

WESTERN DIVISION SYSTEM
RESOURCES DIVISION
LOVELAND, COLORADO

JANUARY 1, 2012
WATER SUPPLY AND UTILIZATION REPORT
WESTERN DIVISION SYSTEM
PICK-SLOAN MISSOURI BASIN PROGRAM

PRECIPITATION VARIED
TEMPERATURES VARIED

Precipitation was varied over the Colorado-Big Thompson Project (Project) during December. The Willow Creek and Lake Granby watersheds were the lowest at 14 percent of average. The Poudre watershed was the highest at 182 percent of average.

Temperatures over the Project were varied for December.

PRECIPITATION

Watershed	December Precipitation			October-December Precipitation		
	2011 (Inches)	Avg <u>1</u> / (Inches)	% of Avg	WY2012 (Inches)	Avg <u>1</u> / (Inches)	% of Avg
Green Mtn.	0.33	1.22	27	3.04	3.72	82
Willow Crk.	0.16	1.16	14	2.74	3.62	76
L. Granby	0.16	1.16	14	2.74	3.62	76
L. Estes	0.91	0.73	125	4.33	2.97	146
St. Vrain	0.91	0.73	125	4.33	2.97	146
Poudre	0.80	0.44	182	3.69	2.16	171

1/ 30 year average, 1971-2000

INFLOWS VARIED

Inflows were varied over the Project during December. The inflow to Lake Granby was the lowest at 86 percent of average. The inflow to Willow Creek Reservoir was the highest at 122 percent of average. Water year to date (October-December) inflows have been 127 percent of average.

RESERVOIR INFLOW

Reservoir	December Inflow			October-December Inflow		
	2011 (KAF)	Avg <u>1</u> / (KAF)	% of Avg	WY 2012 (KAF)	Avg <u>1</u> / (KAF)	% of Avg
Green Mtn.*	10.0	8.8	114	41.7	32.6	128
Willow Crk.	1.1	0.9	122	4.6	3.3	139
L. Granby	3.1	3.6	86	17.2	13.2	130
L. Estes <u>2</u>	1.3	1.2	108	5.9	5.6	105

*Total runoff of the watershed above Green Mountain does not include depletions by Denver and Colorado Springs.

1/ 30 year average, 1971-2000

2/ Lake Estes Computed Inflow

TRANSMOUNTAIN DIVERSIONS BELOW AVERAGE

Transmountain diversions through Adams Tunnel during December were 18 percent of average. During December, 4,200 acre-feet of water was brought through the tunnel. Water year to date (October-December) diversions have been 66 percent of average.

TRANSMOUNTAIN DIVERSION

Adams Tun.	December			October-December		
	2011 (KAF)	Avg <u>1</u> / (KAF)	% of Avg.	WY 2012 (KAF)	Avg <u>1</u> / (KAF)	% of Avg
	4.2	23.7	18	37.7	57.2	66

1/ 30 year average, 1971-2000

RESERVOIR STORAGE VARIED

The Lake Granby storage of 461,900 acre-feet on December 31 was 70,500 acre-feet above average and 14,700 acre-feet lower than 1 year ago on this date. Terminal reservoir storage in Carter Lake and Horsetooth Reservoir was 75 and 123 percent of average, respectively.

Colorado-Big Thompson Project storage water in Lake Granby, Carter Lake, and Horsetooth was 637,000 acre-feet on December 31 which was 72,900 acre-feet above average and 79 percent of the total available storage capacity.

