

Bandaret Bridge (#493B) Replacement and Associated Road Improvement Project

CIP 200208

SEPA ENVIRONMENTAL CHECKLIST

King County, Washington

Prepared by

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

September 2007

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WAC 197-11-960 Environmental Checklist

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C 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 you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of Proposed Project: Bandaret Bridge #493B Replacement and Associated Improvement Project

2. Name of Applicant: King County Department of Transportation
Road Services Division

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

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

Environmental Contact:

Katherine Merrell, Environmental Engineer
Phone: (206) 296-8884

Contact the environmental engineer for questions related to content of the SEPA environmental checklist and other environmental issues.

Design Contact:

Matt Maling, Project Manager/Senior Engineer
Phone: (206) 296-8883

Contact the project manager for questions related to project scope and engineering design.

4. Date Checklist Prepared: September 2007

5. **Agency requesting checklist:** King County Department of Transportation, Road Services Division

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

The project is scheduled to be advertised for construction early in 2008. Construction is planned to begin in April 2008 and end December 2008. Exact construction timing is subject to change pending finalized design and construction plans.

7. **Plans for future additions, expansions 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. No plans have been made to upgrade Southeast May Valley Road from its classification as a rural principal arterial.

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

Prepared documents related to this proposal:

- *Bandaret Bridge (#493B) Replacement and Associated Road Improvement Project Concept Development Report.* King County Department of Transportation, September 2006
- *Draft Bridge Hydraulics and Scour Assessment Detailed Report for Bandaret Bridge 493B (Replacement).* King County Department of Natural Resources and Parks, January 2006
- *Channel Migration Report for Issaquah Creek in the Vicinity of Bandaret Bridge.* King County Department of Natural Resources and Parks, September 2007
- *Critical Areas Report – Wildlife, Bandaret Bridge Replacement Project.* Parametrix, August 2007
- *Geotechnical Engineering Study, Bandaret Bridge 493B Replacement Project Supplementary Report-200208.* King County Department of Transportation, March 2006
- *Draft Summary of the Bandaret Bridge Stream Special Study.* King County Department of Transportation, December 2005
- *Geotechnical Engineering Study, Bandaret Bridge 493B Bridge Replacement Project.* King County Department of Transportation, November 2005
- *Technical Information Report for Bandaret Bridge 493B (Replacement).* King County Department of Natural Resources and Parks, September 2007

Documents related to this proposal still in preparation:

- *Bridge Hydraulics and Scour Assessment Detailed Report.* King County Department of Natural Resources and Parks (To be finalized Fall 2007)
- *Cultural Resources Investigation and Report.* King County Department of Transportation (To be finalized Fall 2007)
- *Stream Report.* King County Department of Transportation (To be finalized Fall 2007)
- *Wetland Delineation and Assessment Report.* King County Department of Transportation (To be finalized Fall 2007)

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

No applications for other proposals directly affecting the property covered by this proposal are known.

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

Federal Permits, Approvals and Reviews:

- Clean Water Act Section 404 Permit (U.S. Army Corps of Engineers)
- Endangered Species Act Section 7 Consultation (Federal Highway Administration)
- Essential Fish Habitat Consultation (Federal Highway Administration)
- National Historic Preservation Act Section 106 Compliance (Federal Highway Administration)

Washington State Permits and Approvals:

- National Pollutant Discharge Elimination System Permit (Department of Ecology)
- Environmental Classification Summary (WA Department of Transportation)
- Clean Water Act Section 401 Certification (Department of Ecology)
- Coastal Zone Management Consistency Determination (Department of Ecology)
- Model Toxics Control Act Notification of Dangerous Waste Form 2 (Department of Ecology)
- Hydraulic Project Approval (Department of Fish and Wildlife)

King County

- Clearing and Grading Permit (Department of Development and Environmental Services)
- Shoreline Substantial Development Permit (Department of Development and Environmental Services)
- Flood Hazard Certification (Department of Development and Environmental Services)

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

King County Department of Transportation, Road Services Division (RSD) proposes to replace Bandaret Bridge #493B, a structurally deficient bridge originally constructed in 1952 and reconstructed in 1965. The bridge is composed of treated timber piles and lagging, glue-laminated beams, timber deck planks, and an asphalt concrete overlay. The single-span bridge is being replaced due to its substandard width and increasing repair and maintenance costs. The existing structure is approximately 60 feet long by 24.5 feet wide (two travel lanes), has no shoulders, and is equipped with substandard w-beam guardrails supported by galvanized steel posts. The existing wooden abutments are located within the ordinary high water of Issaquah Creek and consist of creosote timber piling and timber lagging.

