

COLORADO-BIG THOMPSON MONTHLY OPERATIONS

HYDROLOGY OPERATIONS

Green Mtn Reservoir		Initial Cont Elev 7898.40 ft				69.0 kaf 8115.94 ft				Maximum Cont Elev 7949.91 ft				153.6 kaf 8128.83 ft				Minimum Cont Elev 7795.72 ft				6.0 kaf 8104.78 ft		Total
2009		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
Dillon Inflow	kaf	4.0	3.6	4.3	7.7	41.0	110.4	73.2	28.9	10.3	8.2	6.1	4.4	302.1										
Dillon-Grn Mtn Gain	kaf	3.8	3.2	4.1	8.3	28.6	70.4	48.0	21.2	10.0	8.8	6.4	4.2	217.0										
Undepleted Inflow	kaf	7.8	6.8	8.4	16.0	69.6	180.8	121.2	50.1	20.3	17.0	12.5	8.6	519.1										
Depletion	kaf	-1.0	-2.1	1.2	4.6	36.3	12.0	8.0	4.0	3.4	2.1	0.7	-1.2	68.0										
Depleted Inflow	kaf	8.8	8.9	7.2	11.4	33.3	168.8	113.2	46.1	16.9	14.9	11.8	9.8	451.1										
Turbine Release	kaf	12.3	11.1	12.3	11.9	18.4	94.2	88.6	51.4	45.9	40.0	15.5	12.7	414.3										
Spill/Waste	kaf	0.0	0.0	0.0	0.0	0.0	0.6	16.8	0.0	0.0	0.0	0.0	0.0	17.4										
Total River Release	kaf	12.3	11.1	12.3	11.9	18.4	94.8	105.4	51.4	45.9	40.0	15.5	12.7	431.7										
Min Release	cfs	200	200	200	200	300	1000	1000	836	771	650	260	207											
Total River Release	cfs	200	200	200	200	299	1593	1714	836	771	651	260	207											
Evaporation	kaf	0.0	0.0	0.2	0.2	0.4	0.8	0.8	0.7	0.6	0.4	0.1	0.0	4.2										
End-Month Targets	kaf				75.0	90.0	145.0	152.0																
End-Month Content	kaf	65.5	63.3	58.0	57.3	71.8	145.0	152.0	146.0	116.4	90.9	87.1	84.2											
End-Month Elevation	ft	7895.42	7893.47	7888.55	7887.87	7900.71	7945.78	7949.15	7946.27	7930.78	7914.93	7912.29	7910.21											

Willow Crk Reservoir		Initial Cont Elev 8115.94 ft				7.0 kaf 8115.94 ft				Maximum Cont Elev 8128.83 ft				10.2 kaf 8128.83 ft				Minimum Cont Elev 8104.78 ft				5.0 kaf 8104.78 ft		Total
2009		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
Native Inflow	kaf	0.8	0.7	1.0	5.9	30.2	31.8	7.1	3.0	1.5	1.2	1.2	0.8	85.2										
Min Release	kaf	0.4	0.4	0.4	0.4	1.5	2.6	2.2	0.5	0.4	0.4	0.8	0.4	10.4										
Spill/Bypass	kaf	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1										
Total River Release	kaf	0.4	0.4	0.4	0.4	1.5	3.7	2.2	0.5	0.4	0.4	0.8	0.4	11.5										
Pumped to Granby	kaf	0.0	0.0	3.3	3.3	26.8	26.8	6.0	1.7	1.7	1.5	1.4	0.0	72.5										
Evaporation	kaf	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.6										
End-Month Targets	kaf				7.2	9.0	10.0	9.0		9.0		7.2												
End-Month Content	kaf	7.4	7.7	5.0	7.2	9.0	10.2	9.0	9.7	9.0	8.2	7.2	7.6											
End-Month Elevation	ft	8117.83	8119.18	8104.78	8116.90	8124.50	8128.83	8124.50	8127.09	8124.50	8121.32	8116.90	8118.74											

