

Stream: Elkhead Creek

Executive Summary

Water Division: 6

Water District: 44

CDOW#: 23165

CWCB ID#: 06/06/A-014

Segment: Torso Creek to First Creek

Upper Terminus: Torso Creek

Latitude: 40d46'23.14"N Longitude: 107d07'50.15"W

UTM North: 4515752.743 UTM East: 320194.155

NW1/4, NE1/4, Sctn3, T9N, R87W, 6th PM

1477 ft W of the E Section Line, 1074 ft, S of the N Section Line

Lower Terminus: First Creek

Latitude: 40d44'01.82"N Longitude: 107d10'01.51"W

UTM North: 4511470.132 UTM East: 317006.975

SE1/4, SE1/4, Sctn17, T9N, R87W, 6th PM

1030 ft W of the E Section Line, 458 ft, N of the S Section Line

Counties: Routt

Length: 5.13 miles

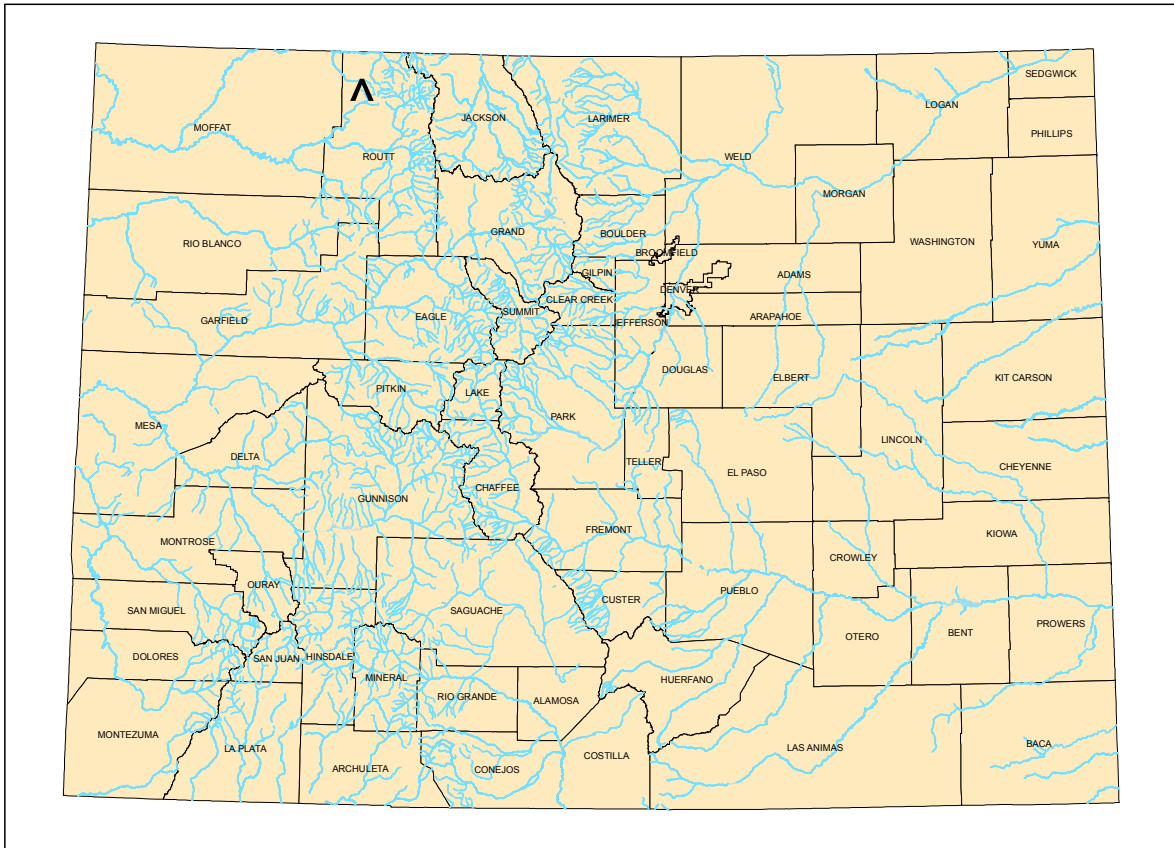
USGS Quad(s): Bears Ears Peak, Quaker Mountain

ISF Appropriation: 3.90 cfs (04/01 – 07/31)

1.75 cfs (08/01 – 03/31)



Elkhead Creek



The information contained in this report and the associated instream flow file folder forms the basis for the instream flow recommendation to be considered by the Board. It is staff's opinion that the information contained in this report is sufficient to support the findings required in Rule 5 i.

Colorado's Instream Flow Program was created in 1973 when the Colorado State Legislature recognized "the need to correlate the activities of mankind with some reasonable preservation of the natural environment" (see 37-92-102 (3) C.R.S.). The statute vests the CWCB with the exclusive authority to appropriate and acquire instream flow and natural lake level water rights. In order to encourage other entities to participate in Colorado's Instream Flow Program, the statute directs the CWCB to request instream flow recommendations from other state and federal agencies. The Colorado Division of Wildlife (CDOW) recommended this segment of Elkhead Creek to the CWCB for inclusion into the Instream Flow Program. Elkhead Creek is being considered for inclusion into the Instream Flow Program because it has a natural environment that can be preserved to a reasonable degree with an instream flow water right.

The CDOW is forwarding this stream flow recommendation to the CWCB to meet the State of Colorado's policy "... that the wildlife and their environment are to be protected, preserved,

enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors ... and that, to carry out such program and policy, there shall be a continuous operation of planning, acquisition, and development of wildlife habitats and facilities for wildlife-related opportunities” C.R.S. 33-1-101 (1). The CDOW Strategic Plan states “Healthy aquatic environments are essential to maintain healthy and viable fisheries, and critical for self-sustaining populations. The Division desires to protect and enhance the quality and quantity of aquatic habitats.”

Elkhead Creek is approximately 40 miles long. It begins on the east side of Saddle Mountain in California Park at an elevation of approximately 8900 feet and terminates at the confluence with the Yampa River at an elevation of approximately 6200 feet. Of the 5.1 mile segment addressed by this report, approximately 100% of the segment is located on public lands. Elkhead Creek is located within Routt County. The total drainage area of Elkhead Creek is approximately 250 square miles. Elkhead Creek generally flows in a southwesterly direction.

The subject of this report is a segment of the Elkhead Creek beginning at the confluence with Torso Creek and extending downstream to the confluence with First Creek. The proposed segment is located northeast of the Town of Craig. The staff has received one recommendation for this segment from the CDOW. The recommendation for this segment is discussed below.

Instream Flow Recommendation(s)

The CDOW has recommended 3.9 cfs, summer, and 3.0 cfs, winter, based on their data collection efforts (see Table 1 and Appendix A). The modeling results from this survey effort are within the confidence interval produced by the R2CROSS model.

Land Status Review

Upper Terminus	Lower Terminus	Total Length (miles)	Land Ownership	
			% Private	% Public
Torso Creek	First Creek	5.35	12%	88%

31% of the public lands are owned by the State and 57% of the public lands are owned by the USFS.

Biological and Field Survey Data

As reported in the letter from CDOW to the CWCB, “The Colorado Division of Wildlife (CDOW), in July of 2005, collected stream cross section information, natural environment data, and other data needed to quantify the instream flow needs for this reach of Elkhead Creek. Elkhead Creek is classified as a medium stream (between 20 to 35 feet wide) and fishery surveys indicate the stream environment of Elkhead Creek supports Colorado River cutthroat trout (*Salmo clarki pleuriticus*), Brown trout (*Salmo trutta*), Mountain sucker (*Catostomus platyrhynchus*), White sucker (*Catostomus commersoni*), Bluehead sucker (*Catostomus discobolus*), Roundtail chub (*Gila robusta*), Creek chub (*Semotilus atromaculatus*) and Mottled sculpin (*Cottus bairdi*).

Colorado River cutthroat trout, Mountain sucker, Bluehead sucker and Roundtail chub have been identified by the DOW and several other state and federal agencies as “species of greatest

conservation need”. DOW is involved in developing Conservation and Management Plans for these species. The intention of these plans is to increase populations and distributions of identified species, thereby assisting in the long-term persistence of each species. The success of such plans could potentially curtail the need for federal listing of these species under the Endangered Species Act (ESA). These species are not currently federally listed” (See CDOW Fish Survey in Appendix B).

Field Survey Data

CDOW staff used the R2CROSS methodology to quantify the amount of water required to preserve the natural environment to a reasonable degree. The R2CROSS method requires that stream discharge and channel profile data be collected in a riffle stream habitat type. Riffles are most easily visualized, as the stream habitat types that would dry up first should streamflow cease. This type of hydraulic data collection consists of setting up a transect, surveying the stream channel geometry, and measuring the stream discharge. Appendix B contains copies of field data collected for this proposed segment.

Biological Flow Recommendation

The CWCB staff relied upon the biological expertise of the cooperating agencies to interpret output from the R2CROSS data collected to develop the initial, biologic instream flow recommendation. This initial recommendation is designed to address the unique biologic requirements of each stream without regard to water availability. Three instream flow hydraulic parameters, average depth, percent wetted perimeter, and average velocity are used to develop biologic instream flow recommendations. The CDOW has determined that maintaining these three hydraulic parameters at adequate levels across riffle habitat types, aquatic habitat in pools and runs will also be maintained for most life stages of fish and aquatic invertebrates (Nehring 1979; Espegren 1996).

For this segment of stream, one data set was collected with the results shown in Table 1 below. Table 1 shows who collected the data (Party), the date the data was collected (July 2005), the measured discharge at the time of the survey (Q), the accuracy range of the predicted flows based on Manning’s Equation (240% and 40% of Q), the summer flow recommendation based on meeting 3 of 3 hydraulic criteria and the winter flow recommendation based upon 2 of 3 hydraulic criteria.

Table 1: Data

Party	Date	Q	250%-40%	Summer (3/3)	Winter (2/3)
DOW	7/26/2005	5.09	12.7 – 2.0	3.9	3.0

DOW = Division of Wildlife

Biologic Flow Recommendation

The summer flow recommendation, which met 3 of 3 criteria and is within the accuracy range of the R2CROSS model is 3.9 cfs (See Table 1). The winter flow recommendation, which met 2 of 3 criteria and is within the accuracy range of the R2CROSS model range is 3.0 cfs (See Table 1).

Hydrologic Data

After receiving the cooperating agency's biologic recommendation, the CWCB staff conducted an evaluation of the stream hydrology to determine if water was physically available for an instream flow appropriation. The hydrograph below was derived from data collected by the USGS stream gage for Elkhead Creek near Clark, CO (#09244500), which has a drainage area of 45.4 square miles (See Gage Summary in Appendix C). The total drainage area of this segment of the Elkhead Creek is approximately 26.35 square miles. The period of record for this gage was 1942 to 1973, the period of record used by staff in their analysis was 1942 - 1973, or 19 years of record. Table 2 below displays the estimated flow of Armstrong Creek at the gage, in terms of a percentage of exceedence.

Table 2: Estimated Stream Flow for Elkhead Creek

Exceedence	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1%	3.71	2.90	10.71	232.16	359.96	200.93	20.16	6.81	7.49	6.38	5.79	4.41
5%	2.98	2.90	5.80	167.15	299.25	127.69	15.09	4.76	4.70	5.14	4.76	3.71
10%	2.50	2.50	4.45	104.47	266.63	113.76	12.77	4.00	3.31	4.59	4.35	2.90
20%	2.32	2.32	3.48	58.04	208.71	81.26	9.87	2.96	2.67	3.77	3.25	2.79
50%	1.86	1.74	2.26	17.41	117.24	33.08	5.31	1.92	1.63	2.21	2.32	2.03
80%	1.28	1.39	1.74	6.38	66.17	15.67	2.25	1.01	0.81	1.33	1.63	1.28
90%	1.04	1.28	1.51	3.19	52.00	9.29	1.63	0.58	0.52	1.16	1.39	1.16
95%	1.04	0.93	1.28	2.32	38.19	6.96	1.10	0.41	0.41	1.10	1.36	1.04
99%	1.04	0.93	1.19	1.51	24.89	3.71	0.75	0.23	0.35	0.52	1.16	1.04

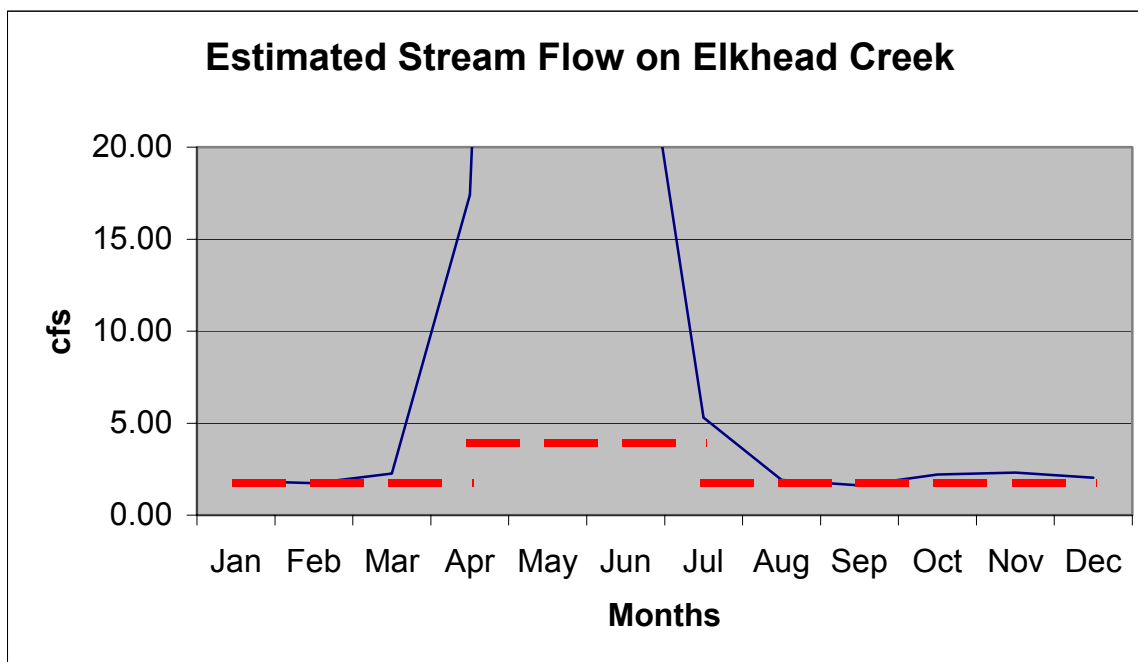


Table 2 shows that the summer flow recommendation of 3.9 cfs is available at least 50% of the time for the month of April 1st through July 31st. The winter flow recommendation of 3.0 cfs is not available 50% of the time from August 1st through March 31st. Based on water availability, the winter recommendation was further reduced to 1.75 cfs for the time period of August 1st through March 31st.

Precipitation Data

Staff reviewed a local precipitation data set from 1 site located near the Elkhead Drainage (see Precipitation Data in Appendix C). Table 3 shows the water year and the percent of average precipitation recorded at each site. It is staff's opinion that the 19 years of stream-flow data analyzed is representative of average water-years.

Table 3: Precipitation Data as a percentage of Average

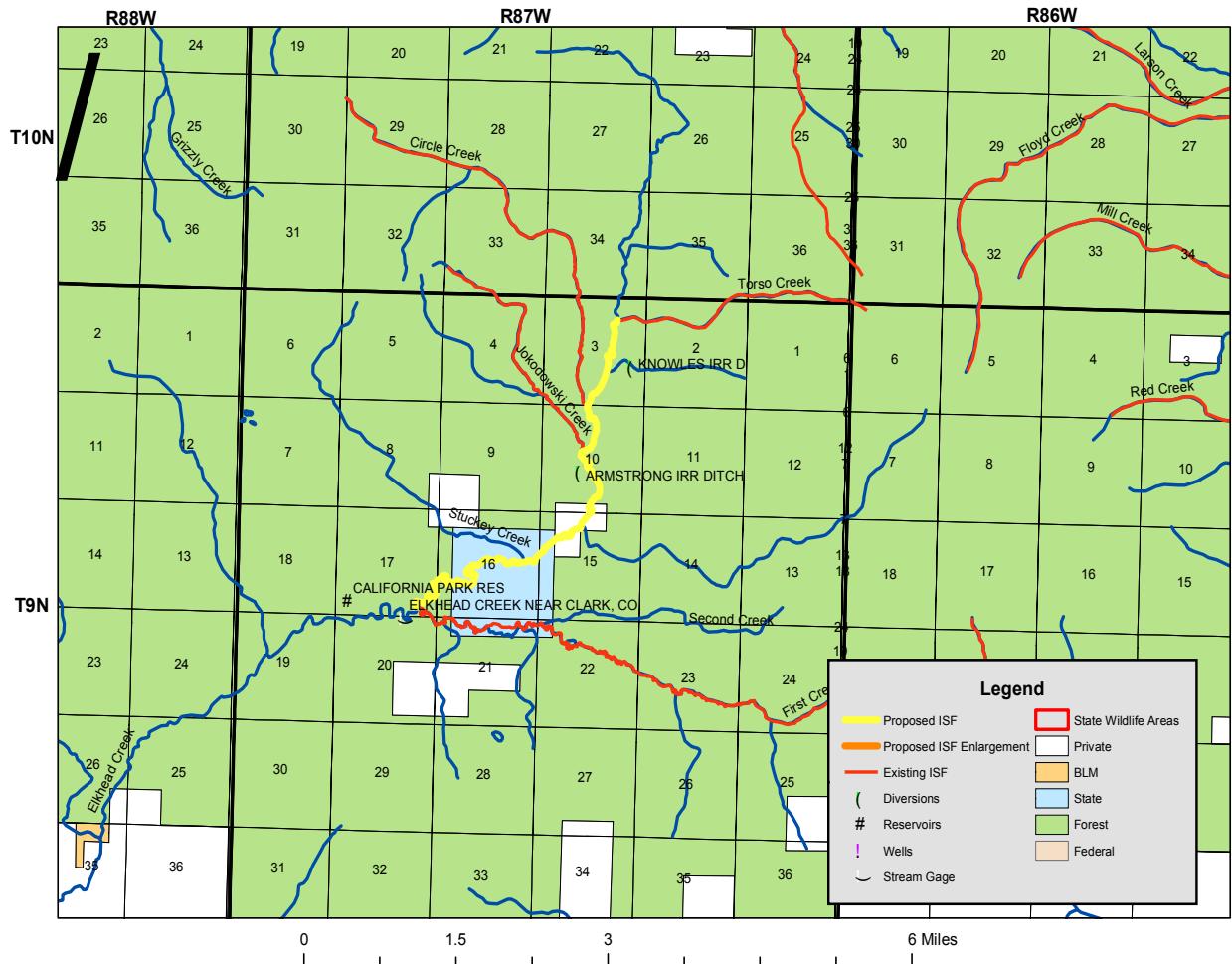
Year	Craig Elevation=5690 Lat=40.31 Long=-107.33
1942	73%
1943	80%
1944	102%
1945	157%
1946	112%
1947	131%
1949	117%
1950	91%
1951	139%
1952	92%
1953	108%
1954	102%
1955	90%
1956	69%
1957	139%
1958	56%
1959	106%
1960	69%
1961	94%
1962	67%
1963	94%
1964	110%
1965	104%
1966	74%
1967	125%
1968	96%
1969	125%
1970	120%
1971	83%
1972	86%
1973	94%
Average	100%

Table 3 shows that the 19 years of stream flow data analyzed are representative of average water years.

