

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

Lower Coal Creek Flood Hazard Reduction Project

2. Name of applicant:

City of Bellevue Utilities Department

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

450 110th Avenue NE, Bellevue, WA 98004

Contact: Debbie Harris, PE

(425) 452-4367

4. Date checklist prepared:

October 17, 2016

5. Agency requesting checklist:

City of Bellevue

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

This project would replace five culverts on lower Coal Creek with larger bridge structures and would reroute to Lake Washington existing stormwater that currently discharges to Coal Creek. The stormwater would enter Lake Washington via two new outfalls. The project is designed to reduce localized flooding. A complete project description is provided in section A.11.

The project would be implemented in stages due to budget limitations and to minimize construction-related disturbance to the neighborhood. The first culvert replacement would occur in the summer of 2017. The four remaining culverts would be replaced in subsequent years, at a rate of one to two culverts per year. Construction of the new stormwater outfalls would occur during or immediate following replacement of the existing culverts. The total timeframe for project implementation would be four to five years.

Work in upland areas is expected to occur from April to October at each culvert replacement site. Work below the ordinary high water mark would occur during the in-water work windows established through the permitting processes with the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife (WDFW). Based on the typical in-water work windows established by the U.S. Army Corps of Engineers, work below the ordinary high water mark of Coal Creek at each culvert location would occur between approximately July 1 and August 31, and work below the ordinary high water mark of Lake Washington at the new outfall locations would occur during late July and/or between approximately November 16 and December 31.

7. Do you have any plans for future additions, expansion, 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.

Biological Assessment prepared for the U.S. Army Corps of Engineers (Parametrix, Inc., June 2016)

Geotechnical Engineering Report (Aspect Consulting, October 2016)

Coal Creek Bridges Preliminary Design Report (Tetra Tech, October 2016)

Cultural Resources Overview (SWCA Environmental Consultants, May 2016)

Lower Coal Creek Flood Hazard Reduction Alternatives Analysis (Northwest Hydraulic Consultants and Tetra Tech, February 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.

Clean Water Act Section 404 Nationwide Permit(s), U.S. Army Corps of Engineers

Clean Water Act, Section 401 Water Quality Certification, Washington Department of Ecology

Endangered Species Act Section 7 Consultation, National Marine Fisheries and US Fish and Wildlife Service.

(NMFS provided letter of concurrence with the determination of "Not Likely to Adversely Affect" for the five culvert replacements on September 1, 2016)

National Historic Preservation Act Section 106 Consultation, Washington Department of Archeology and Historic Preservation.

Hydraulic Project Approvals (HPAs), Washington Department of Fish and Wildlife (WDFW)

City of Bellevue Clearing and Grading Permits

Critical Areas Land Use Permits, City of Bellevue

Shoreline Substantial Development Permits, City of Bellevue

National Pollution Discharge Elimination System Construction Stormwater Permit, Washington Department of Ecology

Industrial Waste Discharge Permit, King County

The construction contractor may also be required to obtain additional permits, such as Right of Way Use Permits, Street Use Permits, and Confined Space Entry Permits.

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

Over the last two decades, the City of Bellevue (City) has responded to numerous complaints of flooding in the Coal Creek watershed associated with a range of causes, including backed-up storm drains, blocked culverts, and channel overflows. The City seeks to implement flood hazard reduction measures that would abate existing flooding problems and convey flows equivalent to the

100-year flood event. To accomplish this, the City would replace existing drainage utilities with new structures sized to reduce flooding.

The Lower Coal Creek Flood Hazard Reduction Project would replace five culverts in the Newport Shores neighborhood with five new single-span bridge structures that meet current design guidelines for fish passage, flood conveyance, debris passage, and traffic safety. Preliminary engineering and design have been developed for replacement structures where Coal Creek is crossed by the following roadways: Cascade Key, upper Skagit Key, Glacier Key, Newport Key, and lower Skagit Key (Figure 1).

Each proposed bridge structure would have at least a 24-foot span and would consist of four drilled shafts (one at each corner of the bridge), a cap beam between the shafts parallel to the stream, and a concrete slab deck. The deck slab may be either pre-cast or cast in place. Existing City-owned and franchise utilities that are in conflict with the proposed new structures would be relocated within the existing rights of way.

The new bridge structures would simulate the natural stream dimensions, allowing sediment and debris to pass through and providing fish unhindered passage beneath the roadway. The new structures would be designed to comply with the updated State Hydraulic Code. The proposed culvert replacement structures were sized according to the Stream Simulation method outlined in Chapter 3 of WDFW's *Water Crossing Design Guidelines* (Barnard et al. 2013), using the Stream Simulation option. Section 2.3 of the technical memorandum, *Bankfull Width Determination for Lower Coal Creek Culvert Design* (prepared by NHC, 2016, and appended to the Preliminary Design Report), references the use of Equation 3.2 from the *Water Crossing Design Guidelines* to determine the size of the replacement structures. This equation is used to develop the structure width based on the stream simulation methodology and states that the bed width through the structure should be 20% larger than the channel bankfull width plus an additional 2 feet.

NHC measured channel bankfull width at each of the culvert crossings using the methodology outlined in Appendix C of the *Water Crossing Design Guidelines*. Their field investigation found that the existing culverts are 10 feet wide at the three upstream crossings and 13.5 feet wide at the two downstream crossings and that the average bankfull width in the study reaches ranges from 15 to 17 feet. Applying Equation 3.2 from the *Water Crossing Design Guidelines* yields a channel width of 20 to 22.4 feet through the proposed structures. To be conservative, structures installed at all crossings would be at least 24 feet wide. The design of the new structures would also comply with the National Marine Fisheries Service's (NMFS') facility design criteria and guidelines for anadromous salmonid passage (NMFS 2011), as well as applicable standards pertaining to the provision of freeboard. To meet freeboard criteria, the existing roadways at upper Skagit Key, Glacier Key, and Newport Key would be raised up to 1.5 feet and would operate with at least 1 foot of freeboard up to the 100-year flood event.