The proposed replacement for the existing bridge will follow approximately the existing alignment (the road centerline will shift approximately eight feet upstream) and consist of a 100-foot-long by 43-foot-wide span on an approximately 30-degree skew from the creek. The new structure—made of precast, prestressed girders resting atop concrete abutments sited landward of the ordinary high water mark (OHWM)—will incorporate 12-foot travel lanes

and eight-foot shoulders. Sight distance will improve slightly relative to the existing condition with the slightly altered alignment.

Southeast May Valley Road is a rural principal arterial with a 2005 average daily traffic volume of 5,110 and a 2030 traffic forecast of 8,400 vehicles per day. It serves as a main arterial for the suburban and rural areas between Renton and Issaquah. Principal users of the roadway and Bandaret Bridge are property owners, commuters, and heavy trucks.

The new bridge and approaches will be constructed in stages, approximately one-half at a time, to avoid a need for traffic detours during construction.

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

Bandaret Bridge spans Issaquah Creek along SE May Valley Road in unincorporated King County, south of the City of Issaquah, Washington. The bridge is located in the northwestern quarter of Section 15, Township 23 North, Range 6 East.

The project location is shown on the attached Vicinity Map (see Attachment 1).

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle):** Flat, rolling, hilly, steep slopes, mountainous, other.

Bandaret Bridge is located in the bottom of a valley; the project site is relatively flat, though hilly areas and steep slopes are located in the vicinity.

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

Nearly vertical channel incision in several places upstream and downstream of the bridge represents the steepest slopes in this otherwise flat valley-bottom site. The topography begins climbing in elevation toward the Squak-Tiger corridor at approximately 650 feet to the northwest and approximately 1,000 feet to the north.

- 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 1995 USGS Geologic Map of the Maple Valley Quadrangle, the geologic unit identified within the project boundaries is *Younger Alluvium*: moderately sorted deposits of cobble gravel, pebbly sand, and sandy silt deposited along major rivers and stream channels. As classified in the Soil Survey for the King County Area, soils in the immediate vicinity of Bandaret Bridge are Puyallup fine sandy loam, well-drained soils that form in alluvium, under grass, hardwoods, and conifers. Soils to the west of

Bandaret Bridge (beginning at 230th Avenue SE) are classified as Everett gravelly sandy loam, which is typical of drainageways and short slopes between terrace benches.¹

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

The project area lies within an identified King County seismic hazard area, and the eastern edge of the project area is within a King County erosion hazard area. While the project area is not mapped as a channel migration area, channel migration of Issaquah Creek in the vicinity of the bridge has been identified as a significant problem within the surveyed reach; large sections of the stream bank are actively eroding.²

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

Total approximate fill volume is 2,140 cubic yards. Approximately 630 cubic yards will be used on the west approach, 1,350 cubic yards on the east approach, and 80 cubic yards in the stream mitigation. Gravel borrow from a local gravel pit will be used as road fill for the approach roadways on each end of the new bridge; whereas, fill material for the stream mitigation will come from material currently behind the abutments of the existing bridge.

- 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 clearing adjacent to the existing road and ground disturbance from removal of the old bridge and construction of the new bridge abutments and approaches.

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

Total impervious surfaces upon project completion will account for .72 acre, approximately one-third of the site's total acreage (including mitigation property). Impervious surfaces will consist of concrete and asphalt.

