

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

SR 167- 8th Street E Vicinity to S 277th Street Vicinity Southbound HOT Lane

2. Name of applicant:

Washington State Department of Transportation (WSDOT), Urban Corridors Office

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

WSDOT Urban Corridors Office
401 - 2nd Avenue South, Suite 400
Seattle, WA 98104
Phone: 206-464-1230
Attn: Mike Sallis

4. Date checklist prepared:

August 2008

5. Agency requesting checklist:

Washington State Department of Transportation

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

Construction will likely begin in April 2012 and continue to January 2015. If funding becomes available earlier than anticipated, construction may begin in January 2010 and end in July 2013.

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

WSDOT has several projects that are related to or near this project on State Route (SR) 167.

- SR 167 Corridor Plan

A corridor plan has been developed to document potential improvements to SR 167 from S 180th St. in Renton to SR 161 in Edgewood. Planning level designs and estimates have been developed, which can be used to make recommendations for transportation improvements on SR 167 in order to address growth over the next 25

years. The following summarizes some of the key improvements identified in the SR 167 Corridor Plan, once funding is secured:

The Long-Term 2030 recommendation is:

- Eight-lane configuration between I-405 and SR 18, which includes one HOV/HOT lane in each direction.
- Six-lane configuration between SR 18 and SR 512, which includes one HOV/HOT lane in each direction.
- Additional northbound and southbound auxiliary lanes between I-405 and S 180th Street, as well as between SR 516 and S 277th Street.

These projects are not funded currently and would require design and environmental analysis upon securing specific funding for each project.

- Funded projects include:

- *SR 167 HOT Lane Pilot Project (I-405 to 15th Street SW)*

Approximately nine miles of existing HOV lanes (Renton to Auburn) were converted to a shared HOV and High Occupancy Toll (HOT) lanes. The HOT lanes, while maintaining HOV traffic now allows single occupancy vehicles to pay a toll electronically to travel in the HOV lane. This is a pilot project to determine if tolling improves efficiencies and reduces congestion. This project opened in the spring of 2008.

- *SR 167 - 15th Street SW to 15th Street NW northbound HOV Lane*

When this project is complete, it will provide a continuous northbound HOV/HOT lane from approximately 15th Street SW in Auburn to I-405 in Renton to increase safety and reduce congestion on SR 167. WSDOT is also adding metered ramps at several interchanges along this route. Construction is scheduled to be complete in late 2008.

- *I-405 - I-5 to SR 169 Widening*

WSDOT will add one northbound and one southbound lane to I-405 between I-5 and SR 169. WSDOT will also add one southbound lane to SR 167 between I-405 and S180th Street.

- Unfunded but planned projects include:
 - *SR 167 - 15th Street SW to 8th Street E, northbound HOT lane*
This project will complete the HOT lanes in King County on SR 167.
 - *SR 167 - SE 180th Street to S 277th Street southbound general purpose lanes*
This project will add general purpose lanes in each direction between S 180th Street and S 277th Street.
 - *SR 167 - 8th Street E to SR 512 HOT lanes*
This project will add a HOT lane in each direction in Pierce County, completing the entire HOV/HOT system on SR 167.
 - *SR 167/I-405 HOV/HOT Direct Connection Ramps*
This project will provide a HOV lane to HOV lane direct connection ramp from I-405 to and from SR 167.
 - *SR 167 Freeway Extension to Tacoma*
This project includes construction of the SR 167 new freeway extension project from Edgewood to the Port of Tacoma.

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

- Michael Minor and Associates, 2008a. ***Air Quality Technical Report, SR167 - 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane***, Washington State Department of Transportation, 2008.
- Michael Minor and Associates, 2008b. ***Traffic Noise Analysis, SR167 - 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, SR167- 8th Street E Vic. to S 277th Street Vic. Northbound HOT Lane***, Washington State Department of Transportation, 2008.
- Perteet Inc., 2008a. ***Ecosystems Report, SR167 - 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane***, Washington State Department of Transportation, 2008
- Perteet Inc., 2008b. ***Public Services and Utilities Technical Report. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane***, Washington State Department of Transportation, 2008.
- Shannon and Wilson, 2008a. ***Geology, Soils and Groundwater Technical Report. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane***, Washington State Department of Transportation, 2008.
- Shannon and Wilson, 2008b. ***Hazardous Materials Technical Report. SR167- 8th Street E Vic. To S 277th Street Vic. Southbound HOT Lane***, Washington State Department of Transportation, 2008.

