

# STATE OF COLORADO

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## Colorado Water Conservation Board

### Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Linda J. Bassi, Chief  
Kaylea White  
Stream and Lake Protection Section

DATE: September 1, 2011

SUBJECT: **Agenda Item 9, September 13-14, 2011 Board Meeting**  
**Stream and Lake Protection Section – ISF Water Acquisitions for Colorado River**  
**Cooperative Agreement**

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John W. Hickenlooper  
Governor

Mike King  
DNR Executive Director

Jennifer L. Gimbel  
CWCB Director

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### Introduction

At the July 2011 Board meeting, the Board heard a presentation on the Colorado River Cooperative Agreement (“CRCA”) between Denver Water and a number of West Slope entities (35 parties). The CRCA was formulated to resolve long-standing disputes over water and Denver Water’s proposed Moffat Collection System Project (“Moffat Project”). Although the CRCA has not yet been finalized, CWCB has been asked to help effectuate certain terms of the agreement via an acquisition of a contractual interest in water for instream flow use. Under the proposed acquisition, Denver Water will enter into a contract with Grand County and CWCB under which it will deliver water to Grand County for instream flow (“ISF”) use by CWCB in the Fraser, Williams Fork, and Upper Colorado River Basins in Grand County and in the 15 Mile Reach of the Colorado River (“Acquisition”). The contract (“Water Delivery Agreement”) will specify the terms of use of the delivered water. Under this Agreement, CWCB would cooperate with Grand County and Denver Water in the administration and monitoring of the water deliveries for the intended beneficial uses. Denver Water and Grand County intend to file a water court application in September 2011, and to add CWCB as a co-applicant after the Board takes final action on this proposal. A general map of the area is attached as **Appendix A**; a summary of the CRCA is attached as **Appendix B**; and a draft of the Water Delivery Agreement will be provided as Appendix C at the September Board meeting.

### Staff Recommendation

Pursuant to ISF Rule 6b, the Board’s consideration of this proposal at this meeting will initiate the 120-day period for Board review. **No formal action is required at this time.** Staff believes that the proposed Acquisition will benefit the ISF Program. The initial presentation of this proposal provides an opportunity to the Board and the public to identify questions or concerns that Staff, Grand County or Denver Water will address at this or a subsequent meeting.

## **Background**

Denver Water's Moffat Collection System Project ("Moffat Project") is a proposed new water supply project using the Moffat facilities that is designed to provide 18,000 af per year of new water supply to Denver Water's customers. Denver Water proposes to divert additional water to be stored in the enlarged existing 42,000 af Gross Reservoir, located in Boulder County. Gross Dam would be raised 125 feet to provide an additional 72,000 af of storage capacity for a total of 114,000 af of storage to insure the additional firm yield of 18,000 af. Denver Water diverts water from the Fraser, Williams Fork, Blue, and South Platte Rivers and South Boulder Creek. Under the Moffat Project, additional diversions from the Fraser and Williams Fork Rivers are expected to be approximately 10,000 af on an average annual basis.

In conjunction with the Moffat Project, Denver Water is considering several environmental options under both voluntary and non-voluntary frameworks that could benefit the aquatic environment. This proposed Acquisition is under a voluntary framework. Non-voluntary frameworks include both Federal and State required environmental review and permits. State review includes review by the Colorado Wildlife Commission pursuant to section 37-60-122.2, C.R.S. (2010), under which Denver Water prepared a fish and wildlife mitigation plan ("FWMP"). The FWMP was presented to and adopted by the CWCB in July 2011. In the FWMP, mitigation in the Fraser and Colorado Rivers is focused mainly on temperature standards, with the mitigation activity in the form of flushing flows, or simply not diverting when certain high stream temperatures are triggered at specified locations.

