

# 2006 Operational Plan for Use of 200 KAF of Stored Water In Dworshak Reservoir by the Nez Perce Tribe

## I. Background

This 2006 Operational Plan for the use of 200 KAF (thousand acre-feet) of water stored in Dworshak Reservoir (the 2006 Plan) for the use by the Nez Perce Tribe (Tribe) is based on the Agreement between the United States, through the United States Army Corps of Engineers (the Corps), and the Tribe for water use in Dworshak Reservoir (Agreement), and that Agreement's underlying Memorandum of Agreement (MOA) between the Tribe, the Corps, the National Oceanic and Atmospheric Administration National Marine Fisheries Service, the Bonneville Power Administration and the State of Idaho (the Parties). The Parties have designated representatives to fulfill the purposes of the MOA (the Board), and the Board, through the consensus of its representatives, has developed this 2006 Plan.

All recitals, terms and conditions of the Agreement and the MOA are understood as describing and applying to this 2006 Plan.

## II. Considerations

The 2006 Plan is based on consideration of the following factors:

- Projected summer (July through September) water temperature and flow conditions for the Snake River at Lower Granite Dam.
- Growth rate of rearing juvenile fall Chinook in the Clearwater River.
- Migration status of juvenile fall Chinook in the Clearwater and Snake rivers.
- Migration status of adult steelhead and fall Chinook.
- Cultural resources in and around the Dworshak Reservoir.
- Summer recreational uses of Dworshak Reservoir.

A. *Projected summer water temperature and flow conditions in the Lower Snake River at Lower Granite Dam.*

Based on the latest (July 10, 2006) information from NOAA's Northwest River Forecast Center's April through July water supply forecast, projected inflows at the Snake at Lower Granite are expected to be 116% of normal.

B. *Growth rate of rearing juvenile fall Chinook in the Clearwater River.*

Clearwater juvenile fall chinook rear in the lower Clearwater River throughout July, August and early September. Seining by The Nez Perce Tribe's Department of Fisheries Resource Management, Research Division sampling effort produced fish in various sizes,

documenting that these fish are still rearing. A large volume of cold water released from Dworshak in early July delays the growth and migration of these fish.

*C. Migration status of juvenile fall Chinook in the Clearwater and Snake rivers.*

During 2006, the Nez Perce Tribal Fisheries Research staff used beach seines, fyke nets, and rotary screw traps to capture fall Chinook subyearlings in the lower Clearwater River. Beach seining occurred from 12 June through 3 August along the lower Clearwater shoreline areas below the mouth of the North Fork Clearwater River down to Rkm 4.5. Permanent systematic seining sites were sampled 4-5d/week when flows allowed. During fluctuating flows, grab sites or any sites seineable were the sampling protocol used during these times. Two 2.4 m diameter rotary screw traps were also deployed along the north and south shorelines at Rkm 20 off the railroad bridge abutments near Spalding from 1 June through 1 August. All sampling ceased the first week in August when catch was near zero. Origin (hatchery vs. natural) of unmarked (adipose clip) and untagged (coded wire or PIT tag) fish was determined based primarily on size and body shape. All natural fall Chinook were measured to the nearest 1.0 mm fork length and weighed to the nearest 0.1 gm. A random sub-sample of 195 natural fish (non-lethal upper caudal fin clip) was collected for genetic analyses. PIT tags were implanted into natural fall Chinook salmon 60-mm fork length and longer. Tagged fish were released at the collection site after a 15-min recovery period.

A total of 1,552 chinook salmon subyearlings were PIT tagged in 2006 and flagged as wild (natural origin).. Staff observed a large school of fall chinook feeding near the surface by the concrete wall at the Flying J boat ramp in Lewiston around the end of July. The USFWS have also observed many fall Chinook schooled up in the pool area above the mouth of the Clearwater River. The USFWS have also caught some fall chinook subyearlings on fly rods in the pool area to recapture surrogates released at Big Canyon Creek and have also PIT tagged some wild fish. Nez Perce and USGS staff tried trawling in the pool area on 9 August but jet boats were not effective in pulling the large trawl, consequently no fish were caught. The Tribe believes most of the natural fall Chinook are still holding in the lower 5 km of the Clearwater River or just downstream of its mouth. Of the wild fall chinook PIT tagged, only 63 (4.1%) have been detected up until 13 August emigrating through the hydrosystem.

Based on information from the USFWS, Clearwater River juvenile fall Chinook, and to a lesser extent Snake River juvenile fall chinook, tend to over-winter in the lower Snake reservoirs and migrate as yearlings the following spring. Fish survive through the summer and fall and migrate as yearlings have higher SAR(s) (Lower Granite to Lower Granite) than fall Chinook that migrate as subyearlings. September releases from Dworshak Reservoir cool the lower Snake River and aid both actively migrating subyearlings and those that over-winter in the reservoirs.

*D. Migration Status of adult steelhead and fall Chinook*

Adult summer steelhead are currently migrating in the Snake River and are passing Lower Granite Dam in ever-increasing numbers. If temperatures in the tailrace of Lower Granite Dam exceed 70 deg. F (21.1 deg. C), the steelhead migration slows considerably and even ceases. This phenomenon persists through September if flow augmentation/temperature control releases end by August 31.

Fall Chinook have entered the Columbia and Snake rivers. Late August/September flow releases from Dworshak helps cool the migratory corridor, and prevent or minimize delayed migration.

*E. Cultural resources in and around the Dworshak Project*

Numerous documented impacts occur to important cultural resources in and around the Dworshak Reservoir as a result of project operations. September releases prevent exposure of cultural sites during peak uses of the reservoir in July.

*F. Summer recreational uses of the Reservoir.*

Releasing up to 200 KAF in September means the reservoir maintains higher elevation during the peak usage month of July. A fuller pool in July is viewed by recreational users as desirable.

**III. Timing of Stored Water Releases.**

Based on the above considerations, the Board calls for the following 2006 operation

A. On about August 27, Dworshak will be drafted to, but no lower than, elevation 1535 feet above National Geodetic Vertical Datum.

B. On the date Dworshak reaches elevation 1535, continue expected operations which will be approximately 7.6 kcfs.

C. Maintain 7.6 kcfs until about September 6.

D. On the evening of September 6 or early morning September 7 project outflows will be reduced to about 5.4 kcfs.

E. Maintain outflow near 5.4 kcfs until the reservoir reaches elevation 1521 feet, then reduce to outflow near 2.4 kcfs as an intermediate flow for 1 – 3 days.

F. Maintain minimum outflow near 1.4 kcfs until the reservoir reaches elevation 1520 feet.

#### **IV Implementation**

The Board directs that this 2006 Plan be implemented consistent with the Agreement and the MOA. The Tribe will call on the Corps pursuant to the Agreement to provide water releases as set forth in this 2006 Plan. The Tribe's representative to the Board, as the Board's chairman, will also notify other Columbia River Basin salmon managers of the 2006 Plan pursuant to the MOA.

Any Party may call for the Board to reconvene after the adoption of the Plan for the purpose of amending the Plan due to substantially changed conditions. The Board may only amend the Plan by the unanimous written consent of the Parties.