SEPA CHECKLIST

Jordan Creek Bridge #214 Replacement
RC1369

July 2021
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.

SUMMARY

A. BACKGROUND

Name of proposed project:  
**Jordan Creek Bridge #214 Replacement**

Name of applicant:  
**Snohomish County Public Works**

Address and phone number of applicant and contact person:  
**Troy Fields, Sr. Environmental Planner**
3000 Rockefeller Ave, M/S 607
Everett, WA  98201
(425) 388-6430

Date checklist prepared:  
**July 2021**

Agency requesting checklist:  
**Snohomish County Public Works**

Proposed timing or schedule (including phasing, if applicable):  
**Construction is scheduled to begin in 2024 pending funding availability and regulatory permitting approval.**

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, please explain.  
**There are no plans for future additions, expansion, or further activity connected with the proposed bridge replacement.**

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.  
**Critical Area Study and Geotechnical Report will be prepared.**

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, please explain.  
**None known at this time.**

List any government approvals or permits that will be needed for your proposal, if known.
1. Give a brief, complete description of your proposal, including the proposed uses and the size of the project 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).

**Snohomish County Public Works proposes to replace Jordan Creek Bridge #214 at its crossing of Jordan Creek on Jordan Road.** The existing bridge is a two-lane 21-foot wide and approximately 107-foot long timber trestle bridge supported by creosote-treated timber piles with a timber deck. The bridge is functionally obsolete and structurally deficient and is currently load limited and reduced to one 16-foot lane.

The proposed replacement structure would be a single span buried concrete arch supported on spread footings with shallow foundations. The new roadway will have two 11-foot travel lanes and 6-foot shoulders. A temporary detour bridge would likely be placed upstream and adjacent to the existing bridge during construction due to a long detour route length of 26 miles. The project is scheduled for construction in summer of 2024.

Geotechnical access for borings will either be via an old temporary road at the upstream left bank side of the project area adjacent to the wetland or by laying down wooden planks across Jordan Creek.
2. Location of 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/range if known. If a proposal would occur over a range of areas, provide the range or boundaries of the site(s). Provide 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.

Jordan Creek Bridge #214 is located east of Arlington and northwest of Granite Falls at Milepost 5.9 on Jordan Road in Township 31 North Range 6 East Section 28. It is located approximately 100 feet upstream from the confluence of Jordan Creek with the South Fork Stillaguamish River.

B. ENVIRONMENTAL ELEMENTS

1. Earth
   a. General description of the site (check one):
      ☐ FLAT
      ☑ ROLLING
      ☐ HILLY
      ☑ STEEP SLOPES
      ☐ MOUNTAINOUS
      ☐ OTHER (please describe):
      The project site’s topography is relatively flat along the roadway and lies within the lower South Fork Stillaguamish River valley. The project is located at a crossing of Jordan Creek, a tributary that flows from south to north to its confluence with the South Fork Stillaguamish River between Arlington and Granite Falls. Steep forested slopes rise to the east from the edge of the valley with rolling hilly areas gently sloping to the east from the roadway toward the Cascade Mountain foothills.

   b. What is the steepest slope on the site (approximate percent slope)?
      Slopes are steep on the project site and are approximately 14% along the roadway sloping toward the bridge from the north and south. The longitudinal profile of Jordan Creek ranges from approximately 0-2.5% slope throughout the project area. There are steep slopes located north and south of the Jordan Creek floodplain bench on both sides of the creek that are greater than 33%. Likewise, the right bank of the Stillaguamish River adjacent to the project site are approximately greater that 50%.

   c. What general types of soil are found on the site (i.e., 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 Natural Resources Conservation Service identifies three soil series in the project area. The soil series descriptions are provided below:
Everett gravelly sandy loam, 0-8% slopes, Everett soils are mapped north of the roadway.
These soils consist of very deep, well drained soils that formed in glacial drift plains. Everett soils are on outwash terraces and escarpments, kames, moraines, and eskers, and have slopes of 0 to 65%.

Ragnar fine sandy loam, 0-8% slopes, Ragnar soils are mapped north and east of the roadway, and across the river from the site.
These soils consist of very deep, well drained soils that formed in glacial outwash. Ragnar soils are on rolling areas of esker and kame relief and have slopes of 0 to 70 percent.