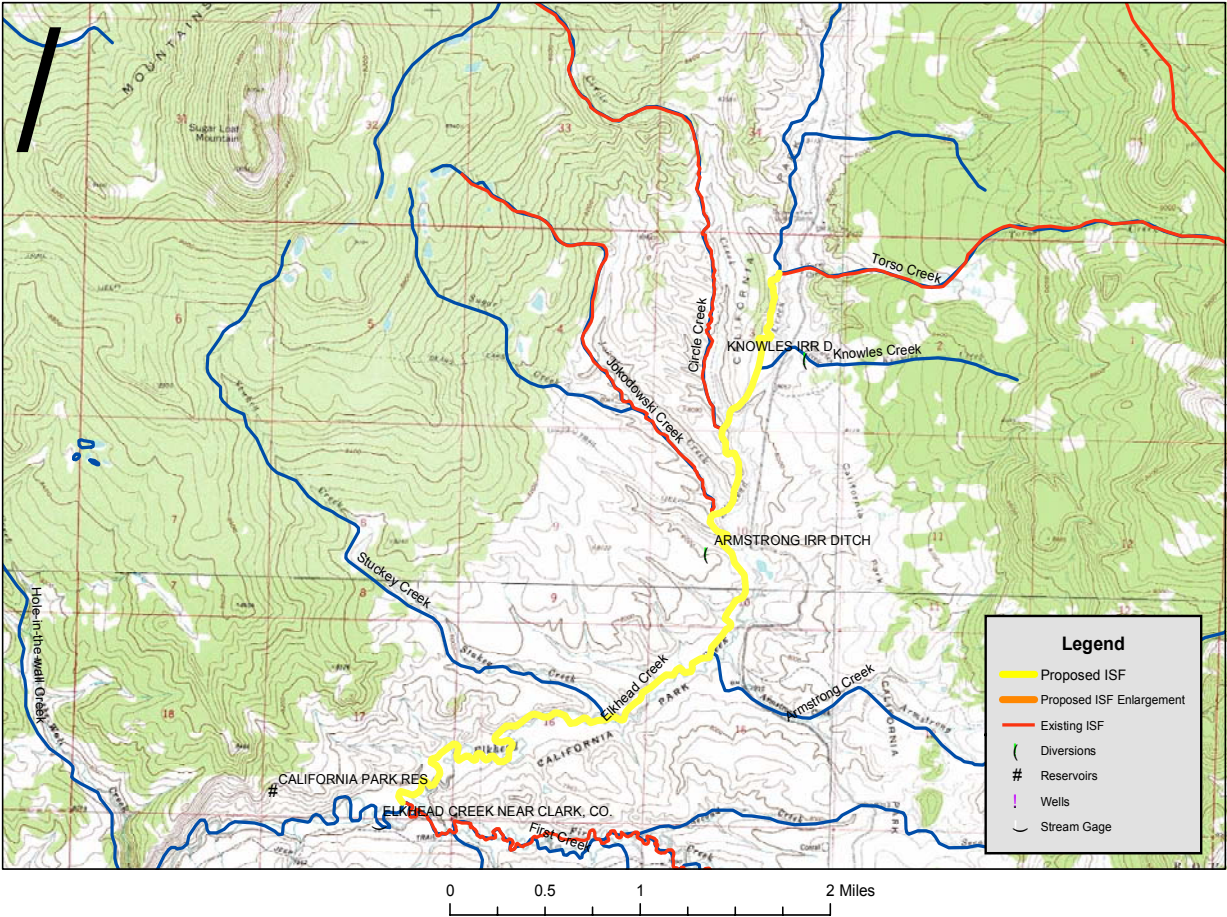
Existing Water Right Information

Staff has analyzed the water rights tabulation and consulted with the Division Engineer's Office (DEO) to identify any potential water availability problems. Records indicate that the following surface water diversion is located within this reach of Elkhead Creek: Armstrong Irrigation Ditch and Knowles Irrigation Ditch (see maps and tabulation in Appendix C). According to the DEO, these water rights have been abandoned and there is usually sufficient water available within this stream reach to satisfy the recommended instream flow amount. Based on this analysis, staff has determined that water is available for appropriation on Elkhead Creek, from Torso Creek to First Creek, to preserve the natural environment to a reasonable degree without limiting or foreclosing the exercise of valid existing water rights.

Elkhead Creek



Elkhead Creek



CWCB Staff's Instream Flow Recommendation

Based on the CDOW recommendation, staff recommends the Board form its intent to appropriate on the following stream reach:

Segment: Torso Creek to First Creek

Upper Terminus: Torso Creek

Latitude: 40d46'23.14"N Longitude: 107d07'50.15"W

UTM North: 4515752.743 UTM East: 320194.155

NW1/4, NE1/4, Sctn3, T9N, R87W, 6th PM

1477 ft W of the E Section Line, 1074 ft, S of the N Section Line

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1030 ft W of the E Section Line, 458 ft, N of the S Section Line

Counties: Routt

Length: 5.13 miles

USGS Quad(s): Bears Ears Peak, Quaker Mountain

ISF Appropriation: 3.90 cfs (04/01 – 07/31)

 1.75 cfs (08/01 – 03/31)

APPENDIX – A

ISF Recommendation

STATE OF COLORADO

Bill Owens, Governor

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WILDLIFE

AN EQUAL OPPORTUNITY EMPLOYER

Bruce McCloskey, Director
6060 Broadway
Denver, Colorado 80216
Telephone (303) 297-1192



*For Wildlife-
For People*

December 15, 2005

Mr. Dan Merriman and Mr. Todd Doherty
Colorado Water Conservation Board
Stream and Lake Protection Section
1313 Sherman Street, Room 723
Denver, Colorado 80203

Re: Colorado Division of Wildlife Instream Flow Recommendations for Elkhead Creek.

Dear Dan and Todd,

The purpose of this letter is to officially transmit the Colorado Division of Wildlife's Instream Flow Recommendations for Elkhead Creek in Routt County. The reach of stream covered by this flow recommendation is from the confluence of Torso Creek to the confluence with First Creek, a distance of approximately 5 miles.

The Colorado Division of Wildlife (CDOW), in July of 2005, collected stream cross section information, natural environment data, and other data needed to quantify the instream flow needs for this reach of Elkhead Creek. Elkhead Creek is classified as a medium stream (between 20 to 35 feet wide) and fishery surveys indicate the stream environment of Elkhead Creek supports Colorado River cutthroat trout (*Salmo clarki pleuriticus*), Brown trout (*Salmo trutta*), Mountain sucker (*Catostomus platyrhynchus*), White sucker (*Catostomus commersoni*), Bluehead sucker (*Catostomus discobolus*), Roundtail chub (*Gila robusta*), Creek chub (*Semotilus atromaculatus*) and Mottled sculpin (*Cottus bairdi*).

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The stream cross section data was analyzed using the R2CROSS program. The R2CROSS output was evaluated using the methods described in Nehring (1979) and Espegren (1996). The CDOW has reviewed the data collected to date and based on that review recommends that the CWCB appropriated the following flow amounts to preserve the natural environment of Elkhead Creek to a reasonable degree

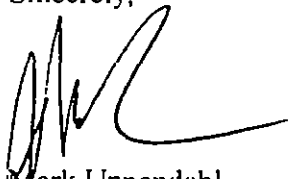
DEPARTMENT OF NATURAL RESOURCES, Russell George, Executive Director
WILDLIFE COMMISSION, Jeffrey Crawford, Chair • Tom Burke, Vice Chair • Ken Torres, Secretary
Members, Bernard Black • Rick Enstrom • Philip James • Claire O'Neal • Brad Phelps • Robert Shoemaker
Ex Officio Members, Russell George and Don Ament

- 3.9 cubic feet per second is recommended for April 1 through October 31. This flow is required to maintain the three principal hydraulic criteria of average depth, average velocity and percent wetted perimeter;
- 3.0 cubic feet per second is recommended for November 1 through March 31. This flow is required to maintain two of the three principal hydraulic criteria of average depth and percent wetted perimeter.

The CDOW is forwarding this stream flow recommendation to the CWCB to meet the State of Colorado's policy "... that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors ... and that, to carry out such program and policy, there shall be a continuous operation of planning, acquisition, and development of wildlife habitats and facilities for wildlife-related opportunities." C.R.S. 33-1-101 (1). The CDOW Strategic Plan states "Healthy aquatic environments are essential to maintain healthy and viable fisheries, and critical for self-sustaining populations. The Division desires to protect and enhance the quality and quantity of aquatic habitats."

Please find attached, copies of the field data sheets, the R2CROSS modeling runs, fishery survey information and stream photographs. If you have any questions regarding the attached information or the instream flow recommendations, please feel free to contact me at (303)-291-7267.

Sincerely,



Mark Uppendahl
Colorado Division of Wildlife
Instream Flow Program Coordinator

Cc: Jay Skinner, CDOW Water Unit Program Manager -- w/o attachments
Sherman Hebein, CDOW Senior Fish Biologist -- West Regions -- w/o attachments
Bill Atkinson, CDOW Aquatic Biologist -- w/o attachments
Lori Martin, CDOW Aquatic Biologist - w/o attachments
Susan Werner, CDOW AWM Area 10 - w/o attachments

APPENDIX – B
Field Data

2/2 = 2.9
2/3 = 3.0

COLORADO WATER CONSERVATION BOARD
INSTREAM FLOW / NATURAL LAKE LEVEL PROGRAM
STREAM CROSS-SECTION AND FLOW ANALYSIS

LOCATION INFORMATION

STREAM NAME Elkhead Creek
XS LOCATION N 40 44' 44 5" W 107 08' 12 3"
XS NUMBER 7260504

DATE 26-Jul-05
OBSERVERS Uppendahl, Dilger

1/4 SEC NW
SECTION 15
TWP 9N
RANGE 87W
PM 6

COUNTY Routt
WATERSHED Yampa
DIVISION 6
DOW CODE ~~6~~ 23165

USGS MAP Quaker Mnt
USFS MAP 0

SUPPLEMENTAL DATA

*** NOTE ***

Leave TAPE WT and TENSION
at defaults for data collected
with a survey level and rod

TAPE WT 0 0106
TENSION 99999

CHANNEL PROFILE DATA

SLOPE 0 015

INPUT DATA CHECKED BY DATE

ASSIGNED TO DATE

STREAM NAME Elkhead Creek
 XS LOCATION N 40 44' 44 5" W 107 08' 12 3"
 XS NUMBER 7260504

DATA POINTS=

37

VALUES COMPUTED FROM RAW FIELD DATA

FEATURE	DIST	VERT DEPTH	WATER DEPTH	VEL	WETTED PERIM	WATER DEPTH	AREA (Am)	Q (Qm)	% Q CELL
S	0 00	3 25			0 00		0 00	0 00	0 0%
PIN	0 30	3 05			0 00		0 00	0 00	0 0%
	2 00	3 50			0 00		0 00	0 00	0 0%
	4 00	3 80			0 00		0 00	0 00	0 0%
	6 00	4 20			0 00		0 00	0 00	0 0%
1 G	8 00	4 55			0 00		0 00	0 00	0 0%
	10 00	4 70			0 00		0 00	0 00	0 0%
	12 00	4 95			0 00		0 00	0 00	0 0%
	13 00	5 05			0 00		0 00	0 00	0 0%
W	13 50	5 10	0 00	0 00	0 00		0 00	0 00	0 0%
	14 50	5 30	0 20	0 30	1 02	0 20	0 18	0 05	1 0%
	15 25	5 20	0 10	0 20	0 76	0 10	0 08	0 02	0 3%
	16 00	5 30	0 20	1 04	0 76	0 20	0 15	0 16	3 1%
	16 75	5 40	0 30	2 69	0 76	0 30	0 23	0 61	11 9%
	17 50	5 30	0 20	1 16	0 76	0 20	0 15	0 18	3 5%
	18 29	5 40	0 30	1 40	0 80	0 30	0 23	0 32	6 2%
	19 00	5 45	0 35	1 32	0 71	0 35	0 26	0 34	6 6%
	19 75	5 55	0 45	0 48	0 76	0 45	0 34	0 16	3 2%
	20 50	5 50	0 40	1 19	0 75	0 40	0 30	0 36	7 0%
	21 25	5 65	0 55	1 71	0 76	0 55	0 34	0 59	11 6%
	21 75	5 70	0 60	0 52	0 50	0 60	0 23	0 12	2 3%
	22 00	5 50	0 40	1 23	0 32	0 40	0 13	0 16	3 1%
	22 40	5 55	0 45	1 11	0 40	0 45	0 17	0 19	3 7%
	22 75	5 70	0 60	0 65	0 38	0 60	0 24	0 16	3 1%
	23 20	5 50	0 40	1 42	0 49	0 40	0 15	0 21	4 2%
	23 50	5 50	0 40	0 81	0 30	0 40	0 21	0 17	3 3%
	24 25	5 60	0 50	1 25	0 76	0 50	0 38	0 47	9 2%
	25 00	5 60	0 50	1 35	0 75	0 50	0 38	0 51	10 0%
	25 75	5 40	0 30	1 19	0 78	0 30	0 23	0 27	5 3%
	26 50	5 50	0 40	0 30	0 76	0 40	0 25	0 08	1 5%
W	27 00	5 10	0 00	0 00	0 64		0 00	0 00	0 0%
	28 00	5 05			0 00		0 00	0 00	0 0%
	29 50	4 95			0 00		0 00	0 00	0 0%
	31 00	4 75			0 00		0 00	0 00	0 0%
	32 00	4 60			0 00		0 00	0 00	0 0%
1 G	33 00	4 55			0 00		0 00	0 00	0 0%
S	34 60	4 35			0 00		0 00	0 00	0 0%

TOTALS -----

13 91 0 6 4 59 5 09 100 0%
 (Max)

Manning's n = 0 0784
 Hydraulic Radius= 0 330028834

STREAM NAME Elkhead Creek
 XS LOCATION N 40° 44' 44.5" W 107° 08' 12.3"
 XS NUMBER 7260504

WATER LINE COMPARISON TABLE

WATER LINE	MEAS AREA	COMP AREA	AREA ERROR
	4.59	4.59	0.0%
4.85	4.59	8.75	90.8%
4.87	4.59	8.38	82.5%
4.89	4.59	8.00	74.4%
4.91	4.59	7.64	66.5%
4.93	4.59	7.28	58.6%
4.95	4.59	6.93	50.9%
4.97	4.59	6.58	43.4%
4.99	4.59	6.25	36.1%
5.01	4.59	5.92	29.0%
5.03	4.59	5.61	22.2%
5.05	4.59	5.30	15.5%
5.06	4.59	5.15	12.3%
5.07	4.59	5.01	9.1%
5.08	4.59	4.87	6.0%
5.09	4.59	4.73	3.0%
5.10	4.59	4.59	0.0%
5.11	4.59	4.45	-2.9%
5.12	4.59	4.32	-5.9%
5.13	4.59	4.19	-8.8%
5.14	4.59	4.05	-11.7%
5.15	4.59	3.92	-14.5%
5.17	4.59	3.86	-20.3%
5.19	4.59	3.40	-25.9%
5.21	4.59	3.14	-31.5%
5.23	4.59	2.89	-36.9%
5.25	4.59	2.65	-42.2%
5.27	4.59	2.42	-47.2%
5.29	4.59	2.20	-52.1%
5.31	4.59	1.98	-56.8%
5.33	4.59	1.78	-61.3%
5.35	4.59	1.58	-65.5%

WATERLINE AT ZERO
 AREA ERROR = 5.100

STREAM NAME Elkhead Creek
 XS LOCATION N 40 44' 44 5" W 107 08' 12 3"
 XS NUMBER 7260504

Constant Manning's n

GL = lowest Grassline elevation corrected for sag

STAGING TABLE

WL = Waterline corrected for variations in field measured water surface elevations and sag

	DIST TO WATER (FT)	TOP WIDTH (FT)	AVG DEPTH (FT)	MAX DEPTH (FT)	AREA (SQ FT)	WETTED PERIM (FT)	PERCENT WET PERIM (%)	HYDR RADIUS (FT)	FLOW (CFS)	AVG VELOCITY (FT/SEC)
GL	4 55	25 00	0 61	1 15	15 23	25 47	100 0%	0 60	25 09	1 65
	4 55	25 00	0 61	1 15	15 23	25 47	100 0%	0 60	25 09	1 65
	4 60	23 33	0 60	1 10	14 02	23 80	93 4%	0 59	22 87	1 63
	4 65	22 33	0 58	1 05	12 88	22 79	89 5%	0 57	20 43	1 59
	4 70	21 33	0 55	1 00	11 79	21 78	85 5%	0 54	18 16	1 54
	4 75	20 60	0 52	0 95	10 74	21 04	82 6%	0 51	15 91	1 48
	4 80	19 82	0 49	0 90	9 73	20 26	79 6%	0 48	13 84	1 42
	4 85	19 05	0 46	0 85	8 75	19 48	76 5%	0 45	11 92	1 36
	4 90	18 27	0 43	0 80	7 82	18 70	73 4%	0 42	10 15	1 30
	4 95	17 50	0 40	0 75	6 93	17 92	70 4%	0 39	8 53	1 23
	5 00	16 25	0 37	0 70	6 08	16 66	65 4%	0 37	7 21	1 19
	5 05	15 00	0 35	0 65	5 30	15 41	60 5%	0 34	6 04	1 14
WL	5 10	13 50	0 34	0 60	4 59	13 91	54 6%	0 33	5 09	1 11
	5 15	13 19	0 30	0 55	3 92	13 57	53 3%	0 29	3 08	1 08
	5 20	12 88	0 25	0 50	3 27	13 24	52 0%	0 25	2 90	0 91
	5 25	11 81	0 22	0 45	2 65	12 14	47 7%	0 22	2 23	0 84
	5 30	10 75	0 19	0 40	2 09	11 05	43 4%	0 19	1 60	0 76
	5 35	9 54	0 17	0 35	1 58	9 82	38 6%	0 16	1 09	0 69
	5 40	8 33	0 14	0 30	1 14	8 58	33 7%	0 13	0 68	0 60
	5 45	7 00	0 11	0 25	0 75	7 22	28 3%	0 10	0 39	0 51
	5 50	5 70	0 07	0 20	0 43	5 89	23 1%	0 07	0 17	0 40
	5 55	3 19	0 06	0 15	0 20	3 32	13 1%	0 06	0 07	0 36
	5 60	1 33	0 05	0 10	0 07	1 42	5 6%	0 05	0 02	0 32
	5 65	0 79	0 03	0 05	0 02	0 83	3 3%	0 02	0 00	0 19
	5 70	0 00	#DIV/0!	0 00	0 00	0 00	0 0%	#DIV/0!	#DIV/0!	#DIV/0!

3/3 3 9
 2/2 = 3.0

STREAM NAME	Elkhead Creek
XS LOCATION	N 40 44' 44 5" W 107 08' 12 3"
XS NUMBER	7260504

SUMMARY SHEET

MEASURED FLOW (Qm)=	5 09 cfs
CALCULATED FLOW (Qc)=	5 09 cfs
(Qm-Qc)/Qm * 100 =	0 0 %
MEASURED WATERLINE (WLM)=	5 10 ft
CALCULATED WATERLINE (WLC)=	5 10 ft
(WLM-WLC)/WLM * 100 =	0 0 %
MAX MEASURED DEPTH (Dm)=	0 60 ft
MAX CALCULATED DEPTH (Dc)=	0 60 ft
(Dm-Dc)/Dm * 100 =	0 0 %
MEAN VELOCITY=	1 11 ft/sec
MANNING'S N=	0 078
SLOPE=	0 015 ft/ft
4 * Qm =	2 0 cfs
2 5 * Qm=	12 7 cfs

RECOMMENDED INSTREAM FLOW

=====

FLOW (CFS)	PERIOD
=====	=====

RATIONALE FOR RECOMMENDATION
=====

RECOMMENDATION BY

AGENCY

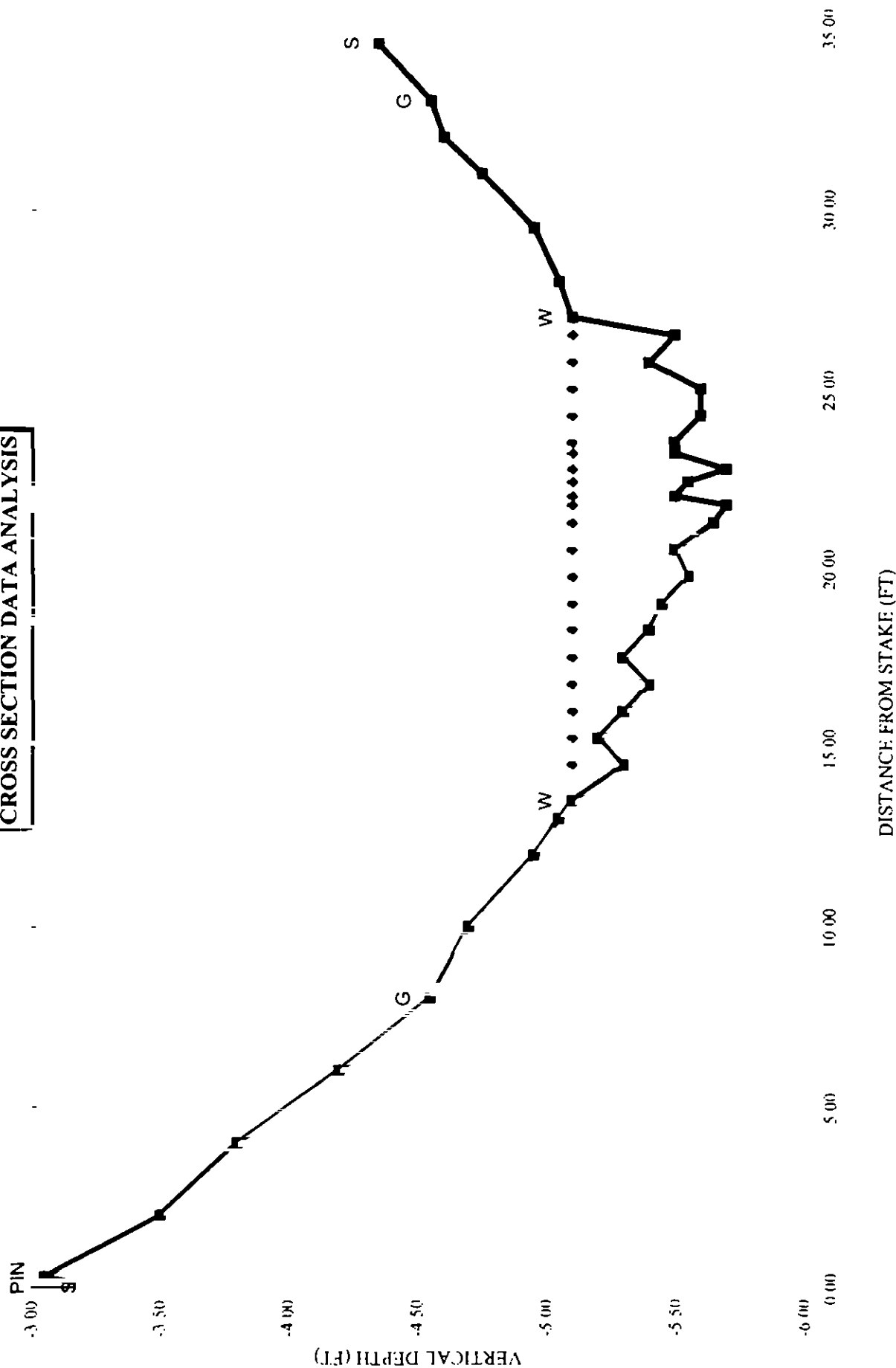
DATE

CWCB REVIEW BY

DATE

Elkhead Creek

CROSS SECTION DATA ANALYSIS



Channel Bottom Computed Water Line

STREAM NAME Elkhead Creek
 XS LOCATION N 40 44' 44 5" W 107 08' 12 3"
 XS NUMBER 7260504

