

RECLAMATION

Managing Water in the West

EA No. EC-2013-002

Summit County Board of Commissioners, Town of Dillon, and Town of Silverthorne Green Mountain Reservoir Water Service Contracts, Colorado-Big Thompson Project

Environmental Assessment



U.S. Department of the Interior

Bureau of Reclamation
Great Plains Region
Eastern Colorado Area Office

March 2013

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Chapter 1 – Purpose and Need

Background

The Colorado-Big Thompson Project (C-BT) provides supplemental water annually to 830,000 people, 33 cities and towns and almost 650,000 irrigated acres of developed farmlands in the Colorado Front Range. Green Mountain Reservoir (GMR), which is situated on the Blue River, a tributary of the Colorado River, was built for replacement storage for water diverted by the C-BT to the eastern slope of Colorado.

Summit County, located in central western Colorado in the southern Rocky Mountains, with forested terrain ranging over 11,000 feet, is a picturesque area that has experienced significant growth within the past few years. Old Dillon Reservoir is located in Sections 13 and 14, T5S, R78W, 6th PM, Summit County, approximately one mile southwest of the Town of Dillon adjacent to the northwest shore of Dillon Reservoir (Figure 1). Old Dillon Reservoir is operated and maintained by the Town of Dillon under special use authorization from the US Forest Service (USFS). The Old Dillon Reservoir is fed by the Dillon Ditch, which diverts from Salt Lick Gulch, a tributary of the Blue River. Old Dillon Reservoir was authorized and constructed to provide water mainly for municipal and industrial (domestic) uses, as well as the incidental benefits of recreation, and fish and wildlife habitat.

Old Dillon Reservoir Enlargement Environmental Assessment (ODRE EA) (USDA-FS 2009) analyzed the effects of enlarging Old Dillon Reservoir. The purpose of that project is “to provide additional water storage capacity and water supply security to meet existing and future municipal, augmentation, and other water supply needs and to improve the utility of Old Dillon Reservoir as an alternative water supply for the Town of Dillon, thereby increasing the water supply security for the town.” On February 23, 2010, Scott Fitzwilliams, White River National Forest Supervisor, signed a Decision Notice and Finding of No Significant Impact (DN/FONSI) for the Old Dillon Reservoir Enlargement Project (USDA-FS 2010).

Purpose and Need for Action

The purpose of the proposed action is to allow Summit County Board of Commissioners, Town of Dillon, and Town of Silverthorne (collectively referred to as the Applicants) to use GMR water by exchange under water service contracts. The contracts would allow for out-of-priority diversions from Salt Lick Gulch and storage in the Applicants’ main storage reservoir (Old Dillon Reservoir), including when GMR storage and power water rights are calling. This environmental assessment analyzes the impacts resulting from the issuance of GMR water service contracts.

Proposed Action

Reclamation proposes to issue 25-year Green Mountain Reservoir water service contracts to the Applicants for a total of 413 ac-ft of water to be used for municipal, domestic and potential industrial uses in unincorporated areas of Summit County and within municipal boundaries of the towns of Dillon and Silverthorne. This contract water would allow out-of-priority diversions from Salt Lick Gulch and storage in Old Dillon Reservoir, including when GMR storage and power rights are calling. Salt Lick Gulch is a tributary to the Blue River. The water exchanged to storage in Old Dillon Reservoir would be considered to be fully consumable. Releases out of Old Dillon Reservoir for augmentation purposes would be made into Salt Lick Gulch or into Dillon Reservoir.

Due to drought conditions in early 2002 and the resulting water shortage situation, Reclamation also requires that each new GMR contractor obtain an additional viable alternative source contract from a

source of water upstream of the confluence of the Colorado and Gunnison Rivers within the Colorado River Basin other than GMR that can be used when contract water may not be available from GMR. The alternative source contract(s) would be executed for an equal quantity of water as contracted from GMR but from a second location. The water provided through the alternative source contract(s) would be used at the discretion of Reclamation and would allow Reclamation to supplement water released from GMR. The Applicants have chosen to use Wolford Mountain Reservoir for their alternative water source. Wolford Mountain Reservoir is located on Muddy Creek in Grand County, Colorado and is owned and operated by the Colorado River Water Conservation District to provide water storage benefits to both the Western Colorado and the Eastern Slope users.

Authority

The authority to issue the proposed water service contracts is the Reclamation Act (Act of June 17, 1902) (32 Stat. 388), and acts amendatory thereof and supplementary thereto, and the Act of August 9, 1937 (50 Stat. 564, 595), and the Act of August 4, 1939 (53 Stat. 1187), as amended and supplemented.