Tokul-Winston gravelly loam, 25-65% slopes, Tokul- Winston soils are mapped surrounding Jordan Creek east of the roadway.
Tokul soils consist of moderately deep, and moderately well drained soils that formed on till plains and hillslopes. Tokul soils are on hills and have slopes of 0 – 90%.

Winston soils consist of very deep, well drained soils that formed in glacial outwash or old alluvium with a mantle of loess and volcanic ash. Winston soils are on terraces and terrace escarpments and have slopes of 0-65%.

The subsurface conditions at this site were explored with 2 borings (B-1, B-2). Boring B-1 was advanced with a drill rig to a depth 54’. Boring B-2 was advanced with a drill rig to a depth of 49’. Drilling at the location of both borings terminated within the sandstone bedrock.

Boring B-1
Below the asphalt the boring encountered loose embankment fill to a depth of 9 feet. This fill consisted of a light brown, fine- to medium-grained sand with a trace of gravel and a trace of silt and was loose and moist. At 9.0’ the boring encountered a gray silt (glacial lake deposits) that contained a trace of sand, gravel, and organics. This silt stratum was loose to medium dense and damp. At 17.5’ the boring encountered a gray, fine- to coarse-grained silty sand (glacial till). This silty sand contained a trace of gravel and was dense and moist. This silty sand stratum extended to a depth of 26.0’. At that depth the boring encountered Tertiary sandstone. The sandstone consisted of a gray to dark gray lithic arenite which is fine- to coarse-grained with interbedded small pebble sized conglomerate. The sandstone was wet to moist. The boring encountered siltstone interbedded with the sandstone between 40.0’ to 47.5’. Between 42.0’ to 47.5’ the boring encountered marine fossils within the siltstone. The boring was terminated at 54.0’ within the sandstone. Water/mud was used to advance the boring, therefore the depth of ground water was unable to be determined.
Boring B-2
Below the asphalt the boring encountered loose embankment fill like that encountered in Boring B-1 to a depth of 7.5 feet. At 7.5’ the boring encountered a gray silt (glacial lake deposits) that contained a trace of sand, a trace of gravel, and trace organics. Wood fragments were encountered at 10.5’ and 16.0’. This silt stratum was loose to medium dense and damp. At 19.0’ the boring encountered a gray, fine- to coarse-grained silty sand (glacial till). This silty sand contained a trace of gravel and was dense and moist. This silty sand stratum extended to a depth of 25.0’. At that depth the boring encountered Tertiary sandstone. The sandstone consisted of a gray to dark gray lithic arenite which is fine- to coarse-grained with interbedded small pebble sized conglomerate. The sandstone was wet to moist. The sandstone was very weathered and friable to a depth of 35.0’. A 3” diameter cobble was encountered at 47.0’. The boring was 7 terminated at 49.0’ within the sandstone. Water/mud was used to advance the boring, therefore the depth of ground water was unable to be determined.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, please describe.
There are no surface indications of unstable soils in the immediate project vicinity. Localized scour erosion of the Jordan Creek streambanks has occurred in the past 10 years and is associated with high flows that caused erosion on the stream’s left bank upstream of the concrete bulkhead under the bridge.

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.
Excavation would occur within the existing roadway prism to reach bedrock in order to place footings for the proposed buried arch. Approximately 1,600 cubic yards of material would be removed within the roadway prism and approximately 1,300 cubic yards would be excavated in adjacent roadside areas. Approximately 4,900 cubic yards of fill would be imported to backfill the buried arch.

A total of approximately 113,295 square feet (2.6 ac) will be disturbed including area for the bioretention pond and onsite mitigation, with approximately 97,439 square feet (2.2 ac) of clearing occurring outside of existing paved areas. The final determinations of ground disturbance area affected will be revised as needed as the design process moves forward. These fill materials and other materials such as gravel borrow, washed gravel, and compost-amended soils would be obtained from permitted commercial sites.

f. Could erosion occur as a result of clearing, construction or use? If so, please generally describe.
Erosion could potentially occur during site clearing and grading. Construction work would occur adjacent to the Jordan Creek ordinary high water mark (OHWM). With
use of erosion and sediment control Best Management Practices (BMPs), it is expected that only moderate levels of sediment would potentially be transported during construction. With most grading cuts and fills occurring landward of the stream OHWM, and use of materials suitable for roadway construction it is expected that there would be a reduced risk for erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (i.e., asphalt or buildings)?
The existing project site limits are within one Threshold Discharge Areas (TDA 1) for stormwater runoff analysis. TDA 1 has a total of 14,451 (0.33 ac) square feet of existing impervious surface area. A total of 6,907 square feet (0.16 acre) of new impervious surface area would be added as part of the project. The project will be designed in compliance with Snohomish County Code (SCC) Chapter 30.63A “Drainage” and Chapter 30.63B “Land Disturbing Activity”.

