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Ms. Kate Stenberg  
Environmental Manager  
Alaskan Way Viaduct and Seawall Replacement Project  
Washington State Department of Transportation  
999 Third Avenue South, Suite 2424  
Seattle, Washington 98104-4019

Project No. U09936Z  
Contract No. General  
File Code PE0701  
Log No. CR 00247

Dear Ms. Stenberg:

The U.S. Department of the Interior (Department) has reviewed the Supplemental Draft Environmental Impact Statement and Section 4(f) Evaluation for **SR-99: Alaskan Way Viaduct and Seawall Replacement Project, Seattle, King County, Washington**, and offers the following comments.

The proposed project would repair or replace the existing Alaskan Way Viaduct (AWV) and Alaskan Way Seawall (Seawall). Three alternatives are evaluated in the Supplemental Draft Environmental Impact Statement (SDEIS): Tunnel, Elevated Structure, and No Build. The Tunnel Alternative is the Preferred Alternative and would construct the SR 99 in a stacked six lane highway configuration (three lanes in each direction). The Elevated Structure Alternative would rebuild the SR 99 with a six lane highway. In both the Tunnel and Elevated Structure Alternatives, the Seawall would be replaced. The Seawall would not be replaced with the No Build Alternative.

**GENERAL COMMENTS**

F-009-001

The Department agrees that there is no prudent and feasible avoidance alternative to the "use" of Section 4(f) resources. For those resources that are also protected by Section 106 of the National Historic Preservation Act, the Department defers to the Washington State Historic Preservation Officer. The Department appreciates the efforts that the AWV Project Office, Washington State Department of Transportation (WSDOT), Federal Highway Administration (FHWA), and City of Seattle have made in talking with the National Park Service, and in addressing waterfront/pier access issues in the publication, "Keeping Downtown Open and Livable During Construction." We encourage the AWV Project Office and coordinating agencies to take all reasonable measures in keeping the downtown waterfront a vibrant hub of activity, even during construction.

F-009-002

The SDEIS is well written and provides a thorough review of the scope, benefits, impacts, and effects of each alternative on fish and wildlife resources. Aspects of the

**F-009-001**

Thank you for your comment. Please note that the Section 4(f), 6(f), and 106 evaluations have all been updated in the 2010 Supplemental Draft EIS and this Final EIS. FHWA, WSDOT, and the City of Seattle have worked hard to coordinate with the appropriate parties concerning the identification of and potential effects to Section 4(f) and Section 6(f) resources in the project area. The lead agencies have also identified potential measures to mitigate construction effects in an effort to keep the waterfront area vibrant, even during construction. These mitigation measures are described in Chapter 8 of the Final EIS.

**F-009-002**

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative would not replace the seawall or require in-water work. An analysis of the potential effects of the project on listed fish and wildlife species has been conducted and provided in Appendix N, Wildlife, Fish, and Vegetation Discipline Report of the Final EIS. This information is summarized in the Final EIS. In addition, a biological assessment has been prepared for the preferred alternative.

**F-009-002** project that would likely have the most significant impact on fish and wildlife and on listed species include the replacement of the Seawall and associated habitat improvements, construction of the overwater structure between Pier 48 and Colman Dock, stormwater effects, and re-suspension of contaminated sediments.

The SDEIS does not provide an in-depth analysis of potential impacts to threatened and endangered species. We note that the FHWA and WSDOT will be consulting with the Fish and Wildlife Service (FWS) under Section 7 of the Endangered Species Act. A more thorough review of the impacts to threatened and endangered species will be required at that time.

**SPECIFIC COMMENTS**

**F-009-003** ***Consultation with Regulatory Agencies: Page 25, No. 8; Page 33, No. 18; Page 104, No. 23; etc.***

It is stated throughout the SDEIS, that the FHWA, the WSDOT and the City of Seattle (City) would work with the regulatory agencies to improve any fish and wildlife habitat affected by the project, to evaluate conservation measures to avoid, minimize, rectify, or compensate for impacts to species and their habitat, and review mitigation plans. The FWS has been coordinating with the FHWA, WSDOT, and the City throughout the project design to identify and minimize potential impacts to fish and wildlife. The FWS will continue to be available to provide technical assistance for any mitigation, restoration, and enhancement projects to improve habitat for fish and wildlife.

**F-009-004** ***Temporary Access Bridge: Page 68, No. 15***

The SDEIS states that a temporary, 15,000-square-foot access bridge would be constructed instead of a permanent 33,000-square-foot overwater pier between Pier 48 and Colman Dock. It is unclear from the SDEIS how long the temporary access bridge would be in place (additional information on the access bridge was given on pages 76 and 101). On page 101, the SDEIS states that the bridge would be constructed within the first 30 months and would remain until construction is complete. A temporary bridge constructed and used for six to eight years could have significant impacts to the aquatic environment, even with a smaller surface area. Please analyze these effects on listed species and their critical habitat.