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

Appropriate erosion and sedimentation control measures will be installed and maintained to meet current King County *2005 Surface Water Design Manual* (KCSWDM) standards. In addition, the Washington State Department of Ecology, *Western Washington Stormwater Management Manual* will be utilized during the construction of this project to reduce and control erosion impacts. Best Management Practices (BMPs) will be employed at the construction site to avoid or reduce sediment discharge to Issaquah Creek, including placement of a temporary sediment trap at the southwest side of the site, as well as the use of mulch, silt barriers, containment systems, and cover measures (straw

¹ U.S. Department of Agriculture, Soil Conservation Service (1973)

² This assessment concurs with a 1994 Action Plan, which states, "channel migration is threatening the stability of SE May Valley Road" at the bridge location. The Plan recommends that the "King County Roads Division should reconstruct the left-bank, upstream road embankment at the bridge over Issaquah Creek, in accord with BW 23." BW 23 is a basin-wide recommendation to establish a bank stabilization program using soil bioengineering techniques to stabilize eroding stream banks in the Issaquah Creek basin.

or plastic). Attempts will be made to preserve vegetation to the extent possible. Planting and reseeded will take place where vegetation disturbance or removal cannot be avoided.

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 would primarily result from particulates associated with clearing and grading. Dismantlement and removal of the existing bridge would result in minor emissions of dust and debris. Minor releases of carbon monoxide and nitrogen oxides from construction machinery will also occur. In all cases, these short-term construction emissions will be eliminated upon completion of the project.

The proposal will result in greenhouse gas (GHG) emissions that contribute to global warming and related climate change concerns, including: (1) the use of building materials whose production generates GHG emissions, (2) on-site GHG emissions from energy use during construction, and (3) land clearing that reduces carbon sequestration and other air quality benefits provided by existing vegetation.

Long-term air quality impacts are not expected as a result of this project, as the replacement bridge does not increase vehicle capacity. Long-term GHG emissions will result from future maintenance activities.

- 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 necessary during construction activities to suppress dust.

With regard to climate change, tree planting associated with clearing mitigation and wildlife corridor improvements along the north side of NE May Valley Road will provide carbon sequestration.

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.**

Bandaret Bridge spans Issaquah Creek and is located within the middle Issaquah Creek subbasin. The middle and upper Issaquah Creek subbasins are identified as a Regionally Significant Resources Area because of their exceptional fisheries habitat and undeveloped

character, which protects natural watershed structure and function. The upper Issaquah Creek subbasin, including Carey and Holder Creeks, provides excellent habitat and spawning substrates for salmonids. Lower Issaquah Creek, conversely, is a varied stream system. The channel is significantly constrained within its floodplain by the City of Issaquah along these reaches, and it is characterized as lacking large woody debris. Consequently, much of the middle and lower reaches of Issaquah Creek is of a riffle-dominated character. Few quality off-channel habitat, backwater, and refugia habitats exist within these reaches. There is a lack of suitable substrate in the lower stream reaches that reduces the natural capacity for productive salmonid populations.

A small, unnamed tributary to Issaquah Creek flows through a 36-inch corrugated metal pipe approximately 300 feet to the east of Bandaret Bridge by 231st Place Southeast. It is categorized as a Type F water.

Four locations in the area surrounding the project site were identified as meeting all three wetland criteria: hydrology, soils, and vegetation. Three of the four wetlands are rated as Category 2 wetlands and one is rated as a Category 3 wetland. The three Category 2 wetlands are depressional in nature and cover a combined area of 31,251 square feet.³ The Category 3 wetland is classed as slope in nature, covering an area of 37,472 square feet.

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 project will require working over Issaquah Creek, on its banks, and within the creek's OHWM. Although it will not be affected by planned work, a King County wetland is adjacent to (within 200 feet) the project site.

Construction of the new bridge will occur in approximately the same location as the existing bridge (alignment centerline will shift approximately eight feet upstream), utilizing a 100-foot by 43-foot out-to-out span on an approximately 30-degree skew with the stream (See attached vicinity map). The new bridge and approaches will be constructed in two major stages, approximately one half of the structure at a time. Traffic will be maintained along one lane of the bridge throughout the project.

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.

Proposed mitigation for this project includes creating one or more terraces or alcoves by removing approximately 70 feet of incised streambank along the right bank downstream of Bandaret Bridge. The slope will be excavated and backfilled with native material as appropriate to form the terrace/alcove area, as well as to improve a County-designated wildlife corridor. Material currently behind the existing bridge abutments, large woody debris, and round boulders will serve as backfill material for work within the OHWM.

³ This value is based only on the assessed area—additional contiguous wetland exists beyond this area.