Thorne-Zevenbergen D84 Correction Applied

Estimated D84 =

0.48

GL = lowest Grassline elevation corrected for sag

STAGING TABLE

WL = Waterline corrected for variations in field measured water surface elevations and sag

Velocity based on test of R/D84>1

	DIST TO WATER (FT)	TOP WIDTH (FT)	AVG DEPTH (FT)	MAX DEPTH (FT)	AREA (SQ FT)	WETTED PERIM (FT)	PERCENT WET PERIM (%)	HYDR RADIUS (FT)	FLOW (CFS)	AVG VELOCITY (FT/SEC)
GL	4.55	25.00	0.61	1.15	15.23	25.47	100.0%	0.60	31.92	2.10
	4.55	25.00	0.61	1.15	15.23	25.47	100.0%	0.60	31.92	2.10
	4.60	23.33	0.60	1.10	14.02	23.80	93.4%	0.59	28.73	2.05
	4.65	22.33	0.58	1.05	12.88	22.79	89.5%	0.57	25.13	1.95
	4.70	21.33	0.55	1.00	11.79	21.78	85.5%	0.54	21.83	1.85
	4.75	20.60	0.52	0.95	10.74	21.04	82.6%	0.51	18.58	1.73
	4.80	19.82	0.49	0.90	9.73	20.26	79.6%	0.48	15.65	1.61
	4.85	19.05	0.46	0.85	8.75	19.48	76.5%	0.45	14.27	1.63
	4.90	18.27	0.43	0.80	7.82	18.70	73.4%	0.42	11.56	1.48
	4.95	17.50	0.40	0.75	6.93	17.92	70.4%	0.39	9.21	1.33
	5.00	16.25	0.37	0.70	6.08	16.66	65.4%	0.37	7.56	1.24
	5.05	15.00	0.35	0.65	5.30	15.41	60.5%	0.34	6.14	1.16
WL	5.10	13.50	0.34	0.60	4.59	13.91	54.6%	0.33	5.09	1.11
	5.15	13.19	0.30	0.55	3.92	13.57	53.3%	0.29	3.64	0.93
	5.20	12.88	0.25	0.50	3.27	13.24	52.0%	0.25	2.49	0.76
	5.25	11.81	0.22	0.45	2.65	12.14	47.7%	0.22	1.75	0.66
	5.30	10.75	0.19	0.40	2.09	11.05	43.4%	0.19	1.17	0.56
	5.35	9.54	0.17	0.35	1.58	9.82	38.6%	0.16	0.74	0.47
	5.40	8.33	0.14	0.30	1.14	8.58	33.7%	0.13	0.43	0.38
	5.45	7.00	0.11	0.25	0.75	7.22	28.3%	0.10	0.23	0.30
	5.50	5.70	0.07	0.20	0.43	5.89	23.1%	0.07	0.09	0.22
	5.55	3.19	0.06	0.15	0.20	3.32	13.1%	0.06	0.03	0.15
	5.60	1.33	0.05	0.10	0.07	1.42	5.6%	0.05	0.01	0.07
	5.65	0.79	0.03	0.05	0.02	0.83	3.3%	0.02	0.00	0.03
	5.70	0.00	#DIV/0!	0.00	0.00	0.00	0.0%	#DIV/0!	#DIV/0!	#DIV/0!

Data Input & Proofing

STREAM NAME |Elkhead Creek
 XS LOCATION |N 40 44' 44 5" W 107 08' 12 3"
 XS NUMBER |7260504
 DATE |7/26/2005
 OBSERVERS |Uppendahl, Dilger
 1/4 SEC |NW
 SECTION |15
 TWP |9N
 RANGE |87W
 PM |6
 COUNTY |Routt
 WATERSHED |Yampa
 DIVISION |6
 DOW CODE |
 USGS MAP |Quaker Mnt
 USFS MAP |

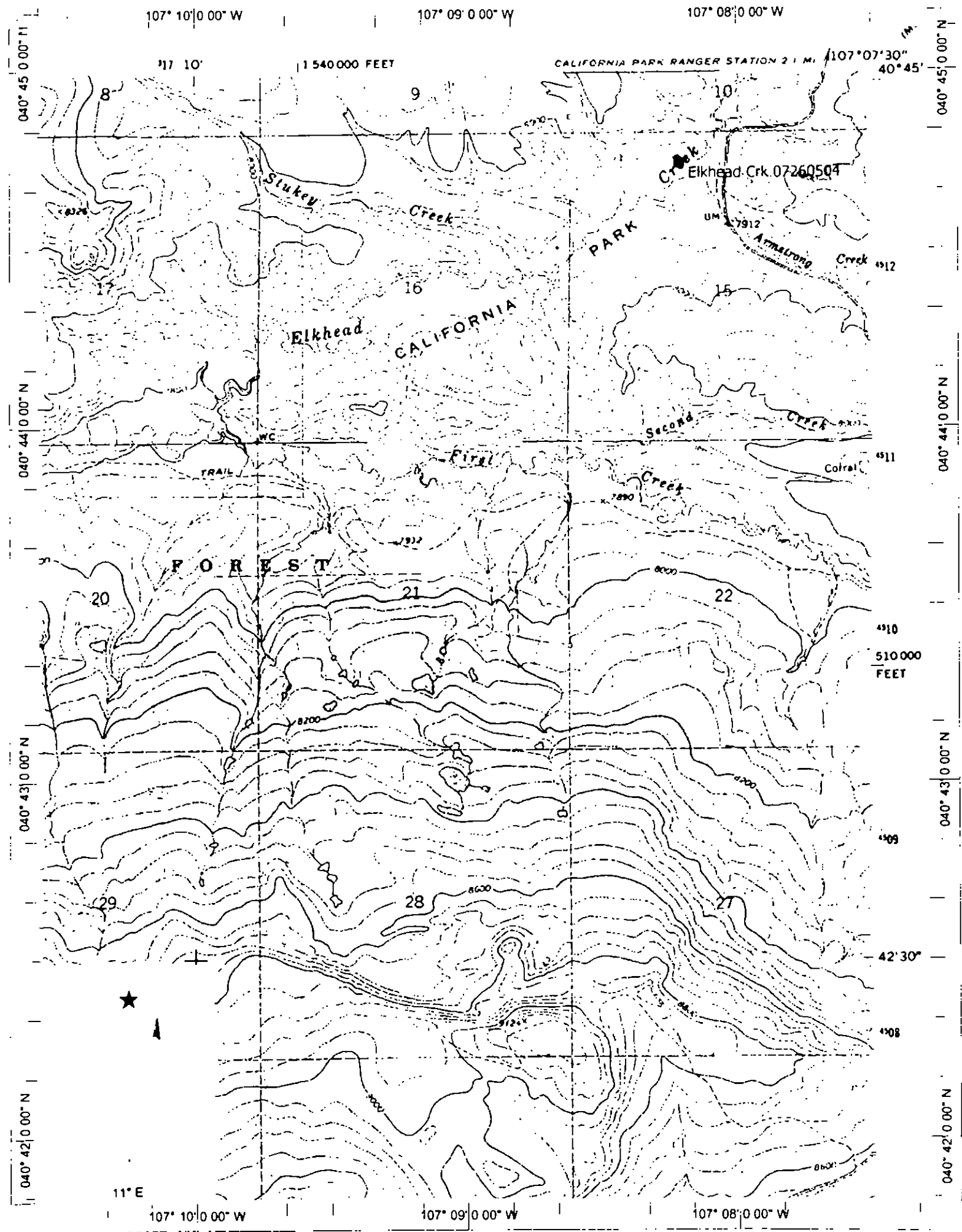
TAPE WT |0 0106
 TENSION |99999

SLOPE | 0 015 |ft / ft

CHECKED BY DATE

ASSIGNED TO DATE

GL=1	FEATURE	DIST	VERT DEPTH	WATER DEPTH	VEL	A	Q	Tape to Water
Total Data Points = 37								
1	S	0 00	3 25			0 00	0 00	0 00
	PIN	0 30	3 05			0 00	0 00	0 00
		2 00	3 50			0 00	0 00	0 00
		4 00	3 80			0 00	0 00	0 00
		6 00	4 20			0 00	0 00	0 00
	G	8 00	4 55			0 00	0 00	0 00
		10 00	4 70			0 00	0 00	0 00
		12 00	4 95			0 00	0 00	0 00
		13 00	5 05			0 00	0 00	0 00
	W	13 50	5 10	0 00	0 00	0 00	0 00	0 00
		14 50	5 30	0 20	0 30	0 18	0 05	5 10
		15 25	5 20	0 10	0 20	0 08	0 02	5 10
		16 00	5 30	0 20	1 04	0 15	0 16	5 10
		16 75	5 40	0 30	2 69	0 23	0 61	5 10
		17 50	5 30	0 20	1 16	0 15	0 18	5 10
		18 29	5 40	0 30	1 40	0 23	0 32	5 10
		19 00	5 45	0 35	1 32	0 26	0 34	5 10
		19 75	5 55	0 45	0 48	0 34	0 16	5 10
		20 50	5 50	0 40	1 19	0 30	0 36	5 10
		21 25	5 65	0 55	1 71	0 34	0 59	5 10
		21 75	5 70	0 60	0 52	0 23	0 12	5 10
		22 00	5 50	0 40	1 23	0 13	0 16	5 10
		22 40	5 55	0 45	1 11	0 17	0 19	5 10
		22 75	5 70	0 60	0 65	0 24	0 16	5 10
		23 20	5 50	0 40	1 42	0 15	0 21	5 10
		23 50	5 50	0 40	0 81	0 21	0 17	5 10
		24 25	5 60	0 50	1 25	0 28	0 47	5 10
		25 00	5 60	0 50	1 35	0 38	0 51	5 10
		25 75	5 40	0 30	1 19	0 23	0 27	5 10
		26 50	5 50	0 40	0 30	0 25	0 08	5 10
	W	27 00	5 10	0 00	0 00	0 00	0 00	0 00
		28 00	5 05			0 00	0 00	0 00
		29 50	4 95			0 00	0 00	0 00
		31 00	4 75			0 00	0 00	0 00
		32 00	4 60			0 00	0 00	0 00
	G	33 00	4 55			0 00	0 00	0 00
	S	34 60	4 35			0 00	0 00	0 00
Totals						4 59	5 09	





FIELD DATA FOR INSTREAM FLOW DETERMINATIONS



COLORADO WATER
CONSERVATION BOARD

LOCATION INFORMATION

STREAM NAME

Elkhead Creek

CROSS-SECTION NO

07 260504

CROSS-SECTION LOCATION

Just u/s of Armstrong Creek

DATE 10/10/05

OBSERVERS

Wapendahl + L. G. ...

LEGAL
DESCRIPTION

SECTION

10W

SECTION

15

TOWNSHIP

9 (N/S)

RANGE

87

E(W) PM

6

COUNTY

Front

WATERSHED

Yampa

WATER DIVISION

6

DOW WATER CODE

MAP(S)

USGS

USFS

Quarter

Mountain

SUPPLEMENTAL DATA

SAG TAPE SECTION SAME AS
DISCHARGE SECTION

(YES) NO

METER TYPE

FLO-MATE

METER NUMBER

DATE RATED

CALIB/SPIN

sec

TAPE WEIGHT

lb/foot

TAPE TENSION

lbs

CHANNEL BED MATERIAL SIZE RANGE

PHOTOGRAPHS TAKEN (YES) NO

NUMBER OF PHOTOGRAPHS

(4) 50 61 62 63

CHANNEL PROFILE DATA

STATION	DISTANCE FROM TAPE (ft)	ROD READING (ft)
(X) Tape & Stake LB	0.0	4.35
(X) Tape & Stake RB	0.0	3.25
(1) WS & Tape LB/RB	0.0	5.10 / 5.40
(2) WS Upstream	12	4.70
(3) WS Downstream	23	5.90

SLOPE 11.2/80 = 0.0150

SKETCH

TAPE

LEGEND

Stake (X)

Station (1)

Photo (1)

Direction of Flow

AQUATIC SAMPLING SUMMARY

STREAM ELECTROFISHED YES/NO

DISTANCE ELECTROFISHED _____ ft

FISH CAUGHT YES/NO

WATER CHEMISTRY SAMPLED YES/NO

LENGTH - FREQUENCY DISTRIBUTION BY ONE-INCH SIZE GROUPS (1 0-1 9, 2 0-2 9, ETC)

SPECIES (FILL IN)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	>15	TOTAL

AQUATIC INSECTS IN STREAM SECTION BY COMMON OR SCIENTIFIC ORDER NAME

COMMENTS

Fish seen CEN.

DISCHARGE/CROSS SECTION NOTES

STREAM NAME

Elk Land crk

CROSS-SECTION NO

DATE

7/26/05

SHEET 1 OF 1

BEGINNING OF MEASUREMENT

EDGE OF WATER LOOKING DOWNSTREAM
(0.0 AT STAKE)

LEFT RIGHT

Gage Reading

ft

TIME

Features	Stake (S) Grassline (G) Waterline (W) Rock (R)	Distance From Initial Point (ft)	Width (ft)	Total Vertical Depth From Tape/Inst (ft)	Water Depth (ft)	Depth of Observation (ft)	Revolutions	Velocity (ft/sec)			Area (ft ²)	Discharge (cfs)
								Time (sec)	At Point	Mean in Vertical		
S		0		3.25								
Pin		3		3.05								
		2.0		3.50								
		4.0		3.80								
		6.0		4.20								
		8.0		4.55								
		10.0		4.70								
		12.0		4.95								
		13.0		5.05								
		13.5		5.10	0.6							
		14.5		5.30	.2							
		15.25		5.40	.1							
		16.0		5.50	.3							
		16.45		5.60	.2							
		17.5		5.70	.2							
		18.25		5.80	.3							
		19.0		5.85	.35							
		19.75		5.95	.45							
		20.5		6.00	.4							
		21.25		6.05	.5							
		22.0		6.50	.4							
		23.0		6.70	.6							
		24.0		6.80	.4							
		25.0		6.90	.5							
		26.0		7.00	.5							
		27.0		7.10	.5							
		28.0		7.20	.5							
		29.5		4.95								
		31.0		4.75								
		32.0		4.60								
6		33.0		4.55								
S		34.6		4.35								
		21.95		5.40	.6							
		22.4		5.55	.5							
		23.2		5.50	.4							
TOTALS												

End of Measurement

Time

Gage Reading

ft

CALCULATIONS PERFORMED BY

CALCULATIONS CHECKED BY

WATER	WATERNAME	AT	COD	SAMPDAT	SPEC	COMM
23165	ELKHEAD CREEK #3	15	C7	8/26/1993 MOS	MOUNTAIN SUCKER	
23165	ELKHEAD CREEK #3	15	C7	9/24/1993 MOS	MOUNTAIN SUCKER	
23165	ELKHEAD CREEK #3	15	C7	8/26/1993 WHS	WHITE SUCKER	
23165	ELKHEAD CREEK #3	15	C7	9/24/1993 WHS	WHITE SUCKER	
23165	ELKHEAD CREEK #3	15	C7	8/26/1993 MTS	MOTTLED SCULPIN	
23165	ELKHEAD CREEK #3	15	C7	9/24/1993 MTS	MOTTLED SCULPIN	
23165	ELKHEAD CREEK #3	15	C7	8/26/1993 SPD	SPECKLED DACE	
23165	ELKHEAD CREEK #3	15	C7	9/24/1993 SPD	SPECKLED DACE	

WATER	WATERNAME	AT	CO	SAMP	DATE	SPEC	COMM
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	RSS	REDSIDE SHINER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	RSS	REDSIDE SHINER	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	RSS	REDSIDE SHINER	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	RSS	REDSIDE SHINER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	RSS	REDSIDE SHINER	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	RTC	ROUNDTAIL CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	RTC	ROUNDTAIL CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	RTC	ROUNDTAIL CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	RTC	ROUNDTAIL CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	BHS	BLUEHEAD SUCKER	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	BHS	BLUEHEAD SUCKER	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	FMS	FLANNELMOUTH SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	MOS	MOUNTAIN SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	MOS	MOUNTAIN SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	MOS	MOUNTAIN SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	MOS	MOUNTAIN SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	WHS	WHITE SUCKER	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	BCR	BLACK CRAPPIE	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001	BCR	BLACK CRAPPIE	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	BGL	BLUEGILL	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	LMB	LARGEMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	SMB	SMALLMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001	SMB	SMALLMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	SMB	SMALLMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	SMB	SMALLMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	SMB	SMALLMOUTH BASS	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993	MTS	MOTTLED SCULPIN	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001	CRC	CREEK CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	CRC	CREEK CHUB	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	CRC	CREEK CHUB	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	CRC	CREEK CHUB	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995	FMW	FATHEAD MINNOW	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001	FMW	FATHEAD MINNOW	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000	FMW	FATHEAD MINNOW	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001	FMW	FATHEAD MINNOW	

WATER	WATERNAME	AT	CO	SAMPDAT	SPEC	COMM
23153	ELKHEAD CREEK #2	15	D7	8/11/1993 FMW	FATHEAD MINNOW	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	9/13/1995 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	8/15/2001 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	8/11/1993 SPD	SPECKLED DACE	
23153	ELKHEAD CREEK #2	15	D7	7/25/2001 NPK	NORTHERN PIKE	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000 LOC	BROWN TROUT	
23153	ELKHEAD CREEK #2	15	D7	8/30/2000 NAT	CUTTHROAT TROUT (S.U.)	
23153	ELKHEAD CREEK #2	15	D7	10/2/2001 RBT	RAINBOW TROUT	

APPENDIX – C
Water Availability Analysis

Station **ELKHEAD CREEK NEAR CLARK, CO.**
 Parameter **STREAM FLOW CFS**
 Year **1942-1973**
 State **CO**
 County **ROUTT**

ID **09244500**
 Statistic **Mean**
 Latitude **40 43 56**
 Longitude **107 10 08**
 Elevation **7800 00**
 Drainage Area **45 40**

