

For all excavation activities, subsequent backfill will consist of native soil to the greatest extent possible, supplemented with clean fill from an approved borrow source as required by City of Bellevue codes. All excavated areas will be restored to their previous grade at project completion.

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

Some localized erosion could occur during force main pipeline installation. However, erosion control measures will be used to minimize this potential. See Section B.1.h below for typical Best Management Practices (BMPs) and other measures that could be utilized to minimize the potential for erosion.

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

The Sunset Pump Station property currently consists of approximately 80% impervious surfaces, and the Heathfield Pump Station property currently consists of approximately 50% impervious surfaces. With the exception of a small amount of new supporting equipment at Heathfield Pump Station (approximately 25 sq. ft.) and three new manhole covers at the Eastgate Interceptor (approximately 10 sq. ft. total), the project will not increase the amount of impervious surfaces at either pump station or along the alignment of the new pipeline. The project is currently expected to result in a functional net reduction in impervious surfaces within the project area, primarily due to the planned installation of a 2,000-sq.-ft. green roof at Sunset Pump Station.

h. 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, including prior to all clearing, excavation, filling, grading, and other soil-disturbing activities in the project area. These control measures will be identified in the project plans and construction

specifications and will be implemented as required by the City of Bellevue and other permitting agencies.

Typical measures that may be used include filter fabric fences, silt traps in storm drain inlets, covering soil stockpiles and exposed soils, and the use of settling tanks or other means to prevent sediment from leaving the site.

Additional BMPs and other measures could include the following:

- Designation of personnel to inspect and maintain temporary erosion and sediment control measures
- Use of appropriate means to minimize tracking of sediment onto public roadways by construction vehicles
- Regular street cleaning for mud and dust control
- Disposing of spoils at an approved disposal site
- Restoration of disturbed areas by repaving or replanting as soon as practical after construction is completed

Vibration generated by construction activities, particularly the soil separation facility required to support HDD and trenchless operations, may be noticeable but is not expected to damage nearby structures. Vibration in the immediate area of construction will be monitored during construction to ensure that it does not exceed allowable limits.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

The project will involve temporary construction-related air emissions, including diesel exhaust from construction equipment and dust generated by earth-moving activities. In addition, sewer odors may be temporarily emitted where existing sewer pipes or storage structures are opened during the course of construction.

When the project is completed, emissions will be limited to occasional diesel exhaust from standby generators at the Sunset and Heathfield Pump Stations, which will only operate in the event of an electrical power outage and for brief, occasional system tests. Odor control facilities at both Sunset and Heathfield Pump Stations will minimize odors from sewer pipes and storage structures.

See Attachment 1 for a King County Greenhouse Gas Emissions Worksheet prepared for the project.

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

There are no known off-site air emissions or odors that may affect the project.

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

During construction, BMPs will be implemented to control dust. Types of BMPs that will be used may 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.

Construction equipment-related emissions will be reduced by requiring proper maintenance of equipment, using electrically-powered equipment where practical, and avoiding prolonged idling of vehicles and equipment.

King County will provide advance notice to nearby residents and businesses when known odor causing activities are to occur. King County staff will be on-call to address community concerns regarding air emissions and odors while the work is being completed.

After the project is completed, odor control facilities at both pump stations will continue to minimize odors generated from the conveyance of wastewater, similar to present-day conditions.

3. Water

a. Surface Water:

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.

Lake Sammamish, a Type S water (shoreline of the state), is at the east edge of the project area, with Sunset Pump Station located on the shoreline. Four streams have been identified in the project area. These include Vasa Creek, a Type F stream (contains fish or fish habitat) that flows into Lake Sammamish; Stream 0160, which is classified as a Type F stream that may flow into Vasa Creek or may be piped directly into Lake Sammamish; Unnamed Stream 1 near the intersection of SE 38th St. and 166th Ave. SE, which is tentatively classified as Type O and does not appear to have a surface water connection to other water bodies; and Unnamed Stream 2, which is tentatively classified as Type O and has a

surface water connection to a pond near Wetland D. See Figures 3A-C for an illustration of these streams in relation to the project area. Water types listed here are subject to confirmation by permitting agencies.

Seven wetlands have been identified in the project area. See Figures 3A-C for maps indicating wetland locations. Characteristics of each wetland, based on City of Bellevue standards for classifying and protecting wetlands, are summarized in Table 1.

Six roadside drainages and two ponds, all likely artificially created or heavily modified as part of the local stormwater management system or as landscape amenities, have been identified in the project area. See Figures 3A-C for maps indicating aquatic feature locations. Characteristics of these aquatic features are summarized in Table 2.

Table 1. Summary of wetlands in the project area.

Wetland ID	Hydro-geomorphic Type	Vegetation Type[a]	Category[b]	Buffer Width (ft.)[c]	Area (ac.)
Wetland A	Slope	PFO	III (habitat score <20 points)	60	0.03
Wetland B	Slope	PFO	III (habitat score <20 points)	60	>0.01[d]
Wetland C	Depressional	PFO	III (habitat score <20 points	60	0.1[e]
Wetland D	Depressional	PFO/PSS	III (habitat score <20 points)	60	0.27
Wetland E	Slope	PEM	IV	40	<0.25[e]
Wetland F	Slope / Depressional	PEM	IV	40	<0.5[e]
Wetland G	Depressional	PFO/PEM	IV	40	0.5-1[e]

[a]PFO = palustrine forested; PSS = palustrine scrub-shrub; PEM = palustrine emergent
[b]Ecology 2004 Rating System
[c]COB LUC 20.25H.095.C
[d]Wetland partially surveyed; extends onto private property outside of study area
[e]Area is an estimate only

Table 2. Summary of other aquatic features in the project area.

Aquatic Feature	Tentative Status	Description
Drainages 1 & 1-1	Type O Stream	Evidence of surface water flow; some features of a natural stream; possible piped connection to Vasa Creek (unconfirmed)
Drainage 2	Type N Stream	Evidence of surface water flow; upper channel is concrete-lined, lower channel has rocky substrate; above-ground hydrologic connection to Vasa Creek
Drainage 3	May not be regulated as stream by City of Bellevue	Appears artificially created in a mostly upland area to convey stormwater along adjacent road
Drainage 4	May not be regulated as a stream by City of Bellevue	Appears artificially created in a mostly upland area to convey stormwater along adjacent road
Drainage 5	May not be regulated as a stream by City of Bellevue	Appears artificially created in a mostly upland area to convey stormwater along adjacent road
Pond associated with Stream 0160	Type F Water Body	Appears artificially created; connected to Stream 0160 (Type F Stream)
Pond near Wetland D	May not be regulated as an aquatic feature by City of Bellevue	Appears artificially created

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.

The new force main will cross Vasa Creek twice. Each crossing will be accomplished using trenchless construction methods. Specialized boring or ramming equipment will be used, as well as conventional construction equipment such as excavators, bulldozers, cranes, and dump trucks. The force main pipe and casing will be installed at a depth sufficient to avoid impacts to the creek. The first trenchless crossing will parallel the bridge crossing of 164th Pl. SE. Entry and exit pits for this crossing, described in detail in Section B.1.e. above, will be located on either side of the creek, within the 100-ft. buffer of Vasa Creek regulated by the City of Bellevue. The second trenchless crossing will be installed between the intersection of 164th Pl. SE and 163rd Ave. SE, and the Heathfield Pump Station property. Entry and exit pits for this crossing will also be located within the 100-ft. buffer of Vasa Creek.

