WESTERN DIVISION SYSTEM
RESOURCES DIVISION
LOVELAND, COLORADO

MARCH 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 February. The Willow Creek and Lake Granby watersheds were the lowest at 80 percent of average. The Poudre watershed was the highest at 143 percent of average. On Feb 3, 2012, the Front Range experienced a major snowstorm that dumped 9.1 inches of snow in Fort Collins with .51 inches of moisture from it.

Temperatures over the Project were varied for February. On Feb 22, Fort Collins had a record high minimum temperature of 45°F (the old record was 39°F set back in 1925).

PRECIPITATION

Watershed	February Precipitation			October-February Precipitation		
	2012 (Inches)	Avg1/ (Inches)	% of Avg	WY2012 (Inches)	Avg1/ (Inches)	% of Avg
Green Mtn.	1.58	1.25	126	6.00	6.29	95
Willow Crk.	0.94	1.17	80	4.36	6.21	70
L. Granby	0.94	1.17	80	4.36	6.21	70
L. Estes	1.08	0.76	142	5.75	4.54	127
St. Vrain	1.08	0.76	142	5.75	4.54	127
Poudre	0.66	0.46	143	4.53	3.04	149

1/ 30 year average, 1971-2000

INFLOWS WERE VARIED

Inflows were varied over the Project during February. The inflow to Lake Estes was the lowest at 88 percent of average. The inflow to Willow Creek Reservoir was the highest at 129 percent of average. Water year to date (October-February) inflows have been 123 percent of average.

RESERVOIR INFLOW

Reservoir	February Inflow			October-February Inflow		
	2012 (KAF)	Avg 1/ (KAF)	% of Avg	WY 2012 (KAF)	Avg 1/ (KAF)	% of Avg
Green Mtn.*	8.3	7.4	112	59.8	48.0	125
Willow Crk.	0.9	0.7	129	6.5	4.8	135
L. Granby	3.7	3.1	119	24.6	20.1	122
L. Estes 2/	0.7	0.8	88	7.9	7.4	107

*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 February were 69 percent of average. During February, 14,800 acre-feet of water was brought through the tunnel. Water year to date (October-February) diversions have been 71 percent of average.

TRANSMOUNTAIN DIVERSION

Adams Tun.	February			October-February		
	2012 (KAF)	Avg 1/ (KAF)	% of Avg.	WY 2012 (KAF)	Avg 1/ (KAF)	% of Avg
	14.8	21.3	69	72.1	102.1	71

1/ 30 year average, 1971-2000

RESERVOIR STORAGE VARIED

The Lake Granby storage of 431,800 acre-feet on February 29 was 81,500 acre-feet above average and 8,500 acre-feet higher than 1 year ago on this date. Terminal reservoir storage in Carter Lake and Horsetooth Reservoir was 63 and 121 percent of average, respectively.

Colorado-Big Thompson Project storage water in Lake Granby, Carter Lake, and Horsetooth was 632,700 acre-feet on February 29 which was 69,700 acre-feet above average and 78 percent of the total available storage capacity.

RESERVOIR STORAGE

	Total Storage on February 29						
Reservoir	2012 (KAF)	2012 (%of Avg)	2011 (KAF)	2010 (KAF)	2009 (KAF)	1971-00 Avg(KAF)	Total Storage Cap.(KAF)
Green Mtn	82.4	107	72.9	78.0	62.0	76.9	153.6
L. Granby	431.8	123	423.3	378.7	307.7	350.3	539.8
Horse-tooth	140.6	121	100.2	102.3	92.2	116.3	156.7
Carter L.	60.3	63	75.1	96.0	95.0	96.4	112.2
Dillon	244.1	111	222.3	240.8	225.0	219.1	254.0
Williams Fork	80.6	160	80.0	75.3	78.3	50.41/	96.8
Project	Total Storage Water in Lake Granby, Carter Lake, and Horsetooth Reservoir on February 29						
CBT	632.7	112	598.6	577.0	494.9	563.0	808.7

1/ 20 year average, 1970-1989.

SNOWPACK WATER CONTENT VARIED

Snowpack water content on March 1 was 89 percent of the 1971-2000 average throughout the Project watersheds. The Lake Granby watershed was the lowest at 74 percent of average. The highest snowpack water content on the Project was recorded for the St Vrain watershed at 110 percent of average.

The snowpack update graph on the next page are readings from the Natural Resource Conservation Service automated SNOTEL sites (for snowpack telemetry). This system has replaced many of the manual measurements at the remote sites. The 1971-2000 average is being used.

