

### A CLOSER LOOK AT WATER RIGHTS FOR OIL SHALE

This section explores the portfolio of conditional and absolute rights owned by entities either historically or currently involved in oil shale development or by water suppliers that could provide water for oil shale development. The water rights are summarized in separate tables for conditional rights and, if applicable, for absolute rights. Locations of the proposed or existing structures are shown on maps for each basin. The discussion is organized by river basin.

For a complete list of all owners of conditional rights in both river basins, see *Appendix B*; for a complete list of all owners of absolute rights in both river basins, see *Appendixes C and D*.

#### A. COLORADO RIVER BASIN

##### 1. Chevron Texaco

Chevron Texaco holds the rights to develop 28 conditionally decreed structures in the Colorado River Basin. These rights include 6 proposed reservoirs with a total storage capacity of over 100,000 af. Most of this storage would be located in the Roan Creek watershed. The rights also include 3 proposed pipelines with the decreed conditional right to pump approximately 300 cfs from the Colorado River.



**Table 6.**  
Chevron Texaco – Conditional Water Rights – Colorado River Basin

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
4	Galyean Well	Well	Roan Creek	0.5	0	5/15/1948
8	Roan Creek Reservoir	Reservoir	Roan Creek	0	71,300	1/7/1950
9	Dragert Pump Plant & Pl	Pump	Colorado River	194	0	1/7/1950
11	Getty Pipeline	Pump	Colorado River	56	0	9/3/1950
14	Pacific Oil Co Pl No 1	Pump	Colorado River	57.25	0	6/9/1953
27	Virginia Mesa Reservoir	Reservoir	Colorado River	0	50.52	7/18/1957
44	Getty Reservoir No 2	Reservoir	Roan Creek	0	2,0670.2	5/17/1965
45	Getty Reservoir No 1	Reservoir	Roan Creek	0	2,543.9	5/17/1965
53	Getty-Sleepy Gulch Res	Reservoir	Clear Creek	0	6,538	6/27/1967
54	Getty W Fk Parachute Cr	Reservoir	Parachute Creek	0	4,658	6/27/1967
76	Getty Spring 15b	Spring	Clear Creek	0.027	0	7/1/1983
77	Getty Spring 17a	Spring	Clear Creek	0.007	0	7/1/1983
78	Getty Spring 20a	Spring	Clear Creek	0.037	0	7/1/1983
79	Getty Spring 1b	Spring	Parachute Creek	0.097	0	7/1/1983
80	Getty Spring 10a	Spring	Clear Creek	0.787	0	7/1/1983
81	Getty Spring 12c	Spring	Clear Creek	0.027	0	7/1/1983
82	Getty Spring 09a	Spring	Clear Creek	0.327	0	7/1/1983
83	Getty Spring 11e	Spring	Clear Creek	0.007	0	7/1/1983
84	Getty Spring 11b	Spring	Clear Creek	0.027	0	7/1/1983
85	Getty Spring 11c	Spring	Clear Creek	0.027	0	7/1/1983
86	Getty Spring 19a	Spring	Clear Creek	0.007	0	7/1/1983
87	Getty Spring 10b	Spring	Clear Creek	0.017	0	7/1/1983
88	Getty Spring 15a	Spring	Clear Creek	0.047	0	7/1/1983
89	Getty Spring 18a	Spring	Clear Creek	0.637	0	7/1/1983
90	Getty Spring 14e	Spring	Clear Creek	0.027	0	7/1/1983
91	Getty Spring 11a	Spring	Clear Creek	0.187	0	7/1/1983
92	Getty Spring 16b	Spring	Clear Creek	0.057	0	7/1/1983
93	Getty Spring 14a	Spring	Clear Creek	0.127	0	7/1/1983
	<b>Total structures:</b>			<b>Total:</b>	<b>Total:</b>	
	<b>28</b>			<b>310.23 cfs</b>	<b>105,760.62 af</b>	

Chevron Texaco also owns 24 irrigation ditches, with the decreed right to divert approximately 265 cfs. These ditches are located both in the Parachute Creek and Roan Creek watersheds. The following table lists these rights.

