

Establishment of a "Cold Snap" operational strategy/policy (Draft Dec. 8, 1998)

Definition: A cold snap is defined as a 15 degree F departure below normal for 3 consecutive days. The temperature departure would be measured at Seattle, Spokane, and Portland. Due to the higher load demand in Seattle and Portland, they will receive a higher weighted value (4 and 4 for Portland and Seattle and 3 for Spokane) when determining the average temperature departure. Both Bonneville Power Administration (BPA) and the River Forecast Center (RFC) of the National Weather Service will provide forecasts of pending cold snaps. The BPA forecast information, -available up to 10 days out, will be used as an early indicator. The RFC information will be available about 8 days out and will be used to confirm the potential cold snap.

Objective: The agencies share a common objective in any and all responses taken as a result of a projected or actual cold snap as defined above. That is, the agencies will strive to operate the system for the remainder of the winter season to be at the appropriate Upper Rule Curve elevations for the Federal storage projects by April 10th before the start of the anadromous fish migration.

The agencies further recognize that the 1995 Biological Opinion states: "To ensure the reliability of the power supply, power system operators may need to draft storage projects in emergency circumstances that threaten firm loads (e.g., major temperature drops like those experienced in 1989 and 1990; loss of a major resource like Washington Nuclear Project 2 or a large Grand Coulee unit; or loss of the Northern or Southern intertie). In some circumstances, this need may conflict with fish operations described in [the Biological Opinion]. In order to ensure the ability of the system to address such emergencies, water that is being stored for fish under the above operations may be drafted to avoid: 1) threatened inability to meet firm loads due to emergency circumstances (indicated above); or 2) voltage and transmission instability." re: Biological Opinion, 3/2/95, pg 95.

Period of Coverage: The period most likely to experience a cold snap is from December 1 through February 28. ~~For planning purposes this will be divided into two segments, December 1 through January 10 and January 11 through February. This distinction is important as the first complete runoff forecast is not available until January 10. Therefore, management options during the early period may be different and more limited than after the runoff forecast is known and adjustments might be made to the flood control pool levels.~~

Coordination: ~~If there is insufficient time or the unexpected happens, then BPA may declare a power emergency and implement the existing emergency procedures.~~ Cold snaps can usually be anticipated 8 to 10 days out, with operating actions needing to be implemented anywhere from 3 days out to the actual onset of cold weather. ~~and management options~~ Operations may have varied effects on fish resources and established operating criteria. If resultant operations are likely to cause deviation below normal end of month Biological Opinion elevations, a need for regional coordination would occur. ~~information on the actions taken would be disseminated~~ Coordination must occur through the existing Technical Management Team (TMT). ~~Special meetings would likely be necessary as regular meetings are not scheduled during the winter months.~~ The

coordination process could be as follows:

- 10 ~~– 8~~ days out: BPA identifies a potential cold snap and notifies ~~the RFC and BOR TMT~~ of ~~the need to coordinate an appropriate response~~ the potential for cold snap conditions.
- ~~– 8 days out: The RFC forecast is reviewed for confirmation of the potential cold snap and the information is provided to TMT members (meeting/conference call).~~
- ~~8-5~~ – 3 days out: The forecast is updated and, potential response actions are developed among the three agencies.
- 3 ~~– 0~~ days out: Response actions are initiated.
- As needed: The TMT will be kept informed of the status of the cold snap and response actions and additional actions will be developed as necessary, depending on the severity of the cold snap and availability of response capability.

~~If the cold snap is more severe or lasts longer than existing response actions (those that still allow all fish criteria to be met) can accommodate, then the TMT will develop a timeline and priority for additional actions to be taken in order to avoid a power emergency. If agreement cannot be reached, then the issue will be elevated through established procedures.~~

Potential Response Actions:

December 1 – ~~January-February 28~~10:

- Delay of scheduled maintenance.
- Operate turbines outside the 1% peak efficiency range.
- Increase draft up ~~Up~~ to 25-2 feet/day ~~of storage in at~~ Grand Coulee Reservoir.
- Request operation of the pump generators at Grand Coulee.
- Storage in Libby Reservoir down to the end of December pool level of 2411 feet Operate Dworshak, Libby and Hungry Horse at full turbine capacity.
- Request additional Treaty or Non-Treaty releases from BCH.

Actual actions will be as needed for each situation. BPA will take other non-operational actions as appropriate. These include: exercising daily call options, initiating an AM/PM capacity swap with BCH, cutting curtailable contracts, and proactively making purchases. BPA will make best efforts to recover projects to their upper rule curve by April 10, as called for in the Supplemental Biological Opinion.

~~Pull fish screens at McNary and run the units at a higher load.~~

~~– Run turbine units outside the 1% best efficiency range.~~

- ~~Others?~~

~~January 11 – end of February:~~

~~– Up to 25 feet of storage in Grand Coulee Reservoir.~~

~~– Storage available down to end of month flood control draft as adjusted, based on the January final runoff forecast (Grand Coulee, Libby, Hungry Horse, Dworshak).~~

- ~~—Run turbine units outside the 1% best efficiency range.~~
- ~~—Others ?~~