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 transmountain 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. 91CW247, 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 2006

The winter season during water year 2006 was extremely wet in some parts of the Upper Colorado River Basin, especially over the Blue River, the Eagle River and the Fryingpan River watersheds. Significant snow fell over that part of the state between November and January. By the end of January it seemed as if the region was heading for a record snowpack season. But a mild and extremely dry spring and summer turned a potential record runoff season into an average one. The east slope meanwhile saw very little precipitation during winter, and even less during the spring. Area temperatures in general were relatively close to the winter averages for both the east and west slopes. Temperatures began to rise early in the spring triggering an early start to the runoff season. Snowpack totals during water year 2006 were average to above-average, with most of the precipitation concentrated over a period of four months (November to February). Precipitation after February was scarce. Summer temperatures were relatively mild during May and June, but hot during July and August, as a dry spell over the region continued. With little precipitation and below average runoff over the east slope, water demands began early in the year and continued to be on the high side during the summer. Diversions from the west slope continued through the summer to meet the high demands for C-BT water.

The snowpack over the Blue River basin during the winter months produced significant runoff volumes which pushed Dillon Reservoir, located upstream of Green Mountain Reservoir, up to its maximum capacity. The releases from Dillon Reservoir helped to keep Green Mountain Reservoir near capacity for most of the summer. Releases through the spillway gates at Green Mountain continued for a number of weeks between late June and September, allowing outlet works gate rehabilitation and other issues to be addressed. It also allowed Green Mountain to be a participant in Coordinated Reservoir Operations of 2006 for the first time in several years. Its highest daily average inflow was observed on June 9; a flow of 2,124 ft³/s. Depleted inflows remained relatively high all through the summer. The highest reservoir content recorded in water year 2006 was 153,576 acre-feet on June 30. Green Mountain's highest release while participating in the Coordinated Reservoir Operations of 2006 was 24-hour average of 991 ft³/s. That occurred on May 21. Its highest daily release flow for the year was observed on July 12, a discharge of 1,030 ft³/s. Green Mountain stayed almost completely full from late June until early August.

Lake Granby also experienced significant inflow during the runoff season of 2006, although the reservoir content never reached the spillway crest. Diversions through Adams Tunnel continued through the spring and summer with only short interruptions, preventing the water surface at Granby from reaching that maximum elevation. By the end of September Granby had only reached a total of 231,547 acre-feet, compared to 329,000 acre-feet the previous water year. The highest daily computed inflow was observed on May 23, 2006, a 24-hour average of 2,985 ft³/s.

Granby Reservoir began the water year on a typical and steady water surface level decline which continued throughout the winter and early spring. Transmountain diversions began in early December and continued until the end of September, with only a few interruptions. Between the middle of December 2005 and late April 2006, water from the west slope collection system was diverted at an average rate of 512 ft³/s. By April 17, 2006, Lake Granby had reached its lowest water surface level for the year at 8244.544 feet above sea level. The transmountain diversions

continued through the summer and into the fall months. As the runoff season began by the middle of April the Granby Reservoir level also began a slow but steady climb, reaching elevation 8265.51 feet on June 24, its highest for the year.

The total computed inflow for Willow Creek Reservoir for the water year 2006 was 40,863 acrefeet, from which 33,527 acre-feet were pumped to Granby Reservoir. A total volume of 5,477 acre-feet were released into Willow Creek below the dam during the water year. From that only 644 acre-feet of that total volume were surcharged during the runoff season, while most of the rest was released to meet minimum flow requirements along Willow Creek. The highest 24-hour average inflow for the year was 455 ft³/s, recorded on May 23. Meanwhile, Windy Gap pumped a total of 24,994 acre-feet back to Granby Reservoir during water year 2006.

Inflow to Grand Lake/Shadow Mountain Reservoir was estimated at 132,000 acre-feet for the entire water year 2006. By comparison, inflow for the previous year was estimated at 200,000 acre-feet. Most of the inflow during water year 2006 was observed between the middle of May and the end of June. A total inflow volume of 94,268 acre-feet was computed. A significant portion of that inflow occurred between the months of May and June (62,600 acre-feet). Most of the 62,000 acre-feet of inflow in May and June was bypassed and sent to Granby Reservoir, as transmountain diversion reached a low point for the year during skim operations at Olympus Dam. During water year 2006, 231,000 acre-feet were pumped from Granby to Shadow Mountain, mainly between the months of December and April, when inflows are low and depletions are high. Pumping from Granby also took place between July and August. Transmountain diversions for the year totaled 273,000 acre-feet.

Runoff over the east slope began early this year. The highest 24-hour average inflow computed for Lake Estes during water year 2006 was 617 ft³/s on May 23, considerably earlier than normal. Demands for east slope decree water and for C-BT water also began early in the water season and did not subside until September. Water deliveries from Carter Lake began as early as April. Horsetooth deliveries also began early in the season and continued until September. Adams Tunnel continued water diversions almost uninterrupted from December of 2005 through September of 2006. The C-BT never reached priority to capture east slope C-BT decree water during water year 2006. Tunnel No. 1 and the Big Thompson Diversion Structure (Dille Tunnel) were used a large portion of the summer mainly for skim operations and to divert Big Thompson River decree water for the cities of Loveland and Berthoud.

The Big Thompson and Poudre rivers experienced low runoff seasons during water year 2006, compared to the previous two years. As expected, flows were slightly high during May but moderate to low thereafter. With the high temperatures and dry conditions of the spring and summer, water demands were very high during most of the water season. Horsetooth Reservoir's elevation reached 5414.11 on May 11, just before high demands for C-BT water increased sharply. The storage content at that elevation was 126,161 acre-feet. Normally Horsetooth reaches its highest level later in the season. Releases from Horsetooth Reservoir were high throughout the summer keeping the water surface level lower than previously anticipated. The reservoir level dropped sharply during the summer months, especially in July and August. By September the water deliveries had subsided, and the reservoir water surface level had finally stabilized. By August 31' the water surface level at Horsetooth Reservoir had dropped to

5383.05 with a storage volume of 76,217 acre-feet.

Carter Lake began the water year with a water surface significantly lower than the average. Before pumping began in December, the reservoir level had dropped to 5662.06 feet, with only 23,214 acrefeet in storage. Pumping to Carter began on December 13, 2005 and continued through May 19, with only one interruption between early February and early March to accommodate equipment installation. Carter Lake Reservoir reached its highest level for the year on May 19. The reservoir elevation that day was 5739.94 feet, with a storage content of 91,174 acre-feet. The dry and warm weather over the region fueled high demands for C-BT water during the entire summer. Pumping to Carter resumed once again in the middle of June arid continued until late July in order to satisfy water demands. Water deliveries continued into the early fall and by October 31, 2006 the Carter Reservoir level had dropped to 5670.00 feet with 28,520 acre-feet in storage. Flatiron Powerplant Unit No. 3 did not generate any power during water year 2006. Approximately 2,400 acre-feet of water was used to supplement the storage at Flatiron and Pinewood reservoirs during the outage weeks of November through December, 2005. Supplemental water was delivered through the Unit No. 3 bypass tube valve at a slow rate of 75 ft³/s.

The initial quota declared by the Northern Colorado Water Conservancy District (NCWCD) in November, 2005 was 70% or 217,000 acre-feet. The quota was increased in April, 2006 to 80% or 248,000 acre-feet, to be used for the allocation of C-BT water to allotment contract holders. Actual water diversions through Adams Tunnel totaled approximately 273,000 acre-feet for the water year. The water deliveries through the C-BT between October, 2005 and September, 2006 totaled 263,442 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. This total also includes Big Thompson River decree water diverted through the C-BT system for the cities of Loveland and Berthoud, as well as Windy Gap project water.

Total C-BT generation for the water year 2006 was above average with 655.6 giga-watt-hours produced (GWh), which is 105% of average. This includes power generated at Green Mountain, Marys, Estes, Pole Hill, Flatiron, and the Big Thompson powerplants.

WATER YEAR 2006 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 $25,000 \text{ ft}^3/\text{s}$.

Green Mountain Reservoir began the water year 2006 with a storage content of 111,400 acre-feet which is 90% of average. Meanwhile Dillon Reservoir, operated by the City of Denver upstream of Green Mountain began the water year with 242,300 acre-feet in storage or 102% of average. Due to uninterrupted winter power releases, sometimes reaching flows as high as 350 ft³/s, the Green Mountain reservoir level began its yearly steady drop in October, 2005. The reservoir level continued the downward trend until a few days before the start-of-fill in April. Green Mountain reached its lowest level for the water year on April 12, 2006 with a storage content of 63,383 acre-feet.

Winter precipitation between October and January was reported as 185% of average for the Green Mountain Reservoir watershed. The substantial precipitation kept the inflow above average through the winter and spring. The inflow remained above the 100% of average for most of the water year with the exception of the summer months. By September the total inflow for the water year had reached 109% of average. Given the wet winter season over the watershed and the high inflows Green Mountain Reservoir was able to participate in the Coordinated Reservoir Operations of May, 2006. Green Mountain is one of the participating reservoirs in the Coordinated Reservoir Operations (CRO) effort to benefit the Upper Colorado River Endangered Fish Recovery Program (RIP). The effort is directed at augmenting peak flow in the 15-Mile Reach of the Colorado River to benefit habitat improvement and spawning for two of the endangered Colorado River fishes. The 15-Mile Reach is the 15-mile stretch of the Colorado River above the confluence with the Gunnison River in the Grand Valley. That was Green Mountain's first participation in such operation in several years. The highest daily average inflow recorded during the summer was 2,124 ft³/s. That peak inflow rate was computed on June 9. The total undepleted inflow for water year 2006 at Green Mountain Reservoir was 409,100 acre-feet, significantly higher than the previous year total of 334,200 acre-feet, and higher than the 30-year average of 395,600 acre-feet.

Start-of-fill for 2006 was declared as April 21, with the reservoir holding 64,192 acre-feet in storage, just slightly lower than 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 2006" of May 15, 2006 (Attachment B), Green Mountain Reservoir achieved a "paper fill" on May 28, 2006. On that date, Denver Water and Colorado Springs Utilities (Cities) owed Green Mountain

Reservoir 44,392 acre-feet of water for their out-of-priority diversions. A provision of the interim policy allowed Green Mountain Reservoir to continue 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 15 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 15, attaining a maximum physical content for the year of 152,899 acre-feet on June 29, and again on July 9. With the reservoir achieving a "paper fill" this year, the 52,000 acre-foot Colorado-Big Thompson 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 limitations on the maximum rate of drawdown, initially put in place in 2003 due to landslide concerns near the town of Heeney, were continued in 2006. These limitations on the rate of drawdown 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 2006, the water surface elevation remained above 7926.0 feet during the irrigation season, and therefore, the rate of drawdown 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 148 acrefeet between April 21 and June 14. Releases to augment the water rights of HUP beneficiaries downstream of Green Mountain began on July 24, with a total of 4,225 acre-feet being released for that purpose between July 24 and October 31. Therefore, the total volume of water debited from the HUP account for HUP beneficiaries this year was 4,373 acre-feet. With the Shoshone Power Plant call being on most of the summer and near normal flows from the sub-basins 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 18 at an initial rate of 30 ft³/s. HUP surplus releases were increased to about 300 ft³/s by August 24 and remained at that level through the end of the month. Between September 1 and September 19, HUP surplus releases were varied between about 400 ft³/s and 600 ft³/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 reduced between September 20 and September 23 and terminated for the remainder of the year on September 24, as wetter conditions in the basin prevailed allowing the target flows to be met solely from Ruedi Reservoir augmentation releases. HUP surplus releases totaled 25,358 acre-feet in 2006, with 4,329 acre-feet being released under the agreement for the Grand Valley Power Plant and 21,029 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 29,731 acre-feet in water year 2006. This resulted in an HUP balance of 36,269 acre-feet on October 31, 2006.

Operations at Blue River, Dillon, and Green Mountain reservoirs during water year 2006 are summarized in Table 2. Gross generation at the Green Mountain Powerplant totaled 29,600,000 kilowatt-hours during water year 2006. That total represents 50 % of the 30-year average.

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 ft³/s. The Willow Creek Feeder Canal also begins at the left abutment and it has a capacity of 400 ft³/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 content coming into water year 2006 was 8,400 acre-feet, close to the 30-year average. The winter months during water year 2006 saw significant snow over the region. The February 1, 2005 snow-water content for the Willow Creek Reservoir watershed was 119% of average. The high snow-water content resulted in an April-July most-probable runoff forecast of 57,000 acre-feet. The wet weather pattern continued until the early spring. But by late March a dry pattern began to develop. Dry weather over the region began to reduce the snowpack. By April 1, the snow-water content was 9.5 inches, with a most probable runoff forecast of 46,000 acre-feet.

Inflow was lower than average the entire water year. By the end September, 2006, a total of 40,800 acre-feet had been captured by the reservoir, which is 73% of the 30-year average. Total precipitation recorded at Willow Creek for the year was 15.08 inches, or 87% of average.

A large portion of the inflow to Willow Creek Reservoir was diverted to Granby Reservoir. A total of 33,500 acre-feet was pumped from the reservoir and sent to Granby Reservoir using the Willow Creek Canal. Most of the pumping took place between April and June. Meanwhile, 5,400 acre-feet was released into Willow Creek below the dam, most of it as low flow requirements below the dam. With no significant releases out of the reservoir there was no peak flow. The highest reservoir release recorded for the water year was 14 ft³/s, and that occurred during the summer months.

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 acrefeet. 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 ft³/s. The Granby Pumping Plant has three units with a combined installed capacity of 600 ft³/s.

Reservoir carryover storage into water year 2006 was 426,600 acre-feet, or 97 % of the 30-year average. Water year 2006 began with above average precipitation during the winter month. A series of weather systems continued to impact the west slope between the months of November

and February. By the end of February the snow-pack reports promised a possible substantial runoff season. But as dry weather moved in during the spring, that promise never materialized. By April the snow-water content in the Granby Reservoir watershed was 13.3 inches or 110% of average. As drier and warmer weather settled over the region in the spring, that snowpack began to dissipate. The most probable runoff forecast on April 1 predicted 219,000 acre-feet of inflow for Granby between April and July. The forecast proved to be significantly higher than the actual total for that period. Granby's cumulative inflow for those months was only 177,400 acre-feet.

Total precipitation for the water year in the Granby Reservoir watershed was 15.08 inches or 87% of average. The 30-year average precipitation for the watershed is 17.35 inches. The total cumulative inflow for the entire water year was 220,300 acre-feet, lower than the 30-year average of 252,930 acre-feet. The highest daily average depleted inflow was 2,985 ft³/s recorded on May 23rd.

Summer months were relatively dry and warm, which increased demands for C-BT water over. The high demands for C-BT water from the east slope, in combination with a low native inflow kept the reservoir content lower than initially anticipated. The maximum storage content for the water year at Granby Reservoir was 439,160 acre-feet, recorded on June 24.

Granby Reservoir never reached its maximum capacity during water year 2006, consequently there was no water spilled. Granby Reservoir ended the water year with 382,000 acre-feet in storage, which represents 87% of the 30-year average. This volume was 44,600 acre-feet lower than the volume recorded on September 30 the previous year.

Adams Tunnel

Total diversions through the Adams Tunnel during water year 2006 were the highest since 1989. The total volume diverted through the tunnel was 273,100 acre-feet, 110,000 acre-feet higher than the previous year, and 120% of average. Most of the water was diverted between the middle of December, 2005 and August, 2006. Demands for water out of Horsetooth and Carter Lake reservoirs began early in the season and continued through the summer and into the fall months. The flows through Adams Tunnel were high most of the year. 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 spring, 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 ft³/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 ft³/s. The spillway, located on the right abutment, has five radial gates with a total discharge capacity of 21,200 ft³/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 2006 brought little precipitation to the Big Thompson River watershed, and by the middle of April the area was involved in a drought. The March 1st snowwater content was 8.4 inches or 102% of average, but dry weather was beginning to dominate the region. The expectation was that a dry summer was looming ahead. The April runoff most-probable forecast for the April-July period predicted 70,000 acre-feet of inflow for Lake Estes. The actual inflow for that period was 53,400 acre-feet, comparable to the reasonable minimum forecast. Monsoonal storms in July and August helped to alleviate the drought situation, but the farming community and municipalities in the region continued their high demands for C-BT water, keeping the Adams Tunnel transmountain diversions high until August. Given the low runoff during the spring and summer, the C-BT did not capture any priority water out of the Big Thompson River during water year 2006. Power generation at Estes Powerplant benefited from the continuous flows from the west slope and produced 121.4 GWh of electric power during the water year.

The highest daily average inflow for Lake Estes this past water year was 617 ft³/sec computed on May 23, which was extremely early in the season for the Big Thompson River. The total cumulative inflow for the water year was 74,200 acre-feet or 79% of the 30-year average, the lowest since water year 2002. The total volume skimmed through the Olympus Tunnel was 18,600 acre-feet or 54% of average and 17,000 acre-feet lower than the previous year.

Foothills System

Some 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, mainly between the months of May and June. Skim operations began on May 13. Diversions through the Adams Tunnel were high during most of the year except between the middle of May and the middle of June while skim operations were controlling most of the capacity of Olympus Tunnel. 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 2006 was 18,478 acre-feet, compared to 35,570 acre-feet the previous year.

Olympus Dam began bypassing skim water after the middle of June in order to transport C-BT water. Dille Tunnel was able to capture most of that extra flow in the Big Thompson River and skim it. Dille Tunnel operations diverted a total of 23,600 acre-feet of skim water between the months of May and August. The total was lower than the 30-year average of 24,100 acre-feet. Some of the water that was moved through Dille Tunnel in the spring and summer months was native runoff captured as decree water for the cities of Loveland and Berthoud. Water diverted through Dille Tunnel serves four purposes; 1) it supplies the City of Loveland and other users with their Big Thompson River decree water; 2) it is used as skim water and passed through the Big Thompson Powerplant to generate electricity; 3) it is used in an exchange to supply the Town

of Berthoud their Big Thompson River decree water; 4) when the C-BT Project is declared by the State of Colorado to be in priority to catch Big Thompson River water, it 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. Big Thompson River water for the City of Loveland, the Town of Berthoud and for other users along the canal continues to travel north from the Trifurcation.

The Big Thompson River native flow skimmed through Olympus and Dille tunnels reduces the flows measured at the mouth of the Big Thompson Canyon, as the water is returned to the river below the stream gage. The Big Thompson River stream gage measured a total of 106,200 acrefeet of water during the water year which represents 81% 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 normally occurs between May and August.

The high demands for C-BT water during the spring and summer months of 2006 are the reason for the high power generation output for the water year. Even though a significant portion of the power generated in 2006 by the powerplants in the Foothills System came from the skim operations through the C-BT's Foothill System, most of the generation came from the C-BT water diverted from the west slope. The five powerplants in the Foothills System produced a total of 626 GWh of power during the water year 2006, which represents over 111% 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 ft³/s.

The Carter Lake Reservoir storage content at the beginning of water year 2006 was 40,600 acrefeet, almost 9,000 acrefeet lower than the 30-year average, and almost 19,000 acrefeet lower than the previous year. This level dropped even further in October and November of 2005 during a Foothill's System outage. Water from Carter Lake was used during the system outage to supply users on the east slope and its storage content dropped to 23,900 acrefeet.

Pumping from Flatiron Reservoir to Carter Lake Reservoir began by the middle of December, and continued uninterrupted until early February. Pumping was interrupted for several weeks in February to allow installation of a CO₂ fire response system. Once the system installation was completed in early March pumping operations resumed. The pump was turned off once again by the middle of May to allow skim operations to begin. But given the dry conditions over the region and the high demands for C-BT water, it was necessary to suspend skim operation through Olympus Tunnel to allow C-BT diversions to resume. Pumping continued until late July.

Carter Reservoir reached its highest level for the water year on May 10. The elevation that day was measured at 5739.94 feet with a storage content of 91,176 acre-feet. A total of 118,400 acrefeet of water was pumped into Carter Lake Reservoir during the water year 2006, the second

highest in project history and almost 40,000 acre-feet higher than the 30-year average. This operation required a total of 36,100,000 kilowatt-hours of energy, 141% of the 30-year average. After July, 2006, the pump was kept off-line for the remainder of the water year. Water deliveries to the Saint Vrain Supply Canal for water year 2006 totaled 101,000 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 22,600 acre-feet. Carter Lake Reservoir ended the water year at elevation 5679.07 feet, with a storage content of 35,700 acre-feet.

Horsetooth Reservoir

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

Horsetooth began the water year 2006 at elevation 5389.62 feet, with 85,737 acre-feet of water in storage. That storage content was 103% of the 30-year average for October 1. With Horsetooth's content at a significantly higher percentage than Carter's at the beginning of water year 2006, deliveries of C-BT water during the winter and spring months were directed more heavily to Carter Lake Reservoir. The Flatiron unit #3 pump limits the flexibility to split deliveries between both reservoirs. Initially more than three quarters of the total C-BT diversion flow was sent to Carter Lake because of that limitation. Later in the spring approximately 3/5 of the flow was delivered to Carter Lake. Flows through the Charles Hansen Feeder Canal, which feed Horsetooth Reservoir, however, were continued throughout the entire year. Most daily totals were lower than average, but the cumulative total inflow to Horsetooth for the water year 2006 was significantly higher than the 30-year average.

Horsetooth Reservoir reached its highest level of 5414.21 feet on May 1. The storage content at that level was 126,342 acre-feet. High water demands prevented the reservoir from reaching a higher water surface level. Water deliveries from Horsetooth to the Poudre River through the Charles Hansen Supply Canal totaled 116,700 acre-feet during the water year 2006, which is 19,000 acre-feet more than the 30-year average and the second highest in the last 18 years. The highest monthly delivery was observed in July, which totaled of 29,431 acre-feet for the month. The highest daily average flow through the Charles Hansen Supply Canal was 736 ft³/s on July 24, 2006. Horsetooth ended the water year at an elevation of 5378.63 feet, with a storage content of 70,127 acre-feet.

FLOOD BENEFITS

Precipitation over the upper Colorado River Basin was not evenly distributed during the water year 2006. The west slope caught most of the precipitation during the winter months while the east slope was facing the beginning of a drought. The spring and summer months brought a similar dry pattern to the west slope, and what promised to possibly be a record runoff year ended up being an average year. The west slope area never saw the high runoffs that were expected just 2 months before. By May the snowpack was near average for the west slope and below average for the east slope. The highest reservoir inflows were observed during May and June. As usual, monsoonal storms moved into the area in late July and kept stream flows relatively healthy.

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 2006. According to the Corps of Engineers report, Green Mountain Reservoir prevented a total \$1,300 in possible flood damages during water year 2006, but Willow Creek and Granby/Shadow Mountain/Grand Lake did not prevent any damages.

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 River watershed did not face any significant flooding conditions during water year 2006. Therefore, there were no flood protection benefits attributed to the C-BT east slope reservoirs for the water year. However, every spring the diversions through the C-BT Foothills System help promote recreational activities and allow tourism to prosper along the Big Thompson River Canyon by diverting high flows during the runoff season and by keeping a steady, more manageable flow through the canyon.

Since construction, the C-BT has prevented flood damages totaling \$387,300.

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 Department of Water Resources of the State of Colorado, 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.

GREEN MOUNTAIN RESERVOIR OPERATIONS

Paragraph 6 of the October 5, 1955, Stipulation, in the decree for the Consolidated Cases Nos. 2782, 5016, and 5017 in the United States District Court for the District of Colorado (Blue River Decree), calls for periodic plans for the operation of Green Mountain Reservoir to be developed. The plans addressing this requirement are included as a part of this report.

Provisions guiding the operations of Green Mountain Reservoir are contained in the following documents:

Manner of Operation of Project Facilities and Auxiliary Features, Senate Document No. 80, 75th Congress, 1st Session

Consolidated Cases Nos. 2782, 5016, and 5017 October 12, 1955, Stipulation and Decree April 16, 1964, Stipulation and Decree

Operating Policy for Green Mountain Reservoir, Colorado-Big Thompson Project, published in the Federal Register, Vol. 48, No. 247, December 22, 1983,

September 4, 1996, Stipulation and Agreement in Colorado Water Div. 5, Case No. 91 CW247 (Orchard Mesa Check Case), and attached HUP Operating Criteria.

Operations will be consistent with the applicable provisions in these documents.