**Table 7.**  
*Chevron Texaco – Absolute Water Rights – Colorado River Basin*

Map Location	Structure Name	Water Source	Quantity Abs. (cfs)	Avg. Vol. Div. (af)	Appropriation Date
11	Granlee Ditch	Parachute Creek	12.69	1,690	5/17/1883
12	Benson and: Barnett Ditch	Parachute Creek	8.51	1,187	5/17/1883
13	Newton Ditch	Clear Creek	3.1	1,143	7/1/1883
15	Reservoir Ditch	Roan Creek	37.4	5,459	2/28/1884
16	Upper Roan Creek Ditch	Carr Creek	14.25	1,155	8/10/1884
17	Roan Creek No 3 Ditch	Roan Creek	7.4	1,762	10/13/1884
19	Creek and: Newman Ditch	Roan Creek	33	3,318	11/15/1884
20	Garden Gulch Ditch	Parachute Creek	5.25	314	4/15/1885
22	Himebaugh Ditch	Clear Creek	6.93	840	5/15/1885
23	Cannon Ditch	Brush Creek	11.65	1,387	6/3/1885
25	Clear Creek Ditch	Clear Creek	50.43	3,439	4/9/1886
28	Carr and: Himebaugh Ditch	Clear Creek	8.9	705	4/22/1887
29	Cannon Highline Ditch	Brush Creek	4.34	455	5/10/1887
34	Purdy Ditch	Parachute Creek	6.15	814	4/5/1890
35	Gibler Ditch	Clear Creek	4.52	404	10/1/1890
37	Jangle Ditch	Parachute Creek	12.97	1,521	11/12/1891
38	Benson and: Barnett Ditch	Parachute Creek	8.51	1,187	11/12/1891
40	Flume Ditch	Carr Creek	4.35	455	4/1/1895
44	Carlisle Ditch	Roan Creek	4.35	183	4/1/1900
48	Garden Gulch No 2 Ditch	Parachute Creek	1.33	175	5/1/1903
49	H A Newton Ditch	Clear Creek	2.86	97	5/15/1907
50	New Hobo Ditch	Roan Creek	11.56	566	6/6/1908
51	Parkes Ditch	Clear Creek	3.7	169	5/5/1908
52	Longseth No 1 Ditch	Roan Creek	1.67	143	5/3/1910
	<b>Total structures: 24</b>		<b>Total: 265.82 cfs</b>	<b>Total: 28,568 af</b>	

## 2. Colorado River Water Conservation District

The Colorado River Water Conservation District (CRWCD) is a special governmental district established under Colorado law to protect and develop water resources of the Colorado River Basin on Colorado’s West Slope. It owns conditional water rights for 9 structures that could potentially be developed to provide water for uses that include oil shale development as well as to meet other water demands in the region. Included are 3 conditional reservoirs with the decreed capacity to store slightly less than 500,000 af. These rights are listed below.

**Table 8.**  
*CRWCD – Conditional Water Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
1	Kobe Canal	Ditch	Colorado River	48.3	0	6/30/1936
2	Mt Logan Canal	Ditch	Roan Creek	75	0	6/30/1936
3	Mt Logan Dam & Reservoir	Reservoir	Roan Creek	0	10,000	6/30/1936
16	Flattops Proj Bearwl Res	Reservoir	Canyon Creek	0	96,488.9	6/28/1954
17	Flattops Proj Bearwl Con	Pipeline	Canyon Creek	200	0	6/28/1954
18	Flattops Proj Bench Flum	Ditch	Canyon Creek	254	0	6/28/1954
19	Flattops Proj Poss Coll	Ditch	Canyon Creek	175	0	6/28/1954
28	Bluestone Project	Ditch	Colorado River	220	0	3/27/1958
42	Una Reservoir	Reservoir	Colorado River	0	369,460	3/16/1965 (includes refill right with a 1981 priority)
	<b>Total structures:</b>			<b>Total:</b>	<b>Total:</b>	
	<b>9</b>			<b>972.3 cfs</b>	<b>475,948.9 af</b>	

## 3. Exxon Mobil Corporation

Exxon Mobil Corporation (ExxonMobil) owns conditional water rights to develop 16 structures in the Colorado River Basin (see *Table 9*). Its rights are concentrated in the Parachute Creek watershed and the adjacent Colorado River. It also owns rights that would enable development on Main Elk Creek, an upstream tributary to the Colorado River. Collectively, these conditional rights would enable diversion of over 300 cfs and storage of approximately 45,000 af.

In addition, ExxonMobil has acquired ownership of 17 irrigation ditches in the Colorado River Basin, including several in Main Elk Creek. In total, these ditches are decreed to divert approximately 73 cfs. This information is displayed in *Table 10*. Exxon also holds contracts for 6,000 af of water stored in Ruedi Reservoir.

**Table 9.**  
*ExxonMobil – Conditional Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
10	Hayward & Wyatt Pl	Pipeline	Colorado River	12.725	0	2/2/1950
20	East Middle Fork Res	Reservoir	Parachute Creek	0	130.558	9/17/1954
21	Dow E Middle Fork Pl	Pipeline	Parachute Creek	13.54	0	10/19/1954
22	Dow Middle Fk Pipeline	Pipeline	Parachute Creek	1.088	0	10/20/1954
23	Dow Pump Plant And Pl	Pump	Colorado River	187.11	0	1/24/1955
30	Main Elk Wheeler G Pl	Pipeline	Main Elk Creek	40	0	6/19/1963
31	Mahaffey Pump P & Pl	Pump	Colorado River	60	0	6/19/1963
32	Sheep Trail H Term Res	Reservoir	Parachute Creek	0	160	6/19/1963
33	Cottonwood G Term Res	Reservoir	Cottonwood G.	0	160	6/19/1963
34	Mahaffey Terminal Res	Reservoir	Colorado River	0	160	6/19/1963
35	Allenwater Cr Term Res	Reservoir	Colorado River	0	160	6/19/1963
36	Rulison Gulch Term Res	Reservoir	Parachute Creek	0	160	6/19/1963
37	Main Elk Reservoir	Reservoir	Main Elk Creek	0	34,922	6/19/1963
61	Davis Gulch Reservoir	Reservoir	Parachute Creek	0	1,194	9/30/1974
62	Middle Fork Reservoir	Reservoir	Parachute Creek	0	1,470.002	9/30/1974
65	Lower E Middle Fork Res	Reservoir	Parachute Creek	0	6,200	2/2/1982
	<b>Total structures: 16</b>			<b>Total: 314.46 cfs</b>	<b>Total: 44,716.56 af</b>	

