

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

A. Background

1. Name of proposed project, if applicable:

South Kelso Railroad Crossing Project

2. Name of applicant:

Michael Kardas, PE
Community Development Director/City Engineering Department

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

City of Kelso
Community Development and Engineering Department
PO Box 819
Kelso, WA 98626
360-423-1371
mkardas@kelso.gov

4. Date checklist prepared:

October 2018; Revised February 2022

This revised checklist supplements the original SEPA Environmental Checklist for the South Kelso Railroad Crossing Project SEPA checklist, dated October 2018. This revised checklist includes additional information regarding impacts at the at-grade crossing closures at Mill and Yew Streets, updated design, and findings from finalized discipline reports. This revised checklist is supporting documentation to issue a Revised DNS for the project.

5. Agency requesting checklist:

Mike Murray
Planning Manager
City of Kelso
Community Development and Engineering Department

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

Preliminary engineering and environmental clearance is planned from 7/2017 to 6/2019.

Final Engineering and property acquisitions are planned from 7/2019 to 6/2021.

Construction is planned from 7/2022 to 6/2024. There will be periodic road closures and detours during construction. At completion of construction, Hazel Street between South Pacific Avenue and the eastern terminus of the proposed project will become a dead-end street with a turn-around. The Mill and Yew Street at-grade rail crossings will be closed upon opening of the new bridge and Hazel Street extension to South River Road. Mill and Yew Street would terminate with a cul-de-sac or hammer head to facilitate vehicle turnaround on the west side of the closed crossings.

The construction will consist of three phases:

Phase 1 (2022)

- Place erosion control BMPs
- Complete site demolition
- Relocate utilities

Phase 2 (2022-23)

- Construction of the bridge embankment
- Construction of walls
- Construction of the bridge substructure
- Construction of the bridge superstructure

Phase 3 (2023-24)

- Construction of roadway section
- Closures at Mill and Yew Streets

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

There are no known future plans for expansion of the Project.

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

The following reports were prepared as the basis for selecting the preferred alternative:

- Kelso Martin's Bluff Improvement Projects Tasks 5 and 6 (WSDOT 2014)
- City of Kelso Railroad Crossing Study Design Options Summary Report (David Evans and Associates, 2013)

The following reports have been prepared for the project:

- Geotechnical Engineering Report (Shannon & Wilson, 2021)
- Draft Hydrogeologic Report (Shannon & Wilson, 2021)
- Noise Technical Memorandum (HMMH, 2021)
- Air Quality Memorandum (HMMH, 2018)
- Traffic Analysis Memo: Signal Warrant and Turn Lane Analysis within Project Area (HDR, 2018)
- Cultural Resource Investigations Report (HRA, 2018)
- Addendum: 2021 Cultural Resources Investigations (HRA, 2021)
-
- Stormwater Drainage Report
- Hazardous Materials Memorandum (HDR, 2021)
- ASTM-compliant Phase I Environmental Site Assessment (HDR, 2021)
- Wetland Delineation Report (HDR, 2020)
- City of Kelso and Cowlitz County Critical Area Report (HDR, 2021)
- ESA Biological Assessment (HDR, 2021)
- Wetland Mitigation Bank Use Plan (HDR, 2020)

- Environmental Justice Memorandum (HDR, 2021)
- Advance Acquisition of ROW Memorandum (HDR, 2021)
- Construction Staging Alternatives Memorandum (Otak, 2020)
- Federal Aviation Administration Notice of Actual Construction or Alteration

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.

No known applications are pending for governmental approvals of other proposals directly affecting the project.

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

The following permits are anticipated for the project:

- US Army Corps of Engineers Section 404 permit for wetland fill
- US Army Corps of Engineers Section 408 permit for impacts to the levee along South River Road
- Compliance with National Historic Preservation Act Section 106
- Compliance with Section 7 of the Endangered Species Act
- Federal Aviation Administration (FAA) Form 7460-1 Notice of Proposed Construction or Alteration
- Washington Department of Ecology 401 Water Quality Certification
- Washington Department of Ecology NPDES for Construction Stormwater
- NEPA Categorical Exclusion from FHWA
- City of Kelso Critical Area Modification Permit
- City of Kelso Shoreline Substantial Development Permit
- City of Kelso Demolition Permits
- City of Kelso Building and Grading Permits
- City of Kelso Right-of-Way Use Permits
- Cowlitz County Demolition Permit
- Cowlitz County Final Engineering and Plan Review and Building Permits
- Cowlitz County Right-of-Way Use Permits
- WUTC Rail Crossing Order
- BNSF approval of proposed design of railroad grade separation.

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 City of Kelso is proposing to construct a bridge over the Burlington Northern-Santa Fe (BNSF) rail line, which will connect Hazel Street to South River Road in Kelso, Washington (See attached overall plan). The work will include the construction of a multi-span bridge, approaches, retaining walls, new roadbed and paving, as well as the installation of stormwater management infrastructure and a new water main, and the closures of the existing at-grade railroad crossings at Mill and Yew Streets.

The Project will revise the Hazel Street alignment just east of the BNSF tracks and construct a new bridged portion of the street to cross over South Pacific Avenue and the tracks at an approximate 90-degree angle. The elevated bridge crossing will be a multi-span girder bridge with cast-in-place concrete deck and will be approximately 400 feet long. The proposed bridge roadway section will include two 12' lanes, two 6' bike lanes, and two 6' sidewalks. A 2'-8" pedestrian barrier will be used along each side of the bridge deck. The pedestrian barrier will be topped with chain link fence on the bridge within the railroad right-of-way to a height of 11'-1" above the sidewalk in order to meet BNSF requirements. The Hazel Street extension will likewise consist of two 12' lane widths, two 6' bike lanes, and two 6' sidewalks. Maximum fill/ cut slopes will be 2:1 for the new road alignment.

