United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

In Reply Refer To:
13410-2011-F-0063-R002

JUL 27 2012

Daniel M. Mathis
Division Administrator
Federal Highway Administration
Evergreen Plaza Building
711 Capitol Way South, Suite 501
Olympia, Washington 98501-1284

ATTN: Randy Everett

Dear Mr. Mathis:

On April 15, 2011, the U.S. Fish and Wildlife Service (Service) concluded formal consultation on the State Route 520, Interstate-5 to Medina Bridge Replacement and HOV Project, and provided a Biological Opinion (Opinion) to the Federal Highway Administration (FHWA). Final design and construction of the project is proceeding under a series of design-build contracts, administered by the FHWA and Washington State Department of Transportation (WSDOT). Our offices continue to meet and discuss implementation of the project and design-build contracts.

On December 6, 2011, we received a letter from the FHWA identifying changes associated with the first design-build phase of the project (Floating Bridge and Landings), and requesting reinitiation of formal consultation. On January 10, 2012, the Service responded with a letter concluding that the identified design and construction changes will not introduce new effects, result in additional measurable effects to the bull trout or designated bull trout critical habitat, or exceed the limits of incidental take specified in the Opinion. Amendment of the Opinion was not necessary, and therefore the Incidental Take Statement (ITS), required Reasonable and Prudent Measures (RPMs), and implementing Terms and Conditions (T&Cs) remained unchanged.

On July 23, 2012, the FHWA again requested reinitiation of formal consultation. The FHWA would like to accelerate the construction schedule and has requested a work window extension for the east approach. This letter is in response to your request for reinitiation of formal consultation. This formal consultation has been completed in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

The FHWA and WSDOT have requested a two-week extension to the work window for impact pile driving at the east approach. Earlier design and construction changes involving the east approach bridge piers and bridge maintenance facility have meant that the project will require fewer and smaller temporary structures during construction, and only minor adjustments to the number and size of permanent in-water features. The current designs for the east approach bridge and maintenance facility will require the installation of approximately 40, temporary, 24-inch diameter steel piles for work trestles and falsework, and the installation of approximately 10, permanent, 24-inch diameter concrete piles for the new bridge maintenance dock.

The Opinion identifies the east approach in-water work window as July 1 to May 15, but only allows impact pile driving during a narrower August 16 to March 15 window (Opinion, pp., 16, 117, 118). The FHWA and WSDOT have indicated that accelerating the schedule for construction of the maintenance dock will provide added flexibility, help address difficult site conditions and construction conflicts, and improve the chances for completing all of the east approach impact pile driving during a single in-water construction season (2012-2013). The FHWA has requested an amendment to the Opinion and ITS that would allow impact pile driving to commence on August 2, 2012, rather than August 16, 2012.

The FHWA, WSDOT, and their design-build Contractor will fully implement all conservation measures, RPMs, and T&Cs that are included in the Service's Opinion. Where these relate to pile driving, they include (Opinion, pp. 17, 123, 124):

- The project will use a vibratory hammer when installing steel piles to the fullest extent practicable. Except for the purpose of proofing piles and determining load-bearing capacity, the project will not resort to use of an impact hammer(s) unless and until site conditions are encountered that prevent effective use of a vibratory hammer(s).

- When impact driving and proofing steel piles, the project will implement a bubble curtain noise attenuation device. The bubble curtain shall meet all design and performance criteria outlined in specifications (Opinion, Appendix A).

- The FHWA shall conduct a performance test of the noise attenuation device, prior to any impact pile driving or proofing.

- The FHWA shall monitor in-water sound generation and attenuation while installing steel piles with an impact pile hammer.

- The project will limit the total number of unattenuated pile strikes (i.e., pile strikes without the use of a bubble curtain) to 500 strikes per day, when determining baseline sound levels along the east approach.

- The FHWA shall document the effectiveness of the noise attenuation device with hydroacoustic monitoring ...will perform both routine monitoring and, as necessary, contingency monitoring.

- The FHWA shall contact the Service within 24 hours if the hydroacoustic monitoring indicates that the sound levels will exceed the extent of take exempted in the Opinion ...shall submit a monitoring report ...by April 15 following each construction season.

Installation of the approximately 10, permanent, 24-inch diameter concrete piles for the new bridge maintenance dock will require impact pile driving. Concrete piles cannot be installed at these locations with a vibratory hammer. However, the FHWA and WSDOT have confirmed that the project will implement a bubble curtain noise attenuation device when impact pile driving the concrete piles.