Lake Granby		Initial Cont Elev 356.8 kaf 8252.33 ft				Maximum Cont Elev 536.1 kaf 8279.50 ft				Minimum Cont Elev 76.5 kaf 8186.91 ft				Total
2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Native inflow	kaf	1.4	1.2	1.5	6.7	24.0	54.6	24.1	8.6	3.4	2.3	1.4	1.4	130.6
Rels frm Shadow Mtn	kaf	1.2	1.1	1.2	1.2	25.5	75.5	18.9	2.5	2.1	2.2	2.7	2.8	136.9
Pump frm Windy Gap	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pump frm Willow Crk	kaf	0.0	0.0	3.3	3.3	26.8	26.8	6.0	1.7	1.7	1.5	1.4	0.0	72.5
Total Inflow	kaf	2.6	2.3	6.0	11.2	76.3	156.9	49.0	12.8	7.2	6.0	5.5	4.2	340.0
Min River Release	kaf	1.2	1.1	1.2	1.2	4.6	4.7	3.3	2.5	1.0	1.4	1.2	1.2	24.6
Spill/Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total River Release	kaf	1.2	1.1	1.2	1.2	4.6	4.7	3.3	2.5	1.0	1.4	1.2	1.2	24.6
Pumped to Shadow Mtn	kaf	28.9	24.2	27.0	17.6	0.0	0.0	0.0	10.1	5.3	20.2	4.2	30.8	168.3
Evaporation	kaf	0.0	0.0	0.8	1.2	2.0	2.9	2.9	2.3	2.1	1.6	0.7	0.2	16.7
Seepage loss	kaf	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.3	4.5
End-Month Content	kaf	329.0	305.7	282.4	273.3	342.7	491.6	533.9	531.3	529.6	512.0	511.0	482.7	
End-Month Elevation	ft	8247.55	8243.40	8239.09	8237.36	8249.93	8273.23	8279.19	8278.83	8278.59	8276.13	8275.99	8271.95	
Shadow Mtn		Initial Cont Elev 17.8 kaf 8366.68 ft				Maximum Cont Elev 18.4 kaf 8367.00 ft				Minimum Cont Elev 16.6 kaf 8366.02 ft				Total
2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Native inflow	kaf	2.1	1.9	2.2	10.1	36.1	81.8	36.2	12.8	5.1	3.5	2.0	2.1	195.9
Pumped from Granby	kaf	28.9	24.2	27.0	17.6	0.0	0.0	0.0	10.1	5.3	20.2	4.2	30.8	168.3
Total Inflow	kaf	31.0	26.1	29.2	27.7	36.1	81.8	36.2	22.9	10.4	23.7	6.2	32.9	364.2
Min River Release	kaf	1.2	1.1	1.2	1.2	1.2	3.0	3.1	2.5	2.1	2.2	2.7	2.8	24.3
Spill/Bypass	kaf	0.0	0.0	0.0	0.0	24.3	72.5	15.8	0.0	0.0	0.0	0.0	0.0	112.6
Total River Release	kaf	1.2	1.1	1.2	1.2	25.5	75.5	18.9	2.5	2.1	2.2	2.7	2.8	136.9
Adams Tunnel Flow	kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	222.6
Evaporation	kaf	0.0	0.0	0.3	0.4	0.7	0.8	0.7	0.6	0.5	0.4	0.2	0.1	4.7
End-Month Content	kaf	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	
End-Month Elevation	ft	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	8366.68	
Adams Tunnel	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Max Tunnel Capacity	kaf	33.8	30.5	33.8	32.7	33.8	32.7	33.8	33.8	32.7	33.8	16.4	33.8	381.6
Actual delivery	kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	222.6
% max delivery	%	88	82	82	80	29	17	49	59	24	62	20	89	
Big T @ Lake Estes	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Big Thompson inflow	kaf	1.0	0.7	1.0	2.9	17.6	50.5	26.0	13.6	6.0	2.6	1.8	1.2	124.9

