DESCRIPTION OF THE COLORADO-BIG THOMPSON PROJECT

The Colorado-Big Thompson Project (C-BT) is one of the largest and most complex natural resource developments undertaken by the Bureau of Reclamation. It consists of over 100 structures integrated into a trans-mountain water diversion system through which multiple benefits are provided.

The C-BT spreads over approximately 250 miles in the State of Colorado. It stores, regulates, and diverts water from the Colorado River west of the Rocky Mountains, providing supplemental water for irrigation of 720,000 acres of land east of the Rocky Mountains. It also provides water for municipal use, industrial use, hydroelectric power, and water-oriented recreation.

Major features of the C-BT include dams, dikes, reservoirs, powerplants, pumping plants, pipelines, tunnels, transmission lines, substations, and other associated structures (Table 1, Exhibits 1 and 2).

Historically, the C-BT has diverted approximately 230,000 acre-feet of water annually (310,000 acre-feet maximum) from the Colorado River headwaters on the western slope to the South Platte River Basin on the eastern slope, for distribution to project lands and communities. The Northern Colorado Water Conservancy District apportions the water used for irrigation to more than 120 ditches and 60 reservoirs. Twenty-nine communities receive municipal and industrial water from the C-BT. The Western Division of the Pick-Sloan Missouri Basin Program markets the electric power produced at the six powerplants.

The western slope collection system captures runoff from the high mountains and stores, regulates, and conveys the water to Adams Tunnel for diversion to the east slope under the Continental Divide.

To ensure irrigation and power generation under prior rights on the Colorado River, Green Mountain Reservoir was constructed on the Blue River. Spring runoff is stored in this reservoir and later released to meet the requirements of the senior water rights holders downstream along the Colorado River and to allow east slope diversion of water by the C-BT throughout the year.

Pursuant to authorities in Senate Document 80, (which authorized the C-BT), and the 1984 Green Mountain Operating Policy and the agreements in the September 1996 Stipulation and Agreement of the Orchard Mesa Check Case settlement (Case No. 91 CW247, Colorado Water Div. 5), the content of the Historic Users Pool (HUP) in Green Mountain Reservoir is evaluated during the summer to determine the availability of water surplus to historic beneficiaries needs. If it is determined that surplus water is available, it may be delivered based upon need, first to the federal Grand Valley powerplant and then to other uses based on a priority system or on specific agreements.

Irrigation systems on the Colorado River, above the Blue River confluence, were improved to enable continued use of existing rights. Releases are made from Lake Granby to maintain the Colorado River as a live fishing stream.

The C-BTs principal storage facilities on the west slope are Lake Granby, Grand Lake, and Shadow Mountain Reservoir located on the Colorado River near Granby, and Willow Creek Reservoir located on Willow Creek, a tributary to the Colorado River below Lake Granby.

Willow Creek Pumping Plant lifts the water 175 feet. It then flows by gravity via the Willow Creek Feeder Canal

down to Lake Granby.

Granby Pumping Plant lifts the water 99 feet from Lake Granby to Granby Pump Canal. The canal conveys the water 1.8 miles to Shadow Mountain Lake, which also intercepts North Fork flows of the Colorado River. Shadow Mountain Lake connects with Grand Lake to make a single body of water from which diversions flow to Adams Tunnel to begin the journey to the eastern slope.

Emerging from Adams Tunnel into the East Portal Reservoir, the water flows across Aspen Creek Valley in a siphon and then under Rams Horn Mountain through a tunnel. At this point, it enters a steel penstock and falls 205 feet to Marys Lake Powerplant. This powerplant is located on the west shore of Marys Lake, which provides afterbay and forebay capacity for re-regulating the flow. The water is conveyed between Marys Lake and Estes PowerPlant, on the shore of Lake Estes, through Prospect Mountain Conduit and Prospect Mountain Tunnel.

Lake Estes, which serves as an afterbay for the Estes Powerplant, is formed by Olympus Dam. The storage in Lake Estes and the forebay storage in Marys Lake enable the Estes Powerplant to meet daily variations in energy demand.

Water from Lake Estes and the Big Thompson River flows are conveyed by Olympus Siphon and Tunnel, and Pole Hill Tunnel and Canal, to a penstock through which the water drops 815 feet to Pole Hill PowerPlant. The flow is then routed through Pole Hill PowerPlant Afterbay, Rattlesnake Tunnel, Pinewood Lake, and Bald Mountain Pressure Tunnel, and eventually dropped 1,055 feet through two penstocks to Flatiron PowerPlant. This powerplant discharges into Flatiron Reservoir, which regulates the water for release to the foothills storage and distribution system. The afterbay storage in Flatiron Reservoir and the forebay storage in Pinewood Lake enable Flatiron PowerPlant to meet daily power loads.

Southward, the Flatiron reversible pump/turbine lifts water from Flatiron Reservoir, a maximum of 297 feet, and delivers it through Carter Lake Reservoir Pressure Conduit and Tunnel to Carter Lake Reservoir. When the flow is reversed, the unit acts as a turbine-generator and produces electrical energy.

The Saint Vrain Supply Canal delivers water from Carter Lake Reservoir to the Little Thompson River, St. Vrain Creek, and Boulder Creek Supply Canal. The latter delivers water to Boulder Creek and Boulder Reservoir. The South Platte Supply Canal, diverting from Boulder Creek, delivers water to the South Platte River.

Northward, the Charles Hansen Feeder Canal transports water from Flatiron Reservoir to the Big Thompson River and Horsetooth Reservoir. The canal crosses the Big Thompson River in a siphon above the river and highway. Water from the Big Thompson River can be diverted into the canal by Dille Diversion Dam and utilized for power generation at Big Thompson PowerPlant.

C-BT water deliveries and Big Thompson River water to be returned to the river are dropped through a chute from the feeder canal ahead of the siphon crossing, or are passed through the Big Thompson PowerPlant to convert the available head to electrical energy.

Horsetooth Reservoir is located west of Fort Collins between two hogback ridges, where Horsetooth Dam closes the gap at one end. Soldier, Dixon, and Spring Canyon Dams and Satanka Dike close the remaining gaps. An outlet at Soldier Canyon Dam supplies water to the City of Fort Collins, three rural domestic water districts, Colorado State University, and the Dixon Feeder Canal for the irrigated area cut off from its original water supply by the reservoir. The principal outlet from Horsetooth Reservoir is through Horsetooth Dam into the Charles Hansen Supply Canal. This canal delivers water to a chute discharging into the Cache la Poudre River and to a siphon crossing the river to supply the Windsor Reservoir and Canal Company. A turnout from the Supply Canal supplies the City of Greeley municipal water works. Water is delivered to the river to replace, by exchange, water diverted upstream to the North Poudre Supply Canal, which conveys it to the North Poudre Irrigation Company System.

SUMMARY OF OPERATIONS DURING WATER YEAR 2005

The winter season during water year 2005 was relatively dry and mild for both the Colorado River Basin and the Big Thompson River Basin. Temperatures in general were relatively close to average during the winter at the east and west slopes. As spring season arrived, temperatures remained cool and moisture returned, with heavy snow in the mountains and significant rain in the lower elevations. Snowpack totals during water year 2005 were never above average, but with most of the precipitation concentrated over a period of two months (middle of April to middle of June) the results were significant runoff and full reservoirs for most of the summer. Frequent rainstorms during the early summer helped to kept high inflows running longer, and the C-BT water demands lower than earlier expected. Summer temperatures were relatively mild except during May and June, but hot during July and August, as a dry spell hit the region. Precipitation suddenly ended and water demands began to increase later in the sunimer.

The persistent storms over the Blue River basin during the late spring and early summer months produced significant runoff volumes which pushed Dillon Reservoir over its spillway level and kept Green Mountain Reservoir full and releasing through the spillway gates for a number of weeks between late June and August. The highest daily average inflow was observed on June 27; a flow of 1, 950 ft^3/s. Inflows remained relatively high all through the summer. The highest reservoir level recorded in WY2005 was 7949.97 feet on June 30. Releases from Green Mountain reached a 24-hour average of almost 1,600 ft^3/s by July I. Like other reservoirs in Colorado this past summer, Green Mountain remained almost completely full until the middle of August allowing replacement of the ring seal gate penstock number 1 to be completed.

