



King County
Road Services Division
Department of Transportation
KSC-TR-0231
201 South Jackson Street
Seattle, WA 98104-3856

2006-092

WAC 197-11-960 Environmental Checklist

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An Environmental Impact Statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help the agency, citizens, and other reviewers identify impacts from the proposal, to possibly reduce or avoid impacts from the proposal, and to help the agency decide whether an EIS is required.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. **Name of Proposed Project:** Mount Si Bridge #2250A Replacement
2. **Name of Applicant:** King County Department of Transportation
Road Services Division
3. **Address and phone number of applicant and contact person:**

Gwen Lewis, Project Manager, 206-296-6572
King County Department Transportation
Road Services Division
King Street Center Mail Stop: KSC-TR-0231
201 South Jackson Street
Seattle, WA 98104-3856
ATTN: Erick Thompson, Senior Environmental Engineer, 206-296-8747

Contact the senior engineer for questions related to project scope and engineering design.
Contact the environmental engineer for questions related to content of the SEPA
environmental checklist and environmental issues.

4. **Date Checklist Prepared:** November 1, 2005

5. **Agency requesting checklist:** King County

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

Construction on the Mount Si Bridge # 2250A replacement project is scheduled to begin in May 2007 and should be completed by November 2008. The contractor will determine the exact construction timing or schedule. The general order of work will be: 1) Temporary erosion control features installed; 2) Clearing and site preparation; 3) Construct temporary work platform; 4) Construct bridge piers and bridge abutments; 5) Construct approach spans; 6) Construct main truss; 7) Grade approaches and parking areas; 8) Construct stormwater ponds; 9) Install drainage; 10) Install Utilities; 11) Paving; and 12) Install guardrail and striping.

The existing bridge will remain open during construction. Depending on the decision by the King County Landmarks Commission, the existing bridge may be retained, moved to a new location, or demolished as part of the project.

7. **Plans for future additions, expansion or further activity related to or connected with this proposal:**

No future addition, expansion or further activity related to or connected with this proposal is anticipated.

8. **Environmental information that has been prepared, or will be prepared, directly related to this proposal:**

- *Draft Mount Si Bridge Replacement Stream, Buffer, and Floodplain Mitigation Plan Report*, Adolfson and Associates, November 2005
- *Biological Assessment*, Erick Thompson, King County Department of Transportation, Road Services Division, Environmental Unit, (to be completed in 2006)
- *Bridge Hydraulic and Scour Assessment*, West Consultants, April 2004
- *Draft Geotechnical Report*, HWA GeoSciences, Inc., April 27, 2004
- *Historical and Cultural Resources Assessment for Mount Si Bridge Replacement Project*, Historical Research Associates, Inc., April 7, 2003
- *Mount Si Bridge Type, Size, and Location Report*, Andersen Bjornstad Kane Jacobs, Inc., April, 2004
- *Mount Si Bridge #2550A Wetland Investigation*, Adolfson Associates, Inc. May 28, 2003
- *Level 1 Stream Special Study*, Adolfson Associates, Inc., May, 2003
- *Wildlife Assessment*, King County Department of Transportation, Road Services Division, Environmental Unit, (to be completed in 2006)
- *Draft Surface Water Technical Information Report*, Andersen Bjornstad Kane Jacobs, Inc., October 2005

9. **Applications that are pending for governmental approval of other proposals directly affecting the property covered by the proposal:**

King County Council will take two actions prior to bridge construction. First, the new alignment must be adopted under an Establishment Plan by ordinance of the King County Council in order to build the new bridge on a new alignment. The second action involves acquisition of right-of-way, comprised of a portion of one parcel needed for the new alignment.

Additionally, the Mount Si Bridge is a designated King County Landmark. The King County Landmarks Commission must approve a Certificate of Appropriateness for any action that is taken to alter or demolish the existing bridge. Options being considered include 1) removal, rehabilitation and relocation of the bridge to a new location and 2) demolition of the bridge accompanied with appropriate historical documentation and other mitigating measures to preserve historical knowledge of the bridge. Rehabilitation and retention of the bridge for pedestrian use at its current location is being considered but is unlikely due to location conflicts with the new bridge.

The Mount Si Bridge also serves as sole public access to the Little Si and Mount Si Trailheads within the Mount Si Natural Resource Conservation Area. See Figure 1. Natural Resource Conservation Areas are State of Washington properties managed by Washington Department of Natural Resources (WDNR). WDNR and King County are in the process of developing an Interagency Agreement (IA), in which King County will construct a parking lot associated with the Little Si Trailhead, which will be funded by WDNR. WDNR has purchased one property for this parking lot and WDNR is evaluating the option of purchasing an adjoining property to provide a larger parking area. Final implementation of the IA may be postponed until WDNR determines if the additional property will be acquired.

Tanner Landing Park is an undeveloped King County park property along the Middle Fork Snoqualmie River located on the south bank upstream from the existing Mount Si Bridge. King County Road Services Division (KCRSD) is working with King County Department of Natural Resources and Parks (KCDNRP) to provide improvements to the property including removal of noxious weeds, grading and excavation for flood plain compensation, and planting of native vegetation. These activities are proposed mitigation for bridge construction.