TDA 1 exceeds the 5,000 square feet of new effective pollution-generating hard surfaces threshold. Therefore, stormwater Minimum Requirements 1-9 will be applicable to this project, including stormwater treatment (MR-6) but excluding flow control (MR-7) per SCC Chapter 30.63A and the Snohomish County Drainage Manual. However, the project proposes to include infiltration facilities that will provide treatment and flow control for runoff from all impervious surfaces within the project limits. To comply with SCC 30.62A.320 (1) (c) (iii) limiting effective impervious surface near salmonid streams, the project proposes the installation of bioretention pond on the north side of Jordan Road. Infiltration will address the impervious surface area and ensure that the project results in no adverse effects to Jordan Creek, which provides habitat for ESA listed salmon and other aquatic life. Existing drainage patterns will be maintained, runoff will be conveyed via sheet flow, curb, and thickened edge into the bioretention cells.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: No significant adverse impacts are anticipated. Application of erosion control Best Management Practices (BMPs) would be used throughout project construction. These BMPs would be in place around stockpiles of excavated materials, in proximity to project-area streams and ditches, and in active construction areas, and would be designed to prevent sediments from entering surface waters and storm drainage systems. Excavated soils not re-used in the project would be disposed of offsite at a permitted facility. Bare soil areas would be seeded and planted where required after establishment of final grades.
All project activity would be conducted subject to implementing Best Management Practices and would comply with the provisions of all applicable permits. Best Management Practices may include, but are not limited to the following:

- Protective covering would be placed over exposed soil areas to prevent sediments and other contaminants from entering the roadside areas near the streams. Protective covering would be clear plastic sheeting, straw mulch, jute matting, or erosion control blanket per Department of Ecology requirements.
- A temporary erosion and sediment control plan would be implemented during construction.
- Erosion and sedimentation control measures would be routinely inspected maintained and repaired. Damaged or inadequate erosion and sedimentation control measures would be corrected quickly.
- Any bare soil that may result from project activity would be reseeded with an approved seed mix or mulch immediately following construction.

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, please generally describe and give approximate quantities if known.
      Construction equipment, construction-related activities, and vehicles carrying workers and equipment to and from the site would result in minor, temporary increases in emissions and dust. There would be no increase in emissions once construction is complete. During grading, dust levels may increase temporarily. In addition, minor temporary increases in emissions would be released from construction equipment.

   b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, please generally describe.
      No off site sources of emissions would affect construction.

   c. Proposed measures to reduce or control emissions or other impacts to air, if any:
      During construction, equipment emissions would not exceed state and national air quality standards. The project would use only equipment and trucks in optimal operational condition. Dust control measures would be implemented to minimize airborne dust.

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, please describe type and provide names. If appropriate, state what stream or river if flows into.
Jordan Creek Bridge #214 crosses Jordan Creek, a Type F stream. The South Fork Stillaguamish River, a Type S waterbody and Shoreline of Statewide Significance is located approximately 50-100 feet downstream of all construction activity. There is one Category III emergent wetland located adjacent to the left bank of Jordan Creek approximately 130 feet upstream of all proposed construction activity.

Jordan Creek is a tributary to the South Fork Stillaguamish River and is approximately 2.7 miles long beginning in a large pond and wetland complex near Hall Road south of the site. The stream flows north from its headwaters through wetlands with additional contributing flows from a small tributary that flows from the King Lake outlet and other small drainages. Approximately 850 feet upstream of the Bridge #214 crossing, the stream makes a bend to the west (left) toward its confluence with the river. Two concrete retaining walls confine the creek’s banks underneath the bridge.

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.

   Construction would occur within 200 feet of Jordan Creek. In-water work would be limited to removal of the existing concrete bulkheads. Over water work would include removal of the existing bridge and construction of the replacement structure.

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.

   The project proposes no dredging and no fill would be placed in surface water or wetlands. Concrete bulkheads located at the ordinary high water mark boundary on each side of the creek would be removed.

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

   The project does not propose surface water withdrawals.

