



King County

Department of Local Services
Road Services Division

WAC 197-11-960: 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.

A. Background

1. Name of proposed project, if applicable:

162nd Avenue SE at SE 166th Court Culvert Replacement (Project #1130707)

2. Name of applicant/lead agency:

King County Department of Local Services (DLS), Road Services Division (Roads)

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

King County Department of Local Services
Road Services Division
King Street Center, Mail Stop: KSC-LS-0315
201 South Jackson Street
Seattle, WA 98104-3856

Contact Person:

Broch Bender, Roads Communications Manager
206-263-1189, bbender@kingcounty.gov

4. Date checklist prepared:

February 24, 2020

5. Agency requesting checklist:

King County DLS, Roads

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

The project construction schedule is dependent on acquisition of permits and approvals, and material procurement. Construction work will be performed by a contractor with an

anticipated start date in summer 2020 and completion in fall 2020.

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

Yes, there are plans for further activity related to this proposal. In accordance with the Washington Department of Fish and Wildlife (WDFW) *Water Crossing Design Guidelines* (2013), the fishway component of the project, as described in Section A.11 below, requires an ongoing maintenance and inspection plan be implemented. Furthermore, a stream monitoring effort is proposed to evaluate stream channel changes over time. In sum, these ongoing efforts will consist of: ensuring components of the fishway function as designed and do not prohibit fish passage during low flows; identifying stream channel changes downstream of the proposal to determine whether such changes are caused by any flow regime variations that originate after the project is constructed [refer to Section B.3.c.(3) for description of anticipated drainage discharge pattern changes]; and implementing adaptive management or remedial actions to protect fish passage, in-stream habitat, and adjoining private properties. Anticipated adaptive management or remedial actions could include fishway modifications, stream bank protection or stabilization, and or decommissioning of Stormwater Facility D90119. Any adaptive management or remedial actions will be reviewed independently under SEPA and undertaken in accordance with required permits and approvals.

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

The following environmental information has been prepared by King County for this project:

- *162nd Avenue SE at SE 166th Court Culvert Replacement. King County, Washington Project #1130707. DRAFT Basis of Design Report* (November 25, 2019)
- *Stormwater Facility D90119 Flow Control Modification for Fish Passage Basis of Design* (November 2019)
- “Summary Form for Fish-Passage Design Data No-Slope and Stream Simulation Design Options” (October 29, 2019)
- “DRAFT Critical Area Memorandum” (February 25, 2020)
- “Cultural Resources Screening 162nd Ave SE at SE 166th Ct Culvert Replacement (1130707)” (March 13, 2018)
- *162nd Avenue SE Culvert Replacement. King County, Washington. Geotechnical Engineering Design Report* (October 9, 2017)

The following environmental information has been prepared in relation to this proposal. These studies were prepared by Cardno for King County Water and Land Resources Division, Stormwater Services Section:

- *Geomorphic Assessment Draft Report – Drainage Retrofit of SWS D90119* (February 8, 2017)
- *Task 4 – Preliminary Conceptual Alternative Memorandum – Drainage Retrofit of SWS D90199* (February 24, 2017)
- *Task 5 – Alternative Analysis Report – Drainage Retrofit of SWS D90119* (September 5, 2017).

Additional environmental information that will be prepared for this project includes the following:

- *Technical Information Report* per the *King County Surface Water Design Manual*
- *Stormwater Facility – Vault Basis of Design*

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.

There are no known applications pending government approval of other proposals directly affecting the property covered this proposal.

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

The following approvals and permits are anticipated for the project:

- State Environmental Policy Act (SEPA) Determination of Non-significance and Notice of Action Taken
- Washington State Department of Fish and Wildlife Hydraulic Project Approval
- King County Department of Local Services Permitting Division
 - Clearing and Grading Permit
 - Flood Hazard Certification

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.)

The proposal is a joint project between King County Road Services Division and King County Water and Land Resources Division. The proposal is to replace a 167-foot-long pipe and catch basin system that controls flows from an upstream stormwater detention facility (an in-stream facility constructed circa 1977, known as Stormwater Facility D90119) and carries Madsen Creek (Tributary 08.0305) under 162nd Avenue SE.

The purpose of the proposal is two-fold: (A) to protect roadway infrastructure and community safety, and (B) provide fish passage upstream of 162nd Avenue SE.