**Table 10.***ExxonMobil – Absolute Water Rights – Colorado River Basin*

Map Location	Structure Name	Water Source	Quantity (cfs)	Avg. Vol. Div. (af)	Appropriation Date
14	C O & C P Pierson Ditch	Main Elk Creek	5	1,001	2/15/1884
21	Dry Creek Ditch	Dry Creek (West)	2.02	52	4/23/1885
24	R F Ditch	Battlement Creek	9.855	538	11/25/1885
26	Werhonig Ditch	Monument Gulch	0.2	0	7/15/1886
27	Dobey Ditch	Battlement Creek	5.975	354	3/7/1887
30	Shutt Ditch	Battlement Creek	6	267	5/11/1887
31	Trout Ditch	Main Elk Creek	3.5	557	2/5/1888
32	Benson Pierson Nelson	Main Elk Creek	4	646	2/5/1888
33	Oak Grove Ditch	East Elk Creek	3	747	2/20/1890
36	Red Glen Highline Ditch	East Elk Creek	8	1,643	11/20/1890
39	Rulison Miller Ditch	Colorado River	4.1	453	12/8/1891
45	Jensen Ditch	Cottonwood Gulch	8.8	396	4/15/1901
46	Number One Ditch	Dry Creek (West)	3.86	153	5/1/1901
53	Hayward Spring Ditch	Battlement Creek	0.75	6	8/31/1912
54	Ryden No 2 Ditch	Main Elk Creek	1.76	279	4/6/1912
56	Ryden No 1 Ditch	Main Elk Creek	5.5	716	4/7/1915
57	W E Ditch	Main Elk Creek	1	458	7/1/1917
	<b>Total structures: 17</b>		<b>Total: 73.32 cfs</b>	<b>Total: 8,266 af</b>	

#### 4. The Oil Shale Corporation

The Oil Shale Corporation (Tosco) owns rights to 2 proposed reservoirs: the Trail Gulch Reservoir, to be sited on Roan Creek, and Trail Gulch Reservoir Alternative Point, to be located on Carr Creek. The particulars of these rights are presented in the following table.

**Table 11.***Tosco – Conditional Water Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
55	Trail Gulch Res Alt Pt	Reservoir	Carr Creek	0	950.79	9/23/1967
56	Trail Gulch Reservoir	Reservoir	Roan Creek	0	5,669.21	9/23/1967
	<b>Total structures: 2</b>			<b>Total: 0 cfs</b>	<b>Total: 6,620 af</b>	

#### 5. OXY USA

OXY USA, formerly Occidental Oil Company, purchased Cities Service in the early 1980s. OXY's Colorado River Basin conditional rights are concentrated in the Roan Creek area. In total, OXY owns rights that would enable it to develop 22 structures, providing for direct diversion of almost 124 cfs and storage of approximately 1,000 af. These rights are summarized in the following table.

**Table 12.**  
*OXY – Conditional Water Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
12	Cities Service Pl and Pp	Pump	Colorado River	100	0	8/2/1951
46	Conn Creek Pipeline	Pipeline	Conn Creek	10	0	8/25/1966
47	Cascade Canyon Res	Reservoir	Conn Creek	0	619.47	8/25/1966
48	Cascade Canyon Pipeline	Pipeline	Conn Creek	10	0	8/25/1966
49	Conn Creek Reservoir	Reservoir	Conn Creek	0	422.75	8/25/1966
58	Logan Wash Mine	Spring	Roan Creek	0.11	0	9/1/1972
59	Lw-27 Well	Spring	Roan Creek	0.11	0	3/30/1973
60	Logan Wash Mine No 3-C	Spring	Roan Creek	0.11	0	2/1/1974
63	Ww-1 Well	Well	Roan Creek	0.165	0	11/22/1974
64	Logan Wash Pump No 1	Spring	Roan Creek	2.9	0	10/30/1979
94	Cities Service Spg 41	Spring	Conn Creek	0.03	0	7/19/1983
95	Cities Service Spg 17	Spring	Conn Creek	0.05	0	7/19/1983
96	Cities Service Spg 39	Spring	Conn Creek	0.09	0	7/19/1983
97	Cities Service Spg 07	Spring	Clear Creek	0.12	0	7/19/1983
98	Cities Service Spg 40	Spring	Conn Creek	0.03	0	7/19/1983
99	Cities Service Spg 13	Spring	Conn Creek	0.05	0	7/19/1983
100	Cities Service Spg 18	Spring	Conn Creek	0.05	0	7/19/1983
101	Cities Service Spg 08	Spring	Clear Creek	0.02	0	7/19/1983
102	Cities Service Spg 11a	Spring	Conn Creek	0.02	0	7/19/1983
103	Cities Service Spg 03	Spring	Conn Creek	0.02	0	7/19/1983
104	Cities Service Spg 22	Spring	Conn Creek	0.05	0	7/19/1983
105	Cities Service Spg 38	Spring	Conn Creek	0.06	0	7/19/1983
	<b>Total structures: 22</b>			<b>Total: 123.99 cfs</b>	<b>Total: 1,042.22 af</b>	

## 6. Shell Texaco

Shell Texaco owns the right to develop 14 structures in the Colorado River Basin. These conditional rights include diversion of 250 cfs and storage of over 1,500 af. The following table sets out this information. In addition, Shell Texaco has purchased 3 ditches, with the decreed right to divert approximately 8 cfs. These rights are listed in *Table 14*.