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

   Yes, the project lies within the 100-year floodplain of the South Fork Stillaguamish River.

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

   The project proposes no discharges of waste materials to Jordan Creek.

b. Groundwater:
1. Will groundwater be withdrawn from a well for drinking water of other purposes? If so, please give a general description of the well, proposed uses and approximate quantities withdrawn from the well.

**No groundwater would be withdrawn by the project for drinking water. To facilitate construction, excavation or drilling for the new structure footings may require pumping of groundwater that seeps into the excavated area.**

2. Will water be discharged to groundwater? Please give a general description, purpose, and approximate quantities if known.

**No water will be discharged to groundwater.**

3. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (i.e., domestic sewage, industrial, containing the following chemicals..., agricultural, etc.).

**No waste material would be discharged into the ground from septic tanks or other sources.**

4. 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.

**Not applicable.**

c. Water Runoff (including storm water):

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, please describe.

**The project site contains 1 threshold discharge area (TDA). Stormwater runoff in TDA 1 comes solely from the precipitation which falls upon the Jordan Road pavement and upon roadside vegetated areas located between the edge of pavement and existing right-of-way. Surface flow runoff from the pavement and vegetated areas flows off the paved roadway and onto, and through, the vegetated roadside areas until it leaves the site as described below.**

**Onsite stormwater runoff from the pavement sheet flows onto adjacent vegetated roadside areas (one area at each corner of the bridge) until the runoff from each area infiltrates and interflows through streamside vegetation into Jordan Creek. All of the separate runoff flows leaving the site are joined together after they enter Jordan Creek (flows joining either under, or immediately downstream of the bridge). Once stormwater runoff from the project site has entered Jordan Creek, the Jordan Creek channel becomes the sole downstream conveyance of the runoff for approximately 100 feet reaching its headwaters the South Fork Stillaguamish River. The Jordan Creek channel is uniform in size and vegetation throughout its length.**
2. Could waste materials enter ground or surface waters? If so, please generally describe.

The project would use temporary erosion control and sediment controls during construction to prevent waste materials from entering ground or surface waters.

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

The proposed conveyance design has been calculated based on the Snohomish County Code, which requires design of the system to convey the 24-hr 100-year peak event without encroaching on the traveled way.

All runoff from new and replaced impervious surfaces in TDA 1 will be conveyed by curb off the new roadway, thickened edge, picked up in catch basins, and directed to a pond/bioretention swale for treatment and infiltration. The project proposes a pond/bioretention cell in this TDA that will provide water quality treatment through infiltration for runoff from new and replaced impervious services and.

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

   Runoff will be conveyed by curb off the new roadway, thickened edge, picked up in catch basins, and then conveyed to a bioretention swale for treatment and infiltration located west of the bridge. A bioretention swale is currently proposed for this site that will collect and infiltrate flow from TDA 1. Water quality treatment is provided by allowing runoff to infiltrate through the bottom and sides of the swale into the ground. The bioretention swale has been modeled using the Western Washington Hydrologic Model (WWHM) and will have 888 cubic feet of capacity and provide for 100% infiltration with no direct discharge to the stream.

   The bioretention facility is proposed to ensure the project has no adverse effects to Jordan Creek, which provides habitat for ESA listed salmon and other aquatic life. This action helps the project comply with SCC 30.62A.320 (1) (c) (ii) limiting effective impervious surface near salmonid streams.

4. Plants

a. Check all types of vegetation below found on or in close proximity to 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 present:

b. What kind and amount of vegetation will be removed or altered?
The areas immediately adjacent to the roadway shoulder areas are dominated by grasses, invasive weedy species (Himalayan blackberry), and native shrubs such thimbleberry and salmonberry. The bridge replacement project would clear trees adjacent to the shoulder to accommodate the approach roadway widening, the stormwater treatment facility, and the larger stream crossing opening. The total area of vegetation clearing would total approximately 23,802 square feet.

c. List threatened and endangered plant species known to be on or near the site.
No threatened or endangered plant species are known to be located at the project site.

d. List all noxious weeds and invasive species known to be on or near the site.
Extensive patches of Himalayan blackberry and knotweed are located in proximity to the project site.

e. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation of the site, if any:
Areas temporarily cleared of vegetation to facilitate construction will be restored, including planting of native plants where feasible. The new roadway slope areas adjacent to the streambank within County right-of-way a will provide areas for riparian buffer plantings. Tree and shrub planting area is also expected to be available upstream of the road and surrounding the proposed bioretention facility.