(A) Safety

The road crossing pipe is deteriorated and, in its current condition, threatens the roadway and utilities in an urban residential neighborhood. Replacement is critical to prevent sinkholes and other failures of the roadway and associated detrimental impacts to the stream.

(B) Fish Passage

The existing pipe and catch basin system is a barrier to upstream fish migration because its outlet (downstream end) is perched and is too long given its diameter. It is also a barrier due to high water velocity within the pipe, and the presence of a flow control structure at the inlet (upstream end). The need for removal of the barrier is documented in HPA 2014-4-464+01.

Specific components of the proposal include:

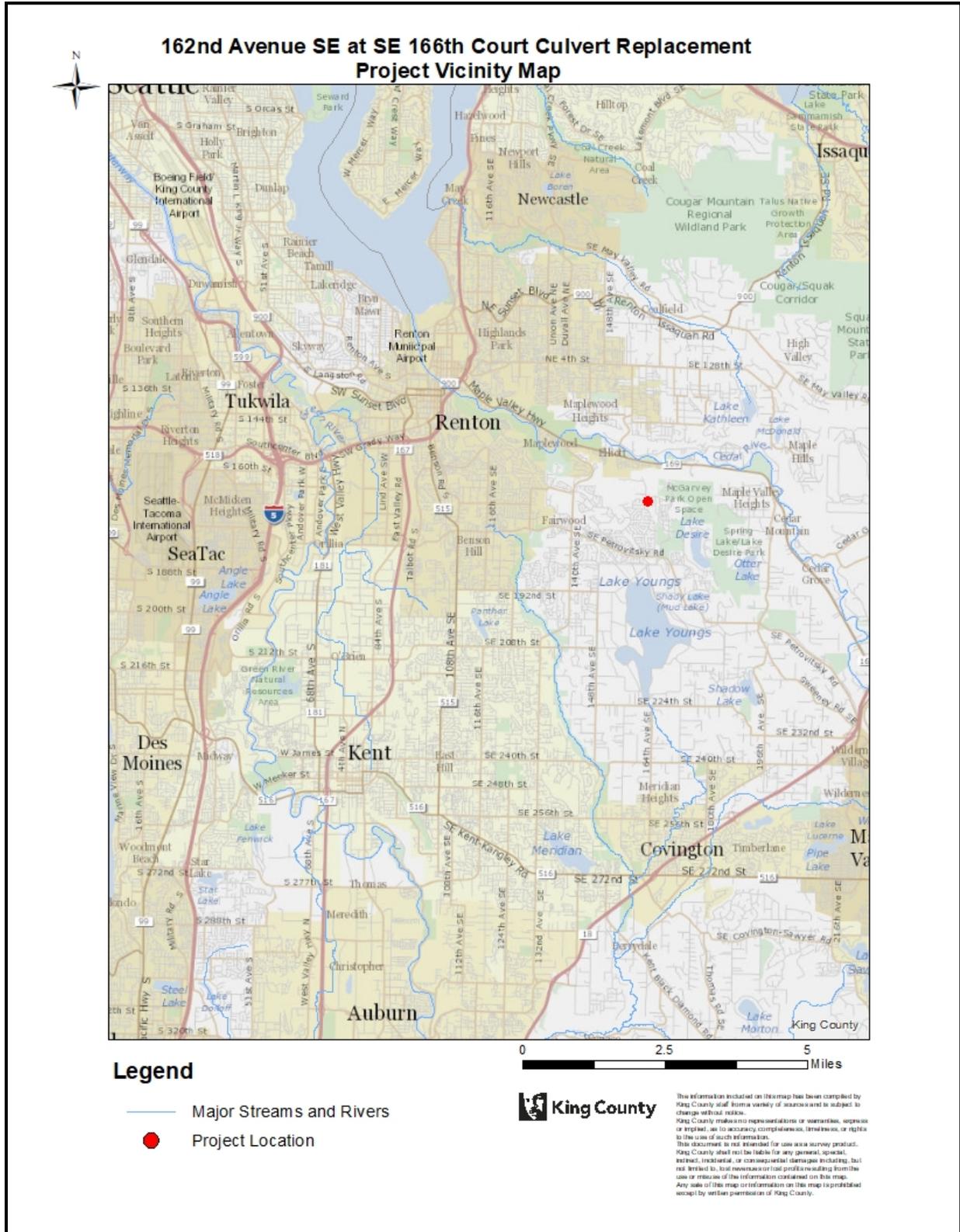
- (1) Replace the deteriorated corrugated metal pipe and catch basin system with a new 133-foot-long, 17-foot-wide, 10-foot-high precast concrete box culvert designed in accordance with state requirements (stream simulation fish passage standards).
- (2) Install a weir-like control structure with a built-in fishway passage orifice and a 10-foot-long roughened channel upstream of the new culvert to facilitate fish passage at low flows into the Stormwater Facility D90119. The fishway orifice is designed to the extent feasible to provide fish passage at low flows while maintaining a minimum level of flow control from the upstream in-stream stormwater detention facility. It is designed using the hydraulic design option guidance.
- (3) Install a stormwater detention vault under 162nd Avenue SE to compensate in-part for anticipated lost storage in Stormwater Facility D90119 as a result of the proposed new culvert.
- (4) Reconfigure the in-road stormwater drainage system within the project footprint.

