



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
COLORADO FIELD OFFICE
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IN REPLY REFER TO:
ES/CO: LK-6-CO-13-F-006
ES/CO: GJ-6-CO-99-F-033-CP126
TAILS: 06E24000-2012-F-0747

December 6, 2013

Mr. Kiel Downing
Denver Regulatory Office
U.S. Army Corps of Engineers
9307 S. Wadsworth Boulevard
Littleton, Colorado 80218-6901

Dear Mr. Downing:

This final biological opinion is provided in response to your August 14, 2012, and August 14, 2013, requests to reinitiate formal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (ESA). Your August 14, 2013, letter and revised Biological Assessment (BA) described the potential effects of the City and County of Denver's Moffat Collection System Project (Moffat Project or Project), U.S. Army Corps of Engineers (Corps) permit application number NWO-2002-80762-DEN, on federally listed species and designated critical habitat. This biological opinion replaces the opinion dated July 31, 2009 (BO# ES/LK-6-CO-09-F-021, TAILS 65412-2009-F-0520; ES/GJ-6-CO-99-F-033-CP101), that was issued for the Project.

The Federal action reviewed in this biological opinion is operation of the Moffat Project, which includes expansion of Gross Reservoir, located in Boulder County, and increased stream diversions in Summit, Grand, Park, Douglas, and Boulder counties, Colorado. In addition to full use of its existing water collection system, the Applicant - the City and County of Denver, acting by and through its Board of Water Commissioners (Denver Water), would enlarge the existing Gross Reservoir to a storage capacity of 113,811 acre-feet. This would be accomplished by raising the reservoir's concrete gravity arch dam. Denver Water also proposes to create an additional 5,000 acre-feet of storage in Gross Reservoir (for a grand storage total of 118,811 acre-feet) for the cities of Boulder and Lafayette by raising the dam an additional 6 feet. Water depletions associated with Boulder and Lafayette's proposed, additional water storage in Gross Reservoir will be addressed in a separate Section 7 consultation.

Whereas the July 31, 2009, opinion only addressed additional future depletions associated with the Project, this biological opinion will address past, existing, and future diversions for Denver Water's *entire system*, which includes Gross Reservoir. This opinion will cover all of Denver

Water's existing and future depletions up to an average annual demand of 363,000 acre-feet per year from the upper Colorado River and South Platte River basins.

The U.S. Fish and Wildlife Service (Service) has reviewed the information contained in the letter and revised BA submitted by your office on August 14, 2013.

The Service is working with your office to separately address water depletions associated with Boulder and Lafayette's proposed 5,000 acre-foot "environmental pool" in Gross Reservoir. This additional storage would be filled with water provided by Boulder and Lafayette, and released to enhance aquatic habitat in South Boulder Creek downstream of Gross Reservoir. Water storage rights and other specifics on Boulder and Lafayette's use of their water stored in Gross Reservoir should be provided to the Service for this separate Section 7 consultation; including if necessary, formal consultation and a resulting biological opinion.

We concur with your determinations of "likely to adversely affect" for the endangered whooping crane (*Grus Americana*), least tern (*Sterna antillarum*), pallid sturgeon (*Scaphirynchus albus*), the threatened northern great plains population of the piping plover (*Charadrius melodus*), and the western prairie fringed orchid (*Platanthera praeclara*) in the central and lower Platte River in Nebraska. We also concur with your determination of "likely to adversely affect" for designated whooping crane critical habitat in Nebraska. We concur with your determination of "not likely to adversely affect" for the endangered American burying beetle (*Nicrophorus americanus*) in Nebraska.

The Service also concurs with your determinations of "likely to adversely affect" for the endangered Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), humpback chub (*Gila cypha*), bonytail chub (*Gila elegans*), and their designated critical habitat in the upper Colorado River basin.

We concur with your determination of "not likely to adversely affect" for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) in Colorado.

DESCRIPTION OF THE FEDERAL ACTION

The Federal action is Denver Water's need for a section 404 individual permit from the Corps for the Moffat Project, which includes expansion of Gross Reservoir, located approximately 35 miles northwest of Denver and 6 miles southwest of the City of Boulder in Boulder County. The purpose of the Moffat Project is to develop 18,000 acre-feet per year of new, annual firm yield to the Moffat Water Treatment Plant (WTP) and raw water customers upstream of the Moffat WTP pursuant to the Board of Water Commissioners' commitment to its customers. Denver Water's need for the Moffat Project is to address two major issues: 1) timeliness - the overall near-term water supply shortage; and 2) location - the imbalance in water storage and supply between the North and South systems.

Denver Water proposes to enlarge the existing 41,811 acre-foot Gross Reservoir by 72,000 acre-feet, for its use; a storage capacity of 113,811 acre-feet. This would be accomplished by raising

the existing, concrete gravity arch dam by 125 feet, from 340 feet to 465 feet in height. Denver Water would also create an additional 5,000 acre-feet of storage in the reservoir for Boulder and Lafayette. To accommodate this additional storage, Denver Water would raise the dam an additional 6 feet beyond the proposed 125-foot rise, for a total dam height of 471 feet. The surface area of Gross Reservoir would expand from about 418 acres to 842 acres, which would inundate approximately 400 acres of surrounding shoreline. The grand total of water storage in Gross Reservoir under the proposed action would be 118,811 acre-feet (113,811 + 5,000). However, none of Denver Water's existing or future water supply would be stored in the 5,000-acre-foot environmental pool. ESA compliance for the additional 5,000 acre-feet of storage will be addressed separately as mentioned above.

Using existing collection infrastructure, water from the Fraser River, Williams Fork River, and South Boulder Creek would be diverted and delivered during average to wet years via the Moffat Tunnel and South Boulder Creek to Gross Reservoir. In order to provide the 18,000 acre-feet per year of new firm yield to meet an average annual demand of 363,000 acre-feet per year (345,000 acre-feet from full use of the existing system plus the Project), the additional 72,000 acre-feet of storage capacity at Gross Reservoir is necessary. Existing facilities, including the South Boulder Diversion Canal and Conduits 16/22, would be used to deliver water from the enlarged Gross Reservoir to the Moffat WTP and raw water customers. To meet future demands, in most years, Denver Water would continue to rely on supplies from its entire integrated collections system. In a drought or emergency, Denver Water would rely on the additional water it would have previously stored in the Moffat Collection System to provide the additional 18,000 acre-feet of yield.