In addition to the pits described above, construction activities outside of the Heathfield Pump Station and within the 100-ft. Vasa Creek stream buffer will include excavating to connect the new force main into the pump station, excavating to install electrical conduit, and installing supporting equipment. The project will also involve forest restoration activities on the Heathfield Pump Station property, as well as approximately 90 sq. ft. of slope stabilization and vegetation restoration within and around Drainage 2.

The project will involve work adjacent to and possibly in Lake Sammamish. On the Sunset Pump Station property, which is on the shore of the lake, construction activities will include excavating to connect the new force main into the pump station, excavating to install electrical conduit, and installing supporting equipment such as a new standby generator. Finally, the project will involve replacing the landscaping on the Sunset Pump Station property to better support native wildlife, and installing habitat enhancement structures above the ordinary high water mark of the lake.

Construction activities to install the new force main using HDD methods will occur adjacent to, and possibly in, Lake Sammamish. Pipe pullback operations may occur at either the east or west end of the HDD segment. If the pipe is pulled back from the east end, approximately 1,800 ft. of pipe will need to be assembled near the shoreline and then floated on the surface of the lake before being pulled back. The pipe will be elevated with onshore equipment such as rollers or a long boom excavator during

staging and pullback, so as not to disturb nearshore sediments or habitat. A tender boat will be used to manage the pipe as it is floated onto the lake surface, and approximately 15 buoy anchors will secure the pipe in place before it is pulled back. The pipe may be at least partially floating on the lake surface for approximately three weeks.

Other activities in the vicinity of Lake Sammamish that are associated with HDD construction methods will include the excavation of an entry or exit pit using conventional construction equipment such as excavators, bulldozers, cranes, and dump trucks. Activities may also include operating a drilling rig and a soil separation facility to remove soils from drilling fluid.

The west end of the HDD segment will be located within or near Wetland D. An entry or exit pit will be excavated at this location using conventional construction equipment such as excavators, bulldozers, cranes, and dump trucks. Other HDD-associated activities affecting this area may include operating a drilling rig, a soil separation facility, and conducting pipe pullback operations. Beyond the west end of the HDD segment, within Wetland D and Drainage 3, the new pipe will be installed using cut and cover methods. These water bodies will be restored upon project completion. On SE 35th Pl., the new pipe will be installed using cut-and-cover methods through Drainage 1. This drainage will be restored upon project completion.

Finally, staging and laydown for the project will occur on approximately 6,000 sq. ft. of vacant land adjacent to Wetland D, which is classified as wetland buffer. Staging and laydown may include equipment and materials storage, parking, and other temporary uses.

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.

Within Wetland D, pipeline installation will require approximately 200 cu. yd. of soil excavation for cut-and-cover installation, approximately 50 cu. yd. of excavation for an HDD entry or exit pit, and a small amount of additional grading in Wetland D in order to accommodate construction equipment. The pipeline trench in Wetland D will then be filled with approximately 25 cu. yd. of pipe bedding material from an approved borrow source. Graded areas immediately surrounding the HDD pit will be temporarily covered with gravel or a similar material to provide a suitable surface for construction equipment. These activities will result in temporary impacts to approximately 1,500 sq. ft. of Wetland D.

Within Drainage 3, which is just west of Wetland D, cut-and-cover pipeline installation will require approximately 425 cu. yd. of soil excavation, and fill of approximately 75 cu. yd. of fill, comprised of pipe bedding material from an approved borrow source. These activities will result in temporary impacts to approximately 900 sq. ft. of Drainage 3.

Within Drainage 1, which is adjacent to SE 35th Pl., cut-and-cover pipeline installation will require approximately 650 cu. yd. of soil excavation, and fill of approximately 100 cu. yd. of fill, comprised of pipe bedding material from an approved borrow source. These activities will result in temporary impacts to approximately 1,100 sq. ft. of Drainage 1.

For all cut-and-cover trenches, as well as the HDD pit within Wetland D, backfill will consist of native soil to the greatest extent possible, supplemented with clean fill from an approved borrow source as required. All excavated or graded areas within surface waters and Wetland D will be restored to previous grade at project completion.

Finally, approximately 4 cu. yd. of river cobbles will be placed by hand within approximately 90 sq. ft. of Drainage 2 at Heathfield Pump Station as part of restoration activities.

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

The project may require temporary surface water diversions around the area of work within Drainages 1, 1-1, 2, and 3. Surface water, if present in these drainages during construction activities, will be bypassed using methods such as temporary gravity piping, diversion ditches, or storage and pumping equipment. Construction activities for this segment of pipe installation will occur during the dry season, and the quantity of surface water to be diverted will be negligible if there are no rain events. Following cut-and-cover pipeline installation, Drainages 1, 1-1, and 3 will be restored to pre-construction flow conditions. Surface water flow in Drainage 2 will be restored after slope stabilization activities are complete.

No surface water will be diverted or withdrawn once construction is complete.

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

A portion of the project area, along Vasa Creek from 163rd Ave. SE downstream to Lake Sammamish, is within a 100-year floodplain (see

Figure 2). The project will comply with all City of Bellevue requirements for construction in special flood hazard areas.

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.

The project will not involve any intentional discharge of waste materials to surface waters.

b. Ground Water:

1) Will ground water be withdrawn, from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses, and approximate quantities withdrawn from the well. Will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Ground water will need to be withdrawn from construction areas ("dewatering") to allow pipeline installation to be completed in dry conditions. Each entry and exit pit for HDD and other trenchless installation locations will be dewatered using a system of pumped wells, wellpoints, and sumps or similar equipment. Dewatering may also be required within the trench for cut-and-cover installation, using sump pumps or similar portable equipment, or possibly using an installed dewatering system.

The extent and rate of ground water withdrawals will vary widely throughout the project area, depending on seasonal conditions, groundwater levels in the immediate area of work, hydraulic conductivity of soils, and presence of confining geologic formations. The highest rate of dewatering will likely be required for excavation in the vicinity of Vasa Creek, where construction activities will likely occur below the water table. Stabilized dewatering rates near Vasa Creek could be approximately 90 gallons per minute for approximately six months.

Water that is withdrawn may be discharged into the City of Bellevue's storm drainage system, King County's wastewater system, or local surface water bodies. All withdrawn ground water will be routed through a treatment system and treated to the applicable water quality standards before being discharged.

No ground water will be withdrawn after project construction is complete.

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.

No waste material will be discharged into the ground from septic tanks and other sources.

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 main source of water runoff during and after construction will be rainfall. During and after construction, this runoff will infiltrate into pervious surfaces such as soils, or be directed to the local stormwater collection system or one of the surface water bodies in the project area. Much of the surface water in the project area, as well as the local stormwater collection system, flows into Lake Sammamish. Runoff control measures during and after construction will comply with the City of Bellevue's stormwater management requirements.