The channel through each bridge structure would be designed so that the shape of the cross-section and gradient matches the existing stream channel configuration of the reach near the structure. The channel would be constructed with a gravel and cobble material that matches the stream substrate in the adjacent reach. Bands of larger cobble and rock material would be installed in the channel inside of the bridge and at the upstream and downstream faces of the bridge structures to provide for substrate stability and to control scour and reduce the potential for head cutting upstream of the structures. The design of the sediment bands would be based on the existing sediment characteristics and proposed hydraulic conditions in the stream and would be consistent with the stream simulation design method.

Installation of large wood would occur along Coal Creek at various locations within the project area to protect against erosion at bridge openings and to locally stabilize stream banks. Large wood would also be installed to provide habitat enhancement to replace the future potential habitat function of existing mature trees that would need to be removed for bridge construction. No large wood would be installed at the outfall locations or within Lake Washington. The number of wood pieces included as mitigation for this project was based on the number of trees to be removed during construction.

Surface water flow in Coal Creek would be temporarily bypassed within a pipe through the work area at each bridge site to protect water quality during construction (see Section B.3.4 for a more detailed description). The bypass pipe would be sized to adequately pass normal stream flows expected to occur during the summer in-water construction windows.

The roadway within the affected area of each new bridge structure would be reconstructed to meet current roadway standards related to travel lanes, parking lanes, curbs, sidewalks, clear zone, and stormwater facilities. Areas along stream banks disturbed by construction activities would be stabilized during construction to avoid erosion and restored with native vegetation. Areas that are maintained lawn and other landscaped areas that would be disturbed during construction would be restored to a condition similar to the preconstruction condition. All excavated material and excess construction material would be removed from the work areas at the completion of each project element and reused or disposed of at a facility licensed to accept the material. No excess material would be disposed of on site.

In addition to the flooding problems caused by the existing culverts, roadway storm drainage capacity in the Newport Shores neighborhood is limited by backwater conditions during periods of high flows in Coal Creek and stream sediment that created a blockage of existing stormwater outfalls that currently discharge directly to the stream. To address backwater problems and reduce localized flooding, the storm drain outfalls at Glacier Key, Newport Key, and lower Skagit Key would be rerouted to discharge directly to Lake Washington at one of two new outfalls.

Stormwater that currently discharges directly to Coal Creek would be directed to a network of new and replaced stormwater conveyance piping constructed within the existing road network and right-of-way until the pipelines meet private property near the shoreline. At this point the new conveyance piping would cross private property to the outfall locations. The precise locations of the new outfalls have not yet been determined. The City would obtain property rights to allow construction on private property. The conveyance system would be installed using standard construction methods—primarily trenching, except where physical constraints (e.g., proximity to houses) necessitate trenchless installation if technically feasible. Construction of the new outfalls and conveyance may not be completed until some or all of the new bridges are completed. During construction of the new bridge structures the City would make provisions to accommodate the new stormwater system. Existing stormwater outfalls to Coal Creek would be maintained and would remain in use until such a time as the new outfalls and conveyance system are constructed.

The project would comply with the best management practices outlined in the Washington State Department of Ecology's 2012 Stormwater Management Manual. The project would also comply with current City of Bellevue Surface Water Engineering Standards. Measures proposed to avoid and minimize impacts to the environment are identified in the discussions of individual environmental elements in Section B, below.

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.

The project area encompasses five separate culverts on Coal Creek in the Newport Shores neighborhood of Bellevue (Figure 1). Coal Creek flows from the southeast to the northwest through the central portion of the neighborhood and is crossed by five streets (Cascade Key, upper Skagit Key, Glacier Key, Newport Key, and lower Skagit Key). The outlet of Coal Creek in Lake Washington is approximately 400 feet downstream of the crossing on lower Skagit Key.

The specific location of the new stormwater outfalls to Lake Washington have not been finalized; however, approximate locations have been identified to ensure that the new outfalls can provide the required system performance based on topography and the profile of the existing and proposed stormwater conveyance facilities. One outfall would be located on Newport Yacht Club property near the intersection of Skagit Key and Tulalip Key and the other would be located on private property along the Grand Canal in the vicinity of Newport Key (Figure 1).

Legal Description: Sections 16 and 17, Township 24N, Range 05E, Willamette Meridian

Waterbodies: Coal Creek and Lake Washington; WRIA 8; HUC 171100120400 (Lake Washington-Sammamish River).

B. Environmental Elements

1. Earth

a. General description of the site: Flat, rolling, hilly, steep slopes, mountainous, other _____

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

The steepest continual slope is approximately 2 percent. Steeper slopes are found outside the project limits approximately 300 feet east of the Cascade Key project site, along a 40-foot berm for the former railroad corridor that follows the base of the Lake Heights hills, and immediately adjacent to Coal Creek along the stream banks.

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.

The project area has been disturbed by past development and much of the area is now covered in fill soil. The predominant soil mapped in the project area is Briscot silt loam, a somewhat poorly drained soil typically found in floodplains. The first horizon (0 to 9 inches) is typically silt loam and the second (9 to 60 inches) is typically stratified fine sand to silt loam. Other soil types mapped nearby are Urban Land (south of the lowest culvert location, lower Skagit Key) and Alderwood gravelly sandy loam (east of the uppermost culvert location, Cascade Key).