Lake Granby also experienced significant inflow during water year 2005, although the reservoir content never reached the spillway crest. The total inflow for the water year was 329,000 acre-feet, compared to 259,000 acre-feet the previous water year. That includes water pumped from Willow Creek Reservoir and Windy Gap. The highest daily computed inflow was observed on May 23, 2005, a 24-hour average of 3,678 ft^3/s. In water year 2004, the highest computed 24-hour average inflow was 2,273 ft^3/s. Granby Reservoir began the water year on a typical steady decline which continued throughout the winter and early spring. Transmountain diversions began in the middle of November and continued uninterrupted until late March. Between the middle of November 2004 and late March 2005, water from the west slope collection system was diverted at an average rate of 472 ft^3/s. By April 1, 2005, Lake Granby had reached its lowest water surface level for the year at 8218.78 feet above sea level. The transmountain diversions resumed in May with most of the water flowing towards Horsetooth Reservoir. The Granby reservoir level began a slow but steady climb in early April, reaching elevation 8265.51 feet on August 17.

By September of 2005, the total computed inflow at Willow Creek Reservoir for the water year had been estimated to be 70,288 acre-feet, from which 58,600 acre-feet were pumped up to Granby Reservoir, and 10,600 acre-feet were released into Willow Creek below the dam. The highest 24-hour average inflow was reported on May 22; 842 ft^3/s. Windy Gap pumped a total of 41,282 ft^3/s back to Granby Reservoir'during water year 2005.

Inflow into Grand Lake/Shadow Mountain Reservoir was estimated at 198,982 acre-feet for the

entire water year 2005. Most of the inflow was observed between the middle of May and the end of July; a total of 141,412 acre-feet. A significant portion of that inflow between May and June (134,000 acre-feet) was bypassed and sent to Granby Reservoir, as the transmountain diversion were reduced drastically to capture east slope priority water. 138,320 acre-feet were pump from Granby to Shadow Mountain in water year 2005, mainly between the months of November and March, and between August and September. Transmountain diversions for the year totaled 163,239 acre-feet.

With precipitation evenly distributed throughout the region during the late spring and early summer, east slope demands for native water dropped significantly during June, putting the C-BT Project in priority to capture and store native east slope water for a period of a several weeks. The C-BT was able to capture almost 25,000 acre-feet of Big Thompson River water during June, with most of the water flowing north towards Horsetooth Reservoir for terminal storage. Carter Lake Reservoir also stored a significant portion of that total volume. Adams Tunnel was virtually shutdown for a few weeks while Olympus Tunnel was running practically full, carrying the bulk of the diverted Big Thompson River water. Dille Tunnel also diverted a significant volume of priority water during June. The highest 24-hour average inflow computed for Lake Estes during water year 2005 was 801 ft^3/s on July 20th.

Horsetooth Reservoir's elevation reached 5427.83 on June 25, two feet below its maximum capacity. That was the highest water surface level of the water year. The storage content at that elevation was 152,344 acre-feet. Water deliveries began late in water year 2005 and at a fairly slow pace. As fall began to approach, the water deliveries intensified, reaching their peak during the last few days of the water season. By October 31, 2005 the water surface level at Horsetooth Reservoir had dropped to 5378.45 with a storage volume of 69,884 acre-feet. The Poudre River also experienced higher runoff in water year 2005 than in the previous 6 years. Flows were significantly high during May and June, and more moderate thereafter. The high runoff continued well into late August.

Carter Lake Reservoir reached a storage content of 100,845 acre-feet on March 21, its maximum for the water year. Pumping was suspended in March, but initiated once again in June as Big Thompson River priority water became available to the C-BT. By October 2005, some of the water stored at Carter had to be used to supply water users in the Big Thompson River and along the Charles Hansen Feeder Canal (CHFC), as maintenance work was taking place at different C-BT facilities. The reservoir elevation dropped sharply late in October, 2005 to its lowest level in years, and a storage content near 25,000 acre-feet.

The initial quota declared by the Northern Colorado Water Conservancy District (NCWCD) in November, 2004 was 60% or 186,000 acre-feet. The quota was increased in May, 2005 to 70 % or 217,000 acre-feet, to be used for the allocation of C-BT water to allotment contract holders. Water diversions through Adams Tunnel totaled 163,239 acre-feet for the water year. The water deliveries for the C-BT between November, 2004 and October, 2005 totaled 195,755.7 acre-feet. That includes water delivered from Horsetooth and Carter, Olympus Dam, the Trifurcation at the Charles Hansen Feeder Canal and from some of the water conveyance facilities.

Total C-BT generation for the water year 2005 was below average with 459.1 giga-watt-hours

(GWh), or 74% of average. This includes power generated at Green Mountain, Marys, Estes, Pole Hill, Flatiron, and the Big Thompson powerplants.

WATER YEAR 2005 OPERATIONS

Green Mountain Reservoir

Green Mountain Reservoir and Powerplant, completed in 1943, are located south of the town of Kremmling, a few miles upstream of the confluence of the Blue River and the Colorado River in North Central Colorado. The reservoir, with a total capacity of 153,639 acre-feet, provides storage water releases for power production, replacement of out-of-priority depletions, and contract water deliveries.

The powerplant has two units with a total installed capacity of 26 megawatts. The spillway, located on the left abutment, is controlled by three 25 x 22 foot radial gates and is capable of discharging 25,000 ft3/s.

Green Mountain Reservoir began the water year 2005 with a storage content of 95,374 acre-feet or 77% of average. Meanwhile Dillon Reservoir, operated by the City of Denver upstream of Green Mountain, began the water year with 218,500 acre-feet in storage or 92% of average. Green Mountain reached its lowest level on April 7 with a storage content of 69,642 acre-feet. The water year 2005 began with 94% of average precipitation for the watershed, recorded between the months of October and January. The precipitation average did not improve during the year. By May 1 the precipitation was just 92% of average, finishing the year at 93% of average.

The inflow at Green Mountain Reservoir stayed close to 100% of average almost the entire water year, dropping slightly only in the fall and ending the water year at 84% of average. The highest daily average inflow recorded during the summer was 2,354 ft^3/s, computed on June 25. The total undepleted inflow for water year 2005 at Green Mountain Reservoir was 334,200 acre-feet, significantly higher than the previous year, although lower than the 30-year average of 395,600 acre-feet. Blue River, Dillon Reservoir, and Green Mountain Reservoir operations for water year 2005 are summarized in Table 2. Gross generation at the Green Mountain Powerplant totaled 22,000,000 kilowatt-hours for water year 2005, 37% of the 30-year average.

Start-of-fill for 2005 was declared on April 17, with the reservoir holding 71,150 acre-feet in storage, somewhat above its historic 65,000 acre-foot start of fill target. Pursuant to the State Engineers Office's interim policy, "Administration of Green Mountain Reservoir for 2005" of April 28, 2005, Green Mountain Reservoir achieved a "paper fill" on June 5, 2005. On that date, Denver Water and Colorado Springs Utilities (Cities) owed Green Mountain Reservoir 40,682 acre-feet of water for their out-of-priority diversions. A provision of the interim policy allowed Green Mountain Reservoir to continuing storing its inflow under a 1955 water right after "paper filling" to reduce the amount of water owed by the Cities. Under this provision, Green Mountain Reservoir was able to store sufficient water by June 27 to entirely eliminate the amount owed by the Cities.

By taking advantage of its senior refill right, Green Mountain Reservoir was able to continue storing some of its inflow after June 27, attaining a maximum physical content for the year of 153,576 acre-feet on June 30. With the reservoir achieving a "paper fill" this year, the 52,000

acre-foot C-BT Project replacement pool, the 5,000 acre-foot Silt Project reservation, the 66,000 acre-foot HUP allocation, and the 20,000 acre-foot set aside for contracts were all fully available this year.

The maximum drawdown rate limitations initially put in place in 2003 due to landslide concerns were continued in 2005. These drawdown rate limitations were to be initiated when the reservoir's water surface elevation dropped below 7880.0 feet. With the reservoir achieving both a "paper fill" and a physical fill in 2005, the water surface elevation remained above 7924.0 feet during the irrigation season, and therefore, the drawdown rate limitations were never triggered.

Pursuant to the interim policy, the HUP releases were charged to those HUP beneficiaries above Green Mountain Reservoir during the time the reservoir was "paper filling" and then during the operation of the 1955 water right. This resulted in a total debit to the HUP account of 194 acre-feet between April 17 and June 27. Releases to augment the water rights of HUP beneficiaries downstream of Green Mountain began on July 20, with a total of 3,808 acre-feet being released for that purpose between July 20 and October 31. With the Shoshone Power Plant call being on most of the summer and the above-average flows from the subbasins below Dotsero, the Cameo call never came on, thereby eliminating the need for HUP releases to support a Cameo call. As a result, the remaining HUP allocation was well-above the upper band of the drawdown curves and the Managing Entities declared that HUP surplus was available on August 16.