Under voluntary measures, the Moffat Collection System Project Fish and Wildlife Enhancement Plan describes proposed voluntary actions and was prepared by Denver Water for the Moffat Project in partnership with the Municipal Subdistrict of the Northern Colorado Water Conservancy District ("Northern") for the Windy Gap Firming Project. See Appendix D. This document was created for the Colorado Wildlife Commission pursuant to regulations implementing CRS 37-60-122.2(2). The CRCA provides for other voluntary measures, including the measures provided for under the Water Delivery Agreement. Implementation will be guided by a cooperative effort under an intergovernmental agreement entitled "Learning by Doing Cooperative Intergovernmental Agreement" ("LBDIGA"). See **Appendix E** for the most recent draft. Participants in this cooperative effort will develop a process to monitor stream conditions to enable response to potential changes in or desired improvements to the stream environment. The LBDIGA provides a flexible iterative tool for implementation of environmental actions, and provides for those actions to be modified and adjusted in response to specific results on the ground. The proposed LBDIGA will be entered into by Grand County, Denver Water, the Middle Park Water Conservancy District and the Colorado River Water Conservation District to maintain, restore and enhance the stream environments in the Fraser, Williams Fork and Upper Colorado River Basins.

Grand County, with support from Denver Water and Northern, has undertaken a study to develop a Stream Management Plan ("SMP"). The August 2010 draft SMP can be found at <http://co.grand.co.us/WRM.html>. The purpose of the SMP is "to provide a framework for maintaining a healthy stream system in Grand County, Colorado through the protection and enhancement of aquatic habitat while at the same time protecting local water users, and retaining flexibility for future water operations." The SMP includes scientifically-based recommendations of environmental target stream flows for 19 stream reaches, including periodic habitat improvement flows for some reaches. The SMP will provide a basis for the Learning by Doing process and help guide the implementation of the Water Delivery Agreement. It is anticipated that the SMP will evolve over time as real time information and data is added.

## **CWCB's Role**

This proposed Acquisition will help effectuate the terms of the CRCA, which can be viewed at [http://www.crwcd.org/media/uploads/20110428\\_CRAC\\_mediation\\_agreement.pdf](http://www.crwcd.org/media/uploads/20110428_CRAC_mediation_agreement.pdf). As part of the CRCA, Denver Water has agreed to provide to Grand County 1,000 af of water each year for environmental purposes and any incidental recreational benefit, pursuant to Article III (E) of the CRCA. Denver Water intends to fulfill its obligation to Grand County using new water rights that it will apply for in 2011. The water will be protected under the CWCB's Instream Flow Program. The new water rights will include storage in Gross Reservoir on the East Slope to be used by substitution for environmental flows in Grand County. When Grand County requests a release of water, Denver Water will bypass water it could otherwise divert to the East Slope under its existing water rights at the identified diversion points inside Grand County. CWCB will protect the water under ISF water rights to the county line and potentially in the 15 Mile Reach of the Colorado River. Under certain conditions, Denver Water will then be able to transfer water among its storage pools in Gross Reservoir and release a like amount of water from its storage in Gross Reservoir for delivery to its customers.

CWCB's involvement will be guided by the Water Delivery Agreement, which contains several components. In the first component, Denver Water has agreed to make available 1,000 acre-feet annually to Grand County through Denver Water's Fraser River Collection System ("Fraser 1,000 af"), to be released and used in Grand County at times and in the amounts that Grand County requests. In the second component, Denver Water has agreed to make available another 1,000 acre-feet of water from the Williams Fork Reservoir ("Williams Fork 1,000 af"), to be released under certain conditions and at times and in the amounts that Grand County requests. The Agreement further provides that Denver Water will deliver up to 375 af to Grand County Water Users, to be managed in accordance with the 2011 Grand County Operating Plan, subject to the terms and conditions of Article III.E.20 of the CRCA ("Grand County 375 af"). In years when this 375 af is not needed for use by the Grand County Water Users, it may be made available for environmental purposes in the same manner as the Fraser 1,000 af. Discussions are also under way regarding the successive use of this water for West Slope purposes after its beneficial uses in Grand County. The primary proposed successive uses are West Slope uses decreed to Green Mountain Reservoir under the Blue River Decree (including use by substitution from Wolford Mountain Reservoir), power generation, use by CWCB in the 15 Mile Reach, or delivery to Grand Valley Water Users. Such successive uses could help maximize the beneficial use of the water.