10. List of governmental approvals or permits that will be needed for the proposal:

Federal Permits, Approvals and Reviews:

- National Environmental Policy Act Categorical Exclusion
- Section 106 of the National Historic Preservation Act Review
- Department of Transportation Act 4(f) Analysis
- United States Fish and Wildlife Service Concurrence with Biological Assessment
- National Oceanic and Atmospheric Administration Concurrence with Biological Assessment

Washington State Permits and Approvals:

- Department of Fish and Wildlife Hydraulic Project Approval
- Department of Ecology:
 - National Pollutant Discharge Elimination System (NPDES) General Permit for Construction;
 - Notification of Hazardous Waste Disposal: Form 2
- Washington State Department of Natural Resources Aquatic Lands Easement or Temporary Construction Exemption

King County

- Department of Development and Environmental Services:
 - Clearing and Grading Permit
 - Flood Hazard Certification
 - Shoreline Substantial Development Permit
 - Alteration Exception to the Critical Areas Code
- King County Landmark Commission Certificate of Appropriateness
- King County Department of Natural Resources and Parks Special Use Permit

11. Brief, complete description of the proposal, including the proposed uses and the size of the project and site:

Project Purpose and Need: The purpose of the proposed bridge replacement is to correct functional, safety, and structural deficiencies associated with the existing bridge and to preserve the sole public access transportation corridor serving the local area as well as Little Si and Mount Si Trailheads for the Mount Si Natural Resource Conservation Area.

Existing Conditions: The existing two-lane bridge is 20 feet wide and 290 feet long, including a 170-foot-long steel truss. It was originally built in 1904 over the Green River and was relocated to its current location over the Middle Fork Snoqualmie River in 1955. It is the oldest roadway bridge in King County, is a King County Landmark and is eligible for the National Register of Historic Properties.

Functional Deficiencies: The bridge is load limited. Neither the existing bridge nor SE Mount Si Road within the project limits contains pedestrian or designated bicycle facilities. Additionally, within the project limits there are no stormwater management facilities associated with the roadway.

Safety Deficiencies: SE Mount Si Road has substandard vertical alignment of the south approach and horizontal alignment at the north approach to the bridge, which significantly limits sight distance for vehicles entering the roadway and stopping. Additionally, the roadway width through the project limits is substandard and insufficient to accommodate the multi-modal use of the corridor, which includes vehicular, bicycle and pedestrian traffic.

Structural Deficiencies: The bridge is deteriorated and subject to river scour and structural failure, which is a result of the following deficiencies:

- Deterioration includes rusting steel beams, deteriorated timber supports, corroded metal decking on the underside, and a network of cracks and patches on the top decking;
- Pins that hold the truss together have moderate flaws and failure of any single pin could cause the bridge to collapse; and
- The north pier, which is within the ordinary high water mark of the river, is at risk from undermining during a flood event.

Proposed Action: The new bridge alignment will cross the Middle Fork of the Snoqualmie River approximately 100 feet downstream (westerly) of the existing bridge. The new steel truss will have a main span of 240 feet, an overall length of 360 feet, and a width of 46 feet. It will include two 11-foot travel lanes, one eight-foot shoulder on the west side and a four-

foot shoulder with six-foot-wide sidewalk on the east side. The 11-foot travel lanes and eight-foot shoulders will extend along SE Mount Si Road from SE 128th Place, approximately 2,200 feet north and east. The existing bridge will remain open during construction to accommodate local and recreational access. Abutments and piers will be built of reinforced concrete on drilled shafts or spread footing foundations. The two main span piers will be drilled shaft-footings outside (landward) of the ordinary high water mark (OHWM) of the Middle Fork Snoqualmie River. The bottom of the structure would be a minimum of three feet above the river at flood stage (based on the 100-year floodplain).

Due to the alignment shift, the existing alignment south of the bridge will remain for access to existing driveways, but will become a new cul-de-sac road with a single point access to SE Mount Si Road.

Functional Improvements: The eight-foot paved shoulders throughout the project limits meet the design standard. In addition, a sidewalk is proposed on the bridge to facilitate pedestrians crossing the bridge. The new roadway will include stormwater conveyance facilities, as well as water quantity and water quality control features in accordance with state and local requirements.

Safety Improvements: The realignment of the bridge and approaches to the east and west will improve visibility to current King County Road Standards, while the wider roadway section with a sidewalk on the bridge will be able to accommodate the multi-modal uses of the corridor through the project area.

Structural Improvements: The new bridge will be designed to current structural standards, which include meeting seismic design codes. The bridge piers will both be outside the OHWM of the river, which will significantly reduce their vulnerability during high flows or flood events.

Other Project Features: In addition to the direct roadway-related improvements, the proposed project will include the expansion of parking facilities serving the WDNR-managed Little Si Trailhead. Under a pending Interagency Agreement, King County will construct a new parking lot north of the bridge, which will be funded by WDNR.

Pending submittal of a detailed analysis to and approval by the King County Landmarks Commission and with their issuance of a Certificate of Appropriateness for alterations or demolition of a King County landmark, the existing bridge may be removed and rehabilitated for use as a pedestrian bridge elsewhere or documented and demolished. Rehabilitation and retention of the bridge for pedestrian use at its current location is being considered but is unlikely due to location conflicts with the new bridge.