Bull Trout and Designated Bull Trout Critical Habitat

Applying the same methods of analysis and assumptions used previously, we conclude that the requested two-week extension to the work window for impact pile driving will not exceed the physical extent or total duration of incidental take described by the Opinion (pp. 117, 118). Impact pile driving conducted at the east approach would commence on August 2 rather than August 16, but the total number of piles to be driven is much reduced (letter sent to the FHWA dated January 10, 2012), and we expect that the total duration of impact pile driving will not exceed 200 working days. Furthermore, the requested change will improve the chances for completing all of the east approach impact pile driving during a single in-water construction season (2012-2013), and may thereby avoid take resulting from impact pile driving during the second in-water construction season (2013-2014).

The requested two-week extension to the work window for impact pile driving will result in a change to the timing of the proposed work, but will not change the intensity, total duration, or physical extent of potential effects to bull trout, will not introduce new effects, or result in additional, measurable effects to the bull trout. The identified design and construction changes will not result in measurable effects beyond those considered in the Opinion.

The Service's Opinion describes temporary adverse effects to the primary constituent elements (PCEs) of designated bull trout critical habitat resulting from work conducted in and over Lake Washington (pp. 105-108). The requested two-week extension to the work window for impact pile driving will result in a change to the timing and duration of these effects. Driving and proofing of piles will result in measurable effects to the condition and function of the migratory corridor (PCE #2) beginning on August 2, rather than August 16, during the first construction season. The Service concludes that with full and successful implementation of the agreed-upon conservation measures, the identified design and construction changes will extend the total duration of these measurable effects to PCEs #2 by approximately two weeks, but will not introduce new effects, and will have no permanent effects to the PCEs of designated bull trout critical habitat.

Amendment to the Opinion

This letter amends the ITS as follows (Opinion, p. 118):

> "4. Incidental take of bull trout in the form of harm as a direct effect of exposure to elevated underwater SPLs resulting from impact pile driving and proofing ... along the east approach to Lake Washington, between ***August 2, 2012***, and March 15, 2014 (approximately 200 working days in total).
>
> All adult or subadult bull trout within approximately 1,800 ft of piling installation operations in Lake Washington (150 acres during 2012-13; 134 acres during 2013-14) will be harmed." And,
>
> "6. Incidental take of bull trout in the form of harassment as a direct effect of exposure to elevated underwater SPLs resulting from impact pile driving and proofing ... along the east approach to Lake Washington, between ***August 2, 2012***, and March 15, 2014 (approximately 200 working days in total).
>
> All adult or subadult bull trout within approximately 7,100 ft of piling installation operations in Lake Washington (1,810 acres during 2012-13; 1,760 acres during 2013-14) will be harassed."

The required RPMs and implementing T&Cs remain unchanged. Issuance of this letter concludes reinitiation of consultation. A copy of this correspondence will be placed in the consultation's record.

Conclusion

The Service has determined that the identified design and construction changes will result in a change to the timing of the proposed work, but will not introduce new effects, or result in additional, measurable effects to the bull trout or designated bull trout critical habitat. We find that the rationale and conclusions reached by the Service's Opinion remain valid, and essentially unchanged (Jeopardy and Adverse Modification Determinations, pp. 113-116):

- The anticipated direct and indirect effects of the action, combined with the effects of interrelated and interdependent actions, and the cumulative effects associated with future State, tribal, local, and private actions will not appreciably reduce the likelihood of survival and recovery of the species. The anticipated direct and indirect effects of the action (permanent and temporary) will not measurably reduce bull trout numbers, reproduction, or distribution at the scale of the core areas or Puget Sound interim recovery unit. The anticipated direct and indirect effects of the action will not alter the status of bull trout at the scale of the Puget Sound interim recovery unit or coterminous range.

- Within the action area, bull trout critical habitat will retain its current ability to establish functioning PCEs. The anticipated direct and indirect effects of the action, combined with the effects of interrelated and interdependent actions, and the cumulative effects associated with future State, tribal, local, and private actions will not prevent the PCEs of critical habitat from being maintained, and will not degrade the current ability to establish functioning PCEs at the scale of the action area. Critical habitat within the action area will continue to serve the intended conservation role for the species at the scale of the core areas (Puyallup, Snohomish-Skykomish, and Skagit River core areas), Puget Sound interim recovery unit, and coterminous range.

Issuance of this letter concludes reinitiation of formal consultation. The action should be reanalyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation. The action should also be reanalyzed if subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or a new species is listed or critical habitat is designated that may be affected by the action.

If you have any questions about this letter or your responsibilities under the Endangered Species Act of 1973 (as amended), please contact Ryan McReynolds at (360) 753-6047, or Emily Teachout at (360) 753-9583, of this office.

Sincerely,

FDR

Ken S. Berg, Manager
Washington Fish and Wildlife Office

cc:
WSDOT, Seattle, WA (M. Meade)
WSDOT, Seattle, WA (A. Hanson)
NMFS, Seattle, WA (M. Lisitza)