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.
birds: hawks, heron, eagle, songbirds, owls, ducks, woodpeckers
mammals: deer, bear, elk, beaver, opossum, raccoon, coyote, small rodents
fish: bass, salmon, trout, herring, shellfish, other:
A bat maternity colony of the bat Myotis yumanensis was found under the bridge in 2010. Site visits between June and August have been conducted annually by County staff to confirm whether the maternity colony is present. The 2020 survey started on June 10th and ended on August 24th. Evidence of the roost was first seen July 27th and increased by August 24th although no bats were observed.

Bats are a state protected wildlife species. It is illegal to take, harm, possess, or transport protected wildlife (RCW 77.08.010(41) and RCW 77.15.130). The bat maternity colony will need specially designed exclusion before the project begins to prevent the bats from establishing the maternity roost while construction occurs. Exclusionary measures should be in place in spring before construction begins. The
new bridge would also need specially designed habitat for the maternity roost to replace the loss of the existing roost habitat.

b. List any threatened and endangered wildlife species known to be on or near the site. There are no known Threatened or Endangered species of wildlife on the site. Jordan Creek is mapped as supporting chinook salmon and steelhead trout. Chinook, steelhead, and bull trout are found nearby in the South Fork Stillaguamish River.

As of this writing, the following threatened, endangered, sensitive, or priority species that may be found within the county include (check all that apply):

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Latin Name</th>
<th>Federal Listing</th>
<th>State Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Puget Sound ESU Chinook</td>
<td>Oncorhynchus tshawytscha</td>
<td>Threatened</td>
<td>Candidate</td>
</tr>
<tr>
<td>✓ Puget Sound DPS Steelhead</td>
<td>O. mykiss</td>
<td>Threatened</td>
<td>N/A</td>
</tr>
<tr>
<td>✓ Bull trout</td>
<td>Salvelinus confluentus</td>
<td>Threatened</td>
<td>Candidate</td>
</tr>
<tr>
<td>□ Pygmy whitefish</td>
<td>Prosopium coulteri</td>
<td>N/A</td>
<td>Sensitive</td>
</tr>
<tr>
<td>□ Margined sculpin</td>
<td>Cottus marginatus</td>
<td>N/A</td>
<td>Sensitive</td>
</tr>
<tr>
<td>✓ Olympic mudminnow</td>
<td>Novumbra hubbsi</td>
<td>N/A</td>
<td>Sensitive</td>
</tr>
<tr>
<td>□ Oregon spotted frog</td>
<td>Rana pretiosa</td>
<td>Threatened</td>
<td>Sensitive</td>
</tr>
<tr>
<td>□ Larch mountain salamander</td>
<td>Plethodon marselli</td>
<td>N/A</td>
<td>Sensitive</td>
</tr>
<tr>
<td>✓ Common loon</td>
<td>Gavia immer</td>
<td>N/A</td>
<td>Sensitive</td>
</tr>
<tr>
<td>✓ Peregrine falcon</td>
<td>Falco peregrinus</td>
<td>Species of Concern</td>
<td>Sensitive</td>
</tr>
<tr>
<td>✓ Marbled murrelet</td>
<td>Brachyramphus marmoratus</td>
<td>Threatened</td>
<td>Endangered</td>
</tr>
<tr>
<td>✓ Northern spotted owl</td>
<td>Strix occidentalis caurina</td>
<td>Threatened</td>
<td>Endangered</td>
</tr>
<tr>
<td>✓ Yellow-billed cuckoo</td>
<td>Coccyzus americanus</td>
<td>Threatened</td>
<td>Candidate</td>
</tr>
<tr>
<td>✓ Fisher</td>
<td>Martes pennanti</td>
<td>Endangered</td>
<td>Endangered</td>
</tr>
<tr>
<td>✓ Gray wolf</td>
<td>Canis lupus</td>
<td>Endangered</td>
<td>Endangered</td>
</tr>
<tr>
<td>✓ Grizzly bear</td>
<td>Ursus arctos horribilis</td>
<td>Threatened</td>
<td>Endangered</td>
</tr>
<tr>
<td>✓ Southern resident killer whale</td>
<td>Orcinus orca</td>
<td>Endangered</td>
<td>Endangered</td>
</tr>
</tbody>
</table>