Figure 1. Project Location

Chapter 2 - Alternatives

This chapter describes and compares the alternatives considered for the Summit County Board of Commissioners, Town of Dillon, and Town of Silverthorne Green Mountain Reservoir Water Service Contracts, Colorado-Big Thompson Project.

Alternative 1 – Proposed Action

Reclamation proposes to issue long-term, 25 year, GMR water service contracts to the Applicants for a total of 413 ac-ft of water to be used for municipal, domestic and potential industrial uses in unincorporated areas of Summit County and within municipal boundaries of the towns of Dillon and Silverthorne. This contract water would allow out-of-priority diversions from Salt Lick Gulch and storage in Old Dillon Reservoir, including when GMR storage and power rights are calling. Salt Lick Gulch is a tributary to the Blue River. The water exchanged to storage in Old Dillon Reservoir would be considered to be fully consumable.

Old Dillon Reservoir is located in Sections 13 and 14, T5S, R78W, 6th PM, Summit County, Colorado as shown in Figure 1. Releases out of Old Dillon Reservoir for augmentation purposes would be made into Salt Lick Gulch or into Dillon Reservoir.

A condition of the proposed GMR contracts includes the Applicants obtaining a viable alternative source contract(s) for no less than the quantity of water proposed to be contracted from GMR, but from a separate water source used to supplement GMR releases. The Applicants have chosen to use Wolford Mountain Reservoir for their alternative water source.

Alternative 2 – No Action

In the event that the proposed water service contracts are not executed, the Applicants would not be allowed to divert and store GMR contract water in Old Dillon Reservoir by exchange as proposed nor would they have a need for an alternative source contract(s) from Wolford Mountain Reservoir. There is no other practical alternative source of augmentation water above GMR that would allow the Applicants to operate against a call from senior storage and power water rights. As a result, the Old Dillon Reservoir project's reliable yield of the enlargement would be greatly reduced, likely to the point where economic feasibility would be eliminated and the Applicants would not proceed with the proposed operations of Old Dillon Reservoir.

Chapter 3 - Environmental Consequences

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives.

Alternative 1 – Proposed Action

Under the proposed action, Reclamation would enter into long-term GMR water service contracts with the Applicants for a total of 413 ac-ft of water to be used for municipal, domestic and potential industrial uses in unincorporated areas of Summit County and within municipal boundaries of the Towns of Dillon and Silverthorne. Releases for augmentation purposes would be made out of Old Dillon Reservoir into Salt Lick Gulch, or into Dillon Reservoir. Previous NEPA documentation, the 2009 ODRE EA (USDA-FS 2009) and 2010 DN/FONSI (USDA-FS 2010), was prepared for the White River National Forest that evaluated the site-specific impacts of the Old Dillon Reservoir enlargement activities, improvements, and changed operations. This analysis tiers to the 2009 ODRE EA. There were no significant environmental effects found, as documented in the DN/FONSI, that have not already been mitigated. This proposed action for contracting of 413 ac-ft would require no ground-disturbing activities. The ground disturbing

activities involved with expansion of the Old Dillon Reservoir were analyzed in the ODRE EA and approved in the DN/FONSI. No additional analysis of these impacts is needed. No change in the use of project water would occur under this proposal. Exchange of non-project water would not interfere with conveyance of project water through the project facilities.

It is expected that providing for a more reliable water source for communities served by the Applicants would be a beneficial effect on the quality of the human environment within the service area, as well as on public health and safety. The proposal would not have a disproportionately high and adverse effect on low income or minority populations.

The Green Mountain Reservoir, Colorado Water Marketing Program Final Supplement to the Final Environmental Statement (GMR FSFES; USDI-BOR 1988) analyzed the impacts of full sales or exchange of 22,800 ac-ft from GMR with maintenance of instream flow values for the protection of the natural environment. This analysis tiers to the GMR FSFES. This proposed action for contracting of 413 ac-ft is within the scope of the sales or exchanges analyzed in the GMR FSFES. It is not expected that entering into water service contracts with the Applicants for 413 ac-ft would involve any highly controversial effects or unresolved conflicts concerning alternative uses of available resources.

Water operations involving the alternative source contract(s) out of Wolford Mountain Reservoir, including releases from Wolford Reservoir as substitution for water stored in GMR, were analyzed in the Rock Creek/Muddy Creek Reservoir Final Environmental Impact Statement (RCMC FEIS; USDI-BLM/USDA-FS 1990). This analysis tiers to the RCMC FEIS. No further analysis of use of Wolford Mountain Reservoir as an alternative source is necessary.