- Jones and Stokes, 2008c. **Biological Assessment**, SR 167 - 8th Street E Vic. to S 277th Street Vicinity Southbound HOT Lane Project, Washington State Department of Transportation, 2008.
- Jones and Stokes, 2008a. **Section 106 Cultural Resources Survey and Technical Report**. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, Washington State Department of Transportation, 2008.
- Perteet Inc., 2008d. **Traffic and Transportation Report**. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, Washington State Department of Transportation, 2008.
- Perteet Inc., 2008e. **Visual Quality Technical Memorandum**. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, Washington State Department of Transportation, 2008.
- Perteet Inc., 2008f. **Social, Economic and Environmental Justice Technical Report**. SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, Washington State Department of Transportation, 2008.
- Perteet Inc., 2008g. **Wetland and Stream Mitigation Report (Draft)** SR167- 8th Street E Vic. to S 277th Street Vic. Southbound HOT Lane, Washington State Department of Transportation, 2008.
- RW Beck, 2008h. **Draft Hydraulic Report**. SR 167 Stage 4 Project (8th St E to S 277th St Southbound Hot Lane), Washington State Department of Transportation, 2008.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No other approvals or applications for other proposals are known at this time.

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

- *Auburn*
 - Noise Variance
 - Flood Control Zone Permit
- *Algona*
 - Noise Variance
- *Pacific*
 - Noise Variance

Washington State

- Hydraulic Project Approval (HPA)

Federal

- Section 7 – Endangered Species Act Consultation/Biological Assessment and Opinion (Completed)
- National Pollution Discharge Elimination System (NPDES) Permit
- Section 404 Permit
- Section 401 Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site.

The Washington State Department of Transportation (WSDOT) plans to widen the State Route (SR) 167 roadway to construct a new southbound high-occupancy toll (HOT) lane from the vicinity of 8th Street E (MP 10.2) in Pierce County, Washington to the vicinity of S 277th Street (MP 18.24) in Auburn, King County, Washington. This new HOT lane will be a continuation of a southbound HOT lane that was constructed for the HOT Lane Pilot Project, which extends from the I-405 interchange in Renton to S 277th Street in Kent.

The construction of the HOT lane will require a noise wall on the eastern edge of the existing northbound pavement between 6th Avenue N in Algona and 5th Avenue S in Pacific. In addition, it will require widening the southbound bridge over SR 18. Ramp meters will be installed at southbound on-ramps at the SR 167 interchanges with 15th Street SW, Ellingson Road, and 8th Street E. In addition, new signals will be installed at the SR 167 southbound ramp terminals with Ellingson Road and 8th Street E. All of the proposed widening work will occur within the WSDOT right-of-way, with the exception of the stormwater detention site in WRIA 9. The stormwater/floodplain site (referred to as Site C) will be purchased at the northwest quadrant of the SR 167 / SR 18 interchange area. In WRIA 9, a demonstrative approach to flow control will be proposed, utilizing a stormwater/floodplain storage strategy along portions of Mill Creek. Stormwater drains, culverts and roadside ditches are being designed to convey stormwater runoff throughout the project in WRIA 10 to stormwater treatment facilities and then to stormwater retention facilities.

Specifically, the stormwater/floodplain storage area will be constructed to enhance ecosystem characteristics by incorporating design features that will prevent fish stranding, optimize shading for cooler water temperatures, avoid or minimize adverse effects to adjacent

wetlands, and maintain current flows. To prevent fish stranding, backwater channels will be included to allow fish a path out of the storage area and back into the creek when high water levels recede. These channels will improve habitat conditions for salmonids by providing important floodplain connectivity and off-channel habitat.