The Moffat Project would result in a combination of existing and new depletions to the Platte River system. These depletions are associated with changes in operation of Denver Water's *entire* water collection system, including Gross Reservoir and numerous other east slope reservoirs located throughout the South Platte River basin. The average annual diversions from the South Platte River at the demand level of 363,000 acre-feet per year would be 184,428 acre-feet. Total South Platte River diversions were calculated as the difference between total customer demand (deliveries of treated, raw, and non-potable water) and the amount supplied by Denver Water's Colorado River diversions.

The majority of Denver Water's South Platte River supplies are diverted from the South Platte at Strontia Springs Reservoir or downstream at the Conduit 20 intake in Waterton Canyon. Some water is also diverted from facilities on Bear Creek, South Boulder Creek, Ralston Creek, and Cherry Creek. Under the proposed action, total South Platte River diversions, including reservoir evaporative losses, associated with Denver Water's past, existing, and future demand levels since implementation of the PRRIP, would be 48,767 acre-feet per year. The Moffat Project would result in additional average annual diversions of 3,460 acre-feet from the South Platte River; this includes 2,879 acre-feet per year of new diversions and 581 acre-feet per year of additional reservoir evaporation. The amount of diverted water would be much greater than the amount of actual depletions from the South Platte River basin because much of the additional diverted water would return to the river via return flows from wastewater treatment plants and lawn irrigation.

This consultation also addresses Denver Water's entire system of water diversions from the Colorado River basin. Under the Moffat Project, Denver Water's total average annual depletion from the Colorado River would be 188,497 acre-feet. The Colorado River system depletions would include 137,833 acre-feet of average annual depletions that occurred before the initiation of the Upper Colorado River Recovery Program and previous consultations addressing 33,288 acre-feet per year. Therefore, the total of 188,497 acre-feet includes 17,376 acre-feet of new depletions and 171,121 acre-feet (137,833 + 33,288) of historic depletions that have already been consulted on. Increased diversions would decrease flows in the Colorado River primarily during the summer months, especially June and July.

PLATTE RIVER

BACKGROUND

On June 16, 2006, the Service issued a programmatic biological opinion (PBO) for the PRRIP and water-related activities^a affecting flow volume and timing in the central and lower reaches of the Platte River in Nebraska. The action area for the PBO included the Platte River basin upstream of the confluence with the Loup River in Nebraska, and the mainstem of the Platte River downstream of the Loup River confluence.

The Federal action addressed by the PBO included the following:

1) funding and implementation of the PRRIP for 13 years, the anticipated first stage of the PRRIP; and

2) continued operation of existing and certain new water-related activities^b including, but not limited to, Bureau of Reclamation (Reclamation) and Service projects that are (or may become) dependent on the PRRIP for ESA compliance during the first 13-year stage of the PRRIP for their effects on the target species^c, whooping crane critical habitat, and other federally listed species^d that rely on central and lower Platte River habitats.

The PBO established a two-tiered consultation process for future Federal actions on existing and new water-related activities subject to section 7(a)(2) of the ESA, with issuance of the PBO being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations

^a The term "water-related activities" means activities and aspects of activities which (1) occur in the Platte River basin upstream of the confluence of the Loup River with the Platte River; and (2) may affect Platte River flow quantity or timing, including, but not limited to, water diversion, storage and use activities, and land use activities. Changes in temperature and sediment transport will be considered impacts of a "water related activity" to the extent that such changes are caused by activities affecting flow quantity or timing. Impacts of "water related activities" do not include those components of land use activities or discharges of pollutants that do not affect flow quantity or timing.

^b "Existing water related activities" include surface water or hydrologically connected groundwater activities implemented on or before July 1, 1997. "New water-related activities" include new surface water or hydrologically connected groundwater activities including both new projects and expansion of existing projects, both those subject to and not subject to section 7(a)(2) of the ESA, which may affect the quantity or timing of water reaching the associated habitats and which are implemented after July 1, 1997.

^c The "target species" are the endangered whooping crane, the interior least tern, the pallid sturgeon, and the threatened northern Great Plains population of the piping plover.

^d Other listed species present in the central and lower Platte River include the western prairie fringed orchid and American burying beetle.

covered by the PBO. Under this tiered consultation process, the Service will produce tiered biological opinions when it is determined that future federal actions are “likely to adversely affect” federally listed species and/or designated critical habitat in the PRRIP action area and the Project is covered by the PBO. If necessary, the biological opinions will also consider potential effects to other listed species and critical habitat affected by the Federal action that were not within the scope of the Tier 1 PBO (e.g., direct or indirect effects to listed species occurring outside of the PRRIP action area).

Although the water depletive effects of this Federal action to central and lower Platte River species have been addressed in the PBO, when “no effect” or “may affect but not likely to adversely affect” determinations are made on a site-specific basis for the target species in Nebraska, the Service will review these determinations and provide written concurrence where appropriate. Upon receipt of written concurrence, section 7(a)(2) consultation will be considered completed for those Federal actions.

Water-related activities requiring Federal approval will be reviewed by the Service to determine if: (1) those activities comply with the definition of existing water-related activities and/or (2) proposed new water-related activities are covered by the applicable states or the Federal depletions plan. The Service has determined that the Project meets the above criteria and, therefore, this Tier 2 biological opinion regarding the effects of the Project on the target species, whooping crane critical habitat, and the western prairie fringed orchid in the central and lower Platte River can tier from the June 16, 2006, PBO.

CONSULTATION HISTORY

Table II-1 of the PBO (pages 21-23) contains a list of species and critical habitat in the action area, their status, and the Service’s determination of the effects of the Federal action analyzed in the PBO.

