

WATER DISTRICT NO. 65

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**** WATERMASTER'S YEAR-END REPORT FOR 1995****

The 1995 water year for the Payette River Basin was an excellent year, with above normal snowpack and runoff. Natural flows during 1995 exceeded those during 1994, and were about equal to 1993 flows, another good water year for the basin. During 1995, the Payette River Basin produced 2,934,875 acre feet of volume flow at Horseshoe Bend, while 1994 only produced 1,108,176 acre feet of volume flow at the same site. All reservoirs filled during the 1995 water year. I compare these natural flows on Slide 3, showing the 1993 and 1995 natural flows at Horseshoe Bend practically mirroring each other, while the 1994 natural flow levels were markedly lower. During 1994, storage water was called for on June 12th, however, in 1995, storage water was not needed until July 28th. These natural flows are computed by the water accounting program developed by the Idaho Department of Water Resources two years ago. This program divides the river into thirteen reaches, calculating net gains in flow for each reach individually. These reach gains are then added up to calculate the natural flows in the river as if there were no diversions nor storage space. The natural flow amounts are then compared to actual flows in the river system at selected points along the river. Actual flows on the river are calculated by eight HydroMet sites (Slide 6) and telemetered by satellite to our office in Payette. These actual flows are entered into the accounting program daily. When the natural flows are compared with the actual flows for each reach, storage gains or diversion losses to the river are computed. Daily diversion volumes are entered into the accounting system by the Watermaster. If natural flow is greater than actual flow, then the storage accounting program accounts for the increases in storage, but when natural flow is less than actual flow, then storage water must be charged to junior water rights diverting on the river. The list of priority rights are checked by the accounting program to determine whether or not natural flow is meeting the needs of water users. When natural flow in the river is less than the diversions from the river, storage water must be added to the river in order to provide enough water for the demand. This is when storage water is charged to the junior water rights cut. If a water user does not have storage space contracts, then they must rent the storage water from the rental pool of Water District 65. The stored flows are then accounted for by the accounting program, subtracting them from available storage space in the reservoirs. These stored flows are either charged to the diversions not being met by the natural flow in the river, or to operational loss, which is the amount of stored water flowing past Letha over and above the 135 cubic feet per second (cfs) operational flow. Slide 5 shows the natural, actual and stored flows on the Payette River at Horseshoe Bend for the 1995 year. Notice the actual flows from July 28th through August 31st. This flow, approximately 2,350 cfs at Horseshoe Bend, is the amount of water needed in the river to deliver peak irrigation

demand for water while maintaining no more than 135 cfs total flow at Letha. Total water deliveries above Letha during 1995 were 775,737 acre feet. During the period of storage water delivery in 1995 (after July 27th), the total water deliveries above Letha were 355,454 acre feet, of which 116,694 acre feet was storage water. This amount is low compared with the previous year. During 1994, a total of 800,452 acre feet was delivered above Letha during the time period of storage water delivery (after June 11th), of which 308,023 acre feet was storage water. Operational loss for 1995 ended up at 3.51% of total storage space. In comparing this amount with the operational loss during 1994, there are several factors to consider. During the summer months of 1994, fish flows were released from Cascade and Deadwood Reservoirs, and were accounted for at Letha. Any flows above the 135 cfs operational flow at Letha were considered fish water. This means that during the time period of fish flow releases, very little operational loss was charged to irrigators, thus the relatively small percentage of operational loss. Slide 7 illustrates this point, showing monthly operational loss charges at Letha for the respective years 1994 and 1995. In 1995, the months of August, September and October were peak storage water months, but during 1994, the months of June, July, August and September were peak months, with the fish water flowing during July, August and part of September, attributing to the small operational losses for those months.