HUP surplus releases began on August 16 at an initial rate of 150 ft^3/s. HUP surplus releases continued through October 4 at rates between 18 ft^3/s and 484 ft^3/s, depending upon the native flow of the basin and the decisions of the Managing Entities in their attempts to support the endangered fish flow targets in the 15-Mile Reach. The HUP surplus releases were ceased between October 5 and October 18 as wetter conditions in the basin allowed the target flows to be met without augmentation. HUP surplus releases resumed on October 19 at the rate of 50 ft^3/s and continued at that rate until October 31, when they were terminated for the year. HUP surplus releases totaled 31,200 acre-feet in 2005, with 895 acre-feet being released under the agreement for the Grand Valley Power Plant and 30,305 acre-feet being attributable to the Municipal/Recreation Contract. Together, the releases for HUP beneficiaries above and below Green Mountain Reservoir and the HUP surplus releases totaled 35,008 acre-feet in 2005. This resulted in an HUP balance of 30,992 acre-feet on October 31.

Willow Creek Reservoir

Completed in 1953, Willow Creek Reservoir has a total storage capacity of 10,600 acre-feet. The uncontrolled spillway, located at the left abutment, has a maximum flow capacity of 3,200 ft^3/s. The Willow Creek Feeder Canal also begins at the left abutment and it has a capacity of 400 ft^3/s. The canal is used to transfer water to Granby Reservoir. Excess inflow into the reservoir is moved by way of the Willow Creek Feeder Canal and pumped to Lake Granby for storage.

Reservoir carryover storage coming into water year 2005 was 9,600 acre-feet, higher than the 30-year average. The winter months during water year 2005 were drier than previously anticipated, but that didn't affect the snow-water content nor the inflow significantly. The February 1, 2005

snow-water content for the Willow Creek Reservoir watershed was reported at 131% of average. The hign snow-water content resulted in an April-July most-probable runoff forecast of 59,000 acre-feet. A wet pattern moved in during the early spring and persisted throughout the rest of the spring and early summer. By April 1, the snow-water content was 10.3 inches, with a most probable forecast of 49,000 acre-feet of inflow. Inflow was higher than average the entire water year, and by the end September, 2005, a total of 70,300 acre-feet had entered the reservoir, 117% of the 30-year average. Total precipitation recorded at Willow Creek for the year was 16.33 inches, or 94% of average.

A large portion of the inflow at Willow Creek Reservoir was diverted to Granby Reservoir via the Willow Creek Canal. A total of 58,600 acre-feet were pumped and sent to Granby, most of it between May and June. Meanwhile, 10,700 acre-feet were released into Willow Creek below the dam, 6,600 acre-feet between May and June due to the limited capacity of the Willow Creek Canal. The peak daily inflow for the water year was reported on May 22, a 24-hour average of 842 ft^3/s.

Granby Reservoir

Completed in 1950, Granby Reservoir on the upper Colorado River collects and stores most of the water supply for the C-BT. The reservoir stores the flow of the Colorado River as well as water pumped from Willow Creek Reservoir. The reservoir has a total storage capacity of 539,800 acre-feet. The spillway is located on the left abutment. Flows over the spillway are controlled by two radial gates, with a total release capacity of 11,500 ft^3/s. The Granby Pumping Plant has three units with a combined installed capacity of 600 ft^3/s.

Reservoir carryover storage into water year 2005 was 275,900 acre-feet, or 63% of the 30-year average.

A total of 16.33 inches of precipitation was reported for the Granby Reservoir watershed during water year 2005. The 30-year average precipitation for the watershed is 17.35 inches. Total precipitation during the first few months of the water year was lower than average. The April 1 runoff forecast for April-July was estimated at 198,000 acre-feet. Wet weather dominated the region until the middle of the summer, resulting in a total inflow of 205,200 acre-feet for the months April-July, higher than the spring predictions. The total inflow for the entire year was 258,000 acre-feet, slightly higher than the 30-year average. The highest daily average inflow was recorded on May 23, a flow of 3,678 ft^3/s.

The low C-BT water demands from the east slope, in combination with a high native inflow, and water form Windy Gap and Willow Creek pushed the reservoir content to a maximum of 439,160 acre-feet by August 17. During the late spring and early summer, the C-BT began capturing Big Thompson River native flow. 25,000 acre-feet of Big Thompson River water was stored at Carter and Horsetooth reservoirs during that time. With east slope water requirements satisfied for the moment, Adams Tunnel was shutdown for numerous days. Nearly 100% of the water coming into Granby reservoir was being stored.

Granby Reservoir never reached its maximum capacity during water year 2005. Consequently there was no water spilled during water year 2005. Granby Reservoir ended the water year with 426, 600 acre-feet in storage. This volume was 11,400 acre-feet below the 30-year average, but 150, 700 acre-feet higher than the volume recorded on September 30, 2004.

Adams Tunnel

Total diversions through the Adams Tunnel during water year 2005 were the lowest since 1980. The total volume diverted through the tunnel was 163,200 acre-feet, 80,000 acre-feet lower than the previous year, and 72% of average. Most of the water was diverted between November and March as Horsetooth and Carter Lake Reservoirs were being filled. Water was also delivered to users along the Charles Hansen Feeder Canal, and to the Big Thompson River through the Big Thompson Powerplant and the Wasteway during the summer and fall months.

Lake Estes

Completed in 1949, Lake Estes on the Big Thompson River provides regulating capacity for power generation purposes. The reservoir has a total capacity of 3,100 acre-feet. It captures the discharge of Estes Powerplant and inflow coming from the Big Thompson River, regulates river flow below the dam, and releases of water to the Foothills Power System via Olympus Tunnel (550 ft^3/s capacity). The Estes Powerplant has three hydroelectric units with a total installed capacity of 45 megawatts. The combined flow capacity for the three units is 1,300 ft^3/s. The spillway, located on the right abutment, has five radial gates with a total discharge capacity of 21,200 ft^3/s. The center gate has been automated, and is operated remotely from the Loveland Control Center (LCC). During the winter months, C-BT water is diverted through Adams and Olympus tunnels and routed through the Foothills Power System on its journey to terminal storage at Carter and Horsetooth reservoirs. This complete operation is controlled remotely from the LCC.

The winter season of water year 2005 brought average precipitation to the Big Thompson River watershed, but by the middle of April a series of storms brought significant moisture to the area. By February 1, the snowpack was only 88% of average but higher than the previous year. By early April conditions had not improved and it was apparent that runoff was going to be low. The April-to-July most probable forecast for the Big Thompson River above Lake Estes was 60,000 acre-feet. By early May that scenario had changed and regular storms were producing significant precipitation along the Front Range. Demands for C-BT water were very low during the early summer, as water requirements for irrigation were satisfied. By early June the C-BT was capturing and storing Big Thompson River native flow at Carter and Horsetooth reservoirs. A total of 25,000 acre-feet of Big Thompson River water were stored at Horsetooth and Carter by the end of June. With the C-BT in priority for east slope water, transmountain diversions through Adams Tunnel were interrupted for numerous days. That limited the Estes Powerplant generation during June. The highest average inflow for the water year at Lake Estes was 801 ft^3/s, computed on June 20.
By July, the C-BT was out of priority to capture native Big Thompson River flow, but by then

Horsetooth Reservoir was almost full and Carter Lake Reservoir was also holding a high storage content. Water demands were being satisfied by Big Thompson River native flow. With no need for C-BT water, diversions through Adams Tunnel continued to be low, which continued to affect generation at Estes Powerplant. That pattern continued through August and into September. By September, demands for C-BT water increased and so did transmountain diversions and power generation at Estes Powerplant.

The total computed inflow for the water year was 108,500 acre-feet or 115% of the 30-year average.The total volume skimmed through the Olympus Tunnel was 35,466 acre-feet. That is over 5,000 acre-feet higher than the previous year and 103% of the 30-year average.

Foothills System

Most of the Big Thompson River natural inflow into Lake Estes in excess of the minimum outflow required by the State of Colorado below Olympus Dam was diverted as skim water through Olympus Tunnel. Skim operations began on April 19. Diversions through the Adams Tunnel were relatively low after the beginning of April. That allowed skim operations to begin early and continue throughout the summer months and into the fall months. Water diverted was used for power generation at Pole Hill, Flatiron and the Big Thompson powerplants, before being returned to the Big Thompson River below the Big Thompson Canyon Mouth. The total volume skimmed through the Olympus Tunnel during water year 2005 was 35,466 acre-feet, compared to 29,700 acre-feet the previous year.