Components (1) and (4) will be owned and maintained by King County Road Services Division. Components (2) and (3) will be owned and maintained by King County Water and Land Resources Division.

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 proposal is located on 162nd Avenue SE beginning approximately 100 feet southwesterly of SE 166th Place and extending northeasterly to the centerline of SE 166th Court. The proposal is located primarily within the road right-of-way, but also extends upstream and downstream of the culvert crossing under 162nd Avenue SE within existing drainage and drainage protection easements. This location is within the Fairwood Park Division 15 neighborhood of unincorporated King County near the City of Renton. The site is located at latitude 47.453663, longitude -122.125857 in the northeast quarter of Section 26, Township 23N, Range 05E (Willamette meridian). The location can be found on page 657, grid B6 of the Thomas Brothers Guide. See Project Vicinity Map on page 6. A site plan is attached at the end of the document.



B. Environmental Elements

1. Earth

- a. **General description of the site (underline one): flat, rolling, hilly, steep slopes, mountainous, other**

The roadway and areas south of the road are relatively flat, while the areas north of the road contain steep slopes.

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

The steepest slope within the project limits is approximately 30 percent; this is located on the downstream end (northerly side) of the road prism. Adjacent slopes on the downstream end beyond the construction zone are as steep as 70 percent.

- c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

According to the Geotechnical Engineering Design Report the soils in the general site vicinity consist of the following:

- Ground Moraine Deposits (Qgt). These soils consist of mostly thin ablation till over lodgement till, deposited by the Puget glacial lobe. Lodgement till, commonly known as hardpan, is generally a compact, coherent, and unsorted mixture of sand, silt, clay, and gravel. Ablation till is similar, but much less compact and coherent.
- Undifferentiated Deposits (Qu). This soil type includes three or more till sheets, glaciofluvial sand and gravel, glaciolacustrine clay and sand, and non-glacial sand, clay and thin peat.

According to the United States Department of Agriculture, Natural Resources Conservation Service soil maps, soil types in the project vicinity are Alderwood gravelly loam (AgC/AgD) and Seattle muck (Sk). Alderwood soils are moderately well drained soils formed in glacial till. Seattle soils are poorly drained organic soils that form in depressions on glacial till.

No agricultural soils were mapped or observed on-site, and no agricultural land uses are in located in the project vicinity.

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

According to King County iMap accessed in 2020, the proposal is adjacent to a potential steep slope hazard area and is within an erosion hazard area. The steep valley walls downstream of the site and the steep road prism indicate some risk of instability in the vicinity.

- 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 table below provides a preliminary estimate of the purpose, type, total area, approximate quantities, and total affected area of filling, excavation, and grading proposed for the project. Excavated material that is not suitable for reuse on-site will be hauled off-site and appropriately disposed of. King County's Materials Lab will confirm all fill is from approved sources.