Min river release	kaf	1.5	1.4	1.5	2.2	6.9	7.4	7.7	6.9	3.7	3.1	1.5	1.5	45.3
Act river release	kaf	1.0	0.7	1.0	2.2	6.9	23.3	8.8	6.9	3.7	2.6	1.5	1.2	59.8
Skim water available	kaf	0.0	0.0	0.0	0.7	10.7	43.1	18.3	6.7	2.3	0.0	0.3	0.0	82.1
Skim water diverted	kaf	0.0	0.0	0.0	0.7	10.7	27.2	17.2	6.7	2.3	0.0	0.3	0.0	65.1
% skim diverted	%				100	100	63	94	100	100		100		
Irrigation demand	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation delivery	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total river release	kaf	1.0	0.7	1.0	2.2	6.9	23.3	8.8	6.9	3.7	2.6	1.5	1.2	59.8

Olympus Tunnel	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Max Tunnel Capacity	kaf	33.8	30.5	33.8	32.7	33.8	32.7	33.8	33.8	32.7	30.4	16.4	33.8	378.2
Actual delivery	kaf	29.8	25.0	27.7	26.8	20.6	32.7	33.8	26.5	10.1	21.1	3.6	30.0	287.7
% max delivery	%	88	82	82	82	61	100	100	78	31	69	22	89	
Seepage and Evap	kaf	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	1.7
Inflow to Flatiron	kaf	29.7	24.9	27.6	26.7	20.5	32.6	33.7	26.3	9.9	20.9	3.4	29.8	286.0

Carter Lake	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
				Initial Cont	62.6 kaf		Maximum Cont	112.2 kaf		Minimum Cont	11.2 kaf			
				Elev	5711.48 ft		Elev	5758.98 ft		Elev	5639.99 ft			
Pump from Flatiron	kaf	20.5	16.6	4.1	9.5	0.0	0.0	3.7	6.5	0.0	1.5	0.0	20.6	83.0
Release to Flatiron	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation loss	kaf	0.0	0.0	0.2	0.3	0.4	0.5	0.4	0.3	0.3	0.2	0.1	0.0	2.7
Seepage loss	kaf	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	1.7
End-Month Targets	kaf	81.4	96.4	98.4	102.0	94.0	84.0	75.0	65.0	49.0	45.0	40.0	66.2	
End-Month Content	kaf	81.4	96.4	98.4	102.0	95.0	85.5	75.0	65.0	54.5	45.0	43.3	62.4	
End-Month Elevation	ft	5730.59	5744.80	5746.64	5749.91	5743.51	5734.56	5724.28	5714.02	5702.61	5691.55	5689.49	5711.27	

Irrigation demand	kaf	0.0	0.0	0.0	3.3	2.1	3.6	7.7	10.6	5.7	7.5	0.0	0.0	40.5
Metered delivery	kaf	1.2	1.1	1.3	1.6	2.3	2.8	3.6	3.4	2.7	2.6	1.1	1.0	24.7
Windy Gap demand	kaf	0.4	0.4	0.4	0.5	2.0	2.4	2.3	2.1	1.7	0.6	0.4	0.4	13.6
Total demand	kaf	1.6	1.5	1.7	5.4	6.4	8.8	13.6	16.1	10.1	10.7	1.5	1.4	78.8
Total delivery	kaf	1.6	1.5	1.7	5.4	6.4	8.8	13.6	16.1	10.1	10.7	1.5	1.4	78.8
% required delivery	%	100	100	100	100	100	100	100	100	100	100	100	100	
Shortage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Hansen Canal	930	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Minimum flow	kaf		6.1	5.6	6.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	31.3
Maximum flow	kaf		57.2	51.6	57.2	27.7	57.2	55.3	57.2	57.2	55.3	57.2	55.3	57.2	645.6
Actual flow	kaf		9.2	8.3	23.5	17.2	20.5	32.6	30.0	19.8	9.9	19.4	3.4	9.2	203.0