**Table 13.**  
*Shell Texaco – Conditional Water Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
38	Clear Creek Feeder PI	Pipeline	Clear Creek	50	0	2/8/1965
39	Deer Park Gulch Res	Reservoir	Clear Creek	0	1533.6	2/8/1965
40	Deer Park Gulch Pmp & PI	Pump	Colorado River	150	0	2/8/1965
41	Conn Creek Feeder PI	Pipeline	Conn Creek	50	0	2/8/1965
66	Pacific Spring No 2	Spring	Clear Creek	0.06	0	5/1/1982
67	Pacific Spring No 3	Spring	Clear Creek	0.03	0	5/1/1982
68	Pacific Spring No 9	Spring	Conn Creek	0.04	0	5/1/1982
69	Pacific Spring No 10	Spring	Conn Creek	0.04	0	5/1/1982
70	Pacific Spring No 1	Spring	Clear Creek	0.02	0	5/1/1982
71	Pacific Spring No 7	Spring	Clear Creek	0.06	0	5/1/1982
72	Pacific Spring No 8	Spring	Clear Creek	0.08	0	5/1/1982
73	Pacific Spring No 4	Spring	Conn Creek	0.02	0	5/1/1982
74	Pacific Spring No 5	Spring	Conn Creek	0.07	0	5/1/1982
75	Pacific Spring No 6	Spring	Conn Creek	0.05	0	5/1/1982
<b>Total structures: 14</b>				<b>Total: 250.47 cfs</b>	<b>Total: 1,533.6 af</b>	

**Table 14.**  
*Shell Texaco – Absolute Water Rights – Colorado River Basin*

Map Location	Structure Name	Water Source	Quantity Abs. (cfs)	Avg. Vol. Div. (af)	Appropriation Date
41	Long Gulch Ditch No 1	Clear Creek	2.24	239	11/20/1897
42	Long Gulch Ditch No 2	Clear Creek	2.98	213	11/11/1899
43	Short Gulch Ditch	Clear Creek	2.76	117	11/1/1899
<b>Total structures: 3</b>			<b>Total: 7.98 cfs</b>	<b>Total: 569 af</b>	

## 7. Union Oil Company of California

The Union Oil Company of California (Unocal) is now part of Chevron. However, there are still numerous structures with water rights listed as owned by Unocal. Virtually all these rights are located in Parachute Creek. The 2 conditional structures, both proposed wells, are shown in *Table 15*. *Table 16* shows the 47 absolute structures, consisting of wells and springs, listed as owned by Unocal. Unocal also owns 13 irrigation ditches, which are shown in *Table 17*. The ditches have a total diversion right of 120 cfs.

**Table 15.***Unocal – Conditional Water Rights – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
5	Union 76 Water Well No 3	Well	Parachute Creek	0.066	0	2/14/1949
6	Union 76 Water Well No 2	Well	Parachute Creek	0.124	0	2/14/1949
	<b>Total structures:</b>			<b>Total:</b>	<b>Total:</b>	
	<b>2</b>			<b>0.19 cfs</b>	<b>0 af</b>	

**Table 16.***Unocal – Absolute Water Rights (Wells and Springs) – Colorado River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
1	Nelson Well No 1*	Well	Parachute Creek	0.018	0	5/17/1883
2	Sherwood Well No 1*	Well	Parachute Creek	0.022	0	5/17/1883
3	Sherwood Well No 2*	Well	Parachute Creek	0.018	0	5/17/1883
4	Seep Spring No 1*	Well	Parachute Creek	0.033	0	4/19/1922
5	Seep Spring No 2*	Well	Parachute Creek	0.033	0	4/19/1922
6	Seep Spring No 3*	Well	Parachute Creek	0.033	0	4/19/1922
7	House Log Gulch Sprg No 1*	Spring	Parachute Creek	0.033	0	4/19/1922
8	House Log Gulch Sprg No 2*	Spring	Parachute Creek	0.033	0	4/19/1922
9	House Log Gulch Sprg No 3*	Spring	Parachute Creek	0.033	0	4/19/1922
10	House Log Gulch Sprg No 4*	Spring	Parachute Creek	0.033	0	4/19/1922
11	House Log Gulch Sprg No 5*	Spring	Parachute Creek	0.033	0	4/19/1922
12	Red Spring No 1*	Spring	Parachute Creek	0.033	0	4/22/1922
13	Squire's Spring*	Spring	Parachute Creek	0.033	0	7/21/1922
14	Sheep Gulch Spring*	Spring	Parachute Creek	0.033	0	7/21/1922
15	Calf Spring*	Spring	Parachute Creek	0.033	0	8/9/1922
16	Long Ridge Spring No 1*	Spring	Parachute Creek	0.033	0	9/22/1922
17	Long Ridge Spring No 2*	Spring	Parachute Creek	0.033	0	9/22/1922
18	Long Ridge Spring No 3*	Spring	Parachute Creek	0.033	0	9/22/1922
19	Long Ridge Spring No 4*	Spring	Parachute Creek	0.033	0	9/22/1922
20	Long Ridge Spring No 5*	Spring	Parachute Creek	0.033	0	9/22/1922
21	Feather Springs*	Spring	Parachute Creek	0.033	0	11/10/1922
22	Grassy Spring*	Spring	Parachute Creek	0.033	0	11/27/1922
23	Hidden Spring*	Spring	Parachute Creek	0.033	0	7/11/1924
24	Cottonwood Spring No 1*	Spring	Cottonwood Ck	0.05	0	11/8/1940