The Service determined in the Tier 1 PBO that the Federal action, including the continued operation of existing and certain new water-related activities, may adversely affect but would not likely jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern Great Plains population of the piping plover, western prairie fringed orchid, and bald eagle (*Haliaeetus leucocephalus*) in the central and lower Platte River. Further, the Service determined that the Federal action, including the continued operation of existing and certain new water-related activities, was not likely to destroy or adversely modify designated critical habitat for the whooping crane. The bald eagle was subsequently removed from the Federal endangered species list on August 8, 2007. Bald eagles continue to be protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. For more information on bald eagles, see the Service's webpage at: <http://www.fws.gov/midwest/eagle/recovery/biologue.html>

The Service also determined that the PBO Federal action would have no effect to the endangered Eskimo curlew. There has not been a confirmed sighting since 1926 and this species is believed to be extirpated in Nebraska. Lastly, the Service determined that the PBO Federal action,

including the continued operation of existing and certain new water-related activities, was not likely to adversely affect the endangered American burying beetle.

The effects of the continued operation of existing and certain new water-related activities on the remaining species and critical habitats listed in Table II-1 of the PBO were beyond the scope of the PBO and were not considered.

SCOPE OF THE TIER 2 BIOLOGICAL OPINION

The proposed Project is a component of “the continued operation of existing and certain new water-related activities” needing a Federal action evaluated in the Tier 1 PBO, and flow-related effects of the Federal action are consistent with the scope and the determination of effects in the June 16, 2006 PBO. Because Denver Water has elected to participate in the PRRIP, ESA compliance for flow-related effects to federally listed endangered and threatened species and designated critical habitat from the Project is provided to the extent described in the Tier 1 PBO.

This biological opinion applies to the Project’s effects to listed endangered and threatened species and designated critical habitat as described in the PBO for the first thirteen years of the PRRIP (i.e., the anticipated duration of the first PRRIP increment).

STATUS OF THE SPECIES/CRITICAL HABITAT

Species descriptions, life histories, population dynamics, status and distributions are fully described in the PBO on pages 76-156 for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat and are hereby incorporated by reference. Climate change is not explicitly identified in the Tier 1 PBO as a potential threat, except for whooping crane and whooping crane critical habitat.

The terms “climate” and “climate change” are defined by the Intergovernmental Panel on Climate Change (IPCC). “Climate” refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (IPCC 2007, p. 78). The term “climate change” thus refers to a change in the mean or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (IPCC 2007, p. 78). Various types of changes in climate can have direct or indirect effects on species. These effects may be positive, neutral, or negative and they may change over time, depending on the species and other relevant considerations, such as the effects of interactions of climate with other variables (e.g., habitat fragmentation) (IPCC 2007, pp. 8–14, 18–19).

Changes in temperature and/or precipitation patterns will influence the status of the Platte River system. These changes may contribute to threats that have already been identified and discussed for interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid in the Tier 1 PBO.

Since issuance of the Service's PBO, there have been no substantial changes in the status of the target species/critical habitat other than the bald eagle delisting previously mentioned.

ENVIRONMENTAL BASELINE

The Environmental Baseline sections for the Platte River and for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat are described on pages 157 to 219 of the Tier 1 PBO, and are hereby incorporated by reference. The status of the Platte River system includes a discussion on the impact of climate change. The Tier 1 BO concluded that although climate change has been identified as a contributor to the baseline, human activities are the biggest influence on the baseline. For the duration of this consultation (13 years), human activities are expected to continue to be the major influence on the functionality of the action area for listed species and critical habitat.

Since issuance of the Tier 1 PBO, there have been no substantial changes in the status of the target species/critical habitat in the action area other than the bald eagle delisting.

EFFECTS OF THE ACTION

The Tier 1 BO did not address climate change in the Effects of the Action section, as human activities (upstream storage, diversion, and distribution of the river's flow) are the most important drivers of change that adversely affect species habitat in the action area. Since issuance of the Tier 1 PBO, our analyses under the ESA include consideration of ongoing and projected changes in climate. In our analyses, we used our expert judgment to weigh relevant information, including uncertainty, in our consideration of various aspects of climate change. Actions that are undertaken to improve the river ecology and habitats for listed species not only address human activities, but also contribute to listed species and whooping crane critical habitat resiliency to climate change.

Based on our analysis of the information provided in your revised BA for the Project, the Service concludes that the proposed Federal action will result in a combination of existing and new depletions to the Platte River system above the Loup River confluence. These depletions are associated with changes in operation of Denver Water's *entire* water collection system. The total average annual South Platte River diversions at the demand level of 363,000 acre-feet per year would be 202,880 acre-feet; 184,428 acre-feet per year of river diversions and 18,452 acre-feet per year of evaporation from Denver Water's east slope reservoirs. The proposed Moffat Project would result in additional average annual diversions of 3,460 acre-feet from the South Platte River. This includes 2,879 acre-feet per year of new diversions and 581 acre-feet per year of additional reservoir evaporation. Overall, average annual South Platte River diversions and reservoir evaporation associated with Denver Water's past, existing, and future demand levels since implementation of the PRRIP would be 48,767 acre-feet. To meet the average annual demand of 363,000 acre-feet, Denver Water would use its entire South Platte collection system and associated water rights. The water is decreed for municipal and industrial purposes through multiple water right decrees (see Enclosure 1, Denver Water Tabulation of Water Rights).

Under the proposed action, the total average annual depletions to the South Platte River associated with an average annual demand of 363,000 acre-feet would be 113,969 acre-feet; 90,517 acre-feet per year from the South Platte, 18,452 acre-feet per year of evaporative losses from the east slope reservoirs, and 5,000 acre-feet per year from the “5K water deliveries”, which is the amount of reusable water that Denver Water leases for municipal purposes with the Denver metropolitan area (the South Adams County Water and Sanitation District has contracted for this water). The average annual increase in South Platte River depletions associated with the Moffat Project would be 1,413 acre-feet; however, if evaporative losses are included, the amount would increase to 1,994 acre-feet per year. Overall, average annual depletions to the South Platte associated with Denver Water’s past, existing, and future demand levels since implementation of the PRRIP would be 30,111 acre-feet.