The general operations guided by these provisions are given below:

- 1. Winter operation (November-March)
 - a. Bypass inflow to supply downstream vested senior rights.
 - b. Make releases to replace water diverted or stored out of priority by the C-BT collection system, as required.
 - c. Make releases for west slope irrigation and domestic uses per Green Mountain Operating Policy and the HUP Operating Criteria.
 - d. Make releases for water service contracts pursuant to the Operating Policy.
 - e. Maximize power generation, while maintaining:
 - (1) Adequate storage to meet the anticipated needs under the guiding documents.
 - (2) A minimum power head consistent with the integrated system power operations.

- 2. Operation during snowmelt period (April-July)
 - a. Bypass inflow to supply downstream vested senior rights.
 - b. Make releases to replace water diverted or stored out of priority by the C-BT collection system, as required.
 - c. Make releases for west slope irrigation and domestic uses per Green Mountain Operating Policy and the HUP Operating Criteria.
 - d. Make releases for water service contracts pursuant to the Operating Policy.
 - e. Participate in the Coordinated Reservoir Operations effort to enhance peak flows for the Colorado River Endangered Fishes. Reduce releases from traditional levels before and after the peak flow period on the Colorado River in the Grand Junction area. During peak flow period, release the lesser of inflows or turbine capacity for approximately a ten-day period.
 - f. Fill without spilling to maximize power generation by utilizing the storage and power rights concurrently.
 - g. On or before June 30, each year, meet with Managing Entities established under the settlement of the Orchard Mesa Check Case to assess availability of surplus water in the Historic Users Pool (HUP).
 - -Confer with Managing Entities on a regular basis through the irrigation season to assess availability of surplus water in the Historic Users Pool (HUP).
 - If a surplus condition is declared, make releases up to the amount of surplus, under agreements, to:
 - the Grand Valley Powerplant up to its need or capacity; then to
 - the Grand Valley under the Municipal Recreation contract in excess of that needed by the powerplant
 - j. Maximize power operation consistent with 1.e.
 - k. Make releases as outlined in the above referenced documents. 1
- 3. Operation after snowmelt period (August-October)
 - a. Bypass inflow to supply downstream vested senior rights.
- 1 By the use of these provisions 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

- b. Make releases to replace water diverted or stored out of priority by the C-BT collection system, as required.
- c. Make releases for west slope irrigation and domestic uses per Green Mountain Operating Policy and the HUP Operating Criteria.
- d. Make releases for water service contracts pursuant to the Operating Policy.
- g. Confer with Managing Entities on a regular basis through the irrigation season to assess availability of surplus water in the Historic Users Pool (HUP). If a surplus condition is declared, make releases up to the amount of surplus, under agreements, to:
 - the Grand Valley Powerplant up to its need or capacity; then to
 - the Grand Valley under the Municipal Recreation contract in excess of that needed by the powerplant
- j. Maximize power operation consistent with 1.e.
- k. Make releases as outlined in the above referenced documents.2

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.

2

By the use of these provisions 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 GVIC 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. hi 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 2006, a total of 18,025 acre-feet of water was diverted through Olympus Tunnel for "skim" operations. Skim operations through Olympus Tunnel took place between May and September. Dille Tunnel diversions totaled 18,203 acre-feet for water year 2006.

Appendix A (Table 1 of 38) Green Mountain Reservoir, CO

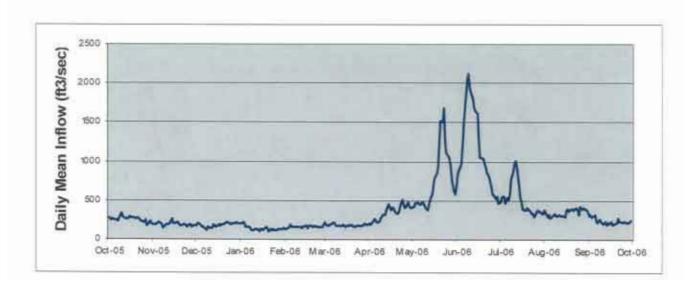
Location. - Lat 39°52'42", long 106°19'42", Summit County, Hydrologic Unit 14010002, on Green Mountain Dam, 13 miles southeast of Kremmling, Colorado, on the Blue River.

Gage. -Water level recorder with satellite telemetry. Elevation of gage is 7960 from topographic map.

Remarks.- Inflow computed daily based on change in content from midnight to midnight, and on the 24-hour average releases from Green Mountain Reservoir. Recorders were operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Inflow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	276	187	170	207	132	221	210	410	693	482	382	311
2	265	195	208	199	125	188	187	419	843	538	346	320
3	245	193	201	215	152	181	207	470	939	554	296	293
4	259	198	169	206	165	189	246	468	984	556	318	309
3	243	214	167	168	187	191	263	482	1228	474	271	327
6	252	199	167	168	165	204	229	452	1507	536	290	254
7	248	191	144	165	161	214	217	457	1854	511	319	221
8	236	153	117	152	165	189	240	478	2046	580	341	259
9	310	160	165	123	161	178	274	489	2124	772	305	240
10	333	192	141	120	159	180	297	405	1940	879	300	223
11	290	186	142	129	158	172	316	389	1846	966	324	205
12	282	188	149	137	160	176	325	383	1797	1010	306	235
13	264	204	187	131	152	178	373	460	1681	932	302	191
14	266	258	170	105	154	187	424	552	1658	695	306	213
15	268	203	164	134	182	164	447	591	1612	545	298	210
16	286	199	175	128	174	170	380	701	1282	498	382	230
17	284	211	186	123	147	176	404	783	1057	396	396	197
18	278	219	182	152	174	175	416	843	1059	375	360	205
19	279	194	190	164	169	185	372	941	1038	380	394	210
20	268	182	194	132	162	176	333	1247	986	405	395	218
21	275	176	210	108	163	176	339	1527	937	391	387	284
22	269	191	212	131	169	160	366	1506	856	371	390	235
23	252	184	219	118	157	170	436	1687	798	330	405	236
24	237	173	207	125	158	175	509	1263	741	335	379	220
25	225	164	196	116	164	181	457	1116	672	294	325	230
26	221	183	202	110	163	178	411	1071	584	348	422	229
27	245	183	209	126	167	178	422	1024	556	383	401	222
28	180	160	206	129	189	189	478	918	530	359	409	219
29	205	174	223	130		201	420	761	561	364	391	241
30	228	177	201	133		187	406	615	473	339	390	250
31	202		211	140		186		588		331	351	
Min	180	153	117	105	125	160	187	383	473	294	271	191
Max	333	258	223	215	189	221	509	1687	2124	1010	422	327
Mean	257	190	183	143	162	183	347	758	1163	514	351	241
ac-ft	15783	11268	11254	8760	8977	11237	20600	46522	69066	31539	21544	1432



Appendix A (Table 2 of 38) Elliot Creek Canal near Green Mountain Reservoir, CO

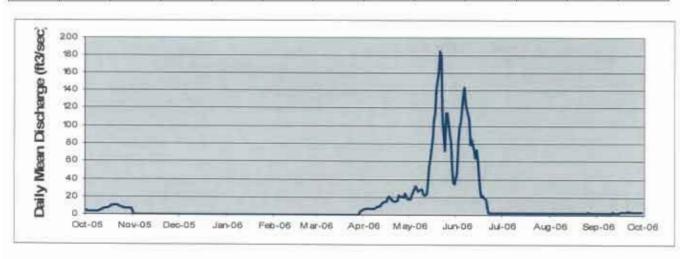
Location. -Lat 39°52'25", long 106°19'49", Summit County, Hydrologic Unit 14010002, on left bank at concrete flume structure, and 1.1 mi west of Heeney.

Gage.-Water-stage recorder with satellite telemetry. Elevation of gage is 8050 ft from topographic map.

Remarks,—This is a diversion from Elliot Creek in the Blue River Basin to Green Mountain Reservoir. Recorder was operated 01-October-2005 through 31-October-2004 and 30-March-2005 through 30-September-2006. Maximum Discharge 200 (Estimated) cfs, 22-May-2005. Records are complete and fair. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5	0	0	0	0	0	6	18	48	2	2	3
2	4	0	0	0	0	0	6	19	81	2	2	3
3	4	0	0	0	0	0	6	24	98	2	2	3
4	4	0	0	0	0	0	6	27	104	2	2	3
5	4	0	0	0	0	0	7	32	133	2	2	3
6	4	0	0	0	0	0	7	29	144	2	2	2
7	4	0	0	0	0	0	6	27	126	2	2	3
8	4	0	0	0	0	0	8	28	112	2	2	3
9	4	0	0	0	0	- 0	8	29	107	3	2	3
10	5	0	0	0	0	0	9	24	79	2	2	3
11	5	0	0	0	0	0	10	22	84	2	2	3
12	6	0	0	0	0	0	- 11	23	72	2	2	3
13	7	0	0	0	0	0	13	35	64	2	2	3
14	7	0	0	0	0	0	14	54	73	2	2	3
15	7	0	0	0	0	0	15	63	61	2	2	3
16	- 8	0	0	0	0	0	15	85	29	2	2	3
1.7	10	0	0	0	0	0	20	106	22	2	2	3
18	10	0	0	0	0	0	21	116	23	2	2	3
19	11	0	0	0	0	0	18	142	20	2	2	3
20	11	0	0	0	0	0	16	161	17	2	2	3
21	10	0	0	0	0	0	15	185	8	2	3	4
22	10	0	0	0	0	0	15	179	2	2	3	4
23	9	0	0	0	0	0	17	108	2	2	3	4
24	9	0	0	0	0	0	22	71	2	2	3	4
25	8	0	0	0	0	0	21	114	2	2	3	4
26	8	0	0	0	0	0	21	114	2	2	3	4
27	7	0	0	0	0	0	20	102	2	2	3	4
28	7	0	0	0	0	0	25	80	2	2	3	4
29	7	0	0	0		0	22	51	2	2	3	4
30	7	0	0	0		3	19	36	2	2	3	4
31	7		0	0		6		35		2	3	
Min	4	0	0	0	0	0	6	18	2	2	2	2
Max	11	0	0	0	0	6	25	185	144	3	3	4
Mean	7	0	0	0	0	0	14	69	51	2	2	3
ac-ft	417	0	0	0	0	19	830	4236	3016	137	147	187



Appendix A (Table 3 of 38) Green Mountain Reservoir, CO

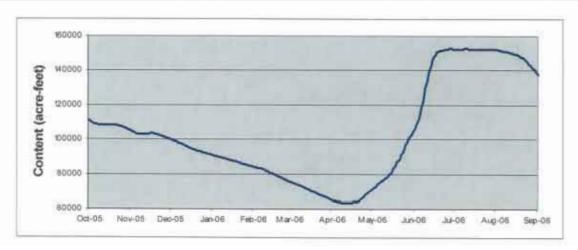
Location, -Lat 39°52'42°, long 106°19'42°, Summit County, Hydrologic Unit 14010002, on Green Mountain Dam, 13 miles southeast of Kremmling, Colorado, on the Blue River..

Gage. -Water level recorder with satellite telemetry. Elevation of gage is 7960 from topographic map.

Remarks.—Reservoir is formed by an earth-fill dam. Construction completed in 1943. Impoundment began on 16-Nov-1942. Green Mountain Reservoir provides storage for replacement water for the Colorado-Big Thompson Project. Recorder was operated from 01-Oct-2006 to 30-Sep-2007. Maximum capacity is 153,639 acre-feet at elevation 7950.00 ft, with 146,779 acre-feet of active capacity. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	110,983	105,163	99,849	90,882	83,971	75,368	65,226	70,978	104,819	152,560	152,349	138,757
2	110,540	104,786	99,615	90,636	83,736	75,049	64,904	71,580	106,344	152,582	152,285	137,687
3	109,944	104,364	99,366	90,419	83,558	74,717	64,610	72,283	108,055	152,645	152,095	136,563
4	109,419	103,959	99,055	90,259	83,408	74,400	64,395	72,981	109,858	152,730	151,947	135,267
5	108,981	103,587	98,743	90,100	83,298	74,085	64,214	73,708	112,134	152,624	151,736	134,002
6	108.746	103,182	98,432	89,941	83,148	73,796	64,022	74,375	114,968	152,645	151,545	132,607
7	108,577	102,973	98,077	89,781	82,970	73,531	63,807	75,049	118,483	152,624	151,419	131,221
8	108,409	102,989	97,678	89,593	82,819	73,217	63,639	75,764	122,386	152,730	151,335	129.92
9	108,375	103,053	97,324	89,348	82,546	72,881	63,528	76,499	126,446	152,899	151,189	128,592
10	108,392	103,117	96,925	89,104	82,166	72,545	63,461	77,067	130,132	152,793	150,958	127,233
11	108,325	103,134	96,529	88,876	81,787	72,196	63,427	77,602	133,671	152,751	150,728	125,864
12	108,241	103,166	96,149	88,661	81,409	71,850	63,383	78,125	137,074	152,666	150,476	124,656
13	108,173	103,231	95,845	88,432	81,017	71,506	63,416	78,795	140,234	152,645	150,224	123,324
14	108,173	103,231	95,512	88,146	80,629	71,187	63,550	79,641	143,337	152,476	149,973	122,018
15	108,173	103,247	95,164	87,917	80,295	70,819	63,729	80,576	146,220	152,603	149,721	120,79
16	108,207	103,393	94,819	87,677	79,947	70,466	63,773	81,719	148,057	152,666	149,575	119,74
17	108,173	103,571	94,504	87,422	79,548	70,127	63,864	83,025	149,137	152,582	149,324	118,64
18	108,106	103,555	94,174	87,224	79,205	69,787	63.977	84,455	150,204	152,582	148,909	117,662
19	108,022	103,295	93,874	87,054	78,848	69,461	64,000	85,943	151,021	152,624	148,514	116,770
20	107,988	103,021	93,621	86,828	78,478	69,115	64,192	87,068	151,482	152,687	148,078	115,900
21	108,022	102,734	93,399	86,559	78,112	68,780	64,644	88,103	151,820	152,645	147,538	115,23
22	108,022	102,478	93,177	86,335	77,759	68,409	65,146	89,348	151,989	152,582	147,001	114,740
23	107,939	102,207	92,969	86,083	77,380	68,066	65,788	91,234	152,095	152,539	146,405	114,40
24	107,789	101,919	92,732	85,846	77,003	67,735	66,576	92,658	152,201	152,582	145,623	114,077
25	107,557	101,616	92,480	85,594	76,641	67,417	67,263	94,564	152,285	152,518	144,682	113,83
26	107,274	101,346	92,244	85,328	76,280	67,088	67,854	96,544	152,391	152,560	143,867	113,57
27	107,025	101,078	92,010	85,091	75,931	66,762	68,469	98,432	152,645	152,666	143,033	113,30
28	106,626	100,763	91,775	84,856	75,623	66,460	69,198	100,116	152,814	152,645	142,245	113,04
29	106,229	100,463	91,570	84,621		66,181	69,811	101,488	152,899	152,582	141,437	112,80
30	105,868	100,163	91,336	84,399	Ē - 3	65,846	70,394	102,574	152,687	152,455	140,554	112,58
31	105,508		91,117	84,192		65,513	30311373	103,603		152,349	139,553	
Min	105,508	100,163	91,117	84,192	75,623	65,513	63,383	70,978	104,819	152,349	139,553	112,58
Max	110,983	105,163	99,849	90,882	83,971	75,368	70,394	103,603	152,899	152,899	152,349	138,75
EOM	105,508	100,163	91,117	84,192	75,623	65,513	70,394	103,603	152,687	152,349	139,553	112,583



Appendix A (Table 4 of 38) Blue River below Green Mountain Reservoir, CO

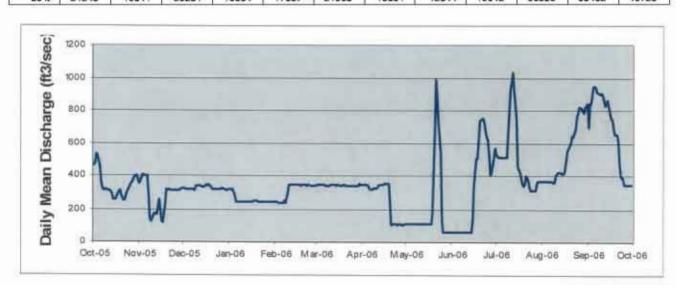
Location.—Let 39*52'49", long 106*20'00", Summit County, Hydrologic Unit 14010002, on left bank 0.3 miles upstream from Elliot Creek, 0.3 miles downstream from Green Mountain Reservoir and 13 miles southeast of Kremmling.

Gage.- Water-stage recorder with satellite telemetry. Datum of gage is 7682.66 feet (levels by U.S. Bureau of Reclamation).

Remarks.—Drainage area is 599 mi² including 15.3 mi² of Elliot Creek above the diversion for Elliot Creek feeder canal. Flow regulated by Green Mountain Reservoir since 1942. Diversions for irrigation of 5,000 acres upstream from station. Transmountain diversions upstream from station. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes. Official revised data is published by the United States Geological Survey.

Discharge, Cupit Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	463	360	328	325	243	349	352	109	61	529	371	698
2	479	384	326	323	243	348	353	109	61	513	372	840
3	536	405	326	324	242	348	352	109	61	513	371	844
4	518	401	326	287	241	348	351	109	61	513	371	949
5	458	401	324	248	242	349	351	109	61	512	371	948
6	364	402	324	248	241	349	323	109	62	513	370	941
7	327	295	323	246	251	347	322	110	61	513	370	911
8	315	144	318	247	241	347	322	110	62	513	363	905
9	321	127	344	246	299	347	327	111	62	673	362	901
10	318	159	342	243	351	349	328	111	62	932	402	908
11	318	176	342	244	349	348	330	112	62	974	421	890
12	318	171	341	245	351	350	344	112	62	1030	420	828
13	292	170	340	246	350	351	353	113	63	918	418	852
14	260	257	338	249	350	347	353	113	63	760	416	863
15	262	194	340	249	350	349	354	113	140	458	415	819
16	263	124	349	249	350	348	355	115	341	442	442	752
17	295	120	345	251	348	347	355	115	502	422	499	743
18	306	226	348	252	347	346	356	115	502	360	554	696
19	315	324	341	250	349	349	357	182	606	343	581	655
20	279	319	321	246	349	350	233	674	734	359	604	655
21	252	320	322	244	348	345	108	991	749	401	648	613
22	263	319	324	244	347	347	110	879	749	381	642	476
23	288	319	324	245	348	343	109	728	723	335	690	400
24	307	317	326	244	348	342	109	534	670	313	759	387
25	337	316	323	243	347	341	108	134	608	313	788	349
26	358	318	321	244	345	344	110	60	518	313	821	351
27	365	317	327	245	343	342	109	60	410	313	811	349
28	376	318	324	247	344	341	108	60	422	349	799	349
29	400	324	326	248		341	108	60	514	371	786	348
30	398	327	319	245		355	109	60	565	371	821	350
31	378		321	244		353	1000	61		371	842	
Min	252	120	318	243	241	341	108	60	61	313	362	348
Max	536	405	349	325	351	355	357	991	749	1030	842	949
Mean	346	278	330	255	316	347	262	209	321	504	545	686
ac-ft	21243	16541	20281	15864	17537	21305	15561	12844	19042	30930	33462	40729



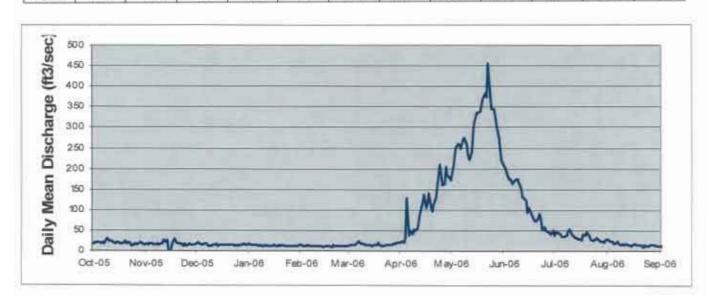
Location. — Lat 40°08'52", long 105°56'28", Grand County, Hydrologic Unit 14010001, at Willow Creek Dam, 4 miles north of Granby, Colorado, on Willow Creek, a tributary of the Colorado River.

Gage.— Water level recorder with satellite telemetry. Elevation of gage is 8130 from topographic map.

Remarks,—inflow computed daily using change in content from midnight to midnight, and on the 24-hour average releases through the Willow Creek Pump Canal and the reservoir outlet works. Recorders were operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Inflow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1:	18	14	19	17	14	13	21	172	207	38	30	13
2	18	19	20	14	13	15	22	205	203	46	27	12
3	20	14	19	15	12	16	21	229	183	44	23	10
4	21	17	15	15	12	16	33	251	176	45	23	.1.1
5	20	18	15	15	15	15	130	259	176	35	19	
6	18	14	18	16	12	19	37	256	165	36	21	9
7	20	16	19	13	11	22	49	250	170	36	22	. 5
8	17	18	13	14	13	21	41	271	173	39	18	18
9	30	15	13	13	13	17	52	276	174	51	16	18
10	29	18	13	12	13	18	50	258	166	53	18	24
11	23	19	15	14	11	15	56	232	152	40	14	15
12	22	26	14	13	11	16	77	221	133	37	17	33
13	20	20	17	13	12	15	95	239	129	33	14	3.6
14	18	27	13	13	10	14	117	288	123	31	15	13
15	21	-23	15	13	13	13	136	313	94	30	13	13
16	20	4	14	14	13	14	106	335	104	28	15	- 1
17	17	17	14	12	12	16	117	336	95	27	19	1
18	19	30	15	13	13	15	139	338	84	41	15	1.
19	18	22	16	14	10	20	104	357	74	37	14	1
20	22	19	15	13	16	14	96	370	73	48	15	2
21	19	18	14	14	12	13	113	382	77	37	16	3
22	20	18	16	13	12	13	131	374	90	30	9	2
23	18	11	16	12	11	15	161	455	76	25	14	1
24	13	19	13	11	11	15	211	376	52	25	12	2
25	14	12	15	12	13	14	186	345	58	29	11	1
26	17	14.	13	13	11	15	161	344	51	33	14	2
27	14	17	16	13	12	16	164	328	48	26	16	2
28	18	15	15	12	12	18	206	305	45	23	15	1
29	20	15	17	12	100	18	183	276	41	23	15	1
30	17	16	14	13		20	178	246	50	20	13	1
31	16		14	14	-	20		220	1	26	11	
Min	13	-23	13	11	10	13	21	172	41	20	9	
Max	30	30	20	17	16	22	211	455	207	53	30	3
Mean	19	16	15	13	12	16	106	294	115	35	17	1
ac-ft	1182	948	941	822	679	992	6322	18032	6815	2123	1018	99



Appendix A (Table 6 of 38) Willow Creek Reservoir, CO

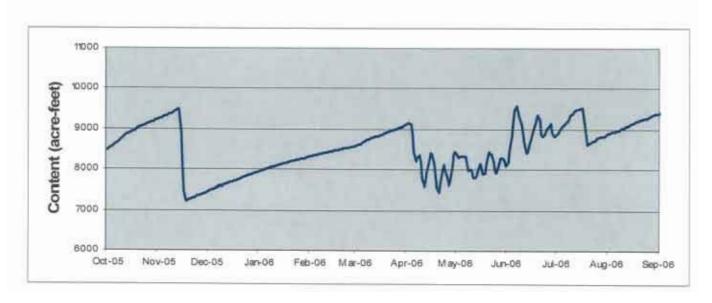
Location. —Lat 40° 08'52", long 105° 56'28", Grand County, Hydrologic Unit 14010001, at Willow Creek Dam, 4 miles north of Granby, Colorado, on Willow Creek, a tributary of the Colorado River.

Gage.- Water level recorder with satellite telemetry. Elevation of gage is 8130 from topographic map.

