

## **APPENDIX A**

# **STORAGE NEEDS TO SUPPLEMENT NATURAL FLOW WATER RIGHTS**



The purpose of the water service contracts is to provide for storage and delivery of water to supplement the natural flow water rights held by the following irrigation organizations:

1. Ballentyne Ditch Company, Ltd. (BDC)
2. Boise City Canal Company (BCCC)
3. Boise Valley Irrigation Ditch Company (BVIDC)
4. Canyon County Water Company (CCWC)
5. Capital View Irrigation District (CVID)<sup>1</sup>
6. Eagle Island Water Users Association (EIWUA)<sup>2</sup>
7. Eureka Water Company (EWC)
8. Farmers Union Ditch Company (FUDC)
9. Little Pioneer Ditch Company (LPDC)
10. Middleton Mill Ditch Company (MMDC)
11. Middleton Irrigation Association (MIA)
12. New Dry Creek Ditch Company (NDCDC)
13. New Union Ditch Company (NUDC)
14. Pioneer Irrigation District (PID)
15. Settlers Irrigation District (SID)
16. South Boise Mutual Canal Company (SBMCC)<sup>3</sup>
17. South Boise Water Company (SBWC)
18. Thurman Mill Ditch Company (TMDC)
19. Village of Garden City (GC)

Each of these organizations owns natural flow water rights that are defined by a decree issued by district court Judge George H. Stewart on January 18, 1906 in Farmers

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<sup>1</sup> The contract formerly held by Capital View Irrigation District was assigned to United Water Idaho for irrigation use.

<sup>2</sup> The Eagle Island Water Users Association consists of the following canal companies: Conway & Hamming, Graham & Gilbert, Hart & Davis, Mace Catlin, Mace & Mace, Seven Suckers, Thomas Aikin, and Warm Springs Ditch.

<sup>3</sup> The contract formerly held by South Boise Mutual Canal Company was assigned to United Water Idaho for irrigation use.

Cooperative Ditch Company v. Riverside Irrigation District, et al. Since that time, the decree has been referred to as the “Stewart Decree.” Pioneer Irrigation District also owns natural flow water rights that are defined by a subsequent decree issued by district court Judge E. L. Bryan on February 14, 1929 in Pioneer Irrigation District v American Ditch Association, et al, known as the “Bryan Decree.” All water rights decreed in the Bryan Decree are junior in priority to water rights decreed in the Stewart Decree. These are the Stewart and Bryan decrees referred to in Reclamation’s permit application to store water in Lucky Peak Reservoir.

On May 31, 1919, Judge Bryan issued a continuing order, which is still in effect, providing for the distribution of water from the Boise River as follows:

The various rights, as adjudicated in the so-called ‘Stewart Decree,’ shall receive 100 percent, until the natural flow of the waters of the Boise River shall decrease, until all the rights in said decree cannot receive 100 percent, at which time the various rights as adjudicated in the so-called ‘Stewart Decree’ shall first be cut to 75 percent of the amount of water decreed by the ‘Stewart Decree’ as the natural flow of the Boise River decreases, beginning with the latest right and proceeding to the earliest rights in the order fixed in said ‘Stewart Decree,’ and after all of the rights shall have been reduced to 75 percent of the amount fixed in the ‘Stewart Decree,’ should the natural flow of the waters of the Boise River decrease below the amount necessary to supply said 75 percent of the water rights as decreed in said ‘Stewart Decree,’ then the various rights beginning with the latest and proceeding to the earliest, as aforesaid, shall be reduced to 60 percent of the amount specified in the ‘Stewart Decree,’ . . .

All natural flow water rights defined by the Stewart and Bryan Decrees continue to be distributed by the Watermaster for Water District 63 according Judge Bryan’s May 31, 1919 continuing order. Every year, delivery of all Stewart and Bryan decree rights is reduced to 75 percent by the beginning of July, and to 60 percent by the middle of August. During 1992, all natural flow water rights with priorities of 1869 and later were totally curtailed by July 28th.

The following data quantify the storage needed to replace the loss of natural flow in terms of the dates on which natural flow water rights were reduced to 75 percent and 60 percent and finally curtailed to 300 during 1992, one of the lowest water years on record, with runoff of only 41 percent of normal. The data compares this storage need to the storage held by the contractors in Lucky Peak, Anderson Ranch and Arrowrock Reservoirs. Natural flow water rights are identified by quantity and priority (those with priority dates of 1868 and earlier, and those with priority dates of 1869 and later). The actual shortfall during a year such as 1992 is greater because most of the contractors’ storage space will not fill. This data does not show the total shortfall for the more junior rights that were reduced earlier than June 1st, June 8th and August 15th, and it therefore

understates the aggregate shortfall and need. The conversion from flow rate in cubic feet per second (cfs) to volume in acre feet (ac-ft) is  $1 \text{ cfs} = 1.9835 \text{ af per day}$ .