According to the Draft Geotechnical Engineering Report (Aspect Consulting, July 2016), the local geology consists of fill material from the ground surface to a depth of 5 to 9 feet. A 15- to 45-foot thick, weak, compressible layer of organic rich sediments and lake deposits underlies the fill layer. Glacial recessional deposits of dense sand and gravel are found at depths ranging from 20 feet

below ground surface near Cascade Key and Upper Skagit Key to 50 feet below ground surface at Newport Key and Lower Skagit Key. Groundwater level ranges from 5 to 7 feet below the ground surface, at about the same level as stream flow in Coal Creek.

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

According to critical areas maps from the City of Bellevue, the entire project area is classified as having a moderate to high liquefaction hazard. Areas with a very severe soil erosion hazard are mapped to the east of Cascade Key (the easternmost project site). No other erosion hazard areas, landslide hazard areas, or seismic hazard areas have been mapped in the project area.

Seismically induced lateral spreading in the direction of Lake Washington and flow failures into Coal Creek are anticipated throughout the Newport Shores neighborhood. These failures could be characterized as vertical and horizontal ground deformations on the order of inches to feet (Aspect Consulting, 2016).

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.

Information for each project element is identified in the table below.

Location	Work Elements	Area (square feet / acres)	Volume of Excavation / Fill (cubic yards)
Cascade Key	<ul style="list-style-type: none"> Remove existing culvert Relocate conflicting utilities Reconstruct stream channel Construct new bridge structure Install large wood Reconstruct roadway Restore stream banks and landscaped areas. 	9,400 Sq. Ft. (0.22 Ac)	700 CY Excavation 700 CY Fill
Upper Skagit Key	<ul style="list-style-type: none"> Remove existing culvert Relocate conflicting utilities Reconstruct stream channel Construct new bridge structure Install large wood Reconstruct roadway Restore stream banks and landscaped areas. 	12,700 Sq. Ft. (0.29 Ac)	800 CY Excavation 900 CY Fill
Glacier Key	<ul style="list-style-type: none"> Remove existing culvert Relocate conflicting utilities Reconstruct stream channel Construct new bridge structure Reconstruct roadway Restore stream banks and landscaped areas. 	11,800 Sq. Ft. (0.27 Ac)	600 CY Excavation 900 CY Fill
Newport Key	<ul style="list-style-type: none"> Remove existing culvert Relocation conflicting utilities Reconstruct stream channel Construct new bridge structure Install large wood Reconstruct roadway Restore stream banks and landscaped areas. 	13,100 Sq. Ft. (0.30 Ac)	800 CY Excavation 800 CY Fill

Location	Work Elements	Area (square feet / acres)	Volume of Excavation / Fill (cubic yards)
Lower Skagit Key	<ul style="list-style-type: none"> • Remove existing culvert • Relocate conflicting utilities • Reconstruct stream channel • Construct new bridge structure • Reconstruct roadway • Restore stream banks and landscaped areas. 	5,000 Sq. Ft. (0.11 Ac)	700 CY Excavation 800 CY Fill
Grand Canal Outfall	<ul style="list-style-type: none"> • Install new stormwater conveyance • Replace existing stormwater conveyance • Install new outfall • Restore shoreline and landscaped areas. 	7,200 Sq. Ft. (0.17 Ac)	1,100 CY Excavation 600 CY Fill
Newport Yacht Club Outfall	<ul style="list-style-type: none"> • Install new stormwater conveyance • Replace existing stormwater conveyance • Install new outfall • Restore shoreline and landscaped areas. 	4,900 Sq. Ft. (0.11 Ac)	1,100 CY Excavation 700 CY Fill

Excavation, filling, and grading would be required to remove the existing culverts, install the new bridge structures, relocate utilities, install new storm conveyance, install new outfalls, reconstruct roadways, reconstruct the stream channels, install large wood, and restore disturbed stream banks and landscaped areas.

In total, the project (5 new bridge structures and 2 new stormwater outfall with associated new conveyance piping) would affect approximately 1.5 acres and would require approximately 5,800 cubic yards of fill and 5,400 cubic yards of excavation. Work would be staged as described in section 6, and the amount of disturbance and excavation and filling occurring at a given time would vary by staging.

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

During wet weather, areas cleared for construction would have an elevated susceptibility to erosion. The potential for erosion may remain elevated until riparian and floodplain vegetation is fully reestablished. The potential for this to occur would be avoided or minimized through the implementation of the conservation measures and best management practices (BMPs) identified Section B.1.h., below.

The project will replace five restrictive culverts that have been in place for several decades. The current condition of the bed and banks of Coal Creek are influenced by the presence of these restrictive culverts, which affect stream hydraulics and hydrology in areas upstream and downstream of the culverts. Some adjustment of the stream bed and banks upstream and downstream of the culverts may occur following the culvert replacements as the stream adjusts to the new conditions provided by the new structures that may increase the potential for localized stream bank erosion. Areas that have been identified as having the highest risk for increased erosion, primarily, immediately upstream or downstream of some culverts, will be stabilized as part of the culvert replacement and work to install the new bridges. The potential occurrence, duration, and specify type of adjustments will depend largely on the number, intensity, and duration of storms in the year or years following culvert replacements.

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

No substantial changes in the amount of impervious surface are anticipated. Adjustments to road profiles to meet freeboard requirements may result in minor changes in the amount of impervious surface.

