

MEMORANDUM

**Subject: Bear River Basin Plan
Key Structures and Diversions
MYERS No. 2 DIVERSION**

Date: August 7, 2000

Diversion Description: The diversion headgate structure consists of a very old, deteriorated wooden head wall with a 36-inch slide gate.



Diversion Location: Diversion is on the Upper Bear in Wyoming. Irrigated lands are located in Wyoming as shown in the location map hereafter.

Latitude N 41° 04' 10.0"
Longitude W 110° 55' 45.3"

Myers No. 2 headgate

Conveyance Description: Open Channel Canal.

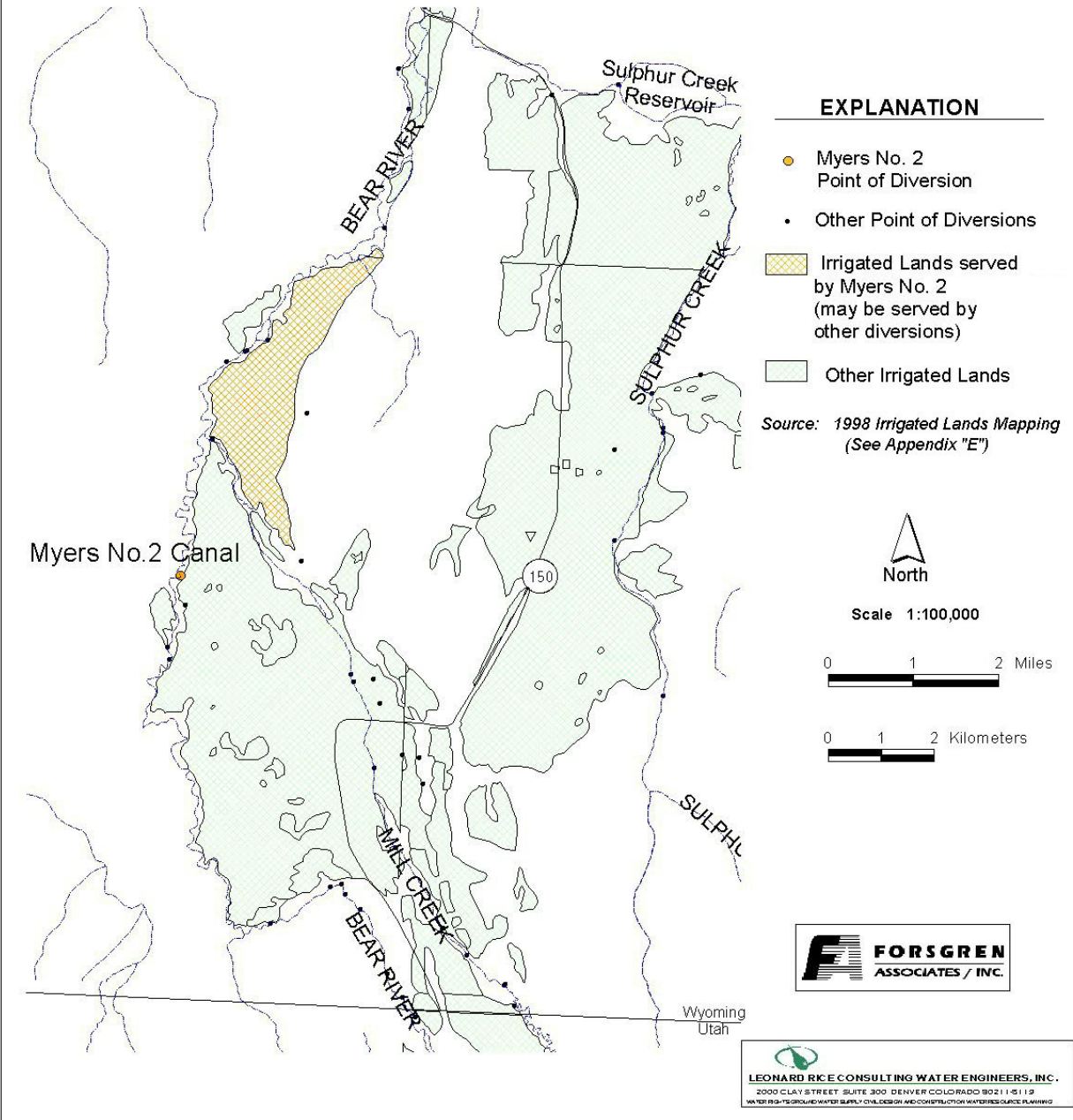
Direct Flow Water Rights:²

Priority Date	Permit Number	Permitted Use	Acres	Flow (CFS)	Cumulative (CFS)	Comments
09-23-1888	TERR	Irrigation	150	2.14	2.14	<i>Morse & Coffman</i>
12-13-1901	3613	Irr. & Dom.	430	6.14	8.28	
03-18-1939	4164E	Irrigation	45	0.64	8.92	

Associated Storage Rights:

Reservoir	Shareholder	Volume (Acre-ft)	Est. % of Shares Used this Diversion ³	Comments
Whitney	Moe Jackson	123.75	50%	
Whitney	Gay Spencer	128.75	100%	
Sulphur Creek	Jackson Land & Livestock	85	100%	By Exchange

Myers No. 2 Point of Diversion Bear River Basin, Wyoming



Irrigation Practices: Land is all flood irrigated..³

Estimated Diversion Efficiency: Canal losses are relatively high due to porous nature of soils in the higher reaches of the Upper Bear.