The existing connection between South Pacific Avenue and Hazel Street will be closed with a new connection provided via Douglas Street and a newly constructed extension of 3rd Avenue S. Douglas Street, South Pacific Avenue, and 3rd Avenue S will be improved. Douglas Street and 3rd Avenue S will have a typical section of 12' lanes with 8' shoulders. South Pacific Avenue will be realigned, reconstructed to 14' wide lanes with 2:1 cut/fill slopes.

With the improvements to this project, access from South Pacific Avenue to the realigned portion of Hazel Street will be removed. Vehicles will be redirected to use Douglas Street and 3rd Avenue S to access Hazel Street. There are a few properties along Hazel Street that will still need access from South Pacific Avenue. Access along the existing Hazel Street alignment will be removed approximately 800 feet east of South Pacific Avenue, with a cul-de-sac to keep access to these few properties. The proposed typical section will be two 12' lane widths with maximum fill/cut slopes of 2:1.

Once construction of the grade separation at Hazel Street is complete, the City will close the existing at-grade crossings at Mill Street and Yew Street to vehicle traffic, but access for emergency services is planned to be maintained at Mill Street (see attached plan sheets). At Mill Street, collapsible bollards will be installed in the roadway on both sides of the railroad. Additionally, a new hammerhead turnout will be constructed off Riverside Drive to facilitate vehicle turnaround on the west side of the closed crossing. At Yew Street, portions of the north side of the roadway pavement will be removed and replaced with gravel. Bollards will be installed and the existing chain link fence will be extended across the Yew Street right-of-way to prevent pedestrian and vehicular usage of the crossing on the west side of the railroad; the bollards will be removable to allow authorized access to the railroad and levee for maintenance. Jersey barriers will be installed on the east side of the railroad.

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project is located in the vicinity of the intersection of Hazel Street and South Pacific Avenue in the City of Kelso and unincorporated Cowlitz County in Township 7 North, Range 2 West in Section 3 and Township 7 North, Range 2 West in Section 2. A vicinity map showing the project location is attached.

The following parcels are anticipated to be affected by the Project: 24379, 24380, 24068010, 23537, 24248, 2356201, 23563, 23562, 23562, 2356301, 23564, 23565, 235690100, 2356401, 23156, 23583, 23582, 23581, 23580, and 2357901. .

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

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

The site is bordered to the west by the Cowlitz River Levee and South River Road. The Coweeman River, a Cowlitz tributary, passes within one mile east of the site. East of South Pacific Avenue, the project area is occupied by residential and commercial development. West of that road and the railroad, the corridor is undeveloped. The BNSF railroad main line runs north-south parallel to South Pacific Avenue on a berm roughly 10-feet above existing grade.

The Cowlitz River Levee extends from the confluence of the Cowlitz and Columbia River confluence and ends upstream of Fishers Lane in the City of Longview, along the right bank of the Cowlitz River. This levee protects portions of both Longview and Kelso. The levee is owned by the Consolidated Diking Improvement District No. 1 but managed by Cowlitz County and runs along the west bank of the Cowlitz River separating the Project Area from the Cowlitz River.

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

Most of the site is relatively flat at an approximate elevation of 20 feet. An elevated berm that supports the railroad tracks at about elevation 33 feet bisects the site in an approximately northwest to southeast alignment. Per a review of the City of Kelso percent slope map¹, the steepest slopes in the Project Area are 15-30 percent near the elevated BNSF elevated rail line.

West of the BNSF railroad and south of the proposed project, the golf course is at a higher elevation than the surrounding area. Therefore, a portion of the proposed alignment will traverse a moderate slope to reach the lower elevation (Shannon & Wilson, 2018).

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

The United States Department of Agriculture Soil Conservation Service (SCS) classifies the soil units in the Project Area as Arents, 0 to 5 percent slopes; Newberg fine sandy loam, 0 to 3 percent slopes; and Pilchuck loamy fine sand, 0 to 8 percent slopes. Arents soils are moderately well drained with moderately high to high infiltration rates. Newberg fine sandy loam soils are well drained with high infiltration rates. Pilchuck loamy fine sand soils are somewhat excessively well drained with high to very high infiltration rates. Per the SCS, Arents soils are not considered prime farmland. Newberg fine sandy loam is considered prime farmland if protected from flooding or not frequently flooded during

¹ City of Kelso. 2014. Kelso Critical Areas: Slope Percent. Available online:
https://www.kelso.gov/sites/default/files/docs/percentslope_kelso.pdf

the growing season, and Pilchuck loamy fine sand is considered prime farmland if irrigated. Soils would not be removed because of the project.

In addition, fill was encountered in the Project Area during geotechnical field explorations from approximately ground surface to depths of approximately 2.5 to 20 feet. Per the 2018 geotechnical report prepared for the Project, the composition of fill varies across the site and includes silt to sandy silt, silty sand, poorly graded sand with gravel, and poorly graded gravel with sand. Trace organic debris and roots were also encountered during geotechnical borings.

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

Per the 2021 geotechnical report prepared for the project, the project area is mapped as having a moderate to high liquefaction susceptibility on both the Liquefaction Susceptibility Map of Cowlitz County, Washington and the DNR interactive geology portal map. The potential for fault rupture is low given the distance between the project site and the nearest potentially active fault is approximately 26 miles from the project.

In addition, alluvium soils in the project area are susceptible to liquefaction below the groundwater at an approximate elevation of 12.5 feet to a depth of approximate elevation of -60 feet: approximately 80 feet below ground surface (Shannon & Wilson, 2021).

The Washington Department of Transportation (WSDOT) Geotechnical Design Manual (GDM) requires that all bridges be designed for 1,000-year return period ground motions under "No Collapse" criteria. Under this level of shaking, the bridge, bridge foundation, approach structures, and approach fills within 100-feet of the bridge must be able to withstand the forces and displacements without collapse of any portion of the structure (Shannon & Wilson, 2021). Mechanically Stabilized Earth (MSE) walls constructed with conventional fills on stone columns extending to a depth of approximately 40-feet below ground surface is the recommended wall type. Drilled shaft foundations will be utilized for the bridge foundations.

