

The TWG has agreed to forward the BHBF subgroup triggering criteria recommendations to the AMWG. The recommendations are intended to be clear and straightforward, but with this complex an issue, a short summary of the criteria and their implications will improve understanding.

Criteria

The criteria consist of two triggers or decision mechanisms that would allow a BHBF to be released if then deemed appropriate from an environmental perspective. Provided either of the following release criteria is met, the decision to release a BHBF would be based on the expected benefits or impacts to downstream resources. These triggers are intended to be in agreement with the Secretary of the Interior's decision contained in the 1996 AOP, that of complying with both the 1968 and 1992 Acts. The two triggers are:

- 1 - If the January forecast for the January - July unregulated spring runoff into Lake Powell exceeds 13 MAF (about 140 percent of normal), or
- 2 - anytime a Lake Powell inflow forecast would require a powerplant monthly release greater than 1.5 MAF.

Either of these triggers implicitly recognizes that there is a significant risk of an uncontrolled spill during the peak of the spring runoff. The triggers were determined such that the magnitude of this risk was agreeable to all parties on the BHBF subgroup. Regardless of the decision to release a BHBF, releases from Glen Canyon Dam would be expected to exceed 25,000 cfs, perhaps for an extended period of time.

Implications

- 1 - Such a BHBF would not materially reduce the risk of future spills later in the year since the volumes of BHBF's are relatively small (about 150,000 AF), but would accomplish the goal of moving sediment from the main channel to the side channels and eddies.
- 2 - The value of 140 percent was chosen as the threshold value in an attempt to balance the number of false alarms (BHBF's that after-the-fact were not actually required) with the number of missed spills (actual spring spills that were unforeseen earlier in the runoff season).
- 3 - Using the above triggering criteria, BHBF's could occur any month in the January - July period. Our analysis shows that when a purposeful BHBF occurs, about 30 percent occur in January, 30 percent in March, and 40 percent in June. January BHBF's occur as the result of extreme snowpacks early in the winter such as in 1984. March BHBF's occur due to high runoff years that accumulate snowpack in a normal manner such as in 1986. June BHBF's occur when late wet and cool springs bring large forecast increases such as in 1983 but these large forecast increases do not necessarily occur only in high runoff years. BHBF's occur in the month in which the triggers were met.

4 - The long-term frequency of BHBF's is about 1 in 6 years. When the reservoir is at the target storage of 21.5 MAF on January 1, the frequency is about 1 in 3.

5 - The subgroup report contains a provision that encourages WAPA to make fluctuating powerplant releases up to the GCDEIS ROD constraint of a maximum of 25,000 cfs and a fluctuation limit of 8,000 cfs per day. It also recommends investigation of larger fluctuation limits (e.g. 10,000 cfs per day), powerplant fluctuations above 25,000 cfs, and larger BHBF releases (e.g. 60,000 cfs or larger).