Watershed	Mar 1 Snow-Water Content			Comparative Mar 1 Snow-Water Content			
	2012 (In.)	Avg. (In.)	% of Avg.	2011 (In.)	2010 (In.)	2009 (In.)	2008 (In.)
Green Mtn	9.2	12.0	77	16.1	8.9	13.4	15.7
Willow C	6.7	8.3	81	12.4	5.2	9.0	10.6
L. Granby	7.7	10.4	74	14.7	7.4	12.1	11.7
L. Estes	8.6	8.2	105	12.8	6.9	9.1	9.2
St. Vrain	8.6	7.8	110	10.3	5.4	7.3	7.9
Poudre	10.6	11.0	96	15.1	8.7	11.0	12.1

WATER SUPPLY OUTLOOK IS VARIED

Current March 1 water supply forecasts are varied over the Project watersheds. Forecasted April-July volumes range from 84 percent of average for the Lake Granby watershed to 105 percent of average for the St Vrain Creek at Lyons and the Poudre River at Canyon Mouth watersheds.

Mar 1 2012 Forecast of Apr-Jul Volume (KAF)									
	Chance of Exceeding					Comparative Apr-Jul Volume			(KAF)
Fore-Cast Point	**95% Reason-able Min 1/**	**75%**	**50% Most Probable**	**25 %**	**5% Reason-able Max 1/**	**2011**	**2010**	**Avg 2/**	**Most ProbAble % avg**
Green Mtn Res	207	235	254	274	302	478	248	276	92
Willow Crk Res	31	38	42	47	54	125	52	49	86
Lake Granby	131	152	167	181	202	416	212	199	84
Big Thompson River Above L.Estes	51	62	69	76	86	113	80	71	97
Big Thompson R. at Canyon Mouth	53	75	90	105	127	3/	107	93	97
St Vrain Crk at Lyons	66	81	91	101	116	3/	96	87	105
Poudre R. at Canyon Mouth	142	198	237	276	332	3/	288	226	105

1/ The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

2/ Historical average:

Green Mtn: 1928-2011, Willow C: 1920-2011, Granby: 1928-2011, BT above Estes: 1936-2011, BTR @Canyon: 1947-2010, ST Vrain: 1954-2010, Poudre: 1954-2010

3/ Not available at this time.

E estimate

WESTERN DIVISION SYSTEM
GENERATION BELOW AVERAGE

System generation of 142,900,000 kilowatt-hours of energy produced during February was 83 percent of average. Total system generation for the water year (October-February) was 736,900,000 kilowatt-hours which was 82 percent of average.

WESTERN DIVISION SYSTEM
GROSS GENERATION

(Energy in GWH)

Powerplant	February Gross Generation			Accum. Gross Generation 1/		
	2012 (GWH)	Avg 2/ (GWH)	% of Avg.	WY 2012 (GWH)	Avg 2/ (GWH)	% of Avg
Green Mtn.	1.6	2.5	64	18.1	16.1	112
Marys Lake	2.4	3.9	62	12.3	17.5	70
Estes	6.4	9.8	65	35.7	45.7	78
Pole Hill	8.9	15.6	57	37.0	69.6	53
Flatiron 1&2	12.0	19.2	62	58.1	90.6	64
Big Thompson	0.0	0.0	-	1.2	.7	171
Seminoe	9.8	9.5	103	27.8	47.5	59
Kortes	9.0	10.7	84	29.7	51.8	57
Fremont C.	6.0	10.6	57	26.6	55.3	48
Alcova	0.0	4.8	-	12.1	28.1	43
Glendo	0.0	0.3	-	0.0	.6	-
Guernsey	0.0	0.1	-	0.0	.7	-
Boysen	0.0	4.1	-	0.0	24.2	-
Heart Mtn.	0.0	0.0 3/	-	1.7	.8 3/	212
Buffalo Bill	3.3	2.4 3/	138	12.7	10.5 3/	121
Shoshone	0.0	1.2 3/	-	5.1	7.1 3/	72
Spirit Mtn.	0.0	0.0 3/	-	1.7	.9 3/	189
Mt. Elbert	22.4	9.0 4/	249	107.0	54.3 4/	197
Yellowtail	61.1	68.2 5/	90	350.1	380.3 5/	92
Total	142.9	171.9	83	736.9	902.3	82

1/ Oct-Feb
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 February. Colorado-Big Thompson Project pumping was 31 percent of average for February. Mt. Elbert pumping was 301 percent of average. Water year to date (October-February) pumping for the Western Division System was 146 percent of average.