. Per the 2021 geotechnical report, no erosion or landslide hazard areas are present in the project area.

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

The project anticipates excavating approximately 6,800 cy.

The project anticipates approximately 35,000 of fill material in the form of common borrow and gravel borrow.

The total affected area of the project is approximately 6.5 acres.

The primary purpose for excavation is to build road base and retaining wall foundations; the primary purpose for fill is to construct road and bridge approach embankment. The source of common borrow will be from a commercial gravel pit selected by the Contractor.

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

Clearing and excavation during construction could result in a short-term erosion hazard as bare soils become exposed to wind, rainfall, or vehicle activity within the Project Area. Subgrade soils

on-site are fine-grained and are sensitive to moisture during construction and compaction. Site clearing, site preparation, and earthwork is recommended during periods of warm, dry weather. Section B.1.h below includes typical best management practices (BMPs) and other measures that could be used to minimize the potential for erosion. Future design efforts will include plans specifically developed to address erosion control, clearing and grading, and construction stormwater management. A project drainage report will also be prepared to demonstrate compliance with state and local stormwater management codes and best practices.

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

The project anticipates that approximately 83% of the total project area will be covered with impervious surfaces.

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

Appropriate erosion control measures would be implemented prior to clearing, grading, or excavation activities. These control measures would be identified in the project plans and construction specifications and would be implemented as required by the Stormwater Pollution Prevention Plan (SWPPP) and Erosion Control Plan prepared in compliance with the Construction Stormwater NPDES permit, which would be issued by the Washington State Department of Ecology. BMPs would be selected from the Western Washington Stormwater Manual specific to the construction activities occurring within the Project Area and may include, but not be limited to:

- Collection and controlling stormwater flow in accordance with the SWPPP
- Installation of filter fabric fences around disturbed areas
- Installation of silt traps in storm drain inlets
- Stabilization of temporary soil stockpiles and exposed solids
- Permanent stabilization of disturbed areas after construction is completed
- Use of appropriate means to minimize tracking of sediment onto public roadways by construction vehicles
- Designation of personnel to inspect and maintain temporary erosion and sediment control measures.

To reduce the effects of a seismic event on the Project, the project would be designed in accordance with the seismic requirements outlined in the Washington State Department of Transportation Bridge Design Manual and the AASHTO Guide Specifications for LRFD Seismic Bridge Design.

If the contractor chooses a method other than auger-drilled shafts for the stone columns or other bridge-related structural features that could generate vibration, additional analysis and public outreach may be warranted prior to initiating that 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, generally describe and give approximate quantities if known.

The project is located in an attainment area, which means that ambient air quality has been determined to be below the National Ambient Air Quality Standards (NAAQS) and/or State Ambient Air Quality Standards (SAAQS).

-

Construction activities can cause minor short-term increases in air pollutant emissions during installation of specific project elements. The construction contractor will be required to comply with all local, state, and federal regulations concerning air pollution abatement related to construction activities, and projects that require earthwork or otherwise have the potential to create fugitive dust are required to use best management practices (BMP) to control dust. Therefore, construction activities are not expected to cause significant air quality impacts. (HMMH 2018).

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

No known off-site sources of emissions or odor would affect the project.

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

No long-term air quality impacts are anticipated because of the project; therefore, no mitigation is required.

Mitigation measures for potential short-term (construction) impacts normally include best management practices (BMPs) for dust suppression. To reduce the effect of construction delays on traffic flow and resulting emissions, road or lane closures should be restricted to non-peak traffic periods when possible.

A list of BMPs for the control of fugitive dust compiled by the Associated General Contractors (AGC) of Washington in the publication Guide to Handling Fugitive Dust from Construction Projects is presented below.

The control measures listed below are not mutually exclusive. Most situations require the use of two or more methods for any particular situation, and several methods will be employed to handle the variety of situations that make up a particular project. BMPs to reduce fugitive dust emissions include:

- Covering – fabric/other for erosion control
- Dust suppressants – water or chemical
- Erosion controls
- Filter fabric around catch basins
- Flocculating agents
- Minimize size of disrupted surface area
- Paving or planting of disturbed soil areas
- Schedule work: reschedule work around especially windy days
- Speed reduction
- Street sweepers
- Vehicle spillage reduction – covered loads
- Water spray
- Wheel wash.

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.**

Based on a review of the U.S. Fish and Wildlife Service National Wetland Inventory database, one freshwater palustrine emergent wetland extending north-south is located in the Project Area, approximately 300 east of South River Road. A site visit and wetland rating was conducted in July 2018 and determined to be a depressional Type III wetland. It received a habitat score of four (4), resulting in a City of Kelso buffer setback requirement of 75-feet from the delineated wetland.

In addition to the wetland, the Cowlitz River is located approximately 75 feet west of the proposed Mill Street hammerhead. The Cowlitz River is considered a Type S water (shoreline of the state) under Chapter 90.58 RCW (Classification 5 Fish and Wildlife Habitat Conservation Areas (FWHCA) per Kelso Municipal Code 17.26.060(A)). The Coweeman River, a tributary to the Cowlitz River, is located approximately 1 mile east of the Project Area.

- 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 Hazel Street Extension would cross over the wetland described in 3.a.1 above. The proposed roadway will cross the wetland at an existing old road culvert crossing. As part of this Project, the culvert will be replaced with a new culvert. A USACE Clean Water Act Permit has been obtained for the project. A critical area permit from the City of Kelso will be obtain prior to construction activities.

The construction of the Mill Street hammerhead would occur within 200 feet of the Cowlitz River. A SSDP will be obtained from the City of Kelso prior to construction.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

Approximately 540 cubic yards of permanent fill and 61 cubic yards of temporary fill would be placed in Wetland 1. Permanent fill would consist of gravel borrow and gravel base course, riprap, and concrete. Temporary fill would consist of sandbags. Permanent fill would consist of imported, clean material from an offsite source selected by the construction contractor.