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

Runoff from construction sites within the project area has the potential to contain small amounts of motor oil, diesel fuel, hydraulic fluid, drilling fluid, and other equipment-related materials, as well as sediments. These substances could enter ground or surface waters. See item B.3.d below for measures to minimize this potential.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

The project will include the installation of stormwater management control measures on the pump station properties, which will intercept stormwater that could otherwise run off directly into the local stormwater collection system or surface water bodies.

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

The project will be constructed in accordance with applicable local, state and federal permits and government approvals, which will specify a range of measures designed to reduce or control potential surface, ground or runoff water impacts.

Erosion and sediment control BMPs will be used during construction to reduce and control stormwater runoff impacts. Examples of typical BMPs that could be used during construction are presented in Section B.1.h above. Additional construction BMPs that could be implemented to prevent introduction of contaminants into surface or ground water during construction include:

- Storing fuels and other potential contaminants away from surface waters in secured containment areas
- Refueling construction equipment and vehicles away from surface waters whenever practicable
- Containing equipment, materials and vehicle wash water associated with construction and preventing it from draining into surface waters
- Conducting regular inspections, maintenance, and repairs of fuel hoses, hydraulically operated equipment, lubrication equipment, and chemical/petroleum storage containers
- Maintaining spill containment and clean up material at construction sites
- Establishing communication protocol for handling spills

Ground water discharged from the project area during construction will be treated and monitored to ensure that it meets water quality standards before it is discharged to the stormwater collection system or surface waters. Any contaminants removed during treatment will be disposed of at an approved disposal site.

The project will include the installation of stormwater management control measures on the pump station properties. These measures may include new stormwater retention and filtration facilities on the pump station properties, such as a raingarden, green roof, or engineered biofiltration system. Filter media, soils, and plantings in these facilities will settle, absorb and filter stormwater runoff prior to infiltration or conveyance to the stormwater collection system.

The project itself is a measure to prevent potential adverse impacts to Vasa Creek or Lake Sammamish. The purpose of the project is to increase the capacity and reliability of a critical wastewater conveyance system in order to meet growing demand driven by regional population growth. Exceeding the capacity of the Sunset and Heathfield system could result in the discharge of untreated wastewater to Vasa Creek (from Heathfield Pump Station) or Lake Sammamish (from Sunset Pump Station).

4. Plants

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

deciduous tree: alder, maple, aspen, other – ornamentals, e.g. Pacific dogwood
evergreen tree: fir, cedar, pine, other – ornamentals, e.g. Lawson cypress
shrubs
grass
pasture
crop or grain
orchards, vineyards, or other permanent crops
wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
water plants: water lily, eelgrass, milfoil, other
other types of vegetation

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

Construction of the project will require clearing vegetation from landscaped areas as well as infrequently-maintained or unmaintained vegetated areas. Vegetation, predominantly non-native invasive Himalayan blackberry, will be cleared from up to 2,000 sq. ft. of wetland habitat. Up to 20,000 sq. ft. of wetland and stream buffers will be affected by vegetation removal, as well as approximately 300 sq. ft. of shoreline area.

Vegetation within the road rights-of-way (i.e., unpaved shoulders) of West Lake Sammamish Pkwy SE, SE 38th St., 164th Pl. SE, SE 35th Pl., and SE Eastgate Way, such as grasses, English ivy, and ornamental shrubs, may be cleared for pipeline installation activities. In addition, some trees within the road right-of-way or on private property adjacent to the road will need to be removed due to the proximity of their root systems to construction activities. Throughout the total project area, it is estimated that between 50 and 60 trees, ranging in size from 6 in. diameter to 40 in. diameter, may need to be removed for project construction.

With the exception of a 25-sq. ft. area adjacent to Heathfield Pump Station, which will contain the footprint of a new piece of supporting equipment, all vegetated areas throughout the project will be replanted.

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

There are no threatened or endangered plants known to be on or near the site.

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

The use of HDD pipe installation methods will allow the preservation of a stand of largely intact forest canopy on the south side of SE 38th St. Throughout the project area, "significant" trees, as defined by the City of Bellevue code as healthy trees at least eight in. in diameter, will be protected and not disturbed to the maximum extent practicable. Trees outside of construction areas will be protected to City of Bellevue tree protection standards. Examples of tree protection measures that will be implemented include the placement of steel plates or thick mulch within the dripline of trees near construction areas, and installing fencing and signage around trees to be protected. Trees and other vegetation removed from the project area will be replaced and the sites restored in compliance with applicable City of Bellevue code standards.

On the Sunset Pump Station property, landscaped areas removed during construction will be replanted largely with native species that are well-adapted to shoreline environments. On the Heathfield Pump Station property, invasive plants such as English ivy, which currently dominate the Vasa Creek buffer area, will be removed and controlled in order to re-establish a native forest understory. In wetlands, wetland buffers, and drainages that will be temporarily impacted by the project, most of which are currently dominated by invasive species such as reed canarygrass and Himalayan blackberry, suitable native species will be replanted after construction is complete.

General vegetation preservation measures to be implemented during construction include:

- Limiting construction to minimum construction corridors through sensitive areas to lessen temporary impacts
- Minimizing the area of disturbance to the amount necessary for construction of project features
- Revegetating disturbed areas as soon as possible after grading is completed

e. List all noxious weeds and invasive species known to be on or near the site.

Notable noxious weeds and other plant species of concern recorded within the project area include:

- Himalayan blackberry
- Creeping buttercup
- English ivy
- Reed canarygrass
- English holly

5. Animals

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

The project area is within an urbanized setting, but still provides a variety of wildlife habitats including forests, wetlands, riparian areas, and the aquatic habitat of Lake Sammamish. These habitats may support a wide variety of birds, small mammals, and fish. Some birds that may be present near the project area include red-tailed hawks, bald eagles, osprey, herons, waterbirds such as ducks and geese, and numerous species of songbirds. Some mammals that may be present near the project area include black-tailed deer, beavers, and bats. Lake Sammamish supports fish species such as cutthroat trout, large- and small-mouth bass, and yellow perch, and coho salmon, and may also support threatened species including Chinook, steelhead, and bull trout.

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

Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), and bull trout (*Salvelinus confluentus*) may occur in Lake Samammish. These species are listed as "threatened" under the ESA. None of these fish species are expected to occur within Vasa Creek or other water bodies within the project area.

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

Lake Sammamish and Vasa Creek are used for migration by salmon and other anadromous fish.

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

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

The use of trenchless construction methods will allow the project to be completed without directly affecting Vasa Creek or its resident fish species. Wetlands, wetland buffers, creek buffers, and shoreline habitat within the project area will all be restored with suitable native plant species, enhancing their value as wildlife habitat from current conditions. Further, wildlife habitat elements such as snags, woody debris, brush piles, and bat boxes may be installed throughout the project area.