Dille Tunnel operations diverted a total of 10,431 acre-feet of skim water between the months of May and August. The total was significantly lower that previous year for several reasons. Most of the water that was moved through Dille Tunnel during June was native water captured while the C-BT was in priority. That meant a significant reduction in the skim total. Also most of the skim water during the summer was diverted through Olympus Tunnel and passed through all the powerplants in the Foothill's System. That lowered the amount captured at Dille Tunnel. Water diverted through Dille Tunnel serves four purposes; 1) it supplies the City of Loveland and other users with their priority water from the Big Thompson River; 2) it can also be used as skim water and passed through the Big Thompson Powerplant to generate electricity; 3) in addition, it is used as exchange to supply the Town of Berthoud their priority water; 4) when the C-BT Project is declared by the State of Colorado to be in priority to catch Big Thompson River water, Dille Tunnel catches the runoff missed by Olympus Dam further upstream. Skim water is returned to the river below the Trifurcation of the Charles Hansen Feeder Canal at the Big Thompson Canyon mouth. River water for the City of Loveland, the Town of Berthoud and for other users in the canal continues to travel north from the Trifurcation.

In spite of the significant volume of native flow bypassed during the skim operations through Olympus and Dille tunnels, the stream gage at the mouth of the Big Thompson Canyon measured a total of 139,300 acre-feet of water during the water year which represents 107% of the 30-year average. The flow at the mouth of the canyon includes water releases from Olympus Dam, native flow from the North Fork of the Big Thompson River and local runoff. The bulk of the flow at the Canyon Mouth gage occurred between May and August.

Demands for C-BT water were low during the summer months of 2005. A significant part of the power generated by the powerplants in the Foothills System came from the skim operations and the Big Thompson River native water collected by the C-BT while in priority. The five powerplants in the Foothills System produced 437.1 GWh of power during the water year 2005, which represents over 77% of the 30-year average.

Carter Lake Reservoir

Completed in 1952 with three dams, Carter Lake Reservoir has a total storage capacity of 112,200 acre-feet. Inflow of C-BT water to Carter Lake Reservoir is from the Flatiron Pumping Plant with a capacity of up to 420 ft^3/s.

The Carter Lake Reservoir storage content was 59,042 acre-feet at the beginning of water year 2005, almost 4,000 acre-feet higher than the 30-year average, and almost 7,000 acre-feet higher than the previous year. Pumping from Flatiron Reservoir to Carter Lake Reservoir began in December, and continued uninterrupted until March. The pumping operation resumed in early June, as the C-BT began capturing east slope native water. The reservoir reached its highest level for the water year on March 21, climbing up to 5748.46 feet with a storage volume of 100,841 acre-feet. A total of 72,630 acre-feet of water (including C-BT Project and Big Thompson River priority water) was pumped into Carter Lake Reservoir during the water year 2005, almost 7,000 acre-feet less than the 30-year average. This operation required a total of 23,200, 000 kilowatt-hours of energy, 91% of the 30-year average. After the end of June, the pump was kept off-line for the remainder of the water year. Water deliveries to the Saint Vrain Supply Canal for water year 2005 totaled 74,700 acre-feet. The 30-year annual average water delivery total is 70, 150 acre-feet. The month of August had the highest volume delivered, with 20,800 acre-feet. Carter Lake Reservoir ended the water year at elevation 5686.15 feet, with a content of 40,598 acre-feet.

Horsetooth Reservoir

Completed in 1949, with four dams, Horsetooth Reservoir has a total constructed capacity of 156,700 acre-feet. Inflow of C-BT water comes from Flatiron Reservoir via the Charles Hansen Feeder Canal.

Horsetooth began the water year 2005 at elevation 5403.75 feet, with 108,100 acre-feet of water in storage. That was 130% of the 30-year average content for October 1. With such a high reservoir level at the beginning of water year 2005, deliveries of C-BT water for storage at Horsetooth were lower than normal. The deliveries through the Charles Hansen Feeder Canal, which feeds Horsetooth Reservoir, were lower than normal but lasted through the winter and spring months. Sufficient storage space was carefully saved during the spring in preparation for the possibility of having east slope priority water available to capture during the summer. It proved to be a good decision as 16,700 acre-feet or priority water was stored at Horsetooth during June. The reservoir reached it maximum level on June 25, a water surface elevation of 5427.83 with a storage content of 152,343 acre-feet. Water deliveries made through the Charles

Hansen Supply Canal totaled 102,600 acre-feet for the water year, 5,000 acre-feet more than the 30-year average. The highest delivery flows were observed in August, with a total of 31,700 acre-feet. The highest flow through the Charles Hansen Supply Canal was 756 ft^3/s on August 16, 2004. Horsetooth ended the water year at an elevation of 5389.62 feet, with a storage content of 85,737 acre-feet.

FLOOD BENEFITS

Precipitation over the upper Colorado River Basin was evenly distributed throughout the water year 2005. But the area never saw the high runoffs of water year 2003. The snowpack was, in general, near average. The highest runoff flows were observed during May and June, but some relatively high flows were observed as late as July.

Based on the data collected from the Colorado River Basin, and according to figures provided by the U.S. Army Corps of Engineers, C-BT reservoirs over the west slope prevented flood damages during water year 2005. According to the Corps of Engineers report, Green Mountain Reservoir prevented $3,600 dollars in damages during water year 2005, while Willow Creek and Granby/Shadow Mountain/Grand Lake prevented a combined $3,500.

Runoff across the Big Thompson River watershed was also evenly distributed over the late spring and throughout the summer months. The C-BT reservoirs in the Big Thompson watershed did not face any significant flooding conditions during water year 2005. Therefore, there were no flood protection benefits attributed to the C-BT east slope reservoir during the water year 2005. However, the diversions through the Foothills System promote recreational activities at numerous facilities and allow tourism to prosper along the Big Thompson River Canyon

Since construction, the C-BT has prevented flood damages totaling $386,000.

C-BT PLANNING AND CONTROL

The C-BT is operated to provide supplemental municipal and industrial water supply, irrigation water supplies, hydroelectric power production, flood control, recreation, fish and wildlife preservation, and other purposes. The C-BT is operated for the purposes for which it was authorized and constructed.

The integrated operation of the C-BT is planned and coordinated by the Bureau of Reclamation, Water Scheduling and Control Group, Eastern Colorado Area Office in Loveland, Colorado. Staff at this office collects and analyzes information daily and makes the decisions necessary for successful operation of the C-BT. This continuous water management function involves coordination between the Northern Colorado Water Conservancy District, Upper Colorado and Great Plains Regions of Reclamation, the Department of Energy, and many other local, state, and Federal agencies.

Experience has proven that proper utilization of the available water resource in a multi-purpose project such as this can be achieved only through careful budgeting and management of the anticipated water supply. One end product of this budgeting and management process is an Annual Operating Plan (AOP).

The C-BT is operated on a water year basis (October 1 through September 30). The AOP is prepared in January of each year, following the plan's review and necessary public meetings. AOPs are prepared for reasonable maximum and reasonable minimum conditions of water supply and requirements as well as for the most probable runoff conditions. The C-BT is operated to optimize the most probable water supply without jeopardizing operational position should either the reasonable maximum or the reasonable minimum water supply conditions occur. The plan is reviewed and revised as necessary during the year as new information or changing conditions occur. Flexibility is a keynote and a necessity of the plan. Computer programs and models are used by Reclamation to develop the AOP and water supply forecasts.

OPERATING CRITERIA FOR GREEN MOUNTAIN RESERVOIR

Paragraph 6 of the October 5, 1955, Stipulation and Decree (as amended on October 12, 1955, and filed with the United States District Court for the District of Colorado in civil action Nos. 2782, 5016, and 5017) calls for the development and submission of operating plans for Green Mountain Reservoir and are included as a part of this report. Paragraph 3.e.(1) of the Green Mountain Historic Users Pool (HUP) Operating Criteria, developed pursuant to Paragraph 5.a. of the Stipulation and Agreement of the Orchard Mesa Check Case (case No. 91 CW247, Colo. Water Div. 5) calls for the annual development of an HUP Operating Plan which is included in the following criteria.

The provisions that relate to the operation of Green Mountain Reservoir are contained in the:

October 12, 1955, Stipulation and Decree
April 16, 1964, Stipulation and Decree
November 2, 1977, Memorandum Opinion and Order
February 9, 1978, Supplemental Judgment and Decree
Consolidated Case Nos. 2782, 5016, and 5017
Senate Document No. 80, 75th Congress, 1st Session
December 22, 1983, Federal Operating Policy as amended September 11, 1987
September 4, 1996, Stipulation and Agreement of the Orchard Mesa Check Case, Colorado Water Div. 5, 91 CW247 and attached HUP Operating Criteria.