**Table 16.** (cont'd)

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
25	Union 76 Water Well No 4*	Well	Parachute Creek	1.114	0	2/14/1949
26	Union 76 Water Well No 1*	Well	Parachute Creek	0.52	0	2/14/1949
27	Union 76 Water Well No 1a*	Well	Parachute Creek	0.52	0	2/14/1949
28	Union 76 Water Well No 3*	Well	Parachute Creek	1.048	0	2/14/1949
29	Union 76 Water Well No 2*	Well	Parachute Creek	0.99	0	2/14/1949
30	Union 76 Water Well No 5*	Well	Parachute Creek	1.114	0	2/14/1949
31	Union 76 Water Well No 6*	Well	Parachute Creek	0.722	0	2/14/1949
32	Parkhurst Cabin Spg No 1*	Spring	Parachute Creek	0.033	0	3/22/1951
33	Parkhurst Cabin Spg No 2*	Spring	Parachute Creek	0.033	0	3/22/1951
34	Helm Gulch Spring No 1*	Spring	Parachute Creek	0.033	0	3/27/1952
35	Helm Gulch Spring No 2*	Spring	Parachute Creek	0.033	0	3/27/1952
36	Lone Tree Spring*	Spring	Parachute Creek	0.033	0	1/20/1954
37	Pete Spring*	Spring	Parachute Creek	0.033	0	5/31/1955
38	Wagon Spring*	Spring	Parachute Creek	0.033	0	6/2/1966
39	Light Gulch Spring No 1*	Spring	Parachute Creek	0.033	0	6/2/1966
40	Light Gulch Spring No 2*	Spring	Parachute Creek	0.033	0	6/2/1966
41	Cabin Spring*	Spring	Parachute Creek	0.066	0	6/2/1966
42	Cottonwood Spring No 2*	Spring	Cottonwood Ck	0.01	0	5/1/1967
43	Corral Spring No 1*	Spring	Parachute Creek	0.03	0	10/7/1986
43	Eisaguirre Spring No 1*	Spring	Parachute Creek	0.02	0	10/10/1986
44	Schutte Spring No 1*	Spring	Parachute Creek	0.033	0	10/10/1986
45	Schutte Spring No 2*	Spring	Parachute Creek	0.033	0	10/10/1986
46	Sage Spring No 2*	Spring	Parachute Creek	0.033	0	10/23/1986
	<b>Total structures:</b> <b>47</b>			<b>Total:</b> <b>7.32 cfs</b>	<b>Total:</b> <b>0 af</b>	

\*Absolute decree

**Table 17.**

*Unocal – Absolute Water Rights (Ditches) – Colorado River Basin*

Map Location	Structure Name	Water Source	Quantity Abs. (cfs)	Avg. Vol. Div. (af)	Appropriation Date
1	Low Cost Ditch	Parachute Creek	27.94	3,945	5/17/1883
2	Vieweg Ditch	Parachute Creek	1.9	1,287	5/17/1883
3	C C D Ditch	Parachute Creek	2.53	309	5/17/1883
4	East Fork Ditch	Parachute Creek	6.56	243	5/17/1883
5	Parachute Ditch	Parachute Creek	27.22	1,965	5/17/1883
6	Ri Ley Ditch	Parachute Creek	1	106	5/17/1883
7	Cornell Ditch	Parachute Creek	15.675	1,546	5/17/1883
8	Spring Ditch	Parachute Creek	0.12	202	5/17/1883
9	Starkey Gulch Ditch	Parachute Creek	4.32	150	5/17/1883
10	Charley Dere Ditch	Parachute Creek	0.83	350	5/17/1883
18	Atkinson Canal	Roaring Fork River	26.33	2,420	10/20/1884
47	Wheeler Ditch	Parachute Creek	3	183	8/14/1901
55	Ida Dere Ditch	Parachute Creek	3	184	4/1/1914
	<b>Total structures: 13</b>		<b>Total: 120.43 cfs</b>	<b>Total: 12,890 af</b>	



*Photo courtesy of The Story Group*

## **B. WHITE RIVER BASIN**

### **1. Colorado River Water Conservation District**

The Colorado River Water Conservation District (CRWCD) holds 9 conditional rights to develop water in the White River Basin. Like the rights held in the Colorado River Basin, these rights could potentially be developed to provide water for uses that include oil shale development as well as to meet other water demands in the region. These rights include 5 proposed reservoir sites with a total storage capacity of nearly 530,000 af and 5 pipelines with the potential right to divert over 1,800 cfs. The conditional rights held by the CRWCD are presented in the following table.