Compensatory wetland mitigation would be achieved by using credits through the Coweeman River Mitigation Bank.

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

No surface water withdrawals or diversions are anticipated as part of the project.

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

Per FEMA Firm Panel 53015C0518G (effective December 16, 2015), the location of the proposed Mill Street hammerhead would be located within the 100-year flood plan (FEMA Zone AE). Per FEMA Firm Panels 53015C0518G and 53015C0681G (effective dates December 16, 2015), the remainder of the Project Area is located in a Zone X area, an unregulated area identified on the FIRM map. Per Project Area is protected by an accredited levee system. The levee is owned by the Cowlitz County Consolidated Diking Improvement District No. 1 and runs along the west bank of the Cowlitz River separating the Project Area from the Cowlitz River.

Additional levee information can be found at this link:

<https://levees.sec.usace.army.mil/#/levees/system/5005000025/system>

- 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 discharge of waste materials to surface waters is anticipated as part of the project.

b. Ground Water:

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

No groundwater would be withdrawn from a well for drinking water or other purposes as part of the project.

- 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 would be discharged into the ground from septic tanks or other sources because of the Project.

c. Water runoff (including stormwater):

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

Water runoff from the site will be primarily stormwater that falls onto the roadway.

Stormwater infrastructure including catch basins, pipes, and mechanical treatment (filters) will be installed along the new roadways.

Under the proposed project, runoff west of the BNSF rail line will be discharged to a culvert at an existing roadway crossing into Wetland 1. Stormwater treatment will be provided on Hazel Street through mechanical treatment and discharge to the wetland. Two StormFilter Manholes are proposed on Hazel Street to treat all pollution generating impervious surface. The treatment media proposed for the mechanical devices provide both basic and phosphorus treatment. The flat terrain in this location creates conveyance issues that preclude the use of wetponds or vegetated facilities for treatment.

East of the BNSF rail line, the project will use mechanical treatment in the form of a StormFilter Vault at the intersection of Hazel Street and 3rd Avenue South. The treated stormwater will then be routed to the existing facilities. Stormwater from South Pacific Avenue, Hazel Court, Douglas Street, 3rd Avenue, and Hazel Street is routed to an existing stormwater main on Hazel Street. The existing 24-inch concrete main discharges north to the Coweeman Slough, which is controlled and maintained by CDID No. 3.

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

Construction-related waste materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities deviate from project specifications or permit conditions. BMPs would be employed to reduce or control runoff and drainage pattern impacts during construction. Following construction, stormwater runoff from new impervious areas will be routed through water quality treatment wetponds, minimizing the effects on surface and groundwater.

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

No, the proposed stormwater plan maintains existing stormwater drainage patterns and is not anticipated to affect flow rates, especially outside of the internal, pumped, diking district.

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

Construction stormwater would be managed in accordance with BMPs required by the City of Kelso Engineering Design Standard Manual, Cowlitz County Stormwater requirements, and the Department of Ecology Stormwater Manual for Western Washington, 2012, as amended 2014. BMPs and temporary erosion and sediment control measures would be implemented to minimize short-term water quality effects. Restoration pursuant to the project landscaping plan of disturbed areas would occur prior to project completion.

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, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

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

Pasture grasses, Himalayan blackberry, and scotch broom would be removed as part of Project construction.

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

No threatened or endangered plant species are known to be located at or near the proposed project site according to the Washington Department of Fish and Wildlife's Priority Habitat and Species database and the Washington Department of Natural Resources Natural Heritage Program Element Occurrences. US Fish and Wildlife Service's (USFWS) list of federally threatened and endangered plant species lists Nelson's checker-mallow (*Sidalcea nelsoniana*) and golden paintbrush (*Castilleja levisecta*) as occurring in Cowlitz County. However, per the USFWS Information and Planning Consultation database, no critical habitat occurs in the Project Area.²

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

Best Management Practices (BMPs) to protect vegetation will be implemented, for example: protecting trees, shrubbery, and other vegetation not designated for removal from damage caused by the Project construction and implementing erosion control and dust emission BMPs to prevent siltation of vegetation.

Following construction, disturbed areas will be regraded to permit approved contours and restored to their use or restored with a native seed mix as appropriate. Street trees would be planted along Hazel Street, Douglas Street, and 3rd Avenue South as part of the project construction.

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

Scotch broom (*Cytisus scoparius*) and Himalayan Blackberry (*Rubus armeniacus*) are known to occur in the Project Area, both of which are listed on the 2021 Washington State Noxious Weed list³.

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:

mammals: deer, bear, elk, beaver, other:

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

² USFWS. 2021. Information and Planning Consultation (IPaC). Available online: <https://ecos.fws.gov/ipac/location/MTNMNDAJJAANNR2CX7PU5B6BI/resources>. Accessed June 21, 2021

³ Washington State Noxious Weed Control Board. 2021. 2021 State Weed List. Available online: https://www.nwcb.wa.gov/pdfs/2021-State-Weed-List_Common_Name-8.5x11.pdf. Accessed June 21, 2021.

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

Priority Habitats and Species data obtained from the WDFW website do not indicate the presence of habitat for any federally or state listed species or any additional PHS species in the project corridor. The USFWS IPaC database lists the following threatened or endangered species as potentially occurring in the Project Area: Columbian white-tailed deer (*Odocoileus virginianus leucurus*), marbled murrelet (*Brachyramphus marmoratus*), Streaked Horned Lark (*Eremophila alpestris strigata*), and Yellow-billed Cuckoo (*Coccyzus americanus*). However, they are highly unlikely to occur in the Project Area because of the high levels of human activity and disturbance and lack of suitable habitat in the project area. In addition, per the USFWS IPaC database, no critical habitat occurs in the Project Area.

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

The proposed project is located within the Pacific Flyway migration route which extends from Alaska to Patagonia, and is used by waterfowl, eagles, hawks, falcons, songbirds, Sandhill cranes, and shorebirds.

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

No measures are proposed to preserve or enhance wildlife.