Dille Tunnel	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
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Big T @ Canyon Mouth	kaf	1.4	1.3	1.8	6.9	29.2	61.5	37.7	20.1	7.6	4.0	2.3	1.5	175.3
Less Estes Skim	kaf	0.0	0.0	0.0	0.7	10.7	27.2	17.2	6.7	2.3	0.0	0.3	0.0	65.1
Big T irr (Estes)	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Handy Ditch release	kaf	0.0	0.0	0.0	1.2	1.2	1.2	1.8	2.9	1.7	1.2	0.0	0.0	11.2
Water available	kaf	1.4	1.3	1.8	5.0	17.3	33.1	18.7	10.5	3.6	2.8	2.0	1.5	99.0
Water diverted	kaf	0.0	0.0	0.0	5.0	12.2	0.0	4.5	10.5	3.6	2.8	0.0	0.0	38.6
% diverted	%				100	71		24	100	100	100			

Trifurcation Works	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rels from Flatiron	kaf	9.2	8.3	23.5	17.2	20.5	32.6	30.0	19.8	9.9	19.4	3.4	9.2	203.0
Rels to 550 Canal	kaf	9.2	8.3	23.5	15.9	8.0	3.8	9.8	8.2	2.5	9.0	3.1	9.2	110.5
Big T irrigation	kaf	0.0	0.0	0.0	0.6	1.8	1.6	3.0	4.9	5.1	10.4	0.0	0.0	27.4
Dille Tunnel	kaf	0.0	0.0	0.0	5.0	12.2	0.0	4.5	10.5	3.6	2.8	0.0	0.0	38.6
Tot rels to river	kaf	0.0	0.0	0.0	6.3	24.7	28.8	24.7	22.1	11.0	13.2	0.3	0.0	131.1
Irrigation demand	kaf	0.0	0.0	0.0	0.6	1.8	1.6	2.6	4.5	4.8	10.4	0.0	0.0	26.3
Big T irr (Estes)	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Windy Gap demand	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	0.0	0.0	0.0	1.1
Total requirement	kaf	0.0	0.0	0.0	0.6	1.8	1.6	3.0	4.9	5.1	10.4	0.0	0.0	27.4
Total delivery	kaf	0.0	0.0	0.0	0.6	1.8	1.6	3.0	4.9	5.1	10.4	0.0	0.0	27.4
% required delivery	%	0	0	0	100	100	100	100	100	100	100	0	0	
Shortage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Hansen Canal 550	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Inflow from Flatiron	kaf	9.2	8.3	23.5	15.9	8.0	3.8	9.8	8.2	2.5	9.0	3.1	9.2	110.5
Maximum flow	kaf	32.0	28.9	32.0	16.4	32.0	30.9	32.0	32.0	30.9	16.0	30.9	32.0	346.0
Seepage loss	kaf	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
Irrigation demand	kaf	0.2	0.2	0.3	0.3	0.5	0.4	0.8	0.8	0.8	0.7	0.2	0.2	5.4
Irrigation delivery	kaf	0.2	0.2	0.3	0.3	0.5	0.4	0.8	0.8	0.8	0.7	0.2	0.2	5.4
Minimum flow	kaf	3.1	2.8	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	20.9
Rels to Horsetooth	kaf	8.8	7.9	23.0	15.4	7.3	3.2	8.8	7.2	1.5	8.1	2.7	8.8	102.7