Purpose of Ground Disturbance	Grading Area (Square Feet)	Excavation/Cut (Cubic Yards)	Fill (Cubic Yards)
Culvert and control structure replacement	24,000	6,000	3,800
Detention Vault	3,500	1,000	260
Utility Relocation	4,000	270	270
TOTAL	31,500	7,270	4,330

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

Erosion could occur as a result of vegetation removal, ground-disturbing activities during construction, and rerouting of the stream and stormwater during construction. Seasonal weather conditions could impact the severity of erosion. Temporary erosion and sedimentation control (TESC) Best Management Practices (BMPs), as well as permanent site restoration measures will be implemented to minimize potential erosion. Please see Section B.1.h for specific proposed measures to reduce and control construction-related erosion.

Erosion could also occur along the steep valley walls downstream of the project site as a result of modifications to the flow discharge pattern from Stormwater Facility D90119, as described in Section B.3.c.(3). Monitoring and adaptive management activities to address erosion will be undertaken as described in Section A.7.

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

Approximately 40 percent of the project limits is impervious surface, consisting of the paved roads, curb, and sidewalk, and an access road for the Stormwater Facility D90119. No change in the percent of impervious surfaces within the project limits is proposed.

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

Construction: During construction, existing vegetation will be preserved, and the area of ground disturbance minimized to the extent practicable to reduce the potential for erosion. TESC BMPs include, but are not limited to, the use of silt fence dust control, inlet protection, coir logs, and seeding areas that are temporarily disturbed by construction. In addition, the stream and stormwater will be bypassed around the construction zone. The stream bypass will consist of an

aqua barrier coffer dam, a pump and temporary pipe, and plastic sheeting or similar energy dissipation device for outfall protection.

Operation: Following construction, disturbed grounds that are not restored to impervious conditions will be covered with topsoil and biodegradable erosion control material. These areas will be permanently seeded and planted with native species.

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.

Greenhouse Gas Emissions: Construction, operations, and maintenance of the roadway will result in greenhouse gas (GHG) emissions. Life cycle GHG emissions for the project include embodied, operational, and construction emissions that are defined as follows:

- Embodied emissions are the emissions released during the extraction, processing, and transportation of the materials used in construction.
- Construction emissions are released during project construction and primarily come from fuel burned in the equipment used to build the project elements, such as bulldozers, pavers, and rollers.
- Operational and maintenance emissions are released by vehicles and equipment at the site and during vehicular roadway travel.

Fugitive Dust Emissions: Demolition of concrete, excavation, or placement of imported aggregates may result in sources of fugitive dust that can reduce roadway visibility, cause respiratory health problems in humans/animals, and negatively impact aquatic life, vegetation, and water quality.

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

No off-site sources of emissions or odors have been identified that may affect this proposal.

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

During construction, the contractor will implement a Fugitive Dust Control Plan. During construction, operation, and maintenance of the roadway, mitigation measures for project impacts to air quality and GHG emissions could include, but are not limited to, the following:

- Spraying water, when necessary, during construction operations to reduce emissions of fugitive dust.
- Covering dirt, gravel, and debris piles as needed to reduce fugitive dust and wind-blown debris.

- Covering open-bodied trucks in accordance with RCW 46.61.655, wetting materials in trucks or providing adequate space from the top of the material to the top of the truck to reduce fugitive dust emissions.
- Sweeping public roadways, when necessary, to remove mud and dirt deposits.
- Using biodiesel or ultra-low-sulfur diesel fuels for vehicles and equipment to reduce diesel exhaust emissions.
- Conservation and reuse of construction materials on-site, to reduce exhaust emissions and traffic delays.
- Enforcing the King County no-idling policy for county vehicles.

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.**

Madsen Creek is a perennial fish-bearing (Type F) stream. The stream originates on the Fairwood plateau and drains generally northward through the project site. It flows downstream about 3,500 feet where it joins the main stem of Madsen Creek, which flows about 6,000 feet to join the Cedar River, and ultimately drains to Puget Sound via Lake Washington.

- 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 proposal includes work within the existing stream channel and adjoining areas. Specific work includes removal of existing pipes and catch basins that the stream runs through and replacing them with a new larger culvert and new stormwater facility control structure within Madsen Creek. Other work within 260 feet of the stream channel includes temporary removal and replacement of utilities, excavation and restoration of the road embankment and infrastructure. See plan sheets attached at the end of the document for more information.

- 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.**

Excavation within the stream will consist of removal of pipes and catch basins. After the new culvert is placed, it will be filled with about 370 cubic yards of streambed gravels, cobbles, and boulders that will create a new stream channel through the culvert. The materials will be sourced by the contractor in accordance with state requirements for streambed materials.