Remarks, Reservoir is formed by an earth-fill dam, Construction completed in 1953. Impoundment began on April 2, 1953, Willow Creek Reservoir stores water from Willow Creek for diversion to Granby Reservoir via the Willow Creek Canal. Recorder was operated from 01-Oct 2005 to 30-Sep-2006. Record is complete and fair. Maximum capacity is 10,600 acre-feet at elevation 8,130.00 ft, with 9,100 acre-feet of active capacity between elevations 8077. On and 8130.00 feet. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sej
919	8,472	9,232	7,455	7,941	8,313	8,579	9,107	8,438	8,101	8,862	8,875	9,386
2	8,497	9,254	7,479	7,955	8,325	8,592	9,134	8,344	8,172	8,921	8,901	9,39
3	8,524	9,267	7,503	7,971	8,335	8,610	9,153	8,308	8,512	8,976	B,914	9,40
4	8,557	9,286	7,519	7,987	8,344	8,627	9.120	8,313	8,839	9,031	8,929	9,41
5	8,590	9,308	7,534	8,002	8,357	8,642	8,870	8,330	9,166	9,068	8,937	9,41
6	8,617	9,321	7,555	8,018	8,366	8,665	8,448	8,337	9,473	9,107	8,947	9,41
7	8,647	9,337	7,577	8,030	8,374	8,693	8,221	8,332	9,584	9,147	8,960	9,41
8	8,670	9,359	7,588	8,044	8,386	8,721	8,283	8,146	9,435	9,192	8,973	9,43
9	8,721	9,375	7,599	8,056	8,398	8,741	8,369	7,980	9,281	9,259	8,994	9,44
10	8,769	9,397	7,610	8,065	8,408	8,762	8,168	8,006	9,110	9,335	9,018	9,48
11	8,805	9,421	7,626	8,077	8,415	8,777	7,774	7,966	8,911	9,381	9,034	9,50
12	8,839	9,457	7,637	8,089	8,423	8,792	7,593	7,816	8,673	9,419	9,057	9,51
13	8,864	9,482	7,656	8,101	8,433	8,808	7,763	7,790	8,425	9,449	9,073	9,53
14	8,882	9,479	7,667	8,113	8,438	8,821	7,978	7,860	8,430	9,476	9,091	9,54
15	8,906	8,916	7,683	8,125	8,448	8,833	8,230	7,980	8,595	9,501	9,105	9,55
16	8,929	8,089	7,696	8,137	8,457	8,846	8,423	8,144	8,780	9,523	9,126	9,57
17	8,947	7,481	7,708	8,146	8,467	8,862	8,386	8,044	8,950	9,526	9,150	9,59
18	8,968	7,228	7,724	8,158	8,477	8,877	8,163	7,901	9,097	9,273	9,169	9,57
19	8,989	7,254	7,742	8,172	8,480	8,903	7,869	7,908	9,222	8,839	9,187	9,29
20	9,018	7,273	7,758	8,184	8,495	8,916	7,557	8,163	9,345	8,617	9,206	8,84
21	9,041	7,292	7,772	8,196	8,505	8,927	7,455	8,428	9,216	8,658	9,227	8,62
22	9,065	7,311	7,788	8,208	8,515	8,937	7,696	8,398	8,890	8,683	9,232	8,65
23	9,083	7,318	7,806	8,218	8,522	8,953	7,997	8,381	8,813	8,698	9,246	8,67
24	9.094	7,342	7.818	8,225	8,529	8,968	8,115	8,208	8,880	8,713	9,259	8,69
25	9,107	7,352	7,834	8,235	8,539	8,981	7,983	7,978	8,960	8,739	9,270	8,71
26	9,126	7,365	7,846	8,245	8,547	8,997	7,802	7,929	9,028	8,777	9,289	8,74
27	9,139	7,383	7,862	8,257	8,557	9,013	7,626	8,103	9,089	8,798	9,310	8,76
28	9,158	7,398	7,878	8.266	8.567	9,034	7,717	8,228	9,145	8,810	9,329	8,78
29	9,182	7,413	7,897	8,276	100/40	9,044	8,058	8,283	8,919	8,821	9,348	8,80
30	9,203	7,431	7,910	8,288		9,057	8,393	8,269	8,818	8,826	9,362	8,81
31	9,219		7,924	8,300		9,083		8,199		8,846	9,372	
Min	8,472	7,228	7,455	7,941	8,313	8,579	7,455	7,790	8,101	8,617	8,875	8,62
Max	9,219	9,482	7,924	8,300	8.567	9,083	9,153	8,438	9,584	9,526	9,372	9,59
EOM	9,219	7,431	7,924	8,300	8,567	9,083	8,393	8,199	8,818	8,846	9,372	8,81



Appendix A (Table 7 of 38) Willow Creek below Willow Creek Reservoir, CO

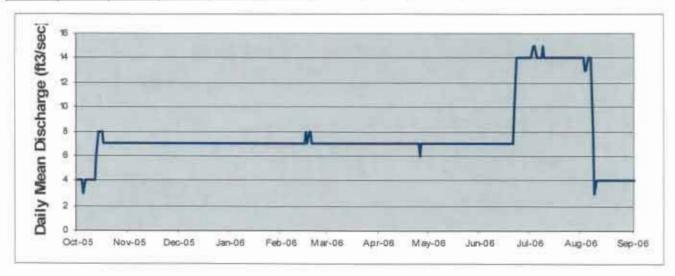
Location.—Lat 40°08'50°, long 105°56'16°, Grand County, Hydrologic Unit 14010001, at Willow Creek Dam, 4 miles north of Granby, Colorado, on Willow Creek, a tributary of the Colorado River.

Gage.-Water-stage recorder with satellite telemetry. Elevation of gage is 8040 feet from topographic map.

Remarks.— Drainage area is 127 square miles. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4	7	7	7	7	7	7	7	7	14	14	4
2	4	7	7	7	7	7	7	7	7	14	14	4
3	4	7	7	7	7	7	7	7	7	15	13	4
4	4	7	7	7	7	7	7	7	7	15	13	4
5	3	7	7	7	7	7	7	7	7	14	14	6
6	4	7	7	7	7	7	7	7	7	14	14	7
7	4	7	7	7	7	7	7	7	7	14	14	7
8	4	7	7	7	7	7	7	7	7	14	8	7
9	4	7	7	7	7	7	7	7	7	15	3	7
10	4	7	7	7	7	7	7	7	7	14	4	7
11	4	7	7	7	7	7	7	7	7	14	4	7
12	4	7	7	7	7	7	7	7	7	14	4	7
13	6	7	7	7	7	7	7	7	7	14	4	7
14	8	7	7	7	7	7	7	7	7	14	4	7
15	8	7	7	7	7	7	7	7	7	14	4	7
16	8	7	7	7	8	7	7	7.	7	14	4	7
17	7	7	7	7	7	7	7	7	7	14	4	7
18	7	7	7.	7	8	7	7	7	7	14	4	7
19	7	7	7	7	8	7	7	7	7	14	4	7
20	7	7	7	7	7	7	7	7	7	14	4	7
21	7	7	7	7	7	7	7	7	7	14	4	7
22	7	7	7	7	7	7	7	7	10	14	4	7
23	7	7	7	7	7	7	7	7	14	14	4	7
24	7	7	7	7	7	7	7	7	14	14	4	7
25	7	7	7	7	7	7	7	7	14	14	4	7
26	7	7	7	7	7	7	6	7	14	14	4	7
27	7	7	7	7	7	7	7	7	14	14	4	7
28	7	7	7	7	7	7	7	7	14	14	4	7
29	7	7	7	7		7	7	7	14	14	4	7
30	7	7	7	7		7	7	7	14	14	4	7
31	7		7	7		7		7		14	4	
Min	3	7	7	7	7	7	6	7	7	14	3	4
Max	8	7	7	7	8	7	7	7	14	15	14	7
Mean	6	7	7	7	7	7	7	7	9	14	6	7
ac-ft	360	416	430	430	394	430	414	430	533	865	386	39



Appendix A (Table 8 of 38) Willow Creek Pump Canal, CO

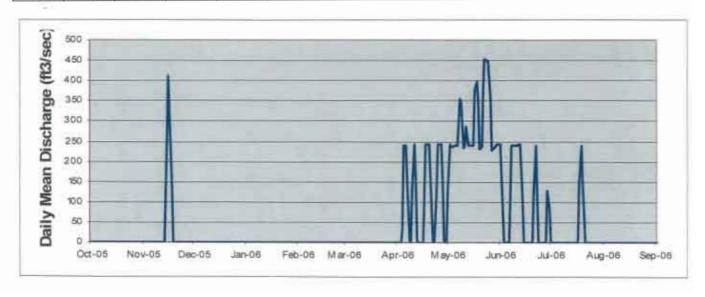
Location. —Lat 40°08'39", long 105°54'10", Grand County, Hydrologic Unit 14010001, at Willow Creek Pump Canal, 4 miles north of Granby, Colorado, on Willow Creek, a tributary of the Colorado River.

Gage.— Water-stage recorder with satellite telemetry at 15 foot Parshall Flume. Elevation of gage is 8300 feet from topographic map.

Remarks.—Canal is used to divert water from Willow Creek Reservoir to Granby Reservoir. Diversions are seasonal, mainly during late spring and early summer. Construction completed in 1953. Length of the canal is 3.4 miles, maximum capacity is 400 ft³/sec. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable but it contains operational data which could be subject to further revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

- I	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
/1	0	0	0	0	0	0	0	125	244	0	0	0
2	0	0	0	0	0	0	0	242	156	0	0	0
3	0	0	0	0	0	0	0	236	0	0	0	0
4	0	0	0	0	0	0	31	237	0	0	0	0
5	0	0	0	0	0	0	239	239	0	0	0	0
6	0	0	0	0	0	0	240	241	0	0	0	0
7	0	0	0	0	0	0	154	241	101	0	0	0
8	.0	0	0	0	0	0	0	354	239	0	0	0
9	0	0	0	0	0	0	0	348	241	0	0	0
10	0	0	0	0	0	0	132	234	241	0	0	0
11	0	0	0	0	0	0	244	241	241	0	0	0
12	.0	0	0	0	0	0	158	286	242	:0	0	0
13	0	0	0	0	0	0	0	241	242	0	0	0
14	0	0	0	0	0	0	0	241	108	0	0	0
15	0	252	0	0	0	0	0	241	0	0	0	0
16	0	412	0	0	0	0	0	241	0	0	0	0
17	0	313	0	0	0	0	112	375	0	0	0	0
18	0	148	0	0	0	0	242	398	0	148	0	0
19	0	0	0	0	0	0	242	342	0	239	0	14
20	0	0	0	0	0	0	243	230	0	143	0	24
21	0	0	0	0	0	0	154	236	127	0	0	13
22	0	0	0	0	0	0	0	377	241	0	0	0
23	0	0	0	0	0	0	0	452	96	0	0	0
24	0	0	0	0	0	0	129	451	0	0	0	0
25	0	0	0	0	0	0	242	447	0	0	0	0
26	.0	0	0	0	0	0	242	356	0	.0	0	0
27	0	0	0	0	0	0	242	229	0	0_	0	0
28	0	0	0	0	0	0	149	231	0	0	0	0
29	0	0	0	0		0	0	237	129	0	0	0
30	0	0	0	0		0	0	242	85	0	0	0
31	0		0	0		0		244		0	0	
Min	0	0	0	0	0	0	0	125	0	0	0	0
Max	0	412	0	0	0	0	244	452	244	239	0	24
Mean	0	38	0	0	0	0	107	285	91	17	0	3
ac-ft	0	2228	0	0	0	0	6326	17493	5411	1049	0	102



Appendix A (Table 9 of 38) Windy Gap Pumping Plant, CO

Location. —Lat 40°06'24", long 105°58'48", Grand County, Hydrologic Unit 14010001, 5.5 miles northeast of Granby, Colorado, on the Colorado River.

Gage. — Reading taken directly from the pumps. Elevation of the pumping plant is 7823 from topographic map.

Remarks. — Water is pumped from Windy Gap Reservoir to Granby Reservoir. Water is stored at Granby Reservoir before delivery through Adams Tunnel.

Data was provided by Farr Pumping Plant operators each morning. Data was collected from 01-Oct-2005 to 30-Sep-2006. Records are complete and fair.

This record contains operational data which could be subject to future revisions and changes.

Windy Gap Pump Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	184	0	0	0
2	0	0	0	0	0	0	0	117	184	0	0	0
3	0	0	0	0	0	0	0	184	184	0	0	0
4	0	0	0	0	0	0	0	175	184	0	0	0
5	0	0	0	0	0	0	0	184	184	0	0	0
6	0	0	0	0	0	0	0	184	184	0	0	0
7	0	0	0	0	0	0	0	184	184	0	0	0
8	0	0	0	0	0	0	0	184	184	0	0	0
9	0	0	0	0	0	0	0	184	184	0	0	0
10	0	0	0	0	0	0	0	184	184	0	0	0
11	0	0	0	0	0	0	0	184	184	0	0	0
12	0	0	0	0	0	0	0	184	184	0	0	0
13	0	0	0	0	0	0	0	184	1.84	0	0	0
14	0	0	0	0	0	0	0	184	184	0	0	0
15	0	0	0	0	0	0	0	184	184	0	0	0
16	0	0	0	0	0	0	0	184	184	0	0	0
17	0	0	0	0	0	0	0	184	1.84	0	0	0
18	0	0	0	0	0	0	0	184	184	0	0	0
19	0	0	0	0	0	0	0	234	184	0	0	0
20	0	0	0	0	0	0	0	357	184	0	0	0
21	0	0	0	0	0	0	0	357	184	0	0	0
22	0	0	0	0	0	0	0	357	119	0	0	0
23	0	0	0	0	0	0	0	357	115	0	0	0
24	0	0	0	0	0	0	0	357	184	0	0	0
25	0	0	0	0	0	0	0	357	130	0	0	0
26	0	0	0	0	0	0	0	350	115	0	0	.0
27	0	0	0	0	0	0	0	357	184	0	0	0
28	0	0	0	0	0	0	0	357	107	0	0	0
29	0	0	0	0		0	0	357	138	0	0	0
30	0	0	0	0	7	0	0	357	176	0	0	0
31	0		0	0		0		285		0	0	
Min	0	0	0	0	0	0	0	0	107	0	0	0
Max	0	0	0	0	0	0	0	357	184	0	0	0
Mean	0	0	0	0	0	0	0	242	171	0	0	0
ac-ft	0	0	0	0	0	0	0	14832	10161	0	0	0



Appendix A (Table 10 of 38) Granby Reservoir, CO

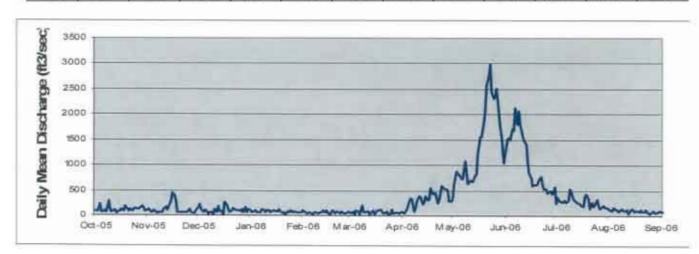
Location. -Lat 40°08'54", long 105°51'48", Grand County, Hydrologic Unit 14010001, on Granby Dam, 5.5 miles northeast of Granby, Colorado, on the Colorado River.

Gage.- Water level recorder with satellite telemetry. Elevation of gage is 8300 from topographic map.

Remarks.— Inflow computed daily based on change in content from midnight to midnight, and on the average daily releases through the reservoir outlet works. Recorders were operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Inflow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	91	96	157	110	99	67	83	357	1223	252	152	82
2	75	129	223	53	77	51	39	644	1519	359	97	72
3	72	64	124	88	45	72	87	871	1529	295	100	54
4	222	64	59	108	47	-5	113	847	1497	289	172	61
5	63	96	109	69	66	97	282	813	1713	269	125	71
6	59	64	104	53	44	79	352	736	1671	297	125	85
7	102	31	30	64	30	30	321	740	2129	275	76	53
8	58	64	52	113	59	198	90	1090	1801	299	125	69
9	277	64	59	95	62	77	134	850	2060	526	146	206
10	129	64	10	65	47	67	296	630	1795	492	98	54
11	66	129	113	112	53	72	390	687	1588	331	98	119
12	109	162	70	97	52	84	372	702	1486	301	130	97
13	100	96	190	57	96	24	228	684	1409	280	41	23
14	32	226	88	89	57	81	271	792	1134	251	130	131
15	82	292	75	98	103	93	385	826	867	244	148	68
16	82	455	-15	82	55	12	305	1212	758	195	86	65
17	114	391	257	82	1	97	332	1558	595	189	95	78
18	82	260	199	124	77	96	552	1554	605	386	98	33
19	179	64	133	78	102	115	429	1849	621	423	90	146
20	114	64	67	39	46	84	454	2079	635	353	128	272
21	82	64	102	56	91	35	452	2581	722	146	88	257
22	114	64	136	25	53	55	248	2768	773	269	88	69
23	82	64	98	74	32	76	300	2985	627	178	132	29
24	114	64	111	62	77	28	585	2446	542	230	76	74
25	147	64	107	93	32	50	574	2319	523	319	48	138
26	114	130	77	57	47	122	529	2360	451	199	68	37
27	122	64	127	73	41	41	538	2524	481	150	110	114
28	147	31	69	65	86	65	482	2028	501	188	53	51
29	179	31	155	57		71	296	1769	432	203	60	76
30	142	96	59	58		49	296	1604	581	166	78	117
31	82		133	52		71	_	1046		163	93	
Min	32	31	-15	25	1	-5	39	357	432	146	41	23
Max	277	455	257	124	103	198	585	2985	2129	526	172	272
Mean	111	118	106	76	60	69	327	j 1418	1076	275	102	93
ac-ft	6797	7023	6490	4649	3320	4265	19434	87023	63891	16864	6245	5546



Appendix A (Table 11 of 38) Granby Reservoir, CO

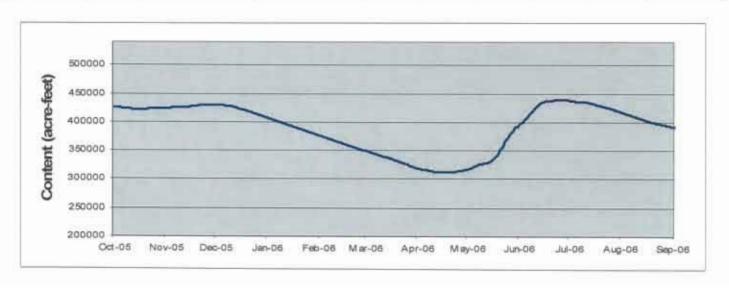
Location. -Lat 40°08'54", long 105"51'48", Grand County, Hydrologic Unit 14010001, on Granby Dam, 5.5 miles northeast of Granby, Colorado, on the Colorado River.

Gage.- Water level recorder with satellite telemetry. Elevation of gage is 8300 from topographic map.

Remarks.—Reservoir is formed by an earth-fill dam and four earth-fill dikes. Construction completed in 1950. Impoundment began on 14-Sep-1949. Granby Reservoir provides west-alope storage for the Colorado-Big Thompson Project. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Maximum capacity is 539,800 acre-feet at elevation 8,280.00, with 463,300 acre-feet of active capacity between elevations 8186.90 and 8280.00 feet. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	426128	423931	429238	407129	376286	349265	319411	316708	394762	437783	418080	391590
2	425481	424125	429628	406181	375312	348326	318678	317777	397508	437259	417184	390846
3	425094	424190	429822	405360	374280	347389	318058	319298	400263	436735	416224	390220
4	425029	424254	429887	404540	373248	346395	317270	320767	402965	436342	415265	38954
5	424577	424383	429563	403595	372279	345402	316764	322013	406055	435819	414244	38892
6	423996	424448	428654	402588	371190	344526	316371	322977	409093	435296	413224	38830
7	423673	424448	427941	401456	370102	343536	315922	323886	412969	434708	412269	387751
8	423222	424512	427552	400514	369016	342896	315025	325537	416288	434316	411124	38731
9	423351	424577	427163	399511	368112	341966	314129	326740	420133	434773	410171	38725
10	423093	424641	426710	398446	367270	341153	313682	327137	423415	435296	409093	387011
11	422642	424835	426387	397445	366248	340225	313458	327820	426257	434969	408015	38694
12	422320	425094	425804	396446	365287	339356	313067	328218	428914	434446	407066	38657
13	421869	425223	425158	395385	364388	338431	312676	328731	431383	433859	405865	38614
14	421548	425610	424060	394388	363370	337564	312230	329986	433272	433076	404792	385901
15	421612	426128	423158	393392	362473	336641	312453	331415	434708	432294	403847	38559
16	421676	426969	421869	392397	361697	335547	312118	333593	435949	431188	402902	38522
17	421805	427682	421290	391342	360563	334569	312007	336468	436800	430472	401707	38485
18	421869	428135	420519	390350	359669	333593	312509	339356	436604	429822	400828	38442
19	422127	428200	419684	389345	358717	332675	312788	342838	437193	429498	400138	38430
20	422256	428265	418593	388431	357885	331758	312788	346804	437521	428914	399511	38430
21	422320	428330	417632	387443	356995	330672	312788	351675	438110	427876	398822	38430
22	422449	428395	416736	386394	355987	329587	312509	356936	438766	427034	398071	38411
23	422513	428459	415776	385346	354981	328617	312509	362652	439094	425869	397570	38411
24	422642	428524	414818	384362	354035	327535	313458	367270	439160	424964	396945	38417
25	422835	428589	413861	383317	352972	326455	313961	371553	439029	424383	396383	38399
26	422964	428784	412778	382335	352088	325537	314297	375981	438898	423609	395572	38344
27	423093	428849	411823	381293	351146	324398	314745	380742	438832	422706	395135	38319
28	423286	428849	410743	380313	350205	323431	315305	384546	438766	421805	394575	38288
29	423544	428849	409917	379274		322466	315810	387813	438635	420840	394014	38245
30	423738	428978	408902	378236		321446	316315	390784	438504	419876	393143	38202
31	423802		408015	377199		320371		392646		418914	392273	
Min	421548	423931	408015	377199	350205	320371	312007	316708	394762	418914	392273	38202
Max	426128	428978	429887	407129	376286	349265	319411	392646	439160	437783	418080	39159
Mean	423115	426542	421086	392386	363064	335217	314437	344860	426995	430153	404002	38592
ac-ft	25970777	25336587	25846288	24084627	20128286	20575621	18677540	21167521	25363495	26402787	24797623	2292395



Appendix A (Table 12 of 38) Granby Reservoir, CO

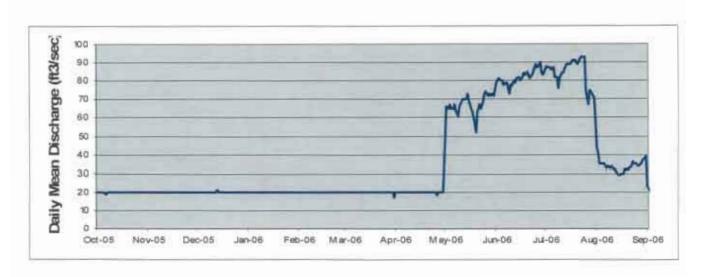
Location. -Lat 40°08'54", long 105°51'48", Grand County, Hydrologic Unit 14010001, on Granby Dam, 5.5 miles northeast of Granby, Colorado, on the Colorado River.

Gage.- Water level recorder with satellite telemetry. Elevation of gage is 8300 from topographic map.