Accounting for storage space in Water District 65 is a major responsibility of the Watermaster. With the advent of the rental pool and out of basin uses of our storage water, last to fill priorities are of major concern when accounting for reservoir fill in the spring. Flood control releases and evaporation charges have also been brought to the forefront of District operations. Good management of our reservoirs insures that water users in the Payette Basin can normally rely on a consistent supply of water from the Payette River. Beginning storage levels for the 1995 season were not very good. The 1994 season brought with it drought conditions both during the winter and summer months. A long, hot irrigation season coupled with extremely low natural flows in the river forced us to use most of our storage space in both Cascade and Deadwood Reservoirs, as well as from Lake Reservoir Company's system. Slides 9 and 10 illustrate the carryover storage of our reservoirs into 1995, showing the large amount of new fill needed to fill the system. We were fortunate to have a good winter snowpack, which filled all our reservoirs. Slides 11 and 12 show the amount of storage, by percent of the reservoir, storage holders had accrued after the reservoirs filled and after evaporation losses were considered. Evaporation charges are calculated by using the daily evaporation rate from the pan in Cascade. These charges begin when the first storage water is released during irrigation season. Cascade only lost 3% of its storage space to evaporation during 1995, while Deadwood lost 1%. These amounts are low due to the short storage season this year. Slides 13 and 14 illustrate the use of storage space from each reservoir during 1995. Out of basin use is storage water leased to and rented from the rental pool for the fish flow augmentation releases. In basin use is made up of irrigation use and some power flows rented from the rental pool by the Horseshoe Bend Hydroelectric Company. By comparison to 1995, carryover storage levels are much better for 1996. Slide 15 shows the storage accounting by user for the five largest storage holders on the system. The following chart indicates the actual amounts, in acre feet, depicted in Slide 15:

In Acre Feet:	Lower				
	BCID	EID	Farmer's	Payette	Noble
1995 Carryover	6,966	13,160	10,364	6,270	7,364
1995 Total Stored	241,148	72,568	47,076	15,826	13,660
1995 Evap. and Use	129,243	2,741	2,160	519	800
1995 Leased	0	21,882	20,000	10,000	7,500
1996 Carryover	111,905	47,945	24,916	5,307	5,360

Slides 16 and 17 illustrate the 3-year history of reservoir operations of both Cascade and Deadwood. During 1993, both reservoirs filled and were drafted during the year for irrigation, fish flows and flood control operations. The 1994 year was the second driest on record in the past 30 years. Neither reservoir filled for the 1994 season, and were heavily relied upon for irrigation and fish flows during the year. With storage carryovers reaching disastrous levels, the 1995 winter provided more than ample runoff to fill both reservoirs, and supplied prolonged natural flows during irrigation season, thus reducing the need for storage water by irrigators, and allowing more water to be leased to the rental pool. Even after fish flows are released, carryover levels for both reservoirs are considerably higher than average.

The Water District 65 rental pool was very active during 1995. A total of 155,941 acre feet of storage space was leased to the rental pool for both in and out of basin rentals. A breakdown of these leases is shown on Slide 19. The Water District expects revenues from the administrative fees on the rental of this leased space to exceed \$102,000 for the 1995 season. Out of basin fish flows accounted for 94% of the total leased space rented from the rental pool, while Horseshoe Bend Hydroelectric rented 5% and irrigators 1% (Slide 20). During the past six years' history of the Water District 65 rental pool, a total of \$371,567 has been generated in administrative fees for the District and a total of \$530,064 has been paid out to leasing spaceholders for water rented from their storage space.

In reviewing the 1995 irrigation season, I believe it is important to review several of the key issues we faced during the year. Early in 1995, the Bureau of Reclamation issued proposed water conservation rules and regulations governing the allocation and management of storage water from Bureau facilities. In my comments to the Bureau on these proposals, I stated that the Bureau's efforts to promote water conservation, and the possible transfer of that "conserved" water to other, environmental uses, through the implementation of these rules and regulations would place undue financial and social burdens on irrigators within Water District 65. Simply put, water conservation in and of itself will not lead to additional volumes of water to be "reallocated" to social concerns. A delicate balance of use and reuse, as well as recharge of our much relied upon underground aquifer, is enjoyed by irrigators and the public alike. Forced water conservation efforts attached as "strings" to our storage contracts will only result in upsetting this balance, and cause a great deal of time and money to be wasted in the effort. Many other protests were registered by Idaho's water community, and the proposals have been put on hold for the time being.