Use of the delivered water in Grand County, and any successive uses, will be authorized by a water court decree. Denver Water and Grand County intend to file a water court application in September 2011 and to add CWCB as a co-applicant after the Board takes final action on this proposal.

## **The Water Rights**

As currently proposed, Denver Water will apply for a new junior water storage right of 1,375 af in Gross Reservoir for the beneficial use of instream flows (and other uses as described in the application) in Grand County and the 15 Mile Reach, as well as a new junior water storage right of 1,000 af in Williams Fork Reservoir. Denver Water will divert under the new junior priorities mainly during spring snowmelt runoff. Later in the year, when flows are low and Grand County has requested that Denver Water make part of the 1,375 af available, Denver Water would "release" or bypass diversions it could otherwise make under its senior water rights in the

amount requested at the diversion structure specified by Grand County. Simultaneously, water stored in Gross Reservoir under the new junior right will be transferred to Denver's senior rights in Gross Reservoir under a right of substitution also to be adjudicated by Denver Water. The State and Division Engineers and the Attorney General's office believe the substitution concept allows Denver and Grand County a method to lawfully effectuate their agreement without requiring Denver Water to subject its water rights to a change of type of use proceeding. The timing of the diversions and "releases" provides Denver Water with storage water it needs during high flows and cool temperatures when the natural environment does not necessarily need higher flows, and provides Grand County with water during low flows and high temperatures when the environment needs it the most. Denver Water will also be able to release water from Williams Fork Reservoir as requested by Grand County for use downstream of the reservoir.

Water "released" or bypassed at a structure into a stream will need to be protected through the intended reaches from diversion from other water users. The proposed Acquisition allows CWCB to accept the water and put it to beneficial use to preserve and/or improve the natural environment to a reasonable degree from the structure through the reaches down to the county line and potentially in the 15 Mile Reach of the Colorado River, thus protecting it from diversion by other water users. The above-mentioned water court decree will instruct the administration of the water right, and will define specific reaches by upper and lower terminus locations with specific rates of flow to be protected for specific uses (i.e. to preserve or to improve).

### **The Board's Water Acquisition Procedures**

Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program ("ISF Rules") sets forth the Board's procedures for acquiring water for ISF use. Section 37-92-102(3), C.R.S. provides 120 days for the Board to determine what terms and conditions it will accept in an acquisition agreement for water, water rights, or interests in water to preserve or improve the natural environment. ISF Rule 6 requires a minimum of two Board meetings to allow for public input prior to taking final action on a proposed acquisition. The Board's initial consideration of this proposal at this Board meeting initiates the 120-day time period for the Board to consider the terms and conditions of the proposed acquisition. Final action on the proposal could occur at the November 2011 Board meeting. ISF Rule 6m (4) provides that any person may request the Board to hold a hearing on the proposed acquisition, and that such a request must be filed within twenty days of this Board meeting.

ISF Rules 6e and 6f require the Board to evaluate the appropriateness of the acquisition and determine how best to utilize the acquired water rights to preserve or improve the natural environment. The Rules list several factors the Board may consider in its evaluation of the acquisitions. Several of the factors address water rights that need to be changed from irrigation or other uses to instream flow uses. Because this Acquisition involves a new appropriation, several of the factors do not apply. This memo addresses the applicable factors.

Pursuant to statute, Staff has requested recommendations from the Division of Wildlife and the Division of Parks and Outdoor Recreation, the U.S. Department of Agriculture and the U.S. Department of Interior. Pursuant to ISF Rule 6m(1), Staff has provided notice of the proposed Acquisition to all persons included on the appropriate ISF Subscription Mailing Lists and provided notice to the State Engineer's Substitute Supply Plan Notification List. Staff has requested a biological analysis from Colorado Parks and Wildlife ("CPW") pursuant to Rule 6f(2). CPW will address the Board regarding this Acquisition at the Board meeting.