Remarks.—Reservoir is formed by an earth-fill dam and four earth-fill dikes. Construction completed in 1950, impoundment began on 14-Sep-1949. Granby Reservoir provides west-slope storage for the Colorado-Big Thompson Project. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Releases were made through the outlet works valve. The sirearngage directly below the dam is used to measure flows during winter. A USGS station further downstream is used to measure flows from spring to fall. Records are complete and fair. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per second, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	20	20	20	20	20	20	20	48	79	86	43	23
2	20	20	20	20	20	20	20	66	80	88	41	21
3	20	20	20	20	20	20	20	65	81	87	35	20
4	20	20	20	20	20	20	20	67	80	87	35	16
5	20	20	20	20	20	20	20	65	80	86	35	16
6	19	20	20	20	20	20	20	65	78	87	35	19
7	20	20	20	20	20	20	20	67	79	82	33	20
8	20	20	20	20	20	20	20	64	79	82	34	20
9	20	20	20	20	20	20	20	61	73	76	33	17
10	20	20	20	20	20	20	20	66	78	81	34	19
11	20	20	20	20	20	20	20	69	77	84	33	15
12	20	20	20	20	20	20	20	70	80	84	32	19
13	20	20	21	20	20	20	20	70	79	86	31	15
14	20	20	20	20	20	20	20	70	81	89	29	15
15	20	20	20	20	20	20	20	73	82	89	29	19
16	20	20	20	20	20	20	20	69	80	89	30	15
17	20	20	20	20	20	20	20	65	82	90	30	18
18	20	20	20	20	20	20	20	63	84	91	32	19
19	20	20	20	20	20	20	20	56	83	91	32	19
20	20	20	20	20	20	20	20	52	85	90	32	15
21	20	, 20	20	20	20	20	20	63	83	89	33	11
22	20	20	20	20	20	20	20	67	81	92	34	11
23	20	20	20	20	20	20	20	65	83	93	36	-19
24	20	20	20	20	20	20	20	69	85	93	35	1
25	20	20	20	20	20	20	20	73	89	93	35	1
26	20	20	20	20	20	20	18	74	87	75	34	1
27	20	20	20	20	20	20	20	72	88	67	34	1
28	20	20	20	20	20	20	20	73	90	75	35	1
29	20	20	20	20		20	20	72	84	74	37	1
30	20	20	20	20		20	20	73	83	72	38	1
31	20		20	20		17		72		71	39	
Min	19	20	20	20	20	17	18	48	73	67	29	1
Max	20	20	21	20	20	20	20	74	90	93	43	2
Mean	20	20	20	20	20	20	20	67	82	84	34	1
ac-ft	1226	1188	1230	1228	1109	1222	1184	4087	4857	5186	2095	113



Appendix A (Table 13 of 38) Farr Pumping Plant, Granby Reservoir, CO

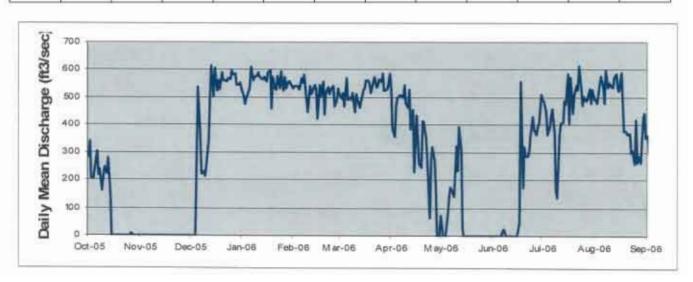
Location. —Lat 40°11'30', long 105°52'52', Grand County, Hydrologic Unit 14010001, at Farr Pumping Plant on the north end of Granby Reservoir, 8 miles northeast of Granby, Colorado, on the Colorado River.

Gage. – Reading taken directly from the pumps, based on conduit pressure and Granby Reservoir's elevation. Elevation of the pumping plant is 8320 from topographic map.

Remarks.— Water is pumped from Granby to the Granby Pump Canal which discharges into Shadow Mountain Reservoir, The operation keeps Shadow Mountain Reservoir/Grand Lake at a steady water surface level when transmountain diversions are taking place via Adams Tunnel, Data was provided by Farr Plant operators each morning. Data was collected from 01-Oct-2005 to 30-Sep-2006. Daily data provided by the Northern Colorado Water Conservancy District. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	282	0	0	531	533	511	526	72	0	492	490	353
2	338	0	0	505	542	495	383	0	0	488	490	360
3	204	0	0	476	539	515	358	0	0	445	478	293
4	206	0	0	496	541	465	469	0	0	366	549	334
5	241	0	246	519	528	568	496	80	0	394	578	307
6	304	0	536	535	567	491	509	146	0	431	541	320
7	216	0	363	608	553	500	506	175	17	459	479	279
8	236	0	222	562	581	491	501	154	24	367	599	237
9	163	0	229	575	492	516	544	143	0	172	536	185
10	210	0	212	576	446	447	480	325	0	140	554	154
11	244	0	250	591	542	510	462	234	0	364	546	113
12	222	0	338	575	511	493	528	395	0	406	537	203
13	278	0	489	566	523	461	384	310	0	409	574	181
14	145	0	616	566	544	489	455	30	0	488	585	201
15	0	0	504	574	529	529	231	0	0	474	534	195
16	0	0	607	558	420	534	433	0	0	585	525	198
17	0	0	523	588	546	561	347	0	49	405	589	210
18	0	0	562	598	502	559	258	0	557	572	493	208
19	0	0	528	458	556	549	247	0	176	441	375	165
20	0	0	591	575	440	517	413	0	320	509	375	229
21	0	0	561	528	514	553	411	0	285	546	363	203
22	0	0	562	528	535	573	347	0	288	529	370	108
23	0	0	556	576	513	535	259	0	307	612	300	0
24	0	0	568	532	528	544	66	0	362	529	307	0
25	0	0	564	594	542	565	279	0	429	469	257	188
26	0	0	597	526	467	555	321	0	383	505	416	257
27	8	0	582	572	490	586	271	0	365	487	260	196
28	0	0	587	533	534	523	159	0	394	495	288	175
29	0	0	545	555		528	0	0	402	534	263	214
30	0	0	545	556		534	0	0	511	477	429	265
31	0	1	554	549		586		0.		528	444	
Min	0	0	0	458	420	447	0	0	0	140	257	.0
Max	338	0	616	608	581	586	544	395	557	612	599	360
Mean	106	0	421	551	520	525	355	67	162	455	456	211
ac-ft	6528	0	25813	33820	28825	32240	21073	4087	9641	27954	27966	1253



Appendix A (Table 14 of 38) Shadow Mountain/Grand Lake, CO

Location. —Lat 40°1226", long 105°50'28", Grand County, Hydrologic Unit 14010001, on the Colorado River below the confluence with Grand Lake outlet, 10 miles northeast of Granby, Colorado.

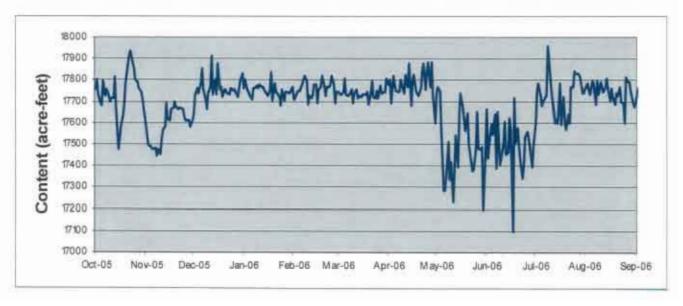
Gage,--Water-stage recorder with satellite telemetry, Elevation of gage is 8375 feet from topographic map.

Remarks.—Constructed between 1944 and 1946. Impoundment began in 1946. Active capacity between elevations 8,366 and 8,367 is 1,800 acre-feet.

Grand Lake is used as forebay storage for Adams Tunnel. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17,753	17,585	17,639	17,759	17,709	17,746	17,777	17,725	17,660	17,601	17,760	17,69
2	17,803	17,537	17.727	17,804	17,714	17,732	17,805	17,770	17,437	17,750	17,787	17,76
3	17,734	17,492	17,763	17,749	17,746	17,732	17,689	17,752	17,554	17,787	17,753	17,72
4	17,694	17,487	17.737	17,746	17,751	17,742	17,821	17,563	17,594	17,734	17,734	17,76
5	17,679	17,479	17,785	17,726	17,751	17,806	17,780	17,285	17,546	17,679	17,795	17,71
6	17,795	17,474	17,856	17,712	17,777	17,732	17,751	17,282	17,641	17,697	17,787	17,71
7	17,727	17,482	17,758	17,759	17,804	17,727	17,746	17,348	17,391	17,721	17,687	17,67
8	17,753	17,447	17,711	17,759	17,817	17,732	17,751	17,510	17,651	17,733	17,798	17,91
9	17,742	17,474	17,661	17,775	17,795	17,753	17,800	17,338	17,407	17,962	17,734	17,72
10	17,700	17,456	17,740	17,762	17,684	17,692	17,756	17,419	17,438	17,828	17,793	17,81
11	17,713	17,519	17,767	17,780	17,724	17,737	17,741	17,235	17,502	17,758	17,767	17,59
12	17,713	17,563	17.911	17,770	17,716	17,753	17,825	17,382	17,607	17,697	17,747	17,76
13	17,813	17,581	17,731	17,770	17,732	17,716	17,767	17,543	17,455	17,596	17,767	17,70
14	17,671	17,689	17.804	17,744	17,780	17,724	17,876	17,397	17,463	17,614	17,806	17,69
15	17,474	17,618	17,731	17,736	17,780	17,719	17,679	17,636	17,623	17,596	17,761	17,68
16	17,530	17,613	17,878	17,726	17,689	17,732	17,803	17,738	17,568	17,785	17,701	17,72
17	17,581	17,663	17,754	17,749	17,756	17,732	17,826	17,674	17,100	17,593	17,761	17,70
18	17,639	17,668	17.767	17,840	17,767	17,732	17,747	17,618	17,718	17,721	17,721	17,77
19	17,700	17,700	17,722	17,702	17,820	17,746	17,740	17,565	17,503	17,601	17,687	17,70
20	17,792	17,674	17,754	17,785	17,772	17,687	17,729	17,647	17,576	17,572	17,737	17,80
21	17,879	17,660	17,749	17,744	17,727	17,746	17,763	17,501	17,490	17,641	17,727	17,80
22	17,916	17,668	17,736	17,739	17,767	17,795	17,845	17,417	17,429	17,601	17,770	17.71
23	17,934	17,668	17,731	17,721	17,767	17,722	17,876	17,377	17,345	17,767	17,700	17,61
24	17,876	17,663	17,762	17,681	17,780	17,714	17,758	17,384	17,411	17,767	17,694	17,57
25	17,857	17,626	17,749	17,754	17,820	17,751	17,846	17,483	17,537	17,845	17,600	17,67
26	17,805	17,608	17,757	17,702	17,780	17,714	17,886	17,650	17,561	17,831	17,813	17,77
27	17,792	17,608	17,744	17,744	17,692	17,774	17,768	17,482	17,527	17,831	17,792	17,80
28	17,763	17,613	17,722	17,744	17,742	17,741	17,881	17,478	17,490	17,826	17,792	17,78
29	17,745	17,581	17,759	17,736		17,746	17,725	17,487	17,398	17,811	17,745	17,77
30	17,713	17,608	17,799	17,744		17,746	17,601	17,200	17,495	17,740	17,700	17,80
31	17,666		17,830	17,767		17,806		17,484		17,745	17,674	
Min	17,474	17,447	17,639	17,681	17,684	17,687	17,601	17,200	17,100	17,572	17,600	17,57
Max	17,934	17,700	17,911	17,840	17,820	17,806	17,886	17,770	17,718	17,962	17,813	17,91
EOM	17,666	17,608	17,830	17,767	17,742	17,806	17,601	17,484	17,495	17,745	17,674	17,80



Appendix A (Table 15 of 38) Alva B. Adams Tunnel at East Portal, near Estes Park, CO

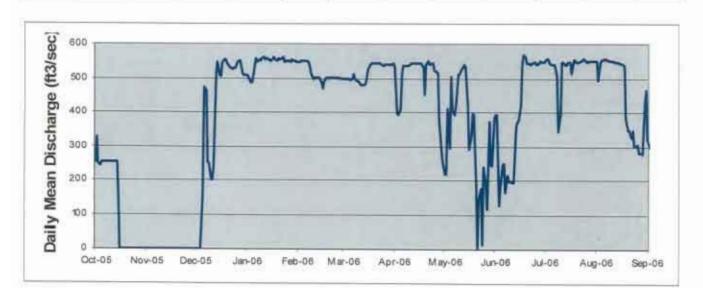
Location. --Lat 40°19'40", long 105°34'39", Larimer County, Hydrologic Unit 10190006, 4.5 miles southwest of Estes Park, Colorado. Gage.

- Water-stage recorder with satellite telemetry at 15 foot Parshall flume. Elevation of gage is 8250 from topographic map.

Remarks, -- Constructed between 1940 and 1947. Tunnel is 13.1 miles long, between Grand Lake and Estes Park, Maximum capacity is 550 cubic feet per second. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	252	0	0	509	549	498	532	217	392	551	552	321
2	325	0	0	502	549	499	397	217	392	559	493	298
3	248	0	0	488	550	498	393	410	128	555	549	298
4	241	0	0	489	552	499	411	294	178	545	553	298
5	251	0	155	510	550	496	513	506	247	542	556	297
6	252	0	472	558	550	497	537	406	249	542	557	296
7	252	0	464	549	549	511	537	394	166	542	555	295
8	251	0	254	555	537	500	538	422	214	505	553	271
9	252	0	250	552	517	492	537	511	198	343	552	213
10	251	0	199	557	499	492	539	513	197	395	550	199
11	251	0	199	560	501	481	543	522	194	549	550	198
12	252	0	243	553	503	480	543	535	192	547	549	199
13	252	0	514	558	502	479	543	539	354	541	548	198
14	253	0	548	554	501	485	544	535	373	540	548	198
15	143	0	508	551	489	507	544	413	375	547	545	199
16	0	0	507	551	471	528	543	292	421	546	543	199
17	0	0	544	562	491	541	544	329	538	515	542	199
18	0	0	554	558	502	544	535	398	569	554	536	199
19	0	0	556	552	503	545	453	392	562	555	383	199
20	0	0	545	557	502	544	540	184	545	548	349	200
21	0	0	534	556	502	543	551	0	544	547	348	200
22	0	0	530	558	502	544	541	145	540	552	326	200
23	0	0	528	562	501	544	544	177	544	552	346	66
24	0	0	529	546	502	542	543	14	547	558	302	26
25	0	0	529	552	501	538	523	239	546	556	303	109
26	0	0	549	550	501	539	520	189	540	549	304	201
27	0	0	550	549	500	539	515	116	544	551	281	201
28	0	0	551	553	500	542	381	371	550	551	282	214
29	0	0	517	551		541	291	246	546	550	277	227
30	0	0	510	552		542	251	243	546	551	431	226
31	0		509	549		543	1	384		551	468	
Min	0	0	0	488	471	479	251	0	128	343	277	26
Max	325	0	556	562	552	545	551	539	569	559	557	321
Mean	120	0	398	545	513	518	498	328	398	535	459	215
ac-ft	7377	0	24449	33464	28464	31825	29553	20103	23623	32846	28177	12759



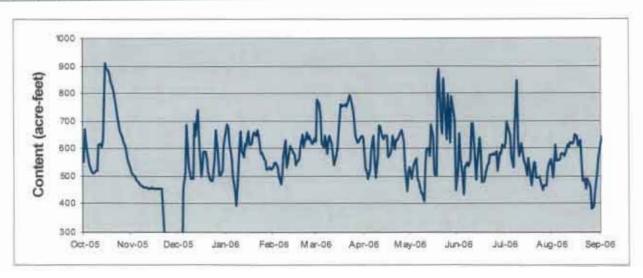
Appendix A (Table 16 of 38) Marys Lake, CO

Location. —Lat 40°22'40", long 105°31'50', Larimer County, Hydrologic Unit 10190006, 2 miles southwest of Estes Park, Colorado. Gage.—Water-level recorder with satellite telemetry. Elevation of gage is 8060 feet from topographic map.

Remarks.— Constructed between 1947 and 1949. Impoundment began in August, 1950. Active capacity between elevations 8,025 and 8,040 is 500 acrefect. Used as a forebay storage for Estes Powerplant. The only measurable inflow into the reservoir comes from Adams Tunnel. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is not complete. The reservoir was partially drained between 22-Nov-2005 and 5-Dec-2005. The gage does not record water surface levels below elevation 8,022.62 feet, content of 318 acre-feet. Record is reliable except for estimated values while the reservoir was drained. These are operational data which could be subject to further revisions and changes.

Content, Acre-Feet, 2400-hour Values

11	Oct	Nov	Dec	Jan	Feb	Мат	Apr	May	Jun	Jul	Aug	Sep
1	554	516	174	636	530	624	636	534	525	601	531	594
2	669	508	174	688	547	777	522	492	654	622	497	641
3	622	500	174	680	549	759	521	524	570	693	613	624
4	565	493	174	620	534	732	492	543	503	661	555	603
5	540	485	456	568	500	620	523	566	436	651	555	592
6	515	477	517	498	470	605	591	493	532	568	560	516
7	511	468	686	446	507	646	646	483	548	532	581	487
8	513	461	538	394	572	581	564	441	536	684	581	470
9	519	457	511	449	631	629	496	440	561	845	572	529
10	521	457	493	605	530	644	569	409	691	628	585	516
11	614	457	491	664	554	617	682	546	692	574	615	562
12	617	456	691	593	611	576	680	598	567	616	606	584
13	606	456	645	567	601	541	640	601	486	588	621	660
14	635	457	740	618	591	573	634	574	545	561	618	71
15	910	456	645	610	575	599	645	688	636	531	620	713
16	891	455	501	663	539	656	644	640	589	503	649	71
17	883	455	531	615	557	759	570	509	478	565	642	709
18	864	455	589	617	560	752	580	504	484	499	610	73
19	840	454	588	644	606	755	597	847	505	465	631	66
20	815	455	563	657	648	759	646	885	541	548	552	57
21	791	454	514	646	607	753	596	697	546	549	484	65
22	767	318	489	665	621	777	630	655	575	495	490	76
23	710	174	483	644	660	793	629	853	578	497	456	87
24	687	174	484	582	635	781	644	715	579	499	491	81
25	664	174	565	585	646	738	659	633	577	480	471	62
26	641	174	668	561	623	695	668	796	587	451	454	61
27	625	174	581	557	618	647	624	620	521	466	384	62
28	604	174	504	525	637	621	532	788	586	467	392	60
29	580	174	502	528	1	625	446	733	581	521	447	63
30	557	174	521	534		641	516	698	613	540	516	67
31	534		610	525		644		452	111.2.11	561	570	
Min	511	174	174	394	470	541	446	409	436	451	384	47
Max	910	516	740	688	660	793	682	885	692	845	649	87
EOM	534	174	610	525	637	644	516	452	613	561	570	67



Appendix A (Table 17 of 38) Big Thompson River above Lake Estes, CO

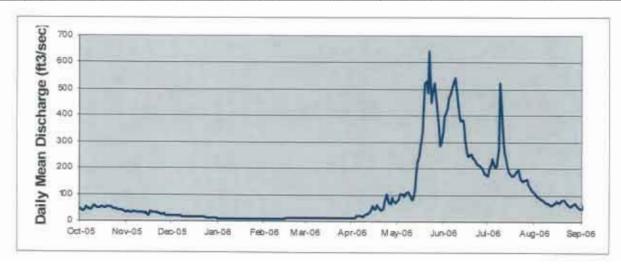
Location. —Let 40°22'42", long 105°30'48", Larimer County, Hydrologic Unit 10190006, 600 feet downstream from bridge on state highways 7 and 36 in Estes Park, Colorado, downstream from Black Canyon Creek, and 0.3 miles northwest of Estes Powerplant.

Gage. – Water-stage recorder with satellite telemetry. 15 foot Parshall flume with overflow weirs and supplemental outside gage. Datum of gage at 7492.5 feet.

Remarks.— Drainage area is 137 mil. Station consists of data collection platform as primary record with graphic chart recorder as backup. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes. Official records are published by the Department of Water Resources, State of Colorado.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	43	34	20	10	10	11	14	72	338	173	108	51
2	39	36	20	10	10	13	13	81	399	197	104	50
3	37	33	20	10	10	13	14	102	419	216	94	64
4	39	32	20	10	10	14	19	102	429	237	89	64
5	52	32	20	10	10	13	22	101	465	209	84	43
6	47	38	20	10	10	14	22	94	489	204	80	42
7	46	33	20	10	10	13	20	102	504	208	77	42
8	42	32	18	10	10	14	18	110	519	274	73	47
9	50	31	18	10	10	13	21	110	543	524	71	68
10	59	31	18	10	10	14	25	94	503	463	68	82
11	56	32	18	10	10	13	30	82	431	318	64	72
12	50	34	18	10	10	14	28	81	397	265	61	67
13	51	29	18	10	10	13	34	119	379	229	62	59
14	50	33	18	10	10	14	45	181	384	205	71	55
15	52	21	18	10	10	13	56	221	365	187	68	52
16	53	25	18	10	11	14	47	250	307	175	76	56
17	51	35	16	10	11	13	50	288	259	170	69	53
18	49	31	16	10	11	14	60	335	246	171	73	48
19	53	31	16	10	11	13	50	443	255	180	79	48
20	53	31	16	10	11	14	43	525	252	187	83	46
21	53	31	16	10	11	13	42	533	242	198	80	50
22	50	30	16	10	11	14	51	489	233	176	71	51
23	46	29	16	10	11	13	73	643	226	160	64	50
24	44	26	14	10	- 11	14	102	452	218	152	61	47
25	43	26	14	10	11	13	84	484	213	156	59	47
26	42	27	14	10	11	14	70	525	210	157	61	46
27	42	22	13	10	11	13	67	479	200	158	66	45
28	41	20	13	10	11	14	89	440	189	140	70	44
29	39	20	13	10		13	78	356	180	128	63	41
30	38	20	13	10		14	69	285	175	119	55	39
31	34		12	10		13		293	2001	115	51	
Min	34	20	12	10	10	11	13	72	175	115	51	39
Max	59	38	20	10	11	14	102	643	543	524	108	82
Mean	47	30	17	10	10	13	45	273	332	208	73	52
ac-ft	2859	1752	1030	614	580	822	2685	16775	19739	12773	4465	3107



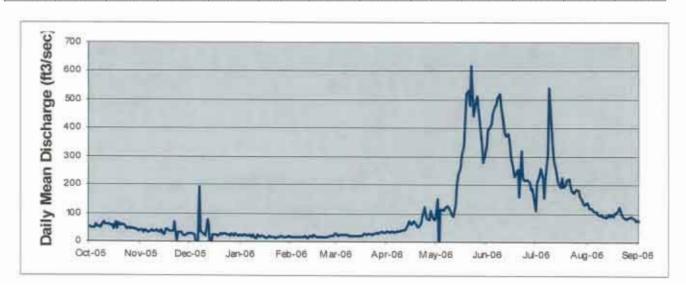
Appendix A (Table 18 of 38) Olympus Dam, CO

Location. --Lat 40°22'31", long 105°29'15", Larimer County, Hydrologic Unit 10190006, 1.5 miles east of Estes Park, Colorado, on the Big Thompson River. Gage.—Water-stage recorder with satellite telemetry. Inflow computed daily based on the change in content from midnight to midnight at Marys Lake and Lake Estes, daily average releases from Olympus Dam, and daily average discharge at Olympus Tunnel and Adams Tunnel.

Remarks.— Olympus dam was constructed between 1947 and 1949. Impoundment began on November 1948. Total capacity at maximum water surface elevation of 7475.0 feet is 3,070 acre-feet. Recorders were operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and but not revised. This record contains operational data which could be subject to future revisions and changes.

Inflow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
. 1	53	40	27	23	18	27	37	80	335	110	138	76
2	50	42	28	20	18	20	36	153	391	210	131	73
3	49	34	30	24	18	25	34	-77	406	233	120	72
4	49	40	24	24	18	25	35	115	415	259	118	67
5	60	38	-4	20	18	26	38	116	451	225	112	67
6	53	34	-136	21	17	23	33	111	474	157	106	68
7	52	38	191	24	16	23	35	119	483	226	106	71
8	48	40	36	18	16	25	35	127	502	307	100	73
9	67	37	28	23	16	19	38	122	520	541	95	88
10	70	36	25	12	21	21	:41	106	479	474	97	102
11	62	40	20	11	14	22	42	94	413	341	90	91
12	62	37	76	24	16	22	42	90	382	288	89	84
13	60	34	57	15	22	22	47	131	371	249	87	73
14	56	41	-60	21	17	19	63	197	379	223	97	71
15	59	26	26	21	24	21	74	232	354	206	91	66
16	44	30	26	18	19	20	62	258	302	194	97	75
17	68	43	23	13	17	20	69	302	259	227	92	66
18	45	39	21	16	18	29	74	345	228	192	103	64
19	66	37	21	22	16	29	63	433	245	200	103	66
20	58	37	28	16	18	26	55	518	252	215	112	73
21	61	37	26	18	16	29	52	533	161	223	122	67
22	56	68	28	16	17	27	64	480	318	198	98	67
23	53	-1	27	13	18	24	89	617	228	181	91	61
24	47	34	24	15	15	30	123	441	219	170	84	59
25	48	31	24	18	20	29	96	469	216	181	80	60
26	46	33	20	20	22	33	82	510	217	183	86	59
27	50	24	28	17	20	30	79	465	209	180	86	50
28	46	21	22	17	27	32	110	429	183	160	91	58
29	43	24	28	18		36	95	346	187	148	85	51
30	42	30	24	15		32	79	278	139	137	83	49
31	37		21	19		32		295		132	75	
Min	37	-1	-136	11	14	19	33	-77	139	110	75	49
Max	70	68	191	24	27	36	123	617	520	541	138	102
Mean	54	35	24	18	18	26	61	272	324	225	99	69
ac-ft	3287	2067	1503	1133	1014	1580	3608	16701	19242	13801	6069	4093



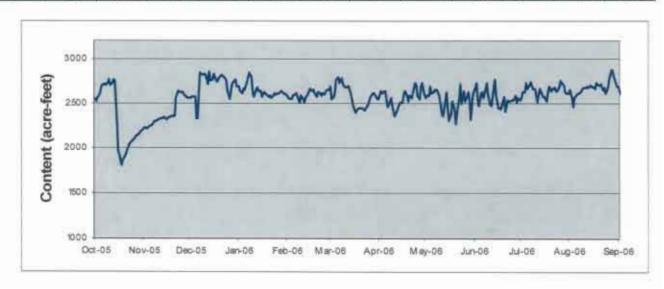
Appendix A (Table 19 of 38) Olympus Dam, CO

Location. —Lat 40*22'31*, long 105*29'19*, Larimer County, Hydrologic Unit 10190006, 1.5 miles east of Estes Park, Colorado, on the Big Thompson River. Gage.— Water-level recorder with satellite telemetry. Elevation of gage is 7490 feet from topographic map.