Where federal threatened and endangered species are found, all work will conform to the requirements of the Endangered Species Act administered by the US Fish and Wildlife Service and the National Marine Fisheries Service. Where state listed species or Priority Habitats and Species (PHS) are found, the Washington Department of Fish and Wildlife Priority Habitats and Species recommendations will be followed, when appropriate. The most current PHS list can be found at: https://wdfw.wa.gov/species-habitats/at-risk/phs/list.

c. Is the site part of a migration route? If so, please explain.
Yes. The site is within the Pacific Flyway for migratory birds which stretches between Alaska and South America. All migratory birds are protected by the Migratory Bird Treaty Act administered by the US Fish and Wildlife Service. The site lies near Jordan Creek and the Stillaguamish River which supports anadromous salmonid species traveling between saltwater and freshwater.

d. List any invasive animal species known to be on or near the site.
   **There are no known invasive animal species in the project area.**

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

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? Please describe whether it will be used for heating, manufacturing, etc.
   **No energy will be used once construction has been completed.**

b. Would your project affect the potential use of solar energy by adjacent properties? If so, please generally describe.
   **The bridge replacement 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:
   **There are no energy conservation features included in the bridge replacement design.**

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, please describe.
   **Except for the potential of a fuel spill during construction, there are no 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 bridge replacement construction.**

   1. Describe any known or possible contamination at the site from present or past uses.
      **There are no known contamination issues at the bridge site.**

   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.
      **There are no known existing hazardous chemicals/conditions that might affect project development and design. There are no underground transmission lines in 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 any time during the operating life of the project.

There are no uses of toxic or hazardous chemicals that would be stored, used, or produced during the project's development. Fuel and hydraulic fluids for vehicle and equipment use would be used and would be stored onsite in secured areas according to adopted safety standards.

4. Describe special emergency services that might be required.

Emergency response vehicles may be required in the event of a construction accident. The completed project would not require any additional emergency services.

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

Spill control measures and clean-up material would be implemented onsite as required. The construction crew leader or other designated person would have a spill control plan and be trained in spill prevention and clean up. All equipment would be well maintained and in good repair to prevent the loss of petroleum or other products. Refueling and vehicle maintenance would generally occur well landward of Jordan Creek.

b. Noise:

1. What types of noise exist in the area which may affect your project (i.e., traffic, equipment, operation, aircraft, other)?

There are no types of noise in the project vicinity that would affect project construction.

2. What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (i.e., traffic, construction, operation, other)? Indicate what hours noise would come from the site.

During construction (short-term) there would be increased noise levels generated by heavy equipment. These noise levels are likely to exceed existing background noise levels associated with surrounding rural residential properties.

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

No additional measures to reduce or control noise impacts are proposed.

8. Land and Shoreline Use

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

The project site is used as an arterial road including an existing bridge crossing of Jordan Creek. Land use in the area is primarily agricultural and rural residential. Current use of the site is for Jordan Road and Jordan Creek Bridge #214 located in...
Snohomish County-owned right-of-way. TDA 1 extends from Station 1+75 to station 6+75. The existing road has two travel lanes varying from 10-11 feet with no improved shoulders. The grass shoulders have ditches in some areas, mainly on the north side of the road.

Properties neighboring TDA 1 are primarily agricultural and rural residential in nature. The north/upland side of the right-of-way consists of three properties with well vegetated areas near the road. The south side of the right-of-way consists of steep terraced banks down to the South Fork Stillaguamish River. The project would not affect these land uses.

b. Has the site been used as working farmlands or working forestlands? If so, please describe. How much agriculture or forestland 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 forestland tax status will be converted to non-farmland or non-forest use?

The site has not been used for working farmlands or working forestlands. Adjacent areas are not used for commercial agriculture or commercial forestry.

1. Will the proposal affect or be affected by surrounding working farmland or forestland’s normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The project would not be affected by surrounding working farmland or forestland normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting.

c. Describe any structures on the site.

The existing Jordan Creek Bridge #214 is the only structure on the site.

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

The existing bridge will be demolished as part of the bridge replacement project.

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

Snohomish County has zoned the land areas as Rural-5 Acre in proximity to the project site.

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

Snohomish County Future Land Use Maps designate the area upslope and north from the bridge site as Rural Residential-5 (1 DU/5 Acre Rural Basic).