**Table 18.**  
*CRWCD – Conditional Water Rights – White River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
15	Flattops Tunnel	Pipeline	South Fork	254	0	10/31/1961
16	Piceance Basin PI Coll S	Pipeline	South Fork	60	0	10/31/1961
17	Rangely Reservoir	Reservoir	White River	0	131,034.5	10/31/1961
18	Patterson Cr Collect Sys	Pipeline	Patterson Ck	75	0	10/31/1961
19	Rio Blanco Reservoir	Reservoir	South Fork	0	131,034	10/31/1961
20	Strawberry Creek Res	Reservoir	Strawberry Ck	0	75,957	10/31/1961
21	Wray Gulch Dam & Res	Reservoir	Wray Gulch	0	29,374	10/31/1961
22	Douglas Canal	Ditch	White River	620	0	10/31/1961
23	Wolf Ck Res (Crwcd)	Reservoir	White River	0	162,400	7/3/1962
63	Strawberry Creek PI	Pipeline	White River	400	0	6/16/1972
65	Wray Gulch Pipeline	Pipeline	White River	450	0	7/19/1972
	<b>Total structures: 11</b>			<b>Total: 1,859 cfs</b>	<b>Total: 529,799.5 af</b>	

## 2. Exxon Mobil Corporation

The Exxon Mobil Corporation (ExxonMobil) owns conditional water rights associated with 33 structures within the White River Basin. Its 17 proposed reservoirs have a conditionally decreed storage capacity of approximately 161,000 af. Its direct flow rights have a cumulative diversion rate of 1,100 cfs. The package of conditional rights owned by ExxonMobil is presented in the table below.

**Table 19.**  
*ExxonMobil – Conditional Water Rights – White River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
7	Stillwater Reservoir	Reservoir	South Fork	0	12,548	5/29/1955
13	Boies Reservoir	Reservoir	Black Sulphur Ck	0	31,020.8	7/10/1961
14	Piceance Canal	Pipeline	Piceance Ck	50	0	7/10/1961
24	Wolf Ck Res	Reservoir	Wolf Ck	0	35,000	7/3/1962
25	Ryan Gulch Reservoir	Reservoir	Piceance Ck	0	22,635.2	12/15/1963
26	White River Pumping PI	Pipeline	White River	100	0	12/15/1963
27	Jumps Cabin Res	Reservoir	West Hunter Ck	0	7,868.8	5/27/1964
28	Howells Cabin Res	Reservoir	Willow Ck/Pic. Ck	0	8,096	5/27/1964
33	White River PI No 2	Pipeline	White River	120	0	10/12/1964

**Table 19. (cont'd)**

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
34	South Fork Piceance Pl	Pipeline	South Fork	70	0	5/29/1965
45	Hunter Cr Wells	Well	Hunter Ck	30	0	3/8/1967
46	Superior Oil Term Res	Reservoir	White River	0	800	5/14/1968
47	Superior Oil Pl	Pipeline	White River	24	0	5/14/1968
49	Blacks Gulch Pipeline	Pipeline	White River	100	0	9/1/1968
50	Blacks Gulch Res	Reservoir	Blacks Gulch	0	13,900	9/1/1968
51	Crooked Wash P.L.	Pipeline	White River	100	0	9/1/1968
52	Crooked Wash Res	Reservoir	Crooked Wash	0	11,800	9/1/1968
53	Kellog Gulch P.L.	Pipeline	White River	100	0	9/1/1968
54	Kellogg Gulch Res	Reservoir	Kellogg Gulch	0	3,700	9/1/1968
55	Wray Gulch Res	Reservoir	Wray Gulch	0	13,500	9/1/1968
56	Superior Pumpback Pl 1	Pump	White River	12	0	10/5/1968
57	Superior Pumpback Pl 2	Pump	White River	12	0	10/5/1968
58	Superior Pumpback Pl 3-1	Pump	White River	12	0	10/5/1968
59	Wolf Ck Pl	Pipeline	White River	70	0	9/30/1971
64	Wray Gulch Pipeline	Pipeline	White River	100	0	7/19/1972
75	Mobil Pump Station Pl	Pump	White River	200	0	5/4/1984
87	Exxon Love Ranch Res	Reservoir	Piceance Ck	0	30	11/17/1998
88	Exxon Boies Bl.Sulp Res	Reservoir	Black Sulphur Ck	0	50	11/17/1998
89	Exxon B&M Res	Reservoir	Piceance Ck	0	50	11/17/1998
90	Exxon Hunter Creek Res	Reservoir	Hunter Ck	0	30	11/17/1998
91	Exxon Willow Creek Res	Reservoir	Willow Ck/ Pic. Ck	0	30	11/17/1998
92	Exxon Yellow Creek Res	Reservoir	Yellow Ck	0	30	11/17/1998
93	Exxon Dry Creek Res	Reservoir	Trib.-Piceance Ck	0	20	11/17/1998
	<b>Total structures:</b>			<b>Total:</b>	<b>Total:</b>	
	<b>33</b>			<b>1,100 cfs</b>	<b>161,108.8 af</b>	

In addition, ExxonMobil has acquired either full or partial ownership in 31 irrigation ditches in the White River Basin. These ditches provide for decreed rights to divert approximately 88 cfs. Information about these ditches is displayed in the following table.

