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1988  
Irrigated Acreage Summary  
by  
Quadrangle

**Wyoming's Clear Creek Basin**

For  
Wyoming Water Development Commission  
By  
States West Water Resources Corporation

## Contents

Introduction . . . . .	2
Figure 1: Location Map . . . . .	3
Irrigated Acreage Summary . . . . .	4
Individual Quadrangle Acreage Summaries . . . . .	5
Individual Quadrangle Maps . . . . .	Map pockets

## Acknowledgments

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## **Introduction**

### **Authorization**

States West Water Resources Corporation entered into a contract with the Wyoming Water Development Commission (WWDC) on June 24, 1988 to determine the technical and economic feasibility of constructing a municipal supply reservoir, within the Clear Creek drainage, to serve the community of Buffalo, Wyoming. As a part of the hydrologic analysis associated with reservoir investigations, States West was required to ascertain actual water use patterns within the basin. This document presents the results of the actual irrigated lands mapping undertaken within the Clear Creek basin and should accompany the 7.5 minute U.S. Geological Survey (USGS) quadrangles illustrating the irrigated areas of the basin.

### **Procedure**

The procedure utilized in mapping the irrigated areas within the Clear Creek basin was carried out in a straight forward fashion. The Wyoming Water Development Commission provided 1:24,000 scale, color infrared (CIR) photography taken in 1983. This photography was interpreted and irrigated areas mapped by placing mylar reproductions of the USGS 7.5 minute quadrangles directly over photography and delineating those areas of irrigation. Irrigated lands stand out as bright red areas on CIR photography in sharp contrast to surrounding range lands, which appear brownish. Additionally, texture and shape characteristics permitted discrimination between irrigated lands and areas of well-watered native vegetation. Minor scale distortions in the photography due to tilt and relief displacement were removed by using prominent landscape features such as road and fence lines as registration guides between the photography and the quad sheets. A total of seventeen quadrangles were used in mapping of the irrigated areas. Figure 1 shows the location of the study area.

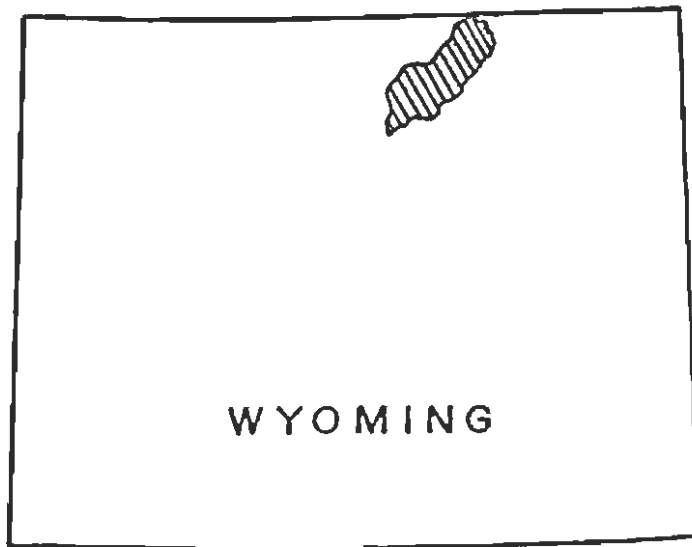


Figure 1: Location Map

**Clear Creek Basin Mapping Project 1988  
Irrigated Acreage Summary by Quadrangle**

<u>Quadrangle Name</u>	<u>Irrigated Acres</u>
Arvada	590
Banner	2,014
Buffalo	5,827
Buffalo NE	1,695
Buffalo SE	40
Cabin Creek SE	489
Clearmont	229
Fawn Draw	249
Horse Hill	1,612
Julio Draw	1,380
Lake DeSmet East	2,054
Lake DeSmet West	6,249
Leiter	2,886
North Ridge	1,150
Stone Mountain	274
Story	948
Ucross	<u>2,452</u>

Total Clear Creek Basin = 30,138

**Clear Creek Basin Mapping Project 1988  
Individual Quadrangle Acreage Summaries**

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Arvada	1	26.6
	2	462.8
	3	51.4
	4	<u>49.6</u>
		Total = 590.4
Banner	1	4.6
	2	331.5
	3	279.2
	4	866.3
	5	56.9
	6	18.4
	7	188.2
	8	48.7
	9	23.9
	10	165.0
	11	18.4
	12	<u>12.9</u>
		Total = 2,014.0