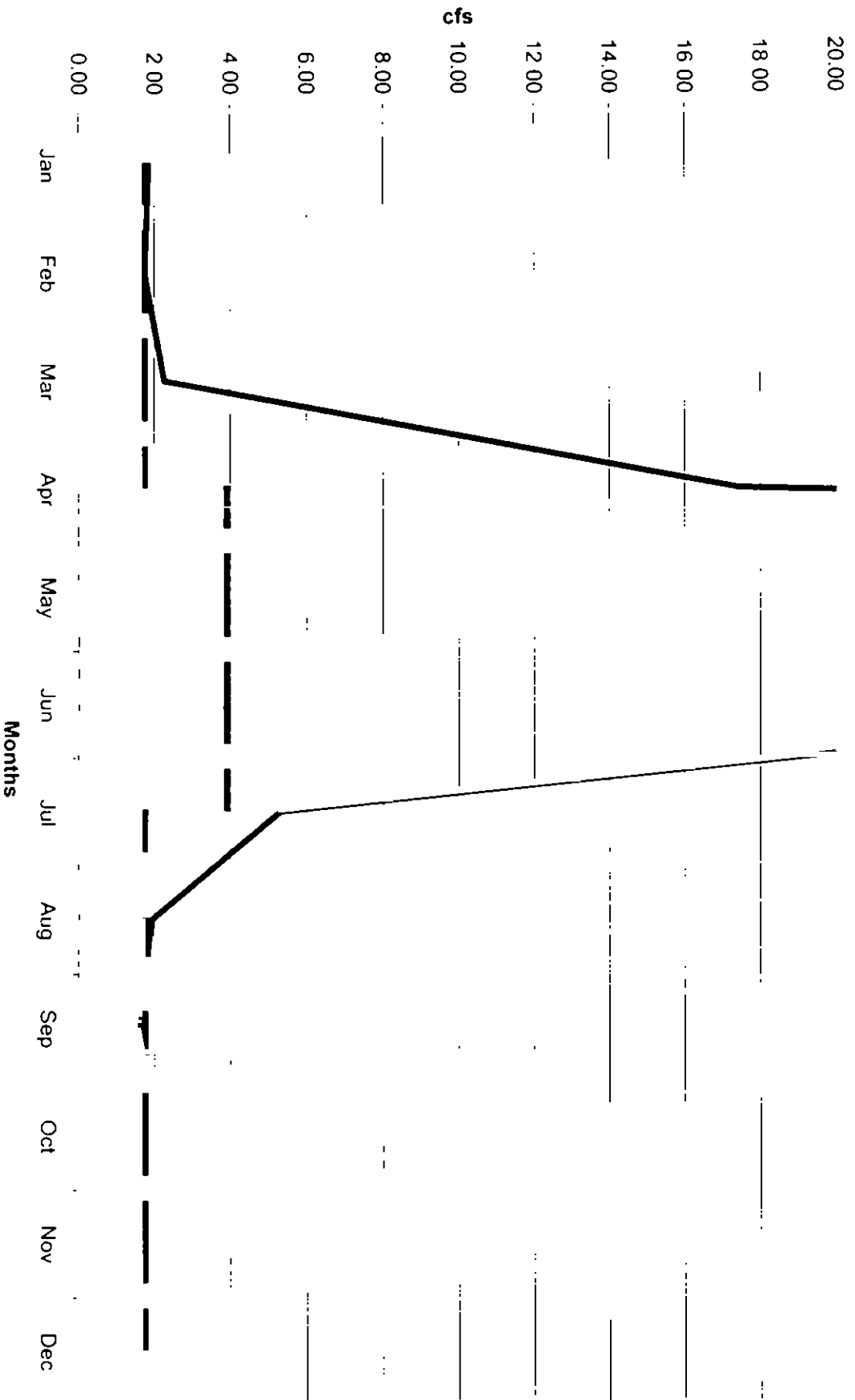
Monthly Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
# Days	527	481	527	480	496	480	527	527	510	529	510	527	6121
Avg Day	3 19	3 19	4 88	64 38	238 8	82 26	10 74	3 64	3 25	4 45	4 46	3 65	34 37
Max Day	7 20	5 00	21 00	500 0	800 0	418 0	41 00	17 00	29 00	23 00	13 00	8 00	800 0
Min Day	1 80	1 60	2 00	2 40	25 00	5 80	1 00	0 300	0 400	0 700	1 60	1 60	0 300
# Months	17	17	17	16	16	16	17	17	17	17	17	17	16
SDev Month	1 03	0 880	2 07	55 48	73 06	50 91	5 56	1 84	1 61	2 04	1 52	1 30	10 40
Skew Month	0 361	0 275	0 783	0 734	0 041	0 404	0 078	0 348	0 542	0 465	0 486	0 401	-0 301
Min Month	1 60	1 60	2 37	11 47	117 5	24 33	2 94	0 894	1 01	1 73	2 26	1 80	15 20
Max Month	5 08	5 00	8 90	165 2	357 6	170 4	19 81	6 73	6 53	8 14	7 64	6 26	52 92
Exceedences													
1%	6 40	5 00	18 46	400 0	620 2	346 2	34 73	11 73	12 90	11 00	9 98	7 60	432 5
5%	5 13	5 00	10 00	288 0	515 6	220 0	26 00	8 20	8 10	8 85	8 20	6 40	210 0
10%	4 30	4 30	7 66	180 0	459 4	196 0	22 00	6 90	5 70	7 91	7 50	5 00	110 0
20%	4 00	4 00	6 00	100 0	359 6	140 0	17 00	5 10	4 60	6 50	5 60	4 80	23 00
50%	3 20	3 00	3 90	30 00	202 0	57 00	9 15	3 30	2 80	3 80	4 00	3 50	4 30
80%	2 20	2 40	3 00	11 00	114 0	27 00	3 88	1 74	1 40	2 30	2 80	2 20	2 60
90%	1 80	2 20	2 60	5 50	89 60	16 00	2 80	1 00	0 900	2 00	2 40	2 00	2 00
95%	1 80	1 60	2 20	4 00	65 80	12 00	1 90	0 700	0 700	1 90	2 35	1 80	1 70
99%	1 80	1 60	2 05	2 60	42 88	6 40	1 30	0 400	0 610	0 900	2 00	1 80	0 721

Water Availability for Elkhead creek Based on Stream Gage: Elkhead Creek NR Clark, CO

Daily Mean (cfs)	January	February	March	April	May	June	July	August	September	October	November	December
Average (cfs)	1 85	1 85	2 83	3 37	138 59	47 74	6 23	2 11	1 89	2 58	2 59	2 12
Max (cfs)	1 90	1 92	4 86	73 01	174 58	91 82	13 15	3 03	3 17	3 34	3 16	2 29
Min (cfs)	1 80	1 81	2 18	7 53	87 41	14 73	2 94	1 47	1 34	2 15	2 29	1 95
Exceedence (cfs)												
Exceedence 1%	3 71	2 90	10 71	232 16	359 96	200 93	20 16	6 81	7 49	6 38	5 79	4 41
5%	2 98	2 90	5 80	67 15	299 25	127 69	15 09	4 76	4 70	5 14	4 76	3 71
10%	2 50	2 50	4 45	04 47	266 63	113 76	12 77	4 00	3 31	4 59	4 35	2 90
20%	2 32	2 32	3 48	58 04	208 71	81 26	9 87	2 96	2 67	3 77	3 25	2 79
50%	1 86	1 74	2 26	17 41	117 24	33 08	5 31	1 92	1 63	2 21	2 32	2 03
80%	1 28	1 39	1 74	6 38	66 17	15 67	2 25	1 01	0 81	1 33	1 63	1 28
90%	1 04	1 28	1 51	3 19	52 00	9 29	1 63	0 58	0 52	1 16	1 39	1 16
95%	1 04	0 93	1 28	2 32	38 19	6 96	1 10	0 41	0 41	1 10	1 36	1 04
99%	1 04	0 93	1 19	1 51	24 89	3 71	0 75	0 23	0 35	0 52	1 16	1 04
	1 75	1 75	1 75	1 75	3 9	3 9	3 9	1 75	1 75	1 75	1 75	1 75

Estimated Stream Flow on Elkhead Creek



Colorado Water Conservation Board
 Estimation of Natural Streamflow Characteristics
 Based upon USGS WRI 85-4086
 Project: Rengiers and Mark Mishra

Date: 1/30/2005

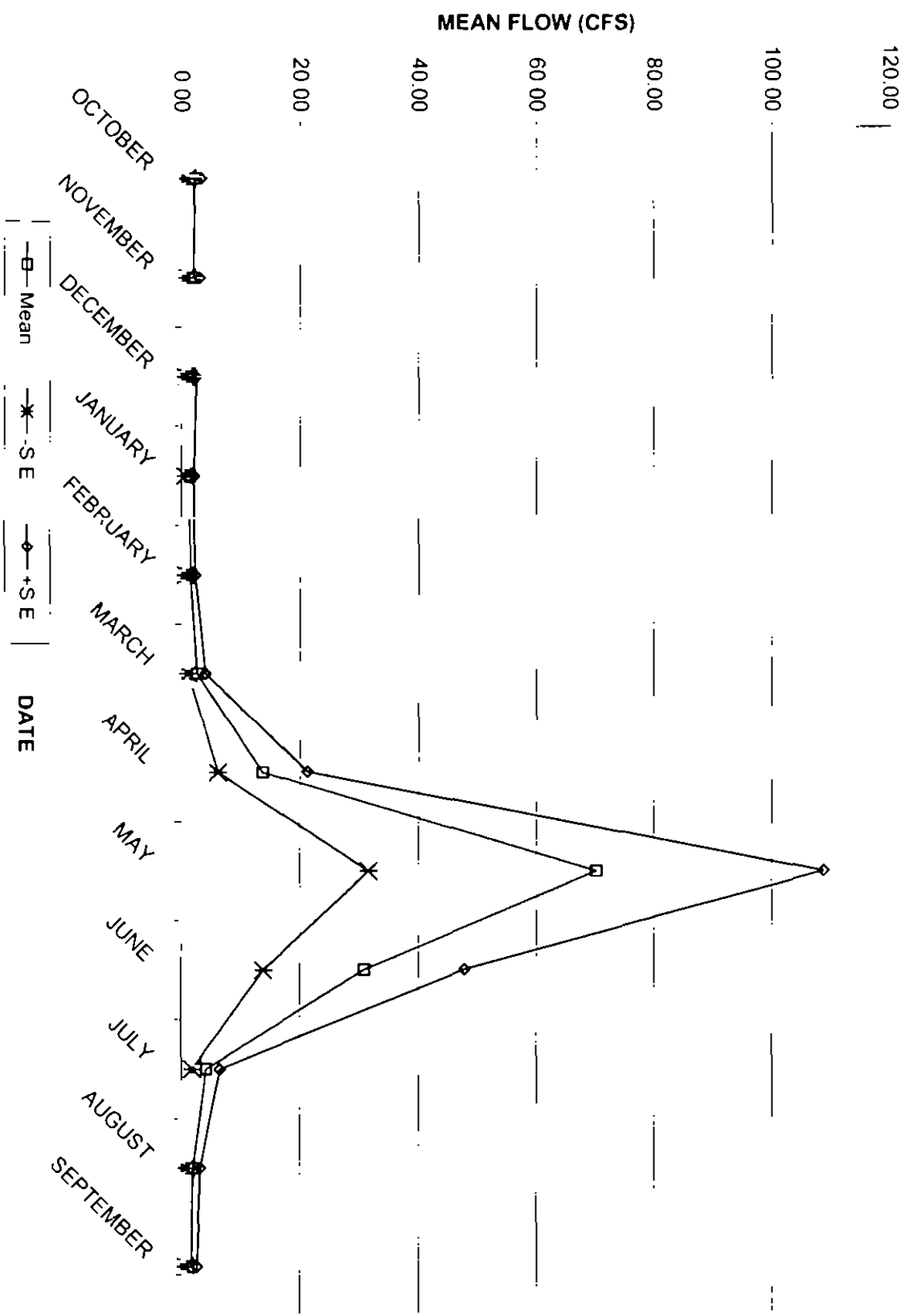
STREAM: Elkhead Creek
 COUNTY: Routt
 REGION: 1
 1=MT 2=SW 3=NV 4=RG
 CROSS-SECTION:
 LOCATION:
 BASIN AREA (MI²): 26.35
 MEAN ELEV (FEET): 8560
 MEAN PPT (INCHES): 33.6
 MEAN SLOPE (FT/FT): 0.1852

PERCENT DURATION	AVE ANNUAL FLOW (CFS)	FLOW (CFS)
90	0.02	
70	1.42	
50	2.17	
25	6.26	
10	32.28	

2-YR 7 DAY LOW FLOW (CFS)	0.03
10-YR 7 DAY LOW FLOW (CFS)	0.24
50-YR 7 DAY LOW FLOW (CFS)	0.1

MEAN MONTHLY FLOW	AVERAGE FLOW (CFS)	-SE	+SE
OCTOBER	2.6	0.97	3.35
NOVEMBER	1.98	0.89	3.07
DECEMBER	1.57	0.71	2.43
JANUARY	1.34	0.50	2.08
FEBRUARY	1.45	0.56	2.26
MARCH	2.65	1.19	4.11
APRIL	13.68	6.16	21.21
MAY	70.9	31.59	108.80
JUNE	30.82	13.87	47.77
JULY	4.20	1.89	6.50
AUGUST	2.1	0.95	3.27
SEPTEMBER	1.74	0.78	2.70

Elkhead Creek Mean Monthly Flow (CFS)



**CRAIG
Station**

[illegible]

Precipitation Data				
Percent of Average				
106%				
104%				
61%				
139%	Year			
73%	1942	73%		
80%	1943	80%		
102%	1944	102%		
157%	1945	157%		
112%	1946	112%		
131%	1947	131%		
117%	1949	117%		
91%	1950	91%		
139%	1951	139%		
92%	1952	92%		
108%	1953	108%		
102%	1954	102%		
90%	1955	90%		
69%	1956	69%		
139%	1957	139%		
56%	1958	56%		
106%	1959	106%		
69%	1960	69%		
94%	1961	94%		
67%	1962	67%		
94%	1963	94%		
110%	1964	110%		
104%	1965	104%		
74%	1966	74%		
125%	1967	125%		
96%	1968	96%		
125%	1969	125%		
120%	1970	120%		
83%	1971	83%		
86%	1972	86%		
94%	1973	94%		
82%	Average	100%		
100%				

Average

ELKHEAD CREEK NEAR CLARK, CO.

ID	State	County	Agency	Hydrant	Elevation (ft)	Drainage Basin	Basin	Percent Area
9244500	CO	ROUTT	USGS	14050001	7,800.00	45.4	26.35	58.04%
Start Date	End Date	Record	# Obs	Average (cfs)	Max (cfs)	Min (cfs)		
1942	1973	19	6121	34.37	800	0.3	5.12	0.11

Daily Mean (cfs)

	January	February	March	April	May	June	July	August	September	October	November	December
1	3.2	3.25	3.81	12.98	150.6	158.2	22.65	5.01	2.81	3.79	5.36	3.89
2	3.19	3.26	3.84	14.34	178.6	153	20.51	4.85	2.76	3.7	5.08	3.85
3	3.16	3.29	3.83	16.02	203.1	148.1	19.19	5.13	2.66	3.86	4.96	3.95
4	3.15	3.3	3.81	16.83	208.4	139.2	18.19	5.22	2.62	3.78	5.45	3.94
5	3.12	3.26	3.78	18.06	203.1	129	17.16	4.61	2.49	3.93	5.02	3.86
6	3.12	3.25	3.78	20.23	210.8	121.1	15.55	4.63	2.72	4.59	4.93	3.87
7	3.13	3.22	3.76	22.56	243.2	118.4	14.42	4.41	3.24	4.79	4.7	3.82
8	3.12	3.19	3.79	27.15	244.4	117.3	13.37	4.12	2.69	4.45	4.55	3.75
9	3.14	3.19	3.84	31.69	241.6	108.2	12.93	4.06	2.6	4.14	4.68	3.67
10	3.19	3.16	3.86	36.69	254.1	106.3	12.12	3.97	2.69	4.18	4.75	3.66
11	3.22	3.18	3.86	39.71	263.2	107.3	11.31	3.48	2.58	4.21	4.72	3.66
12	3.21	3.17	3.89	44.26	271.6	98.81	10.71	3.51	2.52	4.23	4.6	3.68
13	3.21	3.19	3.9	43.68	281.8	93.88	10.47	3.59	2.48	4.21	4.34	3.68
14	3.21	3.18	3.92	48.64	275.1	87.88	10.52	3.68	2.31	4.07	4.06	3.66
15	3.21	3.18	3.93	56.05	279.3	86.13	9.74	3.52	2.42	4.32	4.29	3.64
16	3.22	3.17	4.12	63.03	293.6	78.06	9.32	3.17	2.75	4.65	4.34	3.63
17	3.21	3.16	4.18	69.16	298.4	70.19	8.8	3.06	2.92	4.57	4.44	3.6
18	3.26	3.16	4.25	74.31	295.6	65.06	8.4	3.22	3.18	4.68	4.53	3.62
19	3.28	3.17	4.25	81.13	300.8	57.5	8.11	3.88	3.71	4.33	4.28	3.65
20	3.26	3.17	4.34	95.56	294.3	53.38	9.26	3.42	3.48	4.42	4.25	3.65
21	3.24	3.17	5.41	108.7	290.6	47.5	8.65	3.22	3.76	4.54	4.18	3.6
22	3.25	3.15	5.58	114.9	279.5	45.67	7.72	3.54	4.2	4.52	4.08	3.53
23	3.23	3.12	5.68	121.6	249.8	42.35	7.26	3.33	3.94	4.44	4.08	3.49
24	3.2	3.13	5.99	125.8	230.5	44.09	6.85	3.31	3.69	4.63	4.12	3.5
25	3.19	3.17	6.3	112.1	215	39.84	6.74	2.89	3.88	4.41	4.06	3.59
26	3.18	3.19	6.58	100.6	204.8	36.14	6.22	2.61	4.16	4.36	3.99	3.61
27	3.17	3.19	7	97.56	202	32.2	5.81	2.91	4.2	4.5	3.94	3.52
28	3.18	3.18	6.94	93.56	192.5	30.82	5.36	2.61	4.11	5.75	3.96	3.44
29	3.15	3.24	7.24	106.3	186.2	27.28	5.07	2.71	5.46	5.34	3.99	3.39
30	3.1		7.53	118.3	183.3	25.36	5.27	2.71	4.48	5.13	4	3.39
31	3.12		8.38	176.8	176.8	5.13		2.54		5.42		3.36
Average (cfs)	3.19	3.19	4.88	64.38	238.79	82.26	10.74	3.64	3.25	4.45	4.46	3.65
Max (cfs)	3.28	3.3	8.38	125.8	300.8	158.2	22.65	5.22	5.46	5.75	5.45	3.95
Min (cfs)	3.1	3.12	3.76	12.98	150.6	25.38	5.07	2.54	2.31	3.7	3.94	3.36