In addition, the project will comply with conditions of applicable permits and government approvals, including consultation under Section 7 of the ESA with NOAA-Fisheries and USFWS; permits from the USACE; a Hydraulic Project Approval from WDFW; permits from the City of Bellevue, and other regulatory

permits and approvals. Through these conditions, applicable regulations may require mitigation of impacts to fish and wildlife resources, including endangered species.

e. List any invasive animal species known to be on or near the site.

None known

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.

During construction, vehicles, equipment, and haul trucks will be powered primarily by diesel, gasoline, and electricity. When construction is complete and the system is operating, pump stations will use electricity to power pumps and other equipment. In the event of a power failure, the pump station will be powered by a diesel standby generator. Periodic visits by operations and maintenance staff will require vehicles powered by gasoline or diesel.

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:

Energy efficiency will be a primary consideration in selecting new equipment to be installed in the pump stations. Energy conservation features could include variable-frequency drive motors, LED lighting, motion-sensing light switches, and energy-saving HVAC controls.

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.

1) Describe any known or possible contamination at the site from present or past uses.

There is no known contamination within the project area. Nevertheless, there is a potential to encounter soils or ground water contaminated with petroleum or other hazardous chemicals as part of excavation work.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

The road rights-of-way within the project area contain numerous underground utilities, including natural gas pipelines and existing wastewater force mains. The pipeline alignment is being designed to minimize conflict with these existing pipelines, and all excavation activities will be closely coordinated with utility owners.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

During construction, potential exposure to construction-related materials such as fuel and hydraulic fluid could occur as the result of accidental spills or mechanical failures. However, BMPs will be implemented during construction to minimize the potential for spills or mechanical failures to occur, and to minimize the potential for adverse effects from hazardous chemicals to workers or nearby residents.

The completed project will convey untreated wastewater. Exposure to untreated wastewater can be hazardous, but the risk of exposure to members of the public will be negligible.

4) Describe special emergency services that might be required.

None

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

As described in items B.1.h and B.3.d. above, BMPs and other measures will be used to avoid or contain and control any accidental spills or releases of hazardous materials during project construction. Project plans and construction specifications include measures to safely handle and dispose of contaminated soil or water. No sources of contaminated soils or water are known within the project area. However, if unexpectedly encountered during construction, contaminated soils will be removed from the work area and transported to a permitted disposal site. Contaminated ground water removed from work areas will be treated on site and disposed of according to the project's ground water management plan.

The contractor will also prepare a health and safety plan as a deliverable for the proposed project prior to the start of construction. This plan will comply with all applicable health regulations and will detail measures to control 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)?

Noise in the project area will not affect the 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 noise will likely exceed existing background noise levels. Noise levels will vary depending on the specific equipment used for particular activities. 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. Throughout project construction, short-term, intermittent construction related noise may include engine and mechanical equipment noises associated with the use of heavy equipment such as bulldozers, excavators, cranes, haul trucks, vacuum trucks, drill rigs, generators, and air compressors.

The soil separation facility used as part of HDD pipe installation operations will generate noise levels similar to the construction activities described above, but noise from this source will be relatively constant during drilling activities rather than intermittent. The soil separation

facility will operate during working hours over a period of a few weeks to a few months, and may require operation outside of daytime working hours for a period of several consecutive days during pipe pullback.

If pipe ramming is used as a trenchless installation method, intermittent higher noise levels may occur for a period of several days. A typical noise level associated with pipe ramming equipment is approximately 96 dBA measured at a distance of 50 feet from the source. No other notably louder activities, such as impact or vibratory pile driving, are currently anticipated as part of the project.

Most construction-related noises will be limited to construction hours allowable by the City of Bellevue's noise code. However, pullback of the HDD pipe, which will include the operation of drill rigs, cranes, excavators, and a soil separation facility, may occur outside of these hours for a period of several consecutive days.

If work outside of daytime working hours is required, an application for expanded construction hours will be submitted to the City of Bellevue.

Once the project is completed, noise associated with pump station operation is not expected to increase from current levels.

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

All construction and facility operation activities will be consistent with City of Bellevue noise provisions and coordinated with the City. All impacts from noise generated by construction will be short-term and temporary in nature. Construction BMPs will be used to minimize construction noise and could include:

- Using effective vehicle mufflers, engine intake silencers, and engine enclosures, and shutting off equipment when not in use
- Using temporary noise barriers around stationary equipment
- Positioning noise-generating equipment in the project area so that it is as far away as possible from sensitive receptors
- Notifying residents and businesses near active construction areas of upcoming noisy construction activities
- 24-hour construction hotline to promptly respond to questions and complaints

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The project is located in an area that is largely residential. Sunset Pump Station is located adjacent to privately-owned Vasa Park Resort, which offers beach access, camping, and facility rental. SE Eastgate Way, where the new force main will terminate, is adjacent to the Interstate 90 highway. The remainder of the project area is surrounded by single-family residential development or small multi-family residential buildings. The project will not affect current land uses.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The project area is not known to have been used as working farmlands or working forest lands in the past century.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site.

The Sunset and Heathfield Pump Stations, and associated equipment such as standby generators, are the only existing structures that will be affected by the project. The new force main pipe will be installed primarily in City of Bellevue right-of-way, under paved roads and both paved and unpaved road shoulders. One of the force main crossings of Vasa Creek will be underneath a bridge that supports 164th Pl. SE, at a depth and alignment which will not affect the bridge. The other Vasa Creek crossing will be underneath a culvert carrying the creek, at a depth that will not affect the culvert.

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

The standby generators at each pump station site will be removed, and their foundations removed and replaced. The above-ground fuel tank at Heathfield

Pump Station will be removed, and its foundation removed and replaced. The standby generators and Heathfield's above-ground fuel tank will each be replaced with new units.

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

Most of the project area is zoned for single-family residential development (City of Bellevue classification R-5), with a small segment of multi-family residential zoning (R-20) on SE 35th Pl., and zoning for offices (O) at the west end of the project area.

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

In the City of Bellevue's Comprehensive Plan, most of the project area is designated as Single Family – High Density, with a small segment on SE 35th Pl. designated as Multi-Family – Medium Density, and an Office designation at the west end of the project area.

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

The section of the project area within the City of Bellevue's 200-foot Shoreline Overlay is designated Shoreline Residential.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

There are numerous surface waters within the project area designated by the City of Bellevue as Critical Areas, including four streams and seven wetlands. See item B.3.a above for a summary of these surface waters.

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

People will not reside in the completed project. It is estimated that King County staff will visit the facilities on a weekly basis for normal operation and maintenance purposes.

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

None

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

None

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

The project will not affect current or projected land uses in the area. During the permit approval process, the City of Bellevue will be consulted to ensure that the project is compatible with existing and projected land uses and plans.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None

9. Housing

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

None

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

None

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

None

10. Aesthetics

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

The above-ground portion of the Sunset Pump Station building is approximately 13 ft. tall, with limited rooftop equipment measuring an additional approximately 6 ft. The building exterior is concrete. There is a standby generator adjacent to the pump station building that is similar in height. The project will add additional rooftop equipment to the pump station building that is approximately 7.5 ft. tall, increasing the total building height by approximately 1.5 ft. The standby generator will also be replaced by a slightly larger unit, although the height may not change noticeably. There are no planned changes to the principal exterior building material. Sunset Pump Station is situated on a downhill slope from West Lake Sammamish Pkwy. SE, such that its roof is essentially below road grade, and the pump station is currently nearly completely

screened from most viewpoints on land by vegetation. This vegetation will be removed and replaced by vegetation that will grow within a few years to provide similar screening.

