

## **SYSTEM OPERATIONAL REQUEST: #2005-16**

*The following State, Federal, and Tribal Salmon Managers have participated in the preparation and support this SOR: U.S. Fish & Wildlife Service, and the Columbia River Inter-Tribal Fish Commission.*

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**FROM:** David A. Wills, Chairperson, Salmon Managers

**DATE:** June 28, 2005

**SUBJECT:** Libby Summer Operations

### **SPECIFICATIONS:**

- Maintain stable outflows from Libby while drafting to 2439 feet by August 31<sup>st</sup>, 2005.

### **JUSTIFICATION:**

The 2004 FCRPS Biological Opinion calls for a 20-foot summer draft from Libby to elevation 2439 feet by August 31<sup>st</sup>. Given the projections for low summer flow levels in 2005, it is desirable to utilize the full volume of augmentation water by August 31 with stable flows through the summer months of 2005 to both assist in meeting flow objectives in the Lower Columbia River and to avoid a double peak of flows in the Kootenai River. It is also our understanding that most water released at Libby Dam after August 31<sup>st</sup> will not likely pass through Kootenai Lake and so will not be available to benefit juvenile salmon.

The draft by the end of August will benefit in-river migrating listed fall Chinook from the Snake River as well as other subyearling Chinook from Mid-Columbia, the Hanford Reach and Lower Columbia Rivers. Due to the Judge Redden order summer spill is occurring in the Snake River and McNary Dam until August 31<sup>st</sup>, which will result in

substantial increases the proportion of listed Snake River fall Chinook migrating in-river through the Lower Columbia reach.

While it is too soon to calculate with precision the exact proportion of fish migrating in-river since spill began June 20, it is likely that at least 50% of the fish passing Lower Granite Dam after that date will be destined to remain in-river and pass into the Lower Columbia. In comparison, we estimated that between 90% and 98% of subyearling chinook originating above Lower Granite Dam were destined for transport the previous five years.

USFWS marking of wild fall Chinook is still ongoing in the Snake River above Lower Granite Dam, with approximately 9,400 these listed subyearling Chinook marked by June 23. To date roughly 9% of those fish have been detected at Lower Granite or Little Goose dams. In 2004, 30% of the USFWS marks were detected at Lower Granite prior to the end of sampling at the dam. In addition, wild subyearling Chinook marking in the Clearwater River is just beginning with 793 fish marked to date. By June 27 only seven of these marks had been detected at Lower Granite Dam. All indications are that these fish will be migrating through the Snake River and the Lower Columbia through July and August as in past years. Flow augmentation from Libby will benefit these wild stocks of fish.

In addition Hanford Reach fall Chinook, Mid-Columbia summer and fall chinook, and other subyearling Chinook originating from Lower Columbia tributaries will benefit from increased flows that result from this requested operation.

Because the Judge Redden order calls for spilling all flows above 50 Kcfs at McNary Dam beginning July 1, any increased flow at that project as a result of the Libby augmentation will result in increased spill volume and therefore spillway passage at McNary Dam. Based on 2004 juvenile salmon radio telemetry studies, McNary turbine survival was very low at 77%. Thus, increasing spill passage should provide a direct survival benefit at McNary for summer migrants.