			<b>All Rights 25% Need</b>	<b>1869 40% Need</b>	<b>1869 100% Need</b>	<b>1868 40% Need</b>				
			Natural Flow Rights	6/1-6/7 7 days	6/8-7/27 50 days	7/28-10/15 79 days	6/8-10/15 129 days	Total '92 Need	L.P. Storage	Shortfall
1.	BDC	(69)	15.3526 cfs	53.29 af	609.04 af	2,405.71 af		3,068.04 af	1,300 af	1,768.04 af
2.	BCCC	(68)	34.838 cfs	120.93 af			3,565.63 af	3,686.56 af	1,000 af	2,686.56 af
3.	BVIDC	(68)	51.81 cfs	179.84 af			5,302.69 af	5,482.53 af	2,500 af	2,982.53 af
4.	CCWC	(68)	79.37 cfs	275.50 af			8,123.42 af	8,398.92 af		
		(69)	1.00 cfs	3.74 af	24.79 af	156.70 af		184.96 af		
			<u>80.37 cfs</u>					8,583.88 af	6,000 af	2,583.88 af
5.	CVID								300 af	
6.	Davis	(69)	13.94 cfs	48.39 af	1,382.50 af	2,184.36 af		3,615.25 af	1,500 af	2,115.25 af
7.	EIWUA	(68)	8.358 cfs	29.01 af			855.43 af	884.44 af		
		(69)	37.392 cfs	129.79 af	1,483.84 af	5,859.21 af		7,472.84 af		
			<u>45.75 cfs</u>					8,357.28 af	1,718 af	6,639.28 af
8.	EWC	(68)	33.32 cfs	115.66 af			3,410.26 af	3,525.92 af	2,800 af	725.92 af
9.	FUDC	(68)	25.2855 cfs	87.77 af			2,587.94 af	2,675.71 af		
		(69)	168.014 cfs	583.20 af	6,665.12 af	26,327.29 af		33,575.61 af		
			<u>193.2995 cfs</u>					36,251.32 af	10,000 af	26,251.32 af
10.	LPDC	(68)	25.72 cfs	89.28 af			2,632.41 af	2,721.61 af		
		(69)	1.10 cfs	3.82 af	43.64 af	172.37 af		219.83 af		
			<u>26.82 cfs</u>					2,941.52 af	500 af	2,441.52 af
11.	MMCC	(68)	15.71 cfs	54.53 af			1,607.90 af	1,662.43 af		
		(69)	48.852 cfs	169.57 af	1,937.96 af	7,654.96 af		9,762.49 af		

			<b>All Rights 25% Need</b>	<b>1869 40% Need</b>	<b>1869 100% Need</b>	<b>1868 40% Need</b>				
			Natural Flow Rights	6/1-6/7 7 days	6/8-7/27 50 days	7/28-10/15 79 days	6/8-10/15 129 days	Total '92 Need	L.P. Storage	Shortfall
			64.562 cfs					11,424.92 af	4,620 af	6,804.92 af
12.	MMID	(68)	3.28 cfs	11.39 af			335.47 af	346.86 af		
		(69)	109.51 cfs	380.12 af	4,344.26 af	17,159.89 af		21,884.27 af		
			<u>112.79 cfs</u>					22,231.13 af	6,380 af	15,851.13 af
13.	NDCDC	(68)	13.34 cfs	46.30 af			1,365.33 af	1,411.63 af		
		(69)	48.7442 cfs	169.20 af	1,933.68 af	7,638.07 af		9,740.95 af		
			<u>62.0842 cfs</u>					11,152.58 af	3,000 af	8,152.58 af
14.	NUDC	(68)	13.76 cfs	47.76 af			1,408.32 af	1,456.08 af	1,400 af	56.08 af
15.	PID	(68)	21.715 cfs	75.38 af			2,222.50 af	2,297.88 af		
		(69)	670.50 cfs	2,327.39 af	26,598.73 af	105,065.33 af		133,991.45 af		
			<u>692.215 cfs</u>					136,289.33 af	16,000 af	120,289.33 af
16.	SID	(68)	11.323 cfs	39.30 af			1,158.90 af	1,198.20 af		
		(69)	175.47 cfs	609.08 af	6,960.89 af	27,495.62 af		35,065.59 af		
			<u>186.793 cfs</u>					36,263.79 af	10,000 af	26,263.79 af
17.	SBMCC	(68)	2.3 cfs	7.98 af			235.40 af	243.38 af		
		(69)	14.61 cfs	50.71 af	579.58 af	2,289.34 af		2,919.63 af		
			<u>16.91 cfs</u>					3,163.01 af	500 af	2,663.01 af
18.	SBWC	(68)	9.93 cfs	34.47 af			1,106.32 af	1,140.79 af	700 af	440.79 af
19.	TMDC	(68)	20.038 cfs	69.55 af			2,050.87 af	2,120.42 af		
		(69)	14.80 cfs	51.37 af	587.12 af	2,319.12 af		2,957.61 af		





**Lucky Peak Contractors With Other Storage**  
**(from Water District 63 1999 Water Delivery Report, p. 43)**

	Arrowrock	Anderson	Lucky Peak	Total
1.BDC	0	376 f	1,300 af	1,676 af
3.BVIDC	0	961 af	2,500 af	3,461 af
5.CVID	0	460 af	300 af	760 af
9.FUDC	2,874 af	5,272 af	10,000 af	18,146 af
10.LPDC	0	2,174 af	500 af	2,674 af
13.NDCDC	0	1,296 af	3,000 af	4,296 af
15.PID	21,018 af	25,582 af	16,000 af	62,600 af
16.SID	2,878 af	6,082 af	10,000 af	18,960 af
17.SBMCC	0	543 af	500 af	1,043 af
	26,770 af	42,746 af	44,100 af	113,616 af

Total Aggregate Storage:

Lucky Peak	71,018 af
Anderson	42,746 af
Arrowrock	26,770 af
	140,534 af

Total Aggregate Shortfall: 303,711.96 af - 140,534 af = 163,177.96 af