There will be retrofit of two culverts; Culvert 65 (Jovita Creek) and Culvert 73 (Milwaukee Ditch). Neither of these culverts are being extended or otherwise impacted by the roadway project. One culvert will have existing baffles retrofitted to improve fish passage. The other culvert will have weirs added immediately downstream to improve fish passage in the Milwaukee Ditch sub basin. The connection of the Site C stormwater/floodplain site, northwest of SR 18, to Mill Creek may require a coffer dam to isolate construction (i.e., dewater) from the stream flow. Dewatering will occur during the driest time of the year, typically during summer months, when fish are least likely to be present.

The construction of the stormwater/floodplain storage area will increase the size of a wetland from 18.93 acres to approximately 21.5 acres. The change in wetland functions and the habitat afforded by the floodplain storage area will improve habitat conditions in the Mill Creek subbasin.

In accordance with the Highway Run-off Manual, the use of compost amended vegetated filter strips (CAVFS) ecology embankments, constructed stormwater treatment, and infiltration trenches will be used throughout the project to treat stormwater runoff.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available.

The location of the proposal is on SR 167. The project extends from S 277th Street in the City of Auburn to 8th Street E in Pierce County. The project area is within Section 36, Township 22 North, Range 4, EWM; Sections 1, 12, 13, 14, 23, 26, 35, Township 21, Range 4, EWM; and Sections 1, 2, Township 20, Range 4, EWM.

The proposed project occurs within King and Pierce counties and the cities of Kent (southern boundary), Auburn, Pacific, and Algona.

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

The area generally follows the Green and White River valleys. The ground in the valleys is generally level, with some very gently rolling areas. Bluffs up to 300 feet high mark the boundaries between the valley and the uplands. The ground surface along the project area ranges from approximately 60 to 100 feet above sea level (these elevations are referenced to the North American Vertical Datum of 1988 [NAVD 88] [Shannon and Wilson, 2008a]).

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

The steepest slopes on the project are the 2:1 slopes of existing engineered road prisms. Native ground varies from a 1% to 6% slope.

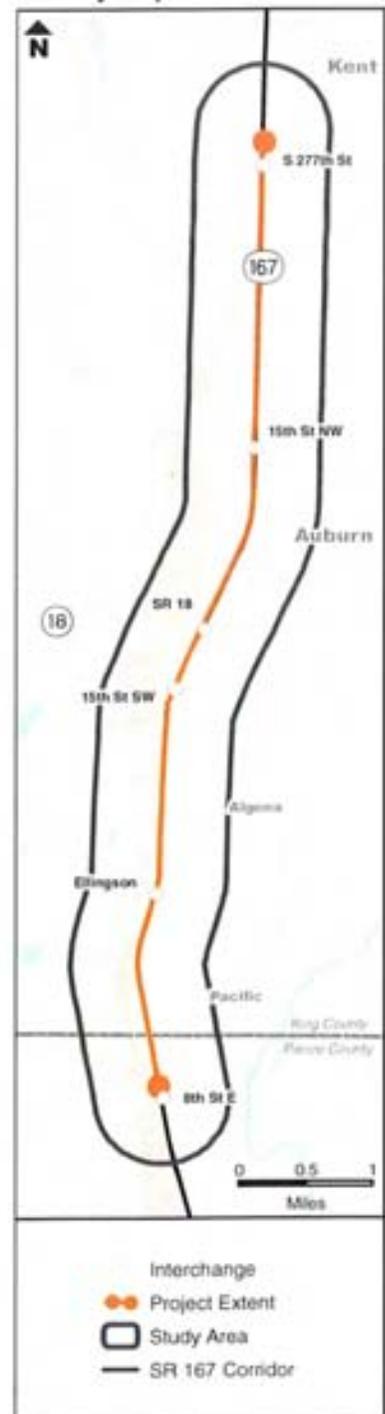
- b. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Soils along the project corridor were primarily derived from alluvium. These soils include members of the Puyallup, Briscot, Norma, Oridia, and Renton Series. These soils are typically somewhat-poorly to poorly drained, except for the Puyallup Series, which is well-drained. They typically occur on slopes of a less than two percent grade, and present a slight erosion hazard.