Another important issue which threatens all of our water rights on the Payette River is that of the Nez Perce Indian Tribe claims filed in the Snake River Basin Adjudication process. These claims assert a "time immemorial" priority date for springtime flows at Lewiston equal to more water than the entire state of Idaho produces. In other words, if the Tribe is granted a water right based on these claims by the Twin Falls SRBA Court, the entire Snake River Basin, including the Payette, would be required to release all water flows necessary to meet the minimum flow claimed by the Tribe at Lewiston for salmon restoration. No diversions or storage of natural flow would be allowed under this type of decree. Currently, negotiations are underway with the Nez Perce Tribe, as well as the U.S. Government agencies involved. Idaho Water Users Association has set up a coalition to help with the development of hydrologic studies, hiring expert witnesses and supplying any other tools necessary for the defense of our irrigation water. This coalition, in my opinion, needs our financial backing in order to provide us with this documentation if negotiations fail and the issue goes to court. To date, we have not supported this coalition as a group.

This spring, the Bureau of Reclamation, in another issue, applied to transfer the water rights on the storage reservoirs controlled by them to include environmental, fish and wildlife, and endangered species concerns as beneficial uses of Idaho waters within the state of Idaho. Many protests were filed on behalf of irrigation interests, arguing that if these transfers were allowed, they would not be in the best interests of present water users and would threaten the delivery of existing water rights. The transfers, if allowed, would eliminate the "last to fill" priority of refill of our reservoirs for any out of basin uses by allowing out of basin uses to be considered beneficial uses within the State (equal in priority to our use of irrigation water). This fact would prove very detrimental to storage-dependent water users, such as Black Canyon Irrigation District. In my comments as Watermaster to these applications for transfer, I used Black Canyon Irrigation District as my example of how spaceholders could be damaged in the absence of a last to fill clause for all out of basin uses. The difference between BCID's refill with and without a last to fill clause for out of basin use, during a realistic drought scenario, would have been a shortage of 42,000 acre feet to BCID. This translates to approximately 18 days of peak irrigation demand for BCID and would wreak havoc on their users during a dry year.

As the year progressed, the Bureau and water users' representatives met and discussed options to the transfer process, and a stipulation was signed by all parties involved. This stipulation gives the Bureau a one-year extension to legally rent Idaho water, up to a maximum of 427,000 acre feet, from local rental pools, subject to last to fill provisions, to be used out of basin for fish flow augmentation according to the Biological Opinion issued this spring by National Marine Fisheries Service. During this year-long extension, it was also agreed that a legislative solution be worked out, similar to Section 42-1763A, Idaho Code, allowing the out of basin flows in past years. The 1996 Idaho Legislature will be considering this legislation, which has resulted from many hours of negotiations and meetings with the Bureau and water users, and I will be monitoring the progress on that legislation for the District.

Finally, water quality issues affecting the Lower Payette River from the Black Canyon Dam to the confluence with the Snake River were brought to the forefront. During the

1995 Idaho Legislature, Senate Bill 1283 was passed and set out to identify and protect "water quality impaired" river segments through a process of local and regional advisory groups set up by the State. A federal judge in Seattle forced the issue, ruling in favor of several environmental groups suing over Idaho's compliance with the Federal Clean Water Act. The judge mandated that the State of Idaho focus water quality efforts on over 900 stream segments within the state by 1997. The Lower Payette segment was listed as a high priority segment, and a watershed advisory group was promoted to comply with the state law set forth under SB1283. I have become involved with this group because water quality efforts could drastically affect river operations during irrigation season, and possibly impair irrigation deliveries altogether. I was selected co-facilitator for the group, along with Hank Bernsten of Emmett, and Jim Schmid of New Plymouth. We are currently in the process of identifying historical water quality monitoring information collected on the river and assessing monitoring needs for the future. A trend must be developed on river water quality before we can begin the process of addressing the problems associated with that water quality. My main concern is that this group address water quality issues with the health and sustainability of our agricultural economy in mind. New management practices and techniques must be cost-effective in order to become well received by the ag community. Water conservation efforts should not become a "magic bullet" for water quality problems, and may even cause additional problems if relied upon too heavily in the process. The "balance" I referred to in the discussion of the Bureau's proposed water conservation rules must be protected throughout this water quality process to ensure adequate, clean return flows to the river for downstream water rights and the recharge of our aquifer. Many of our wetlands we now enjoy are the result of those return flows, which provide habitat for wildlife and waterfowl. I will update you as time progresses on this issue through my newsletter.