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

The project does not require surface water withdrawals. The stream and incoming stormwater will temporarily be bypassed/diverted around the construction zone during construction to allow excavation, structure installation, and fill to occur outside of the water (in dry conditions). The bypass system will consist of a pump sized for the amount of stream flow at the time of construction, a pipe, and a cofferdam separation between incoming flows and the construction area.

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

The project is not within a mapped FEMA 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 waste materials will be discharged to surface waters.

b. Groundwater:

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.

Groundwater will not be withdrawn from a well for drinking water, nor will water be discharged to groundwater for this project. Based on the *Geotechnical Engineering Design Report*, static groundwater is not expected to be encountered during project construction, thus impacts to groundwater are not anticipated. However, should water be encountered, temporary shallow groundwater well points will be installed in order to dewater the work area and minimize impacts to water quality. These well points will locally depress the groundwater elevation during excavation so less water is within the work area; this facilitates the dewatering process and minimizes additional sediment-laden water that would otherwise require treatment. Well points are typically comprised of 12- to 24-inch-diameter perforated pipe extending one to three feet below the excavation area. When excavation is complete, the shallow wells are filled by roadway fill material or streambed gravel depending on their location. The collected groundwater will be directed to an upland vegetated area to filter out sediment or collected and disposed of off-site. Water that meets state water quality standards can be released downstream of the construction area to the stream.

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 or other sources.

c. Water runoff (including stormwater):

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

The source of runoff is precipitation that runs off the roads within the project limits and the contributing basin. The runoff is collected in existing stormwater infrastructure (catch basins, pipes) before being delivered to stormwater detention facilities that discharge into Madsen Creek, including the in-stream stormwater detention pond upstream of the culvert (Stormwater Facility D90119). The water flows out of the pond through a control structure or overflow structure, into the pipe under the road, and then outlets into the natural stream ravine downstream of the existing road pipe.

Under the proposal, within the project limits the flow path into Stormwater Facility D90119 will be slightly modified with reconfiguration of the in-road stormwater drainage system and installation of the stormwater detention vault. The flow path from Stormwater Facility D90119 will remain the same.

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

It is unlikely, but possible, that fuel, hydraulic fluid or paving materials could drip or spill from construction machinery or staging containers during construction. Spill prevention BMPs will be implemented and spill control materials will be on-site during construction for emergency use in accordance with an approved Spill Prevention Control and Countermeasures (SPCC) Plan. See Section B.7.a.5 for additional information regarding the SPCC Plan.

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

The proposal will alter drainage discharge patterns into and out of Stormwater Facility D90119. Stormwater runoff from southeast of the project site will flow through the new stormwater detention vault and will then be discharged into Stormwater Facility D90119 combining with other existing stormwater runoff and the stream that runs through the facility upstream of the culvert. The runoff peak into the facility will be reduced, and the runoff peak out of the facility may increase during some storm events. The peak outflows will be monitored over a 5- to 10-year period to determine if a measurable change is present and whether adaptive management or remedial actions, as described in Section A.7, are required.

d. Proposed measures to reduce or control surface, ground, and runoff water, and

drainage pattern impacts, if any:

Construction: In addition to bypassing the stream and stormwater around the construction zone as described in B.3.a.4 above, some work areas may need additional dewatering during construction to minimize impacts to ground, surface, and stormwater. If needed, water will be intercepted and pumped around the work area. Sediment-laden water that does not meet water-quality standards will be discharged to a vegetated upland infiltration area or collected and hauled off-site for appropriate disposal. TESC BMPs will be used as described in B.1.h to prevent construction sediment from entering surface and stormwater systems.

Operation: The stormwater detention vault will compensate in-part for anticipated lost storage in Stormwater Facility D90119 as a result of the project, thus minimizing the change in existing drainage discharge patterns out of the stormwater facility. Additionally, monitoring and adaptive management or remedial actions will be undertaken should impacts associated with a change in drainage discharge pattern be identified (refer to Section A.7 for more information).

4. Plants**a. Check the types of vegetation found on the site:**

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- orchards, vineyards or other permanent crops
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation: weeds

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

The vegetation that will be removed/altered consists of ornamental and native trees, shrubs, and grass. Approximately 0.28 acre of vegetation will be removed for this project, including up to 15 trees greater than four-inch-diameter at breast height.