Horsetooth Reservoir		Initial Cont			79.2 kaf	Maximum Cont			156.7 kaf	Minimum Cont			5.0 kaf	
		Elev			5385.15 ft	Elev			5429.98 ft	Elev			5297.06 ft	
	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Inflow	kaf	8.8	7.9	23.0	15.4	7.3	3.2	8.8	7.2	1.5	8.1	2.7	8.8	102.7
Total irr delivery	kaf	1.9	1.8	1.9	2.5	6.4	7.2	17.9	21.6	13.2	18.5	1.6	1.6	96.1
Evaporation loss	kaf	0.0	0.0	0.2	0.4	0.7	0.8	0.7	0.5	0.4	0.3	0.1	0.0	4.1
Seepage loss	kaf	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	1.7
End-Month Targets	kaf	85.9	91.9	112.7	125.0	125.0	120.0	110.0	95.0	79.0	72.0	72.9	80.0	
End-Month Content	kaf	85.9	91.9	112.7	125.0	125.0	120.0	110.0	95.0	82.8	72.0	72.9	80.0	

End-Month Elevation	ft	5389.73	5393.68	5406.47	5413.47	5413.47	5410.67	5404.88	5395.68	5387.63	5380.01	5380.67	5385.71	
Irrigation demand	kaf	0.0	0.0	0.0	0.1	2.7	3.2	10.7	15.2	8.1	15.6	0.0	0.0	55.6
Metered delivery	kaf	1.5	1.4	1.5	2.0	3.3	3.6	5.7	4.9	3.7	2.5	1.2	1.2	32.5
Windy Gap demand	kaf	0.4	0.4	0.4	0.4	0.4	0.4	1.5	1.5	1.4	0.4	0.4	0.4	8.0
Total demand	kaf	1.9	1.8	1.9	2.5	6.4	7.2	17.9	21.6	13.2	18.5	1.6	1.6	96.1
Total irr delivery	kaf	1.9	1.8	1.9	2.5	6.4	7.2	17.9	21.6	13.2	18.5	1.6	1.6	96.1
% required delivery	%	100	100	100	100	100	100	100	100	100	100	100	100	
Shortage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total CBT Delivery	kaf	2.9	2.7	3.1	7.9	12.7	15.2	31.1	39.4	25.8	39.3	2.5	2.4	185.0
Windy Gap Ownership 2009		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total release	kaf	0.8	0.8	0.8	0.9	2.4	2.8	4.2	4.0	3.4	1.0	0.8	0.8	22.7
Spill	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
End-month Ownership	kaf	49.1	48.3	47.5	46.6	44.2	41.4	37.2	33.2	29.8	28.8	28.0	27.2	

PUMPING AND GENERATION OPERATIONS

Green Mtn Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Max Generation	gwh	9.300	8.249	8.892	16.837	18.285	18.000	18.600	18.600	18.000	18.600	18.000	9.300	180.663
Generation	gwh	2.011	1.792	1.952	1.863	2.972	18.000	18.600	10.797	9.295	7.528	2.779	2.246	79.835
% Max Generation	%	22	22	22	11	16	100	100	58	52	40	15	24	
Ave kwh/af		163	161	159	157	162	191	210	210	203	188	179	177	
Willow Crk Pumping	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Maximum pumping	kaf	0.0	0.0	27.7	26.8	27.7	26.8	27.7	27.7	26.8	27.7	26.8	0.0	245.7
Actual pumping	kaf	0.0	0.0	3.3	3.3	26.8	26.8	6.0	1.7	1.7	1.5	1.4	0.0	72.5
Pump energy	gwh	0.000	0.000	0.703	0.703	5.708	5.708	1.278	0.362	0.362	0.320	0.298	0.000	15.442
% max pumping	%			12	12	97	100	22	6	6	5	5		
Average kwh/af				213	213	213	213	213	213	213	213	213		
Lake Granby Pumping	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Maximum pumping	kaf	36.9	33.3	36.9	35.7	36.9	35.7	36.9	36.9	35.7	36.9	35.7	36.9	434.4
Actual pumping	kaf	28.9	24.2	27.0	17.6	0.0	0.0	0.0	10.1	5.3	20.2	4.2	30.8	168.3
Pump energy	gwh	4.393	3.751	4.266	2.816	0.000	0.000	0.000	1.414	0.742	2.848	0.592	4.374	25.196
% max pumping	%	78	73	73	49				27	15	55	12	83	
Average kwh/af		152	155	158	160				140	140	141	141	142	
Marys Lake Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total

