



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Linda Bassi, Section Chief
Kaylea White, Senior Water Resource Specialist
Stream and Lake Protection Section

DATE: September 19-20, 2018 Board Meeting

AGENDA ITEM: **19. Northern Colorado Water Conservancy District Dedication of Mitigation Releases for Instream Flow Use in the Cache la Poudre River (Water Div. 1)**

Introduction

The Northern Colorado Water Conservancy District ("Northern") has offered the Colorado Water Conservation Board a dedication of a contractual interest in water as "Protected Mitigation Releases," as defined in 37-92-102(8), C.R.S. for instream flow use in a segment of the Cache la Poudre River ("Poudre River"). This type of dedication is guided by the recently enacted Senate Bill 18-170, codified at section 37-92-102(8), C.R.S. In 2017, Northern obtained an approved mitigation and enhancement plan entitled Northern Integrated Supply Project ("NISP") Fish and Wildlife Mitigation and Enhancement Plan ("FWMEP") referred to herein as "Mitigation Plan." The "Intergovernmental Agreement to Implement the Fish and Wildlife Mitigation and Enhancement Plan For the Northern Integrated Supply Project" between the State of Colorado and the NISP Water Activity Enterprise ("IGA") was executed on July 3, 2018. The water dedicated to CWCB is part of the Mitigation Plan's reservoir release commitments. Northern's draft dedication agreement is attached as **Exhibit 1**. The CWCB will use the water to preserve and improve the natural environment to a reasonable degree in a segment of the Cache la Poudre River. See Vicinity Map attached as **Exhibit 2**.

Staff Recommendation

Staff recommends that the Board:

1. Conclude that use of the water under the proposed acquisition by dedication agreement of the Protected Mitigation Releases is appropriate to preserve and improve the natural environment of the Cache la Poudre River in the Qualifying Stream Reach to a reasonable degree;
2. Determine that the acquired Protection Mitigation Releases would be best utilized by protecting the water through the specified Qualifying Stream Reach up to the recommended winter and summer preserve and improve flow rates presented herein;
3. Accept the dedication of water from Northern;
4. Authorize the Director to execute the Dedication Agreement in a form substantially similar to the attached draft; and
5. Direct staff to work with the Attorney General's Office and Northern to file a water court application in accordance with SB 18-170.



The Board's Water Acquisition Procedures

ISF Rule 6 governs the Board's procedures for acquiring water for ISF use. Section 37-92-102(3), C.R.S. (2017) 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 took place at its July 2018 meeting, which initiated the 120-day time period for the Board to consider the terms and conditions of the proposed acquisition. ISF Rule 6m(4) provides that any person may request the Board to hold a hearing on the proposed acquisition, and that such request must be filed within twenty days of this Board's initial consideration. No such request was filed and the time for filing such request has expired. Staff will recommend that the Board take final action on the proposal at this September 2018 Board meeting.

ISF Rule 6e requires the Board to evaluate the appropriateness of the acquisition and to determine how best to utilize the acquired water to preserve or improve the natural environment. ISF Rule 6 lists several factors the Board may consider in its evaluation of the acquisition that are addressed in this memo.

As required by statute, CWCB staff has requested recommendations from the Colorado Division of Parks and Wildlife (CPW), the U.S. Department of Agriculture, and the U.S. Department of Interior. Pursuant to ISF Rule 6m(1), CWCB staff has provided notice of the proposed acquisition to all persons on the appropriate ISF Subscription Mailing Lists and provided notice to the State Engineer's Substitute Supply Plan Notification List for Water Division 1. CPW's recommendation letter is attached as **Exhibit 3**.

Background

Pursuant to the Mitigation Plan, Northern committed to make releases and to obtain protection of those releases through a segment of the Poudre River. Northern proposes to do so pursuant to the newly enacted SB 18-170, codified at section 37-92-102(8), C.R.S. Under the new statute, CWCB is required to be a co-applicant with the water owner in water court to obtain water court approval for the use for the Protected Mitigation Releases.

