

● **Water District No. 65** ●

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Adopted by Advisory Committee, June 11, 2001

2001 DROUGHT EMERGENCY WATER MANAGEMENT PLAN

PAYETTE RIVER BASIN

BACKGROUND:

In planning for a drought emergency for the Payette River Basin, one must understand how the river operates, then plan for outcomes that will benefit all water users in the basin. During average water years, irrigation diversions of natural flow begin slowly during early April, then as the weather warms, water diversions gradually increase to full appropriation around mid- to late May. Natural flow runoff begins to subside during late June, with storage water delivery, during average water years, commencing about July 10th.

Storage water is released upstream from Cascade and Deadwood Reservoirs to maintain river flows at Horseshoe Bend at 2,350 CFS, which, during June through September, will allow only about 135 CFS to pass Letha. Any flows over and above 135 CFS at Letha, as calculated by the Storage Water Accounting System operated by Water District No. 65, are considered an operational loss of stored water and are charged to storage spaceholders as such, reducing the amount of stored water available to irrigation during the year.

When natural flows subside and storage water is released to augment river flows for irrigation deliveries, it takes about 24-hours for the storage water to travel from the upstream reservoirs to Black Canyon Dam and below. This time lag makes storage water delivery difficult to plan for, since natural flow declines must be graphed and a trend established in order to maintain adequate flows below Horseshoe Bend.

During 1998, the flashboards on the drum gates at Black Canyon Dam were extended to allow for about six inches of additional storage in the reservoir, to be used as a buffer to regulate downstream deliveries while storage water traveled downstream from the reservoirs. This additional 500 AF of operational storage allows for about 100 CFS of additional flow downstream of the dam for about 2.5 days, plenty of time to balance the stored water travel times from Cascade or Deadwood. The use of this operational storage space should allow the Watermaster to deliver the minimum flow necessary for downstream deliveries without having to over-compensate downstream flows to make up for stored water travel times during periods of declining natural flows.

Water diverted upstream of Letha, Idaho begins to make it back to the river as return flows around the middle of July, which satisfies all water rights below Letha during most

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water years. These return flows allow excess stored water to be leased to the rental pool for rental to junior water right holders upstream of Letha, allowing junior water right holders to continue to irrigate the balance of the season. Municipalities that divert from the river are junior water right holders as well, and depend on the rental of stored water for their water supplies during July, August, September, and October of every year. Finally, industrial and recreational (golf courses) users rely upon the rental pool as well for their junior priority water rights to be filled during this time period.

As we proceed into the second driest water year in the past 65-years in the basin, it will be important to begin with a "water management plan". This document shall serve as that plan to be used in guiding all in-basin water users towards a successful water season during 2001.

OPERATIONAL ISSUES:

Early season natural flows should be fully utilized as much as possible to enhance the return flows to the lower river below Letha later in the season. Natural flows will probably begin to subside the end of May this season, so irrigation diversions should maximize the use of these flows, spilling excess water down spillways and encouraging farmers to irrigate their fields as early as practicable.

Return flows will take the pressure off lower river water users, allowing for the lease of storage water not needed this season to the rental pool for in-basin users. This storage water should be leased as we continue to gather information on 2001 irrigation demand and natural flow supplies. Initially, some storage water should be leased to cover first irrigations and some priority requests (see "REGULATORY ISSUES" below) for renters in the rental pool. Then, as the season progresses, additional storage water should be leased into the pool if it becomes available as the water supply is reviewed and refined.

When storage water delivery begins, all irrigation diversions should be reduced to only the necessary flows for water deliveries to be made. Diversion rates should be reduced by about 12% - 15% of full water right rates in order to provide enough irrigation water for most users to irrigate until some time in September 2001. Spills should be reduced and all water right holders should begin to conserve both natural flow and storage water. Reducing natural flow diversions will reduce the need for storage water from the reservoirs in the critical reaches of the river (from McCall/Lowman to Letha).

During storage water delivery, Water District No. 65 will utilize the top six inches of reservoir space in the Black Canyon Reservoir diversion pool to minimize water delivery downstream of the dam while calling for storage releases to make up for declining natural flows more efficiently. A meeting has been held with Black Canyon Dam personnel to educate dam operators of possible calls for delivery of storage of water for this purpose. Reservoir levels should not be abruptly changed up or down, protecting the Black Canyon I.D. automated headgate from adverse disruptions to head pressure; thus, stored water releases will be closely monitored and the use of this storage space at Black

Canyon Dam will be handled in an orderly manner not to go below lake elevation 2497.65 on the low side and not to exceed lake elevation 2497.85 on the high side. Of course, some leeway will be permitted for short periods of time during commencement of storage delivery through the system.

As natural flows subside, diversion dams will be installed downstream of Black Canyon Dam to provide head pressure for headgates on the river. The installation of these dams sometimes disrupts downstream water deliveries, and should be coordinated beginning with the downstream diversions first, moving upstream as they are installed in the river. Water District No. 65 will work with water users below Black Canyon Dam to assist in coordinating this effort for improved operations during declining flows.

The river flow at Letha, as calculated by the Storage Water Accounting Program of Water District No. 65, shall be managed as close to zero as possible. Normal year operations call for a 135 CFS operational flow at Letha, with any stored flows over this amount charged as operational loss. This "zero flow" method of operation, however, should conserve valuable storage water and maximize the use of natural flows upstream of Letha. The Seven Mile Slough diversion will be managed at a minimum water delivery from the river, maximizing the diversion of the drain at the Tunnel Seven Barrels to the Slough. Overpour at the tail end of the Seven Mile Slough will be minimized at a level between 10 and 20 CFS to the river. The diversions of the Reed, Letha Irrigation, and Noble ditches from the Slough will be maintained at or below legal diversion rates for their water rights.