Adams Tunnel Flow	kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	
Max generation	gwh	6.060	5.400	6.060	5.840	6.060	5.840	6.060	6.060	5.840	5.380	0.000	0.000	58.600
Generation	gwh	5.280	4.500	4.940	4.620	1.680	0.900	2.920	3.560	1.260	3.720	0.000	0.000	33.380
% Max Generation	%	87	83	82	79	28	15	48	59	22	69			
Ave kwh/af		177	180	178	177	170	164	176	180	162	176			
Lake Estes Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Adams Tunnel Flow	kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	
Max generation	gwh	11.940	10.060	10.450	9.660	9.980	10.060	14.920	14.920	14.450	14.920	14.450	14.920	150.730
Generation	gwh	11.940	10.060	10.450	9.660	4.350	2.300	7.640	8.820	3.300	9.340	1.420	13.200	92.480
% Max Generation	%	100	100	100	100	44	23	51	59	23	63	10	88	
Ave kwh/af		441	439	441	441	439	418	460	445	423	443	430	440	
Pole Hill Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Olympus Tunnel flow	kaf	29.8	25.0	27.7	26.8	20.6	32.7	33.8	26.5	10.1	21.1	3.6	30.0	287.7
Max generation	gwh	25.260	22.800	25.260	24.460	25.260	24.460	25.260	25.260	24.460	22.720	0.000	5.750	250.950
Generation	gwh	10.200	9.240	10.200	9.880	10.200	9.880	10.200	10.200	6.730	10.200	0.000	4.640	101.570
% Max Generation	%	40	41	40	40	40	40	40	40	28	45		81	
Ave kwh/af		342	370	368	369	495	302	302	385	666	483		546	
Flatiron 1&2 Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Inflow to Flatiron	kaf	29.7	24.9	27.6	26.7	20.5	32.6	33.7	26.3	9.9	20.9	3.4	29.8	286.0
Max generation	gwh	12.050	10.880	12.050	11.690	12.050	11.690	12.050	12.050	11.690	12.050	0.000	5.580	123.830
Generation	gwh	12.050	10.880	12.050	11.690	12.050	11.690	12.050	12.050	8.210	12.050	0.000	5.580	120.350
% Max Generation	%	100	100	100	100	100	100	100	100	70	100		100	
Ave kwh/af		893	892	893	892	893	892	893	893	829	893		821	
Flatiron 3 Pump/Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Maximum pumping	kaf	20.5	16.6	17.3	16.4	0.0	17.6	19.4	20.8	21.5	23.6	0.0	20.8	194.5
Pump from Flatiron	kaf	20.5	16.6	4.1	9.5	0.0	0.0	3.7	6.5	0.0	1.5	0.0	20.6	83.0
Pump energy	gwh	6.376	5.727	1.492	3.515	0.000	0.000	1.210	1.996	0.000	0.413	0.000	5.747	26.476
% max pumping	%	100	100	24	58			19	31		6		99	
Average kwh/af		311	345	364	370			327	307		275		279	
Release to Flatiron	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
% max generation	%													
Average kwh/af														
Big Thompson Gen	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total release	kaf	0.0	0.0	0.0	6.3	24.7	28.8	24.7	22.1	11.0	13.2	0.3	0.0	131.1

Turbine release	kaf	0.0	0.0	0.0	6.3	24.7	23.9	24.7	22.1	11.0	13.2	0.0	0.0	125.9
Wasteway release	kaf	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.3	0.0	5.2
Max generation	gwh	0.000	0.000	0.000	3.800	3.940	3.800	3.940	3.940	3.800	3.940	0.000	0.000	27.160
Generation	gwh	0.000	0.000	0.000	0.660	3.940	3.800	3.940	3.520	1.500	1.940	0.000	0.000	19.300
% Max Generation	%				17	100	100	100	89	39	49			
Ave kwh/af					105	160	159	160	159	136	147			