In certain locations in the project area, soils were derived from both alluvium and decaying organic matter in ponds and bogs. These soils include members of the Puget, Snohomish, Semiahmoo, and Seattle Series. These soils are typically poorly to very-poorly drained and occur on slopes of a less than two percent grade, and present little to no erosion hazard (Shannon and Wilson, 2008a).

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

Vicinity Map



In the project area, Soil Conservation Service (SCS) maps show a low overall erosion hazard. The areas more susceptible to erosion are the steep bluffs bordering the valley, small stream and creek ravines, and the manmade highway embankments.

Potential landslide hazard areas in the project area include manmade embankments/slopes and the steep bluffs bordering the lower river valley. The SR 167 roadway is built on embankments throughout most of the project area, with maximum embankment heights reaching approximately 15 to 20 feet.

In general, most of the manmade and natural slopes in the project area appear stable during normal conditions, but may have a high risk of failure during earthquakes. The direct risk from natural landslide hazards is relatively low in the project area, because SR 167 is primarily located on level or gently sloping ground. An indirect risk from landslide hazards exists in the project area where the highway is closest to the bluffs (e.g., from Ellingson Road to 15th Street SW). In this area, rapidly moving landslides from the nearby bluffs could potentially flow up to, and onto, SR 167 (Shannon and Wilson, 2008a).

Soils in the area are susceptible to liquefaction. All structures will be designed to accommodate the conditions.

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

Filling and grading for the proposed HOT lane will occur toward the median, except for approximately one mile centered at the Ellingson Road interchange. This section will be widened to the west because there is no additional room in the median. In addition to the proposed roadway improvements, grading will occur at a maximum of four stormwater facility locations (all less than one acre in size) and the stormwater/floodplain storage site (the entire site is approximately 20 acres, but the impacts are less than two acres). The areas where HOT lane expansions are planned will result in approximately 0.5 feet of vertical ground disturbance. The existing sod layer will be stripped to a depth of 0.5 feet, and then road fill material will be overlain to reach existing grade.

Project Map and Location of Site C



The overall project will require the following quantities of cut and fill:

Approximate Quantities of total grading and fill (WSDOT, 2008):

85,000 Cubic Yards of Excavation (mostly unsuitable)
75,000 Cubic Yards of Fill

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

There could be some limited erosion during grading and clearing activities; however, impacts are not anticipated with implementation of BMPs. During construction, temporary erosion and sediment control measures would be utilized to avoid adverse stormwater effects on exposed soils at the construction site.

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

The project is located on a highway corridor, impervious highway surface accounts for approximately 15% to 50% of the existing right-of-way. Specifically under the stormwater guidelines, approximately 100 acres of the project corridor is currently defined as impervious surfaces. The project will add an additional 10 acres to this existing 100 acres. (Jones and Stokes, 2008c).

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

During construction, a Temporary Erosion and Sediment Control (TESC) Plan will be utilized to avoid adverse effects of exposed soils on stormwater runoff at the construction site. WSDOT's Best Management Practices (BMPs) will be implemented during construction to avoid or minimize erosion and associated sedimentation. Some potential BMPs that could be implemented in the TESC Plan are:

- Temporary sedimentation ponds
- Silt fences
- Stabilized construction entrances
- Storm drain inlet protection
- Check dams

The final BMPs will be determined by WSDOT standards in the final construction plans.

2. Air

- a. **What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

During construction, there would be short term emissions from construction vehicles, but they would not create adverse impacts.

During operation of the HOT lane, it is anticipated that there will be no adverse impact on air quality as the project is expected to improve traffic flow and reduce vehicle idle time (Michael Minor and Associates, 2008a) as compared to not constructing these improvements.

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

None.

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

During construction activities, WSDOT will implement construction specifications and BMPs to reduce air quality effects. Emphasis will be on fugitive dust from earth moving and excavation. Some potential mitigation measures that could be implemented are:

- Spray exposed soil with water or other suppressant to reduce emissions of PM₁₀ and the deposition of particulate matter.
- Minimize dust emissions during transport of fill material or soil by wetting down or covering the load.
- Promptly clean up spills of transported material on public roads.
- Schedule hauling and other work tasks to minimize congestion of existing vehicle traffic.
- Locate construction equipment and truck staging areas away from sensitive receptors, as practical, and in consideration of potential effects on other resources.
- Provide wheel washers to remove particulate matter that would otherwise be carried offsite by construction vehicles.
- Cover dirt, gravel, and debris piles, as needed, to reduce dust and wind-blown debris.
- Minimize on-site odors by covering loads of hot asphalt.
- Maintain construction equipment in good mechanical condition to help minimize exhaust emissions.
- Minimize greenhouse gas emissions by reducing the traffic backups and delays, using detours or night-time construction.