### **Summary of Proposed Acquisition**

Under the Water Delivery Agreement, Denver Water will provide annually up to 1,375 af of water to Grand County for ISF use by CWCB. The ISF use will consist of preserving the natural environment to a reasonable degree by maintaining flows in stream reaches where the CWCB has decreed ISF rights when those ISF rights are not satisfied, and also may include: (1) improving the natural environment to a reasonable degree by increasing flows in ISF reaches above the CWCB's decreed amounts up to the flow amounts recommended in the SMP or in amounts to be recommended by Grand County, CPW and CWCB staff; and (2) preserving and in some cases improving the natural environment to a reasonable degree on streams where CWCB does not currently hold decreed ISF rights. Grand County, CWCB staff and CPW staff are discussing the potential for the latter two types of ISF use. A summary of some key provisions of the proposed Agreement are set forth below. The draft Water Delivery Agreement will be provided to the Board prior to or at the Board meeting.

- a. The Agreement is conditioned upon complete execution of the CRCA.
- b. Denver Water will file an application with the Water Court to confirm Denver Water's right(s) to physically and legally provide water to Grand County for ISF use by the CWCB as contemplated by the Water Delivery Agreement. Grand County and CWCB shall be co-applicants for the purposes of advancing and protecting their contractual rights under the Agreement, including CWCB's obtaining a decreed right to use the water delivered by Denver Water under this Agreement to preserve and improve the natural environment to a reasonable degree on the specified stream reaches.
- c. The water court application will request that the water court to confirm that the State and Division Engineers will protect and shepherd the delivered water through the intended stream reaches without diversion or exchange by intervening water users.
- d. Denver Water will make available to Grand County 1,000 af annually from its Fraser River Collection System ("Fraser 1,000 af"). Denver Water will make an additional 375 af of water available annually to certain Grand County Water Users, to be managed in accordance with the Grand County Operating Plan. In years when the Grand County Water Users do not need this 375 af, it may be made available for environmental purposes in the same manner as the Fraser 1,000 af.
- e. In years when a portion of the Fraser 1,000 af is made available during a call on the river or when a Shoshone Outage Protocol is in effect, Denver Water will make available a like amount of water, up to 1,000 af, from the Williams Fork Reservoir ("Williams Fork 1,000 af").
- f. The CWCB, Denver Water and Ground County will cooperate in the administration and monitoring of Denver Water's deliveries of water and the intended beneficial uses under the Agreement.
- g. Denver Water will not be responsible for the costs of any new infrastructure required to deliver or make the water available.
- h. Denver Water will be the sole owner of any new water rights adjudicated to accomplish the purposes of the Agreement.
- i. The water court application will request that the water court order that the delivered water will be protected and shepherded by the State and Division Engineers through the intended stream reaches.

- j. Grand County and the CWCB, in consultation with the Division Engineer, may install any measuring device(s) necessary to administer the delivered water.
- k. Use of the water provided to Grand County by Denver Water shall be coordinated through the Cooperative Effort of the LBDIGA.
- l. The Agreement is perpetual unless terminated by the written agreement of all of the parties.

Because Grand County will determine the desired amounts and locations of the water to be provided by Denver Water under the Cooperative Effort of the LBDIGA, those amounts and locations will vary according to where the water is deemed to be needed most. Thus, this Acquisition differs from most acquisitions the Board has seen in that it covers many streams and does not provide water to each stream on a regular basis.

### **Existing Instream Flow Water Rights**

The Board currently holds ISF water rights on 44 reaches in the Upper Colorado, Fraser and Williams Fork River Basins that could benefit from the Acquisition. There are also 48 segments in these three basins where the CWCB does not currently hold any ISF water rights. The streams are shown on the map attached as **Appendix A**. The Board also holds ISF water rights on the 15 Mile Reach of the Colorado River.

### **Existing Natural Environment**

The Fraser River, Williams Fork River and Upper Colorado River basins support cold water fisheries. The Board has appropriated approximately 44 ISF water rights in these basins, and has already determined there is a natural environment to preserve on those streams. Additionally, the 15 Mile Reach supports a warm water fishery, including the four endangered fish species of the Colorado River.