Remarks.— Constructed between 1947 and 1949. Impoundment began in November, 1948. Active capacity between elevations 7,450.25 and 7,474.00 is 2,476 acre-feet. Used as afterbay storage for Estes Powerplant and forebay for Olympus Tunnel. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

- 1	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Se
1	2,547	2,212	2,561	2,687	2,584	2,685	2,542	2,557	2,643	2,564	2,653	2,683
2	2,527	2,232	2,587	2,634	2,557	2,544	2,638	2,592	2,733	2,623	2,564	2,61
3	2,556	2,221	2,579	2,618	2,546	2,574	2,613	2,584	2,549	2,621	2,454	2,63
4	2.602	2,226	2,577	2,660	2,551	2,628	2,629	2,684	2,468	2,733	2,559	2,64
- 5	2,662	2,243	2,325	2,650	2,581	2,761	2,631	2,618	2,618	2,658	2,594	2,65
6	2,696	2,251	2,326	2,742	2,601	2,797	2,534	2,623	2,624	2,704	2,614	2,72
7	2,708	2,270	2,843	2,792	2,613	2,733	2,452	2,650	2,561	2,740	2,613	2,74
8	2,701	2,290	2,832	2,841	2,574	2,780	2,518	2,655	2,668	2,668	2,633	2,78
9	2,732	2,301	2,818	2,787	2,504	2,709	2,562	2,618	2,726	2,668	2,660	2,76
10	2,770	2,306	2,834	2,626	2,589	2,684	2,473	2,586	2,602	2,650	2.675	2,81
11	2,702	2,319	2,818	2,572	2,544	2,679	2,362	2,390	2,486	2,511	2,672	2,80
12	2,726	2,325	2,720	2,648	2,506	2,689	2,384	2,355	2,470	2,611	2,682	2,79
13	2,761	2,326	2,855	2,672	2,556	2,682	2,445	2,447	2,675	2,658	2,670	2,70
14	2,752	2,341	2,758	2,631	2,601	2,601	2,483	2,628	2,764	2,597	2.706	2,63
15	2,287	2,326	2,770	2,636	2,643	2,537	2,504	2,457	2,596	2,571	2,689	2,62
16	1,965	2,319	2,834	2,567	2,658	2,471	2,513	2,301	2,439	2,572	2,677	2,64
17	1,927	2,338	2,792	2,628	2,643	2,390	2,597	2,387	2,449	2,524	2,668	2,68
18	1,812	2,349	2,744	2,618	2,645	2,424	2,631	2,524	2,428	2,624	2,730	2,65
19	1,866	2,354	2,761	2,594	2,606	2,442	2,586	2,437	2,521	2,687	2,706	2,73
20	1,908	2,358	2,785	2,576	2,571	2,439	2,527	2,265	2,574	2,631	2,701	2,59
21	1,952	2,362	2,813	2,584	2,619	2,449	2,587	2,386	2,408	2,658	2,708	2,69
22	1,986	2,564	2,808	2,559	2,614	2,428	2,564	2,562	2,531	2,673	2,648	2,86
23	2,047	2,633	2,784	2,581	2,582	2,421	2,629	2,714	2,521	2,638	2,673	2,75
24	2,065	2,629	2,749	2,616	2,607	2,449	2,723	2,494	2,519	2,634	2,618	2,68
25	2,080	2,621	2,634	2,602	2,604	2,483	2,706	2,633	2,534	2,685	2,673	2,72
26	2,100	2,619	2,542	2,618	2,641	2,531	2,591	2,522	2,537	2,749	2,763	2,73
27	2,121	2,599	2,638	2,611	2,648	2,574	2,551	2,547	2,592	2,733	2,866	2,72
28	2,142	2,576	2,716	2,638	2,651	2,607	2,685	2,626	2,511	2,702	2,869	2,73
29	2,154	2,559	2,754	2,624		2,607	2,732	2,531	2,557	2,626	2,799	2,70
30	2,177	2,556	2,759	2,607		2,574	2,604	2,320	2,529	2,611	2,726	2,67
31	2,191		2,694	2,604		2,554		2,614		2,609	2,682	
Min	1,812	2,212	2,325	2,559	2,504	2,390	2,362	2,265	2,408	2,511	2,454	2,59
Max	2,770	2,633	2,855	2,841	2,658	2,797	2,732	2,714	2,764	2,749	2,869	2,86
EOM	2,191	2,556	2,694	2,604	2,651	2,554	2,604	2,614	2,529	2,609	2,682	2,67



Appendix A (Table 20 of 38) Big Thompson River below Olympus Dam, CO

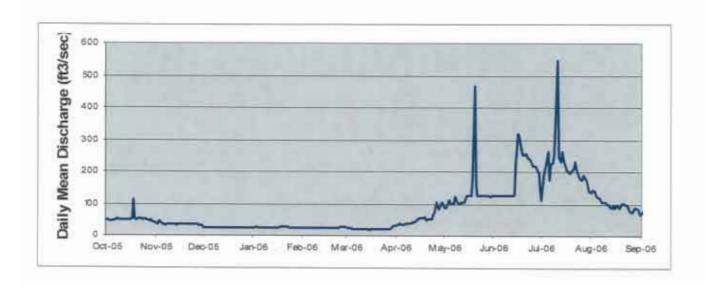
Location. -Lat 40°22'35", long 105°29'06", Larimer County, Hydrologic Unit 10190006, 600 feet downstream from Olympus Dam and 100 feet upstream of Dry Guich, 2.0 miles east in Estes Park.

Gage.— Water-stage recorder with satellite telemetry. 15 foot Parshall flume with overflow weirs in a concrete shelter with a supplemental outside gage. Datum of gage at 7492.50 feet.

Remarks.— Drainage area is 155 mi². Area at site used between 29-Jan-1934 and 21-Mar-1951 was 162 mi². Station consists of data collection platform as primary record with graphic chart recorder as backup. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes. The official record for this station is published by the Department of Water Resources, State of Colorado.

Discharge, Cubic Feet per Second, Daily Mean Values

14	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	50	39	25	24	25	26	31	86	126	112	137	68
2	50	36	25	25	25	26	34	87	127	187	145	76
3	46	45	24	27	25	25	38	94	126	208	140	69
4	46	41	25	26	25	20	35	111	126	221	126	69
5	45	34	25	26	25	20	35	102	126	263	123	65
6	50	34	23	26	25	21	36	103	126	174	118	60
7	50	33	25	25	25	21	37	103	126	223	114	66
8	51	34	25	25	25	20	37	124	126	227	107	65
9	50	34	25	25	25	21	37	104	127	257	105	64
10	50	34	25	25	25	20	38	103	126	440	104	77
11	50	34	25	25	25	20	41	101	126	546	98	77
12	50	35	25	25	26	20	43	104	125	244	97	76
13	50	34	25	25	25	21	44	104	128	232	92	77
14	50	33	25	25	26	20	49	107	129	264	89	76
15	50	34	25	25	26	19	55	126	226	237	98	65
16	50	34	26	25	26	21	55	126	318	215	89	58
17	54	34	26	25	26	20	56	126	314	203	97	51
18	112	34	25	27	26	21	57	128	290	198	92	52
19	51	35	25	27	26	21	59	183	253	197	88	51
20	50	35	26	28	26	21	50	468	253	202	102	51
21	51	36	25	28	26	21	51	166	256	210	101	51
22	51	35	25	28	26	21	51	126	246	230	99	52
23	51	36	25	27	26	21	53	127	242	212	97	52
24	50	36	25	26	26	20	65	126	236	190	93	51
25	52	35	25	25	27	21	71	125	224	179	77	51
26	48	34	24	25	27	21	106	125	217	174	78	51
27	48	34	26	25	27	21	90	125	219	188	75	50
28	46	33	25	25	27	21	85	126	211	185	89	50
29	49	33	25	25		25	102	126	198	171	86	49
30	42	32	25	25		32	106	124	144	156	84	46
31	42		25	25		32		126		142	75	-
Min	42	32	23	24	25	19	31	86	125	112	75	46
Max	112	45	26	28	27	32	106	468	318	548	145	77
Mean	51	35	25	26	26	22	55	129	187	222	100	61
ac-ft	3138	2079	1535	1574	1426	1346	3261	7944	11122	13636	6168	359



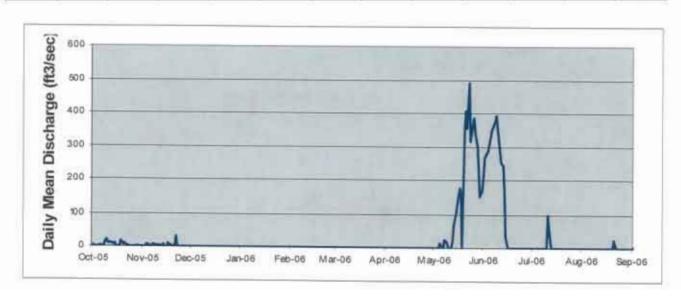
Location. --Lat 40°22'24", long 105°29'00", Larimer County, Hydrologic Unit 10190006, southeast of Estes Park, Colorado.

Gage.- Water-stage recorder and satellite telemetry. Elevation of gage is 7460 from topographic map.

Remarks.— Constructed between 1949 and 1952. The tunnel is 7.2 miles long, between Estes Park and the Pole Hill Canal. Its diameter is 9.75 feet and maximum capacity is 550 cubic feet per second. The hydropower diversion operation, also known as the skim operation, diverts water from the Big Thompson River through Olympus Tunnel for power generation at three power plants, before returning it to the Big Thompson River near the canyon mouth. The Skim daily value is determined based on the data from the gage. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Hydropower Diversion (Skim), Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3	0	0	0	0	0	0	0	208	0	0	0
2	4	0	0	0	0	0	0	0	265	0	0	4
3	0	0	0	0	0	0	0	0	280	0	0	0
4	0	6	0	0	0	0	0	0	289	0	0	0
5	0	4	0	0	0	0	0	13	325	0	0	0
6	3	0	0	0	0	0	0	8	348	0	0	0
7	1	4	0	0	0	0	0	0	357	0	0	0
8	-2	6	0	0	0	0	0	23	375	0	0	0
9	17	3	0	0	0	0	0	19	394	0	0	0
10	20	2	0	0	0	0	0	5	353	0	0	25
11	12	5	0	0	0	0	0	0	288	97	0	15
12	12	3	0	0	0	0	0	0	254	56	0	7
13	10	1	0	0	0	0	0	24	242	0	0	0
14	6	7	0	0	0	0	0	71	153	0	0	0
15	9	0	0	0	0	0	0	106	36	0	0	0
16	0	0	0	0	0	0	0	132	0	0	0	0
17	0	9	0	0	0	0	0	174	0	0	0	14
18	0	4	Ü	0	0	0	0	162	0	0	0	13
19	16	2	0	0	0	0	0	0	0	0	0	15
20	7	1	0	0	0	0	0	352	0	0	0	22
21	10	2	0	0	0	0	0	407	0	0	23	15
22	5	32	0	.0	0	0	0	353	.0	0	0	15
23	3	0	0	0	0	0	0	491	0	0	0	10
24	0	0	0	0	0	0	0	316	0	0	0	8
25	0	0	0	0	0	0	0	344	0	0	0	9
26	0	0	0	0	0	0	0	385	0	0	0	9
27	. 0	0	0	0	0	0	0	339	0	0	0	0
28	0	0	0	0	0	0	0	303	0	0	0	9
29	2	0	0	0		0	0	222	0	0	0	5
30	0	0	0	0		0	0	152	0	0	0	0
31	0		0	0		0		169		0	0	
Min	-2	0	0	0	0	0	0	-5	0	0	0	0
Max	20	32	0	0	0	0	0	491	394	97	23	25
Mean	4	3	0	0	0	0	0	147	139	5	1	7
ac-ft	273	180	0	0	0	0	0	9039	8251	303	46	386



Appendix A (Table 22 of 38) Olympus Tunnel, CO

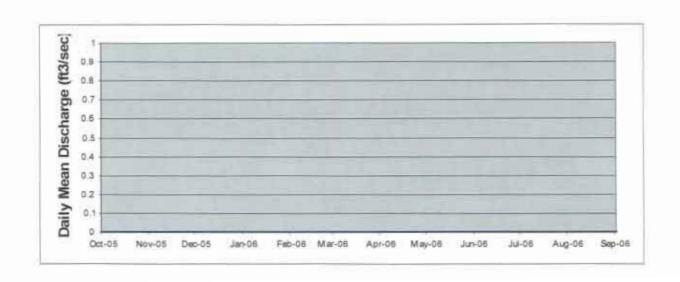
Location. -Lat 40°2224°, long 105°29'00°, Larimer County, Hydrologic Unit 10190006, southeast of Estes Park, Colorado.

Gage .-- Water-stage recorder and satellite telemetry. Elevation of gage is 7460 from topographic map.

Remarks.— Constructed between 1949 and 1952. The tunnel is 7.2 miles long, between Estes Park and the Pole Hill Canal. Its diameter is 9.75 feet and maximum capacity is 550 cubic feet per second. The right to divert native run-off is determined by the State of Colorado. Record is complete and reliable. The C-BT did not have any Big Thompson River decree water between 01-Oct-2005 and 30-Sep-2006.

C-BT Decree Water	Diversion Flow,	Cubic Feet	per Second, Daily	Means Values
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	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
4	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0		0	0	0	0	0	0	0
30	0	0	0	0		0	0	0	0	0	0	0
31	0		0	0		0		0		0	0	
Min	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
ac-ft	0	0	0	0	0	0	0	0	0	0	0	0



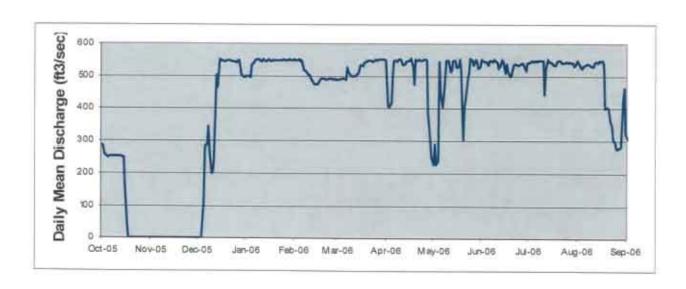
Appendix A (Table 23 of 38) Olympus Tunnel, CO

Location. —Lat 40*22'24", long 105*29'00", Larimer County, Hydrologic Unit 10190006, southeast of Estes Park, Colorado, on the Big Thompson River. Gage.— Water-stage recorder with satellite telemetry. Elevation of gage is 7460 from topographic map.

Remarks.— Constructed between 1949 and 1952. The tunnel is 7.2 miles long, between Estes Park and the Pole Hill Canal. Its diameter is 9.75 feet and maximum capacity is 550 cubic feet per second. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Records are complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Dally Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	284	7.1	0	499	550	489	548	227	552	539	547	318
2	279	1	0	498	547	487	408	288	549	543	542	306
3	261	0	0	497	548	492	402	228	545	547	527	303
4	251	0	0	498	550	491	418	240	545	544	523	302
5	250	0	111	535	545	492	500	543	533	548	529	302
6	252	0	282	542	547	489	549	449	547	545	534	306
7	251	0	287	549	516	525	549	403	547	546	538	306
8	252	0	345	550	515	514	544	445	545	547	537	269
9	252	0	274	550	514	502	551	549	552	549	534	219
10	252	0	200	547	503	498	551	549	549	549	530	205
11	252	0	203	544	501	499	544	546	541	442	530	198
12	252	0	243	550	484	498	533	514	522	521	542	203
13	251	0	502	549	479	501	537	520	537	550	543	203
14	250	0	464	545	475	509	543	549	551	544	541	204
15	248	0	551	549	474	528	548	549	544	545	547	205
16	186	0	547	552	475	532	54	527	510	540	544	205
17	38	0	547	544	481	530	553	529	536	533	548	207
18	1	0	545	549	492	539	531	550	517	532	533	207
19	- 1	0	544	546	490	543	472	515	499	545	401	208
20	1	0	548	548	491	549	551	302	502	549	402	338
21	1	0	546	548	489	549	548	402	532	547	401	129
22	1	0	548	549	489	549	550	433	538	541	353	75
23	1	0	545	548	490	543	549	493	536	539	346	76
24	1	0	545	549	491	544	548	509	533	540	304	100
25	1	0	545	551	490	551	550	558	534	543	290	191
26	1	0	540	549	489	549	550	549	536	542	277	212
27	1	0	548	547	492	551	547	533	542	545	277	206
28	1	0	548	548	489	550	386	552	532	542	280	223
29	1	0	502	550		550	305	543	517	539	285	230
30	1	0	497	548		551	254	522	540	531	433	227
31	1		493	549		552		531		533	464	
Min	1	0	0	496	474	487	254	227	499	442	277	75
Max	284	.1	551	552	550	552	553	556	552	550	547	338
Mean	131	0	389	541	503	524	506	472	535	539	457	223
ac-ft	8029	4	23859	33215	27910	32167	30029	28997	31805	33066	28076	13232



Appendix A (Table 24 of 38) Pinewood Reservoir near Loveland, Colorado , CO

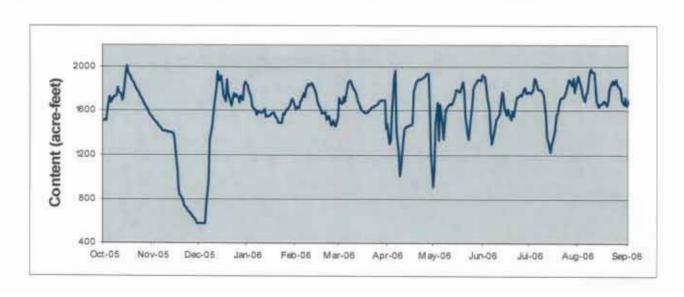
Location. --Lat 40°22', long 105° 17.9', Larimer County, Hydrologic Unit 10190006, 10 miles southwest of Loveland, Colorado.

Gage.- Water-level recorder with satellite telemetry. Elevation of gage is 6,600 feet from topographic map.

Remarks.— Constructed between 1951 and 1952. Impoundment began in January 4, 1954. Active capacity between elevations 6,550.00 and 6.580.00 is 1,570 acre-fect. Used as the forebay storage for Flatiron Powerplant. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is complete and fair, except for periods when reservoir level was dropped below the reach of the reservoir level gage. Records were estimated during that period. Reservoir was below that level between 28-Nov-2005 and 06-Dec-2005. The gage stops measuring the water surface elevation below 6556.30, a content of 629 acre-feet. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Seg
1	1,508	1,538	578	1,829	1,617	1,717	1,478	1,068	1,927	1,776	1,918	1,642
2	1,515	1,523	578	1,785	1,634	1,675	1,296	1,493	1,909	1,759	1,846	1,67
3	1,508	1,500	578	1,734	1,625	1,666	1,336	1,675	1,838	1,794	1,802	1,70
4	1.675	1,485	578	1.642	1,691	1.725	1,578	1.329	1,725	1.900	1,742	1.73
5	1,734	1,470	578	1,625	1,700	1,683	1,909	1,658	1,609	1,882	1,691	1,75
6	1,675	1,448	755	1,601	1,759	1,802	1,972	1,493	1,412	1,802	1,759	1,81
7	1,717	1,434	949	1,562	1,725	1,864	1,427	1,343	1,296	1,794	1,768	1,82
8	1,725	1,419	1,336	1,593	1,802	1,873	1,218	1,609	1,391	1.794	1.954	1,82
9	1,742	1,412	1,448	1,578	1,846	1,846	1,008	1,625	1,456	1,768	1,982	1,76
10	1,811	1,412	1.546	1,585	1,838	1,811	1,086	1.650	1,515	1,751	1,963	1,82
11	1,776	1,405	1,658	1,585	1,855	1,785	1,336	1,666	1,554	1,554	1,954	2,02
12	1,751	1,405	1.820	1,609	1.838	1,751	1,434	1.658	1,578	1,349	1,838	1,88
13	1,700	1,405	1,963	1,538	1,811	1,700	1,456	1,675	1,768	1,322	1,691	1,77
14	1,742	1,398	1,873	1,554	1,751	1,642	1,456	1,742	1,751	1,231	1,634	1,58
15	1,945	1,377	1,918	1,554	1,691	1,617	1,470	1,794	1,625	1,302	1,658	1,54
16	2,009	1,282	1,829	1,562	1,658	1,601	1,470	1,794	1,562	1,336	1.666	1,50
17	1,954	1,057	1,742	1,578	1,609	1,578	1,485	1,776	1,609	1,427	1,683	1,49
18	1,918	878	1,691	1,585	1,570	1,578	1,776	1,794	1,570	1,546	1,683	1,47
19	1,882	844	1,882	1,546	1,578	1,585	1,855	1,864	1,515	1,570	1,642	1,53
20	1.855	810	1.776	1,515	1,585	1,601	1,873	1,785	1,593	1,683	1,683	1,82
21	1,829	773	1,691	1,493	1,523	1,617	1,882	1,546	1,554	1,717	1,794	1,76
22	1,802	738	1,642	1,493	1,546	1,634	1,891	1,384	1,675	1,717	1,855	1,57
23	1,776	711	1,759	1,485	1,508	1,634	1,900	1,343	1,725	1,742	1,873	1,35
24	1.751	695	1,734	1,570	1,463	1.642	1,909	1,470	1,734	1,759	1,846	1,17
25	1,725	678	1,751	1,562	1,508	1,658	1,918	1,658	1,751	1,846	1,882	1,23
26	1,691	658	1,717	1,617	1,470	1,666	1,936	1,802	1,742	1,882	1,838	1,44
27	1,666	638	1,675	1,617	1,456	1,683	1,936	1,829	1,802	1,873	1,811	1,53
28	1,642	622	1,742	1.642	1,538	1.700	1,650	1,864	1,811	1,838	1,785	1.57
29	1,609	603	1,700	1,691		1,700	1,231	1,891	1,759	1,900	1,700	1,55
30	1,585	578	1,829	1,708		1,700	908	1,882	1,776	1,768	1,658	1,58
31	1,562		1,864	1,658		1,441		1,873		1,873	1,717	
Min	1,508	578	578	1,485	1,456	1,441	908	1,068	1,296	1,231	1,634	1,17
Max	2,009	1,538	1,963	1,829	1,855	1,873	1,972	1,891	1,927	1,900	1,982	2,02
EOM	1,562	578	1,864	1,658	1,538	1,441	908	1,873	1,776	1,873	1,717	1,58



Appendix A (Table 25 of 38) Flatiron Reservoir, CO

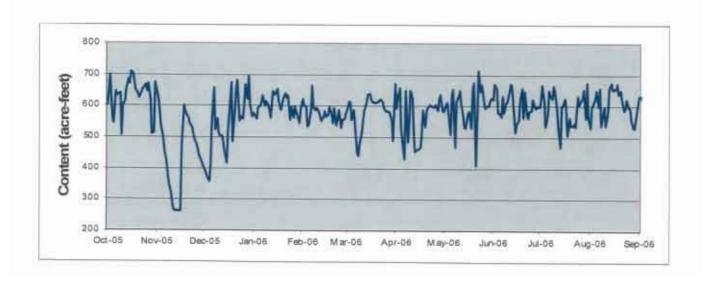
Location. --Lat 40"22.1', long 105"13.3', Larimer County, Hydrologic Unit 10190006, 8 miles southwest of Loveland, Colorado.