The highlights of Water District 65 operations during 1995 are summarized on Slide 22. We published several newsletters during the year and received excellent response. Communication with water users on the river has been lacking for sometime, and hopefully we have narrowed that gap this year. My plan is to continue to send the newsletters as necessary during 1996. Flood control curves were updated and modified to allow irrigators to carryover more water in our reservoirs during 1995. Slide 23 illustrates the changes to the fall flood control carryover levels on both Cascade and Deadwood. The positive effect on storage holders has already been felt this fall, as I will explain later in this paragraph. The Horseshoe Bend Hydroelectric plant came on-line this summer, causing some minor disruptions in irrigation deliveries as they worked out the "bugs" in their system. After a meeting with HSB Hydro personnel, I believe we were successful as a District in solving many of the problems caused by some simple misunderstandings of how the river operates. I look forward to continued cooperation from HSB Hydro in the future. One of the long-standing arguments on the river has been between Noble Ditch Company and the BCID 399 Pumping Plant. Many years ago, Black Canyon Irrigation District filed to pump waste water from one of the drains flowing into the Seven-Mile Slough above Letha to augment flows in their canal. Noble Ditch filed a protest, claiming their right to the natural flow from that drain to the Slough. An agreement was signed by both parties stating that BCID would provide the amount of storage water to the head of the Slough equal to BCID pumping volumes for the Noble

Ditch if natural flows were not sufficient to meet the water rights of Noble. BCID had the option of shutting off the pumps to provide the waste water to Noble through the drain to the Slough. In the past, Nobel Ditch believed that they could call for the waste water, in other words, force BCID to shut down the pumps, in order to get the additional water from the drain. But the agreement states that BCID has the option. The way the Water District handles the delivery of water at this time solves the dispute. BCID is charged for storage water when natural flows recede equal to the amount of drain water pumped by the 399 Pumps, and Noble's water is delivered at their headgate as natural flow. There is no reason for BCID to shut down the pumps in the future when Noble gets their allotted water volume at the headgate. Another issue currently being resolved by the District, and by IDWR, is that of the agreement between Lower Payette Ditch and Lake Reservoir Company over the use of Lake Reservoir's diversion structures on the Canyon and Graveyard Drains. These structures allow Lower Payette to utilize waste water normally flowing below their headgate by diverting the drainage water to a point above Lower Payette's diversion. The problem is that in the past, according to an agreement signed by both parties, Lower Payette was charged for storage water in the diversion of these drains from their Lake Reservoir storage space. The manner in which the river is operated by the District currently requires Lower Payette to divert these drains to supply their natural flow when storage water is being delivered on the river. This diversion of the drains in question allow for flows to drop to the 135 cfs operational flow at Letha and still maintain Lower Payette's delivery below Letha. This is a much more efficient way to utilize all inflows to the river, and conserve storage water delivered to junior water rights, such as BCID and Emmett Irrigation District. Dave Tuthill of the IDWR is currently summarizing his findings as to how this diversion could be accomplished on a yearly basis, treating both parties to the agreement in a fair manner in the process. Finally, during November of this year, the Bureau attempted to initiate flood control releases from Cascade Reservoir. The level of Cascade was over the new flood control maximum carryover level of 500,000 acre feet due to the rented fish water still residing in the reservoir. Without the fish water in the reservoir, we would have been approximately 60,000 acre feet below this flood control level. The fish water was scheduled to be released about December 10th. There was no snow accumulation to speak of at that time, but heavy rains were experienced throughout the Northwest, as well as moderate rains at Cascade. My initial response to this request for flood control releases was that with the lack of snowpack, we should be able to store water up to the flood control level as if the fish water was not present. The Bureau postponed flood control operations until two weeks later, the first part of December, when snow packs had begun to take shape and a warming trend threatened to push inflows much higher than normal. At that point, flood control operations commenced and fish flows began on December 11th. However, between mid-November and the December flood releases, BCID gained approximately 40,000 acre feet of storage refill, which otherwise would have been released as flood control had not the Water District taken measures to ensure storage of this inflow.