The above-ground portion of the Heathfield Pump Station building is approximately 30 ft. tall. The building exterior is concrete and metal. The standby generator at Heathfield is approximately 12 ft. tall but is located behind the station at an elevated ground level, making the top of the generator roughly the same elevation as the pump station building roof. The project will not change the pump station's height or appearance. The standby generator will be replaced by a slightly larger unit, although the height may not change noticeably.

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

At project completion, no views will be substantially obstructed. Sunset Pump Station's roof is currently partially visible from uphill viewpoints. Minimizing the visibility of new rooftop equipment is a design criterion for the project, but it may not be possible to completely conceal this new equipment from all viewpoints. King County will install a vegetated "green roof" on Sunset Pump Station, which will be visible from uphill viewpoints.

Vegetation at the Sunset Pump Station will be removed and replaced as part of the project, which will temporarily alter views in the vicinity of the pump station until new vegetation has established and matured in a few years.

Throughout the project area, mature trees may have to be removed and replaced in order to install the new pipe. Tree removal will alter views in the immediate vicinity.

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

King County is working with the community in designing landscaping elements of the pump stations, such as vegetation, fencing, and lighting. Landscape design will reflect community input as well as City of Bellevue landscape code for utility facilities. In general, the project will seek to minimize the area of vegetation disturbance to the amount necessary for construction of project features, all vegetated areas throughout the project will be replanted, and all trees that are removed will be replaced.

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. With the possible exception of several consecutive days for HDD pipe pullback operations, no nighttime construction outside of the pump station buildings is anticipated. If nighttime construction activities are required, any temporary lighting used will be consistent with City of Bellevue land use provisions and coordinated with the City.

At the pump stations, the completed project will produce light from exterior security lighting that will be similar to current conditions.

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

When the project is complete, new lighting outside of the Sunset and Heathfield Pump Stations will produce less upward-cast light and glare without compromising visibility or security.

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:

One of the project's design criteria is minimizing upward-cast lighting. Lighting for the pump stations will be configured so that light is not cast beyond the edge of the pump station sites to minimize light that would be noticeable from surrounding properties.

12. Recreation

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

Lake Sammamish is a popular venue for recreation including boating, waterskiing, fishing, and swimming. Vasa Park Resort, adjacent to Sunset Pump Station, offers camping, picnicking, and swimming opportunities. West Lake Sammamish Pkwy. SE is a popular bicycling route. There is a network of hiking trails south of SE 38th St.

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

Pipe installation using HDD methods may prevent some uses of Lake Sammamish and Vasa Park Resort during the fall and winter months. Construction activities will require temporary closure of the shoreline in the immediate vicinity, and may intermittently prevent dock access by boaters. If the contractor chooses to float the new force main pipe in the lake prior to pullback, the area immediately surrounding the pipe will be closed to boaters for a period of up to three weeks. These construction activities will be timed to coincide with the off-season for most lake-related recreational activities.

Throughout project construction, and especially during HDD operations, there will be increased truck traffic on West Lake Sammamish Pkwy SE, which may temporarily negatively affect the use of this road as a bicycling route.

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

Activities that may affect lake-related recreational activities will be conducted during the off-season. The new pipe will cross West Lake Sammamish Pkwy. SE, a popular bicycling route, using HDD construction methods to minimize disruption to road users. The project will not provide any new recreation opportunities.

13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

No buildings, structures, or sites that are listed in or eligible for listing in preservation registers have been identified from the project area.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No landmarks, features, or other evidence of Indian or historic use have been identified within the project area. No surveys or other professional studies are known to have been conducted.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The project was screened by the King County Historic Preservation Program for the presence of cultural and historic resources within the project area and the probability of an inadvertent discovery of cultural resources during project construction. This screening included a review of historic registers, databases including the Washington Department of Archaeology and Historic Preservation's (DAHP) records database ("WISAARD"), historic maps and reports, and predictive GIS modeling.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

King County will prepare an inadvertent discovery plan for project construction, which will establish procedures to follow in the event of the unanticipated discovery of potential cultural resources. As required by Section 106 of the NHPA, USACE will enter into consultation with potentially affected Tribes and other interested parties to identify and address any potential adverse effects to cultural resources before issuing a CWA Section 404 permit to the project.

14. Transportation

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

Public streets and highways serving the project area include:

- West Lake Sammamish Pkwy. SE (location of Sunset Pump Station)
- SE 38th St. (new force main pipe will be installed using HDD roughly parallel to this street)
- SE 38th Pl. (access to SE 38th St.)
- 166th Ave. SE (access to SE 38th St.)
- 164th Pl. SE (new force main pipe will be installed using cut-and-cover as well as trenchless methods within the right-of-way of this street)
- SE 35th St. (access to 164th Pl. SE)
- 163rd Ave. SE (location of Heathfield Pump Station, access to 164th Pl. SE)
- SE 35th Pl. (new force main pipe will be installed using cut-and-cover as well as trenchless methods within the right-of-way of this street)
- SE Eastgate Way (new force main pipe will cross this street before terminating at the Eastgate Interceptor)

- Interstate 90 (access to SE Eastgate Way)

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

King County Metro's Route 888, which serves the Eastgate Park and Ride, Interlake High School, and the International School, runs within the project area. Other Metro routes nearby include the 217 and 271 on SE Eastgate Way.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

No parking spaces will be created or eliminated as a result of the completed project.

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

The project will require excavation within existing public roads and sidewalks, and subsequent restoration to previous conditions. No new roads or improvements to existing roads are proposed.

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

The project may require the use of small watercraft if a segment of pipe is temporarily floated on the surface of Lake Sammamish. HDD operations on the lake surface may temporarily disrupt vessel traffic in the immediate vicinity of Sunset Pump Station. Boaters will be notified in advance of construction activities, which will occur in the fall and winter months when boat traffic on the lake is greatly reduced.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The completed project will generate approximately one vehicular trip a week, for King County staff to perform normal operation and maintenance activities, identical to current conditions.

Construction activities will include regular truck trips during working hours throughout construction. Based on the predicted volume of materials to be hauled, it is estimated that cut-and-cover pipe installation will require approximately 1,600 round-trip truck trips over a period of approximately four months, in order to transport spoils and fill material. Pipe installation using HDD and other trenchless methods will require approximately 120 round-trip truck trips over a period of approximately one month, in order to transport drilling spoils.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

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

Installation of the new pipeline will require temporary closures of either one lane of vehicle traffic or rolling closures of all vehicle traffic lanes. Community residents will be notified in advance of all lane, street, and crosswalk closures. Local and emergency vehicle access will be maintained throughout the project. Detour routes for motorized vehicles, bicycles, and pedestrians will be clearly signed and be as direct as possible. All construction-related traffic disruptions will be coordinated with the City of Bellevue, King County Metro Transit, and private transit providers such as school buses.