In the Mitigation Plan and the IGA, Northern committed to making Mitigation Releases for delivery of 18 to 25 cfs of water, up to 14,350 acre-feet per year, to be protected through the Qualifying Stream Reach of the Poudre River as Protected Mitigation Releases for ultimate delivery to NISP Participants. The IGA and Mitigation Plan executive summary were attached to the July 2018 board memo introducing this proposal. The full document for the Mitigation Plan can be found at <http://www.northernwater.org/docs/NISP/MapsDocuments/2017FWMEPFinal.pdf>.

The Mitigation Releases described in the Mitigation Plan are intended to enhance water quality and to avoid and minimize negative impacts to the aquatic and riparian environments within the Qualifying Stream Reach. Pursuant to 37-92-102(8), C.R.S., Northern wishes to dedicate to the CWCB, at no cost and for instream flow use, Mitigation Releases of the Subject Water Rights through the Qualifying Stream Reach. The Qualifying Stream Reach for the NISP FWMEP Mitigation Releases shall be that part of the Poudre River extending downstream from the Poudre River Delivery Pipeline (the point where releases from Glade Reservoir enter the Poudre River) to the Poudre River Intake Diversion as depicted on the map

attached as **Exhibit 2**. CWCB will use and protect the water for instream flow use to preserve and improve the natural environment to a reasonable degree through this stream segment.

1. Water Proposed for Acquisition

The water rights proposed to be dedicated to the CWCB would be up to 14,350 acre-feet per year of water yielded by the Subject Water Rights available to Northern in the to-be-constructed Glade Reservoir and Glade Forebay in Larimer County. Based upon discussions with Northern, and CPW regarding the need for and use of the donated water, Staff recommends that the CWCB acquire a contractual interest in the mitigation release water up to 14,350 acre-feet. The Subject Water Rights to be used are as follows:

GLADE RESERVOIR

Source: Cache la Poudre River
Decree: 03CW0405
Appropriation Date: 5/2/1980
Adjudication Date: 12/31/1980
Decreed Amount: 220,000 Acre Feet

GLADE RESERVOIR FOREBAY

Source: Cache la Poudre River
Decree: 03CW0405
Appropriation Date: 5/2/1980
Adjudication Date: 12/31/1980
Decreed Amount: 5,400 Acre Feet

SOUTH PLATTE WATER CONSERVATION PROJECT (SPWCP) WATER RIGHTS AND APPROPRIATIVE RIGHTS OF EXCHANGE

Sources: Cache la Poudre River and South Platte River
Decrees: Case Nos. 92CW130 (Consolidated); 11CW241; 16CW3194
Appropriation Date: 12/11/1992 for all water rights and appropriative rights of exchange
Adjudication Date: 11/28/2005

2. Reach of Stream Proposed for Use of the Acquired Water Rights

The reach of stream proposed for use of Northern's Mitigation Release water is the Poudre River extending downstream from the Poudre River Delivery Pipeline (the point where releases from Glade Reservoir enter the Poudre River) to the Poudre River Intake Diversion. The segment extends from near the mouth of the canyon through the City of Ft. Collins for approximately 11.5 river miles.

3. Existing and Future ISF Water Rights

The CWCB does not currently hold an ISF water right within this reach of the Poudre River. CPW and others have been studying and collecting field data in this segment of the Poudre River for over 10 years. CPW evaluated the studies and data by means including R2CROSS and PHABSIM modeling techniques to develop target flow rates for this section of the Poudre River.

CPW's target flow recommendations for this stream segment are as follows:

	Preserve ISF target rates	Improve ISF target rates
Winter (November 1 - March 31)	Up to 80 cfs	Between 80 and 150 cfs
Summer (April 1 - October 31)	Up to 114 cfs	Between 114 and 260 cfs

6. Natural Flow Regime

The Cache la Poudre River originates in the northern portions of Rocky Mountain National Park. The mainstem and South Fork flow north and east out of Rocky Mountain National Park onto the Roosevelt National Forest. The North Fork drains western portions on the Laramie Foothills to its confluence with the mainstem just below Poudre Park. Within the Poudre Canyon, the river is heavily forested, high gradient, and confined by canyon walls and Highway 14. Beyond the canyon mouth, the river transitions to a plains watershed, flowing through an urban zone surrounding the City of Fort Collins and rural lands further east bordered by gravel pits and irrigated agriculture. The Poudre River travels eastward approximately 126 miles from its headwaters to its confluence with the South Platte River near Greeley. The watershed's drainage area is approximately 1,880 square miles.