Gage. Water-level recorder with satellite telemetry. Elevation of gage is 5,600 feet from topographic map.

Remarks.— Constructed between 1951 and 1953. Impoundment began in January, 1954. Active capacity between elevations 5,462.00 and 5.472.80 is 436 acrefeet. Used as the afterbay storage for Flatiron Powerplant. Recorder was operated from 01-0et-2005 to 30-Sep-2006. Record is complete and fair, except for period November 13 through November 16, when the reservoir level was too low to be measured with current equipment. Values were estimated at the time. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1.	606	658	396	576	623	588	593	584	623	614	530	632
2	645	619	385	567	601	614	627	606	672	667	601	632
3	699	580	371	559	597	610	658	610	658	619	606	623
4	567	538	357	593	534	555	530	576	580	534	627	627
5	546	498	407	601	538	588	494	510	580	572	649	623
6	645	459	546	610	584	538	429	636	567	649	601	601
7	632	421	658	632	663	447	649	654	632	636	658	632
8	636	382	526	601	597	440	486	470	580	627	538	632
9	640	350	559	614	588	478	538	614	610	663	580	645
10	506	317	514	601	593	518	649	632	614	649	597	606
11	601	288	502	588	580	555	627	649	649	593	538	414
12	614	266	502	563	567	588	514	610	672	538	584	518
13	654	263	482	645	551	610	455	567	663	467	658	490
14	685	263	455	636	567	636	463	530	567	601	676	530
18	672	263	418	636	584	640	463	530	518	606	654	498
16	708	263	522	654	567	623	470	576	542	627	654	494
17	703	470	619	614	572	614	514	584	555	580	658	474
18	676	601	676	588	597	610	588	530	619	506	672	490
19	649	584	486	606	572	610	534	654	658	563	640	563
20	640	572	588	627	546	610	584	676	563	538	649	597
21	627	559	654	640	593	619	593	410	645	538	623	593
22	640	542	681	627	538	623	606	551	576	546	588	601
23	654	530	551	632	559	614	601	712	563	534	593	640
24	658	510	567	555	588	597	597	645	584	632	623	690
25	667	494	559	597	530	588	601	667	588	606	597	694
26	645	474	606	563	555	584	606	610	623	614	593	567
27	672	459	667	597	559	584	588	593	597	627	559	559
28	619	440	623	584	576	580	623	601	593	654	530	567
29	510	425	694	559		555	636	601	601	563	530	588
30	514	410	606	546		490	588	614	597	676	588	567
31	676		567	588		672		627		567	610	
Min	506	263	357	546	530	440	429	410	518	467	530	414
Max	708	658	694	654	663	672	658	712	672	676	676	694
EOM	676	410	567	588	576	672	588	627	597	567	610	567



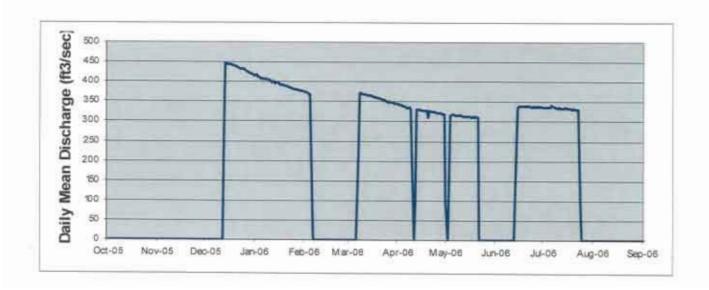
Appendix A (Table 26 of 38) Flatiron Powerplant Unit #3 Pump, CO

Location. —Lat 40°21'53°, long 105°14'09°, Larimer County, Hydrologic Unit 10190006, 9 miles west of Loveland, Colorado Gage.—There is no flow meter or gage in place. Flow is estimated by converting Megawatt-hours to cubic feet per second from calibrated tables.

Remarks.—Constructed between 1951 and 1953. The Powerplant consists of three generating units. Unit #3 can be used to pump water from Flation Reservoir to Carter Lake. The maximum capacity is approximately 425 cubic feet per second, but the efficiency varies according to the water surface levels at Carter Lake and Flatiron Reservoir. Discharges are obtained by converting the electric energy needed to pump into flow using rating tables. Record is complete and fair. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	415	374	0	344	97	0	337	0	0
2	0	0	0	417	373	0	342	0	0	337	0	0
3	0	0	0	412	371	0	342	133	0	337	0	0
4	0	0	0	413	370	0	338	317	0	337	0	.0
5	0	0	0	408	369	0	339	318	0	337	0	0
6	0	0	0	410	124	0	337	318	0	341	0	0
7	0	0	0	407	0	216	335	317	0	338	0	0
8	0	0	0	408	0	372	336	315	0	336	0	0
9	0	0	0	407	0	371	332	316	0	338	0	C
10	0	0	0	404	0	369	216	315	0	334	0	
11	0	0	0	402	0	369	0	316	0	336	0	C
12	0	0	0	398	0	368	93	314	0	334	0	- 0
13	0	0	284	400	0	366	331	314	0	334	0	0
14	0	0	449	395	0	366	331	313	234	333	0	- 0
15	0	0	443	398	0	366	330	312	337	336	0	C
16	0	0	443	397	0	363	328	313	339	333	0	
17	0	0	444	392	0	362	329	311	340	332	0	
18	0	0	442	393	0	361	328	313	340	334	0	0
19	0	0	441	392	0	358	328	311	340	331	0	0
20	0	0	437	388	0	359	310	314	338	333	0	0
21	0	0	438	389	0	357	326	310	339	330	0	0
22	0	0	434	386	0	356	326	0	339	331	0	
23	0	0	433	387	0	355	324	0	339	330	0	
24	0	0	431	384	0	354	325	0	337	94	0	- 0
25	0	0	432	383	0	351	323	0	339	0	0	
26	0	0	428	380	0	349	321	0	337	0	0	- 0
27	0	0	427	380	0	350	322	0	339	0	0	C
28	0	.0	424	380	0	347	321	0	335	0	0	0
29	0	0	423	377		348	319	0	340	0	0	
30	0	0	421	376		344	319	0	337	0	0	. 0
31	0		418	377		345		0		0	0	
Min	0	0	0	376	0	0	0	0	0	0	0	(
Max	0	0	449	417	374	372	344	318	340	341	0	- 0
Mean	0	0	261	395	71	285	306	190	188	251	0	C
ac-ft	0	0	16023	24263	3922	17464	18198	11653	11184	15424	0	- 0



Appendix A (Table 27 of 38) Charles Hansen Feeder Canal 930 Section, CO

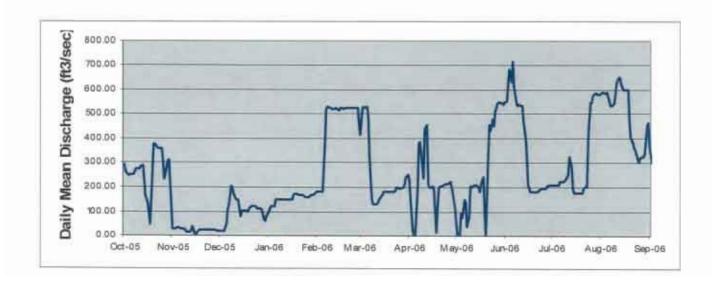
Location. -Lat 40°2226", long 105°13'52", Larimer County, Hydrologic Unit 10190006, 8 miles southwest of Loveland, Colorado.

Gage.- Water-stage recorder with satellite telemetry. Elevation of gage is 5470 feet from topographic map.

Remarks.— Constructed between 1949 and 1953. The canal is 3.8 miles ione and has a maximum capacity of 930 cubic feet per second. The canal is used to move Colorado-Big Thompson Project water and diverted native water to the Big Thompson River and/or Horsetooth Reservoir. Recorder was operated from O1-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Flow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	288	29	20	101	183	411	228	51	546	210	583	367
2	267	30	19	111	183	524	145	1	550	210	588	300
3	256	30	19	124	181	527	17	1	623	210	586	301
4	248	33	19	123	180	522	1	95	685	210	585	301
5	252	31	45	123	181	527	1	74	630	212	588	301
6	252	30	107	150	386	482	197	151	717	226	552	300
7	252	29	128	150	518	317	380	139	612	227	534	300
8	264	28	206	150	528	152	385	37	548	226	531	283
9	271	23	199	150	523	131	288	80	533	227	541	258
10	271	16	174	149	525	131	237	205	540	245	576	217
11	271	14	151	149	520	131	435	201	535	252	626	202
12	280	13	150	151	520	135	454	211	531	323	649	242
13	287	25	145	151	522	150	217	210	474	279	650	287
14	234	36	80	150	517	162	200	210	395	198	624	298
15	164	4	101	151	515	166	202	203	307	178	597	256
16	136	1	102	151	523	185	208	184	212	177	598	248
17	99	13	101	166	523	183	189	213	182	177	600	234
18	47	24	101	172	522	182	15	243	183	177	598	217
19	254	25	100	171	522	182	113	114	183	177	472	152
20	374	24	115	170	524	183	201	1	182	178	400	168
21	372	24	121	169	524	184	206	319	182	198	380	182
22	358	24	121	170	523	184	205	452	182	206	354	186
23	357	23	121	169	524	189	212	431	194	206	351	187
24	357	23	121	162	526	199	214	476	198	406	314	177
25	357	22	113	159	523	198	213	449	198	547	301	165
26	304	22	110	158	524	197	213	511	198	549	317	181
27	232	22	110	159	525	197	223	541	198	575	321	177
28	277	21	110	167	453	202	200	546	208	584	321	203
29	304	21	67	169		215	176	546	210	585	339	248
30	307	20	60	170		243	113	542	210	582	447	231
31	125		81	179		254		539		580	464	
Min	47	1	19	101	180	131	1	1	182	177	301	152
Max	374	36	206	179	528	527	454	546	717	585	650	367
Mean	262	23	104	153	454	247	203	257	372	301	496	239
ac-ft	16074	1343	6366	9391	25179	15139	12057	15793	22070	18490	30468	1419

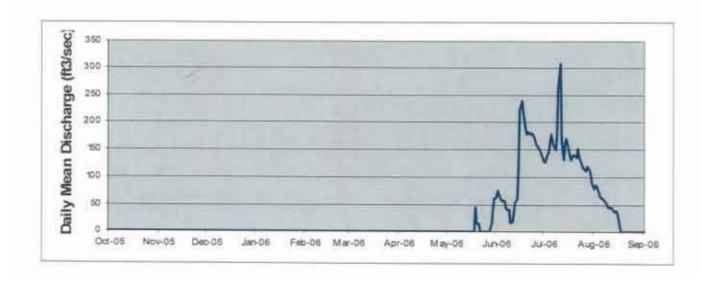


Location. —Lat 40°25'02', long 105°14'35', Larimer County, Hydrologic Unit 10190006, 11 miles west of Loveland, Colorado, on the Big Thompson River. Gage. — Water-stage recorder with satellite telemetry at Parshall Flume. Elevation of gage is 5520 feet from topographic map.

Remarks.— Constructed in 1950. Maximum capacity is 600 cubic feet per second. Dille Tunnel diverts water from the Big Thompson River for power generation and water supply. The hydropower diversion operation, also known as the skim operation, diverts water from the Big Thompson River through Dille Tunnel for power generation at the Big Thompson Power Plant, where the diverted water is returned to the river. The Skim daily value is determined based on the data from the gage. Recorder was operated from 01-Oct-2005 to 04-Nov-2005, and from 21-Apr-2006 to 30-Sep-2006. Station is shutdown during winter. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Hydropower Diversion Flow (Skim), Cubic Feet per Second, Daily Mean Values

- 17	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	63	128	81	0
2	0	0	0	0	0	0	0	0	75	128	87	0
3	0	0	0	0	0	0	0	0	66	141	86	0
4	0	0	0	0	0	0	0	0	59	146	74	0
5	0	0	0	0	0	0	0	0	58	177	66	0
6	0	0	0	0	0	0	0	0	58	169	61	0
7	0	0	0	0	0	0	0	0	46	157	1 60	0
8	0	0	0	0	0	0	0	0	40	150	57	0
9	0	0	0	0	0	0	0	0	40	175	51	0
10	0	0	0	0	0	0	0	0	17	265	46	0
11	0	0	0	0	0	0	0	0	18	310	45	0
12	0	0	0	0	0	0	0	0	34	165	45	0
13	0	0	0	0	.0	0	0	0	52	132	41	0
14	0	0	0	0	0	0	0	0	62	164	37	0
15	0	0	0	0	0	0	0	0	124	171	39	0
16	0	0	0	0	0	0	0	0	223	151	36	0
17	0	0	0	0	0	0	0	0	240	140	10	0
18	0	0	0	0	0	0	0	0	219	131	0	0
19	0	0	0	0	0	0	0	45	188	139	0	0
20	0	0	0	0	0	0	0	15	179	140	0	0
21	0	0	0	0	0	0	0	14	182	136	0	0
22	0	0	0	0	0	0	0	0	179	151	0	0
23	0	0	0	0	0	0	0	0	181	137	0	0
24	0	0	0	0	0	0	0	0	178	126	0	0
25	0	0	0	0	0	0	0	0	171	119	0	0
26	0	0	0	0	0	0	0	0	161	117	0	0
27	0	0	0	0	0	0	0	0	153	114	0	0
28	0	0	0	0	0	0	0	0	150	120	0	0
29	0	0	0	0		0	0	15	146	116	0	0
30	0	0	0	0		0	0	42	133	106	0	0
31	0		0	0		0		61		90	0	
Min	0	0	0	0	0	0	0	0	17	90	0	
Max	0	0	0	0	0	0	0	61	240	310	87	0
Mean	0	0	0	0	0	0	0	6	116	148	29	0
ac-ft	0	0	0	0	0	0	0	380	6906	9108	1809	.0



Location. —Lat 40°25'02", long 105°14'35", Larimer County, Hydrologic Unit 10190006, 11 miles west of Loveland, Colorado, on the Big Thompson River. Gage. — None.

Remarks.— Constructed m 1950. Maximum capacity is 600 cubic feet per second. Dille Tunnel diverts water from the Big Thompson River for power generation and water supply. The right to divert native run-off as decree water is determined by the State of Colorado. Recorder was operated from 01-Oct-2005 to 04-Nov-2005, and from 21-Apr-2006 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes. The Bureau of Reclamation did not divert any C-BT decree water through the Dille Tunnel during water year 2006.

Priority Diversion Flow, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	0	0	0	0
2	ő	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0		0	0	0	0	0	0	0
30	0	0	0	0		0	0	0	0	0	0	0
31	0		0	0		0		0		0	0	
Min	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
ac-ft	0	0	0	0	0	0	0	0	0	0	0	0

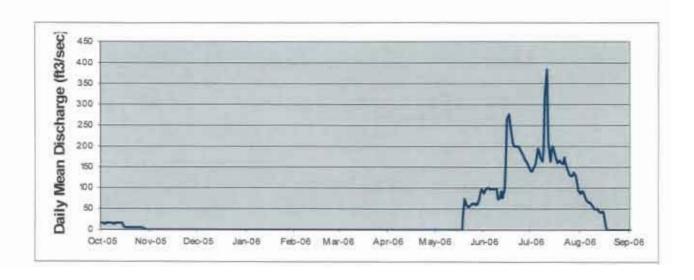


Appendix A (30 of 38) Dille Tunnel near Drake, CO

Location. —Lat 40°25'02", long 105°14'35", Larimer County, Hydrologic Unit 10190006, 11 miles west of Loveland, Colorado, on the Big Thompson River. Gage. — Water-stage recorder with satellite telemetry at Parshall Flume. Elevation of gage is 5520 feet from topographic map. Remarks. — Constructed in 1950. Maximum capacity is 600 cubic feet per second. Dille Tunnel diverts water from the Big Thompson River for power generation and water supply. Recorder was operated from 01-Oct-2005 to 04-Nov-2005, and from 21-Apr-2006 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15	0	0	0	0	0	0	0	87	140	86	0
2	15	0	0	0	0	0	0	0	95	140	92	0
3	14	0	0	0	0	0	0	0	99	153	91	0
4	15	0	0	0	0	0	0	0	99	158	79	0
5	15	0	0	0	0	0	0	0	98	195	71	0
6	15	0	0	0	0	0	0	0	98	189	66	0
7	15	.0	0	0	0	0	0	0	98	173	65	0
8	15	0	0	0	0	0	0	0	98	163	62	0
9	13	0	0	0	0	0	0	0	98	194	56	. 0
10	15	0	0	0	0	0	0	0	75	322	51	0
11	15	0	0	0	0	0	0	0	76	385	50	0
12	15	0	0	0	0	0	0	0	92	214	50	0
13	16	0	0	0	0	0	0	0	76	163	46	0
14	16	0	0	0	0	0	0	0	97	193	42	
15	8	0	0	0	0	0	0	0	163	200	44	
16	5	0	0	0	0	0	0	0	262	180	41	
17	5	0	0	0	0	0	0	0	277	169	11	
18	5	0	0	0	0	0	0	0	249	160	0	(
19	5	0	0	0	0	0	0	45	211	166	0	
20	6	0	0	0	0	0	0	73	200	161	0	(
21	6	0	0	0	0	0	0	59	201	159	0	
22	5	0	0	0	0	0	0	54	200	174	0	(
23	5	0	0	0	0	0	0	54	200	158	0	(
24	6	0	0	0	0	0	0	61	195	143	0	
25	6	0	0	0	0	0	0	64	185	133	0	
26	6	0	0	0	0	0	0	61	178	130	0	(
27	5	0	0	0	0	0	0	63	165	129	0	(
28	2	0	0	0	0	0	0	60	162	136	0	
29	0	0	0	0		0	0	73	158	128	0	- (
30	0	0	0			0	0	93	145	113	0	(
31	0		0	0		0		98		95	0	
Min	0	0	0	0	0	0	0	0	75	95	0	
Max	16	0	0	0	0	0	0	98	277	385	92	
Mean	9	0	0	0	0	0	0	28	14-8	171	32	
ac-ft	560	0	0	0	0	0	0	1698	8786	10526	1986	20

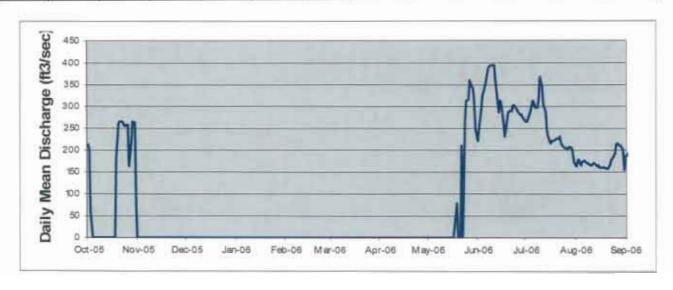


Location. —Lat 40°25'16', long 105°13'26', Larimer County, Hydrologic Unit 10190006, 9 miles west of Loveland, Colorado, on the Big Thompson River. Gage.—Flow meter with satellite telemetry. Elevation of gage is 5280 feet from topographic map.

Remarks.—Initial operation in 1959. Maximum capacity is 400 cubic feet per second. Power plant returns hydropower diversions to the Big Thompson River downstream of the canyon mouth. Power plant is also used to deliver Colorado-Big Thompson project water. Recorder was operated from 01-Oct-2005 to 04Nov-2005 and from 17-May-2006 to 30-Sep-2006. The plant is winterized from November through April each year. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	212	0	0	0	0	0	0	0	220	265	162	188
2	203	0	0	0	0	0	0	0	249	265	174	190
3	60	0	0	0	0	0	0	0	295	281	178	194
4	0	0	0	0	0	0	0	0	326	290	165	193
5	0	0	0	0	0	0	0	0	334	314	174	192
6	0	0	0	0	0	0	0	0	358	307	176	200
7	0	0	0	0	0	0	0	0	377	297	174	201
8	0	0	0	0	0	0	0	0	390	298	172	191
9	0	0	0	0	0	0	0	0	395	316	169	174
10	0	0	0	0	0	0	0	0	396	369	165	146
11	0	0	0	0	0	0	0	0	395	345	165	145
12	0	0	0	0	0	0	0	0	360	306	170	182
13	0	0	0	0	0	0	0	0	338	286	169	192
14	0	0	0	0	.0	0	0	0	286	246	164	189
15	0	0	0	0	0	0	0	0	313	231	165	208
16	0	0	0	0	0	0	0	0	307	216	161	226
17	0	0	0	0	0	0	0	0	264	221	161	210
18	0	0	0	0	0	0	0	54	231	220	160	191
19	179	0	0	0	0	0	0	79	268	224	161	96
20	261	0	0	0	0	0	0	0	287	226	159	59
21	265	0	0	0	0	0	0	0	290	226	159	15:
22	266	0	0	0	0	0	0	210	289	232	168	159
23	264	0	0	0	0	0	0	0	302	215	178	164
24	255	0	0	0	0	0	0	266	302	209	181	150
25	258	0	0	0	0	0	0	312	294	206	193	144
26	257	0	0	0	0	0	0	317	289	205	213	158
27	163	0	0	0	0	0	0	360	282	203	217	15.
28	220	0	0	0	0	0.	0	352	282	207	210	138
29	265	0	0	0		0	0	340	277	204	210	125
30	262	0	0	0		0	0	307	268	194	199	120
31	77	- 2	0	0		0		248	10000	175	155	
Min	0	0	0	0	0	0	0	0	220	175	155	5
Max	266	0	0	0	0	0.	0	360	396	369	217	220
Mean	112	0	0	0	0	0	0	92	309	252	175	16
ac-ft	6865	0	0	0	0	0	0	5633	18343	15442	10745	999

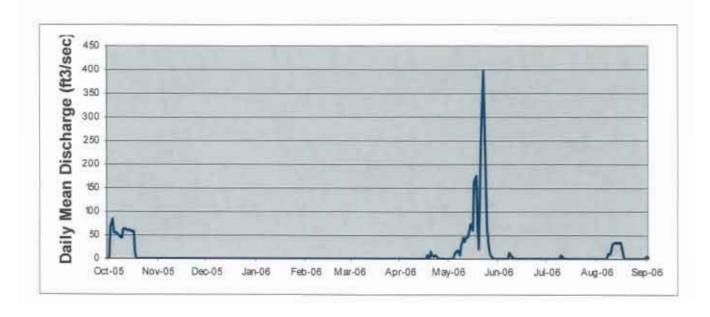


Appendix A (Table 32 of 38) Charles Hansen Feeder Canal Wasteway, CO

Location. —Lat 40°25'13", long 105°13'28', Larimer County, Hydrologic Unit 10190006, 9 miles west of Loveland, Colorado, on the Big Thompson River. Gage.— Water-stage recorder with satellite telemetry at 15 foot Parshall Flume. Elevation of gage is 5465 feet from Designer's Operating Criteria. Remarks.— Constructed between 1949 and 1953. Maximum capacity is 400 cubic feet per second. The structure is used to return diverted water and deliver Colorado-Big Thompson Project water to the Big Thompson River. Recorder was operated from 01-Oct-2005 to 04-Nov-2005, and from 18-Apr-2006 to 30-Sep-2006. Record is complete and reliable. These data are provisional operations data and are subject to further revision and change.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	0	0	0	6
2	0	0	0	0	0	0	0	0	0	0	0	2
3	66	0	0	0	0	0	0	0	0	0	0	0
4	84	0	0	0	0	0	0	0	0	0	0	0
5	56	0	0	0	0	0	0	12	0	0	0	0
6	55	0	0	0	0	0	0	17	0	0	0	0
7	52	0	0	0	0	0	0	19	0	0	0	6
8	49	0	0	0	0	0	0	7	14	0	11	10
9	45	0	0	0	0	0	0	30	6	0	10	10
10	45	0	0	0	0	0	0	46	3	7	20	3
11	64	0	0	0	0	0	0	36	1	3	32	0
12	63	0	0	0	0	0	0	45	0	0	35	0
13	61	0	0	0	0	0	0	47	0	0	35	0
14	60	0	0	0	0	0	0	61	0	0	35	0
15	61	0	0	0	0	0	0	75	0	0	34	0
16	58	0	0	0	0	0	0	61	0	0	34	0
17	57	0	0	0	0	0	0	163	0	0	11	0
18	17	0	0	0	0	0	8	176	0	0	0	0
19	0	0	0	0	0	0	0	76	0	0	0	38
20	0	0	0	0	0	0	16	21	0	0	0	83
21	0	0	0	0	0	0	9	255	0	0	0	0
22	0	0	0	0	0	0	6	334	0	0	0	0
23	0	0	0	0	0	0	9	397	0	0	0	0
24	0	0	0	0	0	0	3	167	0	0	0	0
25	0	0	0	0	0	0	0	65	0	0	0	0
26	0	0	0	0	0	0	0	19	0	0	0	0
27	0	0	0	0	0	0	0	9	0	0	0	0
28	0	0	0	0	0	0	0	4	0	0	0	0
29	0	0	0	0		0	0	0	0	0	0	0
30	0	0	0	0		0	0	0	0	0	0	0
31	0		0	0		0		0		0	1	
Min	0	0	0	0	0	0	0	0	0	0	0	0
Max	84	0	0	0	0	0	16	397	14	7	35	83
Mean	29	0	0	0	0	0	2	69	1	0	8	5
ac-ft	1768	0	0	0	0	0	99	4238	48	19	512	31



Appendix A (Table 33 of 38) Charles Hansen Feeder Canal 550 Section, CO

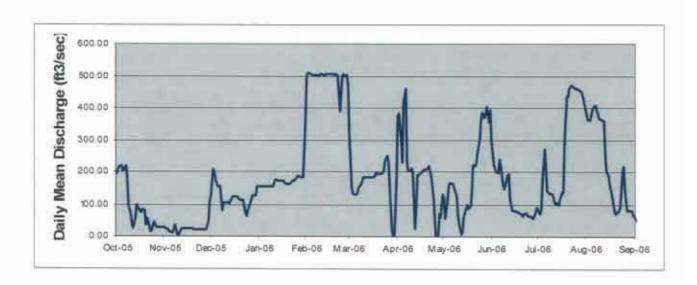
Location. -Lat 40°2525", long 105°13'34", Larimer County, Hydrologic Unit 10190006, 9 miles west of Loveland, Colorado.