Operations will be consistent with these provisions.

The criteria are listed below.

1. Winter operation (November-March)

a. Bypass inflow to supply downstream vested rights.

b. Replace water withheld by the C-BT, as required.

c. Make required releases for west slope natural flow domestic water users depletions per Green Mountain Operating Policy and Orchard Mesa Check case Settlement.

d. Make required releases for contract water depletions.

e. Maximize power generation, while maintaining:

(1) Adequate storage to meet the anticipated requirements of Senate Document No. 80 and the agreements under the Stipulation and Agreement of the Orchard Mesa Check Case.

(2) A minimum power head, which is consistent with the integrated system power operations.

2. Operation during snowmelt period (April-July)

a. Bypass inflow, as required, to supply downstream vested rights.

b. Replace water withheld by the C-BT, as required.

c. Make required releases for west slope natural flow irrigation and domestic water users depletions.

d. Reduce releases from traditional levels before and after the peak flow enhancement for the Coordinated Reservoir Operations effort. During peak flow enhancement, release the lesser of inflows or turbine capacity (approx. 1500 ft^3/s) for approximately a ten-day period.

e. On or before June 30, each year, assess availability of surplus water in the Historic Users Pool (HUP), on a regular basis, in consultation with the Managing Entities established under the settlement of the Orchard Mesa Check Case.

f. If a surplus condition is declared in the HUP, make releases, under agreement, to the Grand Valley PowerPlant to the lesser of the amount of the surplus or the capacity of the Grand Valley PowerPlant canal system or the amount needed to generate power at the Grand Valley PowerPlant.

g. Release surplus amounts to other needs downstream.

h. Make required releases for contract water depletions.

i. Fill without spilling.

j. Maximize power operation consistent with 1.e.

k. Make releases as outlined in the above referenced documents.

3. Operation after snowmelt period (August-October)

a. Bypass inflow as required, to supply downstream vested rights.

1 By the use of these criteria for current operating purposes, the United States does not intend to imply any definition of rights and obligations. The order in which these criteria are listed does not reflect any intended priority.

b. Replace water withheld by the C-BT, as required.

c. Make required releases for west slope natural flow irrigation and domestic water users depletions.

d. Assess availability of surplus water in the Historic Users Pool (HUP), on a regular basis, in consultation with the Managing Entities established under the settlement of the Orchard Mesa Check Case.

e. if a surplus condition is declared in the HUP, make releases, under agreement, to the Grand Valley PowerPlant to the lesser of the amount of the surplus or the capacity of the Grand Valley PowerPlant canal system or the amount needed to generate power at the Grand Valley PowerPlant.

f. Make required releases for contract water depletions.

g. Release to other surplus amounts.

h. Maximize power operation consistent with 1.e.

i. Make releases as outlined in the above referenced documents. 1

1 By the use of these criteria for current operating purposes, the United States does not intend to imply any definition of rights and obligations. The order in which these criteria are listed does not reflect any intended priority.

GREEN MOUNTAIN HISTORIC USERS POOL AND THE ORCHARD MESA CHECK CASE SETTLEMENT

Background and Authority

The Orchard Mesa Check (Check) is a structure below the common afterbay of the Orchard Mesa Irrigation District (OMID) Pumping Plant and the federal Grand Valley PowerPlant in the Grand Valley of Colorado. The operation of the Check provides the ability to raise the water level in the common afterbay to a level, which causes water to flow through the bypass channel and return to the Colorado River upstream of the Grand Valley Irrigation Company (GVIC) diversion dam.

Operation of the Check was determined to constitute an 'exchange' of water whereby water destined for the senior GV1C irrigation water rights is borrowed for pumping and hydroelectric power generation purposes and returned to GVIC for irrigation use. Operation of the Check influences the supply of water available to Grand Valley irrigation systems; to the Grand Valley PowerPlant for power production; Green Mountain Reservoir releases; and the flow in the 15-Mile Reach of the Colorado River. The 15-Mile Reach is that section of the Colorado River from the GVIC diversion dam to the confluence of the Gunnison River and has been designated critical habitat by the Upper Colorado River Endangered Fish Recovery Program.

The Check has been operated on an informal basis without a decreed right since approximately 1926 to manage flows in the Colorado River for the benefit of the United States, Grand Valley Water Users Association (GVWUA), and OMID (Co-applicants). In the late 1980's, a hydropower development was proposed in a reach of the Colorado River between the Grand Valley Diversion Dam, the point where the exchange water is diverted, and the GVIC diversion dam where the exchange water is returned. The Co-applicants were concerned that a water right awarded for this development would have the ability to interfere with the exchange of water. In response to this potential threat to the continued operation of the exchange, the Co-applicants filed an application in State Water Court on December 30, 1991, for approval of an exchange of water. This case (Water Division 5, Case No. 91CW247) was informally known as the Orchard Mesa Check Case. Resolution of the case resulted in a negotiated Stipulation and Agreement entered into the District Court, Water Division No. 5, State of Colorado, on September 4, 1996.

Overview of the Stipulated Settlement

The settlement contains two major components: the Stipulation and Agreement and the Green Mountain Reservoir Historic Users Pool Operating Criteria (Operating Criteria). The Operating Criteria further defines operation of the Green Mountain Reservoir Historic Users Pool (HUP) consistent with Senate Document 80 and the 1984 Operating Policy. The parts of the Stipulation and Agreement pertinent to the operation of the HUP are summarized below:

As part of the Stipulation and Agreement the Co-applicants and GVIC agree not to exercise their irrigation rights against any upstream HUP beneficiary provided that the Check is physically operable; there is at least 66,000 acre-feet of water in storage in the Green Mountain Reservoir HUP, or approved substitute storage reservoir, when Green Mountain Reservoir storage rights cease to be

in priority; and the water rights for the Shoshone PowerPlant continue to be exercised in a manner consistent with their historical operation. (Section 3.b. of the Stipulation and Agreement)

The Stipulation and Agreement also provides that Reclamation will declare surplus water which is in excess of the needs of HUP beneficiaries for a given water year. Water declared surplus might be delivered through agreements to beneficial uses in Western Colorado. This is to be done in accordance with the provisions of the HUP Operating Criteria, which are summarized below:

Management of the HUP Under the Operating Criteria

The management of the HUP is accomplished through the process defined in Sections 3.d. and 3.e. of the Operating Criteria. This process requires the development of this Annual HUP Operating Plan on or before June 30 of each year.

The Annual HUP Operating Plan is developed by the Bureau of Reclamation, in consultation with the Grand Valley Water Users Association, the Orchard Mesa Irrigation District, the Grand Valley Irrigation Company, the Division 5 Engineer, the Colorado Water Conservation Board and, Fish and Wildlife Service. These entities are collectively known as the 'Managing Entities'. The Managing Entities agree to make a good faith effort to develop an Annual HUP Operating Plan that is unanimously supported. However, the Bureau of Reclamation reserves the right to establish a release schedule, should unanimous consent be unattainable.

The Annual HUP Operating Plan is based upon actual HUP storage conditions; projected runoff forecasts; operational and climatological conditions; projected irrigation demands; and, 15-Mile Reach flow needs. It is expressly recognized, however, that in some years, release of the entire HUP by the end of the irrigation season will not be necessary or possible.

On or before June 30 of each year, the Bureau of Reclamation assembles initial information on storage in the HUP and comparative runoff years. Based upon the information assembled, a meeting is held with the other Managing Entities. During this meeting, a review of the forecasts is analyzed, and initial determinations of the level of "checking" required to preserve water in the HUP, as well as any determination of water surplus to HUP beneficiaries needs are made.

The HUP operations are reviewed and modified by the Managing Entities as necessary to respond to changing conditions. Subsequent meetings or conference calls are held on an as needed basis to reexamine HUP storage conditions, runoff forecasts, climatological conditions, irrigation demands, 15-Mile Reach flow needs, and other operational conditions. Based upon this information, the Managing Entities adjust the checking. They also determine the water surplus for HUP beneficiary needs, as well as the release of such water. During periods of below average river flows, review meetings or conference calls may be held as frequently as every week.

This mechanism provides a way to integrate management of releases from the HUP with operation of the Check to accomplish the purposes of the Operating Criteria. The mechanism is also used to integrate releases from the HUP with releases for the endangered fish from other reservoirs including Ruedi and Wolford Mountain.

OPERATION SKIM

Big Thompson River water in excess of the minimum requirements, as recommended by the State of Colorado Division of Wildlife and the United States Fish and Wildlife Service, is diverted at Lake Estes into the Foothills System to be used for power generation. This operation is known as operation "skim." The amount diverted depends on the flow at the Big Thompson River and the tributaries above Lake Estes, C-BT water imported through the Adams Tunnel, and the capacity of the Foothills System.