**Table 20.***ExxonMobil – Absolute Water Rights – White River Basin*

Map Location	StructureName	Water Source	Quantity (cfs)	Avg. Vol. Div. (af)	Appropriation Date
1	P & L Ditch	Piceance Ck	0.5	144	6/1/1883
3	Mckee Ditch	Black Sulphur Ck	3	303	5/10/1884
5	Willow Creek Ditch No 2	East Willow Ck	1.2	294	9/29/1884
6	Willow Creek Ditch No 3	East Willow Ck	1.2	230	9/29/1884
7	M H M German Cons D	Piceance Ck	17.54	880	10/22/1884
8	Gilmor Ditch	Hunter Ck	1.5	320	5/10/1886
9	Boies Ditch	Black Sulphur Ck	2	363	10/16/1886
11	D D Taylor Ditch*	Black Sulphur Ck	2	418	4/5/1887
13	Black Eagle D No 1*	Black Sulphur Ck	5.95	321	4/16/1887
14	Black Eagle D No 2*	Black Sulphur Ck	5.95	276	4/16/1887
15	Black Eagle Alt Pt 1	Black Sulphur Ck	0	92	4/16/1887
16	Black Eagle Alt Pt 2	Black Sulphur Ck	0	85	4/16/1887
18	M H And M Ditch	Piceance Ck	17.54	880	4/18/1887
20	O I See Ditch*	Fawn Ck	1.2	225	4/27/1887
21	No Name Ditch*	Fawn Ck	0.4	173	5/1/1887
22	Decker Irrigation Ditch	East Douglas Ck	2.8	94	5/6/1887
23	Belot Moffat Ditch	Piceance Ck	11.6	1,304	5/10/1887
28	Taylor Ditch	Willow Ck/Pic Ck	2	279	5/09/1888
29	Hunter Ditch	Hunter Ck	1	267	5/15/1888
30	Ebler Ditch	Willow Ck/Pic Ck	1	170	5/20/1888
33	Schweizer Ditch*	Black Sulphur Ck	2.6	437	9/30/1888
34	Schweizer Ditch Alt Pt	Black Sulphur Ck	0	110	9/30/1888
35	Hutchinson Spring Ditch	Fawn Ck	0.5	159	7/18/1889
36	Mcgee Ditch*	Fawn Ck	1.16	270	5/1/1890
37	J W Bainbrick D No 1&2*	Black Sulphur Ck	0.86	181	7/1/1893
43	N & L Ditch	Fawn Ck	1	271	5/1/1901
46	Bainbrick Mikkelsen 1&2*	Black Sulphur Ck	0.375	264	5/1/1904
48	Milo Ditch	Black Sulphur Ck	0.3	36	5/1/1911
51	Desert Ditch*	Black Sulphur Ck	1.43	182	6/12/1914
53	Edmund Pauls Ditch	Sulphur Ck	0.1	11	7/21/1915
55	Duckett Ditch*	Black Sulphur Ck	1.2	242	6/10/1918
<b>Total structures: 31</b>			<b>Total: 87.91 cfs</b>	<b>Total: 9,281 af</b>	

\*Joint ownership

### 3. Shell Frontier

Shell Frontier owns conditional rights associated with 16 structures in the White River Basin. Two large proposed reservoirs would store approximately 145,000 af. Shell holds conditional direct diversion rights that would allow diversion of over 625 cfs. These rights are listed in *Table 21*. Shell also owns 2 irrigation ditches in the basin; these rights are listed in *Table 22*.

**Table 21.**

*Shell Frontier – Conditional Water Rights – White River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
6	Stillwater Power Plant	Pipeline	South Fork	300	0	5/29/1955
29	Fourteen Mile Res 1	Reservoir	Fourteen M. Ck	0	60,000	6/24/1964
30	White R Fourteen M. Ck Pl	Pipeline	White River	200	0	9/12/1964
31	South Fork Pipeline	Pipeline	South Fork	100	0	9/14/1964
32	South Fork Reservoir	Reservoir	South Fork	0	85,342	9/14/1964
77	Swepi Spring 1	Spring	Duck Ck	0.367	0	6/13/1988
78	Swepi Spring 10	Spring	Spruce Gulch	0.489	0	6/13/1988
79	Swepi Spring 13	Spring	Stake Springs Ck	0.222	0	6/13/1988
80	Swepi Spring 2	Spring	Water Gulch	0.233	0	6/13/1988
81	Swepi Spring 3	Spring	Water Gulch	0.178	0	6/13/1988
82	Swepi Spring 5	Spring	Water Gulch	0.044	0	6/13/1988
83	Swepi Spring 6	Spring	Corral Gulch	0.178	0	6/13/1988
84	Swepi Spring 7	Spring	Corral Gulch	0.078	0	6/13/1988
85	Swepi Spring 8	Spring	Spruce Gulch	0.011	0	6/13/1988
86	Swepi Spring 9	Spring	Spruce Gulch	0.011	0	6/13/1988
114	Shell Pumping Plant	Pump	White River	25	0	1/1/1999
	<b>Total structures: 16</b>			<b>Total: 626.81 cfs</b>	<b>Total: 145,342 af</b>	

**Table 22.**

*Shell Frontier – Absolute Rights – White River Basin*

Map Location	Structure name	Water Source	Quantity Abs. (cfs)	Avg. Vol. Div.	Appropriation Date
2	Calhoun Ditch	White River	8.17	285	8/25/1883
32	Rye Grass Ditch*	Piceance Ck	0	0	6/5/1888
	<b>Total structures: 2</b>		<b>Total: 8.17 cfs</b>	<b>Total: 285 af</b>	

\*Joint ownership

### 4. The Oil Shale Corporation

The Oil Shale Corporation (Tosco) owns a substantial portfolio of water rights in the White River Basin. As listed in *Table 23*, these rights include conditional claims to 17 structures. There are 3 proposed reservoirs with conditional rights to store approximately 95,000 af, as well as conditional rights to divert a total of 244 cfs. In addition, Tosco has established either partial or total ownership of rights in 14 existing ditches that cumulatively hold absolute rights to divert 73 cfs; *Table 24* lists these rights.