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

- Each project element would comply with all applicable requirements for erosion and sedimentation control in Chapter 23.76 Bellevue City Code, including the preparation of a Construction Stormwater Pollution Prevention Plan (CSWPPP).
- Staging, storage, and stockpile areas would be clearly flagged before ground-disturbing activities are initiated.
- The sites would be stabilized during construction and erosion control measures would be installed and monitored as required by conditions included in the U.S. Army Corps of Engineers and City of Bellevue permits.
- Construction of the new bridge structures would occur "in the dry." Surface water flows within Coal Creek would be bypassed through the work areas during work within or over the active stream channel.
- Construction of the new outfalls would require in-water work. All in-water work areas would be isolated from Lake Washington with a cofferdam, siltation curtain, or similar exclusion measure to contain turbid water and suspended sediments from the Lake Washington. Monitoring would occur to insure water with the work area meets surface water standards before the removal of the containment system following construction.
- Temporary erosion and sediment control (TESC) plans would be developed and implemented for each work area and work element to ensure that sediment-laden water does not enter any waterbody or drainage system. During the construction period, erosion control measures would be inspected regularly to ensure adequacy and assess maintenance needs.
- When construction is complete, the sites would be restored and monitored as required by conditions included in the U.S. Army Corps of Engineers and City of Bellevue permits.
- Only clean, suitable material would be used as fill.
- To the extent feasible, mechanized equipment would work from the top of the bank, unless work from another location would result in less riparian, stream, or shoreline disturbance or provide higher levels of water quality protection. Specifically, construction of the outfalls could involve equipment operated from barges.
- Temporary erosion controls would be in place before the initiation of construction activities that may increase the erosion potential or act as a sediment source. These erosion control measures would be appropriately installed downslope of project activity and would be maintained for the duration of work on that project element.
- Where a construction activity creates the potential for eroded sediment to enter the stream, sediment barriers would be installed and maintained for the duration of that activity.

- Temporary erosion control measures may include fiber wattles, silt fences, siltation curtains, coffer dams, stream bypass piping or other conveyance measures, jute matting, wood fiber mulch and soil binder, or geotextiles and geosynthetic fabric.
- Once the site is stabilized after construction, the temporary erosion control measures would be removed.

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.

Emissions would be temporary and limited to exhaust from internal-combustion-engine-powered construction equipment.

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

None known.

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

None proposed.

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

The project area includes aquatic habitats in Coal Creek, extending from lower Skagit Key (approximately 400 feet upstream of the stream's mouth in Lake Washington) to a point approximately 150 feet upstream of Cascade Key, the location of the farthest-upstream culvert proposed for replacement. Coal Creek is a Type F (fish-bearing) water, as defined in Section 20.25H.075 of the Bellevue Land Use Code.

The new outfalls would be located in the nearshore portion of Lake Washington (Figure 1).

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

Yes. The majority of the project work described in Section A.11, above, would be over, in, or within 200 feet of Coal Creek. Outfall installation work would take place within and adjacent to Lake Washington.

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.

Approximately 150 CY of bagged gravel from a commercial source would be placed below the ordinary high water mark of Coal Creek to create cofferdams to divert the stream through the work areas (30 CY at each of the five culvert replacement locations).

Approximately 325 CY of material would be excavated from the stream bed (65 CY at each of the five culvert replacement locations) and replaced with about 800 cy (160 cy per structure) of fill (sediment graded to match the substrate in the adjacent reach, as well as stable bands of larger cobble, all from a commercial source) in the excavated channel and through the bridge, to contour the stream bed to match the new structures to the existing stream channel.

Approximately 25 CY of material would be excavated within Lake Washington for the Newport Yacht Club outfall location. The amount of excavation that would be needed for the Grand Canal outfall location has not been determined but would be similar or less than needed for the Newport Yacht Club location.

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

Coal Creek would be bypassed (diverted) through each construction site during the culvert replacement. It is anticipated that a 42-inch smooth bore pipe would be used to temporarily route the stream through the construction zone. The pipe would be installed within the stream channel. The stream would be temporarily dammed using sandbags or a sheet pile cofferdam at the upstream and downstream ends of the bypass pipe to a minimum height of 4.5 feet above the channel thalweg. The bypass flow would be about 62 cubic feet per second (cfs) (i.e., the predicted 2-year recurrence flow during the summer construction months). Local groundwater seepage into excavated areas would be controlled by sump pumps and discharged into an approved disposal facility.

Installation of the outfalls may involve the use of coffer dams or similar water exclusion methods. Water may be withdrawn from within the coffer dams to facilitate construction.

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

All five culvert replacement sites are within the 100-year floodplain of Coal Creek. The 100-year floodplain includes the Coal Creek mainstem and extends out of the channel on both the left and right banks. Neither of the new outfall locations is within a 100-year floodplain.

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

No new waste materials would be discharged to surface waters. Stormwater runoff from the project area would continue to be discharged to surface waters, although following construction of the new stormwater outfalls, stormwater that currently discharges to Coal Creek would be discharged directly to Lake Washington.

During construction any water from dewatering activities pumped from excavated areas (e.g., rainwater, groundwater seepage, or surface water seepage) would be discharged to the existing sanitary sewer system. The City would obtain a King County Industrial Waste Discharge permit and any dewatering water or other discharges would be pretreated to meet the conditions of the discharge permit.

b. Ground Water:

- 1) Will groundwater 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 groundwater? Give general description, purpose, and

approximate quantities if known.

No groundwater would be withdrawn as a result of the project for drinking water or other uses.

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.

The project would not generate or discharge any domestic, industrial, or agricultural waste to ground water.

c. Water runoff (including stormwater):

1) Describe the 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.

During construction, runoff from impervious surfaces in the project area would be collected, treated appropriately, and discharged to the sanitary sewer system. Any process-type water potentially contaminated by construction activities (e.g., concrete washout) would be treated appropriately and discharged to the sanitary sewer system.