- Establish equipment staging areas and material transfer sites so as to reduce the amount of time the engines of heavy equipment are running while waiting, thus reducing fuel usage and emissions.

Because the project only adds capacity to the highway, and will not alter any of the existing timed signalized intersections, there are no operational air quality mitigation measures required.

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.**

Streams in the immediate vicinity of the project corridor include Mill Creek, Algona Creek, Milwaukee Ditch, Jovita Creek, and an Unnamed Tributary of the White River. These streams flow alongside and cross the project corridor. The Green River is in the vicinity of the SR 167 corridor but is not within the immediate project area. Wetlands are in the project vicinity, located outside the existing road prism but within the existing right of way (Perteet, 2008a).

- 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 work adjacent to Mill Creek on the overall development of the stormwater facility (described below) and a one-time connection point with an engineered log jam. There will be work on two culverts. One culvert at Jovita Creek will have existing baffles retrofitted for better fish passage. The other culvert at Milwaukee Ditch/Creek will have weirs added immediately downstream to improve fish passage in the Milwaukee Ditch subbasin (RW Beck, 2008h).

Overall, the floodplain flow control stormwater facility will be excavated (adjacent to Mill Creek) to varying depths from 5 to 9 feet. In regards to Site C – Stormwater facility, that element will require excavation of 38,000 cubic yards of material and will encompass 1.88 acres. Construction of this project element will result in the removal of some limited areas of vegetation.

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

For the surface water resources, the majority of excavation activities will be isolated from Mill Creek surface waters during construction activities. The connection to Mill Creek will be protected with a temporary coffer dam while placing a log jam point.

The connection of the stormwater/floodplain storage area to Mill Creek will modify 18.93 acres of wetland. Connection of the floodplain storage area to Mill Creek will impact 1.22 acres of this wetland, modifying the functions provided by the wetland to provide improved capacity and open water habitat. The floodplain storage area will be approximately six acres in size and will be considered wetland habitat, increasing the size of a wetland from 18.93 acres to 23.15 acres. Additionally, the floodplain storage area will provide increased wetland functions in terms of water storage and open water habitat, as well as important floodplain connectivity and off-channel habitat. Design of the area is ongoing, but the intention is to provide floodplain storage to offset the increase in impervious surfaces to ensure that flow conditions are maintained.

For further detail on the cut and fill activities on the stormwater/floodplain site (Site C) adjacent to Mill Creek, please see the Wetland and Stream Mitigation Report (Draft) (*Perteet 2008g*)

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

Dewatering will be necessary for the retrofit of two culverts, Culvert 65 (Jovita Creek) and Culvert 73 (Milwaukee Ditch). There may be a temporary coffer dam to create the stormwater facility connection to Mill Creek at Site C.

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

The project does lie within a 100-year floodplain in certain areas along the project corridor according to GIS data managed by King County, but the roadway surface does not. These floodplains are located mainly from SR 18 to S 277th Street. (*Perteet, 2008a*).

- 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 discharges of waste materials are planned. However, in-water work may cause temporary increases in turbidity. Such activities are expected to last from several hours (Culvert 65 retrofit) to one week (connection of the floodplain storage area to

Mill Creek and Culvert 73). Turbidity levels are not anticipated to reach levels that would cause adverse effects to aquatic resources. These activities would occur at times of the year least disruptive to resident species.

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.**

Along most of the highway, stormwater will be treated by infiltrating and discharging to shallow groundwater via Compost Amended Vegetated Filter Strips and Ecology Embankments resulting in discharge to groundwater (Jones and Stokes, 2008a).