The water taken from the Big Thompson River can be used for power generation immediately. It can also be held in storage and replaced to the river with water from other sections of the system, depending on the power requirements. In general, water taken from the Big Thompson River at a variable rate, on a given date, is returned to the river at a flat rate, on the following day.

Operation "skim" and storage of surplus water from the Big Thompson River in C-BT reservoirs are managed according to the AOP and as prescribed by the ECAO Water Scheduling staff.

During water year 2005, a total of 35,466, acre-feet of water was diverted through Olympus Tunnel for "skim" operations. Skim operations through Olympus Tunnel took place between April and September. Dille Tunnel diversions totaled 10,431 acre-feet for water year 2005.

TABLE 1

WESTERN DIVISION - PICK-SLOAN MISSOURI BASIN PROGRAM

PERTINENT RESERVOIR DATA

(Data in Acre-feet)

Reservoir	Dead Storage 1/	Active Storage 2/	Total Storage	Normal Minimum Storage	Limitation on normal minimum storage
Green Mountain	6,860	146,779	153,639	47,684	Minimum elevation for rated power output
Willow Creek	1,486	9,779	10,553	6,675	Elevation of pump canal head-works
Lake Granby	74,190	465,568	539,758	74,190	Lowest outlet elevation
Shadow Mountain	506	16,848	17,354	16,026	Minimum permissible Grand Lake elevation; 8,366 ft.
Grand Lake	3/	511	1,015	504	Legislation limits fluctuation
Marys Lake	42	885	927	308	Minimum elevation for power generation
Lake Estes	409	2,659	3,068	740	Minimum elevation to release 550 ft^3/s
Pinewood Lake	416	1,765	2,181	613	Minimum elevation for power generation
Flatiron	125	635	760	324	Minimum elevation to release 550 ft^3/s
Carter Lake Reservoir	3,306	108,924	112,230	306	Lowest outlet elevation
Horsetooth	7,003	149,732	156,735	17,600	Elevation on highest delivery works
Total	94,343	903,373	998,220	167,970	

1/ Storage capacity below elevation of lowest outlet
2/ Total storage minus dead storage
3/ Not determined

TABLE 2

COLORADO-BIG THOMPSON PROJECT

MONTHLY SUMMARY

WATER YEAR 2005 OF BLUE RIVER OPERATIONS (ACRE-FEET)

	INI	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
UNDEPLETED RUNOFF ABOVE GREEN MTN. RESERVOIR		16,100	10.300	7500	8.200	7,100	7700	17.900	66,100	97,000	53,200	27,500	15,600	334,200
UNDEPLETED RUNOFF ABOVE DILLON RES.		7,500	5,500	4,000	4,500	4,100	4,600	8,300	35.100	54,000	25.400	14,400	8.300	175,700
PERCENT OF TOTAL UN-DEPLETED RUNOFF ORI-GINATING ABOVE DILLON		0.466	0.534	0.533	0.549	0.577	0.597	0.464	0.531	0.557	0.477	0.524	0.532	0.526
DEPLETIONS BY 1929 COLORADO SPRINGS RIGHT		0	0	0	0	0	0	28	210	421	193	60	0	912
DEPLETIONS BY 1948 COLORADO SPRINGS RIGHT		-1318	-557	0	0	0	0	102	1946	4390	2872	1085	36	8556
INFLOW TO DILLON		8,800	6,000	4,000	4,500	4,100	4,600	8,100	32.900	49,200	22,300	13,200	(3,300	166,000
DILLON STORAGE (1000 AF)	218.5	218.2	214.4	208.9	203.9	200.6	195.4	198.7	227.9	257.9	253.5	250.9	242.3	
ROBERTS TUNNEL DIVERSIONS		4,200	5,000	4,100	3,800	3,500	5,100	800	0	0	15,700	8,500	9,200	59,900
DILLON OUTFLOW TO THE RIVE		3,800	3,900	5,400	5,700	3,800	4,700	4,000	3,100	18,400	9,700	6,200	6,400	75,100
TOTAL DEPLETIONS BY DENVER		4,900	2,100	-1,400	-1,200	200	-100	4,100	29,600	30,500	12,600	7,000	1,900	90,200
RUNOFF ORIGINATING BETWEEN DILLON AND GREEN MTN RESERVOIR		8,700	4,900	3,600	3,800	3,100	3.100	9,800	31,500	43,800	28,200	13,300	7,400	161,200
ACTUAL INFLOW TO GREEN MTN RESERVOIR		12.500	8,800	9 000	9,400	6,900	7.800	13,700	34,400	61,700	37,600	19,400	13.700	234,900
GREEN MTN RESERVOIR STORAGE (1000 AF)	95.4	89.2	82.6	78.8	74.8	73.5	71.2	77.4	107.4	153.6	152.6	141.2	111.4	
TOTAL GREEN MTN OUTFLOW		18,300	15,300	12,800	13,400	8.100	10.000	7,400	3,800	14,600	37,400	30,100	42,900	214,100

TABLE 3

PICK-SLOAN MISSOURI BASIN PROGRAM WESTERN
DIVISION WATER AND POWER SYSTEM
COLORADO-BIG THOMPSON PROJECT

2005 ACTUAL OPERATIONS

WATER IN 1000 ACRE-FEET

ENERGY IN GWH

	INITIAL OR TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
GREEN MOUNTAIN RESERVOIR													
Depleted Watershed Inflow	234.9	12.5	8.8	9.0	9.4	6.9	7.8	13.7	34.4	61.7	37.6	19.4	13.7
Turbine Release	126.7	18.3	15.3	12.8	13.4	8.1	9.9	5.6	0.1	0.0	0.0	12.9	30.3
Bypass	87.4	0.0	0.0	0.0	0.0	0.0	0.1	1.8	3.7	14.6	37.4	17.2	12.6
Spill	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 of Month Content	95.4	89.2	82.6	78.8	74.8	73.5	71.2	77.4	107.4	153.6	152.6	141.2	111.4
Kwh/AF		163.9	163.4	148.4	149.2	111.1	121.2	142.9	00.0	00.0	0.0	232.6	221.1
Generation	22.0	3.0	2.5	1.9	2.0	0.9	1.2	0.8	0.0	0.0	0.0	3.0	6.7
WILLOW CREEK RESERVOIR													
Inflow	70.3	2.6	1.5	1.3	1.1	0.9		5.9	23.7	24.6	4.5	1.9	1.2
Release to River	10.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.0	3.6	0.7	0.3	0.3
Pumped to Granby	58.6	2.5	2.2	0	0	0	2.3	6.2	19.1	21.6	2.7	0.5	2.5
End of Month Content	9.6	9.0	7.8	8.7	9.4	9.8	8.0	8.1	9.3	8.4	9.3	10.1	8.4
Pump Energy	12.2	0.5	0.5	0.0	0.0	0.0	0.5	1.0	4.0	4.5	0.6	0.1	0.5
GRANBY - SHADOW MOUNTAIN	**GRAND LAKE**												
Natural Watershed Inflow	258.0	13.4	6.5	3.9	4.0	2.7	3.2	16.9	60.6	93.6	34.1	13.8	5.3
Total Inflow into Granby	329.0	15.0	7.9	4.0	2.6	1.8	4.3	21.8	91.2	132.8	31.0	9.8	6.8
Granby Fish Release	24.7	1.2	1.2		1.2		1.2	1.2	4.1	4.2	5.4	1.8	0.9
Granby Seepage	2.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.4
Granby Spill	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
Adams Tunnel	163.2	0.8	10.8	30.4	31.3	24.1	24.1	5.0	9.0	1.1	5.4	7.7	13.5
Granby End of Month content	275.9	288.5	284.7	257.0	228.3	205.8	185.7	204.2	286.9	413.0	434.8	436.3	426.6
SM-GL End of Montn Content	17.9	17.7	17.8	17.8	17.8	17.8	17.7	17.6	17.3	17.4	17.5	17.6	17.7
Pumped from Granby	138.2	0.0	10.3	30.4	29.9	23.2	22.9		2.7	0.0	0.5	3.9	13.1
Granby Pump Kwn/AF		0.0	174.8	177.6	187.3	189.7	196.5	230.8	185.2	0.0	200.0	153.8	152.7
Granby Pump Energy	25.2	0.0	1.8	5.4	5.6	4.4	4.5	0.3	0.5	0.0	0.1	0.6	2.0