APPENDIX – D
Diversion Records

WD	ID	WRNAME	STRTYPE	WRSTRNO	WRSTRNAME	CTY	Q10	Q40	Q160	SEQ	TS	RNG	PM	USETYPE	DCRAMT	DCRUNITS	ADJTYPE	ADJDATE	PADJDATE	APRODATE	ORONO	ADMINNO	PRIORNO	CANO	SEQNO	PLANS	ALTERID	COMMENT
44	841	PITNEY DITCH NO 1	1	38	BRAUBURN DRAW	54	NE	NE	12	7 N	89 W	S	1		0.900C		S	05/30/1972	09/01/1960	05/17/1965	0	42140.0000	51	CA2259	1	1	0	
44	1078	HUDACK SPG NO 1	4	112	BROWNS GULCH	41	NE	SW	5	7 N	89 W	S	1890		0.0111C		S	12/31/1974	12/31/1973	06/01/1936	0	45290.3163			1	0	0	
44	1074	HUDACK SPG NO 2	4	112	BROWNS GULCH	41	SW	SW	5	7 N	89 W	S	1890		0.0111C		S	12/31/1974	12/31/1973	07/01/1962	0	45290.3168			1	0	0	
44	2026	MALBURG POND	3	112	BROWNS GULCH	41	NW	NE	9	7 N	89 W	S	19		2.200A		S	12/31/1975	12/31/1974	04/15/1974	0	45655.4539			1	0	0	
44	1083	MALBURG DITCH NO 1	1	112	BROWNS GULCH	41	SE	NW	9	7 N	89 W	S	19		0.600C		S.C	12/31/1975	12/31/1974	08/19/1975	0	45686.0000			1	0	0	
44	1083	MALBURG DITCH NO 1	1	112	BROWNS GULCH	41	SE	NW	9	7 N	89 W	S	19		0.500C		S.CA	12/31/1975	12/31/1974	08/19/1975	0	45686.0000			1	0	0	
44	1084	MALBURG DITCH NO 2	1	112	BROWNS GULCH	41	SE	NW	9	7 N	89 W	S	19		0.700C		S.C	12/31/1975	12/31/1974	08/19/1975	0	45686.0000			1	0	0	
44	1084	MALBURG DITCH NO 2	1	112	BROWNS GULCH	41	SE	NW	9	7 N	89 W	S	19		0.500C		S.CA	12/31/1975	12/31/1974	08/19/1975	0	45686.0000			1	0	0	
44	1686	HUDACK SPRING 9	4	112	BROWNS GULCH	41	SE	SW	4	7 N	89 W	S	9W		0.0330C		S	12/31/1999	12/31/1998	06/25/1995	0	54421.53136			1	0	0	
44	1684	HUDACK SPRING 8	4	112	BROWNS GULCH	41	SW	SW	4	7 N	89 W	S	9W		0.0330C		S	12/31/1999	12/31/1998	07/30/1998	0	54421.54267			1	0	0	
44	4711	HUDACK HOMESTEAD RESERVOIR	3	112	BROWNS GULCH	41	NE	SE	5	7 N	89 W	S	9W		0.500A		S	12/31/2002	12/31/2001	06/15/1971	0	55517.44360			1	0	0	
44	6117	MEINHOLD WELL	2	85	BUCK GULCH	54	NW	NE	7	7 N	88 W	S	18		0.0330C		S.TT	05/30/1972	09/01/1960	10/25/1960	0	40475.0000	39		1	0	0	440843
44	842	PITNEY DITCH NO 3	1	85	BUCK GULCH	54	NW	NE	7	7 N	88 W	S	1		1.200C		S	05/30/1972	09/01/1960	10/25/1960	0	40475.0000	39	CA2259	1	0	0	
44	843	PITNEY DITCH NO 3	1	85	BUCK GULCH	54	NW	NE	7	7 N	88 W	S	18		0.0330C		S.TF	05/30/1972	09/01/1960	10/25/1960	0	40475.0000	39		1	0	0	440811
44	6118	PAUL MOORE WELL	2	85	BUCK GULCH	54	SW	NW	1	7 N	88 W	S	89		0.0110C		O	12/31/1980		12/31/1971	0	44559.0000			1	0	0	
44	796	BUCK GULCH DITCH	1	85	BUCK GULCH	54	NW	SW	8	7 N	88 W	S	189		1.000C		S	12/31/1972	12/31/1971	05/01/1935	0	44559.31164			1	0	0	
44	796	BUCK GULCH DITCH	1	85	BUCK GULCH	54	NW	SW	8	7 N	88 W	S	189		1.000C		S.AB	12/31/1972	12/31/1971	05/01/1935	0	44559.31166			1	0	0	
44	1078	ZEHNER SPG SITE C	4	85	BUCK GULCH	54	NW	SW	28	7 N	88 W	S	9		0.040C		S	12/31/1974	12/31/1973	07/01/1900	0	45290.18444			1	0	0	
44	1077	ZEHNER SPG SITE B	4	85	BUCK GULCH	54	NE	SW	28	7 N	88 W	S	9		0.030C		S	12/31/1974	12/31/1973	09/01/1900	0	45290.18506			1	0	0	
44	884	SOUTH SPRING	4	85	BUCK GULCH	54	SE	NE	7	7 N	88 W	S	89		0.0330C		S	12/31/1978	12/31/1977	07/01/1977	0	46751.46568			1	0	0	
44	2046	MIDDLE SPG	4	85	BUCK GULCH	54	NE	NE	7	7 N	88 W	S	89		0.0330C		S.C	12/31/1978	12/31/1977	08/24/1978	0	46987.00000			1	0	0	
44	2046	MIDDLE SPG	4	85	BUCK GULCH	54	NE	NE	7	7 N	88 W	S	89		0.0330C		S.CA	12/31/1978	12/31/1977	08/24/1978	0	46987.00000			1	0	0	
44	2047	NORTH SPG	4	85	BUCK GULCH	54	NW	NE	7	7 N	88 W	S	89		0.0330C		S.CA	12/31/1978	12/31/1977	08/24/1978	0	46987.00000			1	0	0	
44	2047	NORTH SPG	4	85	BUCK GULCH	54	NW	NE	7	7 N	88 W	S	89		0.0330C		S.C.AB	12/31/1978	12/31/1977	08/24/1978	0	46987.00000			1	0	0	
44	6118	PAUL MOORE WELL	2	85	BUCK GULCH	54	SW	NW	3	7 N	88 W	S	89		0.0220C		O.C	12/31/1980		08/01/1980	0	47659.00000			1	0	0	0
44	6118	PAUL MOORE WELL	2	85	BUCK GULCH	54	SW	NW	3	7 N	88 W	S	89		0.0220C		S.CA	12/31/1980		05/07/1980	0	47659.00000			1	0	0	
44	3425	MIDDLE RES	3	85	BUCK GULCH	54	SW	NW	8	7 N	88 W	S	9		5.400A		S	12/31/1982	12/31/1981	08/01/1946	0	48212.35274			1	0	0	
44	2010	HOWE DITCH	1	110	CALF CK	54	NE	NE	15	8 N	88 W	S	1		4.000C		S.TF	12/31/1975	12/31/1974	07/21/1975	0	46557.00000			1	0	0	440070
44	2010	HOWE DITCH	1	110	CALF CK	54	NE	NE	15	8 N	88 W	S	1		4.000C		S	12/31/1975	12/31/1974	07/21/1975	0	46557.00000			1	0	0	
44	2011	HOWE SPG NO 1	4	110	CALF CK	54	NW	NW	15	8 N	88 W	S	9		0.200C		S.C	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2011	HOWE SPG NO 1	4	110	CALF CK	54	NW	NW	15	8 N	88 W	S	9		0.200C		S.CA	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2012	HOWE SPG NO 2	4	110	CALF CK	54	NE	NW	15	8 N	88 W	S	9		0.200C		S.C	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2012	HOWE SPG NO 2	4	110	CALF CK	54	NE	NW	15	8 N	88 W	S	9		0.200C		S.CA	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2013	HOWE SPG NO 3	4	110	CALF CK	54	NE	NW	15	8 N	88 W	S	9		0.200C		S.C	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2013	HOWE SPG NO 3	4	110	CALF CK	54	NE	NW	15	8 N	88 W	S	9		0.200C		S.CA	12/31/1976	12/31/1975	01/21/1976	0	46041.00000			1	0	0	
44	2284	HOUSE SPG	4	110	CALF CK	41	NE	SW	20	7 N	89 W	S	8		0.0330C		S	12/31/1980	12/31/1978	06/21/1942	0	47481.37163			1	0	0	
44	3743	RAFOPOULOS Q MTN RES 1	3	110	CALF CK	54	NE	NW	17	8 N	87 W	S	9		1.000A		S	12/31/1983	12/31/1982	08/15/1967	0	48577.42989			1	0	0	
44	3743	RAFOPOULOS Q MTN RES 2	3	110	CALF CK	54	SW	SW	6	8 N	87 W	S	9		1.000A		S	12/31/1983	12/31/1982	06/20/1967	0	48577.42904			1	0	0	
44	3744	RAFOPOULOS Q MTN RES 3	3	110	CALF CK	54	NW	SE	5	8 N	87 W	S	9		1.000A		S	12/31/1983	12/31/1982	06/25/1967	0	48577.42909			1	0	0	
44	3745	RAFOPOULOS Q MTN RES 4	3	110	CALF CK	54	NW	SE	5	8 N	87 W	S	9		1.000A		S	12/31/1983	12/31/1982	06/30/1967	0	48577.42914			1	0	0	
44	3748	RAFOPOULOS Q MTN RES 5	3	110	CALF CK	54	NW	NE	6	8 N	87 W	S	9		1.000A		S.C	12/31/1983	12/31/1982	11/16/1983	0	48897.00000			1	0	0	
44	3748	RAFOPOULOS Q MTN RES 5	3	110	CALF CK	54	NW	NE	6	8 N	87 W	S	9		1.000A		S.C.AB	12/31/1983	12/31/1982	11/16/1983	0	48897.00000			1	0	0	0
44	1267	ROBIN SPRING 1	4	110	CALF CK	54	SW	NW	7	8 N	87 W	S	9		0.0220C		S	12/31/1988	12/31/1987	06/20/1978	0	50403.46922			1	0	0	
44	4186	DOROGY LOWER POND #1	3	110	CALF CK	54	NE	SW	5	8 N	87 W	S	5W		1.000A		S	12/31/1994	12/31/1993	09/30/1991	0	52595.51772			1	0	0	
44	4187	DOROGY LOWER POND #2	3	110	CALF CK	54	NE	SW	5	8 N	87 W	S	5W		0.500A		S	12/31/1994	12/31/1993	09/30/1991	0	52595.51772			1	0	0	
44	5071	BRUCE WELL #3	2	110	CALF CK	54	SE	SE	6	8 N	87 W	S	8		0.0330C		S	12/31/1994	12/31/1993	06/01/1994	0	52747.00000			1	0	0	
44	1838	ASPEN GLEN SPRING	4	110	CALF CK	41	NE	NW	13	8 N	88 W	S	9		0.0330C		S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472			1	0	0	
44	1340	SADOKA SPRING	4	110	CALF CK	41	SW	NW	13	8 N	88 W	S	9		0.0330C		S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472			1	0	0	
44	1341	JONES DRAW SPRING #1	4	110	CALF CK	41	NE	NW	11	8 N	88 W	S	9		0.0330C		S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472			1	0	0	
44	1342	JONES DRAW SPRING #2	4	110	CALF CK	41	SW	NE	11	8 N	88 W	S	9		0.0330C		S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472			1	0	0	
44	2066	CIRCLE CREEK MSP	0	118	CIRCLE CK	54	NE	NE	30	10 N	87 W	S	M		1.000C		S	12/31/1977	12/31/1976	09/23/1977	0	46652.00000			1	0	0	
44	3720	PITNEY RESERVOIR	3	87	CORRAL GULCH	54	NW	NW	7	7 N	88 W	S	1		11.230A		S.C	05/30/1972	09/01/1960	07/06/1964	0	41825.00000	49	CA2259	1	0	0	
44	3720	PITNEY RESERVOIR	3	87	CORRAL GULCH	54	NW	NW	7	7 N	88 W	S	1		11.230A		S.C.AB	05/30/1972	09/01/1960	07/06/1964	0	41825.00000	49	84CW007				

44	2082	HOLLOWAY SPG	4	87	CORRAL GULCH	54	NE	NW	29	7 N	88 W	S	89	0.0450	C	S,CA	12/31/1980	12/31/1979	12/18/1980	0	47834.00000	88CW0043	2		0
44	2082	HOLLOWAY SPG	4	87	CORRAL GULCH	54	NE	NW	29	7 N	88 W	S	89	0.0450	C	S,C	12/31/1980	12/31/1979	12/18/1980	0	47834.00000	88CW0029	1		0
44	2124	DAWSON SPRING	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	89	0.0050	C	S	12/31/1981	12/31/1980	08/01/1960	0	47847.40390	81CW0094	1		0
44	2178	CASTER NO 1 SPG	4	87	CORRAL GULCH	54	NW	NE	18	7 N	88 W	S	189	0.0330	C	S	12/31/1981	12/31/1980	05/11/1981	0	47878.00000	81CW0132	1		0
44	2179	CASTER SP 2	4	87	CORRAL GULCH	54	NW	NE	18	7 N	88 W	S	189	0.0330	C	S	12/31/1981	12/31/1980	05/11/1981	0	47878.00000	81CW0134	1		0
44	2168	HOCKADAY SPRING	4	87	CORRAL GULCH	54	SE	NW	29	7 N	88 W	S	9	0.0330	C	S	12/31/1981	12/31/1980	08/21/1981	0	48103.00000	81CW0093	1		0
44	1268	HOCKADAY SPRING 2	4	87	CORRAL GULCH	54	SW	NE	12	7 N	88 W	S	9	0.0330	C	S	12/31/1988	12/31/1987	06/01/1988	0	50556.00000	88CW0098	1		0
44	4033	CATTAIL POND	3	87	CORRAL GULCH	54	SW	SW	29	7 N	88 W	S	19	3.0004	A	S	12/31/1990	12/31/1989	04/01/1952	0	51134.37344	90CW0079	1		0
44	1336	HOCKADAY SPRING NO 3	4	87	CORRAL GULCH	54	NE	SW	29	7 N	88 W	S	9	0.0330	C	S	12/31/1990	12/31/1989	04/02/1990	0	51226.00000	90CW0038	1		0
44	1360	DITTO SPRING	4	87	CORRAL GULCH	54	NE	NW	29	7 N	88 W	S	9	0.0070	C	S	12/31/1990	12/31/1989	10/19/1990	0	51426.00000	90CW0136	1		0
44	1369	HAYES SPRING	4	87	CORRAL GULCH	54	NW	NW	32	7 N	88 W	S	9	0.0330	C	S	12/31/1991	12/31/1990	10/31/1989	0	51499.51073	91CW0042	1		0
44	1582	PITNEY SPRING # 1	4	87	CORRAL GULCH	54	NW	SE	18	7 N	88 W	S	19	0.0111	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1583	PITNEY SPRING # 2	4	87	CORRAL GULCH	54	NE	SW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1584	PITNEY SPRING # 3	4	87	CORRAL GULCH	54	NE	SW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1585	PITNEY SPRING # 4	4	87	CORRAL GULCH	54	NE	SW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1586	PITNEY SPRING # 5	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1587	PITNEY SPRING # 6	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1588	PITNEY SPRING # 7	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1589	PITNEY SPRING # 8	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1590	PITNEY SPRING # 9	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1591	PITNEY SPRING #10	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1592	PITNEY SPRING #11	4	87	CORRAL GULCH	54	SE	NW	18	7 N	88 W	S	19	0.0222	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1593	PITNEY SPRING #12	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1594	PITNEY SPRING #13	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1595	PITNEY SPRING #14	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1596	PITNEY SPRING #15	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0111	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1597	PITNEY SPRING #16	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1598	PITNEY SPRING #17	4	87	CORRAL GULCH	54	NW	NW	18	7 N	88 W	S	19	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1599	PITNEY SPRING #18	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1600	PITNEY SPRING #19	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1601	PITNEY SPRING #20	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1602	PITNEY SPRING #21	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1603	PITNEY SPRING #22	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1604	PITNEY SPRING #23	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1605	PITNEY SPRING #24	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1606	PITNEY SPRING #25	4	87	CORRAL GULCH	54	SW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1607	PITNEY SPRING #26	4	87	CORRAL GULCH	54	NW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1608	PITNEY SPRING #27	4	87	CORRAL GULCH	54	NW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1609	PITNEY SPRING #28	4	87	CORRAL GULCH	54	NW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1610	PITNEY SPRING #29	4	87	CORRAL GULCH	54	NW	SW	7	7 N	88 W	S	19	0.0044	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1611	PITNEY SPRING #30	4	87	CORRAL GULCH	54	SE	SE	12	7 N	88 W	S	19	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1612	PITNEY SPRING #31	4	87	CORRAL GULCH	54	SE	NW	7	7 N	88 W	S	9	0.0022	C	S	12/31/1994	12/31/1993	06/20/1966	0	52595.42539	94CW0083	1		0
44	1733	REEDY SPRING	4	87	CORRAL GULCH	54	SE	NW	29	7 N	88 W	S	9	0.0100	C	S	12/31/1995	12/31/1994	11/23/1995	0	53287.00000	96CW0001	1		0
44	4498	SIMPSON POND	3	87	CORRAL GULCH	54	NE	SW	29	7 N	88 W	S	1	1.0000	A	S	12/31/1999	12/31/1998	08/15/1994	0	54421.52822	99CW0012	1		0
44	4628	MORGAN CK FEEDER D 1	1	132	COTTONWOOD GULCH	54	SE	SE	28	8 N	87 W	S	1	0.5000	C	S	06/23/1914	06/19/1914	10/14/1908	0	23545.21471	83AA	1		0
44	1323	KAWCACK SPRING 1	4	132	COTTONWOOD GULCH	41	SE	NE	21	8 N	89 W	S	8	0.0022	C	S,C	12/31/1980	12/31/1989	05/10/1989	0	51134.50889	90CW0002	2		0
44	1323	KAWCACK SPRING 1	4	132	COTTONWOOD GULCH	41	SE	NE	21	8 N	89 W	S	9	0.0022	C	S	12/31/1990	12/31/1989	05/10/1989	0	51134.50889	90CW0002	1		0
44	725	OLDHAM D NO 2	1	77	DRY FORK	54	NE	SW	19	8 N	87 W	S	1	2.0000	C	S	09/24/1904	09/19/1904	06/07/1901	0	19885.18785	67A	1		0
44	717	MURPHY DITCH NO 1	1	77	DRY FORK	54	SE	NW	35	8 N	88 W	S	1	0.5000	C	S	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-3A	1		0
44	717	MURPHY DITCH NO 1	1	77	DRY FORK	54	SE	NW	35	8 N	88 W	S	1	0.5000	C	S,AB	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-3A	1		0
44	718	MURPHY DITCH NO 2	1	77	DRY FORK	54	SW	SW	35	8 N	88 W	S	1	2.6600	C	S	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-4A	1		0
44	718	MURPHY DITCH NO 2	1	77	DRY FORK	54	SW	SW	35	8 N	88 W	S	1	0.5200	C	S,C	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-4A	1		0
44	718	MURPHY DITCH NO 2	1	77	DRY FORK	54	SW	SW	35	8 N	88 W	S	1	2.6600	C	S,AB	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-4A	1		0
44	718	MURPHY DITCH NO 2	1	77	DRY FORK	54	SW	SW	35	8 N	88 W	S	1	0.5200	C	S,C,AB	06/22/1909	10/08/1908	08/10/1902	0	21465.19214	73-4A	1		0
44	649	HERBERT L FRANK D	1	77	DRY FORK	54	NW	SW	33	8 N	88 W	S	1	0.8300	C	S	09/23/1911	08/21/1911	07/19/1905	0	22503.20279	79-5A	1		0
44	624	FULTON DITCH	1	77	DRY FORK	54	N																		