In accordance with King County Code and State requirements related to critical areas, such as the river, floodplain, and adjoining riparian areas, the project will include a variety of mitigation components to compensate for impacts from the bridge project. As part of this mitigation, KCRSD will conduct mitigation at the future King County Department of Natural Resources and Parks Tanner Landing Park. Proposed mitigation includes the removal of noxious weeds over a 9.8-acre area, planting of approximately 300 trees and shrubs, and excavation of 7,370 cubic yards from the 100-year floodplain of the Middle

Fork Snoqualmie River. Additional floodplain excavation will take place within the construction project area.

12. Location of the proposal, including the street address, if any, and section, township and range, if known; a legal description, site plan, vicinity map and topographic map, if reasonably available:

The project site is located on SE Mount Si Road (County Road 86650) as it spans the Middle Fork of the Snoqualmie River, just east of the City of North Bend in east King County. The project is located in Section 11, Township 23, Range 08 East, W.M.

The Tanner Landing Park property is located in NE Section 15, Township 23, Range 08 East, on the south bank of the Middle Fork of the Snoqualmie River, upstream of the bridge.

The project location and features are shown on the attached Vicinity Map.

B. ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site:

The southern portion of the project area is a wooded, relatively flat floodplain with elevations ranging from approximately 475 to 480 feet. The northern bank of the river rises steeply to approximately 490 feet and is covered in heavy riprap.

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

The site is generally flat with little variation in slope. The southern bank slopes along either bank are gentle, ranging in the 5% range. The northeast bank of the river is an abrupt slope in the 20% range.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? Specify the classification of agricultural soils and note any prime farmland.

According to the King County Soil Survey by the U.S. Soil Conservation Service (1973), the majority of the site is classified as Edgewick Fine Sandy Loam (0 to 3 percent slope) and Everett Gravelly sandy loam (0 to 8 percent slope). Edgewick Fine Sandy Loam is mapped on the right bank of the river and is described as areas of gravelly sand and gravelly sandy loam. Everett Gravelly Sandy Loam is mapped on the left bank of the river and is described as gravelly to very gravelly sandy loam. Artificial fill composed of gravelly silty and/or sandy silty gravel is present in the northwest portion of the bridge site and in the approach embankments. Large riprap armors the north bank of the Middle Fork Snoqualmie River.

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

According to King County Department of Development and Environmental Services' geographic information systems (GIS) data catalog (1992) and Sensitive Areas Map Folio (1990) the project area lies within a zone classified as a seismic hazard area and the soils

on the north side of the bridge are susceptible to erosion. The *Draft Geotechnical Report* (HWA GeoSciences, Inc, April 2004) found the area to be low risk for liquefaction hazards.

- e. **Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Approximately 10,620 cubic yards of roadway fill will be placed within the 100-year floodplain. Suitable excavated materials and imported borrow from local suppliers will be utilized for all roadway embankment (fill). Any excess material will be hauled off-site and appropriately disposed of by contractors.

For the bridge, approximately 1.27 acres of clearing and grading will occur north of the bridge and 3.17 acres will occur south of the bridge. Approximately 0.7 acre of clearing and grading will be within the river buffer (165 feet).

In addition, approximately 12,200 to 20,000 square feet will be graded for the new parking lot area.

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

Erosion could occur as a result of construction activities due to vegetation removal and ground disturbance. Erosion and sedimentation control measures will be utilized during construction through use of *King County Surface Water Design Manual* (2005), *Highway Runoff Manual* (2004), *Washington State Stormwater Management Manual for Western Washington* (2005) and compliance with applicable permit conditions and King County contract specifications.

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

The bridge deck, and approach asphalt pavements on the south and north sides of the river will total approximately 2.40 acres of impervious surface. Of this total, 68 percent is new impervious surface and 0.77 acre or 32 percent is existing impervious surface being replaced with new impervious surface. Additionally, the new parking lot surface will range from 0.21 acre to 0.4 acre, depending on whether two parcels are developed.

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

Appropriate erosion and sedimentation controls will be placed meeting current King County *2005 Surface Water Design Manual* standards. In addition to best management practices pursuant to the *2005 Surface Water Design Manual*, the DOE *Western Washington Stormwater Management Manual* will be utilized during the construction of this project to reduce and control erosion impacts. Two stormwater ponds will be constructed to retain and treat stormwater runoff. Seeding and mulching will be provided in selected disturbed areas. Best Management Practices will be employed at the construction site to avoid or reduce sediment discharge to the Middle Fork Snoqualmie River. These will include the placement of mulch, use of silt barriers, containment systems, covering erosion-prone stockpiles, and reseeding areas temporarily disturbed for construction.

2. AIR

- a. **What types of emissions to the air would result from the proposal (i.e., dust, vehicles, odors, industrial wood smoke) during construction and when the project is completed? Generally describe and give approximate quantities, if known.**
Air quality impacts during construction clearing and grading would primarily be from particulates, with minor carbon monoxide and nitrogen oxides from construction machinery. Dismantling and removal of the existing bridge would result in minor emissions of dust and debris. A containment system will be used to collect any material. These short-term construction emissions would be eliminated at completion of the project. Long-term air quality impacts are not expected as a result of this project, as the bridge does not increase vehicle capacity.
- b. **Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.**
No off-site sources of emissions or odors have been identified.
- c. **Proposed measures to reduce or control emissions or other impacts to the air, if any:**
The project site will be watered as needed during construction activities to suppress dust. A containment system will be used on the existing bridge during any renovation or removal activities.