15. Public Services

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

No

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

None

16. Utilities

a. Circle 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 Sunset and Heathfield Pump Stations are powered by electricity supplied by Puget Sound Energy. Improvements to each pump station will include a new, larger electrical service and a new diesel generator. The onsite transformers will also be replaced.

C. SIGNATURE

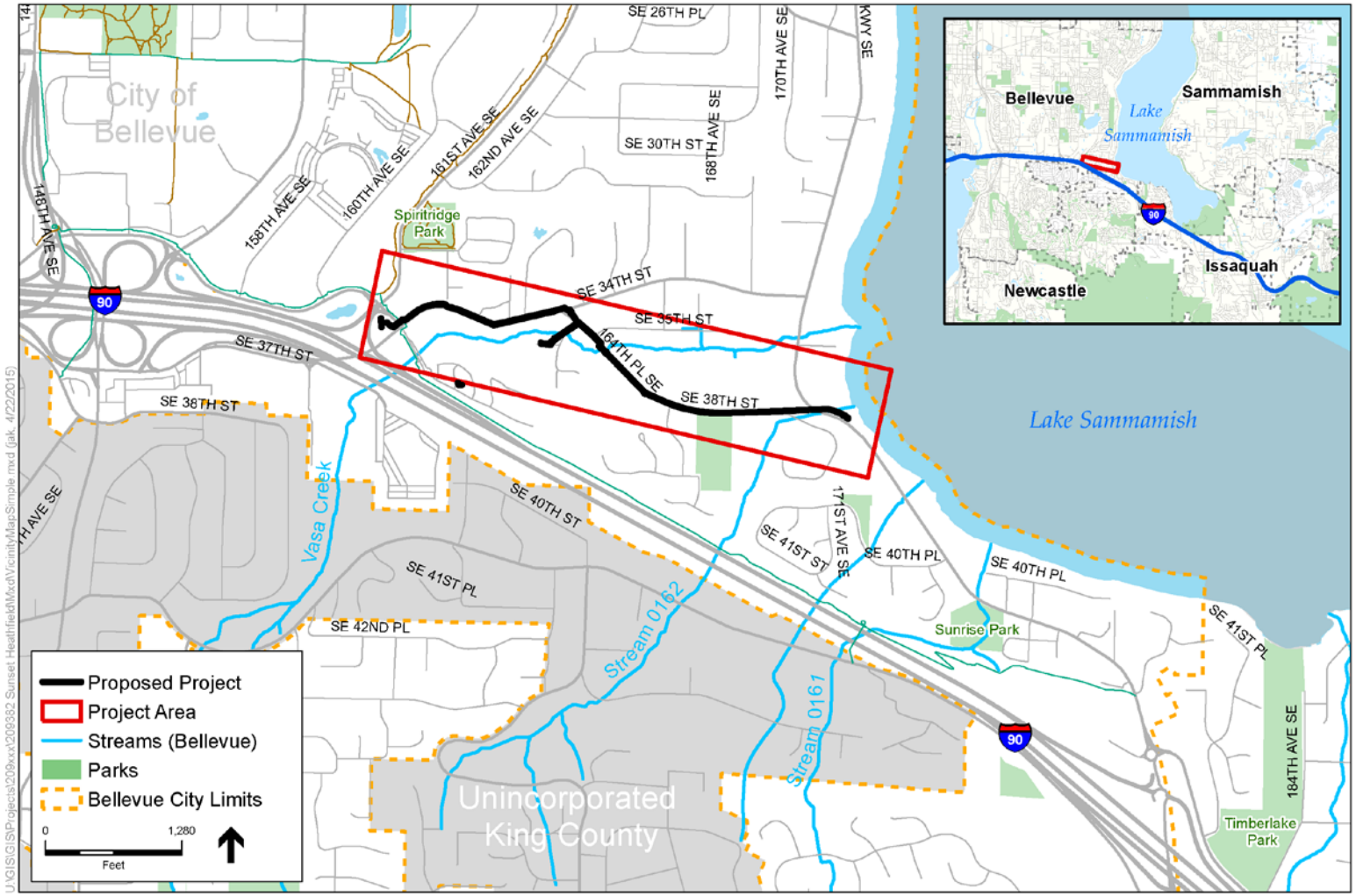
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Katherine Fischer, Supervisor
Community Services and Environmental Planning Unit
King County Wastewater Treatment Division

Date Submitted: 9/10/15

Figure 1. Vicinity map



SOURCE:
King County 2011; ESA 2015; City of Bellevue 2011; OSM 2014

Sunset Heathfield. 209382
Figure 1
Project Area and Vicinity Map

Figure 2. Alignment map.