As Watermaster for the District, I have attended four major conferences on various subjects throughout 1995. These conferences are outlined on Slide 24. I have prepared written summaries of each conference for the Advisory Board upon my return, and these summaries are available at the District office in Payette. I appreciate the insight of the Advisory Board to allow me to attend these timely conferences for the benefit of, and on

behalf of, water users in the basin. Continuing professional education is an important part of developing an effective administrator and, again, I appreciate this support. My time schedule breakdown is shown on Slide 25 for your information. Notice the amount of my time spent in meetings on your behalf. This illustrates to me the importance of full time representation of your interests on the river.

In conclusion, I would be remiss in not previewing what I consider to be issues facing all of us during the upcoming year. Slide 26 summarizes these topics. The addition of upstream users on the North Fork and Payette Lake, as well as the South Fork users, to our accounting system completes the goal of accounting for deliveries on the entire Payette River. Reducing 1996 assessments from \$.50 per acre to \$.40 per acre shows the Advisory Board's commitment to a cost effective program of river management. Salmon flow, or out of basin flow, legislation will be monitored closely by myself and results will be published in our newsletter. The Nez Perce and Fish and Wildlife (Deer Flat) claims under the SRBA will continue to affect us as we proceed toward some type of decision.

The 1996 storage water forecast is still in its infancy, as we constantly monitor snow packs and inflows, but our carryover position, in my opinion, leaves us in good shape. Slides 28 and 29 show the probability that Cascade and Deadwood will fill, given 30 years of historical inflow data. Both reservoirs show better than 90% chance of filling during 1996.

My year as Watermaster has been interesting and rewarding, and I look forward to serving you in the coming years. I wish to thank Brick Andrew, Chairman, and Marcia Herr, Secretary, for their personal support throughout the year. I also wish to thank the Advisory Board for their commitment to the District during 1995, and sincerely hope they will all retain their positions for the coming year. Finally, I wish to thank the water users themselves for having the leadership and the forethought to form such a District. Agriculture must take the lead and become proactive in the management of our most important resources for our continued economic health and prosperity in the future.

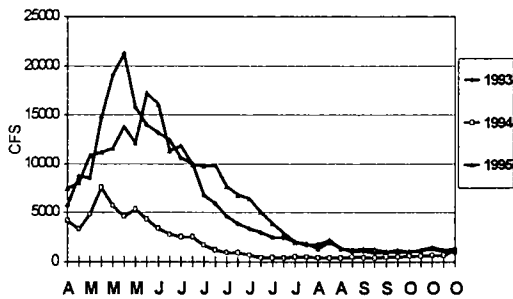
Respectfully submitted,

Mark Limbaugh, Watermaster

Water District 65 1995 Year End Report

Mark Limbaugh
Watermaster

Natural Flow Comparisons At Horseshoe Bend



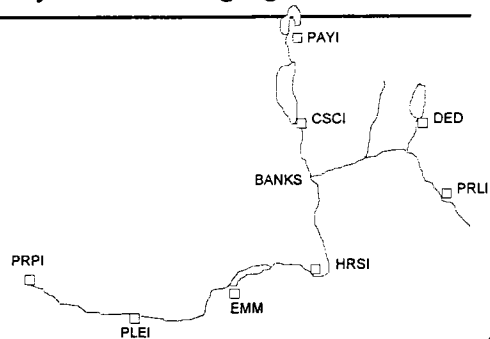
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River Operations in Review