As both an existing and new water-related activity, we have determined that the flow-related adverse effects of the Project are consistent with those evaluated in the Tier 1 PBO for the whooping crane, interior least tern, piping plover, pallid sturgeon, western prairie fringed orchid, and whooping crane critical habitat, and these effects on flows are being addressed in conformance with the Colorado plan for future depletions of the PRRIP.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future state, local, or private (non-Federal) actions that are reasonably certain to occur in the action area considered in this biological opinion. A non-Federal action is “reasonably certain” to occur if the action requires the approval of a state or local resource or land-control agency, such agencies have approved the action, and the Project is ready to proceed. Other indicators which may also support such a “reasonably certain to occur” determination include whether: a) the Project sponsors provide assurance that the action will proceed; b) contracting has been initiated; c) state or local planning agencies indicate that grant of authority for the action is imminent; or d) where historic data have demonstrated an established trend, that trend may be forecast into the future as reasonably certain to occur. These indicators must show more than the possibility that the non-Federal project will occur; they must demonstrate with reasonable certainty that it will occur. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA and would be consulted on at a later time.

Cumulative effects are described on pages 194 to 300 of the Tier 1 PBO, and are hereby incorporated by reference. Since the Tier 1 PBO was issued, there have been no substantial changes in the status of cumulative effects.

CONCLUSION

The Service concludes that the proposed Moffat Collection System Project is consistent with the Tier 1 PBO for effects to listed species and critical habitat addressed in the Tier 1 PBO. After reviewing site specific information, including: 1) the scope of the Federal action, 2) the environmental baseline, 3) the status of the whooping crane, interior least tern, piping plover, pallid sturgeon, and the western prairie fringed orchid in the central and lower Platte River and

their potential occurrence within the Project area, as well as whooping crane critical habitat, 4) the effects of the Project, and 5) any cumulative effects, it is the Service's biological opinion that the Project, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern great plains population of the piping plover, or western prairie fringed orchid in the central and lower Platte River. The Federal action is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulations pursuant to section 4(d) of the ESA prohibits the take of endangered and threatened species without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct, and applies to individual members of a listed species. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

Sections 7(b)(4) and 7(o)(2) of the ESA do not apply to the incidental take of federally listed plant species (e.g., Colorado butterfly plant (*Gaura neomexicana coloradensis*), Ute ladies'-tresses orchid, and western prairie fringed orchid). However, limited protection of listed plants from take is provided to the extent that ESA prohibits the removal and reduction to possession of federally listed endangered plants or the malicious damage of such plants on non-Federal areas in violation of state law or regulation or in the course of any violation of a state criminal trespass law. Such laws vary from state to state.

The Department of the Interior, acting through the Service and Reclamation, is implementing all pertinent reasonable and prudent measures and implementing terms and conditions stipulated in the Tier 1 PBO incidental take statement (pages 309-326 of the PBO) which will minimize the anticipated incidental take of federally listed species. In instances where the amount or extent of incidental take outlined in the Tier 1 PBO is exceeded, or the amount or extent of incidental take for other listed species is exceeded, the specific PRRIP action(s) causing such take shall be subject to reinitiation expeditiously.

CONSERVATION RECOMMENDATIONS

Section 7(a) (1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA by carrying out conservation programs for the benefit of endangered and threatened

species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of an action on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation recommendations are provided in the PBO (pages 328-329) and are hereby incorporated by reference.

REINITIATION AND CLOSING STATEMENT

Any person or entity undertaking a water-related activity that receives Federal funding or a Federal authorization and which relies on the PRRIP as a component of its ESA compliance in section 7 consultation must agree: (1) to the inclusion in its Federal funding or authorization documents of reopening authority, including reopening authority to accommodate reinitiation upon the circumstances described in section IV.E. of the program document, which addresses program termination; and (2) to request appropriate amendments from the Federal action agency as needed to conform its funding or authorization to any PRRIP adjustments negotiated among the three states and the Department of the Interior, including specifically new requirements, if any, at the end of the first PRRIP increment and any subsequent PRRIP increments. The Service believes that the PRRIP should not provide ESA compliance for any water-related activity for which the funding or authorization document does not conform to any PRRIP adjustments (Program Document, section VI).

Reinitiation of consultation over the Moffat Collection System Project will not be required at the end of the first 13-years of the PRRIP provided a subsequent program increment or first increment program extension is adopted pursuant to appropriate ESA and NEPA compliance procedures, and, for a subsequent increment, the effects of the Project are covered under a Tier 1 PBO for that increment addressing continued operation of previously consulted-on water-related activities.

COLORADO RIVER

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative to avoid jeopardy to the endangered fishes by depletions from the Upper Colorado River Basin. In order to further define and clarify the process in the Recovery Program, a section 7 agreement was implemented on October 15, 1993, by the Recovery Program participants. Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan (RIPRAP) which identifies actions currently believed to be required to recover the endangered fishes in the most expeditious manner.

On December 20, 1999, the Service issued the final programmatic biological opinion for 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 (this document is available for viewing at the following internet address: coloradoriverrecovery.org/). The Service has determined that projects that fit under the umbrella of the Colorado River PBO would avoid the likelihood of jeopardy and/or adverse modification

of critical habitat for depletion impacts. The Service has determined that if the subject Project meets the following criteria, then it fits under the umbrella of the Colorado River PBO.