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

The Snohomish County Shoreline Management Program designates the project area as a Rural Conservancy environment.

h. Has any part of the site been classified critical area by the city or county? If so, please specify.
Snohomish County critical areas regulations identify Jordan Creek as a fish and wildlife habitat conservation area. The stream and the area landward of the ordinary high water mark are also identified as primary association areas for critical species.

i. Approximately how many people would reside or work in the completed project?
No people would reside or work in the completed project area.

j. Approximately how many people would the completed project displace?
No people would be displaced by the completed project.

k. Proposed measures to reduce or control impacts to nearby agricultural and forestlands of long-term commercial significance, if any:
None

l. Proposed measures to ensure the proposal is compatible with existing projected land uses and plans, if any:
The project is consistent with the Snohomish County Growth Management Act Comprehensive Plan - Transportation Element for 2019-2024 and designated as a Bridge Replacement and Rehabilitation Project (TIP #F.01.18 Jordan Creek Bridge #214 Replacement).

m. Proposed measures to avoid or reduce displacement, if any:
None

9. Housing
a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None

c. Proposed measures to reduce or control housing impacts, if any:
None

10. Aesthetics
a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
The new guardrail rail for the replaced road surface would be the highest portion of the project and would extend approximately 3 feet up from the roadway at the bridge crossing.

b. What view in the immediate vicinity would be altered or obstructed?
The project would not construct or alter views in the immediate project vicinity. Minor clearing along the roadway within the existing right-of-way would occur to accommodate the roadway improvements.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Temporarily disturbed areas would be revegetated.

11. Light and Glare
   a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
      The proposed bridge replacement project would not produce light or glare.
   b. Could light or glare from the finished project be a safety hazard or interfere with views?
      No
   c. What existing off-site sources of light or glare may affect your proposal?
      No existing off-site light sources would affect the proposed bridge replacement project.
   d. Proposed measures to reduce or control light and glare impacts, if any?
      None proposed

12. Recreation
   a. What designated and informal recreational opportunities are in the immediate vicinity?
      There are no designated or informal recreational opportunities located in the immediate project vicinity. Jordan Bridge Park is located 500 to 600 feet downstream on both banks of the South Fork Stillaguamish River. This Snohomish County park features a footbridge over the river and picnic tables.
   b. Would the proposed project displace any existing recreation uses? If so, please describe.
      The proposed project would not displace existing recreation uses.
   c. Proposed measures to reduce or control impacts on recreating, including recreation opportunities to be provided by the project or applicant, if any:
      None

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, site, or local preservation registers located on or near the site? If so, please general describe.
      This site was screened by Public Works for proximity to known archaeological and cultural sites. There is a recorded site located in proximity to where potential ground disturbing activities are planned for this project.
      The Jordan Creek Bridge #214 was built in 1932 with substantial rebuilds in 1958 and 1981. The bridge will be evaluated during cultural resources assessment but is unlikely to be considered significant and/or eligible for the National Register of Historic places.
      Portions of the 2 adjacent properties will need to be acquired to accommodate approach widening, the stormwater facility, and mitigation. Structures on each of these parcels will be evaluated during the cultural resources assessment but are unlikely to be considered and/or eligible for the National Register of Historic places.
b. Are there any landmarks, features or other evidence of Tribal 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.

One precontact archaeological site was recorded near the Jordan Creek Bridge Replacement project location.

c. Describe 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.

A preliminary cultural resources screening was conducted using archaeological site GIS data provided by the Washington State Department of Archaeology and Historic Preservation (DAHP) to Snohomish County as part of a data sharing agreement. There is a recorded site located in proximity to where ground disturbing activities are planned for this project.

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:

Compliance with Section 106 National Historic Preservation Act requirements will be required as part of the project’s FHWA federal funding. A cultural resources survey will be performed, and a report prepared by the Snohomish County archaeologist.

The following management recommendations would likely be developed as part of the Section 106 consultation:

• The proposed project would proceed as planned if no sites are affected by the project. A project specific Unanticipated Discoveries Protocol (UDP) would be developed as part of the Section 106 process, including keeping a UDP on site during construction.
• If any ground-disturbing activities or other project activities related to this development or in any future development uncover protected cultural material (e.g., bones, shell, stone or antler tools), all work in the immediate vicinity should stop, the area should be secured, and any equipment moved to a safe distance away from the location. The on-site superintendent would then follow the steps specified in the UDP developed for the project.
• If any ground-disturbing activities or other project activities related to this development or in any future development uncover human remains, all work in the immediate vicinity would stop, the area secured, and any equipment be moved to a safe distance away from the location. The on-site superintendent would then follow the steps specified in the UDP developed for the project.