Streamflow in the upper Poudre River is primarily driven by snowmelt with contributions from local precipitation. The hydrology below the canyon mouth is influenced predominantly by upstream reservoir releases and some local precipitation. Peak flows are snowmelt-driven and typically occur in mid-May to June and diminish down to baseflows in mid-summer. Late season flows are supplemented by releases from upstream reservoirs and upstream trans-basin imports - Colorado-Big Thompson Project and Laramie River water. Hydrology below the mouth of the canyon is significantly depleted as a result of water management activities and dry up is common on the river. Direct flow diversions are common throughout the irrigation season, while diversions to off-channel storage reservoirs are common in the winter. The entire Poudre River system is a heavily managed system controlled by reservoir releases, trans-basin imports, and diversions and exchanges in the lower watershed. Peak flows are diminished and baseflows are impacted as a result of these water management activities. The NISP Mitigation Releases will boost flows year-round from the canyon mouth down to the Mulberry Street bridge.

7. Existing Natural Environment

The natural environment in the Poudre River is a somewhat diverse fishery consisting of both native and non-native species. The upper reaches of the Poudre River as it emerges from Poudre Canyon are typical of a cold water trout fishery, containing both rainbow and brown trout. As the river flows to the east through Fort Collins onto the plains, the slope decreases, diversions out of the channel are more significant, and water temperatures rise. Here the fishery transitions from a cold water fishery to a mixed cold water/cool water/warm water fishery. Trout persist in the watershed down to approximately Interstate 25 but are challenged by low flows, reduced habitat, and higher water temperatures. The Interstate is roughly the lower boundary of the cold water habitat. The NISP Mitigation Releases will

benefit the fishery as described above from the canyon mouth down to the Mulberry Street bridge. This reach is entirely cold water (trout) habitat.

8. Proposed Method of Acquisition

Under this proposal, the CWCB would acquire a contractual interest in up to 14,350 acre-feet of Mitigation Releases from Glade Reservoir. Northern and the CWCB are in the process of negotiating the terms of the dedication agreement. (See draft agreement at **Exhibit 1**). Following such agreement and upon the Board's approval, pursuant to 37-92-102(8)(d)(III), C.R.S., CWCB and Northern will file a water court application to "seek approval of the proposed protected mitigation releases," as required by SB 18-170.

Under the Water Delivery Agreement and Water Court decree, Northern will release and deliver water stored in Glade Reservoir as necessary to satisfy the measures for Mitigation Releases identified in the Mitigation Plan, for exclusive use by the CWCB as Protected Mitigation Releases. When Northern notifies the CWCB that such releases are being made, the CWCB shall protect the Protected Mitigation Releases through the Qualifying Stream Reach from diversion or exchange by other water users by, when necessary, requesting administration by the Colorado State and Division Engineers to prevent diversion of or exchange upon the water within the Qualifying Stream Reach by other water users.

9. Proposed Use of the Acquired Water

The acquired water would be used to preserve and improve the natural environment in the Poudre River to a reasonable degree by protecting Mitigation Releases at all locations in the Qualifying Stream Reach up to 18-25 cfs as directed by the Mitigation Plan targets and CPW's recommended flows in the Poudre River. The Division Engineer may require releases from the New Reservoir Capacity to include administrative shrink to account for evaporation, transportation, and other losses so the full amount of Protected Mitigation Releases can be protected at all locations throughout the Qualifying Stream Reach. The CWCB shall use the Protected Mitigation Releases to help maintain stream flows in the Poudre River to preserve and improve the natural environment to a reasonable degree within the Qualifying Stream Reach in amounts up to the target rates of: (a) winter flows of up to 80 cfs to preserve, and flows from 80 cfs to 150 cfs to improve, the natural environment to a reasonable degree; and (b) summer flows of up to 114 cfs to preserve, and flows from 114 to 260 cfs to improve, the natural environment to a reasonable degree.