1. The Project depletes water from the Colorado River above the confluence with the Gunnison River.
2. The applicant signs the Recovery Agreement. The Service and Denver Water signed a Recovery Agreement on February 14, 2000 (copy enclosed). This Recovery Agreement was signed for a consultation with the Federal Energy Regulatory Commission on the relicense of the Gross Reservoir Hydroelectric Project, biological opinion number ES/GJ-6-CO-00-F-024, dated October 12, 2000.
3. The Moffat Collection System Project will deplete an additional 17,376 acre-feet of water from the upper Colorado River basin. In order to rely on the Recovery Program to offset the subject depletions, the Project sponsors will make a one-time monetary contribution for water depletions greater than 100 acre-feet to help fund their share of the costs of recovery actions. The one-time payment is calculated by multiplying the Project's average annual new depletion (17,376 acre-feet) by the water user's share of Recovery Program costs (the charge) in effect at the time payment is made. For Fiscal Year 2014 (October 1, 2013, to September 30, 2014), the charge is \$ \$20.24 per acre-foot for the average annual depletion which equals a total contribution of \$351,690.24 for this Project's share of the Recovery Program costs. This amount will be adjusted annually for inflation on October 1 of each year based on the Consumer Price Index. Ten percent of the total contribution (\$35,169.02), or total payment, will be provided to the Service's designated agent, the National Fish and Wildlife Foundation (Foundation), at the time of issuance of the Federal approvals from the Corps. The balance will be due at the time the construction commences. The payment will be included by the Corps as a permit stipulation. The funds will be used for acquisition of water rights (or directly-related activities) to meet the in stream flow needs of the endangered fishes; or to support other recovery activities for the endangered fishes described in the RIPRAP. All payments should be made to the Foundation.

National Fish and Wildlife Foundation
Donna McNamara, Finance Department
1133 15th Street, NW, Suite 1100
Washington, D.C. 20005

Each payment is to be accompanied by a cover letter that identifies the project and biological opinion number ES/GJ-6-CO-99-F-033-CP126 that requires the payment, the amount of payment enclosed, and check number. A copy of the cover letter and a copy of the payment check shall be sent to the Service office issuing this biological opinion. The cover letter also shall identify the name and address of the payor, the name and address of the Federal agency responsible for authorizing the project, and the address of the Service office conducting the section 7 consultation. This information will be used by the Foundation to notify the payor, the lead Federal agency, and the Service that payment has been received. The Foundation is to send notices of receipt to these entities within 5 working days of its receipt of payment.

4. The Service requests that the Corps retain discretionary Federal authority for the subject Project in case reinitiation of section 7 consultation is required.

REINITIATION NOTICE

This concludes formal consultation on the subject action. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and under the following conditions:

1. The amount or extent of take specified in the incidental take statement for the Colorado River PBO is exceeded. The Service has determined that no incidental take, including harm, is anticipated to occur as a result of the depletions contemplated in this opinion because of the implementation of recovery actions. The implementation of the recovery actions contained in the Colorado River PBO will further decrease the likelihood of any take caused by depletion impacts.
2. New information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in the Colorado River PBO. In preparing the Colorado River PBO, the Service describes the positive and negative effects of the action it anticipates and considered in the section of the opinion entitled "Effects of the Action." New information would include, but is not limited to, not achieving a "positive response" or a significant decline in population, as described in Appendix D of the Colorado River PBO. Significant decline shall mean a decline in excess of normal variations in population (Appendix D). The current population estimate of adult Colorado pikeminnow in the Colorado River is 600 individuals, with a confidence interval of ± 250 . Therefore, with the criteria established in Appendix D, a negative population response would trigger reinitiation if the population declined to 350 adults. The Recovery Program has developed recovery goals for the four endangered fishes. If a population meets or exceeds the numeric goal for that species, it will be considered to exhibit a positive response. The Service retains the authority to determine whether a significant decline in population has occurred, but will consult with the Recovery Program's Biology Committee prior to making its determination. In the event of a significant population decline, the Service is to first rely on the Recovery Program to take actions to correct the decline. If nonflow recovery actions have not been implemented, the Service will assess the impacts of not completing these actions prior to reexamining any flow related issues.

New information would also include the lack of a positive population response by the year 2015 or when new depletions reach 50,000 acre-feet/year. According to the criteria outlined in Appendix D of the Colorado River PBO, a positive response would require the adult Colorado pikeminnow population estimate to be 1,100 individuals (± 250) in the Colorado River (Rifle, Colorado to the confluence with the Green River). When the population estimate increases above 1,100, a new population baseline is established at the higher population level.

3. The Recovery Action Plan actions listed as part of the proposed action in the Colorado River PBO are not implemented within the required time frames. This would be considered a change in the action subject to consultation; section 7 regulations (50 CFR 402.16 (c)) state that reinitiation of consultation is required if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The Recovery Action Plan is an adaptive management plan because additional information, changing priorities, and the development of the States' entitlement may require modification of the Recovery Action Plan. Therefore, the Recovery Action Plan is reviewed annually and updated and changed when necessary and the required time frames include changes in timing approved by means of the normal procedures of the Recovery Program, as explained in the description of the proposed action. In 2003 and every 2 years thereafter, for the life of the Recovery Program, the Service and Recovery Program will review implementation of the Recovery Action Plan actions to determine timely compliance with applicable schedules.

4. The Service lists new species or designates new or additional critical habitat, where the level or pattern of depletions covered under the Colorado River PBO may have an adverse impact on the newly listed species or habitat. If the species or habitat may be adversely affected by depletions, the Service will reinitiate consultation on the Colorado River PBO as required by its section 7 regulations. The Service will first determine whether the Recovery Program can avoid such impact or can be amended to avoid the likelihood of jeopardy and/or adverse modification of critical habitat for such depletion impacts. If the Recovery Program can avoid the likelihood of jeopardy and/or adverse modification of critical habitat no additional recovery actions for individual projects would be required, if the avoidance actions are already included in the Recovery Action Plan. If the Recovery Program is not likely to avoid the likelihood of jeopardy and/or adverse modification of critical habitat then the Service will reinitiate consultation and develop reasonable and prudent alternatives.