44	799	CARNS SPG NO 1	4	77	DRY FORK	54	SW	NW	4	7 N	8 W	S	18	0.0040C	S	12/31/1972	12/31/1971	06/01/1948	0	44559.35946	W0184-72	1	0	0	
44	1033	CARNS SPG NO 2	4	77	DRY FORK	54	SW	NW	4	7 N	8 W	S	18	0.0050C	S	12/31/1972	12/31/1971	06/01/1948	0	44559.35946	W0184-72	1	0	0	
44	1022	FULTON SPG NO 3	4	77	DRY FORK	54	SE	NE	13	8 N	8 W	S	19	0.0100C	S	12/31/1973	12/31/1972	03/01/1948	0	44925.35863	W0452-73	1	0	0	
44	1021	FULTON SPG NO 4	4	77	DRY FORK	54	SW	SE	13	8 N	8 W	S	89	0.0100C	S	12/31/1973	12/31/1972	03/01/1948	0	44925.35863	W0451-73	1	0	0	
44	1023	FULTON SPG NO 7	4	77	DRY FORK	54	SE	SW	7	8 N	8 W	S	9	0.0100C	S	12/31/1973	12/31/1972	06/15/1948	0	44925.35960	W0448-73	1	0	0	
44	1024	FULTON SPG NO 6	4	77	DRY FORK	54	SE	NW	13	8 N	8 W	S	9	0.0100C	S.C	12/31/1973	12/31/1972	07/01/1969	0	44925.39993	W0449-73	1	0	0	
44	1024	FULTON SPG NO 6	4	77	DRY FORK	54	SE	NW	13	8 N	8 W	S	9	0.0100C	S.C.AB	12/31/1973	12/31/1972	07/01/1969	0	44925.39993	W0449-73	3	0	0	
44	1026	FULTON SPG NO 2	4	77	DRY FORK	54	SW	NW	18	8 N	8 W	S	9	0.0100C	S.C	12/31/1973	12/31/1972	01/15/1962	0	44925.40922	W0453-73	1	0	0	
44	1026	FULTON SPG NO 2	4	77	DRY FORK	54	SW	NW	18	8 N	8 W	S	9	0.0100C	S.C.AB	12/31/1973	12/31/1972	01/15/1962	0	44925.40922	W0453-73	3	0	0	
44	1027	FULTON SPG NO 5	4	77	DRY FORK	54	NE	SW	13	8 N	8 W	S	9	0.0100C	S	12/31/1973	12/31/1972	01/15/1962	0	44925.41424	W0450-73	1	0	0	
44	1027	FULTON SPG NO 5	4	77	DRY FORK	54	NE	SW	13	8 N	8 W	S	9	0.0100C	S.C.AB	12/31/1973	12/31/1972	06/01/1963	0	44925.41424	W0450-73	3	0	0	
44	845	WOODELY SPG #2	4	77	DRY FORK	54	NW	SW	36	8 N	8 W	S	89	0.0330C	S	12/31/1978	12/31/1978	07/01/1977	0	47116.46571	79CW0032	1	0	0	
44	847	WOODELY SPG #1	4	77	DRY FORK	54	NW	SW	36	8 N	8 W	S	89	0.0330C	S	12/31/1978	12/31/1978	07/01/1977	0	47116.46584	79CW0033	1	0	0	
44	1024	FULTON SPG NO 6	4	77	DRY FORK	54	SE	NW	13	8 N	8 W	S	9	0.0100C	S	12/31/1981	12/31/1980	07/01/1969	0	47847.39993	81CW0289	2	0	0	
44	1025	FULTON SPG NO 1	4	77	DRY FORK	54	NW	NW	18	8 N	8 W	S	9	0.0100C	S.C	12/31/1981	12/31/1980	01/15/1962	0	47847.40922	81CW0289	1	0	0	
44	1025	FULTON SPG NO 1	4	77	DRY FORK	54	NW	NW	18	8 N	8 W	S	9	0.0100C	S.C	12/31/1981	12/31/1980	01/15/1962	0	47847.40922	81CW0289	2	0	0	
44	1026	FULTON SPG NO 2	4	77	DRY FORK	54	SW	NW	18	8 N	8 W	S	9	0.0100C	S	12/31/1981	12/31/1980	01/15/1962	0	47847.40922	81CW0289	2	0	0	
44	1027	FULTON SPG NO 5	4	77	DRY FORK	54	NE	SW	13	8 N	8 W	S	9	0.0100C	S	12/31/1981	12/31/1980	06/01/1963	0	47847.41424	81CW0289	2	0	0	
44	3715	SMITH RANCHO ST L R 5	3	77	DRY FORK	54	SE	NE	16	8 N	8 W	S	9	0.0000A	S	12/31/1983	12/31/1982	09/15/1962	0	48577.36782	83CW0159	1	0	0	
44	3749	RAFTPOULOS Q MTN RES 6	3	77	DRY FORK	54	SW	SW	8	8 N	8 W	S	9	0.0200A	S.C	12/31/1983	12/31/1982	11/01/1983	0	48897.00000	83CW0175	1	0	0	
44	3749	RAFTPOULOS Q MTN RES 6	3	77	DRY FORK	54	SW	SW	8	8 N	8 W	S	9	0.0200A	S.C.AB	12/31/1983	12/31/1982	11/01/1983	0	48897.00000	83CW0175	2	0	0	
44	724	NORVELL DITCH	1	3	ELKHED CK	41	SE	NE	25	7 N	9 W	S	1	10.0000C	O	09/27/1982		05/14/1985	0	12918.00000		12	1	0	
44	763	SMITH DITCH	1	3	ELKHED CK	54	NW	NW	28	7 N	8 W	S	1	5.4600C	O	09/27/1982		12/06/1986	0	13489.00000		16	1	0	
44	763	SMITH DITCH	1	3	ELKHED CK	54	NW	NW	28	7 N	8 W	S	1	2.2000C	O	09/27/1982		03/26/1988	0	13965.00000		22	1	0	
44	696	MCKNILAY DITCH NO 1	1	3	ELKHED CK	54	SE	SE	17	8 N	8 W	S	1	8.3300C	O	09/27/1982		05/01/1980	0	14731.00000		50	1	0	
44	700	MCKNILAY DITCH NO 2	1	3	ELKHED CK	54	NE	SE	17	8 N	8 W	S	1	11.6600C	O	09/27/1982		09/01/1980	0	14731.00000		50	1	0	
44	11388	STARR IRR DITCH ALP TY	1	3	ELKHED CK	41	SE	NW	21	7 N	8 W	S	1	0.9000C	S.TT	09/26/1905	09/19/1905	06/22/1900	0	20350.18435	A46A	83CW0039	1	0	0
44	770	STARR IRRIG DITCH	1	3	ELKHED CK	41	NE	SE	16	7 N	8 W	S	1	6.1000C	S	09/26/1905	09/19/1905	06/22/1900	0	20350.18435	A46A		1	0	
44	770	STARR IRRIG DITCH	1	3	ELKHED CK	41	NE	SE	16	7 N	8 W	S	1	0.9000C	S.TF	09/26/1905	09/19/1905	06/22/1900	0	20350.18435	A46A	83CW0039	4	0	0
44	538	ARMSTRONG IRR DITCH	1	3	ELKHED CK	54	NE	SW	10	9 N	8 W	S	1	1.2500C	S	06/04/1907	09/20/1906	07/15/1902	0	20716.19188	73AA		1	0	
44	538	ARMSTRONG IRR DITCH	1	3	ELKHED CK	54	NE	SW	10	9 N	8 W	S	1	1.2500C	S.AB	06/04/1907	09/20/1906	07/15/1902	0	20716.19188	73AA	91CW0116	2	0	0
44	4723	PARK RESERVOIR	3	3	ELKHED CK	54				9 N	8 W	S	1	34665.0000A	S.C	06/15/1911	06/14/1911	10/27/1904	0	22444.20223	78 34	CA0663	1	0	0
44	4724	KILPATRICK IRRIGATION RESERVOIR	3	3	ELKHED CK	54		3	9 N	8 W	S	1	7385.0000A	S.C	06/15/1911	06/14/1911	06/14/1905	0	22444.20253	79 172	CA0663	1	0	0	
44	4723	PARK RESERVOIR	3	3	ELKHED CK	54				9 N	8 W	S	1	13535.0000A	S.C	06/15/1911	06/14/1911	06/14/1909	0	22444.21714	85	CA0663	2	0	0
44	598	DIAMOND DITCH	1	3	ELKHED CK	54	NE	NE	2	7 N	8 W	S	1	0.5000C	S	09/23/1911	08/12/1911	11/15/1903	0	22503.19676	78A		1	0	
44	598	DIAMOND DITCH	1	3	ELKHED CK	54	NE	NE	2	7 N	8 W	S	1	1.1700C	S.C	09/23/1911	08/12/1911	11/15/1903	0	22503.19676	78A		2	0	
44	598	DIAMOND DITCH	1	3	ELKHED CK	54	NE	NE	2	7 N	8 W	S	1	1.1700C	S.C.AB	09/23/1911	08/12/1911	11/15/1903	0	22503.19676	78A	84CW0071	2	0	0
44	704	MCKNILAY DITCH NO 1	1	3	ELKHED CK	54	NE	SE	17	8 N	8 W	S	1	2.0000C	S	08/16/1913	08/09/1913	09/15/1904	0	23170.19981	78 5AA4		2	0	0
44	724	NORVELL DITCH NO 2	1	3	ELKHED CK	41	SE	NE	25	7 N	9 W	S	1	20.0000C	S	09/01/1960	05/16/1949	05/01/1939	0	36296.32627	47	CA1278	2	0	0
44	763	SMITH DITCH	1	3	ELKHED CK	54	NW	NW	28	7 N	8 W	S	1	13.3300C	S	09/01/1960	05/16/1949	05/01/1939	0	36296.32627	47A	CA1278	3	0	0
44	3902	ELKHED RESERVOIR	3	3	ELKHED CK	41	SE	SW	16	7 N	8 W	S	12	8310.0000A	S.AP	09/01/1960	05/16/1949	06/08/1964	0	38144.00000	11	79CW0110	1	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	210.0000C	S.C.AP	03/30/1964	06/22/1967	06/02/1958	0	39599.00000	40	W1091	7	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	705.0000C	S.C.AP	03/30/1964	06/22/1967	06/02/1958	0	39599.00000	40	W1091	8	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	3656.1000A	S.C	05/30/1972	09/01/1960	08/07/1962	0	41126.00000	42	CA2259	1	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	13699.0000A	S.C.TF	05/30/1972	09/01/1960	08/07/1962	0	41126.00000	42	92CW0131	2	0	0
44	2007	ELKHED CANAL	1	3	ELKHED CK	41	SE	NE	4	8 N	8 W	S	X	145.0000C	S.C	05/30/1972	09/01/1960	08/07/1962	0	41126.00000	42A	CA2259	1	0	0
44	3902	ELKHED RESERVOIR	3	3	ELKHED CK	41	SE	SW	16	7 N	8 W	S	X	13699.0000A	S.C.TT	05/30/1972	09/01/1960	08/07/1962	0	41126.00000	42	92CW0131	2	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	210.0000C	S.AP	05/30/1972	03/30/1964	05/20/1963	0	41727.41412	C45	W1091	9	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	363.3000C	S.C.AP	05/30/1972	03/30/1964	05/20/1963	0	41727.41412	C45	W1091	8	0	0
44	4320	CALIFORNIA PARK RES	3	3	ELKHED CK	54	SW	SW	17	9 N	8 W	S	X	20.0000C	S.C.AP	05/30/1972	03/30/1964	05/20/1963	0	41727.41412	C45	W1091	8	0	0
44	3902	ELKHED RESERVOIR	3	3	ELKHED CK	41	SE	SW	16	7 N	8 W	S	160	5389.0000A	S.C	05/30/1972	09/01/1960	10/01/1966	0	42642.00000	57	CA2259	1	0	0
44	3902	ELKHED RESERVOIR	3	3	ELKHED CK	41	SE	SW	16	7 N	8 W	S	160	5389.0000A	S.CA	05/30/1972	09/01/1960	10/01/1966	0	42642.00000	57	W0973	3	0	0
44	2322	PITNEY PUMP DIVERSION 2	8	3	ELKHED CK	54	NW	NW	7	7 N	8 W	S	1	2.6700C	S.AP	05/30/1972	09/01/1960	04/26/1968	0	43215.00000	62	CA2259	1	0	0
44	2322	PITNEY PUMP DIVERSION 3	8	3	ELKHED CK	54	NW	NW	7	7 N	8 W	S	1	2.6700C	S.AP	05/30/1972	09/01/1960	04/26/1968	0	43215.00000	62	CA2259	1	0	0
44	2322	PITNEY PUMP DIVERSION 4	8	3	ELKHED CK	54	NW	NW	7	7 N	8 W	S	1	2.6700C	S.AP	05/30/1972	09/01/1960	04/26/1968	0	43215.00000	62	CA2259	1	0	0
44	2322	PITNEY PUMP DIVERSION 5	8	3	ELKHED CK	54	NW	NW	7	7 N	8 W	S	1	2.6700C	S.AP	05/30/1972	09/01/1960	04/26/1968	0	43215.00000	62	CA2259	1	0	0
44	840	PITNEY PUMP STATION	8	3	ELKHED CK																				

44	763 SMITH DITCH	1	3	ELKHEAD CK	54	NW	NW	28	7 N	89 W	S	1	2,000.0	C	S	12/31/1989	12/31/1988	04/15/1988	0	50769.50509		88CW0038	4		0	LONG HEADGATE #1	
44	1782 PANKEY ELKHEAD CK LD 1			3	ELKHEAD CK	41	SW	NW	30	7 N	89 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/03/1912	0	53325.22860		96CW0007	1		0	
44	1783 PANKEY ELKHEAD CK LD 2			3	ELKHEAD CK	41	SE	NE	25	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/03/1912	0	53325.22860		96CW0007	1		0	
44	1784 PANKEY ELKHEAD CK LD 4			3	ELKHEAD CK	41	SW	SE	25	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/03/1912	0	53325.22860		96CW0007	1		0	
44	1785 PANKEY ELKHEAD CK LD 5			3	ELKHEAD CK	41	SW	SE	25	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/03/1912	0	53325.22860		96CW0007	1		0	
44	1786 PANKEY ELKHEAD CK LD 6			3	ELKHEAD CK	41	SW	SE	25	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/03/1912	0	53325.22860		96CW0007	1		0	
44	1786 VANTASSEL ELKHEAD LD 1			3	ELKHEAD CK	41	SW	SE	25	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/12/1912	0	53325.22869		96CW0009	1		0	
44	1791 VANTASSEL ELKHEAD LD 2			3	ELKHEAD CK	41	NW	NE	36	7 N	90 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	08/12/1912	0	53325.22869		96CW0009	1		0	
44	1965 K&S LIVESTOCK DIV. NO.1	1		1	ELKHEAD CK	41	NW	NW	28	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1966 K&S LIVESTOCK DIV. NO.2	1		1	ELKHEAD CK	41	NE	NE	29	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1967 K&S LIVESTOCK DIV. NO.3	1		1	ELKHEAD CK	41	NE	NE	29	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1968 K&S LIVESTOCK DIV. NO.4	1		1	ELKHEAD CK	41	SW	NE	30	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1969 K&S LIVESTOCK DIV. NO.5	1		1	ELKHEAD CK	41	SW	NW	30	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1970 K&S LIVESTOCK DIV. NO.6	1		1	ELKHEAD CK	41	NW	SW	30	7 N	89 W	S	9	0.0330	C	S	12/31/2000	12/31/1999	08/03/1912	0	54786.22860		00CW0068	1		0	
44	1973 HARLEY JR SPRING	4		3	ELKHEAD CK	54	SW	NW	11	7 N	89 W	S	89	0.0110	C	S	12/31/2000	12/31/1999	04/18/2000	0	54895.00000		00CW0014	1		0	
44	4727 DAVENPORT RESERVOIR NO. 1	3		3	ELKHEAD CK	41	SE	SE	17	7 N	89 W	S	9	1.0004	A	S	12/31/2000	12/31/1999	05/02/2000	0	54809.00000		00CW0018	1		0	
44	4727 DAVENPORT RESERVOIR NO. 1	3		3	ELKHEAD CK	41	SE	SE	17	7 N	89 W	S	9	1.0004	A	S,C	12/31/2000	12/31/1999	05/02/2000	0	54809.00000		00CW0018	1		0	
44	1987 VAUGHAN PUMP #1	4		3	ELKHEAD CK	41	SE	SW	20	7 N	89 W	S	19	2.0000	C	S	12/31/2001	12/31/2000	07/07/2001	0	55340.00000		01CW0014	1		0	
44	4712 WYMORE RESERVOIR NO. 1	3		3	ELKHEAD CK	41	SE	SW	7	7 N	89 W	S	9W	1.0004	A	S	12/31/2002	12/31/2001	06/15/1971	0	55517.44360		02CW0038	1		0	
44	2338 ROLANDO #1	4		3	ELKHEAD CK	54	SE	NE	6	7 N	88 W	S	9	0.0089	C	S	12/31/2002	12/31/2001	12/31/1978	0	55517.47116		02CW0071	1		0	
44	4708 HAROLD'S RESERVOIR NO. 1	3		3	ELKHEAD CK	41	NE	SE	7	7 N	89 W	S	9W	1.0004	A	S	12/31/2002	12/31/2001	09/15/2000	0	55517.55045		02CW0038	1		0	
44	4710 BURNT RESERVOIR	3		3	ELKHEAD CK	41	SE	SW	7	7 N	89 W	S	9W	1.0004	A	S	12/31/2002	12/31/2001	09/20/2000	0	55517.55055		02CW0038	1		0	
44	2337 ROLANDO #2	4		3	ELKHEAD CK	54	SE	NE	6	7 N	88 W	S	9	0.0134	C	S	12/31/2002	12/31/2001	08/21/2002	0	55750.00000		02CW0071	1		0	
44	2338 ROLANDO #3	4		3	ELKHEAD CK	54	SE	NE	6	7 N	88 W	S	9	0.0067	C	S	12/31/2002	12/31/2001	08/21/2002	0	55750.00000		02CW0071	1		0	
44	597 ELKHEAD RES ENL POWER CONDUIT	7		3	ELKHEAD CK	41	SE	SW	16	7 N	89 W	S	P	200.0000	C	S,C	12/31/2002	12/31/2001	10/16/2002	0	55806.00000		02CW0109	1		0	
44	3902 ELKHEAD RESERVOIR	3		3	ELKHEAD CK	41	SE	SW	16	7 N	89 W	S	12	13000.0000	A	S,C	12/31/2002	12/31/2001	10/16/2002	0	55806.00000		02CW0109	7		0	RIGHT TO USE AND REUSE. RIGHT TO REILL TO A MAX OF 1000 AF.
44	2072 FIRST CREEK MSF	0		119	FIRST CK	54	NW	SE	17	9 N	86 W	S	M	3.0000	C	S	12/31/1977	12/31/1976	09/23/1977	0	46652.00000		W1348-77	1		0	HEADWATERS TO ELKHEAD CK
44	2086 SOKODOWSKI CREEK MSF	0		120	SOKODOWSKI CK	54	NW	SW	33	10 N	87 W	S	M	1.0000	C	S	12/31/1977	12/31/1976	09/23/1977	0	46652.00000		W1346-77	1		0	HEADWATERS TO ELKHEAD CK
44	678 KNOWLES IRR D	1		45	KNOWLES CK	54	NE	SE	3	9 N	87 W	S	1	1.3300	C	S,C,AB	06/08/1910	06/06/1910	07/16/1907	0	22071.21014	89	91CW0071	4		0	
44	678 KNOWLES IRR D	1		45	KNOWLES CK	54	NE	SE	3	9 N	87 W	S	1	1.3300	C	S	06/08/1910	06/06/1910	07/16/1907	0	22071.21014	89	91CW0071	4		0	
44	678 KNOWLES IRR D	1		45	KNOWLES CK	54	NE	SE	3	9 N	87 W	S	1	1.0000	C	S,AB	06/08/1910	06/06/1910	07/16/1907	0	22071.21014	89	91CW0116	3		0	
44	678 KNOWLES IRR D	1		45	KNOWLES CK	54	NE	SE	3	9 N	87 W	S	1	1.0000	C	S	06/08/1910	06/06/1910	07/16/1907	0	22071.21014	89		1		0	
44	2080 HAXTON DIVERSION	1		39	LITTLE COTTONWOOD CK	41	NE	SE	27	8 N	89 W	S	169	0.2500	C	S	12/31/1979	12/31/1978	07/01/1974	0	47116.45472		79CW0106	1		0	
44	2008 ELKHEAD LATERAL	1		103	LONG GULCH	41	SE	SW	11	8 N	89 W	S	X	40.0000	C	S,C	05/09/1972	09/01/1960	08/07/1962	0	41126.00000	428	CA2259	1		0	DILIGENCE 85CW107,89CW101,96CW61
44	1072 PATTERSON SPG	4		103	LONG GULCH	41	SW	SW	24	8 N	89 W	S	880	0.1330	C	S	12/31/1974	12/31/1973	06/10/1910	0	45290.22075		W0617-74	1		0	
44	2180 WISEMAN SPG	4		103	LONG GULCH	41	SE	NE	23	8 N	89 W	S	89	0.0330	C	S	12/31/1981	12/31/1980	06/01/1966	0	47847.42520		81CW0058	1		0	
44	3653 TWO BAR RES 101	3		103	LONG GULCH	41	SE	SE	14	8 N	89 W	S	9	2.0004	A	S	12/31/1983	12/31/1982	06/10/1963	0	48577.41433		83CW0169	1		0	
44	3786 TWO BAR BLM RES 34	3		103	LONG GULCH	41	NE	NE	12	8 N	89 W	S	9	1.0004	A	S	12/31/1983	12/31/1982	06/20/1963	0	48577.41443		83CW0174	1		0	
44	3657 TWO BAR RES 106	3		103	LONG GULCH	41	SW	NW	14	8 N	89 W	S	9	1.0004	A	S	12/31/1983	12/31/1982	07/10/1963	0	48577.41463		83CW0169	1		0	
44	3660 TWO BAR RES 112	3		103	LONG GULCH	41	NE	NE	14	8 N	89 W	S	9	3.0004	A	S	12/31/1983	12/31/1982	08/15/1968	0	48577.33830		83CW0169	1		0	
44	3664 TWO BAR RES 114	3		103	LONG GULCH	41	NW	SW	12	8 N	89 W	S	9	1.0004	A	S	12/31/1983	12/31/1982	07/10/1969	0	48577.43654		83CW0169	1		0	
44	3665 TWO BAR RES 115	3		103	LONG GULCH	41	NW	NE	11	8 N	89 W	S	9	0.2504	A	S	12/31/1983	12/31/1982	07/15/1969	0	48577.43664		83CW0169	1		0	
44	3667 TWO BAR RES 117	3		103	LONG GULCH	41	NW	NW	12	8 N	89 W	S	9	3.0004	A	S	12/31/1983	12/31/1982	08/01/1969	0	48577.43677		83CW0169	1		0	
44	3658 TWO BAR RES 107	3		103	LONG GULCH	41	NW	NE	14	8 N	89 W	S	9	0.5000	A	S	12/31/1983	12/31/1982	07/29/1974	0	48577.45491		83CW0169	1		0	
44	3659 TWO BAR RES 108	3		103	LONG GULCH	41	NW	NW	14	8 N	89 W	S	9	0.5000	A	S	12/31/1983	12/31/1982	08/01/1974	0	48577.45503		83CW0169	1		0	
44	3666 TWO BAR RES 116	3		103	LONG GULCH	41	NE	NE	11	8 N	89 W	S	9	0.2504	A	S	12/31/1983	12/31/1982	08/15/1974	0	48577.45517		83CW0169	1		0	
44	3668 TWO BAR RES 118	3		103	LONG GULCH	41	SE	SE	2	8 N	89 W	S	9	0.5000	A	S	12/31/1983	12/31/1982	08/20/1974	0	48577.45522		83CW0169	1		0	
44	3669 TWO BAR RES 119	3		103	LONG GULCH	41	NE	SE	11	8 N	89 W	S	9	0.1000	A	S	12/31/1983	12/31/1982	09/01/1974	0	48577.45534		83CW0169	1		0	
44	3784 TWO BAR BLM RES 32	3		103	LONG GULCH	41	NW	SE	11	8 N	89 W	S	9	0.5004	A	S	12/31/1983	12/31/1982	06/30/1975	0	48577.45584		83CW0174	1		0	
44	3785 TWO BAR BLM RES 33	3		103	LONG GULCH	41	SE	SW	11	8 N	89 W	S	9	1.0004	A	S	12/31/1983	12/31/1982	07/05/1975	0	48577.45641		83CW0174	1		0	
44	3650 TWO BAR RES 105	3		103	LONG GULCH	41	SW	NW	24	8 N	89 W	S	9	1.0004	A	S,C	12/31/1983	12/31/1982	11/16/1983	0	48897.00000		83CW0169	1		0	
44	3650 TWO BAR RES 105	3		103	LONG GULCH	41	NW	SW	14	8 N	89 W	S	9	1.0004	A	S,C,AB	12/31/1983	12/31/1982	11/16/1983	0	48897.00000		83CW0169	2		0	ABANDONED 1 AF 9/22/88
44	1613 DIXON SPG #1	4		103	LONG GULCH	41	SW	NW	24	8 N	89 W	S	9	0.0110	C	S	12/31/1994	12/31/1993	05/10/1940	0	52595.33002		94CW0086				

