

## **RECORD OF DECISION**

### **HOWARD A. HANSON ADDITIONAL WATER STORAGE PROJECT GREEN RIVER, WASHINGTON**

We have reviewed the Howard A. Hanson Dam (HHD) Additional Water Storage Project Final Feasibility Study and Integrated Environmental Impact Statement (FEIS), as well as correspondence received in response to coordination of this document. I find the plan recommended by the District Engineer, Seattle District, U.S. Army Corps of Engineers to be economically justified, in accordance with environmental statutes, and in the public interest. Thus, I approve the plan for construction.

The project was authorized by Section 101(b)(15) of the Water Resources Development Act (WRDA) of 1999. The 1999 FEIS documents the investigation of various alternative plans for providing municipal and industrial (M&I) water supply for the Tacoma area and ecosystem improvements on the Green River. The dual-purpose phased plan of improvement recommended by the Chief of Engineers is the National Economic Development plan and consists of the following features:

Storage of up to 20,000 acre-feet of M&I water, in the raise of the existing authorized reservoir conservation pool elevation of 1,147 feet to elevation 1,167 feet MSL, during Phase I;

- Additional storage of 12,000 acre-feet of water, including 2,400 acre-feet for M&I water and 9,600 acre-feet of water for low-flow augmentation, in the raise of the reservoir conservation pool from elevation 1,167 feet to the higher elevation of 1,177 feet MSL, during Phase II. The implementation of Phase II would be dependent on an evaluation of Phase I success and consensus of the State and Federal resources agencies, the Muckleshoot Indian Tribe, city of Tacoma, and the Corps of Engineers;
- New intake tower with new fish collection and transport facility including a wet well, stoplogs, variable height fish collector, dual fish lock, discharge conduit, fish transport pipeline, monitoring equipment, and new access bridge and road. The downstream fish passage facility provided by the project, along with the upstream fish passage facility that would be constructed by the city of Tacoma at its diversion dam, will open 106 miles of quality river and stream habitat in the Green River watershed above the Corps dam;
- Right abutment drainage remediation for the operational storage changes;

New support buildings, or additions to existing buildings, including an expanded administration building to allow for the new fish passage monitoring equipment and additional personnel; a maintenance building required to provide a ventilated, heated and secure workspace for routine maintenance and repair work; and a generator

building to house the generator which will be used to power the crane to be used to place stoplogs; available power in the area is not sufficient to power the large crane required to place the stoplogs;

- Ecosystem restoration features, other than fish passage, including gravel nourishment for the improvement of nine acres of spawning habitat and the reconnection of 3.5 acres of side channel habitat, downstream of the Howard A. Hanson Dam, and river and tributary stream habitat improvements in the upper Green River, including the area adjacent to the reservoir. The restoration features would restore and maintain naturally reproducing and self-sustaining, harvestable runs of historical species of anadromous fish in the Green River;
- Mitigation features at the project, including management of upland forest and forage areas for elk and other species, wetland and riparian habitat, and maintenance of in-stream fish habitat in Phase I and Phase II. The required mitigation is 121.6 acres of riparian habitat and 17.4 acres of in-stream habitat area inundated by the pool raise, upstream of the dam, and 8.75 acres of in-stream habitat below the dam; and

Environmental monitoring conducted during a period of five to eight years for Phase I and an additional period of five years for Phase II to insure the optimal operation of the new downstream fish passage facility, non-fish passage restoration and mitigation features.

In addition to a “no action” alternative, single-purpose water supply, and dual-purpose water supply and ecosystem restoration alternatives, including provisions for immediate full, as well as phased implementation, were considered. The alternatives are described and discussed in the FEIS and are hereby incorporated by reference. The plan with a benefit to cost ratio greater than one, with the greatest net benefits, without unacceptable environmental and social impacts was selected and recommended. Restoration features are justified based on environmental outputs from the restoration of salmon habitat along with 106 miles of habitat that would be opened above the dam and are not included in the benefit-to-cost ratio. The recommended plan of improvement was identified as the environmentally preferable alternative.

The Puget Sound Chinook salmon was listed as threatened on 17 March 1999, under the Endangered Species Act (ESA). The listing necessitated action on the part of the Corps because of the existing project impacts. The existing project seriously impairs downstream passage of the listed species, and blocks downstream transport of important habitat components, such as gravel and wood debris. Reasonable and prudent measures identified in the Services' biological opinions have been thoroughly analyzed and are included in the proposed plan of improvement. ESA related project features will be 100 percent federally funded.

The recommended project plan will not provide for any additional storage above the 106,000 acre-feet of storage allocated for flood control, but will take advantage of storage available during the summer and fall months to provide M&I water supply and low-flow

augmentation. Flooding in the Pacific Northwest is a problem in late fall and winter that is, generally mid-October to mid-February. During those months M&I water and low flow augmentation are not issues. During the spring and fall the storage allocation gradually shifts from flood control to M&I water and low-flow augmentation, as the potential for flooding disappears. The plan will provide up to an additional 48 million gallons per day (mgd) of M&I water supply to help meet the increasing needs of Pierce and South King Counties, as well as the city of Seattle. The delivery rate of the stored M&I water would be established by the city of Tacoma, and the delivery rate of the low-flow augmentation water would be adaptively managed by the Corps, resource agencies, the Muckleshoot Indian Tribe and city of Tacoma.

Juvenile Salmon outmigration survival through the dam will be improved from the present 25 percent to as high as 95 percent. The combined effect of the recommended restoration actions is projected to support the minimum number of returning adult coho and chinook salmon and steelhead trout required to restore naturally reproducing runs of anadromous fish. The project will make a major cumulative contribution to restoration activity in the Green River watershed being carried out by a host of local, State, and Federal agencies and Indian Tribes.

We have reviewed and evaluated documents concerning the proposed action; views of other agencies; and the various practicable means to avoid or minimize environmental harm from construction of this project.

All practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. The public interest will best be served by implementing the improvements identified and described in the FEIS.

JUL 25 2001

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Date

  
HANS A. VAN WINKLE  
Major General, US Army  
Director of Civil Works