In total, approximately 690 cubic yards of material will be removed from behind the existing abutments and from the area of the planned alcove. Approximately 80 cubic yards of streambed material will be placed within the OHWM.

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.

The project is located within the FEMA-defined 100-year floodplain (See attached vicinity map).

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. The project will not discharge to ground water. Any groundwater seepage occurring during construction of the new bridge's abutments will be pumped to a baker tank.

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 relocating and upgrading a septic tank and associated drain field currently sited on the mitigation property immediately northwest of Bandaret Bridge. The 1,000-gallon, single-compartment septic tank serves a single dwelling unit owned by King County (King County Tax Parcel 5090400020) and, based on current standards, is of insufficient design and distance from Issaquah Creek. The unit will be replaced with a 1,500-gallon, two-compartment tank and will be moved significantly landward of the creek (in excess of 100 feet) to the south side of the existing dwelling, in compliance with current standards. Should soils not meet permeability standards for a gravity drain system in this location, a pump and sand filter system will be installed.

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). Where will this water flow? Will this water flow into other waters? If so, describe.

Rain-driven stormwater runoff from the project area is untreated. Currently stormwater is conveyed via sheetflow into vegetation on the north and south sides of SE May Valley Road, ultimately entering Issaquah Creek.

The proposed project requires stormwater treatment, as the proposal does not surpass thresholds triggering treatments requirements under the 2005 KCSWDM. However, RSD will provide some water quality treatment through the use of vegetation-lined ditches on both sides of SE May Valley Road west of Bandaret Bridge. Current plans call for the two ditches to be connected in the vicinity of the bridge approach and discharged into a constructed alcove area adjacent to Issaquah Creek.

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

It is unlikely, but possible, that fuel or concrete spills could occur from construction machinery. King County and Washington Department of Ecology spill prevention BMPs 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.

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

Existing impervious area to be replaced totals 0.57 acre. The project's net increase in impervious surface area is .15 acre. Consequently, the project is exempt from flow control (King County Stormwater Design Manual Section 1.2.4.1), source control (KCSWDM Section 1.3.4), oil control (ADT 5,110 is less than the 25,000 ADT threshold in KCSWDM Section 1.3.5), and water quality treatment (KCSWDM Section 1.2.8) requirements. The proposed bridge will slope from the eastern end to the western end at two percent. There will also be a superelevation of 6% percent. Runoff from both approaches will sheet flow into vegetated ditches prior to entering Issaquah Creek.

4. Plants

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

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

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

The project will require the temporary and permanent removal of vegetation to accommodate the construction of the bridge.

A temporary loss of trees and shrubs associated with construction landings and activities includes both native and invasive species. The permanent removal of approximately 51 deciduous trees and 12 conifers will occur along the south side of SE May Valley Road west of Bandaret Bridge.⁴ These removals—predominantly red alder—are necessary given line-of-sight requirements associated with the larger bridge and altered road alignment.

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

No known threatened or endangered plant species are located on or near the site per the Washington State Department of Natural Resources.

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

Graded areas not otherwise stabilized will be re-vegetated with native trees, shrubs, and groundcovers. Vegetation removed for temporary cleared areas will be replaced with native vegetation. Plantings along the streambank downstream of the bridge will mitigate for vegetation permanently lost due to clearing and construction activities. The mitigation area is currently residential lawn. Approximately 0.12 acre of area will be permanently cleared, while approximately .24 acre will be planted for mitigation.

Planting will contribute to ongoing succession and development of a natural riparian plant community. As the riparian plant community develops it will provide shade, cover, and food for fish in the river as well as for terrestrial species within the buffer area. Mitigation plantings will likewise support improvements to a designated King County wildlife corridor running under Bandaret Bridge.

5. Animals

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

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

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

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

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

Puget Sound Chinook salmon and steelhead are known to be in or near the project site. RSD is currently preparing a Biological Assessment report to evaluate and determine the potential presence of bull trout, marbled murrelets, and northern spotted owls.

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

Issaquah Creek is a known migration route for salmon. A hatchery operating downstream of the project site allows salmon to pass upstream to spawn naturally once its collection

⁴ Counts include only trees greater than six inches in diameter.

quotas are reached. No other species are known to migrate through the project site, although it is a wildlife corridor where many species move through as part of their home range.

