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DISCUSSION PAPER
Minimum Stream Flows
below
Jackson Lake and Palisades Dams

The Problem

Currently there are no provisions for minimum stream flows to protect fisheries below Palisades and Jackson Lake Dams. Space holders in Palisades Reservoir have agreed that USBR should not cut Palisades Reservoir releases below 550 c.f.s., and USBR has agreed to not cut Jackson Lake releases below 100 c.f.s. There is, however, no storage in either reservoir to draw from for these releases or to use to protect them. In water-short years like 1987 and 1988, the fishery below these 2 reservoirs suffer from low flows.

Additionally, all active storage space in Jackson Lake Reservoir is owned by irrigation water users in Idaho, and most of the storage space in Palisades Reservoir (all but 52,480 acre feet) is owned by irrigation water users in Idaho.

Background

1. In most years, there are no problems with minimum flows below Jackson Lake and Palisades Dams. Those reservoirs fill a large percentage of the time and flows in the South Fork of the Snake River can be maintained near 500 c.f.s., below Jackson Lake Dam and about 1,200 c.f.s., below Palisades Dam.
2. It is a different story in water-short years. In 1977, 1987 and 1988, releases below the 2 dams had to be cut to near record low levels. In 1977 and 1987, flows below Jackson Lake Dam were reduced to 100 c.f.s., for extended periods of time. In 1987 and 1988, flows below Palisades Dam were reduced to 830 c.f.s., for an extended period of time. In all cases had storage below Jackson and Palisades Reservoirs not been sufficient to catch all releases, they could have been reduced even more and for longer periods of time.
3. Palisades Reservoir - Elev. 5620.0 = 1,200,000 AF
- Elev. 5619.4 = 1,190,000 AF
- Elev. 5618.8 = 1,180,000 AF

Palisades Reservoir Uncontracted Space = 52,480 AF
Wyoming Compact Space = 33,000 AF
= 500 AF
USBR Storage = 18,980 AF
4. At times during spring runoff into Palisades Reservoir, it is difficult to fill the reservoir to elevation 5620.00 without overflowing into the surcharge pool or missing the fill. A "Joint Use Space" would give some

needed flexibility for operating the system. During high runoff years, the space could be vacated and used for flood control in the spring, and then filled for recreation or fishing purposes during the rest of the year. During low runoff years, the space could be used to carryover water to be used for minimum flow below Palisades Dam, etc.

Concept for Solution

- A. The irrigation water users from Palisades Reservoir have agreed upon a present minimum flow below Palisades Dam of 550 c.f.s.
- B. USBR would designate 18,980 AF of storage space in Palisades Reservoir as joint-use space--to be used for flood control in wet years and storage water for minimum flow releases in dry years.
- C. The Wyoming compact space (33,000 AF in Palisades Reservoir) would be traded for space in Jackson Lake Reservoir.
- D. The Idaho F&G Department would make an agreement with the Wyoming F&G Department to operate releases from Wyoming compact space in Jackson Lake in conjunction with releases from Palisades to provide minimum stream flows below Jackson Lake Dam and below Palisades Dam.
- E. An agreement would be negotiated, with lots of technical input from IDF&G, WDF&G, others, that provide the best minimum flow arrangement below Jackson Lake Dam and Palisades Dam that can be derived from the storage water and the current minimums of 550 c.f.s., below Palisades Dam and 100 c.f.s., below Jackson Lake Dam.
- F. USBR will deal with how to pay for the 18,980 AF of Palisades Reservoir space. If legislation is necessary, we will work with appropriate Congressional offices to make it happen.
- G. USBR will arrange with a cooperating water user to transfer the Wyoming compact space from Palisades Reservoir to Jackson Lake Reservoir.
- H. IDF&G and WDF&G would be responsible for providing the Wyoming compact water.
- I. In E above, it may be best to have an advisory committee--comprised of IDF&G, WDF&G, USBR, etc., representatives--to annually put together an instream/minimum flow plan for the 2 river reaches and present to USBR for operation.
- J. Another option is to simply give both spaces to the IDF&G and WDF&G for their management.

- K. Operation of this water would not impact any other operations of the 2 reservoirs i.e., releases for irrigation or other special operations, such as goose nesting flows, release shaping for river users in the Jackson area, etc.

Actions

1. Keys - talk with Jerry Conley, Director of Idaho Fish & Game Department about the concept and possibilities. See if he is willing to approach the Wyoming Fish & Game Department (Bill Morris) to discuss. May also contact Keith Higginson (IDWR) and Gordon Fassett (Wyoming State Engineer).
2. Keys & Van Den Berg - discuss details and strategy to get things moving.
3. Keys & Van Den Berg - lay out studies and check list for our people to make it happen.
4. Keys - have PN 400 look into a procedure for handling reimbursability of USBR storage in Palisades. Determine if legislation is necessary.
5. Keys - possibly discuss with Congressional delegation and other Federal/State agencies.