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

According to a review of online data from the Washington State Department of Natural Resources, Natural Heritage Program conducted on February 20, 2020, there are no special status plant species known to occur in the project area.

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

The project footprint will be minimized to preserve existing vegetation to the extent practicable. Clearing limits will be marked on-site prior to construction to ensure only required vegetation removal occurs. After construction, impacted areas will be seeded and

planted with similar ornamental (where appropriate) and native species. Within the natural stream corridor, tree replacement will occur at a minimum ratio of 3:1 to ensure long-term recovery of the stream side vegetation. Native cut trees will be evaluated for retention on-site and repurposed as woody debris for in-stream or riparian habitat features.

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

Common Name	Scientific Name	King County Noxious Weed Class
English ivy	<i>Hedera helix</i>	Non-regulated, Class C Noxious Weed
Reed canary grass	<i>Phalaris arundinacea</i>	Non-regulated, Class C Noxious Weed
Tansy ragwort	<i>Jacobaea vulgaris</i>	Regulated, Class B Noxious Weed

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: hawk, heron, eagle, songbirds, other: crows

mammals: deer, bear, elk, beaver, other: coyote, raccoons, squirrels

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

The birds and animals underlined above are known or anticipated to be on or near the project site.

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

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

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

Cutthroat trout utilize the stream within the project vicinity; thus, the site could be part of a migration route, but only within localized areas.

The project site is within the Pacific Flyway, which is a major north-south route of travel for migratory birds, extending from Alaska to Patagonia. Every year, migratory birds travel some or all this distance both in spring and in fall, following food sources, heading to breeding grounds, or travelling to overwintering sites.

The project area is not a known or mapped wildlife species corridor.

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

Measures as described in Sections B.1.h and B.4.d above are expected to preserve and enhance wildlife habitat within the project area.

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

No invasive animal species are known or anticipated to be on or near the site.

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 will have no energy use.

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

No, the project will not affect the potential use of solar energy by adjacent properties.

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

Because the completed project will not use energy, no conservation features are included. Measures to reduce energy use during construction will be encouraged; for example, local sourcing of materials, efficient material transport and staging, and well-organized scheduling and sequencing of the work.

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 accidental leakage of petroleum products (e.g., gasoline, diesel fuel, hydraulic fluid, anti-freeze, grease, etc.) from construction equipment could occur but is not likely. These substances can be toxic to nearby aquatic systems, to humans upon prolonged exposure and skin contact, and can pose a fire hazard. A SPCC plan will be prepared and implemented for the project. Spill control and cleanup kits will be available on-site.

During construction, community health could be affected by dust and vehicle exhaust. Construction activities will intermittently generate particulate matter and odors, and construction equipment will generate diesel engine exhaust. Any air-quality impacts associated with construction activities are most noticeable at sensitive land uses, such as schools or parks; however, there are not any sensitive land uses near the construction site, so these impacts are unlikely. In addition, air-quality impacts will be short-term, occurring only while construction is in progress. BMPs will be employed to reduce fugitive dust, odors, and exhaust emissions; see Section B.2.c. for more information.

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

Based on a review of the Washington State Department of Ecology's website, there are

no historical or active cleanup sites within a half-mile radius from the project area. The project area falls inside the predicted arsenic contamination zone, which is based on the modeled Asarco Tacoma plume. The anticipated arsenic levels in the soil is under 20 parts per million, which is below the state cleanup levels.

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.

Natural gas transmission lines exist under the roadway within the project limits. The responsible utility company will decommission the line prior to temporarily relocating the pipe outside of the construction zone prior to other construction efforts associated with the project.

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, petroleum products will be used on-site to power construction equipment and as a component of asphalt pavement. Storage of petroleum products during construction will occur at least 100 feet from the stream, and in accordance with the approved SPCC Plan. At completion of the project, toxic or hazardous chemicals will not be stored, used, or produced at the project site.

4) Describe special emergency services that might be required.

The need for special emergency services is not anticipated.