For purposes of any future reinitiation of consultation, depletions have been divided into two categories:

CATEGORY 1

A. Existing depletions, both Federal and non-Federal as described in the project description, from the Upper Colorado River Basin above the confluence with the Gunnison River that had actually occurred on or before September 30, 1995 (average annual depletion of approximately 1 million acre-feet/year);

B. Depletions associated with the total 154,645 acre-feet/year volume of Green Mountain Reservoir, including power pool (which includes but is not limited to all of the 20,000 acre-feet contract pool and historic user's pool), the Colorado Big-Thompson replacement pool; and

C. Depletions associated with Ruedi Reservoir including Round I sales of 7,850 acre-feet, Round II sales of 6,135 acre-feet/year as discussed in the Service's biological opinion to Reclamation dated May 26, 1995, and as amended on January 6, 1999, and the Fryingspan

Arkansas Project replacement pool as governed by the operating principles for Ruedi Reservoir but excluding 21,650 acre-feet of the marketable yield.

Category 1 depletions shall remain as Category 1 depletions regardless of any subsequent change, exchange, or abandonment of the water rights resulting in such depletions. Category 1 depletions associated with existing facilities may be transferred to other facilities and remain in Category 1 so long as there is no increase in the amount of total depletions attributable to existing depletions. However, section 7 consultation is still required for Category 1 depletion projects when a new Federal action occurs which may affect endangered species except as provided by the criteria established for individual consultation under the umbrella of the Colorado River PBO. Reinitiation of this consultation will be required if the water users fail to provide 10,825 acre-feet/year on a permanent basis.

CATEGORY 2

Category 2 is defined as all new depletions up to 120,000 acre-feet/year, this includes all depletions not included in Category 1 that occur after 1995 regardless of whether section 7 consultation has been completed. This category is further divided into two 60,000 acre-feet/year blocks of depletions.

The recovery actions are intended to avoid the likelihood of jeopardy and/or adverse modification of critical habitat and to result in a positive response as described in Appendix D of the Colorado River PBO for both 60,000 acre-feet blocks of depletions in Category 2. However, prior to depletions occurring in the second block, the Service will review the Recovery Program's progress and adequacy of the species response to the Recovery Action Plan actions. According to the criteria outlined in Appendix D, a positive response would require the adult Colorado pikeminnow population estimate to be maintained at approximately 1,100 individuals in the Colorado River (Rifle, Colorado to the confluence with the Green River), unless the criteria in Appendix D is changed because of new information. If the adult Colorado pikeminnow population is maintained at approximately 1,100 adults or whatever is determined to be the recovery goal in the Colorado River, a new population baseline would be established to determine a positive or negative population response.

When population estimates for wild adult humpback chub are finalized, they will also be used to determine population response. As outlined in Appendix D, Colorado pikeminnow and humpback chub population estimates will serve as surrogates for razorback sucker and bonytail to assess the status of their populations for 10 years. Recovery goals for all four species were completed August 1, 2002. If a population meets or exceeds the numeric goal for that species, it will be considered to exhibit a positive response. However, short of reaching a specific recovery goal, trends in certain population indices provide an interim assessment of a species' progress toward recovery. This review will begin when actual depletion levels from the first depletion block reach 50,000 acre-feet/year or the year 2015, whichever comes first.

Calculation of actual depletions is to be accomplished using Cameo gage records and State Division of Water Resources data (Appendix B of the Colorado River PBO). The review will

include a determination if all the recovery actions have been satisfactorily completed, that all ongoing recovery actions are continuing, and the status of the endangered fish species. If it is determined that the recovery actions have all been completed and the status of all four endangered fish species has improved (based on criteria in Appendix D), then the Service intends that the Colorado River PBO would remain in effect for new depletions up to 120,000 acre-feet/year (total of both 60,000 acre-feet blocks of Category 2 depletions).

Monitoring, as explained in Appendix D, will be ongoing to determine if a population estimate of 1,100 (\pm one confidence interval) adult Colorado pikeminnow is maintained. If it is not maintained, this would be considered new information and section 7 would have to be reinitiated. Population baselines will be adjusted as population estimates change. If the adult Colorado pikeminnow population estimates increase, a new population baseline will be established to determine a positive or negative population response. If the population estimate for Colorado pikeminnow in the year 2015 is greater than 1,100 adults, then the higher number will be used to establish a new population baseline. These numeric values may be revised as new information becomes available. Revisions will be made to Appendix D as needed.

If the 50,000 acre-foot or 2015 review indicates that either the recovery actions have not been completed or the status of all four fish species has not sufficiently improved, the Service intends to reinitiate consultation on the Recovery Program to specify additional measures to be taken by the Recovery Program to avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletions associated with the second 60,000 acre-feet/year block. Any additional measures will be evaluated every 5 years. If other measures are determined by the Service or the Recovery Program to be needed for recovery prior to the review, they can be added to the Recovery Action Plan according to standard procedures, outlined in that plan. If the Recovery Program is unable to complete those actions which the Service has determined to be required for the second 60,000 acre-feet/year, consultation on projects with a Federal nexus may be reinitiated in accordance with Endangered Species Act regulations and this opinion's reinitiation requirements. The Service may also reinitiate consultation on the Recovery Program if fish populations do not improve according to the criteria in Appendix D or if any positive response achieved prior to the 50,000 acre-foot or the year 2015 is not maintained. Once a positive response is achieved, failure to maintain it will be considered a negative response.

If the Service reinitiates consultation, it will first provide information on the status of the species and recommendations for improving population numbers to the Recovery Program. The Service will reinitiate consultation with individual projects only if the Recovery Program does not implement recovery actions to improve the status of the listed fish species. The Service will reinitiate consultation first on Category 2 projects and second on Category 1 projects. The Service will only reinitiate consultations on Category 1 depletions if Category 2 depletion impacts are offset to the full extent of the capability of the covered projects as determined by the Service and the likelihood of jeopardy to the listed fishes and/or adverse modification of critical habitat still cannot be avoided. The Service intends to reinitiate consultations simultaneously on all depletions within the applicable category.

This concludes formal consultation on the actions outlined in the August 14, 2012, and August 14, 2013, requests from the Corps. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the specific action(s) causing such take shall be subject to reinitiation expeditiously.