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

Based on review of information concerning the distribution of known invasive animal species in Washington, there are no invasive animal species known to be on or near the project site.⁴

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.

Diesel and gasoline fuel would be consumed by equipment during construction of the Project. No energy would be used for heating or manufacturing. Electricity will be needed to power the street illumination.

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

The bridge approaches and structure could cast sunlight shadow on adjacent properties for portions of the day, however the Project is not expected to significantly affect the potential use of solar energy by adjacent properties. No adjacent properties are currently using solar energy.

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

No specific energy conservation features are known to be included in the project at this time.

7. Environmental health

⁴ Washington Invasive Species Council, 2021. Priority Species. Accessed June 17, 20121. <https://invasivespecies.wa.gov/find-a-priority-species/>

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

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

An ASTM-compliant Phase I Environmental Site Assessment (ESA) was prepared for the Project Area. The report noted several recognized environmental conditions and business environmental risks, including the presence of the rail line, derelict vehicles, drums, and above ground storage tanks on or adjacent to the Project Area that may have resulted in the release of hazardous substance.

A Phase II ESA was conducted on four of the parcels within the project area. Metals, VOCs, and PCB Arochlor 1260 were detected. Except for arsenic, no detectable concentrations of metals, PCBs, VOCs, or SVOCs exceeded applicable cleanup levels. The detected arsenic concentrations in the soil samples are within the natural background concentration for soils in Washington and are therefore considered naturally occurring.

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.

According to the US Department of Transportation National Pipeline Mapping System, , no underground liquid or gas transmission pipelines are located near the Project Area⁵.

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.

Types of hazardous materials that may be present include fuels and lubricant oils for construction vehicles and equipment. Diesel fuel is the primary potentially hazardous substance that will be used in any significant quantity during construction. No storage of toxic or hazardous materials would occur after construction is completed.

4) Describe special emergency services that might be required.

No special emergency services would be required for construction or operation of the Project.

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

The Applicant will provide hazardous materials awareness training for all staff conducting grading or excavation and a contingency plan to identify, segregate, and dispose of contaminants in accordance with the Model Toxics Control Act.

Equipment fueling or repair will be done outside of the wetland and wetland buffer area. In addition, a stormwater pollution prevention plan as well as other sediment, erosion, and pollution control measures would be required as part of the Construction Stormwater General Permit issued by the Department of Ecology for the Project. If contamination is determined to be known

⁵ USDOT National Pipeline Mapper Public Viewer. 2021. Available online: <https://pvnpm.phmsa.dot.gov/PublicViewer/>. Accessed June 21, 2021.

or suspected in the Project area, a contaminated media management plan may be included as part of the contract specifications for the Project.

b. Noise

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

Several sound sources are present throughout the Project Area. Traffic noise on area roadways is not dominant. Dominant sound sources include those from trains using the BNSF Railroad, the Kelso Airport located to the south, and the sounds of noises from light industrial uses in the area. The existing noise would 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.

Short-term construction related noise may include engine and mechanical equipment noises associated with the use of heavy equipment such as bulldozers, graders, loaders, and excavators. These noise levels would likely exceed existing background noise. Hauling activities to and from the Project Area would also contribute to traffic noise.

Traffic noise levels associated with the constructed project were modeled using FHWA's Traffic Noise Model (TNM® Version 2.5). Modeled results were compared to existing noise measurements that were collected in August 2018. Project peak traffic noise levels in 2040 would range from 39 A-weighted (human response) decibels (dBA) equivalent hourly (L_{eq}) to 61 dBA L_{eq} . Cumulatively, when these project peak traffic noise levels are added to existing noise levels, future cumulative noise levels would range from 52 dBA L_{eq} to 62 dBA L_{eq} . Relative to the measured existing sound levels in the project area an increase of up to a 9 dB. Traffic noise levels in many areas would be less than the measured levels during the peak traffic noise hour. This indicates that for those areas sounds associated with other sources, such as railroad traffic or aircraft, would continue to be the dominant noise source. No exceedances of the NAC are predicted at any of the receptors and no substantial increases (i.e., 10 dB or greater) are predicted. Therefore, no long-term operational noise effects would occur as a result of the project. Refer to the Noise Technical Memorandum (HMMH, 2018) detailing existing noise conditions as well as modeled noise results for the project.

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

Temporary construction related noise effects would occur from the Project; however, these noise levels would be reduced using a variety of mitigation measures including restricting construction to daytime periods and ensuring that equipment are utilizing properly functioning mufflers, and the noise would cease at the conclusion of construction.

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 low-lying area west of the BNSF tracks has a mix of undeveloped land, a golf course, and single-family residential uses. East of the BNSF tracks, residential, industrial, and commercial development is in the Project Area primarily in unincorporated Cowlitz County, including along Hazel and Douglas Streets.

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

A portion of the Project Area between the BNSF main line is zoned as agricultural and may have previously been used as working farmland. However, no current commercial agricultural use of this area is evident.

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

No working farms or forest lands are present near the Project Area; therefore, the project is not anticipated to be affected by or affect surrounding working farms or forest lands.

c. Describe any structures on the site.

In the area east of the BNSF main line there are a variety of commercial and residential structures within the Project Area. The Project would acquire right-of-way from several properties for frontage improvements, but the crossing structure would require the displacement or disruption of 6 commercial structures.

Parcel No. 2356201
2005 South Pacific Avenue
2,700 square foot structure, warehouse use

Parcel No. 23563
2020 South Pacific Avenue
50,000 square foot structure, mini-storage

Parcel No. 23562
261 Hazel Street
900 square foot structure, office/business

Parcel No. 23562
261 Hazel Street
450 square foot structure, office/business

Parcel No. 23562
302 Hazel Street
3,180 square foot structure, office/business

Parcel No. 23156
2110 South Pacific Avenue
1,600 square foot structure, office/business

No structures are located west of the BNSF main line in the Project Area.

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

Five structures housing commercial businesses and one residential structure within the proposed project footprint would be demolished. The displacements and relocations will be performed in accordance with the Federal laws on property acquisition for transportation projects.