- ◆ Natural Flow Comparisons
- ◆ How the Payette River Operates
- ◆ Make-up of 1995 River Flows
- ◆ Irrigation Deliveries in Total

2

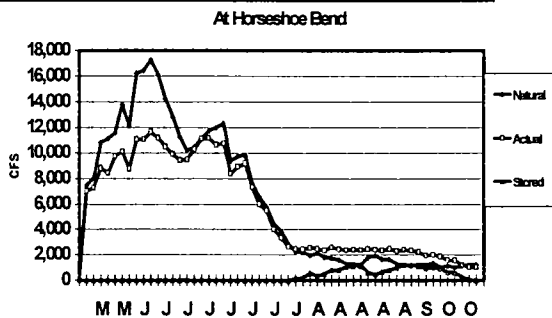
How the River Operates - Hydromet Gauging Stations



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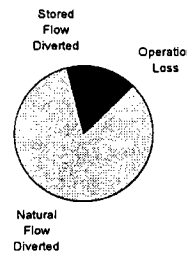
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Make-up of 1995 River Flows Natural, Actual and Storage



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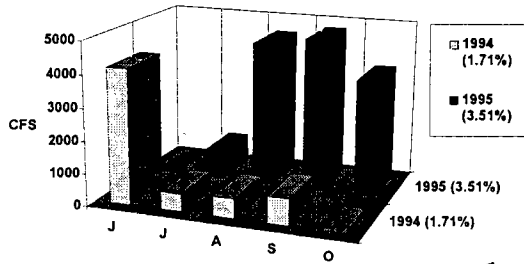
Irrigation Deliveries in Total



- ◆ A total of 775,737 acre feet was diverted for irrigation use above Letha during 1995.
- ◆ Of this total diversion, 116,694 acre feet was stored water.
- ◆ Operational loss was 3.51% of total storage space.

6

Operational Loss Comparisons - 1994-95



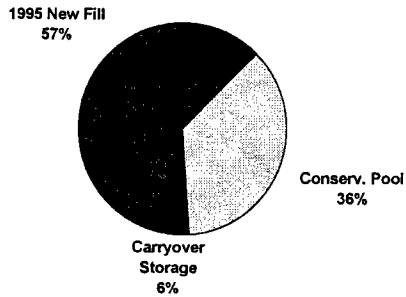
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Storage Accounting During 1995

- ◆ Beginning Reservoir Carryover Levels
- ◆ 1995 Storage Water Available
- ◆ Storage Accounting by Use
- ◆ Storage Accounting by User
- ◆ 3-Year History of Reservoir Operations

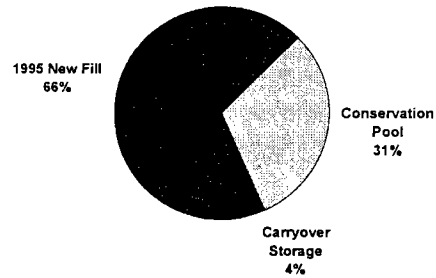
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Beginning Reservoir Carryover - Cascade



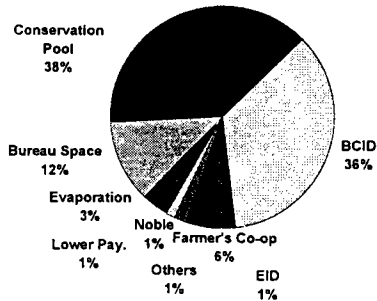
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Beginning Reservoir Carryover - Deadwood



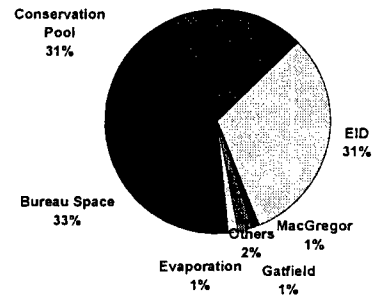
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1995 Storage Water Available - Cascade