Requests for reinitiation, or questions regarding reinitiation should be directed to the Service's Colorado Field Office at the above address. If you have any questions regarding this consultation, please contact this office at (303) 236-4773.

Sincerely,



Susan C. Linner
Colorado Field Supervisor

Enclosure 1: Denver Water Tabulation of Water Rights
Enclosure 2: [Colorado River] Recovery Agreement

cc: FWS/WTR, Denver (T. Econopouly)(w/Enclosure 1)
FWS/ES, Nebraska (M. Rabbe)
FWS/ES, Grand Junction (w/Enclosure 2)
FWS/UCREFRP, Denver (w/Enclosure 2)
FWS/ES, Lakewood (S. Vana-Miller)(w/Enclosure 1)

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Enclosure 1

Denver Water Tabulation of Water Rights

Division/District and Name of Structure or Water Right Name	Source	Appropriation Date	Decree Date	Amount	Case No.
Water Division No. 1					
Lawn Irrigation Return Flow Project	Reusable return flow	N/A	5/15/2012	200 cfs	2004CW121
District No. 2 Storage Rights					
Denver Water/South Adams County Reservoir Water Supply Project					
North Reservoir Complex - Fill and refill	South Platte River	12/28/2001	8/8/2011	17,747 AF	2001CW286
South Reservoir Complex - Fill and refill	South Platte River	12/28/2001	8/8/2011	2,400 AF	2001CW286
South Reservoir Complex - Enlargement	South Platte River	12/29/2009	Pending	1,129 AF	2009CW264
Lupton Lakes Storage Complex - Fill and refill	South Platte River	7/12/2006	Pending	11,400 AF	2007CW322
District No. 2 Direct Flow Rights					
DIA Wetlands	South Platte River trib flow	4/1/2000	12/27/2006	22.16 AF	2003CW129
DIA Wetlands	Box Elder Creek	7/1/2000	1/14/2004	16.32 AF	2002CW386
Gravel Pit Exchange	South Platte River	8/31/2009	Pending	80 cfs	2009CW123
Recycling Plant Intake	South Platte River	12/28/2001	12/6/2011	70.0 cfs	2001CW287
Recycling Plant Intake exch. and subs.	South Platte River	12/28/2001	12/6/2011	70.0 cfs	2001CW287
5K Direct Flow Right	South Platte River	12/28/2001	10/25/2011	5,000 AF	2001CW285
Farmers and Gardeners Ditch	South Platte River	03/15/1863	9/29/2012	13.72 cfs κ	2009CW84
1st Enlargement	South Platte River	04/01/1874	9/29/2012	10.28 cfs κ	2009CW84
District No. 6 Storage Rights					
Gross Reservoir					
Storage Right	South Boulder Creek	5/10/1945	9/28/1953	113,078 AF D	C.A.12111
Refill Right	South Boulder Creek	5/10/1945	9/28/1953	113,078 AF D	C.A.12111
Ralston Creek Reservoir					
Priority 31 Storage Right	South Boulder Creek	1/1/1930	9/28/1953	11,000 AF	C.A.12111
Priority 31 Storage Right	South Boulder Creek	10/31/1932	9/28/1953	1,758 AF	C.A.12111
District No. 6 Direct Flow Rights					
South Boulder Diversion Conduit	South Boulder Creek	1/1/1930	9/28/1953	461 cfs	C.A.12111
District No. 7 Storage Rights					
Ralston Creek Reservoir	Ralston Creek	1/1/1930	10/18/1978	7,394 AF	W-7561
Ralston Creek Reservoir	Ralston Creek	1/1/1930	10/18/1978	3,382 AF H	W-7561
Long Lake No. 1 (Upper)	Ralston Creek	05/29/1873	10/04/1884	890 AF	Not given
Long Lake No. 1 (Upper)	Ralston Creek	6/6/1909	5/13/1936	557 AF	C.A. 60052
Long Lake No. 1 (Upper)	Ralston Creek	6/6/1909	5/13/1936	72 AF H	C.A. 60052
Long Lake No. 2 (Lower)	Ralston Creek	6/6/1909	5/13/1936	292 AF	C.A. 60052
District No. 7 Direct Flow Rights					
Ralston Creek Intake	Ralston Creek	1/1/1930	10/18/1978	212 cfs	W-7561
Ralston Creek Intake	Ralston Creek	1/1/1930	10/18/1978	148 cfs H	W-7561
District No. 8 Storage Rights					
Chatfield Reservoir					
Storage	South Platte River	12/28/1977	8/29/1994	27,428 AF D	W-8783-77
Exchange	South Platte River	12/28/1977	8/29/1994	27,428 AF D	W-8783-77