The volume of stormwater runoff from the project area would not be expected to materially change from current conditions as a result of the project. Stormwater from the local road system would continue to be discharged to Coal Creek via existing outfalls following the completion of each new bridge structure until the two new outfalls and conveyance system are completed. Upon completion of the new outfalls and conveyance system, stormwater from the project areas would discharge directly to Lake Washington.

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

Spills of fuel or hydraulic fluid from construction equipment could cause waste materials to enter surface or ground waters. The potential for this to occur would be avoided or minimized through the implementation of the measures identified in Section 3.d, below.

During wet weather, areas cleared for construction can contribute to increased levels of suspended sediments in runoff, elevating turbidity in receiving waterbodies. Disturbance of existing vegetation during construction may also increase the volume and frequency of stormwater runoff to the stream. The potential for such effects to occur may be elevated until riparian and floodplain vegetation is fully reestablished. Heavy equipment can compact soils, reduce suitability for plant growth, and decrease infiltration. All of these potential effects would be avoided or minimized through the implementation of the conservation measures and best management practices (BMPs) described in Section 11, Conservation Measures.

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

Following construction of each new bridge structure, stormwater from the local road system would continue to be discharged to Coal Creek via existing outfalls until completion of the two new outfalls and conveyance system. Upon completion of the new outfalls and conveyance system, stormwater from the project areas would discharge to Lake Washington.

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

The project would comply with all permit conditions to minimize impacts on aquatic resources, including impact avoidance, minimization, and mitigation measures required under the City's critical areas ordinance, as well as the HPAs issued by WDFW. A Construction Stormwater Pollution Prevention Plan (CSWPPP) would be prepared specifically for each element of the project (new bridges and outfalls) during the final design phases of the project. The CSWPPP would identify standard Temporary Erosion Control best management practices and would address other measures to control impacts to surface water, groundwater, and runoff water including, but not limited to:

- The operation and maintenance, including refueling, for all construction equipment to be operated within 100 feet from any natural waterbody or surface water.
- The operation and maintenance, including refueling, for all construction equipment to be operated from barges.
- Identification of potential pollution sources, including hazardous materials, that would be utilized or stored on the work site for each project element.
- The requirements for inspecting equipment for fluid leaks before use on the site.
- Specifications for the handling, treatment, and disposal, of wastewater, including dewatering water, from project activities.
- A surface water quality monitoring plan.
- A Spill Prevention, Control, and Countermeasures (SPCC) Plan.

4. Plants

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

- ☒ deciduous tree: , , ,
- ☒ evergreen tree: , , ,
- ☒ 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

The existing culverts are located in a medium density residential area. Stream banks along Coal Creek and the Lake Washington shoreline have been extensively modified by armoring, bulkheads, walls, residential landscaping, and vegetation management. Vegetation consists primarily of manicured lawns and gardens, with a mix of native and non-native trees. A narrow band of native riparian vegetation occurs in some areas along Coal Creek. The largest of area of unmaintained vegetation is an area dominated by red alders and black cottonwoods that occurs along the former

Burlington Northern-Santa Fe railroad corridor immediately west of I-405, approximately 300 feet from the nearest culvert replacement site (Cascade Key), and upstream of the project limits.

A 10- to 20-foot-wide strip of shrubs and trees is present on one or both banks of Coal Creek in some areas. Some 12- to 24-inch-diameter trees are present in the riparian zone, including a cluster of western redcedar near the downstream end of the Cascade Key culvert, but overall the riparian zone is dominated by non-native, ornamental, and low-growing vegetation. The trees present in the riparian area provide minimal habitat value. Shoreline vegetation near the potential new outfall sites in Lake Washington is in a similar condition, dominated by non-native ornamental vegetation and maintained lawn.

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

Portions of Coal Creek's riparian buffer would be temporarily affected by clearing and grading. The affected areas are dominated by non-native and low-growing species, but approximately 40 trees (native and non-native) would be removed. All areas of disturbed vegetation beyond the roadway prism at each stream crossing would be restored following construction. Stream banks would be restored with native vegetation and disturbed lawns and landscaped areas would be replaced in kind. The extent of clearing and grading in the riparian zone would be kept to the minimum necessary to allow construction. The stream bypass facilities and the large wood installation would be adjusted to avoid tree or shrub removal and substantive clearing, although some riparian vegetation would be trimmed.

The trees that would be removed are small volunteer alder, native and non-native cedar, fir, non-native pine, and other ornamental species installed as landscape features. The disturbed riparian areas within the existing drainage easement would be restored with native trees, shrubs, and other riparian plantings. Maintained lawns and routinely maintained landscaped areas would be restored to pre-project conditions. The City would monitor restored riparian areas as required by the City's Critical Areas regulations (Bellevue Municipal Code 20.25H.220(D)). As described above, 41 pieces of large wood would be installed to offset the removal of 40 trees in the project area.

Some areas of shoreline vegetation near Lake Washington, primarily lawn and maintained landscaping around and between houses and other structures, may also be temporarily disturbed for installation of the new outfalls. Existing vegetation in the areas under consideration for outfall installation does not provide substantial riparian functions.

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

Information from the Washington Department of Natural Resources (WDNR) Natural Heritage database indicates that no threatened or endangered plants listed under ESA are known to occur within 10 miles of the project site.

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

Disturbed stream bank areas would be replanted with native vegetation to replace the function of trees and shrubs removed for bridge installation. Over the long term, the native grasses, shrubs, and trees planted at the project site are expected to replace the ecological function of the disturbed areas. Large wood features would be installed within Coal Creek to replace the loss of potential future function of the mature trees that would be removed by the project. Upon completion a similar number of large wood and root wads would be installed within Coal Creek as mature trees are removed by the project. The large wood and root wads would be installed singularly or as part of

engineered log and rock structures to provide stream bank protection and habitat benefit within the immediate vicinity of each culvert replacement.