CPW has reviewed this proposal, has collaborated on this memo, and has provided the final recommendation letter attached as **Exhibit 3**. CPW staff will be available to answer questions at this board meeting in support of the project. CPW has accepted the 122.2 Mitigation Plan submitted by Northern and thus agrees that the Mitigation Releases will incrementally preserve and improve the natural environment.

CPW has relied on PHABSIM data (collected for the NISP Common Technical Platform) and R2Cross data collected by CPW when preparing final recommendations related to the proposal and the ultimate flow recommendations for this reach of the Poudre River. In general, these data show that aquatic habitat can be incrementally preserved and improved with added flows up to 150 cfs in the winter and 260 cfs in the summer.

10. Historical Use and Historical Return Flows

Because this is a release of new water stored in priority and does not involve a change of water right or historical use, the concept of historical return flows is not applicable and the Board does not need to consider this factor.

11. Location of Other Water Rights

There are many other water rights located on the Poudre River within the Qualifying Stream Reach; however, they will not be affected by this release and protection of water stored in priority.

12. Material Injury to Existing Rights

There will be no injury to existing rights. The statute guiding this acquisition requires that the owner of the water prove no injury "to vested water rights, decreed conditional water rights, ...or other water users' uses or exchanges of water being made pursuant to appropriation or practices in existence on the date of the filing" of the water court application. See 37-92-102(8)(f)(I)(B) C.R.S. Pursuant to 37-92-102(8) C.R.S., and under the Water Delivery and Dedication Agreement, water previously stored in priority under the Glade Reservoir water rights would be released as required in the Mitigation Plan and protected by CWCB up to the target flow rates for the identified stream segment. Any other necessary terms and conditions to prevent injury to other water rights will be included in the final water court decree.

13. Stacking Evaluation

When water is available under this lease for ISF use in the Poudre River, it can be used in addition to any other acquired or appropriated water rights that CWCB may also use for instream flow in this segment of the Poudre River to achieve a greater level of protection to preserve and improve the natural environment to a reasonable degree up to the CPW flow recommendations.

14. Effect of Proposed Acquisition on Any Relevant Interstate Compact Issue

The proposed acquisition does not negatively affect any interstate compact. The reservoir release will be used for instream flow purposes, and also used for other beneficial uses at the lower terminus of the instream flow stream segment.

15. Effect on Maximum Utilization of Waters of the State

This proposed acquisition will promote maximum utilization of waters of the State by delivering the water to the NISP participants downstream, while at the same time supporting the natural environment along the delivery path of the Poudre River with additional beneficial uses for instream flow to preserve and improve the natural environment to a reasonable degree.

16. Availability for Downstream Use

The Mitigation Releases will be used downstream of the Qualifying Stream Reach by the NISP participants.

17. Administrability

CWCB Staff has discussed this project with the Division 1 Division Engineer, who has confirmed its administrability.

18. Potential Benefits of This Proposed Acquisition

The proposed acquisition will increase stream flows in the Poudre River, provide water to current dry up points in the river below headgate diversions, and provide benefits to the fish species that live in this reach.

19. Cost to Complete Transaction

Northern will dedicate the water to CWCB, so no direct costs will be incurred by CWCB. However, as part of the normal work load, CWCB staff will need to work on the acquisition documents, maintain records of the water use, and participate as a Co-Applicant in water court. The Attorney General's Office will support such application. However, physical modification to any existing diversion structures on the stream and any additional consultant costs will be incurred by Northern.

Exhibits

Exhibit 1 - Water Dedication and Delivery Agreement (Draft)

Exhibit 2 - Vicinity Map

Exhibit 3 - CPW Recommendation

Exhibit 4 - SB 18-170 (signed by Governor 4/12/2018)