PROJECT GENERATION AND PUMPING SUMMARY

Project Generation	2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base Generation:														
Big Thompson	gwh	0.000	0.000	0.000	0.660	3.940	3.800	3.940	3.520	1.500	1.940	0.000	0.000	19.300
Green Mtn	gwh	2.011	1.792	1.952	1.863	2.972	18.000	18.600	10.797	9.295	7.528	2.779	2.246	79.835
Flatiron 3	gwh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	gwh	2.011	1.792	1.952	2.523	6.912	21.800	22.540	14.317	10.795	9.468	2.779	2.246	99.135
Load Following Generation:														
Marys Lake	gwh	5.280	4.500	4.940	4.620	1.680	0.900	2.920	3.560	1.260	3.720	0.000	0.000	33.380
Lake Estes	gwh	11.940	10.060	10.450	9.660	4.350	2.300	7.640	8.820	3.300	9.340	1.420	13.200	92.480
Pole Hill	gwh	10.200	9.240	10.200	9.880	10.200	9.880	10.200	10.200	6.730	10.200	0.000	4.640	101.570
Flatiron 1,2	gwh	12.050	10.880	12.050	11.690	12.050	11.690	12.050	12.050	8.210	12.050	0.000	5.580	120.350
Total	gwh	39.470	34.680	37.640	35.850	28.280	24.770	32.810	34.630	19.500	35.310	1.420	23.420	347.780
Total generation	gwh	41.481	36.472	39.592	38.373	35.192	46.570	55.350	48.947	30.295	44.778	4.199	25.666	446.915
Total max generation	gwh	64.610	57.389	62.712	72.287	75.575	73.850	80.830	80.830	78.240	77.610	32.450	35.550	791.933
Project Pump Energy 2009														
Granby	gwh	4.393	3.751	4.266	2.816	0.000	0.000	0.000	1.414	0.742	2.848	0.592	4.374	25.196
Willow Creek	gwh	0.000	0.000	0.703	0.703	5.708	5.708	1.278	0.362	0.362	0.320	0.298	0.000	15.442
Flatiron 3	gwh	6.376	5.727	1.492	3.515	0.000	0.000	1.210	1.996	0.000	0.413	0.000	5.747	26.476
Total pump energy	gwh	10.769	9.478	6.461	7.034	5.708	5.708	2.488	3.772	1.104	3.581	0.890	10.121	67.114
Total net generation	gwh	30.712	26.994	33.131	31.339	29.484	40.862	52.862	45.175	29.191	41.197	3.309	15.545	379.801
Release Flexibility 2009														
Adams Tunnel	Min kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	
Adams Tunnel	Max kaf	29.8	25.0	27.7	26.1	9.9	5.5	16.6	19.8	7.8	21.1	3.3	30.0	
Marys Lake	Min gwh	5.280	4.500	4.940	4.620	1.680	0.900	2.920	3.560	1.260	3.720	0.000	0.000	
Marys Lake	Max gwh	5.280	4.500	4.940	4.620	1.680	0.900	2.920	3.560	1.260	3.720	0.000	0.000	
Lake Estes	Min gwh	11.940	10.060	10.450	9.660	4.350	2.300	7.640	8.820	3.300	9.340	1.420	13.200	
Lake Estes	Max gwh	11.940	10.060	10.450	9.660	4.350	2.300	7.640	8.820	3.300	9.340	1.420	13.200	