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

Invasive species observed during site visits include Himalayan blackberry and English ivy. The majority of plants on the Washington Invasive Species Council's priority list of invasive species are common and endemic within the greater Lake Washington drainage basin and may be present in the project area. These species include, but are not limited to, milfoil, Scot's broom, elodia, reed canarygrass, butterfly bush, knapweed, tansy ragwort, and knotweeds.

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.

Examples include:

birds: , , , , other:

mammals: , bear, elk, beaver, other:

fish: , , , herring, shellfish, other _____

The only WDFW priority species documented as occurring in the project area are the following fish species in Coal Creek and Lake Washington: cutthroat trout, Chinook salmon, coho salmon, sockeye salmon, and steelhead.

Wildlife species typically present in urban and residential settings and in shoreline areas similar to the project area are adapted to a wide variety of conditions. Characteristic species include European starlings, American crows, dark-eyed juncos, spotted towhees, house finches, house sparrows, black-capped chickadees, Virginia opossums, raccoons, deer mice, and Norway rats.

No prohibited, regulated, or invasive species (per WAC 220-12-090) are known to be present in the project area.

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

Chinook salmon, steelhead, and bull trout (all listed as threatened under the federal Endangered Species Act).

No State-listed threatened or endangered species are known to be present on or near the project site.

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

Adult Chinook salmon and steelhead migrate through lower Coal Creek on their way to suitable spawning habitat upstream. Juveniles of these species also pass through the project area on their way to marine habitats.

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

- Fish removal and salvage, if necessary, would comply with the requirements of the Hydraulic Project Approval and Clean Water Act Section 404 permits for the project and would be consistent with current WSDOT Fish Exclusion Protocols and Standards.

- Any water intake structures used during construction (e.g. dewatering pumps) would have a fish screen installed and would be operated and maintained in accordance with appropriate WDFW fish screen criteria.
- The new outfall structures would be designed to preclude fish entrapment using fish screens or other fish exclusion measures integrated into the outfall design in accordance with appropriate WDFW fish screen criteria
- Although none of the culverts being replaced have been identified as complete fish barriers, removal of the undersized structures may also facilitate fish passage when discharge volumes and water velocities are relatively high. Replacing the flat concrete culvert bottom of Cascade Key culvert with a natural stream bed would remove a known partial barrier to fish passage, thereby providing improved access to potential spawning and rearing habitat and reducing energy expenditure in upstream movement.
- When construction is complete, the site would be restored and monitored as required by conditions included in the U.S. Army Corps of Engineers, WDFW, and City of Bellevue permits.

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

No animal species on the Washington Invasive Species Council's priority list of invasive species are known to have documented occurrences to occur in the project area. Several species of animals on the priority list, including bullfrog, exotic leaf rollers, invasive crayfish, and nutria, are common and endemic within the greater Lake Washington drainage basin and may be present. Bellevue has an ongoing program to monitor for and prevent the spread of New Zealand mud snails in city streams. The contractor would be required to apply city standards to manage the introduction or spread of New Zealand mud snails during construction.

6. Energy and Natural Resources

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

The completed project would not have any energy needs.

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

Tree removal may result in localized, temporary increases in the amount of solar radiation reaching adjacent properties. Over the long term, however, the project would not affect the availability or use of solar energy in the area.

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:

No energy conservation features are associated with this project.

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.

The project site is in a suburban residential development with no known sources of toxic chemicals. A Phase I Environmental Site Assessment would be completed during final design of the Newport Yacht Club outfall before ground-disturbing work begins, to identify potential or existing environmental contamination liabilities associated with the stormwater outfall or conveyance system construction at that location.

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

One site within 0.5 mile of the project area has been identified as being contaminated with pollutants that could harm people and the environment. The site is the Newport Yacht Club, based on the potential presence of non-halogenated solvents in the soil. The Washington State Department of Ecology determined in 1999 that no further action was required at that site, based on the implementation of a voluntary cleanup program. Construction of the project is not expected to result in the disturbance of any contaminated material associated with this site. The new outfall and associated conveyance system would be sited, designed, and constructed to avoid areas with potential soil contamination.

- 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.

Based on a review of data from the National Pipeline Mapping System and the Washington Utilities and Transportation Commission Pipeline Safety Program, no gas transmission pipelines, hazardous liquid pipelines, liquefied natural gas plants, or breakout tanks under the jurisdiction of the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration are present within 660 feet of the project area.

- 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.

Fuel or hydraulic fluid from construction equipment may be stored or used in the project area during construction. The risk of spills or exposure to these substances would be avoided or minimized through the implementation of the measures identified in Section 3.d, above.

- 4) Describe special emergency services that might be required.

No special emergency services would be required.

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

None proposed.

- b. Noise

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

The project area receives noise from I-405, which is approximately 650 feet from the nearest work site (Cascade Key).

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.

Due to the nature of the project elements, the project would not result in any long-term increases local noise levels. Temporary, short-duration increases would occur while construction equipment is in use on site. A project-specific noise analysis has not been initiated for the project, but construction noise would generally occur between the hours of 7 a.m. and 5 p.m. on weekdays. Generally, the maximum noise level associated with construction activities would be approximately 113 decibels on the A-weighted scale (dBA) from a pneumatic chipping hammer. Also in use would be jackhammers (102 to 111 dBA), bulldozers, earth tampers, cranes, grade-allers, front-end loaders, and backhoes (all of which generate noise between 84 and 96 dBA, typically). No impact pile driving is proposed for the project.