### **Proposed Use of the Delivered Water**

The Board could use the delivered water to preserve and improve the natural environment to a reasonable degree in the Upper Colorado, Fraser and Williams Fork watersheds in Grand County, and in the 15 Mile Reach. The additional water could be used to bring flows up to decreed ISF amounts at times when the existing ISF rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree, up to the amounts recommended by the SMP. Additionally, the water could be used to preserve and improve the natural environment to a reasonable degree on streams where the CWCB currently does not hold decreed ISF water rights, up to amounts recommended by the SMP. For reaches not included in the Stream Management Plan, CWCB and CPW staff will coordinate with Grand County on developing recommended amounts to protect. As stated above, Grand County, CWCB staff and CPW staff are discussing whether Grand County wants CWCB to (1) use the delivered water to improve the natural environment to a reasonable degree on decreed ISF reaches and (2) provide ISF protection on streams with no decreed ISF water rights. Given the relatively small volume of water involved, it is likely the water will be used in the most critical reaches, as determined under the Learning by Doing process and by Grand County.

### **Potential Stream Reaches that Could be Protected in the Fraser River Basin**

**Fraser River** – A 27.6 mile reach of the natural environment on the Fraser River could be preserved and improved from the headgate of the Denver Water diversion point (West Canal Line intake at Fraser River) to the confluence with the Colorado River, encompassing ISF water

rights decreed in Case Nos. 90CW302, 90CW307, 90CW315, 90CW308 and 90CW308B. The additional water could be used to bring flows up to the decreed ISF amounts (3.5 to 8 cfs; 5 to 11 cfs; 11 to 17 cfs; 11 to 17 cfs; 19 to 30 cfs respectively) at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree in amounts to be recommended by Grand County, CPW and CWCB staff.

The SMP divides the Fraser into reaches, with recommendations for six of them (F3, F4, F6, F8, F9 and F10), both for year-round target flows as well as for periodic habitat improvement flows. The target environmental flows range from 4 to 100 cfs. The recommended habitat improvement flows, which are for a period of three days once every two years, range from 80 to 400 cfs. Again, given the small volume of water, it is unlikely the maximum flows will be achieved. However, identifying the potential to protect such maximum flows ensures that the water is being put to beneficial use and can be protected by the Division Engineer.

**Vasquez Creek** – A 4.7 mile reach of the natural environment on Vasquez Creek could be preserved and improved from the headgate of Denver Water diversion point (West Canal Line intake from Vasquez Creek) to the confluence with the Fraser River, encompassing the ISF water right decreed in Case No. 90CW318). The additional water could be used to bring flows up to the decreed ISF amounts (3 to 6 cfs) at times when the ISF water right is not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree up to the amounts recommended by the SMP (5 to 8 cfs year round, and a 50 cfs flow for 3 days once in two years during late May to late June: F-VC) or in amounts to be recommended by Grand County, CPW and CWCB staff.

**St. Louis Creek** – A 9.2 mile reach of the natural environment on St. Louis Creek could be preserved and improved from the headgate of the Denver Water diversion point (West Canal Line intake from St. Louis Creek) to the confluence with the Fraser River, encompassing ISF water rights decreed in Case Nos. 90CW304, 90CW317, 90CW317A and 90CW316. The additional water could be used to bring flows up to the decreed ISF amounts (2 to 10 cfs; 3 to 11 cfs; 4.5 to 11 cfs; 3.5 to 6 cfs) at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree up to the amounts recommended by the SMP (5 to 10 cfs year round, and a 70 cfs flow for 3 days once in two years during late May to late June: F-StL) or in amounts to be recommended by Grand County, CPW and CWCB staff.