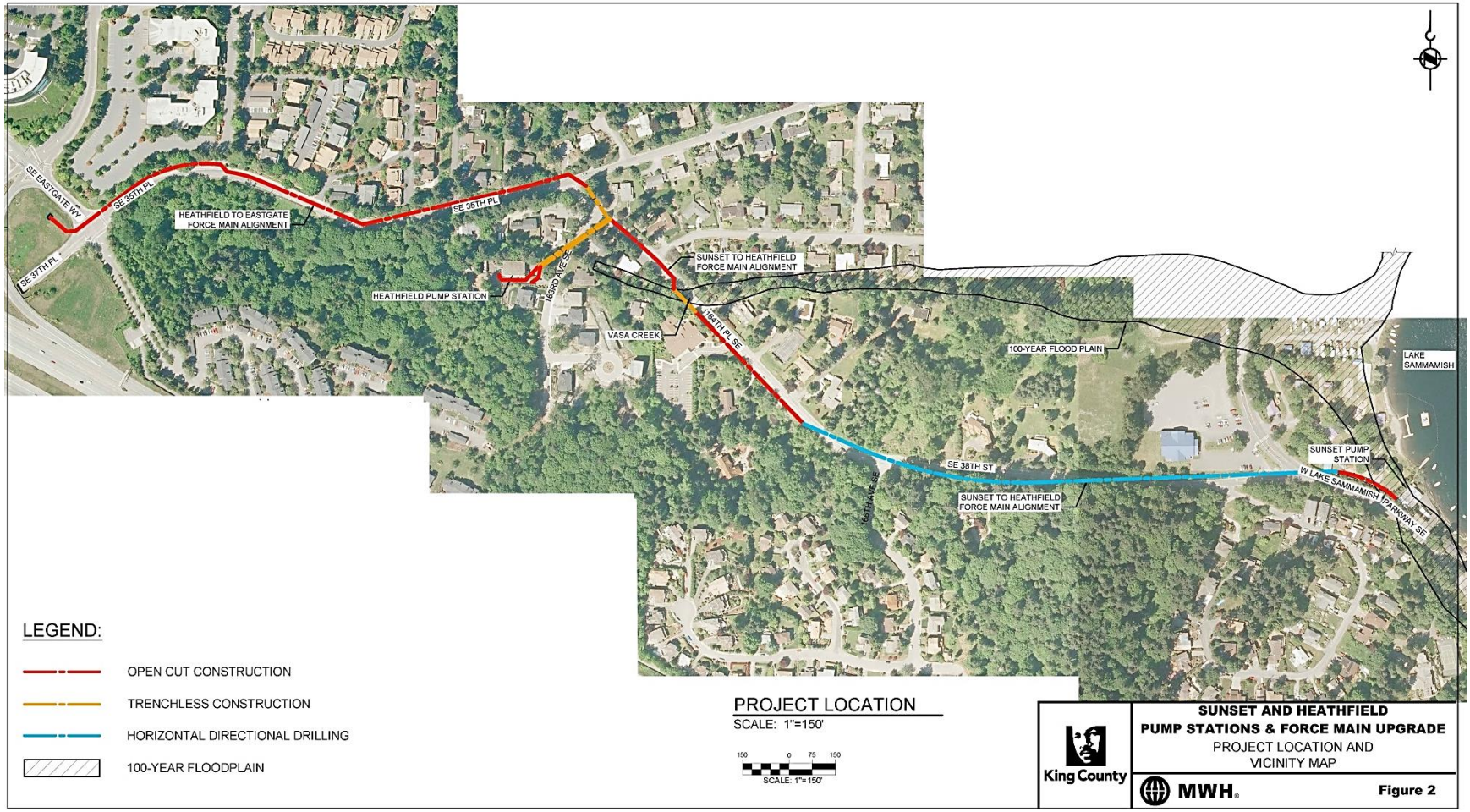
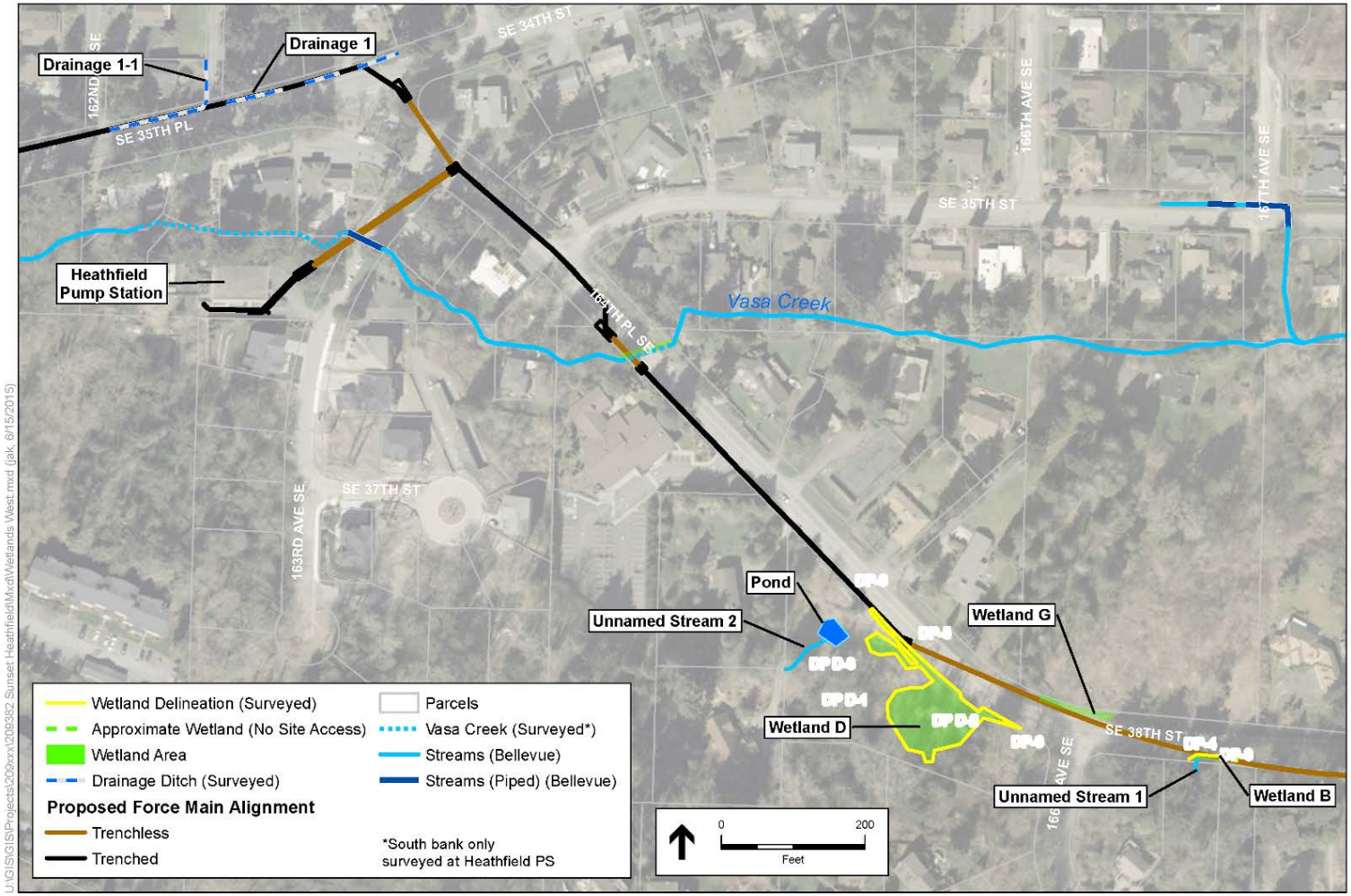
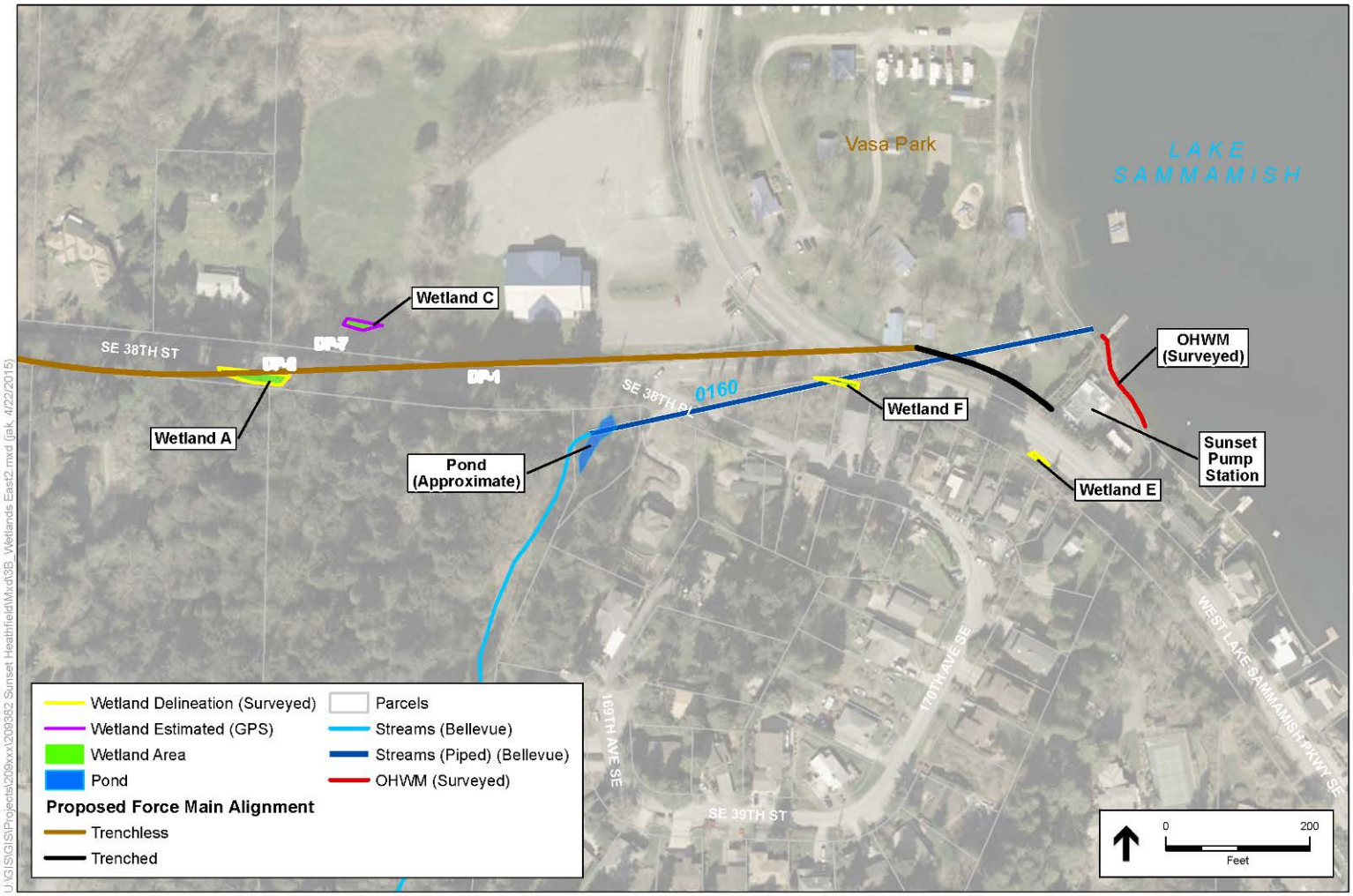