The nearest receiving properties around the culvert locations are approximately 30 to 50 feet from sites where equipment would be used, so noise levels at those residences would be approximately equal to those specified above. Noise levels would be lower at properties that are farther away and/or screened by intervening vegetation or buildings.

Work to install the outfalls would require construction immediately adjacent to residences because the conveyance pipelines and outfalls would be constructed on or near the property lines next to or between existing residences. Construction of the outfalls would also involve excavators and other construction equipment operated from barges moored adjacent to the outfall location, which are surrounded by waterfront residential development.

In the absence of screening, noise levels would decrease at a rate of approximately 6 dBA per doubling of distance. In other words, if the noise level of a particular piece of equipment is 96 dBA at 50 feet, it would be 90 dBA at 100 feet, 84 dBA at 200 feet, 78 dBA at 400 feet, and so on; if vegetation or buildings are present, the noise levels would be lower.

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

Construction activities would conform to the City of Bellevue's Noise Ordinance for both time of day and maximum noise limits.

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 culvert replacement sites are largely within existing road right-of-way. Temporary construction easements would be acquired for work areas that extend beyond right-of-way boundaries, and some narrow permanent easements would be required as well. The City would obtain property rights to install stormwater conveyance piping across private properties to the new outfalls in Lake Washington.

The surrounding area consists almost entirely of residential properties in the Newport Shores neighborhood. Newport Shores is a single-family residential neighborhood developed between the late 1950s and early 1970s. The nearshore area of Lake Washington near the mouth of Coal Creek is dominated by the Newport Yacht Club marina.

Land uses in the project area would not change as a result of this project.

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 fully developed with residential uses and has not been used as working farmlands or forest lands in the recent past.

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:

Not applicable.

c. Describe any structures on the site.

Each of the five sites contains an existing concrete box or corrugated metal pipe culvert. Local streets cross over each of the culverts. The culvert locations are surrounded by single family residential housing.

The specific location of the proposed new stormwater outfalls have not been identified but regardless of the specific location, the construction of the new outfall to the Grand Canal (in the vicinity of the intersection of Skagit Key and Newport Key, Figure 1) would require the installation of a new conveyance pipe in the open walkway area between existing residential structures. Construction of the outfall at the Newport Yacht Club location would occur through the club parking lot in proximity to the existing clubhouse and associated outbuildings and adjacent residences.

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

The existing culverts and the overlying roadway would be demolished and rebuilt as bridges as a result of this project.

The existing storm drain system would be partially demolished where the flow direction is reversed. Low concrete or landscape block retaining walls, patios, and sidewalks would be demolished and rebuilt after installation of the proposed storm drain outfalls to Lake Washington.

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

The site is within existing City road right of way. Adjacent land in the project area is zoned R-2.5, Single Family Residential.

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

The project area is designated SF-M, a residential designation allowing up to 3.5 dwelling units per acre.

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

None of the five new bridge structures would be within the City of Bellevue's shoreline jurisdiction. The new outfalls would fall within the shoreline jurisdiction, in areas designated as Aquatic Environment. The shoreland area by the location of the outfall at the Newport Yacht Club is designated as Recreational Boating. The shoreland area by the location of the outfall southwest of Coal Creek is designated as Shoreline Residential—Canal.

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

As Type F (fish-bearing) waters, Coal Creek and Lake Washington are classified as critical areas by the City of Bellevue. In addition, all five culvert replacement sites fall within areas of special flood hazard, which are also designated as critical areas by the City of Bellevue.

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

None.

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

None.

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

Not applicable.

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

The project will be reviewed for land use consistency by the City of Bellevue.

- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Not applicable.

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:

Not applicable.

10. Aesthetics

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

The height of the railings on the new bridge structures height would be between 3 and 4 feet, as determined by City standards.

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

The new bridges would have a slightly higher profile and more substantial railings than the existing culvert crossings, but the overall change in views from nearby properties would be minor.

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

Not applicable.

11. Light and Glare

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

No lighting is proposed.

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

Not applicable.

- 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:

Not applicable.

12. Recreation

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

All five culvert replacement sites fall within private parcels or road rights-of-way that do not provide recreational opportunities.

The Grand Canal outfall would be located on private property. The Grand Canal provides recreational opportunities for waterfront property owners, swimmers, and boaters.

The Newport Yacht Club outfall would be located adjacent to the clubhouse and marina facilities. The facility provides active and passive recreation for its members.

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

Some recreational uses could be temporarily displaced during construction of the outfalls. Work to construct the outfalls would require heavy mechanized equipment operated from shoreline areas or barges. For the safety of contractor's personnel and the public, on-water and waterfront recreational activities at the work areas may be limited or otherwise restricted during outfall construction.

Construction of the outfall at the Newport Yacht Club location would also occur in close proximity to the facilities boat ramp and docks and may result temporarily closures to these private facilities.

There would be no permanent impacts to any recreational uses as a result of the project.

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

The placement of barges during construction would be coordinated with the US Coast Guard and recreational boaters and other mariners would be notified of potential hazards, safety restrictions, or exclusion areas associated with construction activities per US Coast Guard requirements. All work occurring on yacht club property would be coordinated to reduce impacts to their facilities.

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 ? If so, specifically describe.

A cultural resources overview report was prepared for the project. The report found that no previously recorded historical sites are within the project area, and that the project would not impact any known sites listed in or eligible for local, state, or national preservation registers.

- 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.

The cultural resources report prepared for the project found that no previously recorded historical or pre-contact sites are within the project area, and that the project would not impact any known sites listed in or eligible for local, state, or national preservation registers. However, because of their proximity to Lake Washington and adjacency to a salmon-bearing stream, the project sites have a high potential for pre-contact archaeological materials within the deep alluvial and lacustrine deposits below the existing road fill.