**Ranch Creek** – A 4.0 mile reach of the natural environment on Ranch Creek could be preserved and improved from the Denver Water diversion point (West Canal Line intake from Ranch Creek) to the confluence with Cabin Creek near Devil's Thumb, encompassing ISF water rights decreed in Case Nos. 90CW314 and 90CW306. The additional water could be used to bring flows up to the decreed ISF amounts (2 to 3 cfs; 1.5 to 7 cfs) at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree up to the amounts recommended by the SMP (6 to 10 cfs year round, and a 40 cfs flow for 3 days once in two years during late May to late June: F-RC1) or in amounts to be recommended by Grand County, CPW and CWCB staff.

A 5.3 mile reach of the natural environment on Ranch Creek could be preserved and improved from the confluence with Cabin Creek near Devil's Thumb to the confluence with the Fraser River, encompassing ISF water rights decreed in Case Nos. 90CW306A and 90CW305. The additional water could be used to bring flows up to the decreed ISF amounts (1.5 to 7 cfs; 5 to 8 cfs) at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree up to the amounts

recommended by the SMP (30 to 50 cfs April through September, 20 to 30 cfs October through March, and a 150 cfs flow for 3 days once in two years during late May to late June: F-RC2) or in amounts to be recommended by Grand County, CPW and CWCB staff.

**Other Streams** – Additionally, there are various stream segments within the Fraser River basin that have no existing ISF water rights (with a few exceptions) and currently no SMP recommended flows. However, these reaches all contain Denver Water diversion points, and could all potentially be protected in the future by using the additional water to preserve and improve the natural environment to a reasonable degree. These streams are as follows:

Jim Creek; Buck Creek; Cub Creek; Cooper Creek; Little Vasquez Creek; Main Elk Creek; East Elk Creek; West Main Elk Creek; West Elk Creek; East St. Louis Creek; Fool Creek; King Creek; Iron Creek; Byers Creek; Short Creek; West St. Louis Creek; South Fork Ranch Creek; Middle Fork Ranch Creek; Dribble Creek; North Ranch Creek; Little Cabin Creek; Cabin Creek (encompassing 90CW312); Hamilton Creek (encompassing 90CW311); Hurd Creek; South Trail Creek; North Trail Creek; and Meadow Creek (encompassing 90CW310 and 90CW309).

### **Potential Stream Reaches that Could be Protected in the Williams Fork River Basin**

**Williams Fork River** – A 2 mile reach of the natural environment on the Williams Fork River, where there is currently no ISF right, could be preserved and improved from the Williams Fork Reservoir to the confluence with the Colorado River. The additional water could be used to preserve and improve the natural environment to a reasonable degree up to the amounts recommended by the SMP (40 to 140 cfs April through September, 40 to 100 cfs October through March, and a 200 cfs flow for 3 days once in two years during early June to early July: WR) or in amounts to be recommended by Grand County, CPW and CWCB staff.

**Other Streams** – Additionally, there are various stream segments within the Williams Fork River basin that currently have no SMP recommended flows. However, these reaches all contain Denver Water diversion points, and could all potentially be protected in the future by using the additional water to preserve and improve the environment to a reasonable degree. These streams are as follows:

The Williams Fork River from its headwaters (at the confluence with McQueary and Bobtail Creeks) to the Williams Fork Reservoir (which encompasses 11 ISF decrees); Bobtail Creek (encompassing 79CW163 and 79CW164); Steelman Creek (encompassing 79CW166 and 79CW167); McQueary Creek; Jones Creek; Middle Fork Williams Fork River (encompassing 79CW171); South Fork Williams Fork River (encompassing 79CW176, 79CW177, 79CW178 and 79CW179); and Short Creek.

### **Potential Stream Reaches that Could be Protected in the Upper Colorado River Basin**

**Colorado River** – A 46 mile reach of the natural environment on the Colorado River could be preserved and improved from the confluence with the Fraser River to the Grand County line, encompassing ISF water rights decreed in Case Nos. 80CW447, 80CW446, 80CW448 and a pending 2011 ISF decree. The additional water could be used to bring flows up to the decreed ISF amounts (90 cfs; 135 cfs; 150 cfs; 250 to 500 cfs) at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree up to the amounts recommended by the SMP or in amounts to be recommended by Grand County, CPW and CWCB staff.