RESERVOIR STORAGE

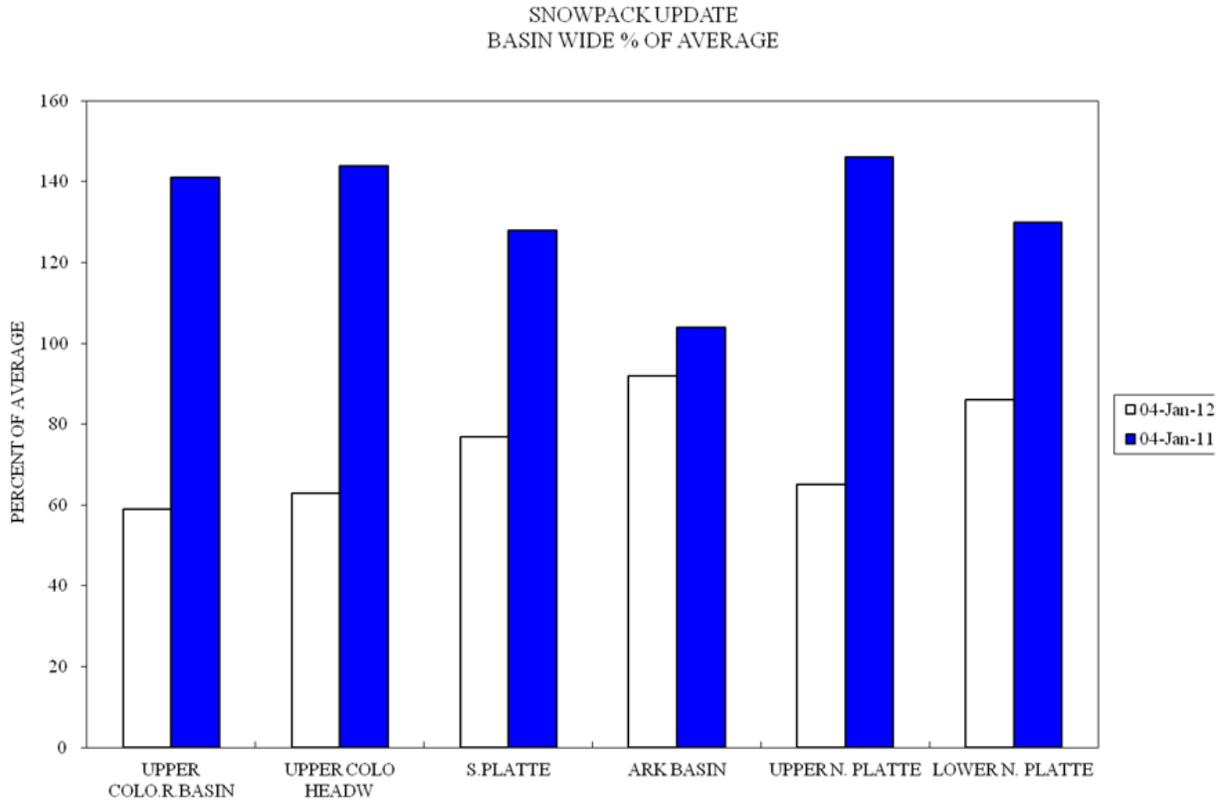
	Total Storage on December 31						
Reservoir	2011 (KAF)	2011 (% of Avg)	2010 (KAF)	2009 (KAF)	2008 (KAF)	1971-00 Avg(KAF)	Total Storage Cap.(KAF)
Green Mtn	N/A	N/A	78.3	81.1	69.0	97.0	153.6
L. Granby	461.9	118	476.6	428.2	356.8	391.4	539.8
Horse- tooth	116.8	123	85.2	73.7	79.0	94.9	156.7
Carter L.	58.3	75	39.8	80.6	62.6	77.8	112.2
Dillon	240.8	106	219.0	239.7	233.7	226.2	254.0
Williams Fork	80.1	131	81.3	77.8	79.6	61.2 ^{1/}	96.8
Project	Total Storage Water in Lake Granby, Carter Lake, and Horsetooth Reservoir on December 31						
CBT	637.0	113	601.6	582.5	498.4	564.1	808.7

^{1/} 20 year average, 1970-1989.

N/A – not available at this time.

SNOWPACK UPDATE

Snowpack totals in the Upper Colorado River Basin were 59 percent of average on January 4, 92 percent of average for the Arkansas Basin, and 77 percent of average for the South Platte River Basin.