3. WATER

a. Surface:

- 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.**
Mount Si Bridge spans the Middle Fork of the Snoqualmie River (a type S river defined by King County Code as an aquatic area inventoried as shorelines of the state, including segments of streams with mean annual flow greater than 20 cubic ft/second). The river is within the Snohomish Watershed and considered a Shoreline of the State. Middle Fork Snoqualmie River is catalogued by the Washington Department of Fisheries as Water Resources Inventory Area (WRIA) 07.219, and the bridge is approximately four river miles upstream from Snoqualmie Falls. There are no lakes, wetlands or other streams within the project limits.
- 2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**
Yes, work includes the construction of a new bridge on a new alignment over the Middle Fork of the Snoqualmie River and realignment of the bridge approaches on both sides of the river (See Figure 2).

Construction of Roadway Approaches – Approximately 10,620 cubic yards of fill material will be placed within the 100-year floodplain in order to construct the southern

bridge approach. Two to one (50%) fill slopes will be used in order to minimize the impact of this fill. The northern roadway approach is outside of the 100-year floodplain and will require only minor cuts and fills. Additional earthwork includes the construction of a parking lot and two stormwater ponds and driveway connections to the new roadway.

Temporary Work Platform - A 30-foot-wide, 190-foot-long temporary work platform will be constructed to span the Middle Fork Snoqualmie River on the downstream side of the proposed bridge location. This work platform is required for constructing the new bridge as well as transporting construction rigs and equipment across the river. The temporary work platform will require six piers to be installed within the OHWM. Each pier will consist of two steel-driven piles. The piles and platform will be removed at the completion of the new bridge construction.

Existing Mount Si Bridge -- The existing bridge may be removed and rehabilitated for use as a pedestrian bridge elsewhere or documented and demolished. Rehabilitation and retention of the bridge for pedestrian use at its current location is being considered but is unlikely due to location conflicts with the new bridge. All work would be accomplished with a debris containment system in place. Any removal work would include removal of guardrail, timber curbs, asphalt, decking, abutments and stringers. The steel truss elements would be removed with a crane. Timber approach spans will be removed and the two concrete piers within the OHWM will be removed down to one foot below ground level and covered to match the surrounding ground cover. Some of the existing road surface will be left in place for property access.

- 3) **Estimate the amount of dredge and fill material that would be removed from or placed in surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**
No permanent dredge and/or fill material will be placed in surface water or wetlands. Temporary bridge piles will be used to support a temporary construction access bridge.
- 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 will be required.
- 5) **Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.**
Yes, the southern portion of the bridge project is within the 100-year floodplain. The 100-year floodplain does not extend beyond the north bank of the Middle Fork Snoqualmie River or affect the proposed parking lot. Portions of the Tanner Landing Park site are located within the 100-year floodplain. Flood storage capacity losses at the bridge site will be mitigated by excavating soil from within the 100-year floodplain located upstream at the Tanner Landing Park site.
- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**
No waste materials will be discharged to surface waters.

b. Ground

- 1) Will ground water be withdrawn or will water be discharged to ground water? Give general description, purpose and approximate quantities, if known.**

This project does not involve the withdrawal of ground water. Stormwater from the bridge and approaches will be routed to one of the stormwater ponds located on either side of the river. These ponds will provide treatment of surface water. Some surface water entering the ponds may infiltrate..

- 2) Describe any waste material that will be discharged into the ground from septic tanks or other sources (e.g., domestic sewage, industrial, agricultural, etc.). Describe the general size of the system, the number of such systems, the number of houses to be served, or the number of animals or humans the system(s) are expected to serve. This project involves neither the construction nor operation of a septic tank system or any other waste disposal system or facility. No waste material is discharged into the ground as a result of this project.**

c. Water Runoff (including stormwater)

- 1) Describe the source of runoff (including stormwater) and method(s) of collection and disposal, if any (include quantities, if known). Will this runoff water be discharged or flow into surface waters or ground water? If so, describe.**

Runoff in this area currently flows to the Middle Fork of the Snoqualmie River or infiltrates into the ground. No stormwater quality treatment exists at this time.

After construction, stormwater runoff from the roadway will be controlled through the use of ditches, curbs, gutters, and drop inlets. Drainage from the road and bridge will be routed to two stormwater ponds, one at each end of the bridge. These ponds will discharge to the Middle Fork Snoqualmie River. The Snoqualmie River is listed as a major receiving water in the King County Stormwater Design Manual and Washington State Department of Ecology (WSDOE) Stormwater Management Manual for Western Washington. The project is located in a Basic Water Quality Treatment Area per the King County Water Quality Applications Map. However, because runoff is discharged to a fish-bearing stream, enhanced treatment is required by WSDOE. Design will be in accordance with King County and WSDOE standards.

Stormwater runoff from the new parking lot will be directed through ditches and culverts to the stormwater pond on the north side of the river. The use of pervious pavement for the parking lot will be considered in the parking lot design.