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

Temporary Measures - BMPs will be employed at the construction site to avoid or reduce sediment discharge to Issaquah Creek. These will include the placement of mulch, use of silt barriers, containment systems, covering erosion-prone stockpiles, and reseeding areas temporarily disturbed for construction. Also, work will not occur at night, when many species are most active.

Permanent Measures - A designated wildlife corridor is located along Issaquah Creek adjacent to the bridge. A wildlife bench to be located under the new bridge will facilitate the passage of large and small mammals through the project area. On-site mitigation may include stream habitat improvement, riparian habitat restoration on a County-owned parcel immediately northwest of the bridge, and plantings in the road right-of-way. No off-site mitigation is proposed as part of this project.

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 in nature and energy consumption would not be significant.

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

The property would not affect the potential or actual use of solar energy on adjacent properties.

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.

To conserve energy impacts associated with construction, traffic signals placed at either end of the bridge for the duration of construction will be equipped with LED bulbs. To control climate change impacts associated with vehicle energy use, the signals will be set according to typical traffic loads (as opposed to a static interval) to minimize GHG emissions associated with stopping and idling.

7. Environmental Health

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

Construction vehicles use petroleum-based fuels, oils and grease. 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:**

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 BMPs 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, equipment, operation, other)?**

Traffic noise emanates primarily from Southeast May Valley Road, a rural principal arterial. Principal users of the roadway, which represented an average daily traffic volume of 5,110 in 2005, are local property owners, commuters, and heavy trucks. Additional existing noise generates from Issaquah Creek.

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)? Indicate what hours noise would come from the site.**

Temporary noise impacts will occur during construction from construction equipment (e.g., truck traffic hauling materials to and from the site; chainsaws; jack hammers; back hoe; excavator, generators; grader; dozer; and asphalt paving operations) and will not include blasting or pile driving. Chain saw cutting of trees during clearing and grading activities and dismantling of the bridge will be the loudest construction noise.

Construction hours are determined on a project-by-project basis, but typically fall between 7:00 a.m. and 7:00 p.m. Monday through Saturday and 10:00 a.m. and 5:00 p.m. Sunday (K.C.C 16.82.105).

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

To control noise impacts, 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?

Bandaret Bridge conveys vehicular traffic across Issaquah Creek. Properties within the project area and vicinity of the bridge are zoned RA-5, one dwelling unit per five acres. Open space in the vicinity is in part comprised of four identified wetlands. Tiger Mountain, a large area zoned for forestry is located approximately one mile to the northeast. Squak Mountain State Park is located approximately 1,300 feet to the northwest.

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

The bridge site has not been used for agriculture.

c. Describe any structures on the site.

The existing structures in the project area include Bandaret Bridge, a County-purchased dwelling north and west of the bridge, several private residences in the vicinity of the project, and a 36-inch-diameter culvert conveying an unnamed creek approximately 300 feet east of the bridge.

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

Bandaret Bridge is the only structure to be demolished under the current plans.

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

According to the current King County Zoning Code (KCC 21A.02.110) roadways are designated as an unclassified use. The properties in the vicinity of the project site are zoned RA-5, allowing for one dwelling unit per five acres.

f. What is the current Comprehensive Plan designation of the site?

According to the King County Comprehensive Plan, Bandaret Bridge is located in rural unincorporated King County outside of the 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.

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

The County-regulated critical areas associated with this project include: Issaquah Creek, and unnamed creek in the project area, and their associated buffers; four wetlands and their buffers; a fish and wildlife habitat conservation area, including the wildlife corridor; the floodplain and floodway of Issaquah Creek; an area susceptible to groundwater contamination; a seismic hazard area; and an erosion hazard area.

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

No people will reside in the completed project.

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

No people will be displaced by the completed project.

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

Not applicable.

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

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

9. Housing

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

No additional units will be provided as a result of the project. The County-owned dwelling on the mitigation property will be sold for a market rate upon completion of the project.

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

No units will be eliminated as a result of the completed project.

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

Not applicable.

10. Aesthetics

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

The new bridge will be a reinforced concrete structure with a maximum height of 23 feet above Issaquah Creek, with no other structures proposed. Concrete surfaces will not be painted or sealed; instead, the concrete will be allowed to weather and age thereby allowing it to blend in with more of the natural surroundings.