Since the proposed action would require no ground-disturbing activities, there would be no impacts on such resources and unique geographical characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers, national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecological significant or critical areas. The Applicants have already agreed to comply with all requirements of Section 404 of the Clean Water Act and have received a Section 404 permit (SPK-2009-01267) for the Old Dillon Reservoir Enlargement Project (analyzed by the USFS in the 2009 ODR EA and 2010 DN/FONSI), which includes wetland mitigation commitments.

As stated above, the GMR FSFES analyzed the impacts of full sales or exchange of 22,800 ac-ft from GMR with maintenance of in-stream flow values for the protection of the natural environment. Water operations involving the alternative source contract(s) out of Wolford Mountain Reservoir, including releases from Wolford Mountain Reservoir as substitution for water stored in GMR, were analyzed in the Rock Creek/Muddy Creek Reservoir Final Environmental Impact Statement (USDI-BLM 1990). The effects from both of these projects were not considered highly uncertain or involving unique or unknown environmental risks. The 413 ac-ft being analyzed under the proposed action is a fraction of what was evaluated in these two documents, thus the effects of the proposed contract are also not considered to be highly uncertain or involving unique or unknown environmental risks.

The Draft Technical Memorandum No. GM-8311-6, Heeney Landslide Evaluation (USDI-BOR 2011) supports the "... continuation of the operational limitations of the drawdown rate ...". The proposed contracts for 413 ac-ft would not require and do not propose a change in current operations.

The proposed contracts could potentially cause depletions to the Blue River downstream of Dillon Reservoir. The GMR FSFES analyzed depletions to the Blue River below Dillon Reservoir resulting from the water service contracting program. The GMR FSFES defers site-specific effects of water use until a water service contract is executed. Specifically, site-specific impacts may include other streams within

the drainage sub-basin. The reach of the Blue River that has the potential to be affected by the proposed contracts' augmentation activity has existing senior Colorado Water Conservation Board instream flow decrees. A condition would be included in the water service contracts to protect the specific existing instream flow decrees as described in Exhibit A. The proposed action would not establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.

On August 24, 1998, Reclamation, the Colorado State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation signed a Programmatic Agreement under 36 CFR, 800.13 (51 FR 31118, 9/2/86) on the Ruedi and GMR water marketing programs. The programmatic agreement defines the area of potential effect for this contract as the area from the point of diversion to the water treatment facility. This action is defined as an undertaking meeting the stipulations in the Programmatic Agreement, therefore needing no further review. However, since there is site-specific construction (Old Dillon Reservoir Enlargement Project) within the area of potential effect, the U.S. Forest Service completed cultural resource investigation Section 106 compliance for the Old Dillon Reservoir Enlargement Project under the ODRE EA and received SHPO concurrence of "No Historic Properties affected" for this project dated March 6, 2009. This action would not limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007, 43 CFR 43.215 (k)). Entering into water service contracts with the Applicants would not affect Indian Trust Assets.

On December 20, 1999, the Fish and Wildlife Service issued a Programmatic Biological Opinion (PBO) on the Bureau of Reclamation's Operations and Depletions, other Depletions, and Funding and Implementation of Recovery Program Actions in the Upper Colorado River above the Gunnison River. On January 19, 2000, the Great Plains Region of the Bureau of Reclamation accepted the PBO and agreed to implement the proposed action as described in the PBO. The depletion effects of this contract were analyzed in the PBO. The PBO determined that actions of this nature "may affect" the endangered Colorado pikeminnow (squawfish), humpback chub, bonytail, and razorback sucker (the four listed fish species) and their critical habitat, but were not likely to jeopardize the continued existence, or destroy or adversely modify the designated critical habitat of these species. This determination was for implementation of the recovery program and the depletion effects.

A Biological Assessment was completed for site-specific effects of the Old Dillon Enlargement project depletions. It found that the four listed fish species may likely be adversely affected. The Forest Service consulted with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act. Their signature on the Recovery Agreement, along with paying a fee for depletions, provides assurance that the implementation of the PBO will avoid the likelihood of jeopardy for depletion impacts from the Old Dillon Reservoir Enlargement project.

No ground disturbing actions would occur under the proposed action, thus this action would not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species.

There would be no cumulative impacts from related actions that have not been addressed in the GMR FSFES. The GMR FSFES analyzed the effects of water depletions on the Blue River, Fraser River drainage, Eagle River drainage, and Colorado River from all anticipated water sales.

Alternative 2 – No Action

Under the No Action alternative, the proposed water service contracts would not be executed. The Applicants would not be allowed to divert and store GMR contract water in Old Dillon Reservoir by exchange as proposed nor would they have a need for an alternative source contract(s) from Wolford Mountain Reservoir. As a result, the Old Dillon Reservoir project’s reliable yield of the enlargement would be greatly reduced, likely to the point where economic feasibility would be eliminated and the Applicants would not proceed with the proposed operations of Old Dillon Reservoir.