- 2) Could waste materials or toxic materials enter ground or surface waters during or as a result of this proposal? If yes, generally describe.**

Yes: there is an unlikely possibility that fuel or concrete spills could occur from construction machinery. King County and WSDOE spill prevention best management practices will be followed to avoid such spills. The contractor will be required to prepare a Spill Prevention Control and Countermeasures Plan for the project prior to beginning construction and submit it to King County for approval.

Removal or rehabilitation of the existing bridge could generate lead paint debris. All work on the old bridge will be conducted with containment systems in place.

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

The purpose of the two stormwater pond facilities is to provide enhanced treatment as required in the King County *Surface Water Design Manual (2005)*.

4. PLANTS

a. Underline types of vegetation found on the site:

- deciduous trees: [alder, maple, birch, ash, other]
 conifer trees: [fir, cedar, pine, other]
 shrubs: [blackberry, salmon berry, knotweed, scot's broom, spirea, other]
 grasses
 pasture
 crops:
 wet soil plants: [buttercup, rushes, horsetail, cattail, other]
 water plants: [water lily, milfoil, eelgrass, other]
 other types of vegetation

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

Approximately 3.17 acres of vegetation located within the new bridge approach road alignment and stormwater ponds will be removed. As part of this removal, approximately 196 trees greater than six inches in diameter will be cleared from the south approach, 26 of which will be removed from within the 200-foot shoreline jurisdiction on the south side of the river. Approximately 28 trees greater than six inches in diameter will be removed from the north side of the river, 17 of which will be removed from within the 200-foot shoreline jurisdiction. Of the 43 trees to be removed from the shoreline jurisdiction approximately 39 are also located within the 165-foot stream buffer. The majority of the trees being removed are fir and maple; remaining trees are cedar, cottonwood, alder, apple, and holly.

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

There are no known threatened or endangered plant species listed by WDNR on or near the site. The area on either side of the Middle Fork Snoqualmie River is listed as a Riparian Area according to Washington State Department of Fish and Wildlife (WDFW) Species maps. WDFW defines a riparian area as the area adjacent to aquatic systems with flowing water (e.g., rivers, perennial or intermittent streams, seeps, springs) that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

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

All graded areas not otherwise stabilized will be re-vegetated with native trees, shrubs, and groundcovers. The project will include public art funding through the King County *One Percent For Art* program. Conceptual artist plans include native planting of large-diameter trees (3-inch) on the south approach as a gateway to the bridge. Additional plantings to enhance or soften project features are also being considered.

Mitigation planting for impacts to the river buffer will take place at the Tanner Landing Park site. A mix of native trees, shrubs and ground cover species will be planted at the park site. To mitigate for trees removed from the Middle Fork Snoqualmie 165-foot stream buffer, trees will be planted at a three-to-one ratio at the Tanner Landing Park site. Additionally, invasive plants will be removed as part of the excavation for flood storage compensation.

5. ANIMALS

- a. **Underline any birds and animals which have been observed on or near the site, or are known to be on or near the site:**

invertebrates: [insects, mollusks, other]

fish: [salmon, trout, bass, herring, shellfish, other]

amphibians: [frogs, salamanders, toads, other]

reptiles: [snakes, lizards, turtles, other]

birds: [songbirds, owls, hawks, eagles, heron, other]

mammals: [deer, bear, elk, beaver, rabbits, rodents, other]

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

Bald eagles have been sighted within the Middle Fork Snoqualmie River watershed. However, the Middle Fork Snoqualmie River lacks anadromous fish or consistent food sources for nesting bald eagles. No communal roosts are located in the area. Bald eagles sighted in the area are likely to be transitory individuals.

Adult marbled murrelets have been observed using the Middle Fork Snoqualmie River as a travel corridor when traveling between nesting sites in the upper reaches of the Middle Fork Snoqualmie River and the ocean (Middle Fork Snoqualmie River Road EIS Project Wildlife Technical Report, 2004). Disturbances within the travel corridor from construction may cause disruptions to normal flight patterns and therefore disrupt chick feeding. Mitigation will include limiting loud construction activities such as pile driving to a time frame of two hours after sunrise to two hours before sunset during the nesting season.

Coho salmon, chinook salmon and bull trout are known to exist below Snoqualmie Falls approximately four miles below the project area. The natural barrier of the falls precludes wild salmonids in the project area. According to the United States Fish and Wildlife Service, bull trout may exist in the Middle Fork Snoqualmie River. However, stream and creek surveys for bull trout above the falls have not identified any bull trout (King County, 2003).

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

Marbled murrelets have been observed using the Middle Fork Snoqualmie River as a travel corridor when traveling between nesting sites in the upper reaches of the Middle Fork Snoqualmie River and the ocean (Middle Fork Snoqualmie River Road EIS Project Wildlife Technical Report, 2004). Marbled murrelet movements are not well understood, but the birds carry out partial migrations outside the breeding season. The Middle Fork Snoqualmie River may be a partial migration route for marbled murrelets.

Washington Department of Fish and Wildlife identified resident cutthroat and rainbow trout populations in the Middle Fork Snoqualmie River. No anadromous fish move above the falls.

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

Temporary Measures- Best Management Practices will be employed at the construction site to avoid or reduce sediment discharge to the Middle Fork Snoqualmie River. These will include the placement of mulch, use of silt barriers, containment systems, covering erosion-prone stockpiles, and reseeding areas temporarily disturbed for construction.