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

As the new bridge will be constructed in approximately the same location and is not significantly taller than the existing structure, it is not expected that any views currently available will be significantly altered or obstructed.

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

No measures to reduce or control aesthetic impacts are currently proposed.

11. Light and Glare

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

The proposal is not expected to produce light or glare.

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

The proposal is not expected to produce light or glare.

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

No off-site sources of light or glare are expected to affect the proposal.

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

Not applicable.

12. Recreation

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

Fishing is the only probable recreational activity in the immediate vicinity. Several natural and recreational areas reside in the greater vicinity of the project area, including Squak Mountain State Park, West Tiger Mountain Natural Resources Conservation Area, Issaquah Creek Natural Area, Log Cabin Reach Natural Area, and Mirrormont Park. Hiking, biking, and fishing are popular amongst the recreational opportunities in these areas.

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

As no permanent closures to Southeast May Valley Road are planned, 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.

Not applicable.

13. Historic and Cultural Preservation

- a. **Are there any places or objects listed on, or proposed for national, state or local preservation registers known to be on or next to the site? If so, generally describe.**
A King County RSD archaeologist preliminarily screened the project vicinity for known cultural resources; no known archaeological sites or recorded above-ground historic resources were found. The bridge is not listed as a Category I or II bridge by WSDOT. However, WSDOT will formally complete a National Historic Preservation Act Section 106 compliance consultation process.
- b. **Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural artifacts of importance known to be on or next to the site.**
A King County RSD archaeologist preliminarily screened the project vicinity for known cultural resources; no known archaeological sites or recorded above-ground historic resources were found aside from the bridge itself. A formal Cultural Resources Investigation and Report is currently being undertaken by RSD. The bridge structure will be formally reviewed as part of this process.
- c. **Proposed measures to reduce or control impacts, if any.**
If any archaeological remnant is uncovered or discovered during construction, the State Historical Preservation Officer and King County Historical Preservation Officer will be notified immediately. No additional work would be performed in the area of discovery 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.**
Southeast May Valley Road is the only public access serving the site and providing access to the bridge replacement.
- 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 served by public transit. The nearest transit stop is in Issaquah, approximately 1.8 miles to the north.
- c. **How many parking spaces would the completed project have? How many would the project eliminate?**
Not applicable.
- d. **Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**
The proposal will replace an existing bridge and the associated approaches. The new structure and approaches will follow approximately the existing alignment (alignment

centerline will shift approximately eight feet upstream) and utilize a 100-foot by 43-foot out-to-out span on an approximately 30 degree skew.

The bridge will be owned and maintained by King County.

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

Not applicable.

- f. **How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

The completed roadway and bridge improvements are not expected to generate additional vehicle traffic.

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

To allow SE May Valley Road to remain open during construction, the new bridge and approaches will be constructed in stages. The first stage involves removing the southern half of the existing bridge, conducting mitigation work in that portion of the site, and constructing approximately half of the new bridge's foundation, girders, deck and barriers. Traffic will be routed with signals and flaggers one direction at a time along the remaining, northern lane of the existing bridge. The second stage will involve routing traffic onto the completed southern portion of the new bridge during demolition of the northern half of the existing bridge and construction of that portion of the new bridge. Upon completion, two-way traffic will be restored to the site.

15. Public Services

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

The project will not result in an increased need for public services.

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

RSD will notify public services and post signs prior to commencing construction.

16. Utilities

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

- 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.**

Utilities are located within the right-of-way along SE May Valley Road and consist of the following:

Electricity, both buried and aerial

- Puget Sound Energy

Gas

- Puget Sound Energy

Communications

- Qwest
- MCI

Cable TV

- Millennium Digital Media
- Comcast

Water

- City of Issaquah
- Four Creeks Ranch Homeowners Association

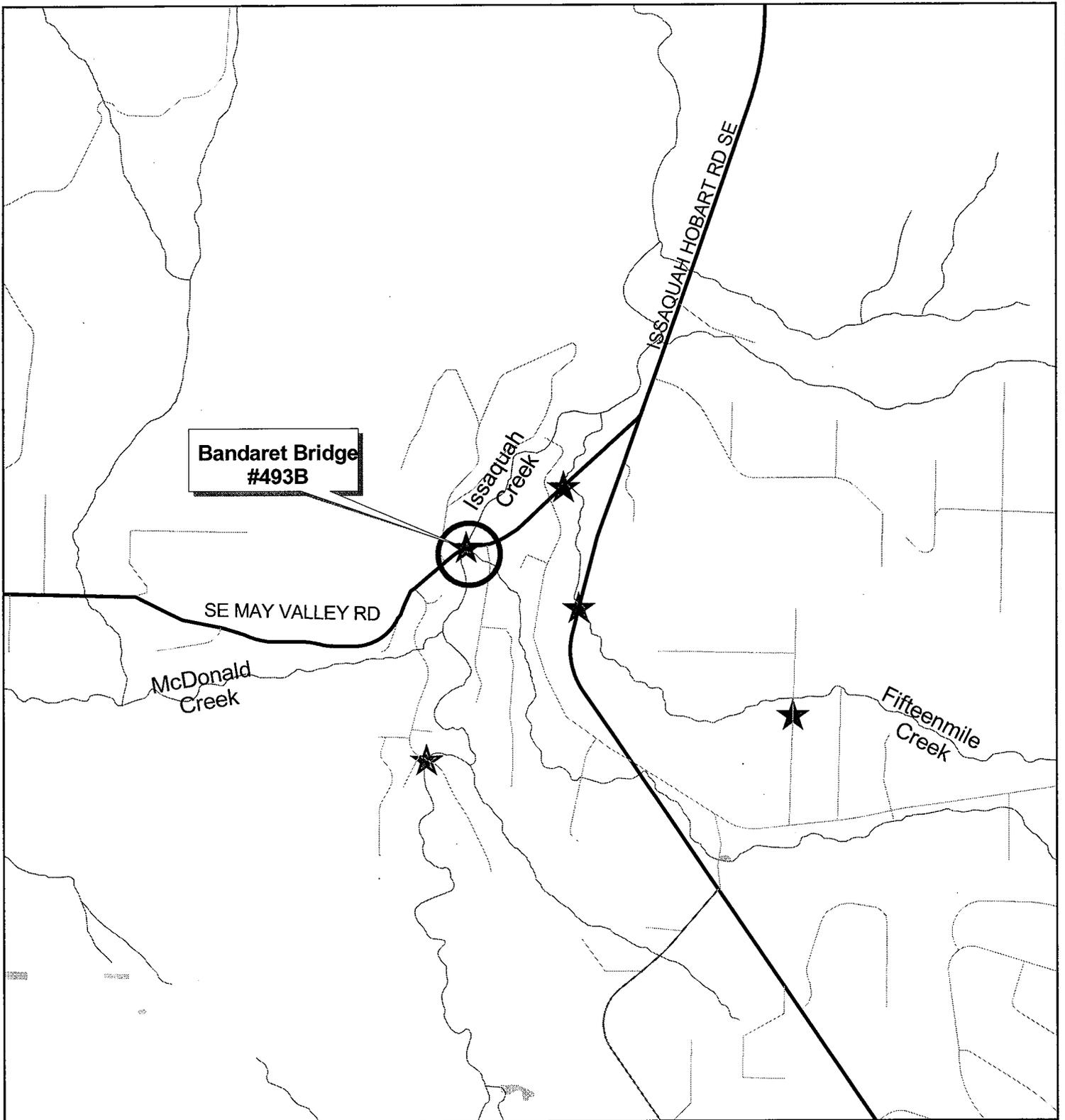
The new bridge will have the capacity to accommodate the existing as well as future utilities.

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

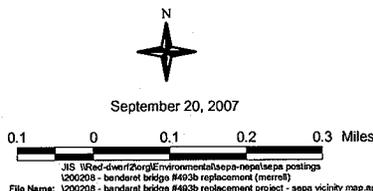
Date Submitted: 9/21/07



Bandaret Bridge #493B Replacement and Associated Improvement Project (CIP 200208)

Vicinity Map

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Legend

- Streets
 - Freeway
 - Primary
 - Collector
 - Minor
 - Local
 - Streams
- Bridges
- County Boundary
- Hydro (polygon)
- Cities