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged into groundwater.

c. Water runoff (including stormwater):

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

The source of runoff and stormwater would be from the impervious surfaces of SR 167. Stormwater runoff from 21.79 acres of the 100.95 acres of existing impervious surface is currently treated. Stormwater generated by the remaining 79.16 acres currently discharges untreated and without detention into surface waters. The SR 167 Project will provide enhanced stormwater treatment and detention to avoid or minimize impacts on surface waters that could result from the increased pollution generating impervious surfaces (PGIS) created by the project. Enhanced treatment options were assessed for all new, replaced, and existing pavement areas within the project limits. The stormwater design addresses the balance of combining a portion of the existing (retrofitting/treatment) impervious surfaces and all new impervious surfaces under WSDOT guidelines for treatment.

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

It is not anticipated that there would be waste materials during construction or operations with the implementation of BMPs for construction and permanent stormwater water quality elements for the completed project.

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

Beyond the erosion and sedimentation control BMPs during construction, the following stormwater treatment facilities will be used during operations to reduce the surface water runoff impacts in the following order of effectiveness:

- Compost-amended vegetated filter strips (CAVFS)
- Ecology embankments
- Stormwater detention facilities
- Floodplain storage facilities

Additionally, stormwater delivered to the median will be piped beneath the median in perforated pipes, providing increased opportunity for infiltration.

4. Plants

a. Underline types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

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

Most vegetation impacts will be to roadside vegetation that includes mainly grasses and invasive vegetation.

Within the SR 167 right of way, approximately 10.87 acres of upland habitat will be converted from pervious surface area to impervious surface as a result of the SR 167 Project. Additionally, stormwater features will impact an additional 20.77 acres of upland habitat directly adjacent to the project corridor. Vegetation removed will be primarily reed canary grass, which is extremely prevalent in both the Mill Creek and Milwaukee Ditch subbasins.

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

No threatened or endangered plant species are known to be located at or near the project site (Perteet 2008a).

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

The floodplain storage area will include plantings and general landscape elements that will provide for shading of the newly created floodplain storage area. New roadside embankments will be seeded with grass.

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:**

Birds: Hawk, heron, eagle, songbirds

Mammals: Deer, bear, elk, beaver

Fish: Bass, salmon, trout, herring, shellfish

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

Known species on the threatened species of state concern listed on the Washington State Priority Habitat Species list include (Perteet, 2008a):

- Great Blue Heron (*Ardea herodias*) – Washington Department of Fish and Wildlife (WDFW)
- Chinook Salmon (*Oncorhynchus tshawytscha*) – National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries)
- Chum Salmon (*Oncorhynchus keta*) - NOAA Fisheries
- Coho Salmon (*Oncorhynchus kisutch*) - NOAA Fisheries
- Cutthroat Trout (*Oncorhynchus clarki*) – U.S. Fish and Wildlife Service (USFWS)
- Steelhead Salmon (*Oncorhynchus mykiss*) - NOAA Fisheries

Species that may occasionally use the project area for foraging or daytime roosting throughout the year (Perteet, 2008a):

- Hooded Merganser (*Lophodytes cucullatus*) - WDFW
- Wood Duck (*Aix sponsa*) - WDFW
- Pileated Woodpecker (*Dryocopus pileatus*) - WDFW
- Peregrine Falcon (*Falco peregrinus*) - USFWS

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

The Pacific Coast is considered a critical flyway for many migratory marine birds and shorebirds. The project site is located along this flyway but the project will not pose adverse impacts to migratory bird routes (Perteet, 2008a).

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

The construction phase of the project will require the implementation of WSDOT BMPs within the right of way and within the vicinity of sensitive areas. Specifically, the water resources will be identified in the field and BMPs that protect those resources will be implemented and monitored. As part of the BMP implementation, WSDOT will revegetate all temporarily impacted areas as part of the project. WSDOT is also retrofitting two culverts to improve fish passage.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The completed project will utilize electricity for lighting and electronic reader board signs.

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

No, the project would not affect the potential use of solar energy by adjacent properties because the project does not require the construction of structures that could block solar energy from receiving facilities.

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

No energy conservation features are proposed at this time.

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.

None.

1) Describe special emergency services that might be required.

