



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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SYSTEM OPERATIONAL REQUEST: 2003 C-4

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FROM: Olney Patt, Jr., *Executive Director*

DATE: July 8th, 2003

SUBJECT: **Idaho-Nez Perce Tribe Dworshak Summer Operations Plan**

The Columbia River Inter-Tribal Fish Commission, on behalf of its member tribes the Nez Perce Tribe, the Confederated Tribes of the Warm Springs Reservation, the Confederated Tribes of the Umatilla Reservation, and the Yakama Nation, as well as the State of Idaho, requests the following reservoir operations during summer 2003. This Plan also complies with the State of Idaho Dworshak Operations Plan (attached)—approved by the Idaho legislature in 2000.

SPECIFICATIONS:

Implement the following operational guidelines (Figures 1 and 2). If river conditions degrade dramatically or flow varies significantly from the predicted model simulations during the period of the specified operation (1-7), in season management options will be discussed. We request that data being collected by the Corps monitoring program outlined by RPA measure #143 be made available for the weekly TMT meetings or discuss an alternative reporting schedule.

1. Hold outflows to 13,500 –14,000 cfs (TDG cap) through July 20th, 2003.
2. Ramp flows to 12,000 cfs by morning July 21st, 2003, and hold through August 3rd, 2003.
3. Ramp flows to 11,000 cfs by morning August 4th, 2003, and hold through August 10th, 2003.
4. Ramp flows to 10,000 cfs by morning August 11th, 2003, & hold through August 24th, 2003.
5. Ramp flows to 8,000 cfs by morning August 25th, 2003, and hold through August 31st, 2003.
6. Draft limit of 1535 ft by August 31st is needed to ensure a 200 KaF carryover into September.
7. From September 1st through 14th, 2003, release flows of 8,400 cfs.
8. By September 15th, 2003, reduce flows to minimum 1,400 cfs as elevation 1520 ft is reached.

JUSTIFICATION:

Idaho, Nez Perce Tribe, and CRITFC desire to meet water quality standards in the Clearwater River that afford balanced protection of sub-yearling salmonids and returning adults; maintain Dworshak elevation at or above 1520 ft; optimize the rearing of listed Clearwater River fall Chinook; and minimize impacts at the Dworshak National Fish Hatchery. The SOR is consistent with the Nez Perce Tribe-Idaho Plan for Total Dissolved Gas Short-Term Activity Exemption.

Water Temperature

Model results from EPA- Seattle imply that a natural peaking flow regime would keep Lower Granite water temperatures at 20 degC or less by late summer, which would greatly benefit returning adults (Refer to Dr. Dale McCullough's work on the benefits of cooler water on returning salmon adults during late summer: <http://www.critfc.org/tech/EPAreport.htm>). This SOR would keep water temperatures at or below 20 degC in Lower Granite for most of August and September (Figure 3). Current water temperatures are 0.1 degC to the initial model starting conditions. Scenario #6 in the EPA model best represents the operations outlined in this SOR.

Weather Considerations

The EPA model assumes 1978 summer weather patterns—slightly warming June and July, near normal August, and slightly cooling September. Current short-term weather forecasts and climate predictions suggest that the 1978 analog is good.

Fishery Concerns

The Nez Perce Tribe and State of Idaho strongly believe that Dworshak should not be drafted below 1535 ft elevation before September 1st in order to reserve water for a 200 KaF draft in September. This draft would benefit sub-yearling and adult fall chinook and steelhead migration.

Sub-yearling fall Chinook do not typically outmigrate from the Clearwater until an average size of 85 mm is reached. Nez Perce Tribe fish surveys on June 30th 2003 show that the wild sub-yearling average fork length is only 65 mm (with a 43-100 mm range). At an average growth rate of 1mm per day, these fish are not expected to reach smolt size (actively migrating) until mid July. Cold-water conditions may slow grow rates and delay outmigration. Passage data indicates that 40% of listed sub-yearling Clearwater fall Chinook migrate past Lower Granite Dam in September and October. Implementation of this SOR is needed to accommodate these fish.

Implementing this request will insure that the Federal operating agencies meet their federal trust responsibilities to the Columbia Basin treaty tribes. If this SOR cannot be accommodated, CRITFC requests a detailed written response from the federal operators, with justification, by Friday July 11th, 2003.