**F-009-005** ***Removal of Riprap: Page 77, Step 2 and Page 79, Step 2***

The SDEIS states that crews may remove riprap adjacent to the seawall. It further states that once the riprap is removed, a sheet pile wall, silt curtain, or equivalent protective measure would be installed. The FWS recommends that a silt curtain be placed in water prior to the removal of the riprap. Removal of the riprap can create significant turbidity and result in impacts to aquatic species.

**F-009-003**

FHWA and WSDOT greatly appreciate the efforts extended by the USFWS staff during the course of the project. A biological assessment has been prepared for this project and the biological opinion from NMFS was received on January 27, 2010.

**F-009-004**

The temporary over-water structure that could be in place for up to 8 years with the Cut-and-Cover Tunnel or Elevated Structure Alternatives, could impact the aquatic environment, depending on the water depth and orientation of the structure. Assessment of potential effects associated with a temporary over-water structure is included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. The preferred Bored Tunnel Alternative, does not require the temporary structure referred to in this comment.

**F-009-005**

In areas where it is necessary to remove riprap for construction associated with the seawall, a turbidity curtain or equivalent protection will be installed prior to riprap removal to minimize turbidity and effects to aquatic species.

- F-009-006** | **Temporary Sheet Pile Wall: Page 102, No. 19**  
The document states that a temporary sheet pile wall, silt curtain, or equivalent measure would be installed to protect water quality in Elliott Bay. The document further states that in the Draft Environmental Impact Statement (DEIS) the use of a silt curtain was proposed, but a temporary sheet pile wall was not included. It is the understanding of the FWS from meetings held with the action agencies that it may not be possible to install a sheet pile wall because of the existing riprap and other material placed along the Seawall. The final SDEIS should accurately describe and evaluate how water quality in Elliott Bay would be protected because the installation of a sheet pile wall with an impact pile driver may have adverse effects to listed fish species.
- F-009-007** | **Turbidity and Sediment: Page 102, No. 20**  
The second paragraph states that temporary turbidity impacts could result from disturbing the bottom sediments, which could be contaminated, during installation of the sheet pile wall. We could not find a description of these contaminants or their effects on aquatic species. Please evaluate these effects to listed fish and other fish and wildlife resources.
- F-009-008** | **Appendix R; Fisheries, Wildlife, and Habitat Discipline Report; Page 2, 1.2 Proposed Project**  
The first paragraph states that Appendix R focuses on the Seawall portion of the project along the edge of Elliott Bay because the only fish, wildlife, and vegetation resources that occur within the project area are associated with Elliott Bay and its shoreline. As noted below, there are potential effects to listed fish, designated critical habitat, and other fish and wildlife resources in Lake Union due to the construction, operation, and maintenance of SR-99. The final SDEIS and Appendix R should identify and describe all impacts to listed fish in both Elliott Bay and Lake Union.
- F-009-009** | **Appendix R; Fisheries, Wildlife, and Habitat Discipline Report: Page 7, 2.2 Existing Environment**  
Appendix R states that designated bull trout critical habitat includes the nearshore areas of Elliott Bay. The SDEIS states that treated stormwater or dewatering water could be discharged to Lake Union using a temporary outfall or through existing outfalls. Lake Union and the Lake Washington Ship Canal are also designated critical habitat for bull trout. Please analyze the effects of the project on bull trout and designated bull trout critical habitat in both Elliott Bay and Lake Union.
- F-009-010** | **Appendix R; Fisheries, Wildlife, and Habitat Discipline Report; Page 23, 5.4 Benefits**  
Bullet #3 states that numerous creosote-treated piles would be removed along the face of the existing seawall. Further information is needed regarding these piles. It is not clear whether the creosote-treated piles to be removed are abandoned piles no longer in use, supporting piles that would be replaced, or are part of the seawall that is to be replaced. Also, the SDEIS discusses the removal of contaminated soil. If the soil has
- F-009-006**  
Since publication of the 2006 Supplemental Draft EIS, a new containment strategy has been developed to prevent grout and other contaminants from entering the water in Elliott Bay. The containment method was developed in the September 2006 Tunnel Constructability workshop and includes the following procedures and applies to the Cut-and-Cover Tunnel and Elevated Structure Alternatives only:
1. The existing seawall would be surveyed for size and location of cracks and other potential leakage points.
  2. Temporary repairs would be made to the existing seawall to retain upland grout when it is placed.
  3. A turbidity curtain would be installed to minimize turbidity in the construction area and prevent water quality impacts outside the work area.
  4. A movable containment panel would be installed adjacent to the existing seawall, including impervious mat to be placed over the riprap adjacent to the seawall. The size and location of the panel-mat system would be determined by the secant pile installation and grouting operations.
- In certain areas, a sheet pile wall may be necessary for containment. A turbidity curtain would be installed prior to installation of the sheet pile wall or removal of riprap for placement of the sheet pile wall. The turbidity curtain will minimize or prevent turbid water from leaving the construction area and impacting water quality.
- F-009-007**  
The construction methods were modified to minimize the use of sheet pile barriers in an effort to reduce the amount of in-water work required to replace or repair the seawall. Results of the most recent sediment sampling program are provided in the Final EIS and its Appendix Q, Hazardous Materials Discipline Report. The potential effects of these

