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United States Department of the Interior

BUREAU OF RECLAMATION

Snake River Area Office, East Jn.

335 Fulton Avenue

Butte, Idaho 83402-1721

SRA-1000

NOV 16 1994

NOV 15 1994

Steven Vletas
West Bank Anglers
P.O. Box 523
Teton Village WY 83025

Dear Mr. Vletas:

Thank you for expressing your concerns with the operations of the river below Jackson Lake Dam during the summer of 1994, especially the high flows in August and their effect on the upper Snake River trout fishery. As you are well aware, the upper Snake is an extremely important resource that is shared and used by a wide cross-section of the American public. Uses include; boating and fishing on Jackson Lake, floating and fishing on the river below the dam, and storage and delivery of water for irrigation downstream. The needs and values of the various users are often in conflict, and their emphases change over time.

I believe that a short overview of Federal operations in the upper Snake River basin will help to clarify both the challenges and opportunities that we have. Jackson Lake is part of a system of 7 federal and 2 private reservoirs with a total capacity of over 4 million acre feet. To maintain the greatest operational flexibility, we operate under a policy of keeping as much water as high in the system as possible. As a result of this, American Falls Reservoir (capacity 1,672,590 acre feet) is used most heavily, followed by Palisades Reservoir (capacity 1,200,000 acre feet). The upstream reservoirs, Jackson Lake (capacity 847,000 acre feet) on the Snake; and the Henrys fork reservoirs, Henrys Lake (capacity 90,000 acre feet), Island Park Reservoir (capacity 135,000 acre feet), and Grassy Lake (capacity 15,000 acre feet), are left as full as possible except for flood space requirements.

Because of the exchanges allowed in this system approach to reservoir management, in an average to wet year Jackson Lake can end the irrigation season with only the flood control space evacuated. Maintenance of flood space causes the natural winter flows to be passed through the reservoir. The reservoir is refilled by storing the peak flows during the spring flood. As the system approaches full utilization in years like 1994 Jackson Lake is drafted more heavily.

Annual storage use is a function of both supply and demand. Snowmelt usually comes early in years of less than average

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snowpack. Irrigation demands by crops generally develop early in the same years when snowmelt is early. Spring rain often changes the situation but is extremely unpredictable except on a very short time horizon. Rain simultaneously increases supply, reduces crop demands, and except in the worst potential flood situation delays snowmelt.

In order to fully utilize Palisades and American Falls Reservoirs, Jackson Lake operations are modified during the year in reaction to changing conditions. An inflexible plan of operation risks releasing water that could otherwise be held for later use, such as winter instream flows. To illustrate how significant operational risks are; in a year when system utilization approaches 100%, an error of only 10% in predicting the total system storage use equates to almost one half the capacity of Jackson Lake Reservoir.

Our goal in operating the system is to fulfill as many needs as possible within the constraints of federal law, the laws of the States, and spaceholder contracts with water users. An example of our response to public values is the commitment to provide winter instream flows from Jackson Lake. If operated solely according to State water law and contractual agreements, during dry years, releases from the dam during the winter would be zero. This situation occurred numerous times in the past. However, recognizing the need for instream flows to maintain the biological health of the river (which is of high public value), we use our previously explained operational flexibility in the entire upper Snake River system to provide winter flows. We must also note the efforts of the Wyoming State Engineer's Office. By acquiring contract storage space in Palisades Reservoir they obtained the flexibility to influence operations, including potentially enhancing winter flows, within contractual and legal constraints.

Now, I would like to explain our operations of last summer (which you have questioned), in the context of our operational policy and goals. Each spring, Reclamation conducts a meeting in Jackson to inform the public of expected operations for the season, and to receive input from the public regarding those operations. During this year's meeting, which was held in Jackson on May 12, Earl Corless and Mike Beus of our Burley office explained that the Upper Snake reservoir system would be heavily used in 1994. Our policy of using water from downstream reservoirs and leaving the remaining water in Jackson Lake makes Jackson Lake operations difficult to accurately project, especially in years of heavy use of stored water. The message we delivered in the meeting was to "expect change." The message delivered to us by those present was to make the changes gradually, and to move the water early so that a releases could be low and steady approaching, and during early September.

In 1994 precipitation was below to near average in April and May but cool weather prevailed until June. The cool weather delayed

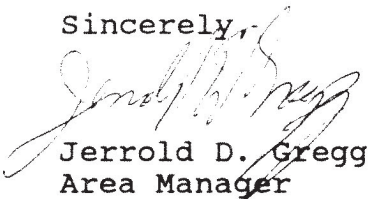
irrigation demands but was not cool enough to slow the growth of small grain crops. Peak demands usually occur about the time of the last irrigation of these small grain crops. It appeared for a while that peak demands may be low since these crops neared maturity before crops such as beans established high transpiration needs. Therefore we operated conservatively and kept the releases from Jackson Lake Dam low.

By mid-June a hot weather pattern settled over our region. Crop demands grew and remained extreme even after the harvest of the small grain crop. In July we expected the weather and water requirements to diminish, as it normally does, however, the hot weather continued and demands continued. By August we found it necessary to move more water from Jackson Lake. Focusing on commitments made in the spring, the releases were increased and decreased as gradually as possible considering the magnitude, and concentrated during August to provide the low, steady flows requested leading in to early September.