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

During construction, the contractor will implement a King County-approved SPCC including the use of BMPs during construction to minimize the potential for hazardous spills from fuels and materials used on-site. Spill control and cleanup kits will be available on-site to be used in the rare event of a spill. Worker health and safety will be addressed as required by Washington State and federal regulations. Waste material generated from construction will be properly managed and disposed of at permitted facilities.

The Contractor will be required to implement a King County-approved Fugitive Dust Control Plan. The plan will include use of BMPs to minimize the amount of particulate matter or dust generated during construction.

b. Noise

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

Noise 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 will create noise on a short-term basis. This noise will be generated from the various types of construction equipment and activities; for example, truck traffic hauling materials to and from the site, excavation and material-moving equipment such as backhoes and bulldozers, soil compaction, hand-held equipment such as chain saws, and asphalt-paving operations.

Construction will occur in accordance with King County Code 12.86, which allows typical construction equipment operation between 7am and 7pm weekdays and 9am and 7pm on weekends.

Following construction, noise is expected to return to existing conditions. The project will not generate on-going noise.

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

Standard mufflers will be used on all construction equipment. The construction crew will work during hours allowed in the King County Code and permit conditions.

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 current use of the site includes King County roadway infrastructure and the upstream stormwater facility. Downstream of the project site, a natural ravine exists through which Madsen Creek (Tributary 08.0305) flows. The roadway infrastructure includes 162nd Avenue SE with a corroded cross pipe that the stormwater facility and Madsen Creek are released into. Under the road surface are numerous utilities, including water, sewer, gas and telecommunications. The adjacent land use is high-density residential. The completed project will not change land uses within the project limits or on nearby or adjacent properties.

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 non-forest use?

There are no agricultural areas or working forest lands within or adjacent to the project area.

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

No, the proposal will not affect or be affected by working farms or forest land.

c. Describe any structures on the site.

Current structures within the project limits include:

- Stormwater drainage pipes ranging from 8- to 12-inches in diameter and associated catch basins
- Detention flow control system comprised of three 48-inch-diameter catch basins and 12- to 18-inch pipes
- 24-inch road crossing pipe
- Stormwater detention pond (Stormwater Facility D90119)
- Chain-link fence
- Below ground utilities including water, sewer, gas, and telecommunications
- Overhead power poles
- Asphalt paved roadway fill prism with curb, gutter and sidewalk

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

All of the structures listed in Section 8.c, except the stormwater detention pond, will be removed during construction. The catch basins and pipes will be permanently demolished and replaced with structures that meet current design standards. The remaining structures will be replaced or rebuilt to similar conditions.

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

King County's public road rights-of-way are not subject to zoning. The project area is within the urban growth boundary in an area zoned as R6: residential area with 6 dwelling units per acre.

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

According to the *King County Comprehensive Plan (2017)*, the project is within an urban high-density residential area.

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

The site is not located within Shorelines jurisdiction.

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

The following King County-classified critical areas are mapped within or adjacent to the project site:

- Madsen Creek, a Type F Aquatic Area with an associated buffer of 115 feet on either side
- A Critical Aquifer Recharge Area that is highly susceptible to groundwater contamination (refer to Section B.3.b.1 for additional information)
- Erosion Hazard Area
- A potential Steep Slope Hazard Area.

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

No people will reside or work in the completed project.

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

No people will be displaced by the project.

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

No measures will be implemented to avoid or reduce displaced people because no one will be displaced.

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

The proposal replaces existing deteriorated infrastructure and is consistent with existing and projected land uses in the areas that are potentially affected by the project. The project requires land use permits from the King County DLS Permitting Division to further ensure 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:

Forest land or agricultural activities will not be affected by the proposal.

9. Housing

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

No housing units are being provided by the project.

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

No housing units are being eliminated by the project.

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

Protective measures for housing impacts are not needed because housing will not be impacted.

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 tallest height of the proposed structure is reconstruction of the road prism to the same elevation as the existing roadway. The principle exposed material will be asphalt and concrete. The new flow control structure will be nearly as high as the road prism and constructed of metal and wood.

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

In the immediate vicinity of the project, views of Stormwater Facility D90119 will be altered with a new control structure constructed of metal posts and wood. Other views will be altered by removal of vegetation, including numerous landscape trees and riparian vegetation from within the project limits.

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

The project proposes to minimize aesthetic impacts by designing the roadway improvements to current standards and replacing native and ornamental plantings that blend with the existing character of the landscape.