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Buffalo	1	4.3
	2	36.7
	3	11.4
	4	39.8
	5	29.9
	6	29.9
	7	65.2
	8	149.7
	9	176.3
	10	10.0
	11	112.0
	12	23.9
	13	68.0
	14	56.9
	15	8.5
	16	88.2
	17	42.7
	18	429.8
	19	2,760.3
	20	239.2
	21	18.4
	22	39.8
	23	122.1
	24	247.9
	25	145.1
	26	156.9
	27	147.8
	28	34.0
	29	515.2
	30	<u>17.1</u>

Total = 5,827.0



<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Buffalo NE	1	59.7
	2	91.8
	3	46.8
	4	87.2
	5	26.6
	6	245.2
	7	26.6
	8	17.4
	9	91.8
	10	7.4
	11	25.7
	12	45.9
	13	73.5
	14	58.8
	15	113.9
	16	51.4
	17	12.9
	18	35.8
	19	109.3
	20	28.5
	21	23.9
	22	31.2
	23	15.6
	24	<u>368.2</u>
		Total = 1,695.1
Buffalo SE	1	<u>40</u>
		Total = 40
Cabin Creek SE	1	238.8
	2	78.1
	3	59.7
	4	<u>112.0</u>
		Total = 488.6
Clearmont	1	82.6
	2	17.4
	3	<u>128.6</u>
		Total = 228.6

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Fawn Draw	1	69.8
	2	72.6
	3	<u>106.5</u>
		Total = 248.9
Horse Hill	1	404.0
	2	58.8
	3	7.4
	4	122.1
	5	184.6
	6	34.0
	7	380.0
	8	36.7
	9	15.6
	10	131.3
	11	5.5
	12	7.4
	13	10.1
	14	<u>214.9</u>
	Total = 1,612.4	
Julio Draw	1	59.7
	2	55.1
	3	7.4
	4	302.1
	5	35.8
	6	642.8
	7	178.2
	8	8.3
	9	51.4
	10	<u>39.5</u>
	Total = 1,380.3	

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Lake DeSmet East	1	28.5
	2	34.0
	3	379.2
	4	91.1
	5	5.5
	6	165.3
	7	90.9
	8	697.9
	9	49.6
	10	33.1
	11	21.1
	12	122.1
	13	38.6
	14	34.0
	15	183.7
	16	74.4
	17	<u>4.6</u>

Total = 2,053.6

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Lake DeSmet West	1	550.5
	2	18.4
	3	30.3
	4	216.7
	5	35.8
	6	42.7
	7	991.8
	8	79.9
	9	667.9
	10	191.9
	11	80.8
	12	381.1
	13	529.9
	14	23.0
	15	69.8
	16	423.2
	17	41.3
	18	46.8
	19	46.8
	20	144.2
	21	46.8
	22	25.6
	23	18.4
	24	397.6
	25	11.4
	26	76.6
	27	573.9
	28	178.2
	29	271.8
	30	15.6
	31	15.6
	32	<u>4.3</u>
		Total = 6,248.6

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Leiter	1	267.2
	2	91.8
	3	106.5
	4	28.5
	5	1,023.9
	6	34.0
	7	131.3
	8	71.6
	9	179.1
	10	357.2
	11	23.0
	12	26.6
	13	160.7
	14	5.5
	15	12.9
	16	156.1
	17	39.5
	18	61.5
	19	<u>109.3</u>

Total = 2,886.2

North Ridge	1	12.9
	2	49.6
	3	49.2
	4	146.9
	5	367.3
	6	331.5
	7	31.2
	8	33.1
	9	25.7
	10	74.4
	11	7.4
	12	5.5
	13	<u>15.6</u>

Total = 1,150.3

<u>Quadrangle Name</u>	<u>Area Number</u>	<u>Irrigated Acres</u>
Stone Mountain	1	31.3
	2	7.2
	3	72.6
	4	52.3
	5	18.4
	6	27.6
	7	54.2
	8	<u>10.1</u>
		Total = 273.7
Story	1	428.9
	2	243.4
	3	106.5
	4	99.2
	5	<u>69.8</u>
		Total = 947.8
Ucross	1	168.0
	2	110.2
	3	768.6
	4	20.2
	5	20.2
	6	99.2
	7	347.1
	8	52.3
	9	116.6
	10	349.9
	11	42.7
	12	<u>357.2</u>
		Total = 2,452.2