The SMP divides the Colorado River into reaches, with recommendations for four of them (CR4, CR5, CR6 and CR7), both for year-round target flows and periodic habitat improvement flows.



The target environmental flows range from 135 to 1,000 cfs. The recommended habitat improvement flows, which are for a period of three days once every two years, range from 600 to 2,500 cfs.

### **15 Mile Reach of Colorado River**

A 14.7 mile reach of the natural environment on the Colorado River could be preserved and improved from the headgate of the Grand Valley Irrigation Company diversion to the confluence with the Gunnison River, encompassing ISF water rights decreed in Case Nos. 92CW286 and 94CW330. The additional water could be used to bring flows up to the decreed ISF amounts (581 cfs with a 300 cfs increase in the reach from the 27.5 Road Gage to the confluence with the Gunnison River at times when the ISF water rights are not being met, or could be added to the existing ISF water rights to improve the natural environment to a reasonable degree in amounts to be recommended by Grand County, CPW and CWCB staff.

### **9. Potential Benefits of Donation**

**Fraser River Basin** – The Board currently holds ISF water rights on the Fraser River (downstream of the first Denver Water diversion point) for a total of 24.7 miles, ranging from 3.5 to 30 cfs. The Board currently holds ISF water rights on six tributary streams in the Fraser River Basin (downstream of the Denver Water diversion points), for a total of 33.8 miles, ranging from 0.5 to 11 cfs. This proposed Acquisition could help preserve the natural environment to a reasonable decree by bringing flows up to the decreed ISF amounts at times when the ISF water right is not being met, and could increase the water rights up to the amounts recommended by the Grand County SMP, ranging from 8 to 50 cfs on the tributaries and up to 120 cfs on the Fraser, since the delivered water would be left undiverted. The additional flows are expected to benefit the water-dependent natural environment of the Fraser River Basin. The Board's ability, in cooperation with Grand County, to request the Division Engineer to protect flows from diversion by other water rights will benefit the fish habitat existing in the ISF reaches.

Accepting the delivery of this water will potentially increase the frequency that the existing ISF water rights on the Fraser River and on creeks in the Fraser River Basin will be fully satisfied, which in turn should increase the quality of the water-dependent natural environment within these streams. Furthermore, the additional flows in the river and creeks are expected to improve the natural environment to a reasonable degree within the ISF reaches, as well as within segments where there currently are no decreed ISF water rights.

**Upper Colorado River Basin** – The Board currently holds ISF water rights on the Colorado River (downstream of the confluence with the Fraser River) for a total of 46 miles inside Grand County, and a total of 90 miles extending to the state line (including pending decrees). These rights range from 20 to 800 cfs. This proposed Acquisition could help preserve the natural environment to a reasonable decree by bringing flows up to the decreed ISF amounts at times when the ISF water rights are not being met, and could increase the flows up to the amounts recommended by the Grand County SMP, ranging from 250 to 1000 cfs. CPW studies have indicated that the river environment of the Upper Colorado River is experiencing a decline in the populations of *Pteronarcys californica* (giant stonefly), which historically has been a major source of food for trout in the Colorado River, as well as other species of stoneflies and mayflies. Populations of the mottled sculpin (*Cottus bairdi*), a native fish that is also an important source of food for trout, have also declined. Populations of trout species have declined in the Colorado River between Windy Gap Reservoir and the Town of Kremmling, due to alterations in flow

regime, river depletions, sedimentation and armoring of the channel bed in riffle areas below Windy Gap. The additional flows are expected to benefit the water-dependent natural environment of the Colorado River Basin. The Board's ability, in cooperation with Grand County, to request the Division Engineer to protect flows from diversion by other water rights will benefit the fish habitat existing in the ISF reaches. Lower on the Colorado River, this Acquisition could benefit the habitat of Colorado's four endangered fish species in the 15 Mile Reach.