At the end of the irrigation season American Falls Reservoir held 17,456 acre feet on September 29 and Palisades Reservoir held 22,370 acre feet on October 6. These contents represent 1.0 percent and 1.9 percent of capacity, respectively. Two hydrographs are included for your information. One shows the operations of the three largest reservoirs, American Falls (AMF), Palisades (PAL), and Jackson Lake (JCK). You can see that we successfully held most of the remaining water in Jackson Lake. The second Hydrograph compares Jackson Lake contents projected in our spring meeting with the actual operation. The actual operation falls within the envelope of the possible extremes presented. Except for the increased rate of drawdown in August the curve parallels the most likely operating scenario.

We understand your frustration with our operations, and regret that they did not correspond with your needs and expectations this season. The knowledge of professionals such as yourself, who use the river, is extremely important as we make operational decisions. We value your input and criticism, and hope to maintain open communications as we prepare for seasons to come.

Sincerely,

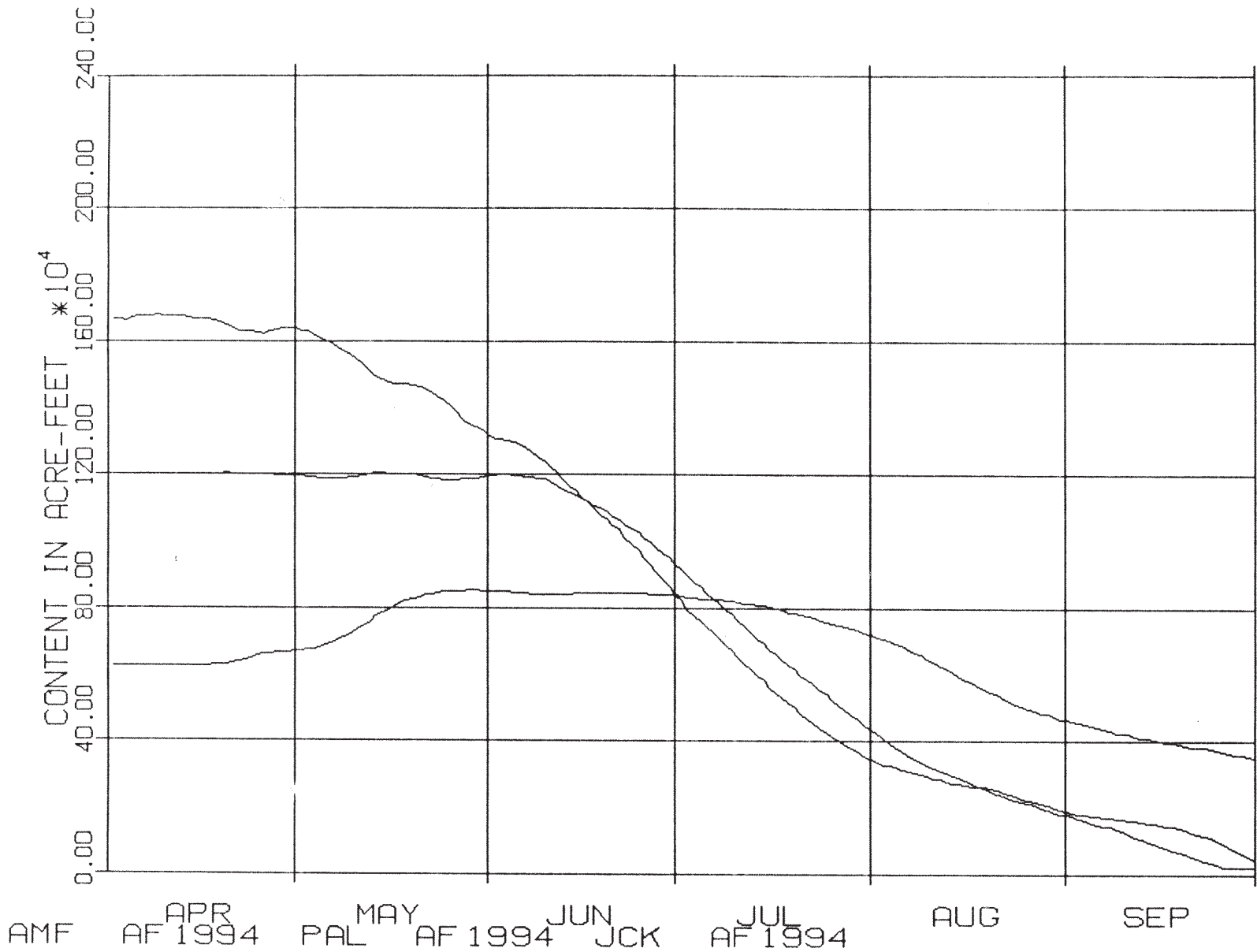


Handwritten signature of Jerrold D. Gregg in cursive script.

Jerrold D. Gregg
Area Manager

cc: Wyoming State Engineers Office
Ron Carlson, ID Dept. of Water Resources
Committee of Nine
Bob Patrick, Trout Unlimited
Wyoming Game and Fish Department

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Projected Reservoir Contents 1994

Jackson Lake Dam