WESTERN DIVISION SYSTEM
GENERATION BELOW AVERAGE

System generation of 118,900,000 kilowatt-hours of energy produced during December was 61 percent of average. Total system generation for the water year (October-December) was 434,800,000 kilowatt-hours which was 80 percent of average.

WESTERN DIVISION SYSTEM
GROSS GENERATION

Powerplant	December Gross Generation			Accum. Gross Generation <u>1/</u>		
	2011 (GWH)	Avg <u>2/</u> (GWH)	% of Avg.	WY 2012 (GWH)	Avg <u>2/</u> (GWH)	% of Avg
Green Mtn.	2.3	3.0	77	14.3	10.6	135
Marys Lake	0.6	4.2	14	6.6	9.3	71
Estes	1.6	11.1	14	20.7	24.9	83
Pole Hill	0.0	15.8	-	21.2	37.1	57
Flatiron 1&2	1.6	21.8	7	29.1	49.5	59
Big Thompson	0.0	0.1	-	1.2	.7	171
Seminole	4.1	10.4	39	12.2	27.3	45
Kortes	4.9	11.3	43	14.6	29.3	50
Fremont C.	6.7	12.0	56	13.8	32.7	42
Alcova	3.1	5.4	57	9.1	18.0	51
Glendo	0.0	0.0	-	0.0	.3	-
Guernsey	0.0	0.0	-	0.0	.6	-
Boysen	0.0	5.1	-	0.0	15.3	-
Heart Mtn.	0.0	0.0 <u>3/</u>	-	1.7	.8 <u>3/</u>	212
Buffalo Bill	2.0	2.0 <u>3/</u>	100	6.9	6.4 <u>3/</u>	108
Shoshone	1.6	1.5 <u>3/</u>	107	4.7	4.5 <u>3/</u>	104
Spirit Mtn.	0.0	0.0 <u>3/</u>	-	1.7	.9 <u>3/</u>	189
Mt. Elbert	24.4	11.5 <u>4/</u>	212	55.0	36.3 <u>4/</u>	152
Yellowtail	66.0	80.1 <u>5/</u>	82	222.0	237.2 <u>5/</u>	94
Total	118.9	195.3	61	434.8	541.7	80

1/ Oct-Dec

2/ 1976-2005 average

3/ 1995-2005 average

4/ 1990-1999 average

5/ 1971-1990 average; In general 1/2 of Yellowtail energy is dedicated to the Western Division System through marketing arrangement. The other 1/2 is marketed in Eastern Division System.

WESTERN DIVISION SYSTEM
PUMP ENERGY VARIED

The pump energy required for the Western Division System was varied for December. Colorado-Big Thompson Project pumping was 11 percent of average for December. Mt. Elbert pumping was 188 percent of average. Water year to date (October-December) pumping for the Western Division System was 115 percent of average.

PUMP ENERGY

Pumping Plant	December Pump Energy			Oct-December Pump Energy		
	2011 (GWH)	Avg <u>1</u> / (GWH)	% of Avg	WY2012 (GWH)	Avg <u>1</u> / (GWH)	% of Avg
Willow Crk	0.0	0.0	-	0.0	0.4	-
Farr	0.6	4.2	14	6.3	9.3	68
Flatiron 3	0.3	3.9	8	3.9	8.8	44
Mt. Elbert	25.7	13.7 <u>2</u> / 	188	61.8	44.1 <u>2</u> / 	140
Total	26.6	21.8	122	72.0	62.6	115

1/ 1976-2005 average

2/ 1990-1999 average

JANUARY 1, 2012
WATER SUPPLY AND UTILIZATION REPORT
FRYINGPAN-ARKANSAS PROJECT

PRECIPITATION VARIED

Precipitation was varied over the Fryingpan-Arkansas Project (Project) during December. Precipitation at Ruedi Reservoir (Nast SNOTEL) was the lowest at 22 percent of average. Precipitation at Pueblo Reservoir was the highest at 215 percent of average.