PICK-SLOAN MISSOURI BASIN PROGRAM WESTERN DIVISION
WATER AND POWER SYSTEM COLORADO-BIG THOMPSON PROJECT

2005 ACTUAL OPERATIONS

WATER IN 1000 ACRE-FEET ENERGY IN GWH

MARYS LAKE - ESTES FLATIRON	INITIAL OR TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Adams Tunnel Water	163.2	0.8	10.8	30.4	31.3	24.1	24.1	5.0	9.0		5.4	7.7	13.5
Marys Lake Generation	18.3	0.0	0.0	2.0	5.7	4.2	4.4	0.1	0.0	0.0	0.0	0.0	1.9
Estes Generation	70.8	0.3	4.0	13.4	13.8	11.1	10.6	2.1	3.8	0.4	2.2	3.2	5.9
Chvertible Big-Thompson	63.1	1.9	1.9	1.9	1.3	0.2	0.6	0.9	12.4	26.7	11.7		0.0
Diverted Big-Thompson Water	35.6	0.5	0.0	0.0		0.0	0.0	0.8	12.2	7.1	11.6	3.3	0.7
Olympus Tunnel	220.9	2.9	9.3	31.7	32.7	24.8	24.4	5.5	21.7	26.4	17.2	10.7	13.6
Pole Hill Generation	150.4		5.7	22.5	23.2	17.4	17.0	2.9	15.2	19.1	11.4	6.4	8.5
Flatiron 1 & 2 Generation	189.1	3.3	6.5	27.0	27.8	21.1	21.6	4.8	19.3	23.5	14.3	8.3	11.6
Flatiron 3 Turbine Release	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
Flatiron 3 Kwh/AF Gen.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flatiron 3 Generation	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
Flatiron 3 Pumping	72.8	0.0	0.0	8.4	22.3	18.3	12.2	0.0	0.0	11.5	0.0	0.0	0.1
Flatiron 3 Kwn/AF Pump		0.0	0.0	285.7	300.4	327.9	344.3	0.0	0.0	339.1	0.0	0.0	0.0
Flatiron 3 Pump Energy	23.2	0.0	0.0	2.4	6.7	6.0	4.2	0.0	0.0	3.9	0.0	0.0	0.0
CARTER LAKE													
Pumped from Flatiron	72.8	0.0	0.0	8.4	22.3	18.3	12.2	0.0	0.0	11.5	0.0	0.0	0.1
Release to Flatiron	4.8	4.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation Delivery	74.7	5.4	1.4	1.5	1.4	1.2	1.1	3.1	5.0	5.3	14.2	20.8	14.3
Evaporation & Seepage	2.0	0.2	0.0	0.0	0.0	0 0	0.1	0.3	0.3	0.3	0.3	0.3	0.2
End of Month Content	59.3	48.5	46.1	52.4	72.8	89.7	100.3	97.0	91.0	96.6	80.7	58.0	40.6
BIG THOMPSON POWERPLANT													
Diverted Dille Tunnel Water	25.9	0.8	0.0	0.0	0.0	0.0	0.0	0.6	4.5	9.5	6.2	3.9	0.4
Irrigation Delivery	34.4	7.8	0.0	0.0	0.3	0.3	0.3	0.9	2.2	1.7	3.5	5.0	12.4
Turbine Release	58.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	13.4	5.7	17.8	8.3	8.2
Generation	8.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8	2.7	1.1	1.2
HORSETOOTH RESERVOIR													
Hansen Feeder Canal Inflow	94.5	0.9	8.7	22.7	8.6	4.9	10.8	4.4	9.4	16.7	2.7	3.2	1.5
Irrigation Delivery	102.6	26.6	0.9	1.0	1.0	0.9	1.0	1.7	2.9	2.7	18.4	31.7	13.8
Evaporation	4.1	0.2	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.7	1.0	0.5	0.5
End of Month Content	108.1	79.6	87.1	108.8	116.4	20.1	129.8	131.7	137.9	151.8	1322	100.4	85.7
TOTAL CBT DELIVERY	211.6	39.8	2.4	2.5	2 7	2.4	2.4	5.7	10.1	9.6	36.1	57.5	40.4

PICK-SLOAN MISSOURI BASIN PROGRAM
WESTERN DIVISION WATER AND POWER SYSTEM
COLORADO-BIG THOMPSON PROJECT

2005 ACTUAL OPERATIONS

WATER IN 1000 ACRE-FEET — ENERGY IN GWH

	INITIAL OR TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BASE GENERATION													
Green Mountain	22.0	3.0	2.5	1.9	2.0	0.9	1.2	0.8	0.0	0.0	0.0	3.0	6.7
Flatiron 3	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
Big Thompson	8.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8	2.7	1.1	1.2
TOTAL	30.5	3.7	2.5	1.9	2.0	0.9	1.2	0.8	2.0	0.8	2.7	4.1	7.9
LOAD FOLLOWING GENERATION													
Marys Lake	18.3	0.0	0.0	2.0	5.7	4.2	4.4	0.1	0.0	0.0	0.0	0.0	1.9
Estes	70.8	0.3	4.0	13.4	13.8	11.1	10.6	2.1	3.8	0.4	2.2	3.2	5.9
Pole Hill	150.4	1.1	5.7	22.5	23.2	17.4	17.0	2.9	15.2	19.1	11.4	6.4	8.5
Flatiron 1 8 2	189.1	3.3	6.5	27.0	27.8	21.1	21.6	4.8	19.3	23.5	14.3	8.3	11.6
TOTAL	428.6	4.7	16.2	64.9	70.5	53.8	53.6	9.9	38.3	43.0	27.9	17.9	27.9
PUMP ENERGY													
Willow Creek	12.2	0.5	0.5	0.0	0.0	0.0	0.5	1.0	4.0	4.5	0.6	0 1	0.5
Granby	25.2	0.0	1.8	5.4	5.6	4.4	4.5	0.3	0.5	0.0	0.1	0.6	2.0
Flatiron 3	23.2	0.0	0.0	2.4	6.7	6.0	4.2	0.0	0.0	3.9	0.0	0.0	0.0
TOTAL	60.6	0.5	2.3	7.8	12.3	10.4	9.2	1.3	4.5	8.4	0.7	0.7	2.5
TOTAL GENERATION	459.1	8.4	18.7	66.8	72.5	54.7	54.8	10.7	40.3	43.8	30.6	22.0	35.8
TOTAL GENERATION MINUS PUMP	398.5	7.9	16.4	59.0	60.2	44.3	45.6	9.4	35.8	35.4	29.9	21.3	33.3

TABLE 4

COLORADO-BIG THOMPSON PROJECT

FLOOD DAMAGE PREVENTED IN WATER YEAR 2005

	Cumulative Total Prior to WY2004	WY2005	Cumulative Total Current
Granby	$284,700	$3,500.00	$288,200
Green Mountain	$94,200	$3,600.00	$97,800
Total	$378,900	$7,100.00	$386,000

WESTERN DIVISION POWER SYSTEM WATER YEAR 2005 -- GENERATION AND PUMP ENERGY

The Western Division Power System (System) boundaries are illustrated in Exhibit 1. Hydropower generation was below average across the east slope system of the Colorado-Big Thompson Project (C-BT) during water year 2005. Green Mountain Powerplant generation was less than half of the 30-year average do to the ring seal gate work during the summer and other maintenance work on the units. Green Mountain Powerplant produced 22.0 gigawatt-hours (GWh) during water year 2005, 37% of its average yearly production, and 10% lower than the previous year.

During water year 2005, the Western Division System's total gross generation for load was 1,985.8 GWh, 72% of the 30-year average of 2768.8 GWh. The C-BT system had sufficient water early in the water year to keep its powerplants running consistently, but as the C-BT began capturing Big Thompson River water in June, power generation at Marys, Estes and the Big Thompson powerplants became more limited. The total of 458.6 GWh during WY2005 represented over 74% of the 30-year average for the six C-BT powerplants. Pumping energy used during water year 2005 totaled 454.1 GWh, 187% of the 30-year average. That includes the Willow Creek Canal Pump, the Farr Plant pumps at Granby, and the Flatiron Powerplant pump. After subtracting pumping energy from the gross Western Division System generation for load, the net generation for load during the water year 2005 was 1531.7 GWh, 61% of the 30-year average of 2525.6 GWh. The total generation for load is the gross generation less the total C-BT pumping; gross generation includes one-half of the Yellowtail generation. The total Western Division System load includes firm energy deliveries, C-BT use energy, support energy, plant station service, and an estimate of transmission system losses. Table 1 includes the totals for every powerplant in the system. Table 3 shows monthly generation and pumping energy, by plant, as well as monthly System loads for water year 2005. The total energy that was required to operate the pumps in the System (Table 2) during water year 2005 was 454.1, compared to 517.89 GWh the previous year.