Gage.- Water-stage recorder with satellite telemetry. Elevation of gage is 5460 feet from topographic map.

Remarks.— Constructed between 1949 and 1953. The canal is 9.4 miles long and has a maximum capacity of 550 cubic feet per second. The canal is used to convey Colorado-Big Thompson Project water and diverted native water to Horsetooth Reservoir. Recorder was operated from O1-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	194	27	124	154	499	323	376	120	299	83	380	64
2	207	26	206	155	509	155	382	56	222	70	361	53
3	215	22	201	154	505	132	300	110	211	85	362	47
4	218	16	175	154	506	131	229	158	199	174	376	43
5	200	14	156	155	502	131	416	164	195	270	396	32
6	208	12	153	155	502	133	460	165	239	210	407	32
7	218	22	153	155	503	150	228	163	216	140	407	68
8	170	36	82	154	500	161	202	149	161	132	388	84
9	96	7	104	155	497	170	204	127	146	134	365	22
10	67	1	105	155	504	183	209	71	161	130	365	0
11	35	10	104	168	505	182	198	43	190	112	360	0
12	23	24	104	176	503	181	23	7	195	102	357	0
13	55	26	103	173	503	181	95	15	114	106	260	0
14	98	25	116	172	504	181	188	58	82	100	203	0
15	90	25	124	171	504	182	193	87	80	117	187	0
16	78	24	124	172	504	182	197	98	81	136	157	0
17	75	24	124	171	504	186	199	88	77	138	142	0
18	84	24	124	165	506	195	206	94	76	300	107	0
19	82	23	117	162	503	194	207	132	73	434	81	0
20	33	23	114	161	505	193	208	221	71	435	72	0
21	57	22	114	161	502	193	217	218	64	460	77	0
22	32	22	113	168	446	197	204	232	69	470	79	40
23	14	22	73	171	389	208	185	258	72	466	96	100
24	19	21	61	172	503	235	118	303	66	461	202	83
25	45	21	81	180	505	248	59	361	64	458	218	0
26	35	20	103	185	500	227	1	386	63	481	142	0
27	29	20	113	185	503	151	- 4	369	60	458	80	0
28	28	19	128	183	474	22	70	382	54	451	79	0
29	30	44	126	182		0	60	402	72	446	79	0
30	29	110	126	183		0	130	356	90	432	80	0
31	28		153	352		182		391		397	71	
Min	14	1	61	154	389	0	1 1	7	54	70	71	0
Max	218	110	206	352	509	323	460	402	299	470	407	100
Mean	80	24	123	173	496	167	192	187	125	270	224	22
ac-ft	5522	1443	7531	10615	27498	10273	11413	11450	7450	16565	13731	132



Appendix A (34 of 38) Horsetooth Reservoir near Fort Collins, CO

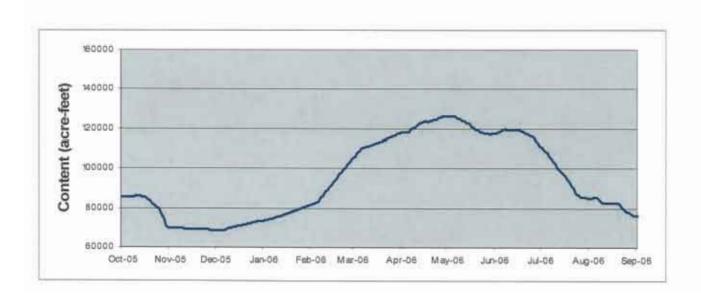
Location. -Lat 40°36′00′, long 105°10′05°, Larimer County, Hydrologic Unit 10190007, at Horsetooth Dam outlet works, 4.8 miles west of Fort Collins, Colorado.

Gage.- Water level recorder with satellite telemetry. Elevation of gage is 5300 from topographic map.

Remarks.-Reservoir is formed by four earth-fill dams. Construction completed in 1949. Impoundment began in 1951. Horsetooth Reservoir is one of two terminal reservoirs for Colorado-Big Thompson Project diversions. Transmountain diversions are stored at Horsetooth Reservoir before final delivery. Maximum capacity 156,735 acre-feet at elevation 5430.00 ft, with 142,038 acre-feet of active capacity. Recorder was operated from 01-Oct-2005 to 30-Sep2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Content, Acre-Feet, 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	85,587	69,910	68,727	73,513	81,321	105,254	118,123	126,342	117,650	111,049	85,036	76,260
2	85,423	69,883	68,607	73,734	81,947	106,198	118,386	126,052	117,755	110,405	85,022	76,190
3	85,363	69,856	68,607	73,900	82,341	107,196	118,351	126,160	117,965	109,679	85,111	76,033
4	85,319	69,775	68,607	74,094	82,589	108.082	118,281	126,052	118,421	109.106	85,661	75.909
5	85,497	69,788	68,526	74,330	82,882	109,039	118,123	126,088	118,807	108,133	85,855	75,740
6	85.512	69,761	68,727	74.553	83,514	109,899	118,123	126.088	119,265	107,046	85,572	75,544
7	85,512	69,734	68,915	74,748	84,310	110,524	119,089	125,907	119,564	105,933	84,947	75,320
8	85,497	69,748	69,250	74,929	85,378	110,863	119,794	125,400	119,600	104,825	84,251	75,180
9	85,676	69,681	69,640	75,236	86,317	110,981	120,288	124,913	119,547	103,608	83,499	75,08
10	85,974	69,640	69,896	75,474	87,277	111,151	120,572	124,481	119,511	102,317	82,809	74,762
11	85,989	69,559	70,126	75,698	88,227	111,423	121,334	124,139	119,318	101,374	82,619	74,48
12	85,945	69,452	70,410	75.951	89,197	111,645	122,224	123,816	119,300	100,274	82.809	74.039
13	85,915	69,438	70,599	76,232	90,112	111,917	122,545	123,511	119,459	99,020	82,853	73,74
14.	85,810	69,465	70,735	76.429	91,016	112,156	122,813	123,046	119,406	98,188	82,809	73,63
15	85,631	69,371	70,871	76,697	92,002	112,463	123,153	122,563	119,177	97,535	82,780	73,49
16	85,363	69,317	71,006	76,951	93,009	112,720	123,457	121,939	119,177	96,726	82,765	73,26
17	85,126	69,250	71,170	77,234	94,005	112,977	123,690	121,139	119,106	95,857	82,707	73,099
18	84,370	69,183	71,333	77,531	94,991	113,405	123,601	120,465	118,948	94,944	82,912	72,837
19	83,632	69,196	71,469	77,844	95,935	113,697	123,547	119,847	118,632	93,990	82,956	72,57
20	83,029	69,210	71,646	78,114	96,932	114,024	123,852	119,388	118,158	92.838	82,589	72,32
21	82,355	69,143	71,851	78,470	97,854	114,352	124,103	119,089	117,790	91,555	81,816	72,02
22	81.685	69,116	72,069	78,770	98,860	114.645	124,283	118,807	117,388	90,250	80,987	71,82
23	81,045	69,102	72,233	79,128	99,823	114,956	124,589	118,421	117,022	88,772	80,134	71,60
24	80,495	69,062	72,411	79,315	100,759	115,302	124,823	118,053	116,673	87,487	79,286	71,360
25	79,933	69,062	72,590	79,573	101,747	115,596	125,166	117,685	116,186	86,781	78,556	71,170
26	78,528	69,035	72,782	79,846	102,675	115,926	125,509	117,528	115,769	86,124	78,228	70,898
27	76,923	68,901	72,961	80,077	103,706	116,221	125,744	117,388	114,956	85,438	77,815	70,59
28	75,334	68.874	73,154	80,466	104,545	116,586	126,052	117,301	113,783	85.363	77,205	70,32
29	73,513	68,848	73,182	80,654		116,900	126,215	117,248	112,686	85,408	76,612	70,23
30	71,224	68,807	73,278	80,944		117,336	126,323	117,283	111,815	85,304	76.302	70,12
31	69,883		73,458	81,263		117,720		117,406	127	85,111	76,218	
Min	69,883	68,807	68,526	73,513	81,321	105,254	118,123	117,248	111,815	85,111	76,218	70,12
Max	85,989	69,910	73,458	81,263	104,545	117,720	126,323	126.342	119,600	111,049	85,855	76.260
EOM	69,883	68,807	73,458	81,263	104,545	117,720	126,323	117,406	111,815	85,111	76,218	70,12



Appendix A (Table 35 of 38) Charles Hansen Supply Canal below Horsetooth Reservoir, CO

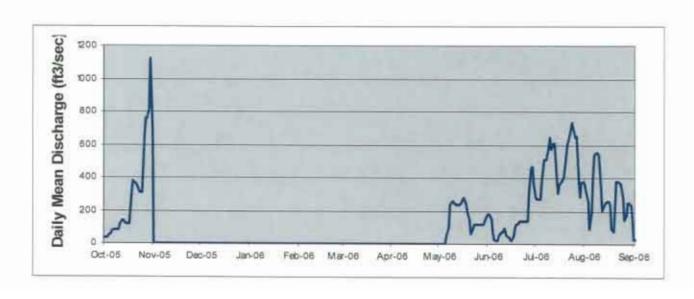
Location. -Lat 40°36'01", long 105°10'18", Larimer County, Hydrologic Unit 10190007, 4 miles west of Fort Collins, Colorado.

Gage. - Water-stage recorder with satellite telemetry at concrete control. Elevation of gage is 5280 feet from topographic map.

Remarks.— Constructed between 1950 and 1952. The canal is 5.1 miles long and has a maximum capacity of 1500 cubic feet per second. The canal is used to deliver Colorado-Big Thompson Project water stored at Horsetooth Reservoir. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	37	0	0	0	0	0	0	0	186	279	362	27
2	36	0	0	0	0	0	.0	0	186	277	324	30
3	36	0	0	0	0	0	0	0	154	273	259	30
4	54	0	0	0	0	0	0	0	70	274	89	30
5	54	0	0	0	0	0	0	6	31	378	193	30
6	76	0	0	0	0	0	0	48	25	515	404	30
7	86	0	0	0	0	0	0	98	21	509	543	30
8	86	0	0	0	0	0	.0	237	50	512	553	30
9	86	0	0	0	0	0	0	260	72	587	553	- 30
10	85	0	0	0	0	0	0	260	74	648	540	117
11	120	0	0	0	0	0	0	248	95	576	344	146
12	142	0	0	0	0	0	0	240	74	608	205	154
13	142	0	0	0	0	0	0	240	49	608	224	119
14	127	0	0	0	0	0	0	240	42	400	255	4
15	122	0	0	0	0	0	0	252	30	308	258	26
16	122	0	0	0	0	0	0	272	24	355	260	30
17	122	0	0	0	0	0	0	280	52	378	235	30
18	309	0	0	0	0	0	0	246	101	390	88	45
19	380	0	0	0	0	0	0	196	122	404	76	50
20	366	0	0	0	0	0	0	149	128	532	225	50
21	361	0	0	0	0	0	0	62	138	801	380	-50
22	346	0	0	0	0	0	0	79	143	633	379	5
23	311	0	0	0	0	0	0	121	140	694	370	5
24	311	0	0	0	0	0	0	121	138	736	367	53
25	311	0	0	0	0	0	0	121	138	673	280	56
26	649	0	0	0	0	0	0	121	138	649	150	60
27	761	0	0	0	0	0	0	121	313	655	175	60
28	761	0	0	0	0	0	0	121	464	372	250	58
29	812	0	0	0		0	0	121	473	290	249	49
30	1124	0	0	0		0	0	144	367	370	236	38
31	684		0	0		0		175		381	166	
Min	36	0	0	0	0		0	0	21	273	76	26
Max	1124	0	0	0	0	0	0	280	473	736	553	154
Mean	291	0	0	0	0	0	0	148	135	479	290	54
ac-ft	17849	0	0	0	0	0	0	9058	7992	29431	17798	3202



Appendix A (Table 36 of 38) Carter Lake near Berthoud, Colorado, CO

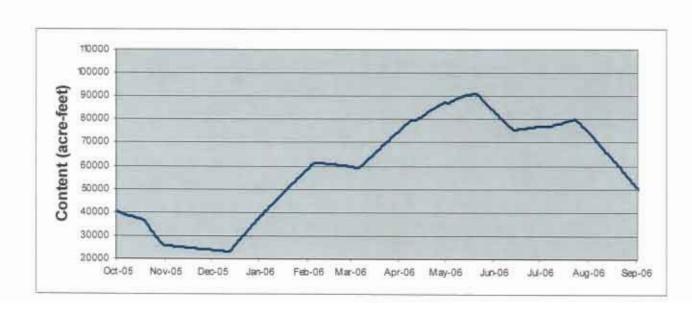
Location. -Lat 40°19′28", long 105°12′41", Larimer County, Hydrologic Unit 10190006, on Dam #1, 7 miles northwest of Berthoud, Colorado, and 10 miles west of Loveland, Colorado.

Gage.-Water level recorder with satellite telemetry. Elevation of gage is 5770 from topographic map.

Remarks.—Reservoir is formed by three earth-fill dams. Construction completed in 1952. Carter Lake is one of two terminal reservoirs for Colorado-Big
Thompson Project diversions. Transmountain diversions are stored at Carter Lake before final delivery. Maximum capacity is 112,200 acre-feet at elevation
5759.00 ft, with 108,900 acre-feet of active capacity. Recorder was operated from 01-Oct-2005 to 30-Sep-2006. Record is complete and reliable. This record
contains operational data which could be subject to future revisions and changes.

Content. Acre-Feet. 2400-hour Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	40,286	25,749	23,828	38,065	58,813	59,813	75,159	87,261	83,610	76,927	74,660	50,887
2	39,927	25,635	23,796	38,817	59,501	59,639	75,650	87,072	82,969	76,927	73,962	50,100
3	39,677	25,582	23,731	39,527	60,108	59,501	76,373	87,019	82,247	77,028	73,256	49,224
4	39,408	25,515	23,699	40,230	60,709	59,501	76,856	87,397	81,588	76,977	72.562	48,378
5	39,171	25,515	23,602	40,886	61,414	59,4.09	77,341	87,818	80,870	77,028	71,7911	47,555
6	38.895	25,375	23,570	41,538	61,534	59,207	77,897	88.081	80,246	76,957	70.974	46,804
7	38,699	25,375	23,409	42,348	61,460	59,593	78,556	88,482	79,634	77,119	70,241	46,116
8	38,487	25,269	23,409	42,926	61,367	60,247	78,972	88,820	78,972	77,189	69,362	45,374
9	38,299	25,242	23,377	43,622	61,228	60,940	79,613	89,201	78,302	77,391	68,526	44,701
10	38,182	25,143	23,243	44,288	61,274	61,469	79,838	89,465	77,624	77.543	67,637	44,082
11	38,073	25,136	23,211	45,050	61,172	62,206	79,481	89,677	77,119	77,846	66,924	43,531
12	37,832	25,046	23,211	45,707	61,033	62,917	79,532	90,155	76,504	78,049	66,186	42,885
13	37,661	25,046	23,667	46,368	60,987	63,481	79,919	90,261	75,851	78,201	65,565	42,177
14	37,506	24,914	24,381	47,099	60,940	64.047	80,450	90,473	75,600	78,332	64,795	41,498
15	37,320	24,881	25,242	47,733	60,912	64,624	80,921	90,686	75,620	78,556	64,141	40,806
16	37,165	24,808	26,051	48,421	60,820	65.241	81,383	90,878	75,620	78,850	63.387	40,206
17	36,895	24,683	26,774	49,061	60,727	65,918	81,948	90,878	75,771	79,023	62,580	39,680
18	36,588	24,617	27.634	49,756	60.709	66,540	82,319	90.942	75,821	79.175	61,926	39,211
19	36,007	24,585	28,422	50,359	60,616	67,261	82,783	91,176	75,921	79,206	61,172	38,699
20	35,021	24,558	29,197	51,147	60,524	67,801	83,093	91,016	76,021	79,532	60,431	38,339
21	34,113	24,486	30,009	51,712	60,477	68,430	83,610	91,069	76,122	79,685	59,639	38,057
22	33,142	24,421	30,657	52,420	60,431	69,119	84,118	90,399	76,172	79,766	58,768	37,754
23	32,217	24,349	31,455	53,018	60,274	69,704	84,450	89,889	76,303	79,919	57,883	37,599
24	31.383	24,283	32,145	53.750	60,293	70.339	84,918	89,232	76,474	79,481	57,122	37.320
25	30,443	24,218	32,950	54,370	60,154	70,974	85,387	88,556	76,524	78,972	56,256	37,080
26	29,655	24,153	33,704	54,993	60,062	71,515	85,867	87,744	76,605	78,403	55,538	36,780
27	28,840	24,055	34,412	55,583	60,016	72,206	86,233	87,072	76,726	77,877	54,770	36,549
28	28,110	24,055	35,210	56,202	59,951	72.710	86,600	86.286	76,877	77,290	53.971	36.243
29	27,278	23,990	35,854	56,941		73,405	87,072	85,606	76,927	76,675	53,106	35,968
30	26.388	23,925	36.549	57,511		73.962	87,450	84.866	76,877	76,021	52,359	35,702
31	25,816		37,320	58,111		74,560		84,243		75,309	51,564	
Min	25,816	23,925	23,211	38,065	58,813	59,207	75,159	84,243	75,600	75,309	51,564	35,702
Max	40.286	25,749	37.320	58.111	61,534	74,560	87,450	91,176	83,610	79,919	74.660	50,887
EOM	25,816	23,925	37,320	58,111	59,951	74,560	87,450	84,243	76,877	75,309	51,564	35,702



Appendix A (Table 37 of 38) Saint Vrain Canal below Carter Reservoir, CO

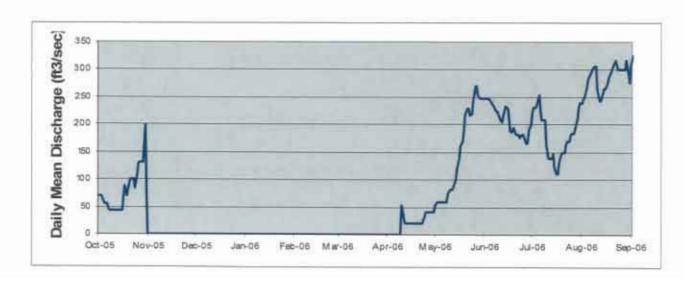
Location. —Lat 40°19'27', long 105°12'35', Larimer County, Hydrolosic Unit 10190006, downstream from Carter Reservoir Dam #1, 7 miles northwest of Berthoud, Colorado, and 10 miles west of Loveland, Colorado.

Gage.—Water-stage recorder with telephone telemetry. Data provided by the Northern Colorado Water Conservancy District. Elevation of gage is 5,590 feet from topographic map.

Remarks.— Constructed between 1952 and 1954. The canal is 9.8 miles long and has a maximum capacity of 625 cubic feet per second. The canal is used to deliver Colorado-Bis Thompson Project water and diverted native water to project share holders. Recorder was operated by Northern Colorado Water Conservancy District from 01-Oct-2005 to 30-Sep-2006. Record is complete and fair. This record contains operational data which could be subject to future revisions and changes.

Discharge, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	70	0	0	0	0	0	0	54	248	221	240	309
2	70	0	0	0	0	0	0	60	248	231	247	32
3	70	0	0	0	0	0	0	60	248	231	250	32
4	60	0	0	0	0	0	0	60	245	237	267	323
.5	55	0	0	0	0	0	0	60	243	253	283	32
6	55	0	0	0	0	0	0	60	236	226	293	28
7	47	0	0	0	0	0	0	60	233	209	297	27
8	43	.0	0	0	0	0	0	60	226	209	304	26
9	43	0	0	0	0	0	0	74	223	209	307	24
10	43	0	0	0	0	0	54	81	216	163	307	23
11	43	0	0	0	0	0	30	81	208	140	264	22
12	43	0	0	0	0	0	20	81	205	140	243	25
13	43	0	0	0	0	0	20	94	217	140	243	27
14	43	0	0	0	0	0	20	100	233	147	258	26
15	43	0	0	0	0	0	20	121	232	123	266	25
16	43	0	0	0	0	0	20	140	229	110	266	24
17	88	0	0	0	0	0	20	162	188	110	275	20
18	82	0	0	0	0	0	20	170	186	130	287	16
19	70	0	0	0	0	0	20	189	195	147	290	14
20	91	0	0	0	0	0	20	220	187	150	303	89
21	100	0	0	0	0	0	20	230	183	150	310	63
22	100	0	0	0	0	0	20	230	183	163	317	63
23	100	0	0	0	0	0	20	217	176	170	307	53
24	83	0	0	0	0	0	33	220	180	170	300	48
25	109	0	0	0	0	0	40	246	183	180	300	46
26	128	0	0	0	0	0	40	270	176	185	300	57
27	130	0	0	0	0	0	40	270	166	185	300	70
28	130	0	0	0	0	0	40	254	168	194	300	70
29	130	0	0	0		0	40	248	191	210	318	70
30	199	0	0	0		0	40	248	201	232	294	58
31	75.		0	0		0		248		240	277	
Min	43	0	0	0	0	0	0	54	166	110	240	46
Max	199	0	0	0	0	0	54	270	248	253	318	32
Mean	78	0	0	0	0	0	20	151	208	181	284	18
ac-ft	4811	.0	0	0	0	0	1182	9242	12383	11098	17449	1114



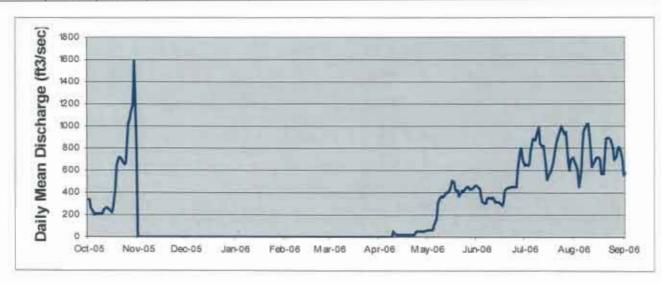
Appendix A (Table 38 of 38) Colorado-Big Thompson Project, CO

Location. — Larimer, Grand, Summit, Boulder, Weld counties in Colorado, hydrologic units 14010001, 14010002 and 10190006, 10190007, on the Colorado River, Big Thompson River and Cache La Poudre River basins.