No special emergency services are anticipated.

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

None specifically proposed, beyond applicable WSDOT safety standards and applicable state regulations. For emergency response to health hazards, King and Pierce Counties and local jurisdictions will provide emergency response(s) to 911 calls.

b. Noise

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

There are no noises in the area which would affect the completed project.

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

During the construction phase, noise at the construction site will mainly come from construction machinery and vehicles. There will be a temporary noise increase from heavy machinery and vehicles used during the construction; the majority of work could take place at nighttime. Due to the evening timeframe of construction activities, there may be noise variances required during such nighttime construction activities from the local jurisdictions.

Operationally, the southbound and future northbound HOT lane projects noise levels along the corridor are predicted to range from 62 to 73 dBA during peak hours. (Michael Minor and Associates, 2008b)

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

It was determined that a noise wall will be constructed by WSDOT for those adjacent land uses that met the federal requirement of feasible and reasonable on the noise reduction benefits.

The overall noise reduction for this wall will range from 4 to 8 dBA, producing an average reduction for all receivers of 5.9 dBA, an average reduction of 6.9 dBA for front-row receivers and an average reduction for locations with effects of 6.5 dBA. The wall will have a length of 4,340 feet, range in height between 7 to 12 feet, and will be an average height of 10.9 feet (Michael Minor and Associates, 2008b).

For construction related noise impacts the project will comply with local city ordinances and King County Ordinance 14114 and Pierce County Title 8.76.070.

If specific noise complaints are received during construction, WSDOT may implement one or more of the following noise mitigation measures during construction:

- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible
- Shut off idling equipment

- If possible, install the proposed noise wall early in the construction process
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint
- Notify nearby residents whenever extremely noisy work will be occurring
- Install temporary or portable acoustic barriers around stationary construction noise sources
- Obtain a noise variance, if required by the local noise ordinance, for construction activities outside allowable hours

8. Land and shoreline use

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

The proposed HOT lanes would be constructed within the existing SR 167 right of way resulting in no change in land-use at the project site. Adjacent land uses include: fallow agricultural, active agricultural, industrial, residential, commercial, open space, and critical areas.

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

This site has not been used for agriculture since before SR 167 was originally built. Parts of the site were likely used for agriculture prior to the original construction of SR 167 in the 1970s.

c. Describe any structures on the site.

There is a bridge at S 277th Street, 37th Street NW, 15th Street NW, Mountain View Drive, SR 18, and 15th Street SW. SR 167 crosses over streets at 1st Avenue N, Ellingson Road, and 3rd Avenue SW.

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

None.

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

Not applicable, as State right of way does not have zoning classification.

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

Not applicable, as State right of way does not have comprehensive plan designation.

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

Not applicable.

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

Much of the project is located on land that may be classified as "environmentally sensitive" by federal, state, and local laws and policies. The primary sensitive areas that are adjacent to the project are streams, wetlands, and floodplains. The Ecosystem report provides details on the range of delineated or identified sensitive areas in the project vicinity.

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

None.

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

None.

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

None.

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

The proposed project is included in the current 2007-2010 Transportation Improvement Program (as WSDOT project 816701-B) and the 2007 State Improvement Plan. This project is consistent with the County wide transportation policies and it supports the linkage of regional transportation projects serving local jurisdictions.

9. Housing

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

No housing units would be provided as part of this project.

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

No housing units will be eliminated as part of this project.

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 tallest new structure will be a 10-12 feet noise wall. The existing SR 167 bridge over SR 18 will be widened. Several overhead signs on sign bridges will be 25' to 30' tall. Roadway lighting will be 35' to 45' high. Traffic signals will be 20' to 30' tall.

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

A noise wall was necessary to mitigate noise effects, which will alter some views, but provide a benefit in noise reduction and will potentially reduce some glare from the vehicles on the freeway.

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

None

11. Light and glare

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

In the nighttime light or glare may be produced by new metering devices at on-ramps and HOT lane electronic signage. The project lighting, while adding illumination, is designed to have a focused illumination area and is not likely to generate additional light and glare from traffic on SR 167 (Perteet, 2008d).