PRECIPITATION

Stations	December Precipitation			October-December Precipitation		
	2011 (Inches)	Avg (Inches)	% of Avg	WY2012 (Inches)	Avg (Inches)	% of Avg
Ruedi *	0.50	2.30 <u>1/</u>	22	3.60	5.57 <u>1/</u>	65
Turquoise	0.37	1.17 <u>2/</u>	32	3.55	3.60 <u>2/</u>	99
Twin Lakes	0.17	.52 <u>3/</u>	33	1.49	1.72 <u>3/</u>	87
Pueblo	0.86	.40 <u>4/</u>	215	2.52	1.68 <u>4/</u>	150

* Used Nast SNOTEL site
1/ 1971-2000 average for Nast
2/ 1973-1999 average
3/ 1966-1999 average
4/ 1976-1999 average

INFLOWS BELOW AVERAGE

Native inflows were below average over the Project during December. The inflow to Turquoise Lake was the lowest at 40 percent of average. The inflow to Ruedi Reservoir was the highest at 93 percent of average. Water year to date (October-December) inflows over the Fryingpan-Arkansas Project were 80 percent of average.

RESERVOIR INFLOW*

Reservoir	December Inflow			October-December Inflow		
	2011 (KAF)	Avg (KAF)	% of Avg	WY2012 (KAF)	Avg (KAF)	% of Avg
Ruedi	2.5	2.7 <u>1/</u>	93	11.3	10.1 <u>1/</u>	112
Turquoise	0.2	0.5 <u>2/</u>	40	0.9	1.2 <u>2/</u>	75
Twin Lakes	0.6	1.2 <u>2/</u>	50	4.4	5.3 <u>2/</u>	83
Pueblo	21.6	23.9 <u>2/</u>	90	58.5	76.7 <u>2/</u>	76

* Computed Native Inflow
1/ 1970-1989 average
2/ 1966-1986 average

RESERVOIR STORAGE VARIED

Reservoir storage is varied on the Fryingpan-Arkansas Project. Twin Lakes is the lowest at 99 percent of average. Pueblo is the highest at 115 percent of average.

Fryingpan-Arkansas Project storage water in Turquoise, Twin Lakes, and Pueblo was 407,800 acre-feet on December 31 which was 2,900 acre-feet higher than one year ago on this date.

RESERVOIR STORAGE

Reservoir	Total Storage on December 31						Total Storage Capacity (AF)
	2011 (KAF)	2011(% of Avg)	2010 (KAF)	2009 (KAF)	2008 (KAF)	Avg (KAF)	
Ruedi	79.2	103	74.0	72.7	74.7	76.7 <u>1/</u>	102,373
Turquoise	98.5	102	86.2	86.0	96.9	96.2 <u>2/</u>	129,398
Twin Lakes	110.2	99	109.0	109.7	94.8	111.5 <u>3/</u>	141,000
Pueblo	199.1	115	209.7	230.7	197.6	173.0 <u>1/</u>	256,949 <u>4/</u>
Project	Total Storage Water in Turquoise, Twin Lakes, and Pueblo Reservoirs on December 31						
Fry-Ark	407.8	107	404.9	426.4	389.3	380.7	527,347

1/ 1982-2007 average

2/ 1989-2007 average

3/ 1987-2007 average

4/ Top of active conservation capacity

COOPERATORS

Many organizations and individuals furnish information for the Water Supply and Utilization Report. Their cooperation is gratefully appreciated, especially:

Natural Resource Conservation Service
<http://www.wcc.nrcs.usda.gov/>
Snow Survey Units
Denver, Colorado
<http://www.co.nrcs.usda.gov/snosurvfs.htm>
Casper, Wyoming
and
Portland, Oregon

Department of Commerce
NOAA, National Weather Service
Boulder, Colorado
<http://www.crh.noaa.gov/den/>
Cheyenne, Wyoming
Salt Lake City, Utah

Department of Energy
Western Area Power Administration
Rocky Mountain Region
Loveland, Colorado
<http://www.wapa.gov/RM/RM.HTM>

Colorado Climate Center
Colorado State University
Fort Collins, Colorado
<http://ccc.atmos.colostate.edu/Access.html>