Figure 3A-C. Wetlands, streams, and aquatic features



SOURCE: City of Bellevue, 2010; King County, 2011;
MWH, 2011; True North Survey, 2014; MJ Hardin, 2009 (Aerial)

Sunset Heathfield . 209382
Figure 3-A
Overview of Surveyed Wetlands, Streams, and Drainages - West
Bellevue, Washington



Sunset Heathfield . 209382

SOURCE: City of Bellevue, 2010; King County, 2011;
MWH, 2011; True North Survey, 2014; MJ Hardin, 2009 (Aerial)

Figure 3-B
Overview of Surveyed Wetlands, Streams, and Drainages - East
Bellevue, Washington

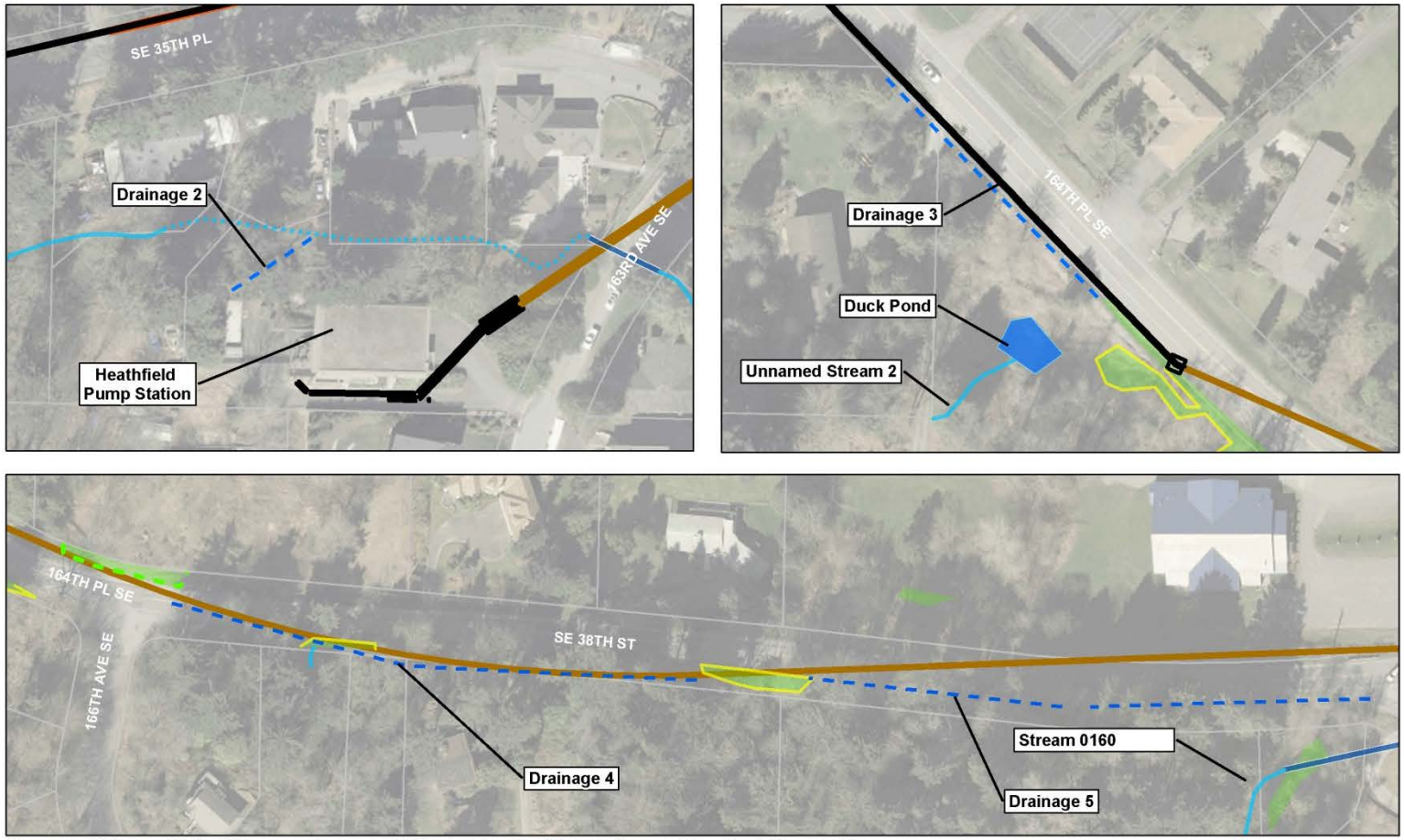


Figure 3-C
Additional Drainages
Bellevue, Washington

Attachment 1. King County Greenhouse Gas Emissions Worksheet

King County Greenhouse Gas Emissions Worksheet—Sunset and Heathfield Pump Stations and Force Main Upgrade Project

Section I: Buildings

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

Section II: Pavement

Pavement (where not previously paved)		0.01				1

Total Project Emissions: 1

Note: The project consists of upgrades to existing pump stations and a new pipeline. Except for three new maintenance hole covers, ground disturbed for pipeline installation will be restored to previous conditions.