Calculated Diversion Efficiency = Conveyance Efficiency X Application Efficiency:

Conveyance Efficiency:	50%
Application Efficiency:	<u>55%</u>
Overall Diversion Efficiency:	27%

Conveyance Efficiency is estimated based on total length of main canal. Application Efficiency for Flood Irrigation and Sprinkler Irrigation is estimated at 55% and 85% respectively.

Crop Types / Consumptive Use: Water is used entirely to irrigate mixed meadow grasses, primarily Timothy, Meadow Foxtail, etc.³

Return Flows: Return flow is primarily intercepted by Myers Ditch No. 1.

The following return flow pattern was adopted for modeling in this study are as follows:

<u>Month</u> <u>(after initial Diversion)</u>	<u>Percent of Return</u>
0	70%
1	20%
2	10%
3	<u>0%</u>
	100%

References:

- 1) *USDA -Soil Conservation Service Economic Research Service-Forest Service in Cooperation with the States of Idaho, Utah, Wyoming, Irrigation Conveyance Systems, Working Paper for the Bear River Basin Type IV Study, Idaho-Utah-Wyoming, April 1976*
- 2) *Water rights summary obtained from State Engineer Interstate Reglist – revised April 14, 1999*
- 3) *Irrigation practices based on field investigation and interview with Mr. Don Shoemaker, Water Hydrographer-Commissioner – November 6,1999.*
- 4) *State of Utah Natural Resources, Water Budget Studies – Utah, Bear River Study Area, September 1994*