Construction activities disturbing to marbled murrelets will be limited to reduce impacts to birds moving between nests and the ocean.

Permanent Measures- Measures to preserve or enhance wildlife include planting trees along the banks of the Middle Fork Snoqualmie River at Tanner Landing for improved habitat. Approximately 117 trees will be planted to replace the 39 that are removed from the 165-foot stream buffer.

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.

Fossil fuels will be consumed both during and following the completion of the project for the operation of construction equipment and motor vehicles. Following completion of the project, periodic maintenance activities will require some energy consumption; however, routine maintenance would be short-term and energy consumption would not be significant.

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

No.

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

None.

7. ENVIRONMENTAL HEALTH

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

The Mount Si Bridge is painted with lead-based paint. Construction vehicles use petroleum-based fuels, oils and grease. The existing timber piles are treated with creosote. If used improperly, these materials can be toxic or flammable.

No other environmental health hazards, including exposure to toxic chemicals or hazardous wastes, risk of explosion or fire are expected.

- 1) Describe special emergency services that might be required.**

The need for special emergency services is not anticipated.

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

To control discharge of lead-based paint, containment systems will be used to control and contain lead paint during renovation or removal of the bridge. If the existing bridge is removed, the creosote piles will be removed completely or cut off one foot below the ground surface. The contractor will be required to develop a Spill Prevention, Control and Countermeasures Plan and submit it to King County for approval. The plan will provide best management practices that will be used during construction to minimize the potential for hazardous spills from fuels used on the site. Spill kits will be available on site to be used in the event of a spill. Worker health and safety will be addressed as required by Washington State and federal regulations. Waste material generated from the bridge removal or renovation will be properly managed and disposed of at permitted facilities.

b. Noise

- 1) What types of noise exist in the area which may affect the project (e.g., traffic, heavy equipment, operation, industrial, other)?**

Existing traffic noise emanates primarily from SE Mount Si Road. The project site is primarily surrounded by rural-residential land uses. Existing noise in the area is not expected to affect the proposed 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 (e.g., traffic, construction, operation, other)? State what hours noise would come from the site.**

On a short-term basis, noise will be generated from the construction equipment (e.g., truck traffic hauling materials to and from the site; drill rigs; pile driving equipment; back hoe; generators; grader; dozer; and, asphalt paving operations). The hours are typically 7:00 a.m. to 5:00 p.m.; however, the hours are determined on a project-by-project basis.

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

To control noise impacts to adjacent homeowners/residents and to protect wildlife, the construction crew will work during hours determined by King County Construction Services. Standard mufflers will be used on all construction equipment. No additional traffic noise is expected from the project over the long term.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

Mount Si Bridge conveys vehicular and non-motorized traffic (on the vehicle surface) across the Middle Fork Snoqualmie River with an average daily traffic count of 3,535 vehicles. Surrounding uses are residential properties and recreational properties.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

According to the current King County Zoning Code, Part 21A.06.1250, a structure is defined as *"anything permanently constructed in or on the ground, or over the water; excluding fences less than 6 feet in height, decks less than 18 inches above grade, paved areas, and structural or non-structural fill."* The existing structures in the project area include Mount Si Bridge, utility lines, the armored river bank and one log-structure residence.

The log structure, built in 1915, is located on the proposed parking lot property. The logs are eight-inch saddle-notched logs; the front façade features a modern full-length porch. The foundation is concrete block and the building features an internal brick chimney.

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

The Mount Si Bridge may be removed after construction of the new bridge pending approval by the King County Landmarks Commission.

The log structure may be left in place if WDNR is able find a partner for operating and maintaining the structure. However, it is likely that the structure will be relocated or demolished prior to construction of the parking lot.

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

According to the current King County Zoning Code (KCC 21A), roadways are designated as an unclassified use. The surrounding area is zoned Rural Residential with densities ranging from one dwelling unit per two and one half acres up to one dwelling unit per ten acres.

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

According to the King County Comprehensive Plan the area is designated Rural Residential. The entire project site is outside the King County Urban Growth Area.

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

The project area is located within a Shoreline Management Zone designated "Conservancy." Conservancy areas are intended to maintain their existing character. This designation is designed to protect, conserve, and manage existing natural resources and valuable historic and cultural areas. The preferred uses are those which are non-consumptive of the physical and biological resources of the area.

The Middle Fork Snoqualmie River is a shoreline of the state; subject to the Shoreline Management Act permit requirements. A Shoreline Substantial Development permit will be required. The project will comply with the permit requirements of King County Code, Title 25, administered by King County with oversight by the Washington Department of Ecology. Applicable policies within the transportation facilities section of the County's master program that must be met in order to comply with permit requirements are as follows:

- **Pedestrian access should be built where access to public shorelines is desirable and has been cut off by linear transportation corridors. New linear facilities should enable pedestrian access to public shorelines where access is desirable.**

The existing bridge has two vehicle lanes and no shoulders or walkways. Pedestrians and bicyclists use the bridge but it is a safety concern. The proposal for the new bridge includes one eight-foot-wide shoulder and a four-foot shoulder and six-foot sidewalk for bicyclists and pedestrians. The new bridge does not increase access to the shoreline in this area but will allow safe access between the Snoqualmie Valley Trail and the Mount Si Natural Resource Conservation Area.