N.F. Clearwater at Dworshak (DWR)

08-Jul-03	Outflow (ID-Alt) (kcfs)	RFS-STP Inflow (7-2-03) (NWRFC) (kcfs)	Storage Change (KaF)	DWR Pool Elevation (feet) end-of-week
Jun 29th		Forecast:		1600.0
Jun 30-July 6	4.2	3.9	-5	1599.5
Jul 7-13	12.5	2.6	-137	1592.5
Jul 14-20	13.8	2.7	-154	1583.5
Jul 21-27	12.0	2.3	-135	1575.5
Jul 28- Aug 3	12.0	1.9	-140	1566.5
Aug 4-10	11.0	1.7	-130	1558.0
Aug 11-17	10.0	1.6	-117	1550.0
Aug 18-24	10.0	1.5	-118	1541.5
Aug 25-31	8.0	1.4	-91	1535.0
Sep 1-7	8.4	1.3	-98	1528.0
Sep 8-14	8.4	1.3	-99	1520.4
Sep 15-21	1.4	1.3	-2	1520.3
Sep 22-28	1.4	1.2	-3	1520.1
Sep 30th				
Total (KaF):	1,570	340	-1230	

CRITFC Hydro Program

**Idaho Alternative
Plan**

Figure 1. Summary of proposed Dworshak operations for 2003.

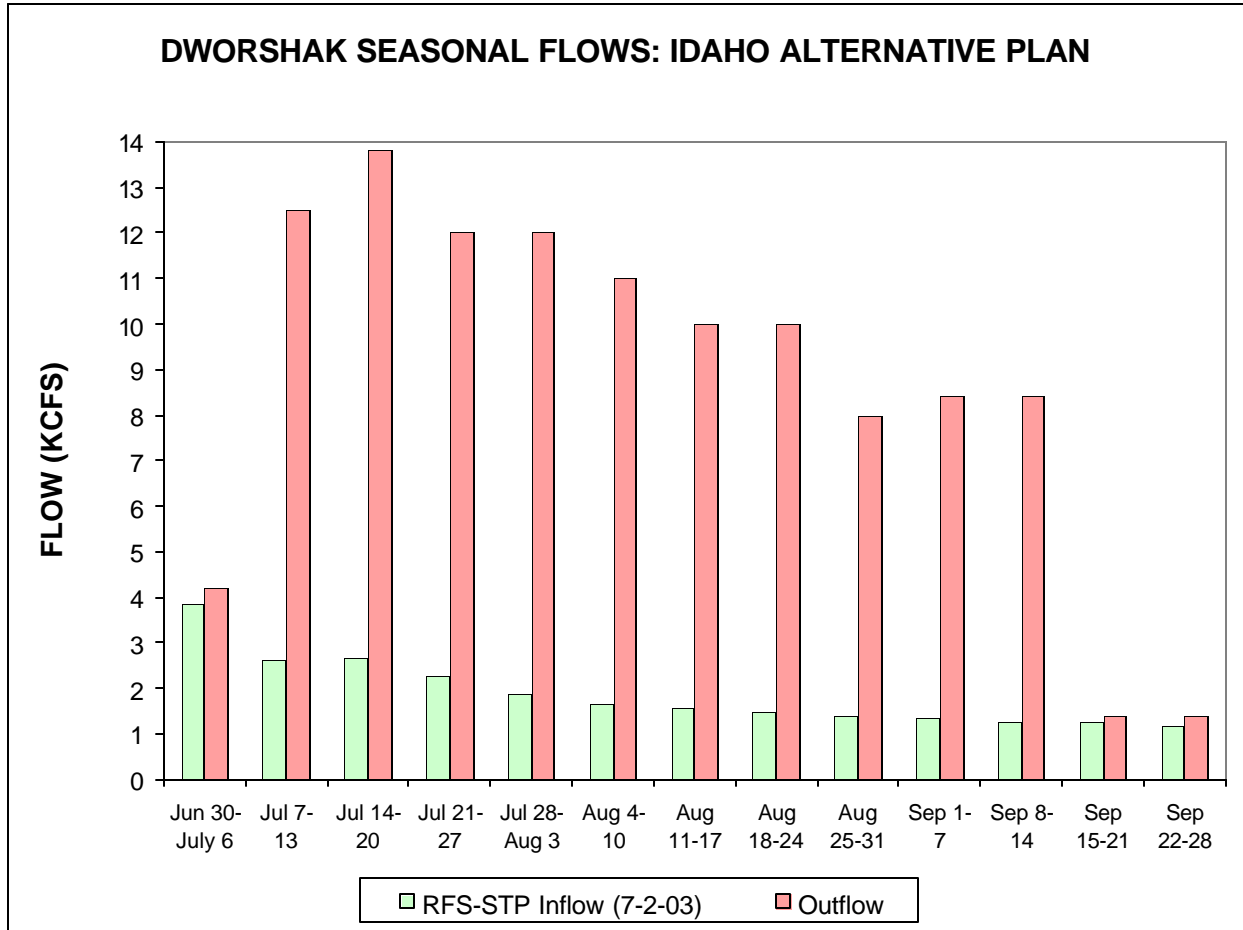


Figure 2. Summary hydrograph of proposed ID-NPT-CRITFC operation.