PUMP ENERGY

Pumping Plant	February Pump Energy			Oct-February Pump Energy		
	2012 (GWH)	Avg 1/ (GWH)	% of Avg	WY2012 (GWH)	Avg 1/ (GWH)	% of Avg
Willow Crk	0.0	0.0	-	0.0	0.4	-
Farr	2.2	3.6	61	11.4	17.1	67
Flatiron 3	0.0	3.4	-	5.7	16.2	35
Mt. Elbert	25.3	8.4 2/	301	120.3	60.6 2/	199
Total	27.5	15.4	179	137.4	94.3	146

1/ 1976-2005 average
2/ 1990-1999 average

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

PRECIPITATION VARIED

Precipitation was varied over the Fryingpan-Arkansas Project (Project) during February. Precipitation at Ruedi Reservoir (Nast SNOTEL) was the lowest at 93 percent of average. Precipitation at Pueblo Reservoir was the highest at 277 percent of average.

PRECIPITATION

Stations	February Precipitation			October-February Precipitation		
	2012 (Inches)	Avg (Inches)	% of Avg	WY2012 (Inches)	Avg (Inches)	% of Avg
Ruedi *	2.10	2.27 1/	93	7.60	9.93 1/	77
Turquoise	1.47	1.18 2/	125	6.21	6.13 2/	101
Twin Lakes	.63	.48 3/	131	2.53	2.60 3/	97
Pueblo	.72	.26 4/	277	3.26	2.19 4/	149

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

INFLOWS VARIED

Native inflows were varied over the Project during February. The inflow to Pueblo Reservoir was the lowest at 98 percent of average. The inflow to Turquoise Lake was the highest at 175 percent of average. Water year to date (October-February) inflows over the Fryingpan-Arkansas Project were 84 percent of average.

RESERVOIR INFLOW*

Reservoir	February Inflow			October-February Inflow		
	2012 (KAF)	Avg (KAF)	% of Avg	WY2012 (KAF)	Avg (KAF)	% of Avg
Ruedi	2.1	2.0 1/	105	15.8	14.6 1/	108
Turquoise	0.7	0.4 2/	175	2.0	2.0 2/	100
Twin Lakes	1.3	0.8 2/	162	6.9	7.2 2/	96
Pueblo	16.2	16.5 2/	98	90.6	113.6 2/	80

* 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 98 percent of average. Pueblo Reservoir is the highest at 120 percent of average. The total water in storage in the four reservoirs of 498,400 acre-feet at the end of February was 25,200 acre-feet higher than 1 year ago on this date.

RESERVOIR STORAGE

	Total Storage on February 29						
Reservoir	2012 (KAF)	2012(%of Avg)	2011 (KAF)	2010 (KAF)	2009 (KAF)	Avg (KAF)	Total Storage Capacity (AF)
Ruedi	73.1	109	69.4	68.4	70.9	67.3 1/	102,373
Turquoise	80.8	102	52.1	66.1	62.7	79.2 2/	129,398
Twin Lakes	102.5	98	100.6	108.5	96.4	104.7 3/	141,000
Pueblo	242.0	120	251.1	259.9	237.3	202.1 1/	256,949 4/
Project	Total Storage Water in Turquoise, Twin Lakes, and Pueblo Reservoirs on February 29						
Fry-Ark	425.3	110	403.8	434.5	396.4	386.0	527,347

1/ 1982-2007 average
2/ 1989-2007 average
3/ 1987-2007 average
4/ Top of active conservation capacity

SNOWPACK WATER CONTENT BELOW NORMAL

Snowpack water content on March 1 was below normal on the Fryingpan-Arkansas Project watersheds. The Upper Arkansas River watershed was 73 percent of average. The Fryingpan River watershed was 76 percent of average.

SNOW-WATER ACCUMULATION

Watershed	Mar 1 Snow-Water Content			Comparative Mar 1 Snow-Water Content (Inches)			
	2012 (In.)	Avg 1/ (In.)	% of Avg	2011	2010	2009	2008
U.Arkans.	7.6	10.4	73	13.6	9.2	13.4	15.2
Fryingpan River	8.7	11.5	76	14.5	9.9	13.9	17.2

1/ 30 year average, 1971-2000

WATER SUPPLY OUTLOOK BELOW AVERAGE

The current March 1 water supply forecast for Ruedi is below average.

	March 1, 2012 Forecast of Apr-Jul Volume (KAF)						
	Chance of Exceeding						
Forecast Point	95% Reasonable Min 2/	75%	50% Most Probable	25%	5% Reasonable Max 2/	Avg 3/	Most Probable % Avg
Ruedi 1/	98	115	127	139	156	134.0	95

1/ Undepleted
2/ The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.
3/ 1969-2006 average

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