- **Shoreline transportation facilities should be encouraged to include in their design and development multimodal provision where public safety can be assured.**

The bridge width will increase from two nine and one half-foot-wide lanes with no shoulders, to two eleven-foot lanes with one eight-foot shoulder on one side and a four-foot shoulder and six-foot sidewalk on the other side. The new shoulders and sidewalk will provide improved access for pedestrians and bicyclists.

- **Shoreline transportation facilities should be planned to fit the topography and to minimize cuts and fills, and they should be designed, located, and maintained to minimize erosion and degradation of water quality, and to give special consideration to shoreline aesthetics.**

The proposed project will take into account the natural topography of the area and the project will not result in creation of areas of unstable soils. Fill material will be placed within the shoreline management area of the Middle Fork Snoqualmie River for the bridge replacement, and roadway realignment; however, the proposed project activities will meet King County zero-rise floodway requirements and will not cause changes to the Middle Fork Snoqualmie River floodway. The bridge and roadway will be maintained on a regular basis during and after construction. The bridge will be placed using erosion control methods in order to minimize the potential detrimental erosion and water quality effects on the shoreline. Water quality treatment is proposed by this project; whereas no water quality treatment currently exists at the project site.

- **Transportation and utility facilities should be encouraged to coordinate joint use of rights-of way and to should be encouraged to consolidate crossings of water bodies when adverse impact to the shoreline can be minimized by doing so.**

The King County Department of Transportation will work with the utility companies to coordinate joint use of right-of-way for the proposed project.

- **Transportation facilities should avoid shoreline areas known to contain development hazards (e.g., slides and slump areas, poor foundation soils, and marshes).**

Areas of potential erosion hazard and seismic potential are found within the footprint of the project; however, the geotechnical investigation shows that liquefaction hazards are not present in the proposed alignment. Design and construction methods will be specifically used to mitigate these hazards to the project.

- **Transportation facilities crossing 100-year floodplains should be constructed on a low-profile design so that they do not serve as dikes or levees to floodwaters.**

The bridge elevation will be designed to be three feet above the 100-year flood elevation. The bridge piers and abutments will be aligned and configured to maximize hydraulic performance and minimize debris catchment in the river.

- **All transportation facilities in shoreline areas should be constructed and maintained to cause the least possible adverse impact on the land and water environments, should respect the natural character of the shoreline, and should make every effort to preserve wildlife, aquatic life, and their habitats.**

King County Best Management Practices will be implemented to control erosion and sedimentation. The clearing of vegetation will be restricted to the minimum necessary for construction activities. Native trees, shrubs, and herbaceous plants will be used to replace vegetation lost due to construction.

- h. **Has any part of the site been classified as an environmentally sensitive area? If so, specify.**

The following environmentally sensitive areas occur within or adjacent to the project site:

- The Middle Fork Snoqualmie River is a Type S River (defined by King County Code as an aquatic area inventoried as shorelines of the state, including segments of streams with mean annual flow greater than 20 cubic ft/second).
- King County Sensitive Areas Map Folio (1990) identifies seismic and erosion hazard areas.

- i. **Approximately how many people would reside or work in the completed project?**
None.

- j. **Approximately how many people would the completed project displace?**
WDNR will purchase a property with one residential structure for expansion of its parking lot. The structure may remain on site if WDNR can find a steward for the structure. Alternatively, the structure may be removed to a new location or demolished.

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

WDNR is conducting an appraisal to determine fair market value for the structure. If purchased, the property will be handled in accordance with state-mandated law and procedures.

l. Proposed measures to ensure the project is compatible with existing and projected land uses and plans in the area.

The proposed project, when completed, would remain compatible with the existing land uses in the area.

9. HOUSING

a. Approximately how many housing units would the project provide, if any? Indicate whether high, middle or low income housing.

None - not applicable.

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

A single middle-income housing unit would be displaced by the parking lot expansion.

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 bridge will be a painted steel truss with a maximum height of 42 and one half feet, with no other structures proposed. This design was chosen due to its similarity with the current bridge design.

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

If the existing bridge is removed, the cross sectional view from the approaches would be similar to the existing bridge. The driver approaching from the north would have the bridge in view for a longer period of time because the abrupt approach curve on the north side of the bridge will be straightened.

If the existing bridge remains in place as a pedestrian bridge, the view from the river as well as the approaches would be altered by the two bridges sitting side by side.

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

The project will include public art funding through the *One Percent For Art* initiative. Conceptual plans include native planting of large-diameter trees (3-inch) on the south approach to create a gateway to the new bridge. Additional plantings to enhance or soften project features are also being considered.

11. LIGHT AND GLARE

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

None.

- 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?

None.

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

None.

12. RECREATION

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

The Middle Fork Snoqualmie River provides recreational opportunities for river and nature enthusiasts. Kayaking, rafting, and fishing are popular activities on the river. The Snoqualmie Valley Trail crosses Mount Si Road on the southwest side of the river and is used for walking and biking. Tanner Landing Park, as yet undeveloped, is located on the south side of the river, adjacent to Mount Si Road. Mount Si Bridge is the only public access transportation corridor serving the local area as well as Little Si and Mount Si Trailheads for the Mount Si Natural Resource Conservation Area. The trailheads serve day hiking users.