44	2250 RUSTLERS SPRING 2	4	124	MILL CK	54	SE	NW	4	8 N	87 W	S	689	0.0330	C	S.C	12/31/1982	12/31/1981	12/15/1982	0	48561.00000	82CW0231	1	0	0
44	2250 RUSTLERS SPRING 2	4	124	MILL CK	54	SE	NW	4	8 N	87 W	S	689	0.0330	C	S.CA	12/31/1982	12/31/1981	12/15/1982	0	48561.00000	90CW0022	2	0	0
44	3748 RAFTOPOULOS Q MTN RES 8	3	124	MILL CK	54	SE	SW	8	8 N	87 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	06/25/1987	0	48577.42909	83CW0179	1	0	0
44	3747 RAFTOPOULOS Q MTN RES 9	3	124	MILL CK	54	SE	SW	8	8 N	87 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	07/01/1987	0	48577.42915	83CW0179	1	0	0
44	3758 RAFTOPOULOS Q MTN RES 7	3	124	MILL CK	54	SW	SE	9	8 N	87 W	S	9	1.0000	A	S.C.AB	12/31/1983	12/31/1982	11/16/1983	0	48897.00000	83CW0179	2	0	0
44	3758 RAFTOPOULOS Q MTN RES 7	3	124	MILL CK	54	SW	SE	9	8 N	87 W	S	9	1.0000	A	S.C	12/31/1983	12/31/1982	11/16/1983	0	48897.00000	83CW0179	1	0	0
44	1208 MULKEY SPRING	4	124	MILL CK	54	SW	NW	11	8 N	87 W	S	189	0.0220	C	S	12/31/1988	12/31/1985	07/01/1985	0	49673.49409	86CW0109	1	0	0
44	3938 LOWER ERWIN RESERVOIR	3	124	MILL CK	54	SW	NE	4	8 N	87 W	S	569	1.0000	A	S	12/31/1987	12/31/1986	02/29/1981	0	50038.47894	87CW0089	1	0	0
44	3938 UPPER ERWIN RESERVOIR	3	124	MILL CK	54	NW	NE	4	8 N	87 W	S	569	2.0000	A	S	12/31/1987	12/31/1986	02/28/1981	0	50038.47906	87CW0089	1	0	0
44	1210 MULKEY SPRING 2	4	124	MILL CK	54	SW	NW	4	8 N	87 W	S	9	0.0220	C	S	12/31/1987	12/31/1986	07/01/1983	0	50038.48759	87CW0040	1	0	0
44	3938 MULKEY RESERVOIR	3	124	MILL CK	54	SW	NW	4	8 N	87 W	S	9	1.2500	A	S	12/31/1987	12/31/1986	09/15/1985	0	50038.49566	87CW0041	1	0	0
44	1261 BILL'S SPRING	4	124	MILL CK	54	NE	NE	4	8 N	87 W	S	69	0.0330	C	S	12/31/1988	12/31/1987	02/28/1981	0	50403.47906	88CW0027	1	0	0
44	1262 WHITE SPRING	4	124	MILL CK	54	SW	NE	4	8 N	87 W	S	8	0.0330	C	S	12/31/1988	12/31/1987	02/28/1981	0	50403.47906	88CW0027	1	0	0
44	4245 BILL POND	3	124	MILL CK	54	NE	NE	4	6 N	87 W	S	58	0.1000	A	S	12/31/1990	12/31/1989	06/01/1990	0	51286.00000	90CW0089	1	0	0
44	4244 FAUNA POND	3	124	MILL CK	54	NE	NE	4	6 N	87 W	S	58	0.1000	A	S	12/31/1990	12/31/1989	06/01/1990	0	51286.00000	90CW0089	1	0	0
44	4243 JIM POND	3	124	MILL CK	54	NE	NE	4	6 N	87 W	S	58	0.1000	A	S	12/31/1990	12/31/1989	06/01/1990	0	51286.00000	90CW0089	1	0	0
44	614 ELLIS & KITCHENS D	1	34	NORTH FK of ELKHEAD CK	54	SW	NW	33	9 N	88 W	S	1	1.6600	C	S	10/01/1904	09/24/1904	05/26/1903	0	19990.19503	75	4	0	
44	614 ELLIS & KITCHENS D	1	34	NORTH FK of ELKHEAD CK	54	NW	NW	33	9 N	88 W	S	1	1.6600	C	S.C.AB	10/01/1904	09/24/1904	05/26/1903	0	19990.19503	75	4	0	
44	614 ELLIS & KITCHENS D	1	34	NORTH FK of ELKHEAD CK	54	NW	NW	33	9 N	88 W	S	1	1.6600	C	S.C	10/01/1904	09/24/1904	05/26/1903	0	19990.19503	75	4	0	
44	2211 OLD ELLIS & KITCHENS DIT	1	34	NORTH FK of ELKHEAD CK	41	NW	NW	26	9 N	88 W	S	1	1.6600	C	S.CAP	10/01/1904	09/24/1904	05/26/1903	0	19990.19503	75	4	0	
44	2211 OLD ELLIS & KITCHENS DIT	1	34	NORTH FK of ELKHEAD CK	41	NW	NW	26	9 N	88 W	S	1	1.6600	C	SAP	10/01/1904	09/24/1904	05/26/1903	0	19990.19503	75	4	0	
44	533 ANDERSON DITCH	1	34	NORTH FK of ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	1	5.0000	C	S	09/20/1906	09/26/1905	06/01/1906	0	20605.00000	82	1	0	
44	3677 ANDERSON RES	3	34	NORTH FK of ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	1	20.1100	A	S	09/20/1906	09/26/1905	06/01/1906	0	20605.00000	82	1	0	
44	3677 ANDERSON RES	3	34	NORTH FK of ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	1	110.9400	A	S	09/20/1906	09/26/1905	06/01/1906	0	20605.00000	82	2	0	
44	3677 ANDERSON RES	3	34	NORTH FK of ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	1	12.1100	A	S	09/20/1906	09/26/1905	06/01/1906	0	20605.00000	82	3	0	
44	2362 PARK IRRIGATION CANAL NO. 2	3	34	NORTH FK of ELKHEAD CK	54				8 N	88 W	S	18	652.0000	C	S.C	06/15/1911	06/14/1911	10/24/1904	0	22444.20200	78 1/2 AA	CA0663	1	0
44	2362 PARK IRRIGATION CANAL NO. 2	3	34	NORTH FK of ELKHEAD CK	54				8 N	88 W	S	18	597.0000	C	S.C	06/15/1911	06/14/1911	06/15/1909	0	22444.21719	88	CA0663	2	0
44	2022 NORTH ELKHEAD FEEDER CNL	1	34	NORTH FK of ELKHEAD CK	54	NE	NW	5	8 N	88 W	S	X	145.0000	C	S.C	05/30/1972	09/01/1960	08/07/1982	0	41128.00000	420	CA2259	1	0
44	614 ELLIS & KITCHENS D	1	34	NORTH FK of ELKHEAD CK	54	NW	NW	33	9 N	88 W	S	1	0.0000	C	S.CA	12/31/1975	12/31/1974	10/16/1968	0	44559.32667	81CW0013	1	0	0
44	3795 TWO BAR BLM RES 42	3	34	NORTH FK of ELKHEAD CK	54	NW	NW	32	9 N	88 W	S	9	2.0000	A	S	12/31/1983	12/31/1982	07/30/1963	0	48577.41483	83CW0174	1	0	0
44	3796 TWO BAR BLM RES 43	3	34	NORTH FK of ELKHEAD CK	54	SW	NW	32	9 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	08/05/1963	0	48577.41488	83CW0174	1	0	0
44	852 ROCK SPRINGS GULCH DITCH	1	97	ROCK SPRINGS GULCH	54	NE	SE	25	7 N	89 W	S	81	2.0000	C	S	05/30/1972	09/01/1960	06/01/1948	0	40421.35946	18A	CA2259	1	0
44	1108 BLAKE SPG NO 9	4	97	ROCK SPRINGS GULCH	54	NW	NW	30	7 N	88 W	S	9	0.1000	C	S	12/31/1972	12/31/1971	06/10/1939	0	44559.32667	W0362-72	1	0	0
44	3923 BLAKE STK POND NO 10	3	97	ROCK SPRINGS GULCH	54	NW	NW	30	7 N	88 W	S	9	0.0200	A	S	12/31/1972	12/31/1971	06/10/1939	0	44559.32667	W0368-72	1	0	0
44	3922 BLAKE STK POND NO 1	3	97	ROCK SPRINGS GULCH	54	NW	SW	30	7 N	88 W	S	9	0.4000	A	S	12/31/1972	12/31/1971	07/10/1939	0	44559.32667	W0363-72	1	0	0
44	3731 FREDRICKSON RES NO 1	3	97	ROCK SPRINGS GULCH	54	NW	SE	11	7 N	89 W	S	89	5.2300	A	S	12/31/1972	12/31/1971	05/01/1950	0	44559.36645	W0154-72	1	0	0
44	3732 FREDRICKSON RES NO 2	3	97	ROCK SPRINGS GULCH	54	SW	NE	11	7 N	89 W	S	88	2.6400	A	S	12/31/1972	12/31/1971	05/01/1950	0	44559.36645	W0154-72	1	0	0
44	867 LOUIS DITCH NO 1	1	97	ROCK SPRINGS GULCH	54	NW	SE	11	7 N	89 W	S	189	2.7500	C	S	12/31/1972	12/31/1971	05/01/1950	0	44559.36645	W0153-72	1	0	0
44	867 LOUIS DITCH NO 1	1	97	ROCK SPRINGS GULCH	54	NW	SE	11	7 N	89 W	S	189	2.7500	C	S.AB	12/31/1972	12/31/1971	05/01/1950	0	44559.36645	81CW0117	2	0	0
44	3733 FREDRICKSON RES NO 3	3	97	ROCK SPRINGS GULCH	54	NW	NE	11	7 N	89 W	S	619	9.3600	A	S	12/31/1972	12/31/1971	05/31/1958	0	44559.39597	W0154-72	1	0	0
44	3734 FREDRICKSON RES NO 4	3	97	ROCK SPRINGS GULCH	54	NW	NE	11	7 N	89 W	S	18	2.8100	A	S	12/31/1972	12/31/1971	05/31/1960	0	44559.40328	W0154-72	1	0	0
44	845 LOUIS DITCH 2	1	97	ROCK SPRINGS GULCH	54	NW	NE	11	7 N	89 W	S	189	2.7500	C	S	12/31/1972	12/31/1971	08/31/1971	0	44559.44437	W0153-72	1	0	0
44	793 BLAKE SPG NO 7	4	97	ROCK SPRINGS GULCH	54	NW	NW	30	7 N	88 W	S	9	0.1000	C	S	12/31/1972	12/31/1971	07/10/1972	0	44751.00000	W0362-72	1	0	0
44	1141 BLAKE SPG NO 8	4	97	ROCK SPRINGS GULCH	54	NW	NW	30	7 N	88 W	S	9	0.1000	C	S	12/31/1972	12/31/1971	07/10/1972	0	44751.00000	W0362-72	1	0	0
44	1032 BLAKE SPG NO 11	4	97	ROCK SPRINGS GULCH	54	SE	NW	30	7 N	88 W	S	9	0.1000	C	S	12/31/1972	12/31/1971	07/10/1972	0	44751.00000	W0362-72	1	0	0
44	1020 BLAKE SPG NO 3	4	97	ROCK SPRINGS GULCH	54	SW	SW	30	7 N	88 W	S	19	0.0800	C	S	12/31/1973	12/31/1972	07/06/1946	0	44925.35250	W0423-73	1	0	0
44	1028 BLAKE DITCH NO 44	1	97	ROCK SPRINGS GULCH	54	SE	SW	30	7 N	88 W	S	19	0.1000	C	S	12/31/1973	12/31/1972	07/10/1972	0	44925.44751	W0423-73	1	0	0
44	1030 BLAKE SPG NO 2	4	97	ROCK SPRINGS GULCH	54	NW	SW	30	7 N	88 W	S	19	0.0500	C	S	12/31/1973	12/31/1972	07/10/1972	0	44925.44751	W0423-73	1	0	0
44	1031 BLAKE SPG NO 4	4	97	ROCK SPRINGS GULCH	54	SE	SW	30	7 N	88 W	S	19	0.0500	C	S	12/31/1973	12/31/1972	07/10/1972	0	44925.44751	W0423-73	1	0	0
44	1038 BLAKE SPG NO 43	4	97	ROCK SPRINGS GULCH	54	SW	SW	30	7 N	88 W	S	19	0.0500	C	S	12/31/1973	12/31/1972	07/10/1972	0	44925.44751	W0423-73	1	0	0
44	1078 ZEHNER SPG SITE D	4	97	ROCK SPRINGS GULCH	54	SE	SW	30	7 N	88 W	S	189	0.0400	C	S	12/31/1974	12/31/1973	06/01/1989	0	45390.23627	W0759-74	1	0	0
44	1081 ZEHNER SPG SITE F	4	97	ROCK SPRINGS GULCH	54	NE	NE	36	7 N	89 W	S	9	0.0200	C	S	12/31/1974	12/31/1973	06/01/1969	0	45390.43614	W0759-74	1	0	0
44	2069 COTTONWOOD SPG	4	97	ROCK SPRINGS GULCH	54	SE	SE	11	7 N	89 W	S	9	0.0300	C	S.C	12/31/1977	12/31/1976	06/15/1976	0	46386.46187	W1129-77	1	0	0
44	2069 COTTONWOOD SPG	4	97	ROCK SPRINGS GULCH	54	SE	SE	11	7 N	89 W	S	9	0.0300	C	S.CA	12/31/1977	12/31/1976	06/15/1976	0	46386.46187	81CW0250	2	0	0
44	2071 EAST SUNSHINE SPG	4	97	ROCK SPRINGS GULCH	54	SE	NE	14	7 N	89 W	S	8	0.0300	C	S	12/31/1977	12/31/1976	06/15/1976	0	46386.46187	W1129-77	1	0	0
44	2081 HILLSIDER SPG	4	97	ROCK SPRINGS GULCH	54	SE	NW	13	7 N	89 W	S	9	0.0300	C	S.C	12/31/1977	12/31/1976	06/15/1976	0</					

44	2086	JACK SPG 5	4	97	ROCK SPRINGS GULCH	54	SE	SW	24	7 N	89 W	S	689	0.0330	C	S.C	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	1	0	0	
44	2086	JACK SPG 5	4	97	ROCK SPRINGS GULCH	54	SE	SW	24	7 N	89 W	S	689	0.0330	C	S.C.AB	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	3	0	0	
44	2087	JACK SPG 6	4	97	ROCK SPRINGS GULCH	54	NW	SE	25	7 N	89 W	S	689	0.0330	C	S.C	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	1	0	0	
44	2087	JACK SPG 6	4	97	ROCK SPRINGS GULCH	54	NW	SE	25	7 N	89 W	S	689	0.0330	C	S.C.AB	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	3	0	0	
44	2088	JACK SPG 7	4	97	ROCK SPRINGS GULCH	54	SE	SE	25	7 N	89 W	S	689	0.0330	C	S.C	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	1	0	0	
44	2088	JACK SPG 7	4	97	ROCK SPRINGS GULCH	54	SE	SE	25	7 N	89 W	S	689	0.0330	C	S.C.AB	12/31/1980	12/31/1979	01/03/1980	0	47484.00000	80CW0002	3	0	0	
44	2092	CARL SPG	4	97	ROCK SPRINGS GULCH	54	NW	NW	34	7 N	89 W	S	689	0.1000	A	S	12/31/1980	12/31/1979	06/26/1980	0	47659.00000	80CW0071	1	0	0	
44	2103	SJOSTROM SPG NO 2	4	97	ROCK SPRINGS GULCH	54	SE	SE	14	7 N	89 W	S	69	0.0330	C	S.C	12/31/1980	12/31/1979	12/31/1980	0	47847.00000	80CW0253	1	0	0	
44	2103	SJOSTROM SPG NO 2	4	97	ROCK SPRINGS GULCH	54	SE	SE	14	7 N	89 W	S	69	0.0330	C	S.C.A	12/31/1980	12/31/1979	12/31/1980	0	47847.00000	80CW0253	2	0	0	
44	2104	SJOSTROM SPG NO 3	4	97	ROCK SPRINGS GULCH	54	SW	SE	11	7 N	89 W	S	69	0.0330	C	S.C	12/31/1980	12/31/1979	12/31/1980	0	47847.00000	80CW0253	1	0	0	
44	2104	SJOSTROM SPG NO 3	4	97	ROCK SPRINGS GULCH	54	SW	SE	11	7 N	89 W	S	69	0.0330	C	S.C.A	12/31/1980	12/31/1979	12/31/1980	0	47847.00000	80CW0042	2	0	0	
44	2199	BACKES SPRING	4	97	ROCK SPRINGS GULCH	54	SE	NE	24	7 N	89 W	S	189	0.0330	C	S	12/31/1981	12/31/1980	06/05/1920	0	47847.25723	81CW0155	1	0	0	
44	1235	BEST SPRING	4	97	ROCK SPRINGS GULCH	54	SW	SW	19	7 N	88 W	S	19	0.0110	C	S	12/31/1988	12/31/1987	07/01/1961	0	50403.40724	88CW0091	1	0	0	
44	1271	SILVER SPRING	4	97	ROCK SPRINGS GULCH	54	SW	SE	11	7 N	88 W	S	9	0.0330	C	S	12/31/1988	12/31/1987	07/01/1984	0	50403.49125	88CW0096	1	0	0	
44	1744	ADAMS SPRING	4	97	ROCK SPRINGS GULCH	54	SE	SW	19	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	06/30/1995	0	53141.00000	95CW0131	1	0	0	
44	1922	PATRICK & GLENDA SPG #1	4	97	ROCK SPRINGS GULCH	54	NE	NW	31	7 N	88 W	S	189	0.0440	C	S	12/31/1998	12/31/1997	07/22/1998	0	54259.00000	98CW0098	1	0	0	
44	1996	QUIET SPRING	4	97	ROCK SPRINGS GULCH	54	NE	NE	24	7 N	89 W	S	9	0.0440	C	S	12/31/1998	12/31/1997	08/01/1998	0	54259.00000	98CW0099	1	0	0	
44	2086	JACK SPG 5	4	97	ROCK SPRINGS GULCH	54	SE	SW	24	7 N	89 W	S	69	0.0330	C	S	12/31/1998	12/31/1997	11/23/1998	0	54383.00000	98CW0099	2	0	0	
44	2087	JACK SPG 6	4	97	ROCK SPRINGS GULCH	54	NW	SE	25	7 N	89 W	S	69	0.0330	C	S	12/31/1998	12/31/1997	11/23/1998	0	54383.00000	98CW0099	2	0	0	
44	2088	JACK SPG 7	4	97	ROCK SPRINGS GULCH	54	SE	SE	25	7 N	89 W	S	69	0.0330	C	S	12/31/1998	12/31/1997	11/23/1998	0	54383.00000	98CW0099	2	0	0	
44	1974	PATRICK & GLENDA SPG #2	4	97	ROCK SPRINGS GULCH	54	NW	NW	31	7 N	88 W	S	9	0.0440	C	S	12/31/2001	12/31/2000	07/01/2000	0	55152.54969	01CW0010	1	0	0	
44	772	STUCKEY DITCH	1	46	STUCKEY CK	54	SE	NW	8	9 N	87 W	S	1	7.7500	C	S.AB	09/29/1910	06/17/1910	08/03/1906	0	22082.20668	82AA	91CW0116	2	0	0
44	772	STUCKEY DITCH	1	46	STUCKEY CK	54	SE	NW	8	9 N	87 W	S	1	7.7500	C	S	09/29/1910	06/17/1910	08/03/1906	0	22082.20668	82AA		1	0	0
44	663	JOKODOWSKY DITCH	1	43	SUGAR CK	54	NW	SW	4	9 N	87 W	S	1	1.5000	C	S.C.AB	06/22/1909	10/08/1908	07/15/1906	0	21465.20649	82A	84CW0071	4	0	0
44	663	JOKODOWSKY DITCH	1	43	SUGAR CK	54	NW	SW	4	9 N	87 W	S	1	1.5000	C	S.C	06/22/1909	10/08/1908	07/15/1906	0	21465.20649	82A		2	0	0
44	663	JOKODOWSKY DITCH	1	43	SUGAR CK	54	NW	SW	4	9 N	87 W	S	1	1.0000	C	S.AB	06/22/1909	10/08/1908	07/15/1906	0	21465.20649	82A	91CW0116	3	0	0
44	663	JOKODOWSKY DITCH	1	43	SUGAR CK	54	NW	SW	4	9 N	87 W	S	1	1.0000	C	S	06/22/1909	10/08/1908	07/15/1906	0	21465.20649	82A		1	0	0
44	2108	TORISO CREEK WSP	0	22	TORISO CK	54	NW	NW	6	9 N	86 W	S	1	1.0000	C	S	12/31/1977	08/23/1977	07/01/1976	0	46552.00000	W1343-77	1	0	0	
44	6081	VAN TASSEL WELL 1	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	NE	36	7 N	90 W	S	69	0.0180	C	O	12/31/1974	06/20/1919	0	25372.00000	W0291-72	1	0	0		
44	6037	HUDACK WELL NO 1	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	SE	3	7 N	89 W	S	18	0.0330	C	O	12/31/1974	06/20/1919	0	25372.00000	W0747-74	1	0	0		
44	6082	VAN TASSEL WELL 2	2	66	TRIBUTARIES-ELKHEAD CK	41	SE	SE	25	7 N	90 W	S	69	0.0180	C	O	12/31/1972	09/01/1947	0	35672.00000	W0291-72	1	0	0		
44	6083	VAN TASSEL WELL 3	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	SE	25	7 N	90 W	S	69	0.0180	C	O	12/31/1972	09/15/1947	0	35686.00000	W0291-72	1	0	0		
44	6084	VAN TASSEL WELL 4	2	66	TRIBUTARIES-ELKHEAD CK	54	NE	SE	30	7 N	89 W	S	69	0.0900	C	O	12/31/1972	07/01/1947	0	37437.00000	W0291-72	1	0	0		
44	6086	VAN TASSEL WELL 6	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	25	7 N	90 W	S	69	0.0180	C	O	12/31/1972	07/01/1954	0	38167.00000	W0293-72	1	0	0		
44	6085	VAN TASSEL WELL 5	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	25	7 N	90 W	S	69	0.0180	C	O	12/31/1972	07/01/1963	0	41454.00000	W0293-72	1	0	0		
44	6111	JOHN BRYANT WELL	2	66	TRIBUTARIES-ELKHEAD CK	41	SW	NW	9	7 N	89 W	S	8	0.0330	C	O	12/31/1980	06/14/1968	0	43264.00000	80CW0183	1	0	0		
44	1034	CARNS SPG NO 3	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	4	7 N	88 W	S	9	0.0440	C	S	12/31/1972	12/31/1971	06/01/1948	0	44559.35946	W0184-72	1	0	0	
44	1076	HUDACK SPG NO 4	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	NE	7	7 N	89 W	S	690	0.0111	C	S	12/31/1974	12/31/1973	07/01/1930	0	45290.29401	W0745-74	1	0	0	
44	1076	HUDACK SPG NO 3	4	66	TRIBUTARIES-ELKHEAD CK	41	SE	NE	7	7 N	89 W	S	690	0.0111	C	S	12/31/1974	12/31/1973	06/18/1951	0	45290.37688	W0745-74	1	0	0	
44	6115	MAUBURG WELL	2	66	TRIBUTARIES-ELKHEAD CK	41	NW	NE	9	7 N	89 W	S	8	0.0330	C	O	12/31/1976	05/23/1974	0	45433.00000	80CW0188	1	0	0		
44	6023	ELKHEAD DOMESTIC WELL	2	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	16	7 N	89 W	S	8	0.0110	C	O	12/31/1975	10/02/1974	0	45465.00000	W0930-75	1	0	0		
44	2039	FUNK SPG NO 1	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	NW	14	7 N	89 W	S	189	0.0440	C	S	12/31/1977	12/31/1976	07/01/1920	0	46386.25748	W1169-77	1	0	0	
44	846	MOORE SPG #1	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	SE	6	7 N	88 W	S	9	0.0440	C	S	12/31/1977	12/31/1976	07/15/1977	0	46582.00000	W1217-77	1	0	0	
44	2040	FUNK SPG NO 2	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	NW	14	7 N	89 W	S	69	0.0300	C	S.C	12/31/1977	12/31/1976	07/26/1977	0	46593.00000	W1169-77	1	0	0	
44	2040	FUNK SPG NO 2	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	NW	14	7 N	89 W	S	69	0.0300	C	S.C.AB	12/31/1977	12/31/1976	07/26/1977	0	46593.00000	W1169-77	2	0	0	
44	2058	BOWER SPG	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	SE	6	7 N	88 W	S	891	0.0330	C	S	12/31/1979	12/31/1978	07/25/1910	0	47116.22120	79CW0119	1	0	0	
44	2089	JACK SPG 3	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	SW	23	7 N	89 W	S	69	0.0330	C	S	12/31/1979	12/31/1978	07/18/1978	0	47116.46950	79CW0161	1	0	0	
44	6160	HOLLOWAY WELL	2	66	TRIBUTARIES-ELKHEAD CK	54	NE	NW	29	7 N	88 W	S	8	0.0270	C	O	12/31/1980	08/07/1979	0	47335.00000	80CW0228	1	0	0		
44	4238	CARNS RES	3	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	4	7 N	88 W	S	X	4.0000	A	S	12/31/1980	12/31/1979	08/10/1965	0	47481.42225	80CW0178	1	0	0	
44	2109	YARD SPG	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	NW	20	7 N	89 W	S	198	0.0300	C	S	12/31/1980	12/31/1979	07/14/1980	0	47677.00000	80CW0114	1	0	0	
44	443	KITCHENS & KLECKNER RES	3	66	TRIBUTARIES-ELKHEAD CK	54	NW	SW	34	8 N	88 W	S	49	1.0000	A	S	12/31/1981	12/31/1980	08/01/1982	0	47847.13005	81CW0038	1	0	0	
44	2370	CANFIELD SPG	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	NW	30	7 N	88 W	S	189	0.0110	C	S	12/31/1981	12/31/1980	07/01/1961	0	47847.40724	81CW0023	1	0	0	
44	4438	KARO DIVERSION & RES	3	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	20	7 N	89 W	S	49	1.0000	A	S	12/31/1981	12/31/1980	06/16/1981	0	48014.00000	81CW0126	1	0	0	
44	2166	FREDRICKSON SPG NO 1	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	NE	15	7 N	89 W	S	69	0.0330	C	S	12/31/1981	12/31/1980	10/12/1981	0	48132.00000	81CW0251	1	0	0	
44	2167	FREDRICKSON SPG NO 2	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	NE	15	7 N	89 W	S	69	0.0330	C	S	12/3									