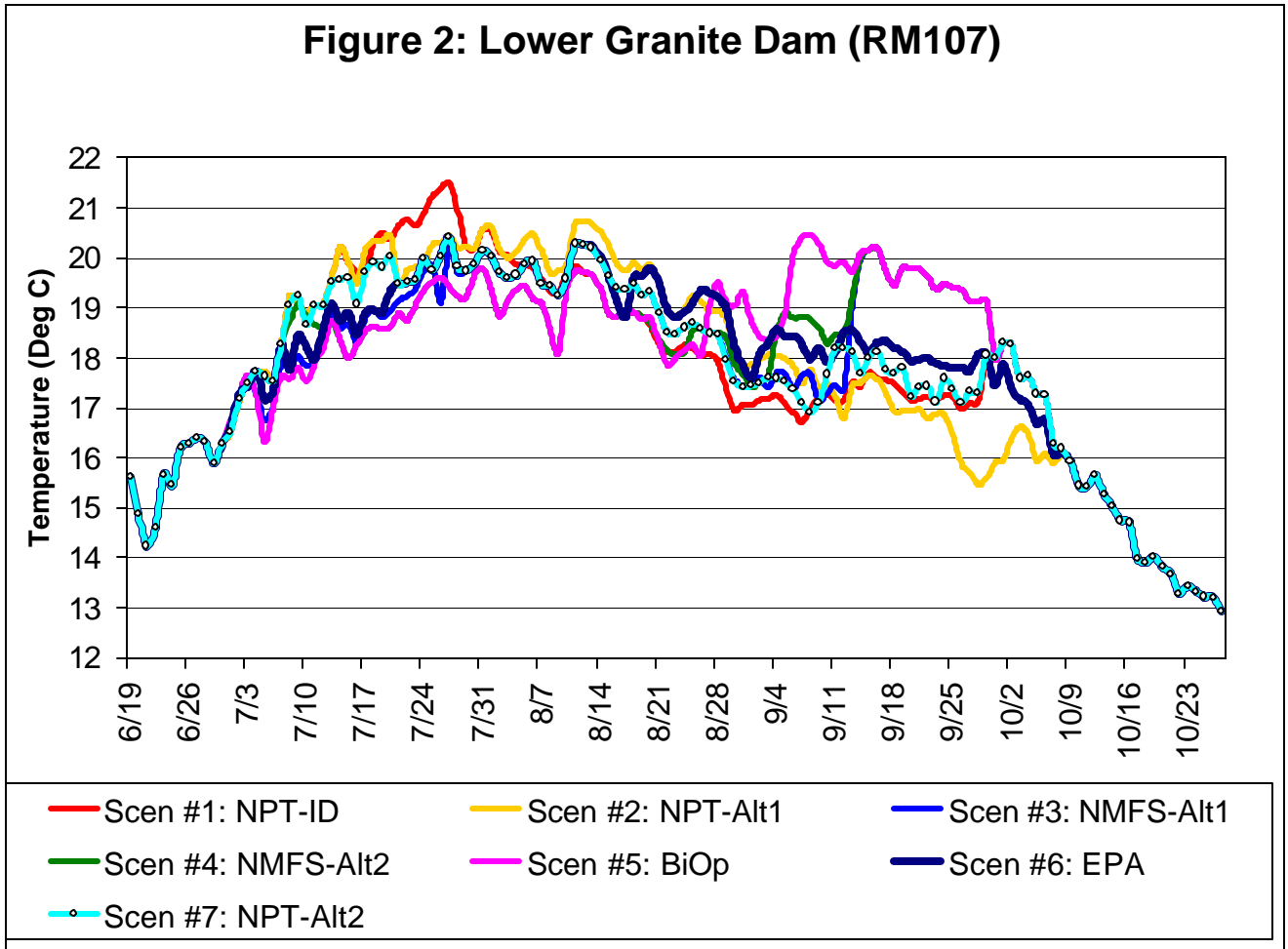


Figure 3. Summary of EPA modeling results. Scenario #6 is similar to the proposed ID-NPT-CRITFC Plan. Daily water temperatures assume WY 2000 conditions (near normal). Daily tributary flows assume WY 1981 conditions (similar percent and volume to WY 2002). Daily meteorology assumes WY 1978 (moderately dry summer with near normal temperatures).