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

The project is not anticipated to create a safety hazard.

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

No known offsite light and glare should affect the proposed project.

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

None

12. Recreation

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

No designated or informal recreation facilities are in the immediate vicinity of the proposed project. The Auburn Supermall, Emerald Downs track, and some parks are located in the nearby cities adjacent to SR 167 to the north and east of the project (Perteet, 2008c).

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

No. The project would not displace any existing recreational use areas.

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

None

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.

Efforts to identify cultural resources in the Area of Potential Effects (APE) consisted of conducting a record search, archival research, an archaeological pedestrian survey with shovel probe testing, and a survey and evaluation of resources in the built environment that are fifty years of age or older.

No previously documented archaeological sites are located in the undertaking's APE. There are 11 previously-documented archaeological sites in a one-mile radius of the APE. None of these previously documented sites will be directly or indirectly affected by this project.

No previously-documented traditional cultural properties (TCP) are located in the APE.

A preliminary investigation of the Area of Potential Effects (APE) indicated that four parcels directly adjacent to the APE contain buildings and/or structures that are 50 years of age or older. None of the identified structures will be altered or demolished as a result of the proposed project.

Prior to the current survey no other cultural resources surveys were conducted within the APE. However, seven (unrelated) cultural resources surveys were conducted within a one mile radius of the APE. It should be noted that in the seven surveys no resources eligible for listing on the National Register of Historic Places (NRHP) were found (Jones and Stokes, 2008b).

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

None have been identified (Jones and Stokes, 2008b).

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

An unanticipated discovery plan will be a required element of construction.

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.**

There are at least ten public streets that intersect or cross SR 167:

- S 277th Street
- 37th Street NW
- 15th Street NW
- West Main Street
- SR 18
- 15th Street SW
- 1st Avenue N
- Ellingson Road
- 3rd Avenue SW
- 8th Street E

There will be upgrades to existing public road access with ramp meters for on-ramps at the SR 167 interchanges with 15th Street SW, Ellingson Rd, and 8th Street E. In addition, traffic signals will be installed at the southbound ramp terminals at the SR 167 interchanges with Ellingson Road and 8th Street E.

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

Metro Transit and Sound Transit have bus routes that travel on SR 167. They serve the cities of Auburn, Kent, Algona, Pacific, Sumner, Puyallup, and Federal Way.

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

The project will not provide or eliminate any parking spaces.

- 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 project will require related bridge widening over SR 18.

- e. Will the project use (or occur 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 by the completed project? If known, indicate when peak volumes would occur.

The project would not generate trips, but shift some of the existing general purpose lane traffic to the HOT lane and improve overall capacity. According to the Traffic Report, currently more than 61,000 vehicles travel southbound per day on SR 167 between S 277th Street and 8th Street E.

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

None as this project will construct a managed HOT lane, which will result in travel time savings and be benefit for local and regional traffic.

15. Public services

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

The project would not result in an increased need for public services (2008b., Perteet). However, there are some potential temporary effects to public services such as temporary road closures and detours.

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

The following specific measures address some temporary effects for the project:

- Develop and implement a traffic management plan that provides signal preemption through construction zones for emergency vehicles; post signs to show detour routes if temporary road closures are required.
- Provide the fire and police departments, and other service providers with advance notice of construction schedules to allow for coordination and to minimize the effects of road closures on response and travel times.

- If necessary, coordinate with staff at local events facilities and local police departments to minimize construction related effects during events at Emerald Downs, the Puyallup Fairgrounds and during other special events such as Kent Cornucopia Days.
- Provide adequate public notice of construction activities, lane closures, and detour routes.
- Communicate with the SR 167 Corridor Working Group to assist in assessing and coordinating potential cumulative effects that can result from multiple construction projects in the area, as they arise.

16. Utilities

- a. **Underline 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.**

The existing electrical system will be used to support the HOT lane infrastructure. The load this project will add to the electrical system will be minor. WSDOT will upgrade the system as needed to provide electricity to the infrastructure (Perteet, 2008b). There are numerous utility crossings within the project limits and coordination with the utility agencies will be an element of the construction phase.

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: Ammitansu
 Date Submitted: 9/11/08

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