11. Light and Glare

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

The project will not produce light or glare.

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

No, the finished project will not produce any additional light or glare that will be a safety hazard or interfere with views.

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

No off-site sources of light or glare will affect the proposed project.

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

No light and glare impacts are proposed, so no measures are needed to prevent or minimize light and glare impacts.

12. Recreation

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

Within the immediate vicinity of the project, informal activities include walking.

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

No existing recreational uses will be displaced.

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

During construction, walking through the project area will be prohibited for safety reasons. The completed project will return walking facilities and opportunities to previously existing conditions.

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.

The cultural resources screening, utilizing the King County Cultural Resource Protection Project (CRPP) and Department of Archaeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD) databases, identified no recorded, reported or suspected cultural resources at the project location and none within a half-mile of the project.

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.

See Section B.13.a.

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 archaeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The project began with an initial project screening using the CRPP and DAHP WISAARD databases. These geographic information system (GIS)-based databases utilize historic maps, ethno-historic accounts, and professional site records.

The general setting of the project on a salmon-bearing stream, removed from the confluence or any known sites, suggests a moderate likelihood for unknown buried intact prehistoric archaeological deposits. The presence of road prism, with fill as thick as 26 feet, and existing drainage system reduces this likelihood a great deal.

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.

Due to the reduced likelihood of unknown, intact archaeological deposits and extensive fill at the location, archaeological monitoring under the supervision of a professional archaeologist is recommended for initial excavation with the possibility of encountering intact native soils.

If resources are identified during construction, then work in the vicinity of the identified resources will cease and the Roads Archaeologist, DAHP, King County Historic Preservation Program, affected Tribes, and other appropriate agencies will be notified immediately. Work will not be allowed to resume at the site in the vicinity of the identified resources until appropriate archaeological investigations are complete.

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.**

The site is on a residential street in a high-density residential setting. 162nd Avenue SE between SE 166th Place and SE 166th Court will be closed to traffic during construction. The closure will occur for approximately 60 calendar days and a detour route will be delineated with detour signs to direct the public. The attached detour plan shows the proposed detour route.

- 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 Route 102 and King County Dial-A-Ride Transit (DART) Route 906 travel through the Fairwood neighborhood with the nearest public transit stop located at SE Fairwood Boulevard/161st Avenue SE, approximately 900 feet from the project site. Route 102 offers peak hour weekday service to/from Renton and downtown Seattle. DART Route 906 offers hourly daytime service on weekdays and Saturdays to Southcenter. DART routes can be customized with off-route stops.

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

The completed project will not include parking spaces, nor will it eliminate any existing parking spaces.

- 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 proposal requires rebuilding 162nd Avenue SE after installing new stream and stormwater infrastructure. The road will be rebuilt to match the existing conditions, which meets current King County Road Design and Construction Standards.

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

No, the project will not use water, rail, or air transportation and is not in the immediate vicinity of these transportation options.

- 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 non-passenger vehicles). What data or transportation models were used to make these estimates?

The completed project will not generate additional 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.**

162nd Avenue SE is not used for the movement of agricultural or forestry products, thus the proposal will not affect these industries.

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

A traffic detour route will be in place during construction. A variety of notifications will be provided to the traveling public by the King County Public Communications Team in advance of traffic disruptions. Temporary traffic-control devices for the detour route will include signs and barricades to clearly inform the traveling public of appropriate routes, thereby reducing impacts to the traveling public.

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 increased needs for public services will result from the proposal.

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

Because there will be no direct impacts on public services, no proposed measures will be needed.

16. Utilities

- a. Underline utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other: cable**
- 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 that might be needed.**

No new utilities are proposed for the project. Existing utilities that conflict with the construction project will be temporarily relocated outside of the construction zone and then restored upon site restoration.

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:  Date: 3/18/20

Name of Signee: Tony Ledbetter

Position/Title: Maintenance Operation Manager

Agency/Organization: Road Services Division, Maintenance Section

Attached:

- Project Plan Sheets (7):
 - Existing Site Conditions
 - Proposed Culvert and Vault Plan
 - Culvert Profiles
 - Proposed Vault Profile and Details
 - Proposed Drainage Pipe Profile and Details
 - Proposed Fishway Structure Details

- Detour Route (Road Closure Plan)