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

Current land use zoning in the City of Kelso portion of the Project Area and adjacent properties consists of residential multi-family (RMF) and open space (west of the BNSF main line), and light industrial for properties located south of Douglas Street.⁶ Per City of Kelso municipal Code Table 17.22.020, the residential multi-family zoning classification allows for a maximum residential density of 32.3 du/acre.

Current land use zoning in the Cowlitz County portion of the Project Area and adjacent properties includes agricultural between South River Road and the BNSF main line, Heavy Manufacturing, and Light Manufacturing at the eastern terminus of the project near Hazel and Douglas streets.⁷

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

The City of Kelso portion of the Project Area is designated as high –density residential, industrial, general commercial, and open space.⁸ The Cowlitz County portion of the Project Area is designated as ERL-Ind, Urban, and Suburban.⁹

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

The Mill Street hammerhead turnout portion of the SKRR project is located within the City’s shoreline jurisdiction for the Cowlitz River and is subject to the conditions of the City of Kelso Shoreline Master Plan (SMP) Regulations (City of Kelso 2016). The remainder of the SKRR project is located outside of the shoreline jurisdiction. Per the SMP, the shoreline jurisdiction includes all shorelines of the state and shorelands. Shorelands are defined those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous floodplain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters that are subject to the provisions of the Shoreline Management Act (RCW 90.58.030). For compliance with the City’s SMP, the shoreline jurisdiction for the project is the contiguous floodplains. The shoreline environmental at the Mill Street hammerhead is the is designated as “high intensity.”

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

City of Kelso Municipal Code (KMC) 17.26 and Cowlitz County Code (CCC) Chapter 19.15 designate the following as critical areas:

- Wetlands: One wetland occurs in the Project Area. See 3(a)(1) for discussion of the wetland.

⁶ City of Kelso. 2017. City of Kelso Official Zoning Map Approved by City Council March 21, 2017. Available online: https://www.kelso.gov/sites/default/files/docs/official_zoning_map_3_21_17_-_11x17.pdf. Accessed June 21, 2021.

⁷ Cowlitz County. Zoning Maps. 2021. Available online: <https://cowlitz.maps.arcgis.com/apps/webappviewer/index.html?id=5f8bb5c362a449648606077d1fcbf764>. Accessed June 21, 2021.

⁸ City of Kelso. 2015. Future Land Use Map adopted February 17, 2015. Available online: https://www.kelso.gov/sites/default/files/docs/final_flum_0.pdf. Accessed June 21, 2021.

⁹ Cowlitz County. 2017. Comp Plan Update 2017. Available online: <http://www.co.cowlitz.wa.us/DocumentCenter/View/12996>. Accessed June 21, 2021.

- Frequently flood areas: Per 3(a)(5), the proposed Mill Street hammerhead would be located within the 100-year floodplain (FEMA Zone AE)..
- Critical Aquifer Recharge Area: Per the hydrogeologic report prepared for the project (Shannon and Wilson, 2021), the Project Area lies within the Ranney Wellhead Protection Area 10-Year buffers time of travel, which is designated as a critical aquifer recharge area by Cowlitz County.
- Fish and wildlife habitat conservations areas (FWHCAs) are defined in CCC 19.15.130 and KMC 17.26.060. See 5(b) above for a description of ESA-listed species that may occur in the Project Area. The Cowlitz River is also planted with game fish by governmental agencies, which classifies it as a Classification 6 FWHCA by the City of Kelso. The entire length of the river adjacent to the City of Kelso is also a designated smelt spawning area, which is considered a Classification 3 FWHCA.
- Geologically hazardous areas are defined in CCC and KMC as seismic, mine, volcanic, erosion and landslide hazards. See 1(d) for a description of seismic, erosion, and landslide hazards in the Project Area. Per the 2021 geotechnical report prepared for the project, The project area sits within the FEMA 500-year floodplain and is adjacent to and in close proximity to the USGS mapped lahar hazard zone for the Cowlitz River as presented on the DNR interactive geology portal map. Therefore, project area sits in a volcanic hazard area. There are no known mine or volcanic hazards in the Project Area.

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

The project would not result in the addition of people residing or working in the Project Area; however, when the new grade crossing and road extension are operational, new opportunities for commercial / industrial / residential and recreation may be realized because of more efficient routes and exposure to new development areas. Increased safety would also be realized by local residents and businesses with the safer access and elimination of waiting for trains to clear the current at-grade crossings. Emergency vehicle response times would improve also with the new bridge.

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

Known include displacement of 2 to 3 staff from Sunset Storage, 4 to 6 employees from the business 20 After 4, 10 staff from Cortes Landscaping, 3 staff from Cascade Fiber, and 2 to 4 employees from Scott's Custom Carpentry.

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

Displacement would be mitigated through the right-of-way acquisition process. Business displacements would be mitigated pursuant to state and federal requirements to provide relocation assistance potentially including financial support (dependent on the individual circumstances) to relocate in the immediate City of Kelso vicinity.

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

This Project is a long-planned transportation mobility and safety improvement project that would help implement the current and future land use vision for the area.

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

No agricultural or forest lands of long-term commercial significance are located near the project. Therefore, no impacts are anticipated, and no mitigation measures are proposed.

9. Housing

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

No housing would be provided as part of the Project.

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

Two residential displacements would occur as a result of the project. A residential tenant resides on one of the commercial properties and operates as the caretaker for the business. In addition, a residential structure was co-located with a commercial business on one project parcel. The residential structure was utilized as a short-term rental. The rental house would be eliminated because of the project.

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

Residential displacements will be mitigated by providing relocation assistance for the tenants.

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?

BNSF guidelines require the vertical alignment or profile of the roadway to be a minimum 23 feet 4 inches above the top of track, which places the finished grade of the new bridge approximately 40 to 45 feet above the existing ground level for the Project. The bridge and illumination pole heights have been designed in consideration of FAA requirements. Future coordination and permitting with the FAA would ensure the proper height of structures given the distance from the runway.