14. Transportation

a. Identify public streets and highways serving the site, or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.
Bridge #214 is located on Jordan Road, a rural major collector, between 143rd Ave NE and 146th Dr NE, east of the City of Arlington and north of the City of Granite Falls.

b. Is the site or affected geographic area currently served by public transit? If so, please generally describe. If not, what is the approximate distance to the nearest transit stop? The site is not served by public transit. The nearest transit stop would be for Community Transit Route 280 located in Granite Falls, approximately 6 miles south of the project site.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project proposal eliminate? The project would not eliminate or construct 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, please generally describe (indicate private or public). Additional right-of-way acquisition is anticipated in order to construct the proposed buried arch and roadway improvements including the stormwater facility. Temporary Construction Easements will likely be required to construct the bridge. A Right-of-Way Plan is being developed accordingly.

e. Will the project or proposal use (or occur in the immediate of) water, rail, or air transportation? If so, please generally describe. The project will not use or occur in the immediate proximity of water, rail, or air transportation.

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 or non-passenger vehicles). What data or transportation models were used to make these estimates? The project would not generate vehicular trips. The bridge replacement design would accommodate future estimated increased traffic volumes.

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, please generally describe. The project will not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area. During the duration of bridge replacement, a full road closure of Jordan Road is NOT proposed due to an extensive detour route of approximately 26 miles from end to end that would result in increased travel times for area residents and for through traffic that originates from outside of the project area.

h. Proposed measures to reduce or control transportation impacts, if any: A temporary traffic bypass bridge is proposed during construction to avoid a lengthy detour route. This temporary single-lane bridge will be located immediately upstream of the existing Bridge #214. Because the existing bridge is restricted to 1 travel lane, the use of a single-lane bypass bridge will not cause additional transportation impacts.
15. Public Services
   a. Would the project result in an increased need for public services (i.e., fire protection, police protection, public transit, health care, schools, other)? If so, please generally describe.
      The completed bridge replacement would not result in an increased need for public services.
   b. Proposed measures to reduce or control direct impacts on public services, if any.
      No measures are proposed.

16. Utilities
   a. Check all utilities currently available at the site:
      - Electricity
      - Natural Gas
      - Water
      - Refuse Service
      - Telephone
      - Sanitary Sewer
      - Septic System
      - Other (please describe) Click here to enter text.
   b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site of in the immediate vicinity which might be needed.
      Snohomish County PUD has overhead power lines that cross Jordan Creek just upstream of the bridge location. Telecommunication lines are also present on the PUD power poles. The owners of the telecommunication lines are unknown. Coordination will be required with the PUD and telecommunication companies as the poles will need to be relocated as they are located where either the new buried arch or the temporary detour bridge will be constructed.
      Snohomish County PUD has a 12-inch water line which is currently attached to the east side of the bridge. Coordination will be needed with the PUD in order to determine the least disruptive course of action for the water line.
      Septic drain fields are also present in the vicinity of Bridge #214. The project will have them located and have their locations incorporated into the design drawings as needed to ensure roadway and drainage improvements do not impact the drain fields. If relocation is required, Snohomish County will work with the property owners to ensure the septic drain fields are relocated. County staff will offer information on local septic programs, loans, grants, and rebates available for property owners. The County may need to have the property owner apply for a C10 permit with the County if the septic drain field is in the County right-of-way but is not expected to be impacted by the project and remain in place.
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: ____________________________

Printed name: Troy Fields
Position and Agency/Organization: Senior Environmental Planner
Snohomish County Public Works, TES/ENVS
Date Signed: 07/01/2021
APPENDIX A. Photos

Photo 1: Jordan Creek looking downstream toward the South Fork Stillaguamish River. One of 3 bridge piles to be removed from the center of the creek. 06/2020
Photo 2: Jordan Creek confluence with the South Fork Stillaguamish River. 06/2020

Photo 3: Jordan Road looking southeast toward Jordan Bridge. Area of proposed stormwater facility of near power pole. 05/2021
Photo 4: Jordan Bridge 214 approach looking southeast. 10/2020
Photo 5: Looking up at the underside of Jordan Bridge 214 from the left bank of the creek. 08/2008