The Western Area Power Administration's Loveland Area Office sold 2,884,173 MegaWatt-Hours (MWh) of power during water year 2005, with the price of $83,091,760. Energy deficits were covered by a combination of scheduled interchange energy, use of the Mount Elbert pumped storage plant, and power purchases. The Western Area Power Administration's Loveland Area Office power purchases totaled $52,530,000 for water year 2005, a total of 1,049,534 MWh.

WESTERN DIVISION SYSTEM
GROSS GENERATION - WATER YEAR 2005
(Energy in GWh)

Powerplant		Accumulated Gross Generation 1/	
	WY 2005	Yearly Avg.2/	Percent of Avg.
Green Mountain	22.0	59.0	37
Marys Lake	18.3	38.5	48
Estes	70.8	101.5	70
Pole Hill	150.4	178.5	84
Flatiron 1 & 2	189.1	232.5	81
Big Thompson	8.5	12.2	70
Seminoe	108.9	148.0	74
Kortes	125.9	155.0	81
Fremont Canyon	176.7	261.8	67
Alcova	90.3	130.1	69
Glendo	56.9	89.5	64
Guernsey	12.3	22.4	55
Boysen	56.6	80.7	70
Heart Mountain	7.0	13.1 3/	53
Buffalo Bill	56.6	82.6 3/	69
Shoshone	21.8	21.7 3/	100
Spirit Mountain	14.4	13.7 4/	105
Mt. Elbert	285.7	169.0 5/	169
Yellowtail4/	513.6	959.0 6/	54
Total	1985.8	2768.8	72

1/ October-September

2/ 30-year average

3/ 1993-2000 average

4/ 1995-2000 average

5/ 1990-1999 average

6/ 1971-1990 average; one-half of the Yellowtail energy is marketed through the Western Division System. The other half is marketed through the Eastern Division System.

WESTERN DIVISION SYSTEM
PUMP ENERGY-WATER YEAR 2005

Pumping Plant	October-September Pump Energy		
	WY2005 (GWh)	Avg. 1/ (GWh)	Percent of Avg.
Willow Greek	12.2	5.7	214
Granby (Farr Plant)	25.2	29.8	85
Flatiron Unit #3	23.2	25.6	91
Mt. Elbert	393.5	182.1 2/	216

1/30-year average

1990-1999 average

WATER YEAR END FY05 ACTUAL LAP GROSS GENERATION LESS PUMPING (MI)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Mt. Elbert *	1.8	0.7	0.0	0.2	0.3	1.6	6.4	6.7	3.9	0.9	0.2	1.5	24.4
Green Mtn.	3.0	2.5	1.9	2.0	0.9	1.2	0.8	0.0	0.0	0.0	3.0	6.7	22.0
Willow Cr. pump	0.5	0.5	0.0	0.0	0.0	0.5	1.0	4.0	4.5	0.6	0.1	0.5	12.2
Farr pump	0.0	1.8	5.4	5.6	4.4	4.5	0.3	0.5	0.0	0.1	0.6	2.0	25.2
Marys Lake	0.0	0.0	2.0	5.7	4.2	4.4	0.1	0.0	0.0	0.0	0.0	1.9	18.3
Estes	0.3	4.0	13.4	13.8	11.1	10.6	2.1	3.8	0.4	2.2	3.2	5.9	70.8
Pole Hill	1.1	5.7	22.5	23.2	17.4	17.0	2.9	15.2	19.1	11.4	6.4	8.5	150.4
Flatiron 1&2	3.3	6.5	27.0	27.8	21.1	21.6	4.8	19.3	23.5	14.3	8.3	11.6	189.1
Flatiron 3	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
Flatiron 3 pump	0.0	0.0	2.4	6.7	6.0	4.2	0.0	0.0	3.9	0.0	0.0	0.0	23.2
Big Thompson	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8	2.7	1.1	1.2	8.5
Seminoe	3.6	3.5	3.8	3.8	3.3	3.5	3.6	11.9	23.2	26.8	15.1	6.8	108.9
Kortes	5.1	4.9	5.5	5.2	4.8	5.0	5.1	13.5	23.7	28.4	16.7	8.0	125.9
Fremont Canyon	0.7	5.0	5.8	5.5	5.2	8.1	14.6	28.4	33.5	37.5	22.6	9.8	176.7
Alcova	3.0	2.9	3.0	3.1	2.8	3.7	4.4	14.9	17.2	19.6	11.9	3.8	90.3
Glendo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	9.9	23.2	18.3	1.9	56.9
Guernsey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.1	1.3	4.3	0.5	12.3
Pilot Butte **	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	1.1	1.2	1.0	4.5
Boysen	1.3	1.6	1.8	1.7	1.2	1.4	4.4	8.6	11.4	9.8	7.3	6.1	56.6
Shoshone	1.8	1.1	1.9	1.7	1.5	1.6	1.8	2.1	2.1	2.2	2.1	1.9	21.8
Buffalo Bill	1.3	0.0	0.0	0.0	0.0	0.0	1.5	7.3	12.8	12.2	12.2	9.3	56.6
Spirit Mtn.	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.1	3.3	3.2	2.9	14.4
Diamond Cr. pump	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
Heart Mtn.	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.9	1.0	0.5	7.0
Yellowtail/2	9.6	12.3	16.9	12.2	13.1	13.9	13.0	12.9	51.9	51.8	27.3	22.1	256.8
Fry-Ark	1.8	0.7	0.0	0.2	0.3	1.6	6.4	6.7	3.9	0.9	0.2	1.5	24.4
CRT	7.9	16.4	59.0	60.2	44.3	45.6	9.4	35.8	35.4	29.9	21.3	33.3	398.5
North Platte	12.4	16.3	18.1	17.6	16.1	20.3	27.7	74.4	111.6	136.8	88.9	30.8	571.0
Bighorn	15.9	15.0	20.6	15.6	15.8	16.9	20.7	31.8	84.2	83.3	54.3	43.8	417.7
TOTAL GEN	38.0	48.4	97.7	93.6	76.5	84.4	64.2	148.7	235.1	250.9	164.7	109.4	1411.6
TOTAL LOAD	162.5	162.3	177.2	172.6	137.1	149.2	176.3	184.8	211.2	262.2	211.2	156.8	2163.4
SURPLUS/DEFICIT	-124.5	-113.9	-79.5	-79.0	-60.6	-64.8	-112.1	-36.1	23.9	-11.3	-46.5	-47.4	-751.8

TABLE 6

WESTERN DIVISION - PICK-SLOAN MISSOURI BASIN PROGRAM

POWERPLANT DATA

Facility	No. Units	Capacity Each Unit	Total Installed Capacity	Normal Operating Head (ft)	Output at Rated Head (ft^3/s)
Green Mountain	2	13,000	26,000	192-262	1,660
Marys Lake	1	8,100	8,100	202-217	550
Estes	3	16,500	49,500	551-571	1,300
Pole Hill	1	33,250	33,250	830-838	550
Flatiron	2	43,000	86,000	1,096 - 1,118	1,070
(Flatiron 1/)	1	8,500	8,500	158-287	440
Big Thompson	1	5,300	5,300	183- 184	350
Seminoe	3	15,000	45,000	97-227	2,850
Kortes	3	12,000	36,000	192-204	2,700
Fremont Canyon	2	33,000	66,000	247-363	2,200
Alcova	2	18,000	36,000	153-165	2,200
Glendo	2	19,000	38,000	73-156	2,800
Guernsey	2	2,400	4,800	89-91	820
Pilot Butte2/	2	800	1,600	--	--
Boysen	2	7,500	15,000	72-112	2,415
Shoshone3/	1	3,000	3,000	--	---
Buffalo Bil 13/	3	6,000	18,000	--	---
Heart Mountain	1	5,000	5,000	265-275	355
Mt. Elbert	2	103,000	206,000	447-477	6,400
Yellowtail	4	72,000	288,000	327-440	8,500
TOTAL	34		979,050		

WESTERN DIVISION - PICK-SLOAN MISSOURI BASIN PROGRAM

PUMPING PLANT DATA

Pumping Units					Plant Rating
Facilities	No	Capacity (ft3/s)	Normal Operating Head (ft)	Installed (Hp)	Kwh to Pump 1-Acre-ft at Maximum Head
Granby	3	600	92-186	18,000	227
Willow Creek	2	400	167-169	18,000	227
Flatiron	11/	440	173-287	13,000	391
Mt. Elbert	2	5,690	447-477	340,000	620

Exhibit 2

LAP GROSS GENERATION LESS PUMPING
WATER YEAR 2005