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

Due to its height, the overpass would dominate views in the immediate area, including views from nearby residential and commercial properties. There are no established scenic views in the project area.

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

There could be opportunities to incorporate architectural treatments into the bridge design such as architectural facing of the retaining walls as design progresses. Plantings on fill slopes would also provide visual mitigation.

11. Light and glare

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

Street lighting would be included as part of the Project. Lighting would only occur during evening and nighttime hours.

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

Street lighting associated with the structure would not impact the current flight path from the Southwest Washington Regional Airport.

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

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

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

Light pole heights would be limited because of the proximity to the Southwest Washington Regional Airport. The light beams would be focused downward with shields to avoid overspill and off-site glare.

12. Recreation

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

West of the BNSF main line, the privately owned Three Rivers Golf Course borders the Project Area to the south. Located approximately 400 feet west of South River Road where the west end of the Project terminates, the Cowlitz River provides informal recreational fishing and boating opportunities. The Cowlitz River Trail is a 2.4-mile paved path that follows the Cowlitz River dike from approximately Cowlitz Gardens Road / Williams Avenue to Mill Street.

No City of Kelso or Cowlitz County parks are in or the immediate vicinity of the Project Area.

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

No recreational uses would be displaced by the Project.

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

The Project would include sidewalks and bicycle facilities, which would increase informal recreational opportunities in the Project Area as well as improving safe access across the BNSF ROW.

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.

During the cultural resources investigation conducted for the Project, six architectural resources (one agricultural complex, two commercial complexes, a railroad alignment, one residence (mobile home), and one outbuilding) were identified as of an age to be evaluated for eligibility to the National Register of Historic Places (NRHP). The mobile home could not be located during the field survey. Of these, the outbuilding was previously recorded in 2012 and assessed as not eligible; as the resource was recorded within the past 10 years, it was not re-evaluated for this Project.

Of the remaining five resources, neither the agricultural complex, residence, nor the commercial complexes are recommended as eligible for listing in the NRHP. The railroad alignment, a linear resource that extends outside of the Area of Potential Impact (API), is assumed eligible, though it remains unrecorded/unevaluated. However, the Project would not directly impact any aspect of the railroad; as such, there is little potential for the Project to affect any character-defining features of the railroad that contribute to its significance.

- 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.**

One historic isolate (historic period bottle fragment) archaeological resources was recorded within the Project Area. The historic isolate was not located during the March 2021 field survey. Only one archaeological resource has been recorded within 1 mile of the project area, approximately 0.67 mile northeast of the API. No archaeological resources were identified during the field investigations conducted on April 23 and May 8, 2018 and March 3, 2021.

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

The cultural resources investigation conducted for the Project included background research to identify known cultural resources and high probability areas, a pedestrian and subsurface archaeological survey, and an architectural survey for historic-period built resources. The study followed the guidelines of the Washington Department of Archaeology and Historic Preservation.

- 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.**

If design changes result in a modified project footprint, additional archaeological and historic resources fieldwork and documentation could be required to assess potential resource effects in the new areas if they were not covered during the initial survey. The Washington State Department of Archeology and Historic Preservation concurred that the current project as proposed will have "NO ADVERSE EFFECT" on historic properties within the APE that are listed in, or determined eligible for listing in, the NRHP.

Should unanticipated archaeological resources be encountered during the project construction, all ground-disturbing activity near the find shall be halted and the Washington State Department of Archaeology and Historic Preservation (DAHP) would be promptly notified to ensure compliance with relevant state and federal laws and regulations. If evidence of human burials is encountered, all ground-disturbing activity in the vicinity shall be halted immediately, and the DAHP, the Cowlitz County Sheriff's Office, and the appropriate Tribes would be notified.

14. Transportation

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

The following streets serve or may be in the affected geographic area: Hazel Street, Douglas Street, South Pacific Avenue, Milwaukee Place, South River Road, 3rd Avenue South extension, and 13th Avenue South. Access to the construction area would most likely occur via 13th Avenue South from Interstate-5 (I-5). The existing street system is shown on the vicinity map (Figure 1).

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?

The Project Area is served by River Cities Transit bus service. Route 57 serves Hazel Street and South Pacific Avenue. Amtrak also utilizes the BNSF main line, with an Amtrak station located approximately 1.5 miles north of the Project Area.

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

No parking would be eliminated or constructed as part of the project.

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

The Project will revise the Hazel Street alignment just east of the BNSF tracks and construct a new bridged portion of the street to cross over South Pacific Avenue and the tracks at an approximate 90-degree angle. The elevated bridge crossing will be a multi-span girder bridge with cast-in-place concrete deck and will be approximately 400 feet long. The proposed bridge roadway section will include two 12' lanes, two 6' bike lanes, and two 6' sidewalks. A 2'-8" pedestrian barrier will be used along each side of the bridge deck. The pedestrian barrier will be topped with chain link fence on the bridge within the railroad right-of-way to a height of 11'-1" above the sidewalk in order to meet BNSF requirements. The Hazel Street extension will likewise consist of two 12' lane widths, two 6' bike lanes, and two 6' sidewalks. Maximum fill/ cut slopes will be 2:1 for the new road alignment.

The existing connection between South Pacific Avenue and Hazel Street will be closed with a new connection provided via Douglas Street and a newly constructed extension of 3rd Avenue S. Douglas Street, South Pacific Avenue, and 3rd Avenue S will be improved. Douglas Street and 3rd Avenue S will have a typical section of 12' lanes with 8' shoulders striped as bike lanes. South Pacific Avenue will be realigned, reconstructed to 14' wide lanes with 2:1 cut/fill slopes.

With the improvements to this project, access from South Pacific Avenue to the realigned portion of Hazel Street will be removed. Vehicles will be redirected to use Douglas Street and 3rd Avenue S to access Hazel Street. There are a few properties along Hazel Street that will still need access from South Pacific Avenue. Access along the existing Hazel Street alignment will be removed approximately 800 feet east of South Pacific Avenue, with a cul-de-sac to keep access to these few properties. The proposed typical section will be two 12' lane widths with maximum fill/cut slopes of 2:1.