Chapter 4 - Consultation and Coordination

Reclamation consulted the following during the development of this environmental assessment:

Colorado River Water Conservation District
Colorado State Historic Preservation Office
Summit County Board of County Commissioners
Town of Dillon
Town of Silverthorne
US Forest Service, Dillon Ranger District

Chapter 5 - References

- USDA-FS (United States Department of Agriculture – Forest Service). 2009. “Old Dillon Reservoir Enlargement Environmental Assessment.” White River National Forest. Dillon Ranger District.
- USDA-FS (United States Department of Agriculture – Forest Service). 2010. “Decision Notice and Finding of No Significant Impact for the Old Dillon Reservoir Enlargement Project.” White River National Forest.
- USDI-BLM/USDA-FS (United States Department of the Interior – Bureau of Land Management and United States Department of Agriculture – Forest Service). 1990. “Rock Creek/Muddy Creek Reservoir Final Environmental Impact Statement.” Colorado State Office - BLM. Rocky Mountain Region - USFS.
- USDI-BOR (United States Department of the Interior – Bureau of Reclamation). 1988. “The Green Mountain Reservoir, Colorado Water Marketing Program Final Supplement to the Final Environmental Statement.” Missouri Basin Region.
- USDI-BOR (United States Department of the Interior – Bureau of Reclamation). 2011. Draft Technical Memorandum No. GM-8311-6 Heeney Landslide Evaluation. Colorado-Big Thompson Project, Colorado. Great Plains Region
- USDI-FWS (United States Department of the Interior - Fish and Wildlife Service). 1999. “Final Programmatic Biological Opinion for Bureau of Reclamation’s Operations and Depletions, Other Depletions, and Funding and Implementation of recovery Program Actions in the Upper Colorado river Above the Confluence with the Gunnison River.” Mountain Prairie Region.

Chapter 6 – List of Preparers

USDI Bureau of Reclamation, Eastern Colorado Area Office

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EXHIBIT A

Instream Flow Water Rights

Case Number	Stream	County	Upper Terminus	Lower Terminus	Length (miles)	USGS Quad	Amount (dates) (CFS)	Appropriation Date
5-87CW293	Blue River	Summit	conflu Straight Creek in SE SE S12 T5S R78W 6PM	conflu Willow Creek in NE NW S1 T5S R78W 6PM	2	Dillon	55 (05/1 - 07/31) 52 (08/1 - 09/30) 50 (10/1 - 04/30)	10/2/1987
5-87CW295	Blue River	Summit	conflu Willow Creek in NE NW S1 T5S R78W 6PM	conflu Rock Creek in NW NE S9 T4S R78W 6PM	6.2	Dillon/Willow Lakes	75 (04/1 - 09/30) 58 (10/1 - 03/31)	10/2/1987
5-87CW296	Blue River	Summit	conflu Rock Creek in NW NE S9 T4S R78W 6PM	conflu Boulder Creek in NE NW S4 T4SR78W 6PM	1.6	Willow Lakes	90 (04/1 - 04/30) 115 (05/1 - 08/31) 90 (09/1 - 09/30) 78 (10/1 - 10/31) 67 (11/1 - 03/31)	10/2/1987
5-05CW264B*	Blue River	Summit	conflu Boulder Creek in NE NW S4 T4SR78W 6PM	conflu Slate Creek in NE NE S19 T3S R78W 6PM	4.2	Willow Lakes	8.5 (05/1 - 10/31)	5/23/1904
5-87CW297	Blue River	Summit	conflu Boulder Creek in NE NW S4 T4SR78W 6PM	conflu Slate Creek in NE NE S19 T3S R78W 6PM	4.2	Willow Lakes	78 (03/1 - 03/31) 90 (04/1 - 04/30) 125 (05/1 - 08/31) 90 (09/1) - 10/31) 70 (11/1 - 02/29)	10/2/1987
5-05CW264C*	Blue River	Summit	conflu Slate Creek in NE NE S19 T3S R78W 6PM	inlet Green Mountain Reservoir in SE NW S34 T2S R79W 6PM	6.9	Squaw Creek	0.5 (05/1 - 10/31)	5/23/1904
5-87CW298	Blue River	Summit	conflu Slate Creek in NE NE S19 T3S R78W 6PM	inlet Green Mountain Reservoir in SE NW S34 T2S R79W 6PM	6.9	Willow Lakes	125 (05/1 - 09/30) 90 (10/1 - 11/30) 85 (12/1 - 2/29) 90 (03/1) - 04/30)	10/2/1987

* Donated/Acquired Water Right