**Williams Fork River Basin** – The Board currently holds ISF water rights on the Williams Fork River (downstream of the first Denver Water diversion point) for a total of 23.3 miles, ranging from 1 to 38 cfs. The Board currently holds ISF water rights on four tributary streams in the Williams Fork River Basin (downstream of the Denver Water diversion points), for a total of 11.8 miles, ranging from 1 to 10 cfs. This proposed Acquisition could help preserve the natural environment to a reasonable degree by bringing flows up to the decreed ISF amounts at times when the ISF water rights are not being met, and could increase the water rights up to the amounts recommended by the Grand County SMP (up to 140 cfs on the Williams Fork River), since the delivered water would be left undiverted. The additional flows are expected to benefit the water-dependent natural environment of the Williams Fork River Basin and the Colorado River Basin. The Board's ability, in cooperation with Grand County, to request the Division Engineer to protect flows from diversion by other water rights will benefit the fish habitat existing in the ISF reaches.

There are many segments on the main stem rivers and on their tributaries in the above basins where the Board currently holds no ISF water rights. This proposed Acquisition could help preserve and improve the natural environment to a reasonable degree on these streams below Denver diversion points where there is currently no ISF protection.

## **10. Other Water Rights in Proposed Reach and Potential Injury to Existing Rights**

Because the additional ISF protection under this proposal will be achieved with new junior water rights, other water rights in the subject reaches will not be injured by the proposed ISF uses. Also, the water court decree implementing the Water Delivery Agreement will contain terms and conditions to assure that no vested water rights on any of the reaches will be injured as a result of the ISF use.

## **11. Administrability**

Staff will confirm with the Division Engineer that the CWCB's proposed uses of the delivered water will be administrable.

## **12. Effect of Proposed Acquisition on Maximum Utilization of the Waters of the State**

The Denver Water rights stem from new junior storage rights in Gross Reservoir that will be substituted for these headgate releases as the releases are made. The substituted water will be used by Denver on the Front Range. The released 1,375 af will be beneficially used for ISF purposes within Grand County and potentially in the 15 Mile Reach of the Colorado River. Once the 1,375 af has fulfilled its intended beneficial use in Grand County, it may be exchanged into storage for successive use consistent with the West Slope purposes of Green Mountain Reservoir under the Blue River Decree (including use by substitution from Wolford Mountain Reservoir), power generation, use by CWCB in the 15 Mile Reach, or delivery to use by Grand Valley Water Users, as directed by the final terms of the agreement and water court application (details to be determined).

### **13. Effect of Proposed Acquisition on Any Relevant Interstate Compact Issue**

It is anticipated that this water will be diverted and used directly or by exchange by other water users downstream once it has satisfied its intended beneficial use in Grand County or in the 15 Mile Reach of the Colorado River. Consequently, it does not appear that this Acquisition will raise any compact issues.

### **14. Availability of the Delivered Water for Subsequent Use Downstream**

This proposed Acquisition will provide up to 1,375 (or more) acre-feet of new water instream in the Fraser River basin, and up to 2,500 af downstream of Williams Fork Reservoir, during a time that the Grand County streams are running low. The water that is provided to Grand County during low flows could then be made available for subsequent use downstream of the intended location of use in Grand County as described above.

### **15. Costs to complete the transaction, or other associated costs**

Denver Water and Grand County are not requesting the Board to pay for the delivered water. Since the Board already holds and protects existing ISF water rights on many of the targeted rivers and streams and Grand County has performed biological studies on many segments of the targeted streams, Staff does not expect to incur significant additional costs to protect the delivered water. The CWCB will participate as a co-applicant in the water court case. However, CWCB's role in the court process should be minimal while Denver Water takes the lead role.

### **Attachments**

Appendix A: General Map

Appendix B: Summary of the CRCA

Appendix C: Water Delivery Agreement (to be provided)

Appendix D: Moffat Collection System Project Fish and Wildlife Enhancement Plan

Appendix E: Intergovernmental Agreement for the Learning by Doing Cooperative Effort ("LBDIGA")