Olympus Tunnel	Min kaf	29.8	25.0	27.7	26.8	20.6	32.7	33.8	26.5	10.1	21.1	3.6	30.0
Olympus Tunnel	Max kaf	29.8	25.0	27.7	26.8	20.6	32.7	33.8	26.5	10.1	21.1	3.6	30.0
Pole Hill	Min gwh	22.260	18.700	20.690	20.040	15.420	24.460	25.260	19.800	6.950	15.780	0.000	5.750
Pole Hill	Max gwh	22.260	18.700	20.690	20.040	15.420	24.460	25.260	19.800	6.950	15.780	0.000	5.750
Flatiron 1&2	Min gwh	12.050	10.880	12.050	11.690	12.050	11.690	12.050	12.050	8.210	12.050	0.000	5.580
Flatiron 1&2	Max gwh	12.050	10.880	12.050	11.690	12.050	11.690	12.050	12.050	8.210	12.050	0.000	5.580
Load following	Min gwh	51.530	44.140	48.130	46.010	33.500	39.350	47.870	44.230	19.720	40.890	1.420	24.530
Load following	Max gwh	51.530	44.140	48.130	46.010	33.500	39.350	47.870	44.230	19.720	40.890	1.420	24.530
Total project	Min gwh	53.541	45.932	50.082	48.533	40.412	61.150	70.410	58.547	30.515	50.358	4.199	26.776
Total project	Max gwh	53.541	45.932	50.082	48.533	40.412	61.150	70.410	58.547	30.515	50.358	4.199	26.776

GENERATION CAPACITY AND DURATION

Project Generation		2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base Generation:															
Green Mtn	mw		2.7	2.7	2.6	2.6	4.0	25.0	25.0	14.5	12.9	10.1	3.9	3.0	
Flatiron 3	mw														
Big Thompson	mw					0.9	5.3	5.3	5.3	4.7	2.1	2.6			
Total base load	mw		2.7	2.7	2.6	3.5	9.3	30.3	30.3	19.2	15.0	12.7	3.9	3.0	
Load Following Generation:															
Marys Lake															
Min Capacity	mw		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Duration	hr/d		1.7	5.0	3.0	4.2	11.7	13.0	10.9	8.8	10.8	7.9	16.7	1.6	
Max Capacity	mw		8.1	8.1	8.1	8.1	4.9	2.7	7.9	8.1	3.3	8.1	2.7	8.1	
Duration	hr/d		21.5	18.0	20.0	18.8	11.3	11.0	12.1	14.2	12.4	15.1	7.3	21.6	
Lake Estes															
Min Capacity	mw		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Duration	hr/d		12.0	12.0	12.0	12.0	12.0	13.0	12.0	12.0	12.0	12.0	16.7	12.0	
Max Capacity	mw		37.7	30.9	34.4	32.5	12.6	7.0	20.3	24.1	9.7	26.7	7.0	38.1	
Duration	hr/d		12.0	12.0	12.0	12.0	12.0	11.0	12.0	12.0	12.0	12.0	7.3	12.0	
Pole Hill															
Min Capacity	mw		0.0	0.0	0.0	0.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0
Duration	hr/d		2.3	5.7	3.7	4.3	8.9	12.0	12.0	4.6	12.0	8.5	16.4	2.2	
Max Capacity	mw		34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	20.2	34.0	11.0	34.0	
Duration	hr/d		21.9	18.3	20.3	19.7	15.1	12.0	12.0	19.5	12.0	15.5	7.6	22.0	
Flatiron 1&2															
Min Capacity	mw		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Duration	hr/d		11.7	12.0	12.0	12.0	12.0	9.5	8.7	12.0	12.0	12.0	16.6	11.7	
Max Capacity	mw		76.8	61.7	68.8	66.1	49.5	85.2	86.0	64.9	23.8	50.7	13.0	77.2	



Duration	hr/d	11.8	12.0	12.0	12.0	12.0	10.0	10.0	12.0	12.0	12.0	7.4	11.8
Total Load Following													
Min Capacity	mw	0.0	0.0	0.0	0.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0
Max Capacity	mw	156.6	134.7	145.3	140.7	101.0	128.9	148.2	131.1	57.0	119.5	33.7	157.4
Total Project Capacity													
Min Capacity	mw	2.7	2.7	2.6	3.5	9.3	64.3	64.3	19.2	15.0	12.7	3.9	3.0
Max Capacity	mw	159.3	137.4	147.9	144.2	110.3	159.2	178.5	150.3	72.0	132.2	37.6	160.4