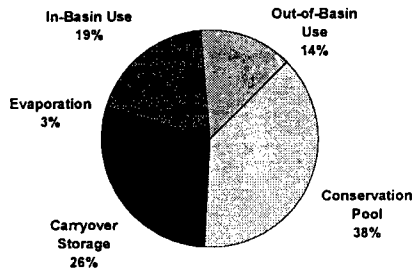
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1995 Storage Water Available - Deadwood



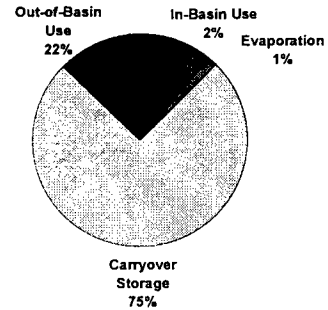
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Storage Accounting by Use - Cascade



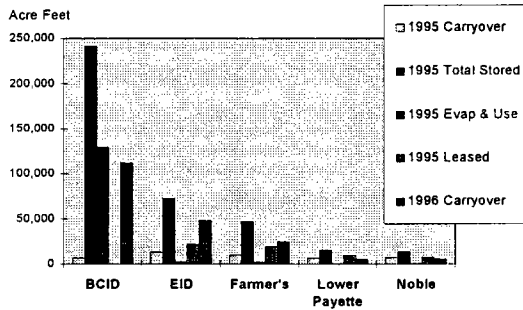
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Storage Accounting by Use - Deadwood



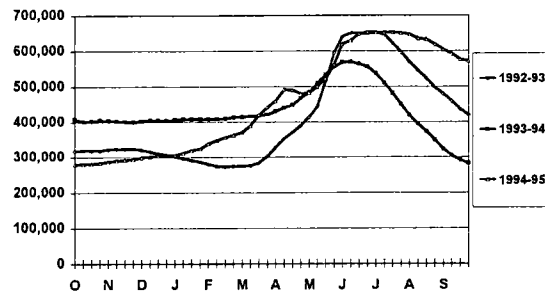
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Storage Accounting by User



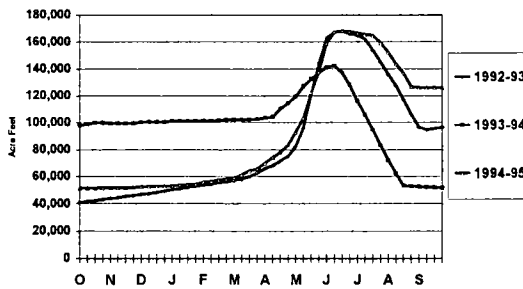
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3-Year History of Reservoir Operations - Cascade



16

3-Year History of Reservoir Operations - Deadwood



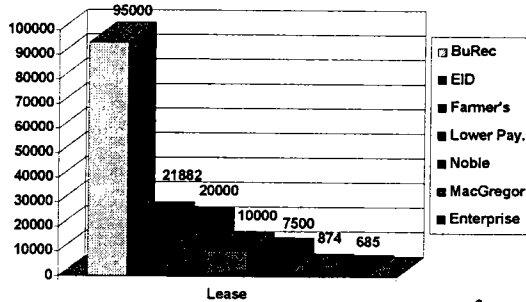
17

Rental Pool Accounting

- ◆ Leases to WD65 Rental Pool
- ◆ Rental of Stored Water from WD65 Rental Pool

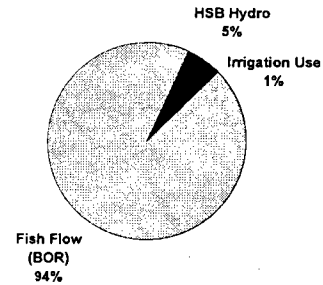
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Leases to WD65 Rental Pool



19

Rental of Stored Water from WD65 Rental Pool



20

State-Wide Water Issues of 1995

- ◆ Bureau's Proposed Water Conservation Rules and Regulations
- ◆ Nez Perce In-Stream Flow Claims
- ◆ Bureau's Water Right Transfer Applications
- ◆ Water Quality Issues on the Lower Payette River - Watershed Advisory Group