**Table 23.***Tosco – Conditional Rights – White River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
8	Miller Creek Pump Pl	Pump	White River	100	0	5/26/1957
9	Ertl Pipeline Hg 1	Pipeline	Buck Ck	15	0	5/26/1957
10	Ertl Pipeline Hg 2	Pipeline	Wagon Wheel Ck	1	0	5/26/1957
11	Ertl Pipeline Hg 3	Pipeline	Patterson Ck	7	0	5/26/1957
12	Ertl Pipeline Hg 4	Pipeline	Patterson Ck	7	0	5/26/1957
37	Hunter Ck Res	Reservoir	Hunter Ck	0	24,362	2/28/1967
38	Ohio Ertl Pl	Pipeline	White River	55	0	2/28/1967
39	Story G Parachute Pl	Pipeline	White River	55	0	2/28/1967
40	Story Gulch Res	Reservoir	Story Gulch	0	25,000	2/28/1967
48	Miller Ck Res	Reservoir	Miller Ck	0	45,900	7/18/1968
60	Tg 71-5 Well	Well	Stewart Gulch	1.111	0	11/29/1971
61	Tg 71-4 Well	Well	Stewart Gulch	0.888	0	12/3/1971
62	Tg 71-3 Well	Well	Stewart Gulch	0.444	0	12/13/1971
66	Liberty Bell Well No 12	Well	Story Gulch	0.888	0	12/5/1972
67	Camp Bird Well 12	Well	Trib-Piceance Ck	0.444	0	9/6/1973
68	Camp Bird Well 12a	Well	Trib-Piceance Ck	0.444	0	9/6/1973
72	Ohio Well No 41	Well	West Willow Ck	0.044	0	8/22/1977
	<b>Total structures: 17</b>			<b>Total: 244.26 cfs</b>	<b>Total: 95,262 af</b>	

**Table 24.***Tosco – Absolute Water Rights – White River Basin*

Map Location	Structure Name	Water Source	Quantity Abs. (cfs)	Avg. Vol. Div. (af)	Appropriation Date
10	Emily Ditch*	Piceance Ck	5.85	794	11/05/1886
12	Last Chance Ditch*	Hunter Ck	1.4	294	4/13/1887
17	Robert Mckee Ditch*	Piceance Ck	6.33	1,235	4/18/1887
19	Oldland Ditch 1*	Piceance Ck	13.8	1,000	4/27/1887
25	Jessup Ditch 1*	Stewart Gulch	1.2	204	6/16/1887
26	Blue Grass Ditch*	Stewart Gulch	0.6	262	7/11/1887
27	Jessup Ditch 2*	Stewart Gulch	0.6	134	4/14/1888
32	Rye Grass Ditch*	Piceance Ck	8.2	901	6/5/1888
38	Gardenheir Ditch*	Piceance Ck	2.04	350	3/5/1895
40	E Stewart Gulch D No 1*	East Stewart Gulch	0.6	46	11/1/1899
41	E Stewart Gulch D No 2*	East Stewart Gulch	0.6	35	10/15/1900
44	Oldland Ditch 3*	Piceance Ck	1.4	199	5/15/1902
50	Forney Corcoran Ditch	White River	11.47	0	5/10/1913
54	Oldland Ditch 2*	Piceance Ck	18.94	660	5/1/1917
	<b>Total structures: 14</b>		<b>Total: 73.03 cfs</b>	<b>Total: 6,114 af</b>	

\*Joint ownership

## 5. Yellow Jacket Water Conservancy District

The Yellow Jacket Water Conservancy District (WCD) owns 9 conditional water rights in the White River Basin that could potentially provide water in support of oil shale development. Included are 4 reservoir storage rights with total capacity of almost 250,000 af, 2 pipelines with diversion rights of 1,000 cfs, and 3 ditches with diversion rights of 700 cfs. These rights are listed below.

**Table 25.**

*Yellow Jacket WCD – Conditional Water Rights – White River Basin*

Map Location	Structure Name	Structure Type	Water Source	Quantity (cfs)	Quantity (af)	Appropriation Date
1	Lost Park Reservoir	Reservoir	Lost Ck	0	33,541	11/9/1953
2	Lost Park Feeder Canal 1	Ditch	Trib-North Fk	100	0	11/9/1953
3	Lost Park Feeder Canal 2	Ditch	Trib-North Fk	100	0	11/9/1953
4	Yellow Jacket Canal	Ditch	North Fork	500	0	11/9/1953
5	Ripple Creek Reservoir	Reservoir	North Fork	0	27,992	11/19/1953
69	Colo White R Hydro Plant	Pipeline	White River	500	0	9/6/1973
70	North Fork Fdr Conduit	Pipeline	North Fork	500	0	10/7/1976
71	Sawmill Mountain Res	Reservoir	Big Beaver Ck	0	80,000	10/7/1976
73	Colo White R Res	Reservoir	White River	0	105,000	11/17/1981
	<b>Total structures:</b>			<b>Total:</b>	<b>Total:</b>	
	<b>9</b>			<b>1,700 cfs</b>	<b>246,533 af</b>	