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

Temporary Impacts - An unpaved parking lot is located on the northwest side of the existing bridge. This lot serves as overflow parking for the Little Si trailhead. The parking lot will be removed as part of the new bridge construction and replaced by a new WDNR parking lot closer to the trailhead. Informal parking takes place along the road south of the bridge. Construction activity will preclude parking in some road areas.

Construction of the temporary work platform will place obstructions into the river and cause a potential hazard to rafts and kayaks passing under the construction zone.

Permanent Impacts - no permanent displacement of recreational opportunities will occur.

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

During construction, safety signs will be posted for river users to warn of the temporary work platform.

The project will replace informal shoulder parking with off-road parking nearer the Little Si trailhead. A new sidewalk, wider road shoulders and improved sight distance will provide safer access to recreation.

13. HISTORIC AND CULTURAL PRESERVATION

- a. Are there any sites, structures or objects listed on, or proposed for national, state or local preservation registers known to be on or near to the site? If so, generally describe.**

Mount Si Bridge is eligible for listing on the National Register of Historic Places because of its engineering and architectural significance as a representative example of a distinct design and method of construction. Although Mount Si Bridge was moved to this location from its original site, it retains its primary physical components and characteristic. The bridge therefore meets the conditions of National Register criteria consideration B, "moved properties," as detailed by the National Register.

In 1997, King County Landmarks and Heritage Commission determined that Mount Si Bridge was eligible for listing in the King County Landmark Register under King County Criterion 3. This criteria states that the landmark: *Embodies the distinctive characteristics of a type, period, style or method of design or construction, or that represents a significant and distinguishable entity whose components may lack individual distinction.*

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural artifacts of importance known to be on or near the site.**

Aside from the existing Mount Si Bridge, four different historic resources were identified within the Area of Potential Effect (APE). A log structure and three culturally modified trees are located on the west side of the Middle Fork Snoqualmie River and were evaluated for eligibility to the National Register of Historic Places. None were determined to be eligible for the register.

The historical log house located at 47302 SE Mount Si Road, directly across from the existing Mount Si Trailhead parking area, may meet King County Landmark eligibility Criteria 1 (a resource is associated with events that have made a significant contribution to the broad patterns of national, state or local history) and/or 3, (a resource embodies the distinctive characteristics of a type, period, style or method of design or construction, or that represents a significant and distinguishable entity whose components may lack individual distinction); however, formal nomination and designation is required to determine whether it meets the criteria.

Three culturally modified trees (CMTs) were found within the project area. The three CMTs identified during the cultural resources survey are bark-stripped cedar trees, they were recorded as a single site, and may potentially be eligible for listing in the National Register of Historic Places.

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

The King County Landmark Commission will review the proposed replacement of the Mount Si Bridge as part of the Certificate of Appropriateness process. Options considered for the existing bridge include removal and reuse as a pedestrian bridge in a new location, or documentation and demolition. Prior to removal or destruction, Mount Si Bridge would be documented in accordance with the Historic American Engineering Record (HAER). Rehabilitation and retention of the bridge for pedestrian use at its current location is being considered but is unlikely due to location conflicts with the new bridge.

The Snoqualmie Tribe was contacted to determine their interest and concern with the CMTs. Any of the CMTs removed for the project will be given to the tribe, as they have requested.

If any archaeological remnant is uncovered or discovered during construction, the State Historical Preservation Officer (SHPO) and King County Historical Preservation Officer will be notified immediately. No additional work would be performed on the site until appropriate archaeological investigations are completed. Once the area of interest has been identified by qualified archaeologists, work outside of that area could proceed while archaeological investigations continue.

14. TRANSPORTATION

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

Mount Si Road is the only access point to and from the site.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not directly served by public transit. The closest bus stop is over a mile away in downtown North Bend.

c. How many parking spaces would the completed project have? How many would the project eliminate?

No parking spaces will be included within the King County bridge project. However, work will include construction of a Washington State Department of Natural Resources parking lot which will contain approximately 30 new parking spaces.

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

The proposed Mount Si Bridge replacement and approaches will be built on new right-of-way established by the King County Council. The bridge will be owned and maintained by King County.

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

No.

- f. **How many vehicular trips per day would be generated as a result of the project? Indicate when peak traffic would occur, if known.**

Roadway and intersection improvements are not expected to generate additional vehicle traffic. While the new bridge will provide a facility at current road standards, the lane configuration will remain the same and is not expected to increase capacity.

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

None.

15. PUBLIC SERVICES

- a. **Would the project result in an increased need for public services (e.g., fire and police protection, health care, schools, other)? If so, generally describe.**

No.

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

None.

16. UTILITIES

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

Electricity - Puget Sound Energy

Natural gas - Washington Natural Gas

Water - Sallal Water Association

Telephone - U.S. West

Sanitary Sewer - None

Other - TCI Cablevision, Inc. (service area)

- 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.**

None.

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: Wally Archuleta
Wally Archuleta, Managing Environmental Engineer
Environmental Unit, Road Services Division

Date: 11/3/05

The following are included with the Checklist if checked off:

- Vicinity Map
- Project Features
- Project Plans