Once construction of the grade separation at Hazel Street is complete, the City will close the existing at-grade crossings at Mill Street and Yew Street to vehicle traffic, but access for emergency services is planned to be maintained at Mill Street. At Mill Street, collapsible bollards will be installed in the roadway on both sides of the railroad. Additionally, a new hammerhead turnout will be constructed off of Riverside Drive to facilitate vehicle turnaround on the west side of the closed crossing. At Yew Street, bollards will be installed and the existing chain link fence extended across the Yew Street right-of-way to prevent usage of the crossing on the west side of the railroad; the bollards will be removable to allow authorized access to the railroad and levee for maintenance. Jersey barriers will be installed on the east side of the railroad.

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

The Southwest Washington Regional Airport is located approximately 0.25 mile south of the Project Area. The flight path for the Southwest Washington Regional Airport is adjacent to the Hazel Street crossing location. Sufficient clearance above the overpass would be provided for aircraft. In addition, streetlight and utility pole heights would be limited to provide allowable vertical clearances.

The BNSF main line runs north to south and bisects the Project Area. Both freight trains and Amtrak passenger trains use these rail lines. The Project would provide an elevated structure over these rail lines.

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

When the Hazel Street extension is open and the rail crossings at Mill and Yew Streets are closed, traffic in the area intending to reach the west side of the railroad tracks will be redirected to the new grade separated crossing at Hazel Street. PM peak hour traffic volumes were estimated for the existing year (2018) and design year (2040) using 2018 traffic count data and a conservative 2% growth rate. Traffic operations analysis was performed using Synchro 9. Traffic volumes are expected to increase according to the traffic analysis conducted for the Project (HDR, 2018). Although traffic volumes are expected to increase, a signal warrant analysis was performed and none of the four intersections analyzed will warrant a traffic signal.

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.

The Project would not affect or be affected by the movement of agricultural or forest products.

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

Traffic control will be utilized during construction of the project to reduce or control transportation impacts. Three traffic control alternatives were analyzed for the project, with the closure of South Pacific Avenue during most of the construction chosen as the preferred alternative. Traffic would be detoured to 3rd Avenue following the construction of the new 3rd Avenue block. While the detour to 3rd Avenue during the closure of South Pacific Avenue will be required, the detour is roughly the along the same route that much of the traffic in the area is anticipated to take given that Pacific Avenue south of Douglas St is a dead end. The closure of South Pacific Avenue would reduce the duration of construction by allowing overlapping work to be performed. This preferred alternative also has a lower safety risk between the traveling public and construction crews. Emergency vehicle access through the temporarily closed portion of South Pacific Avenue will be coordinated with the Contractor during construction.

The Applicant coordinated Project design with BNSF, with comments from BNSF incorporated at the 30% design level. Contract specifications will also include BNSF coordination requirements for construction, coordination, and design approval. The Project would be designed to minimize disruption to BNSF operations as much as possible. A railroad signal would require relocation which could have short-term disruption of train traffic.

Per the 2013 City of Kelso Railroad Crossing Study Design Options Summary Report, the flight path for the SWRA is adjacent to the Hazel Street crossing location.

The existing approach surface for Runway 12 of the Southwest Washington Regional Airport will be modeled in accordance with Federal Aviation Regulation Part 77. The approach surface is selected for a runway larger than utility and visibility minimums greater than $\frac{3}{4}$ mile. The approach slope to Runway 12 is based on the current non-precision instrument approach. It begins 200 feet from the physical end of the runway and is 500 feet wide at that point. It extends outward for 10,000 feet and upward at a slope of 34:1 at which point it is 3,500 feet wide. The transitional surface is an inclined plane extending outward from the approach surface, at a 7:1 slope until it intersects with the horizontal surface. Along

the approach surface it extends upward from the approach surface to the intersection with the horizontal surface, which is 150 feet above the established airport elevation. This criteria is consistent with the description of the approach surface and the transitional surface, and is consistent with the Inner Approach Surface diagram for Runway 12, provided in the Southwest Washington Regional Airport Master Plan Final Report, February 2010.

The project bridge and roadway surfaces with associated elements such as street lights and fence have been designed to not encroach on the airport approach service. The bridge deck and roadway surface has been designed to maintain a 15-foot clearance between the surface and the flight path.

During construction, notification will be given to emergency service providers, school district transportation officials, public transit agency staff, and refuse collection companies about detours, temporary road closures, the at-grade rail crossing closures and the overall roadwork construction schedule well in advance so modifications can be accommodated.

Therefore, impacts to the airport are not anticipated during Project construction.

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.**

The Project itself is not anticipated to result in an increased need for public services; however, over time, land use development may occur that triggers additional need for public services and utilities.

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

Construction staging and sequencing would be planned to avoid or minimize delays in emergency services in the Project Area. Coordination with emergency service providers would take place prior to the start of construction and during construction. Once construction of the project is completed, the dead end of Hazel Street at the new bridge approach would provide an emergency vehicle turnaround.

No change in demand for schools, emergency services, or police and law enforcement is anticipated for the project. Therefore, no mitigation measures are proposed.

16. Utilities

a. Identify in bold the utilities currently available at the site:

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

other: **fiber optic lines**

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Overhead power relocation is necessary, including the transmission line crossing the railroad tracks. Some underground natural gas, power, and water utilities would also be installed as part of the project. Relocation of impacted utilities will be performed by the affected utilities.

Stormwater improvements including detention and water quality facilities would be designed to meet current roadway design standards.

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: _____
Name of signee _____
Position and Agency/Organization _____
Date Submitted: _____

D. supplemental sheet for nonproject actions

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

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

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

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

Proposed measures to avoid or reduce such increases are:

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

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

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

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

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

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

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

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

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

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

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