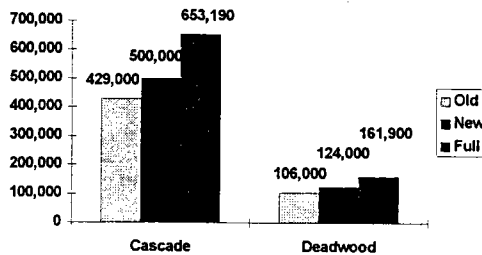
21

1995 Highlights - WD65

- ◆ Water District Update Published
- ◆ New Flood Control Curves Approved for Cascade and Deadwood
- ◆ Horseshoe Bend Hydro Plant Goes On-Line
- ◆ Cost-Share of New Measuring Devices
- ◆ Noble - 399 Pump Issue
- ◆ Lower Payette - Lake Reservoir Issue
- ◆ Flood Control Operations - Late 1995

22

New Flood Control Curves on Cascade and Deadwood



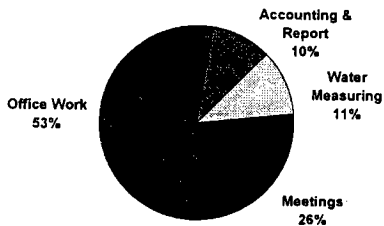
23

Conferences Attended by the Watermaster

- ◆ IWUA Law Seminar - Sun Valley, Idaho
- ◆ USCID Water Conservation Conference - Sacramento, California
- ◆ "Snake: The River Between Us" Conference - Boise State University
- ◆ Pioneer Seed Company "Profitable Stewardship - Ag and the Environment" - San Antonio, Texas

24

Breakdown of Watermaster's 1995 Time Schedule



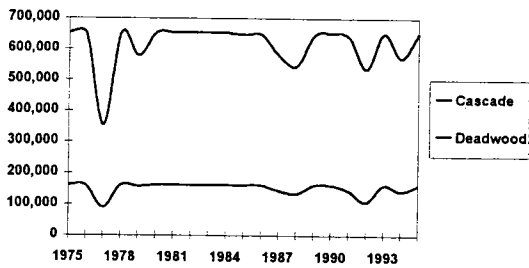
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1996 Preview

- ◆ North/South Fork and Big Payette Lake Users Added to Accounting
- ◆ Reduction in Assessments for the Water District
- ◆ Salmon Flow Augmentation Legislation
- ◆ Nez Perce In-Stream Flow Claims
- ◆ 1996 Refill Data and SnoTel Update

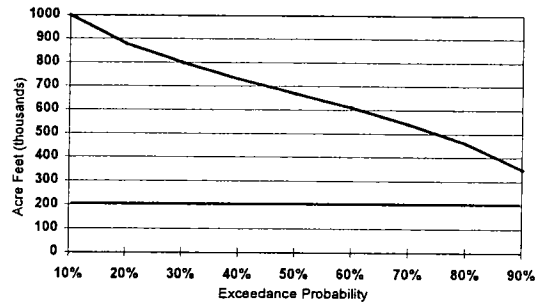
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Peak Levels of Cascade and Deadwood Reservoirs - 20 Yr.



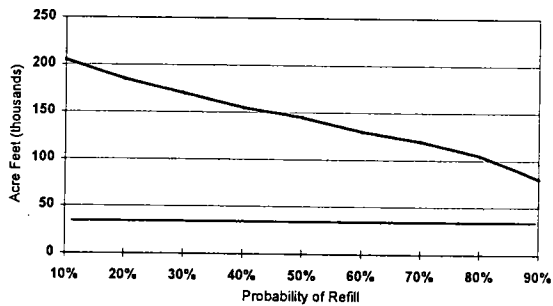
27

1996 Probability of Refill - Cascade Reservoir



28

1996 Probability of Refill - Deadwood Reservoir



29

Thank You !

30