



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, Washington 98115

NMFS Tracking No.:  
2009/02836

June 16, 2009

Deborah J. Johnston  
Chief, Environmental Resources Section  
U.S. Army Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124-3755

RE: Endangered Species Act Section 7 Informal Consultation for the Howard Hansen Dam  
Repair, Green River. (King County, Washington) Green River HUC 17110013.

Dear Ms. Johnston:

This correspondence is in response to your request for consultation under the Endangered Species Act (ESA).

### **Endangered Species Act**

The National Marine Fisheries Service (NMFS) has reviewed your May 27 request for consultation for Puget Sound (PS) Chinook (*Oncorhynchus tshawytscha*) and for PS steelhead (*O. mykiss*) which are ESA listed as threatened and for PS Chinook critical habitat. This consultation with NMFS is conducted under section 7(a)(2) of the ESA, and its implementing regulations, 50 CFR Part 402.

According to the Biological Assessment (BA), the Corps of Engineers (COE) is conducting a suite of activities aimed at repair of the Howard Hansen Dam, located on the upper Green River, King County, Washington. In order to address the potential for dam failure, the COE has already taken steps to investigate the site, ensure a safe spring refill of the reservoir, design a grout-curtain to block seepage at the dam abutment, and plan an unseasonal drawdown of the reservoir. The COE has proceeded according to emergency consultation 50 CFR Part 402.5. According to the BA, none of the work already done by the COE for this repair has resulted in adverse effects on ESA-listed salmonids or designated critical habitat. The remaining work that may affect ESA-listed salmonids involves the indirect effects of the proposed drawdown.

A reservoir drawdown of about 20 ft over two weeks will result in slightly higher flows in the Green River downstream of the dam than would otherwise occur in June. The proposed drawdown will augment flow in the Green River by approximately 470 cfs over the 2 week period. Current inflows to the reservoir are about 850 cfs.



Adding 470 cfs to this results in flows of 1320 cfs, which are slightly above median flows but well within the natural range for this season. Most snow has melted above the reservoir by June and flows below the reservoir during the drawdown would continue to drop depending on short storms that add to inflows. Therefore, the drawdown would increase flow in the downstream river period resulting in incrementally more aquatic habitat in the river. This should incrementally benefit some juvenile salmon species that are at the tail end of their spring emigration to Puget Sound. And juvenile coho salmon and steelhead may benefit from greater amounts of rearing habitats for two weeks.

The drawdown will likely result in a slight amount of reservoir capacity not available to augment flow in early autumn when adult Chinook salmon return to spawn. While this change in the flow schedule may have some incremental effect on Chinook salmon by reducing spawning habitat that might otherwise be available without the drawdown, it is not expected to result in adverse effects on Chinook salmon.

The action area for this consultation is the entire Green/Duwamish River for the 77 miles below the Howard Hansen Dam.

### **Species Determination**

Puget Sound Chinook  
Puget Sound Steelhead

In the Green/Duwamish River basin, Chinook salmon fry emerge from the streambeds from January to early spring. Juvenile Chinook salmon emigrate starting in mid-January until early July. Returning adult Chinook salmon immigrate in August and September, and spawn in September and October. Steelhead spawn in late spring and many juveniles reside in the river for a year or more. The steelhead smolts that emigrate predominately do so in March through June of each year, are less dependent on nearshore areas for feeding and rearing, and would likely avoid areas of construction.

The proposed project has the potential to alter water quantity and velocities by changing the usual schedule of reservoir operations of refill and drawdown. However, the amount and timing of changed flows do not rise to the level of adverse effects on Chinook salmon or Puget Sound steelhead.

Therefore, NMFS concurs with the effects determination of “may affect, but not likely to adversely affect,” for PS Chinook salmon and steelhead.

### **Critical Habitat Determination**

NMFS designated critical habitat for the PS Chinook salmon Evolutionary Significant Unit (ESU) on September 2, 2005 (70 FR 52630). The three primary constituent elements (PCEs) for the PS Chinook salmon ESU critical habitat in this action area are freshwater migration, spawning, and rearing habitats.

Designated critical habitat boundaries within the action area include a lateral extent as defined by the ordinary high-water line of the Green River. NMFS analyzed the potential impacts of the project on these PCEs and determined that the potential effects will be insignificant because:

1. The actions will not result in a barrier to migration: effects on migratory habitat are expected to be insignificant.
2. Potential effects on spawning habitats, while measurable, are likely insignificant in light of the normal snowpack and expected reservoir operations that will enable flows that support typical spawning conditions.

Therefore, NMFS concurs with your “may affect, not likely to adversely affect” determination for critical habitat for PS Chinook salmon.

This concludes informal conference pursuant to the regulations implementing the ESA, 50 CFR 402.10. This project should be reanalyzed by the COE 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 project should also be reanalyzed if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation, and/or if a new species is listed or critical habitat for another species is designated that may be affected by this project.

The efforts by COE to design this project to minimize environmental effects are appreciated. If you have any questions, please contact Matt Longenbaugh, of my staff, at (360) 753-7761 or [matthew.longenbaugh@noaa.gov](mailto:matthew.longenbaugh@noaa.gov).

Sincerely,



Barry A. Thom  
Acting Regional Administrator

cc: Holly Coccoli, Muckleshoot Indian Tribe