As natural flows decline below Letha, then build back as return flows begin to form in this reach, the Lower Payette Ditch Company will need to divert the Canyon Drain into the Graveyard Gulch Wasteway, then re-divert this water to the Gospel Drain upstream of their river diversion. The re-diversion rate will be entered into the Storage Water Accounting Program, and, as provided in the storage water exchange agreement between the Lake Reservoir Company and Lower Payette Ditch Co., will be accounted for as storage water from Lower Payette's Lake Reservoir space in the amount calculated as stored water by the accounting program. The amount of Lake Reservoir storage delivered through this exchange shall be redistributed to the remaining stockholders per the agreement. The Watermaster will monitor the overflow past Lower Payette's diversion dam to calculate when enough natural flow has returned to the river via return flows to reduce the amount of stored water delivered through this arrangement.

Flows out of the basin at the Highway 95 Bridge at Payette shall be monitored for reasonableness. If flows appear unreasonably high during the period of declining natural flows, then an inspection of spills to the river from canals and ditches will be conducted.

REGULATORY ISSUES:

Several impediments stand in the way of successful emergency drought operations this year in the form of certain procedures of the rental pool of Water District No. 65. The Advisory Board of Water District No. 65 does, however, have the authority to make

temporary changes to these rental pool procedures to ensure a smooth and effective operation during an emergency such as the water year of 2001.

The main problem with operating the rental pool during a drought year is with the priority and sub-priorities of renters set up by the rules. Priority is currently given to renters for irrigation within the District until July 1. After July 1, any water user can rent available water for any legal beneficial use. Sub-priority among water users of these priorities is determined by the date on which the Watermaster receives the signed rental agreement and payment. This prioritization works well to protect in-basin irrigation uses, but is sometimes unworkable during extreme drought conditions.

One problem arises when the priority for storage water until July 1 is only irrigation uses. Some renters in the basin include municipalities and industrial users. These users are very dependent upon water rentals for their water supply, and in times of shortage, are at an extreme disadvantage to irrigation uses. Another problem that could arise is the fact that municipal use is considered a priority use under Idaho statutes, and conceivably these cities could condemn storage water if they were turned away from the pool due to inadequate supplies of rental water.

Another problem surfaces when the sub-priorities are maintained prior to July 1, as only the first in line will receive stored water as it becomes available in the pool. This document has set forth an arrangement that will continue to make available additional rental storage water as the season progresses. The sub-priorities, if followed, are not practical if the method of storage water leasing proposed by this document is used, since only the very first in line would receive storage water, leaving the remainder of the renters with no rental water at all.

The Advisory Committee can, as authorized by the rules and with the permission of the Director, develop additional or alternative procedures during drought years or under special conditions.

If all in-basin water users in need of rental storage water were on a "proportional share" basis prior to July 1, then leases of water could be added to the pool until all requests were satisfied without cutting anyone off at the beginning of the season. This method would allow irrigation to occur at the beginning of the season, with the stipulation that if there were no more storage water left to rent, then water diversions would be curtailed at that time. Also, municipalities should be considered a top priority renter, due to the nature of the use in Idaho and the possibility of condemnation proceedings.

At the May 14, 2001 meeting of Water District No. 65 Advisory Board, the rental pool rules were modified to allow for proportional sharing of any leased water in the rental pool for water rental requests received prior to June 15th. After June 15th, water rental requests will be fulfilled on a first come basis and will be secondary to the pre-June 15th rental requests. This does not change the July 1st date for all other uses from the rental pool.

In this manner, water users in the basin could at least get started with a crop of hay or irrigate their pastures early in the season, with the possibility that they may or may not receive any more storage water later on. Also, the two cities using rental water would be covered for the season as a drought priority.

Another problem that may exist is that of salmon flow augmentation water for out of basin uses. The USBR is considering the lease and rental of up to 30,000 AF of uncontracted space from Deadwood Reservoir for out of basin flow augmentation. They are, however, subject to the irrigation preferences of our rules.

One way to allow for this water to be passed out of basin would be for the USBR to lease an amount into the rental pool for in basin uses, if needed, from the uncontracted space in Cascade Reservoir. This space could come from the other uncontracted space in Cascade or Deadwood Reservoirs, and would probably not be needed until later in the season, if at all. The lease of this space for in basin uses would be within Idaho water laws and would be considered a "safety net" for irrigators, used only if necessary.

On May 14, 2001, Water District No. 65 Advisory Board approved the lease and rental of 30,000 acre-feet of uncontracted space by the U.S. Bureau of Reclamation, and will not exercise the "agricultural preference" to rent this water from the rental pool, in consideration for the USBR to lease 15,000 acre-feet of uncontracted space into the rental pool for irrigation uses in the basin late in the season, if needed.

CONCLUSION:

Through the utilization of over \$500,000 of water management and technological improvements and new measuring devices in the basin over the past five years, Water District No. 65 stands ready for the challenge facing water users this season, possibly the second worst water year since 1936. Water users must continue to work together to provide adequate water supplies to all irrigation, industrial and municipal water users in need of rental storage water.

Through the leadership and guidance of the Water District No. 65 Advisory Board, Water District No. 65 is in a position to provide the coordination and management necessary to facilitate this successful effort for the coming 2001 water year.

Respectfully submitted,

Mark Limbaugh, Watermaster