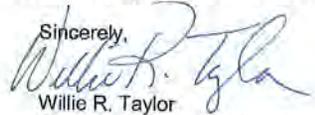
F-009-010

greater than 5 percent woody debris consisting of creosote-treated material, then the soil should be removed and transported to a landfill. Please describe more clearly the creosote-treated piles to be removed and evaluate the potential effects of their removal, including the resuspension of contaminated sediments and creosote on listed fish and their prey species.

**SUMMARY COMMENTS**

F-009-011

We appreciate the opportunity to provide comments on the SDEIS for the SR-99 Alaskan Way Viaduct and Seawall Replacement Project. We recommend that the final SDEIS fully disclose all direct, indirect, and cumulative impacts to fish and wildlife and their habitats, including any listed species and their critical habitat. We encourage FHWA and WDOT to continue consultation and coordination with FWS staff regarding means and measures to ameliorate the project's effects on fish and wildlife and other environmental values. Consultation with the FWS pursuant to section 7 of the Endangered Species Act should begin as soon as possible. Questions or concerns regarding these comments, or requests for additional information regarding potential project effects on fish and wildlife resources should be directed to Mr. Ken Berg, Project Leader, U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, 510 Desmond Dr. SE, Suite 102, Lacey, Washington 98503; telephone: 360-753-9440.

Sincerely,  
  
Willie R. Taylor  
Director, Office of Environmental  
Policy and Compliance

cc: (see next page)

compounds on aquatic life is also discussed in the Final EIS and in its Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

**F-009-008**

The potential effects of the project on fish and wildlife in the Lake Union basin, as well as Elliott Bay, are included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. Specific analyses of potential project effects on ESA-listed species and designated critical habitat are included in the biological assessment for the preferred Bored Tunnel Alternative. The primary factors potentially affecting fish and wildlife in the Lake Union basin are water quality issues related to runoff during construction and operation of the project. These potential effects are also addressed in Appendix O, Surface Water Discipline Report, of the Final EIS.

**F-009-009**

Effects of the project on bull trout and designated bull trout habitat were analyzed in the project's Biological Assessment. The Final EIS contains a general discussion of project effects on fish during project operation in Chapter 5 and construction in Chapter 6.

**F-009-010**

There are a number of sources of creosote piles in the project area. For the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the removal of a portion of the overwater structure at Pier 48, as prior mitigation for constructing the temporary overwater ferry access bridge, would result in the removal of at least 300 piles from the nearshore habitat. In addition, there are a number of wooden piles that support the overhanging sidewalks along the waterfront. These would be removed and replaced with cantilever sidewalk support structures. Under the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the removal of the existing seawall face would also result in the removal of a number of

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support piles and associated timbers. The removal of such material is part of the mitigation for the project, leading to long-term beneficial effects on aquatic resources in the area. The Bored Tunnel Alternative does not include the replacement of the existing seawall, or any in-water construction activities, so none of the creosote piles and timbers would be removed as part of the preferred alternative. Discussion of the potential effects of creosote pile removal is discussed in Appendix N, Wildlife, Fish, and Vegetation Discipline Report, of the Final EIS.

Vibratory and direct pull methods of pile extraction are preferable over the use of a clamshell dredge. However, the least environmentally impacting method of pile removal shall be used as appropriate for the site conditions. In area of contaminated sediments, the pile might be cut off near the mudline and capped to minimize disturbance of the substrate. Clean sediments would be placed over areas where piles have been removed.

#### **F-009-011**

A biological assessment was submitted to the Services identifying the direct and indirect impacts of the Bored Tunnel Alternative on ESA-listed species and habitat, thereby initiating the ESA Section 7 consultation. The biological assessment also addresses the cumulative effects of other past, present, and future non-federal projects occurring within the project action area. This information is summarized in the Final EIS, along with the direct, indirect, and cumulative impacts of the project on other fish and wildlife species. The project team greatly appreciates the involvement of USFWS, NMFS, and other resource agencies throughout the NEPA process, and will continue to coordinate with these agencies both within and outside of the ESA consultation process.