**BEAR RIVER WYOMING DIVERSIONS
MONTHLY DIVERSION RECORDS**

MEYERS NO. 2

YEAR	MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	Total of Daily Ave for Month	Average CFS	Monthly Total Ac-Ft	Total of Daily Ave for Month	Average CFS	Monthly Total Ac-Ft	Total of Daily Ave for Month	Average CFS	Monthly Total Ac-Ft	Total of Daily Ave for Month	Average CFS	Monthly Total Ac-Ft	Total of Daily Ave for Month	Average CFS	Monthly Total Ac-Ft
*1970															
1971	0	0.0	0.0	0	0.0	0.0	91	2.9	180.5	145	4.7	287.6	81	2.7	160.7
1972	0	0.0	0.0	0	0.0	0.0	148	4.8	293.6	254	8.2	503.8	198	6.6	392.7
1973	0	0.0	0.0	41	1.4	81.3	175	5.6	347.1	110	3.5	218.2	76	2.5	150.7
1974	0	0.0	0.0	37	1.2	73.4	144	4.6	285.6	100	3.2	198.3	147	4.9	291.6
1975	28	0.9	55.5	2	0.1	4.0	7	0.2	13.9	175	5.6	347.1	209	7.0	414.5
1976	0	0.0	0.0	13	0.4	25.8	272	8.8	539.5	204	6.6	404.6	81	2.7	160.7
1977	0	0.0	0.0	62	2.1	123.0	75	2.4	148.8	68	2.2	134.9	76	2.5	150.7
1978	76	2.5	150.7	56	1.9	111.1	128	4.1	253.9	233	7.5	462.1	105	3.5	208.3
1979	45	1.5	89.3	169	5.6	335.2	252	8.1	499.8	214	6.9	424.5	19	0.6	37.7
1980	0	0.0	0.0	13	0.4	25.8	101	3.3	200.3	284	9.2	563.3	117	3.9	232.1
1981	17	0.5	33.7	28	0.9	55.5	253	8.2	501.8	113	3.6	224.1	21	0.7	41.7
1982	0	0.0	0.0	7	0.2	13.9	17	0.5	33.7	183	5.9	363.0	175	5.8	347.1
1983	22	0.7	43.6	3	0.1	6.0	82	2.6	162.6	197	6.4	390.7	127	4.2	251.9
1984	0	0.0	0.0	64	2.1	126.9	253	8.2	501.8	177	5.7	351.1	45	1.5	89.3
1985	0	0.0	0.0	101	3.4	200.3	244	7.9	484.0	157	5.1	311.4	82	2.7	162.6
1986	0	0.0	0.0	70	2.3	138.8	205	6.6	406.6	201	6.5	398.7	83	2.8	164.6
1987	0	0.0	0.0	143	4.8	283.6	229	7.4	454.2	39	1.3	77.4	193	6.4	382.8
1988	23	0.7	45.6	99	3.3	196.4	189	6.1	374.9	63	2.0	125.0	68	2.3	134.9
1989	19	0.6	37.7	202	6.7	400.7	250	8.1	495.9	184	5.9	365.0	81	2.7	160.7
1990	96	3.1	190.4	134	4.5	265.8	290	9.4	575.2	119	3.8	236.0	71	2.4	140.8
1991	74	2.4	146.8	127	4.2	251.9	184	5.9	365.0	135	4.4	267.8	68	2.3	134.9
1992	23	0.7	45.6	185	6.2	366.9	129	4.2	255.9	0	0.0	0.0	85	2.8	168.6
1993	43	1.4	85.3	268	8.9	531.6	233	7.5	462.1	202	6.5	400.7	43	1.4	85.3
1994	86	2.8	170.6	188	6.3	372.9	192	6.2	380.8	94	3.0	186.4	48	1.6	95.2
1995	12	0.4	23.8	209	7.0	414.5	282	9.1	559.3	193	6.2	382.8	39	1.3	77.4
1996	21	0.7	41.7	199	6.6	394.7	316	10.2	626.8	137	4.4	271.7	33	1.1	65.5
1997	6.8	0.2	13.5	205.2	6.8	407.0	219.5	7.1	435.4	180.6	5.8	358.2	56.7	1.9	112.5
1998	42.4	1.4	84.1	118.3	3.9	234.6	187.6	6.1	372.1	160.2	5.2	317.8	59.1	2.0	117.2
1999	10	0.3	19.8	173	5.8	343.1	279	9.0	553.4	254	8.2	503.8	51	1.7	101.2

AVERAGES

0.7 44.1

3.4 199.5

6.0 371.2

5.1 313.0

2.9 173.6

Notes: *1. No published records are available for this diversion for 1970