44	3852 TWO BAR RES 124	3	66	TRIBUTARIES-ELKHEAD CK	54	NE	NE	7	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	08/20/1969	0	48577.43698	83CW0170	1	0	0
44	3853 TWO BAR RES 125	3	66	TRIBUTARIES-ELKHEAD CK	54	SW	SE	6	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	09/01/1969	0	48577.43708	83CW0170	1	0	0
44	3854 TWO BAR RES 126	3	66	TRIBUTARIES-ELKHEAD CK	54	SE	SW	6	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	09/10/1969	0	48577.43717	83CW0170	1	0	0
44	3855 TWO BAR RES 128	3	66	TRIBUTARIES-ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	9	2.0000	A	S	12/31/1983	12/31/1982	09/15/1969	0	48577.43722	83CW0170	1	0	0
44	3857 TWO BAR RES 129	3	66	TRIBUTARIES-ELKHEAD CK	54	NW	SE	6	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	09/20/1969	0	48577.43727	83CW0170	1	0	0
44	3858 TWO BAR RES 130	3	66	TRIBUTARIES-ELKHEAD CK	54	SE	NW	1	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	10/01/1969	0	48577.43738	83CW0170	1	0	0
44	3855 TWO BAR RES 127	3	66	TRIBUTARIES-ELKHEAD CK	54	SE	SW	5	8 N	88 W	S	9	0.2500	A	S	12/31/1983	12/31/1982	09/10/1974	0	48577.45543	83CW0170	1	0	0
44	3787 TWO BAR BLM RES 35	3	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	6	8 N	88 W	S	9	0.5000	A	S	12/31/1983	12/31/1982	07/10/1975	0	48577.45544	83CW0174	1	0	0
44	3789 TWO BAR BLM RES 37	3	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	6	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	07/15/1975	0	48577.45551	83CW0174	1	0	0
44	3791 TWO BAR BLM RES 38	3	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	6	8 N	88 W	S	9	1.0000	A	S	12/31/1983	12/31/1982	07/20/1975	0	48577.45586	83CW0174	1	0	0
44	1192 MANY DAM SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	NW	32	8 N	88 W	S	90	0.0010	C	S	12/31/1983	12/31/1982	09/30/1982	0	48577.48485	83CW0127	1	0	0
44	2389 FREDRICKSON SPG NO 4	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	NE	15	7 N	89 W	S	89	0.0330	C	S	12/31/1984	12/31/1983	09/23/1979	0	48942.47382	84CW0051	1	0	0
44	2388 FREDRICKSON SPG NO 3	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	NE	15	7 N	89 W	S	89	0.0330	C	S	12/31/1984	12/31/1983	12/10/1983	0	48942.48921	84CW0051	1	0	0
44	2378 COFFEE SPRING 1	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	NW	5	8 N	87 W	S	8	0.0110	C	S.C	12/31/1984	12/31/1983	01/24/1984	0	48966.00000	84CW0004	1	0	0
44	2378 COFFEE SPRING 1	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	NW	5	8 N	87 W	S	8	0.0110	C	S.CAB	12/31/1984	12/31/1983	01/24/1984	0	48966.00000	84CW0004	2	0	DILIGENCE 87CW8S,94CW31, ABANDONED 011CFS 10192000
44	1205 TRACEY SPRING 1	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	SE	20	8 N	88 W	S	89	0.0200	C	S	12/31/1988	12/31/1987	05/01/1986	0	50403.20574	88CW0002	1	0	0
44	1206 TRACEY SPRING 2	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	SE	20	8 N	88 W	S	9	0.0200	C	S	12/31/1988	12/31/1987	08/30/1987	0	50403.50286	88CW0002	1	0	0
44	1206 TRACEY SPRING 3	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	NW	20	8 N	88 W	S	9	0.0110	C	S	12/31/1988	12/31/1987	09/30/1987	0	50403.50311	88CW0002	1	0	0
44	1363 PANKEY NO 1 D & LIV DIVR	1	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	19	7 N	89 W	S	9	0.0330	C	S	12/31/1990	12/31/1989	11/14/1990	0	51452.00000	90CW0157	1	0	0
44	1363 PANKEY NO 1 D & LIV DIVR	1	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	19	7 N	89 W	S	1	1.0000	C	S.C	12/31/1990	12/31/1989	11/14/1990	0	51452.00000	90CW0157	2	0	0
44	1363 PANKEY NO 1 D & LIV DIVR	1	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	19	7 N	89 W	S	1	1.0000	C	S.CAB	12/31/1990	12/31/1989	11/14/1990	0	51452.00000	90CW0157	3	0	ABAND 1 CFS 81/297.
44	1277 ZULIAN SPRING	4	66	TRIBUTARIES-ELKHEAD CK	41	SW	NE	9	7 N	89 W	S	9	0.0330	C	S	12/31/1991	12/31/1990	06/10/1991	0	51660.00000	91CW0056	1	0	0
44	1415 ZULIAN SPRING NO 2		66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	9	7 N	89 W	S	9	0.0110	C	S	12/31/1993	12/31/1992	08/01/1993	0	52443.00000	93CW0070	1	0	0
44	4202 PEED RESERVOIR #1	3	66	TRIBUTARIES-ELKHEAD CK	41	SW	SE	8	7 N	89 W	S	9	1.0000	A	S	12/31/1995	12/31/1994	04/15/1957	0	52960.39186	95CW0076	1	0	0
44	1727 BULL GULCH SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	NW	19	8 N	87 W	S	9	0.0100	C	S	12/31/1995	12/31/1994	06/01/1963	0	52960.41424	95CW0089	1	0	0
44	1728 FERGUSON SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	SE	13	8 N	88 W	S	9	0.0100	C	S	12/31/1995	12/31/1994	06/01/1963	0	52960.41424	95CW0089	1	0	0
44	1729 FULTON SPRING # 8	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	SE	12	8 N	88 W	S	9	0.0100	C	S	12/31/1995	12/31/1994	06/01/1963	0	52960.41424	95CW0089	1	0	0
44	1738 FULTON SPRING # 9	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	SW	7	8 N	87 W	S	9	0.0100	C	S	12/31/1995	12/31/1994	06/01/1963	0	52960.41424	95CW0089	1	0	0
44	4203 PEED RESERVOIR #2	3	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	3	7 N	89 W	S	9	0.2500	A	S	12/31/1995	12/31/1994	01/15/1975	0	52960.45786	95CW0076	1	0	A
44	4205 PEED RESERVOIR #4	3	66	TRIBUTARIES-ELKHEAD CK	41	SE	NW	8	7 N	89 W	S	9	0.2500	A	S	12/31/1995	12/31/1994	05/10/1975	0	52960.45786	95CW0076	1	0	0
44	4206 PEED RESERVOIR #5	3	66	TRIBUTARIES-ELKHEAD CK	41	NE	NW	8	7 N	89 W	S	9	0.5000	A	S	12/31/1995	12/31/1994	05/10/1975	0	52960.45786	95CW0076	1	0	0
44	1732 KARO #3 SPRING AND DITCH	1	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	20	7 N	89 W	S	19	0.0330	C	S	12/31/1995	12/31/1994	11/15/1981	0	52960.48166	95CW0151	1	0	0
44	4204 PEED RESERVOIR #3	3	66	TRIBUTARIES-ELKHEAD CK	41	SW	NE	8	7 N	89 W	S	9	0.2500	A	S	12/31/1995	12/31/1994	04/15/1988	0	52960.50509	95CW0076	1	0	0
44	1720 DAVENPORT SPRING #1	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	SE	17	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1721 DAVENPORT SPRING #2	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	9	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1722 DAVENPORT SPRING #3	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	17	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1723 DAVENPORT SPRING #4	4	66	TRIBUTARIES-ELKHEAD CK	41	SW	NW	17	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1724 DAVENPORT SPRING #5	4	66	TRIBUTARIES-ELKHEAD CK	41	SE	NE	18	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1725 DAVENPORT SPRING #6	4	66	TRIBUTARIES-ELKHEAD CK	41	SW	SE	18	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1726 DAVENPORT SPRING #7	4	66	TRIBUTARIES-ELKHEAD CK	41	SE	NW	20	7 N	89 W	S	9	0.0330	C	S	12/31/1995	12/31/1994	12/28/1994	0	52960.52957	95CW0005	1	0	0
44	1838 BEAVER POND SPRING	4	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	13	8 N	88 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472	96CW0060	1	0	0
44	1866 CENTENNIAL SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	NE	NW	21	8 N	88 W	S	89	0.0330	C	S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472	96CW0057	1	0	0
44	1843 RUNNING ELK SPRING	4	66	TRIBUTARIES-ELKHEAD CK	41	NW	NW	2	8 N	88 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472	96CW0060	1	0	0
44	1863 TEQUILA SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	NW	SW	16	8 N	88 W	S	9	0.1000	C	S	12/31/1996	12/31/1995	07/01/1974	0	53325.45472	96CW0057	1	0	COND FOR USE 1
44	1864 SOUTH MESA SPRING NO 1	4	66	TRIBUTARIES-ELKHEAD CK	54	SE	SW	21	8 N	88 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	07/15/1994	0	53325.52791	96CW0057	1	0	0
44	1865 SOUTH MESA SPRING NO 2	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	SW	21	8 N	88 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	07/15/1994	0	53325.52791	96CW0057	1	0	0
44	1867 WEST MESA SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	SE	17	8 N	88 W	S	9	0.0330	C	S	12/31/1996	12/31/1995	07/15/1994	0	53325.52791	96CW0057	1	0	0
44	4366 LAMBING GROUND PLACE #2	3	66	TRIBUTARIES-ELKHEAD CK	41	NE	NW	24	7 N	90 W	S	9	0.2500	A	S	12/31/1997	12/31/1996	06/05/1937	0	53691.21932	97CW0040	1	0	0
44	4365 LAMBING GROUND PLACE #1	3	66	TRIBUTARIES-ELKHEAD CK	41	SE	NE	24	7 N	90 W	S	9	0.5000	A	S	12/31/1997	12/31/1996	06/10/1937	0	53691.21937	97CW0040	1	0	0
44	4360 HEADGE PLACE #2	3	66	TRIBUTARIES-ELKHEAD CK	41	SE	NE	13	7 N	90 W	S	9	1.0000	A	S	12/31/1997	12/31/1996	06/25/1938	0	53691.32317	97CW0040	1	0	0
44	4361 HEADGE PLACE #3	3	66	TRIBUTARIES-ELKHEAD CK	41	SW	NE	1	7 N	90 W	S	9	0.5000	A	S	12/31/1997	12/31/1996	07/05/1938	0	53691.32327	97CW0040	1	0	0
44	4362 HEADGE PLACE #4	3	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	13	7 N	90 W	S	9	0.5000	A	S	12/31/1997	12/31/1996	07/10/1938	0	53691.32332	97CW0040	1	0	0
44	4363 HEADGE PLACE #5	3	66	TRIBUTARIES-ELKHEAD CK	41	NE	SW	13	7 N	90 W	S	9	0.5000	A	S	12/31/1997	12/31/1996	07/20/1938	0	53691.32342	97CW0040	1	0	0
44	4401 ORIE RES #6	3	66	TRIBUTARIES-ELKHEAD CK	41	SE	SE	18	8 N	88 W	S	9	2.0000	A	S	12/31/1998	12/31/1997	09/05/1997	0	54056.53939	98CW0052	1	0	0
44	4402 ORIE RES #7	3	66	TRIBUTARIES-ELKHEAD CK	41	SE	NW	20	8 N	88 W	S	9	0.2500	A	S	12/31/1998	12/31/19							

44	1962	FRENTRESS PUMP NO. 1	8	66	TRIBUTARIES-ELKHEAD CK	41	SW	SE	20	7 N	89 W	S	19	2.0000	C	S	12/31/2000	12/31/1999	07/10/2000	0	54978.00000		00CW0029	1		0	ALT PT AT ID803
44	803	FRENTRESS PUMP NO. 1 AP	8	66	TRIBUTARIES-ELKHEAD CK	41	SE	SW	20	7 N	89 W	S	19	2.0000	C	S AP	12/31/2000	12/31/1999	07/10/2000	0	54978.00000		00CW0029	1		4401962	ALP PT FOR ID1962
44	4524	PEED RESERVOIR #6	3	66	TRIBUTARIES-ELKHEAD CK	41	NW	NE	17	7 N	89 W	S	0	0.5000	A	S	12/31/2000	12/31/1999	07/28/2000	0	54996.00000		00CW0032	1		0	
44	4526	PEED RESERVOIR #7	3	66	TRIBUTARIES-ELKHEAD CK	41	NW	SE	8	7 N	89 W	S	0	1.0000	A	S	12/31/2000	12/31/1899	07/28/2000	0	54996.00000		00CW0032	1		0	
44	2335	STINSON SPRING	4	66	TRIBUTARIES-ELKHEAD CK	54	SW	SE	20	8 N	88 W	S	169W	0.0110	C	S	12/31/2001	12/31/2000	06/01/2000	0	95152.54039		01CW0095	1		0	

Structure Name: ARMSTRONG IRR DITCH**Water District: 44 ID Number: 536****Source:**

ELKHEAD CK @ Mile 198.03

Acres Irrigated:**Location**

Q160	Q40	Q10	Section	Twnshp	Range	PM
SW	NE		10	9 N	87 W	S

CIU: U

Distance from section lines From N/S line

From E/W line

UTM Coordinates (NAD 83) Northing (UTM y) 4513479.9 Easting (UTM x) 319599.9 Spotted from PLSS quarters**Latitude/Longitude (decimal degrees)** 40 7525 -107 1370**Measuring Device/Recorder:****Contact**

AMAX MINERALS RES CO

Phone**Address:**

1707 COLE BLVD GOLDEN CO 80401

Cell Phone**E-mail****Water Rights Summary****Total Decreed Rate(s)****Abs****Cond****AP/EX****Total Decreed Volume(s)****Abs..****Cond..****AP/EX****Water Rights -- Transactions**

Seq #	Case Number	Adjudication Date	Appropriation Date	Admin Number	O #	Priority Number	Decreed Amount	Adj Type	Uses	Comments
1		6/4/1907	7/15/1902	20716 19188	0	73AA	1.25 C	S	1	
2	91CW0116	6/4/1907	7/15/1902	20716 19188	0	73AA	1.25 C	S, AB	1	

Diversion Comments

IYR NUC Code

Acres
Irrigated Comments

1932

1933

1936

1943 No information available

1944 No information available

1945

75

1946

50

1947

15

1948

75

1970 Water available, but not taken

1972 Water available, but not taken

1973 Water available, but not taken

1974 Structure not usable

40

1975 Structure not usable

1976 Structure not usable

1977 Structure not usable

1978 Water available, but not taken

1979 Structure not usable

1981 No information available

1982 Structure not usable

1983 Structure not usable

1984 No information available

1985 Structure not usable

1986 Structure not usable

1987 Structure not usable

0

1988 Structure not usable

0

1991 Structure not usable

0

Structure Name: KNOWLES IRR D**Water District: 44 ID Number: 679**

Source KNOWLES CK @ Mile 199 49
Location: Q160 Q40 Q10 Section Twtnshp Range PM
SE NE 3 9 N 87 W S

Acres Irrigated.
CIU: U

Distance from section lines From N/S line From E/W line
UTM Coordinates (NAD 83) Northing (UTM y) 4515053 4 Easting (UTM x): 320436 5 Spotted from PLSS quarters
Latitude/Longitude (decimal degrees): 40 7669 -107 1275

Measuring Device/Recorder

Contact

Phone

Address

Cell Phone

E-mail

Water Rights Summary	Total Decreed Rate(s)	Abs	Cond	AP/EX
	Total Decreed Volume(s)	Abs	Cond	AP/EX

Water Rights -- Transactions

Seq #	Case Number	Adjudication Date	Appropriation Date	Admin Number	O #	Priority Number	Decreed Amount	Adj Type	Uses	Comments
1		6/8/1910	7/16/1907	22071 21015	0	83	1 C	S	1	
2		6/8/1910	7/16/1907	22071 21015	0	83	133 C	S,C	1	
3	91CW0116	6/8/1910	7/16/1907	22071 21015	0	83	1 C	S,AB	1	
4	84CW0071	6/8/1910	7/16/1907	22071 21015	0	83	133 C	S,C,AB	1	

Diversion Comments

IYR NUC Code

Acres
Irrigated

Comments
WATER STARTED MAY 7 DITCH WASHED OUT MAY 10 BECAUSE OF CLOUD BURST AND DAMAG

1932

1933

1936

1943 No information available

1944 No information available

1945 No information available

1946 No information available

1947 No information available

1970 Water available, but not taken

1971 Water available, but not taken

1972 Water available, but not taken

1973 Water available, but not taken

1974 Structure not usable

30

1975 Structure not usable

1976 Structure not usable

1977 Structure not usable

1978 Structure not usable

1979 Structure not usable

1981 Structure not usable

1982 Structure not usable

1983 Structure not usable

1984 No information available

1985 Structure not usable

1991 Structure not usable

0









Elkhead Creek

7/26/05



Elkhead Creek

7/26/05