Remarks.—This table presents a summation of all the daily deliveries of C-BT water through the Saint Vrain Canal, the Charles Hansen Supply Canal, the Dixon Canal and the Charles Hansen Feeder Canal (it does not include metered water). The C-BT Project is a transmountain water diversion system that stores, regulates and transports water from the Colorado River Basin to the Big-Thompson River Basin. The water diverted is used for irrigation, municipal and industrial purposes, to generate hydroelectric power and for recreation. This record contains operational data which could be subject to future revisions and changes.

Total Daily Water Deliveries, Cubic Feet per Second, Daily Mean Values

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	337	0	0	0	0	0	2	64	459	643	688	554
2	336	0	0	0	0	0	2	60	456	650	659	574
3.	266	0	0	0	0	0	1	62	436	646	600	579
4	235	0	0	0	0	0	0	63	355	658	448	577
5	201	0	0	0	0	0	0	76	314	778	584	573
6	213	0	0	0	0	0	0	121	302	889	812	549
7	213	0	0	0	0	0	2	171	308	872	954	545
8	209	0	0	0	0	0	2	310	351	877	1000	509
9	209	0	0	0	0	0	2	359	363	957	1018	463
10	208	0	0	0	.0	0	56	371	349	993	1018	501
11	243	0	0	0	0	0	32	359	361	837	791	500
12	264	0	0	0	0	0	22	376	337	807	634	582
13	267	0	0	0	0	0	22	399	317	822	653	575
14	255	0	0	0	0	0	22	405	319	632	699	498
15	231	0	0	0	0	0	22	420	311	518	711	488
16	219	0	0	0	0	0	22	450	305	551	714	488
17	263	0	0	0	0	0	22	508	289	588	699	430
18	445	0	0	0	0	0	21	491	331	626	571	377
19	646	0	0	0	0	0	20	422	425	658	567	317
20	713	0	0	0	0	0	21	419	444	790	725	275
21	717	0	0	0	0	0	22	366	447	856	885	263
22	702	0	0	0	0	0	22	388	452	894	890	263
23	667	0	0	0	0	0	22	416	450	956	882	253
24	650	0	0	0	0	0	41	414	454	1001	878	246
25	676	0	0	0	0		50	432	454	948	803	244
26	1032	0	0	0	.0	0	51	451	447	930	693	274
27	1053	.0	0	0	0	0	52	453	613	945	723	279
28	1111	0	0.	0	0	1	51	435	768	673	797	259
29	1201	0	0	0		2	50	427	801	602	807	270
30	1593	0	0	0		2	50	443	710	699	760	236
31	835		0	0		2		460		717	682	-
Min	201	0	0	0	0	0	0	60	289	518	448	236
Max	1593	0	0	0	0	2	56	508	801	1001	1018	582
Mean	523	0	0	0	0	0	23	342	424	775	753	418
ac-ft	32086	0	0	0	0	14	1392	20965	25195	47544	46227	2482



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	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

COLORADO-BIG THOMPSON PROJECT

MONTHLY SUMMARY

WATER YEAR 20		OF BLUE RIVER OPERATIONS					(ACRE-FEET)							
WATER TEAR 20	•			O. BEVERIE	-NOFECTIO			(4011						
UNDEPLETED RUNOFF ABOVE GREEN MTN.	[N]	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	\$EP	TOTAL
RESERVOIR		18,800	12,190	10,700	10,300	7,900	10,790	30,800	95,700	111,400	56,200	26.000	18,500	409,190
UNDEPLETED RUNOFF														
ABOVE DILLON RES.		9,200	6.700	5,700	5,500	4.300	5,600	16,300	59.700	69,000	33,600	17,300	11,650	244,550
PERCENT OF TOTAL UN- DEPLETED RUNOFF OR:-														
GINATING ABOVE DILLON		0.489	0.554	0.533	0.534	0.544	0.523	0.529	0.624	0.619	0.598	0.665	0.630	0.598
DEPLETIONS BY 1929 COLORADO SPRINGS RIGHT		0	0	0	0	0	0	45	256	452	177	56	0	986
DEPLETIONS BY 1948 COLORADO SPRINGS RIGHT		-19	-216	0	0	0	0	202	2522	5811	2603	504	-254	11,153
GOLOFO SENINGS NOTE		-19	-210	v	•	•								
INFLOW TO DILLON		9,200	6,900	5,700	5,500	4,300	5,600	16,000	56.900	62,790	30,800	16,700	11,900	232,290
DILLON STORAGE (1000 AF)	242.3	237.6	235.3	232.7	232.2	229.2	226.5	226.9	249.5	950.0		247.6	250.1	
(1000 A1)	242.3	201.0	200.0	232.1	2,02.2	223.2	220.5	220.5	249.0	253.6	253.2	241.0	200.1	
RÖBERTS TUNNEL									23,400	24 200		0.400	800	112,390
DIVERSIONS		6,600	2,500	2,000	2,100	1,900	2,190	9,600	23,400	31,290	21,700	8,400	500	(12,300
DILLON OUTFLOW														
TO THE RIVER		6,200	5,990	6,200	4,000	5,400	6,290	6.000	10,200	26,490	8,800	12,800	7,400	105,590
TOTAL DEPLETIONS														
BY DENVER		3,000	1,100	600	1,500	-1,100	-600	9,900	46,300	36,000	21,900	3,900	4,400	125,700
RUNOFF ORIGINATING BETWEEN DILLON AND														
GREEN MTN RESERVOIR		9,700	5,500	5,100	4,900	3,700	5,100	14,800	36,800	43,390	23,100	9,000	7,000	168.000
ACTUAL INFLOW TO GREEN														
MTN RESERVOIR		15,800	11,300	11,300	8,800	9,000	11,300	20,600	46,600	69,200	31,600	21,600	14,400	271,500
GREEN MTN RESERVOIR STORAGE (7000 AF)	111.4	105.5	100.2	91.1	84.2	75.6	65.5	70.4	103.6	152.7	152.3	139.6	112.6	
TOTAL GREEN MTN OUTFLOW		21,300	16,600	20,300	15,700	17,600	21,390	15,600	12,900	19,100	31,100	33,500	40,800	265,700

PICK-SLOAN MISSOURI BASIN PROGRAM WESTERN DIVISION WATER AND POWER SYSTEM

COLORADO-BIG THOMPSON PROJECT

2006 ACTUAL OPERATIONS

WATER IN 1000 ACRE-FEET ENERGY IN GWH

	INITIAL OR TOTAL		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
GREEN MOUNTAIN RESERVOIR														
Depleted Watershed Inflow	271.5	15.8	11.3	11.3	8.8	9.0	11.3	20.6	46.6	69.2	31.6	21.6	14.4	
Turbine Release	166.2	21.1	16.6	20.3	15.7	17.6	21.3	15.6	11.3	6.0	0.0	0.0	20.7	
Bypass	99.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.6	13.1	31.0	33.5	20.1	
Spitl	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	111.4	105.5	100.2	91.1	84.2	75.6	65.5	70.4	103.6	152.7	152.3	139.6	112.5	
KWh/AF		189.6	186.8	177.3	159.2	164.8	169.0	160.3	168.1	233.3	0.0	232.6	198.1	
Generation WILLOW CREEK RESERVOIR	29.6	4.0	3.1	3.6	2.5	2.9	3.6	2.5	1.9	1.4	0.0	0.0	4.1	
inflow	40.8	1.2	0.9	0.9	0.8	0.7	1.0	6.3	18.1	6.8	2.1	1.0	1.0	
Release to River	5.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.9	0.4	0.4	
Pumped to Granby	33.5	0.0	2.2	0.0	0.4	0.0	0.0	6.3	17.5	5.4	1.1	0.0	1.0	
End of Month Content	8.4	9.2	7.4	7.9	B.3	8.6	9.1	8.4	8.2	8.8	8.8	9.4	8.8	
Pump Energy	6.8	0.0	0.5	0.0	0.0	0.0	0.0	1.2	3.6	1.1	02	0.0	0.2	
GRANBY -SHADOW MOUNTAIN -GRAI	ND LAKE													
Natural Watershed Inflow	220.3	8.1	4.8	5.4	4.2	2.9	4.0	21.7	71.5	63.4	21.8	7.1	5.4	
Total Inflow into Granby	232.1	6.8	7.0	6.5	4.7	3.3	4.3	19.5	87.2	64.0	16.9	6.3	5.6	
Granby Fish Release	25.7	1.2	1.2	1.2	1.2	1.1	1.2	1.2	4.1	4.9	5.2	2.1	1.1	
Granby Seepage	42	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.2	0.2	0.4	0.4	0.3	
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	273.1	7.4	0.0	24.5	33.5	28.5	31.9	29.6	20.1	23.7	32.9	28.2	12.8	
Granby End of Month content	426.6	423.6	429.0	408.0	377.2	350.2	320.4	316.3	392.6	438.5	418.9	392.3	382.0	
SM-GL End of Month Content	17.7	17.7	17.6	17.8	17.8	17.7	17.8	17.6	17.5	17.5	17.7	17.7	17.8	
Pumped from Granby	231.0	6.5	0.0	25.9	33.9	28.9	323	21.1	4.1	9.7	28.0	28.0	12.6	
Granby Pump KWh/AF		153.8	0.0	150.6	156.3	162.6	167.2	170.6	170.7	144.3	153.6	153.6	158.7	
Granby Pump Energy	36.6	1.0	0.0	3.9	5.3	4.7	5.4	3.6	0.7	1.4	4.3	4.3	2.0	

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

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2006 ACTUAL OPERATIONS

WATER IN 1000 ACRE-FEET ENERGY IN GWH ОСТ DEC SEP NOV JAN FEB MAR APR MAY JUN JUL AUG INITIAL OR TOTAL MARYS LAKE - ESTES - FLATIRON 20.1 32.9 12.8 273.1 7.4 0.0 24.5 33.5 28.5 31.9 29.6 23.7 28.2 Adams Tunnel Water Marys Lake Generation 39.0 1.0 0.0 4.5 5.9 5.3 5.8 3.1 0.0 0.3 6.0 5.1 2.0 Estes Generation 121.4 3.1 0.1 10.4 14.8 12.7 14.5 13.6 8.8 10.5 14.7 12.8 5.4 Divertible Big-Thompson 30.3 0.2 0.0 0.0 0.0 0.0 1.4 9.8 11.8 6.1 0.0 0.4 0.6 Diverted Big-Thompson 18.6 0.3 0.2 0.0 0.0 0.0 0.0 0.0 9.1 8.3 0.3 0.0 0.4 Olympus Tunnel 290.8 8.0 0.0 23.9 33.3 28.0 32.2 30.0 29.0 31.9 33.1 28.1 13.3 Pole Hill Generation 1980 5.0 0.0 12.1 20.0 20.6 23.7 21.8 20.9 23.3 23.7 19.1 7.8 Flatiron 1 8 2 Generation 242 257.9 6.2 0.2 29.9 25.0 28.2 26.1 28.8 29.0 10.8 19.3 30.2 Flatiron 3 Turbine Release nα 4.8 4 R 0.0 0.0 nα nn nα nn nο 0.0 n o nο Flatiron 3 KWh/AF Gen. 166.7 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 0.8 0.8 0.0 0.0 0.0 0.0 0.0 Flatiron 3 Pumping 1184 0.0 0.0 15.1 24.3 3.9 17.5 18.2 11.7 11.2 15.5 0.0 0.1 Flatiron 3 KWh/AF Pump 0.0 0.0 260.9 284.0 307.7 308.6 324.2 333.3 321.4 322.6 0.0 0.0 Flatiron 3 Pump Energy 0.0 36.1 6.9 0.0 42 12 5.4 5.9 3.9 3.6 5.0 0.0 0.0 CARTER LAKE 1184 n n 0.0 16.1 24.3 3.9 17.5 18.2 11.7 112 15.5 nα nπ Pumped from Flatiron Release to Flatiron 6.7 6.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Imigation Delivery 22.6 101.D 7.0 1.2 1.5 2.1 4.1 12.7 17.1 16.1 14.4 1.1 1.1 Evaporation 8 Seepage 1.8 0.1 0.0 0.0 0.0 0.0 0.0 0.3 0.4 0.4 0.1 0.3 0.2 End of Month Content 40.6 25.8 58.1 60.0 87.4 23.9 37.3 74.6 84.2 76.9 75.3 51.6 35.7 BIG THOMPSON POWERPLANT 23.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0 1.7 8.8 10.5 2.0 0.0 Diverted Ditte Tunnet Water Imigation Delivery 47.6 9.6 0.0 0.0 0.0 0.0 0.0 0.3 3.0 5.2 7.1 11.2 11.2 Turbine Release 67.2 6.9 0.0 0.0 0.0 0.0 0.0 0.0 5.6 18.4 15.5 10.8 10.0 Generation 9.7 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.8 2.8 2.3 1.4 1.4 HORSETOOTH RESERVOIR Hansen Feeder Canal Inflow 117.5 5.7 1.3 6.5 9.6 24.4 14.8 11.5 5.7 9.1 10.8 16.3 1.7 Imigation Delivery 1187 19.9 12 10 24 12.6 12.5 34.5 22 7 1.5 13 11 8.0 Evaporation 3.7 0.1 0.1 0.0 0.0 0.0 0.0 0.6 0.7 0.8 0.5 0.5 0.3 End of Month Content 117.7 85.7 69.9 68.8 73.5 104.5 126.3 117.4 111.8 76.2 81.3 85.1 70.1 TOTAL OBT DELIVERY

265.3

36.5

2.6

2.5

2.7

2.1

3.2

6.8

28.3

34.8

57.7

56.5

31.6

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

2006 ACTUAL OPERATIONS

	WATER	WATER IN 1000 ACRE-FEET			****	******	******			ENERGY IN GWH				
		ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	INITIAL OR TOTAL													
BASE GENERATION														
Green Mountain	29.6	4.0	3.1	3.6	2.5	2.9	3.6	2.5	1.9	1.4	0.0	0.0	4.1	
Flatiron 3	0.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Big Thompson	9.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.8	2.3	1.4	1.4	
TOTAL	40.1	5.8	3.1	3.6	2.5	2.9	3.6	2.5	2.7	4.2	2.3	1.4	5.5	
LOAD FOLLOWING GENERATION														
Marys Lake	39.0	1.0	0.0	4.5	5.9	5.3	5.8	3.1	0.0	0.3	6.0	5.1	2.0	
Estes	121.4	3.1	0.1	10.4	14.8	12.7	14.5	13.6	8.8	10.5	14.7	12.8	5.4	
Pole Hill	198.0	5.0	0.0	12.1	20.0	20.6	23.7	21.8	20.9	23.3	23.7	19.1	7.8	
Flatiron 182	257.9	5.2	0.2	19.3	29.9	25.0	30.2	282	26.1	28.8	29.0	24.2	10.8	
TOTAL	616.3	15.3	0.3	46.3	70.6	63.6	74.2	66.7	55.8	62.9	73.4	61.2	26.0	
PUMP ENERGY														
Willow Creek	6.8	0.0	0.5	0.0	0.0	0.0	0.0	1.2	3.6	1.1	0.2	0.0	0.2	
Granby	36.6	1.0	0.0	3.9	5.3	4.7	5.4	3.6	0.7	1.4	4.3	4.3	2.0	
Flatiron 3	36.1	0.0	0.0	4.2	6.9	1.2	5.4	5.9	3.9	3.6	5.0	0.0	0.0	
TOTAL	79.5	1.0	0.5	8.1	12.2	5.9	10.8	10.7	8.2	6.1	9.5	4.3	2.2	
TOTAL GENERATION	656.4	21.1	3.4	49.9	73.1	66.5	77.8	69.2	58.5	67.1	75.7	62.6	31.5	
TOTAL GENERATION MINUS PUMP	576.9	20.1	2.9	41.8	60.9	60.6	67.0	58.5	50.3	61.0	66.2	58.3	29.3	

COLORADO-BIG THOMPSON PROJECT FLOOD DAMAGE PREVENTED IN WATER YEAR 2006

	Cumulative Total Prior to WY2005	WY2006	Cumulative Total Current
Granby	\$288,200	\$0.00	\$288,200
Green Mountain	\$97,800	\$1,300.00	\$99,100
Total	\$386,000	\$1,300.00	\$387,300

WESTERN DIVISION POWER SYSTEM WATER YEAR 2006 - GENERATION AND PUMP ENERGY

The Western Division Power System (System) boundaries are illustrated in Exhibit 1. Hydropower generation was above average for the Foothill System of the Colorado-Big Thompson Project (C-BT) during water year 2006. Meanwhile, the Green Mountain Powerplant generation was half of the 30-year average. The low power generation at Green Mountain was caused by the ring seal gate work which took place during the summer and other maintenance work. Green Mountain Powerplant produced 29.6 giga-watt-hours (GWh) during water year 2006, only 50% of its average yearly production, but higher than the previous year.

During water year 2006, the Western Division System's total gross generation for load was 2421.0 GWh, 87% of the 30-year average of 2768.8 GWh. The C-BT system diverted sufficient water to keep its powerplants running consistently most of the water year. The total of 655.6 GWh during water year 2006 represented over 105% of the 30-year average for the six C-BT powerplants.

Inflow for the C-BT collection system over the west slope was lower than anticipated in water year 2006. Dry weather dominated the area after the beginning of spring, and the eastern plains enter a long drought. Those factors combined with higher demands for C-BT water during the spring and summer months produced a situation that required prolonged diversions through Adams Tunnel. Pumping at Willow Creek Canal Pump, the Farr Plant pumps at Granby, and the Flatiron Powerplant was needed to bring C-BT water to the east slope well into the summer months. The energy used to pump that water during water year 2006 totaled 502.8 GWh, 207% of the 30-year average. That is significantly higher than recent years.

After subtracting pumping energy from the gross Western Division System generation for load, the net generation for load during the water year 2006 was 1918.2 GWh, 76% 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 2006. The total energy that was required to operate the pumps in the System (Table 2) during water year 2006 was 502.8, compared to 454.1 GWh the previous year.

The Western Area Power Administration's Loveland Area Office sold 2,824,860 mega-watt-hours (MWh) of power during water year 2005, with the price of \$83,679,853. 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 \$45,591,000.00 for water year 2006, a total of 772,777 MWh.

WESTERN DIVISION SYSTEM GROSS GENERATION - WATER YEAR 2006

(Energy in GWh)

D14	(Energy III C	, w 11 <i>)</i>	
Powerplant	Accum	ulated Gross Generation	1/
	WY 2006	Yearly Avg.2/	Percent of Avg.
Green Mountain	29.6	59.0	50
Marys Lake	39.0	38.5	101
Estes	121.3	101.5	120
Pole Hill	198.0	178.5	111
Flatiron 1 & 2	257.9	232.5	111
Big Thompson	9.7	12.2	80
Seminoe	124.1	148.0	84
Kortes	151.4	155.0	98
Fremont Canyon	214.7	261.8	82
Alcova	115.2	130.1	89
Glendo	69.5	89.5	78
Guernsey	15.5	22.4	69
Boysen	57.5	80.7	71
Heart Mountain	15.9	13.1 3/	121
Buffalo Bill	54.4	82.6 3/	66
Shoshone	19.0	21.7 3/	88
Spirit Mountain	15.8	13.7 4/	115
Mt. Elbert	337.4	169.0 5/	200
Yellowtail4/	575.0	959.0 6/	60
Total	2421,0	2768.8	87

^{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 2006

Pumping Plant	October-September Pump Energy								
	WY2006 Avg. 1/ (GWh) (GWh)								
Willow Greek	6.8	5.7	119						
Granby (Farr Plant)	36.6	29.8	123						
Flatiron Unit #3	36.1	25.6	141						
Mt. Elbert	423.3	182.1 2/	232						
Total	502.8	243.2	207						

^{1/30-}year average

^{2/ 1990-1999} average

PICK-SLOAN MISOURI BASIN PROGRAM WESTERN DIVISION POWER SYSTEM WATER YEAR 2006 OPERATIONS GROSS GENERATION LESS PUMPING IN GIGAWATT-HOURS

WATER YEAR END FY06 ACTUAL LAP GROSS GENERATION LESS PUMPING (GWH)

WATER TEAR END F	TOO ACT	JALI LAF G	MOSS GEN	ERRITOR	LESS FOR	ILING (G	m,						
	oc	T NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Mt. Elbert *	0.0	5.5	5.2	5.4	5.4	6.2	2.9	3.1	7.0	3.8	2.4	1.6	48.5
Green Mtn.	4.0	3.1	3.6	2.5	2.9	3.6	2.5	1.9	1.4	0.0	0.0	4.1	29.6
Willow Cr. pump	0.0	0.5	0.0	0.0	0.0	0.0	1.2	3.6	1.1	0.2	0.0	0.2	6.8
Farr pump	1.0	0.0	3.9	5.3	4.7	5.4	3.6	0.7	1.4	4.3	4.3	2.0	36.6
Marys Lake	1.0	0.0	4.5	5.9	5.3	5.8	3.1	0.0	0.3	6.0	5.1	2.0	39.0
Estes	3.1	0.1	10.4	14.8	12.7	14.5	13.6	8.8	10.5	14.7	12.8	5.4	121.4
Pole Hill	5.0	0.0	12.1	20.0	20.6	23.7	21.8	20.9	23.3	23.7	19.1	7.8	198.0
Flatiron 1&2	6.2	0.2	19.3	29.9	25.0	30.2	28.2	26.1	28.8	29.0	24.2	10.8	257.9
Flatiron 3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Flatiron 3 pump	0.0	0.0	4.2	6.9	1.2	5.4	5.9	3.9	3.6	5.0	0.0	0.0	36.1
Big Thompson	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.8	2.3	1.4	1.4	9.7
Seminoe	4.2	3.8	4.0	4.0	3.6	4.0	17.6	24.7	24.7	21.2	8.8	3.5	124.1
Kortes	5.3	4.9	5.1	5.1	4.6	5.3	21.0	29.2	28.3	25.9	11.8	4.9	151.4
Fremont Canyon	0.6	4.9	5.5	5.7	5.2	8.8	30.4	39.3	38.3	39.2	29.5	7.3	214.7
Alcova	3.3	2.9	3.1	3.1	2.8	4.7	13.9	21.6	20.5	20.8	15.5	3.0	115.2
Glendo	0.0	0.0	0.0	0.0	0.0	0.0	3.4	17.5	11.2	21.7	15.7	0.0	69.5
Guernsey	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.2	2.7	2.2	4.5	0.2	15.5
Pilot Butte **	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.1	1.1	0.2	4.7
Boysen	4.3	5.0	5.2	4.6	4.0	4.5	4.3	8.9	5.7	5.9	5.1	3.5	61.0
Shoshone	1.8	1.4	1.3	1.3	0.2	0.9	1.6	2.2	2.1	2.2	2.1	1.9	19.0
Buffalo Bill	1.9	0.5	0.8	1.0	0.7	0.5	4.9	9.5	11.1	10.6	8.3	4.6	54.4
Spirit Mtn.	0.4	0.0	0.0	0.0	0.0	0.0	0.3	2.8	3.1	3.2	3.1	2.9	15.8
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.	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.2	3.1	3.2	3.0	3.0	15.9
Yellowtail/2	27.6	30.2	27.7	27.8	23.2	23.5	22.8	25.1	27.3	21.5	17.7	13.4	287.5
Fry-Ark	0.0	5.5	5.2	5.4	5.4	6.2	2.9	3.1	7.0	3.8	2.4	1.6	48.5
CBT	20.1	2.9	41.8	60.9	60.6	67.0	58.5	50.3	61.0	66.2	58.3	29.3	576.9
North Platte	13.4	16.5	17.7	17.9	16.2	22.8	88.0	136.5	125.7	131.0	85.8	18.9	690.4
Bighorn	36.4	37.1	35.0	34.7	28.1	29.4	34.3	52.6	53.4	47.7	40.4	29.5	458.3
TOTAL GEN	69.9	62.0	99.7	118.9	110.3	125.4	183.6	242.5	247.1	248.7	186.9	79.2	1774.1
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	-92.6	-100.3	-77.5	-53.7	-26.8	-23.8	7.3	57.7	35.9	-13.5	-24.3	-77.6	-389.3

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 (ft3/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 Bi113/	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 (ft ³ /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

LAP GROSS GENERATION LESS PUMPING WATER YEAR 2006