- 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 archaeologist reviewed background information from previous surveys and recorded archaeological sites and buildings, obtained from the Washington State Department of Archaeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD), to ascertain the historic context for the culvert locations and to determine if previous cultural resources investigations had been carried out and/or sites identified in or near the parcels. A check was also made of local databases of historic properties to determine if locally significant resources are present within or adjacent to the project area. King County Assessor records, including archival resources, were accessed for information on the existing buildings in the project vicinity. Other information was obtained from ethnographic and historical accounts, maps, and photographs. Recent geotechnical borelogs were also examined to better understand the existing subsurface conditions in the project vicinity.

The Snoqualmie Tribe, the Tulalip Tribes, and the Muckleshoot Indian Tribe were contacted by letter on April 25, 2016, to inquire about information and concerns the tribes may have pertaining to cultural resources in or near the project area. There is no record of responses from tribal representatives, nor of direct communication between the tribes and DAHP.

- 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.

Because there is a high potential for pre-contact archaeological materials within the deep alluvial and lacustrine deposits excavation in areas where construction would extend below the level of existing fill could be monitored by a qualified archaeologist. The need for such monitoring would be determined in coordination with DAHP.

In the event that historic or pre-contact cultural resources are discovered at any time during construction and an archaeological monitor is not on site, contractors should cease activities at once and consult with DAHP and a professional archaeologist on next steps. If construction in any

area encounters human remains, whether burials, isolated teeth, bones, or potential mortuary items, work in that area should be stopped immediately and the area around the discovery secured [RCW 68.50.645 and RCW 27.44.040]. In addition to DAHP, the King County Sheriff, Medical Examiner, and affected Tribes must be notified.

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.

Cascade Key, Skagit Key, Glacier Key, and Newport Key, are residential roads with a posted speed limit of 25 miles per hour. Access to the Newport Shores neighborhood is from Lake Washington Blvd (118th Ave) SE, which has an interchange with I-405 approximately 0.25 mile south of the neighborhood entrance.

- 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?

There is no transit service in the Newport Shores neighborhood. The nearest transit stop is the Coal Creek Freeway Station, approximately 0.3 mile from the neighborhood entrance. The only route that stops there is Metro route #114, which provides peak-hour service to Downtown Seattle during weekday mornings and to the Renton Highlands during weekday afternoons. The nearest full-service transit stop is at 119th Ave SE and Coal Creek Parkway, approximately 1 mile from the neighborhood entrance. That stop is served by Metro route #240, with regular trips between the Renton Transit Center and the Bellevue Transit Center, via Newcastle, Newport Hills, Factoria, and Eastgate.

- 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 would be added or eliminated.

- 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).

No permanent capacity improvements to existing roads are included in the proposal. Some minor construction-related improvements to roadways and/or sidewalks to meet current standards would be included in the project.

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

The project area is near the Newport Yacht Club and numerous private moorage sites in the Newport Shores neighborhood. Construction of the new bridge structures would not involve the use of any of the associated waterways.

Work to construct the outfalls would require heavy mechanized equipment operated from shoreline areas or barges. For the safety of contractor's personnel and the public, the use of on-water and waterfront areas in proximity to the yacht club and private waterfront residences may occur and could temporarily affect private moorage during construction. The project would not result in permanent changes to water transportation uses. No active rail or air transportation facilities are present in the project area.

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 would not generate any vehicular trips.

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. None of the roads in the project area is used for the movement of agricultural or forest products.

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

Cascade Key is the sole access route to approximately 130 properties. Culvert replacement work at Cascade Key would be staged to allow one lane of the roadway to be open at all times. Traffic control would be used to maintain safety during construction and may result in short term reductions in road capacity or delays to through traffic, but the roadway would remain open during construction.

To minimize the duration of construction activities, roadways at the four other culvert replacement sites would be closed during culvert replacement work. Traffic would be detoured to alternative routes using the existing roadway network. Road closures would be expected to occur between April and October at each of the four culvert replacement sites where closures would be required. The first culvert replacement would occur in the summer of 2017. The remaining culverts would be replaced in subsequent years, at a rate of one to two culverts per year. In addition, there may temporary closures of surface streets for construction of the new or replaced stormwater conveyance systems required for the new outfalls.

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.

Not applicable.

16. Utilities

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

The following utilities are present in the project corridor:

- Underground power local service (Puget Sound Energy)
- Natural gas local service (Puget Sound Energy)
- Telecommunications local service (phone and cable) (Unknown provider/s)

- 8- and 6-inch ductile iron water main (City of Bellevue Utilities)
- Sanitary sewer force mains and gravity lines (City of Bellevue Utilities)

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 existing gravity sanitary sewer line is deep enough that relocation would not be needed for the installation of the bridges. The deep foundations needed for the new bridge structures would be designed and constructed to avoid conflicts with the gravity sewer; the sewer would not be relocated. There is a sanitary force main at Newport Key that may need to be relocated during installation of the bridge at this location. The bridges would be designed to include conduits for the relocation of franchised utilities, which the utility provided could choose to use or they may elect to make other accommodations. Existing potable water service lines would be attached to the new bridge structures. Proposed alignments and details would be developed as design progresses.

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: Debbie Harris

Name of signee Debbie Harris

Position and Agency/Organization City of Bellevue

Date Submitted: 10/20/16

D. Supplemental Sheet for Nonproject Actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.



0 400 800 1,600 Feet

Figure 1
Project Vicinity Map

Lower Coal Creek Flood Hazard Reduction Project

Date: October 6, 2016