Division/District and Name of Structure or Water Right Name	Source	Appropriation Date	Decree Date	Amount	Case No.
Marston Reservoir	South Platte River	4/1/1911	6/16/1930	19,795 AF	C.A. 807
Platte Canyon Reservoir	South Platte River	9/5/1902	6/16/1930	905 AF	C.A. 807
Strontia Springs Reservoir	South Platte River	3/21/1962	12/19/1983	7,700 AF	80CW406
Refill Right	South Platte River	3/21/1962	2/28/1990	7,864 AF	87CW116
District No. 8 Direct Flow Rights					
Brown Ditch	South Platte River	11/30/1862	4/17/1990	8.75 cfs	86CW014
Cherry Creek Park Well No. 1	Cherry Creek Alluvium	7/25/1989	10/24/2006	98 gpm	89CW198
Cherry Creek Galleries (Well O)	Cherry Creek	05/01/1887	6/16/1930	14.02 cfs	C.A. 807
Cherry Creek Galleries (Well O) Aug. Plan	Cherry Creek	05/01/1887	10/5/2007	2.45 cfs	2003CW234
Exchange within Denver Water System	South Platte River	7/4/1921	5/18/1972	3,000 cfs <small>D E I</small>	C.A. 3635
Four Mile House Well No. 1	Cherry Creek Alluvium	8/31/1948	8/29/1983	0.44 cfs	83CW095
Snell Ditch	Cherry Creek Alluvium	9/30/1871	10/30/1991	31 gpm	85CW325
Success Ditch	Cherry Creek Alluvium	4/30/1872	10/30/1991	169 gpm	85CW325
Garland Park Well No. 1	Cherry Creek Alluvium	9/20/1991	3/7/2007	525 gpm	93CW110
Success Ditch	Cherry Creek Alluvium	4/30/1872	3/7/2007	525 gpm	85CW325
Glendale Wells No. 1, 2, 3, and 4	Cherry Creek Alluvium	3/6/1959	5/18/1972	8 cfs	C.A. 3635
Glendale Well No. 5	Cherry Creek Alluvium	7/15/1926	5/18/1972	1.1 cfs	C.A. 3635
Glendale LFH-1	Non-trib. Laramie Fox-Hills Aquifer	N/A	2/28/1990	141 AF	88CW149
Glendale Well UA-1	Non-trib. Upper Arapahoe Aquifer	N/A	8/23/1991	32.41 AF	90CW117
Glendale Well LA-1	Non-trib. Lower Arapahoe Aquifer	N/A	8/23/1991	17.34 AF	90CW117
Intake Rights - Divertible at Conduit No. 20 Intake and Strontia Springs Reservoir/Conduit No. 26 (Foothills Tunnel) and other points					
Transfer from Platte Canyon Ditch	South Platte River	07/30/1861	1/16/1984	4.70 cfs	80CW039
Transfer from Platte Canyon Ditch	South Platte River	12/30/1863	1/16/1984	24.50 cfs	80CW039
Transfer from Platte Canyon Ditch	South Platte River	12/30/1864	1/16/1984	17.30 cfs	80CW039
Transfer from Borden Ditch	South Platte River	05/01/1866	1/16/1984	8.70 cfs	80CW039
City Right	South Platte River	12/20/1870	1/16/1984	3.00 cfs	80CW039
City Right	South Platte River	12/31/1874	1/16/1984	3.78 cfs	80CW039
Transfer from Weed Ditch	South Platte River	05/01/1875	1/16/1984	2.31 cfs	80CW039
City Right	South Platte River	09/10/1878	1/16/1984	13.22 cfs	80CW039
Transfer from Weed Ditch	South Platte River	06/01/1879	1/16/1984	3.65 cfs	80CW039
City Right	South Platte River	06/30/1880	1/16/1984	10.00 cfs	80CW039
Transfer from Love and Raynor Ditch	South Platte River	05/08/1881	1/16/1984	1.71 cfs	80CW039
Transfer from Little Channel Ditch	South Platte River	05/01/1882	1/16/1984	0.48 cfs	80CW039
Transfer from Island Ditch	South Platte River	05/20/1885	1/16/1984	2.04 cfs	80CW039
City Right	South Platte River	10/01/1889	1/16/1984	12.38 cfs	80CW039
City Right	South Platte River	09/01/1892	1/16/1984	25.33 cfs	80CW039
City Right	South Platte River	05/01/1899	1/16/1984	38.08 cfs	80CW039
City Right	South Platte River	12/6/1910	1/16/1984	42.72 cfs	80CW039
Foothills Tunnel and Conduit No. 26	South Platte River	3/21/1962	12/19/1983	774 cfs <small>O I</small>	80CW408
John F. Kennedy Golf Course Wells and Plan for Augmentation					
John F. Kennedy Well 1 (51765-F)	Cherry Creek	1/13/1961	6/24/1985	1.23 cfs	81CW404
John F. Kennedy Well 2 (51764-F)	Cherry Creek	2/13/1961	6/24/1985	1.53 cfs	81CW404
John F. Kennedy Well 3 (42580-F)	Cherry Creek	3/27/1990	12/4/2006	700 gpm	93CW033
JFK Augmentation Plan	Cherry Creek	1/13/1961	6/20/1986	535 AF	81CW405
JFK Golf Course Expansion	Cherry Creek	3/27/1990	12/4/2006	571 AF	93CW033

Division/District and Name of Structure or Water Right Name	Source	Appropriation Date	Decree Date	Amount	Case No.
Last Chance Ditch No. 2					
Priority No. 14	South Platte River	12/30/1863	2/24/1993	1.74 cfs	92CW014
Priority No. 19	South Platte River	12/30/1865	2/24/1993	0.2 cfs	92CW014
Priority No. 39	South Platte River	03/03/1868	2/24/1993	6.54 cfs	92CW014
Nevada Ditch (Excludes amounts diverted at Farnell Lane Wells)					
Priority No. 4	South Platte River	08/30/1861	8/17/1992	13.06 cfs	90CW172
Priority No. 19	South Platte River	12/30/1865	8/17/1992	16.0 cfs	90CW172
Overland Golf Course Pumping Plant and Plan for Augmentation					
Epperson Ditch	South Platte River	05/01/1860	4/26/1993	0.34 cfs	91CW030
Overland Golf Course Pumping Plant	South Platte River	5/9/1958	2/17/1993	2.25 cfs	91CW029
Plan for Augmentation	South Platte River		5/24/1993	2.25 cfs	91CW028
District No. 9 Storage Rights					
Harriman Reservoir Priority No 1 Original Cons.	Bear & Turkey Creeks	05/01/1873	02/04/1884	18.09 cfs	C.A. 6832
Harriman Reservoir Priority No 2 1st Enlargement	Bear & Turkey Creeks	04/01/1875	02/04/1884	37.58 cfs	C.A. 6832
Marston Reservoir	Bear Creek	08/15/1892	9/24/1935	19,795 AF	C.A. 91471
Soda Lakes Reservoirs					
Priority No. 5 (Domestic)	Bear Creek	02/11/1893	9/24/1935	598 AF	C.A. 91471
District No. 9 Direct Flow Rights					
Harriman (Arnett) Ditch					
Priority No. 21	Turkey Creek	04/15/1868	5/13/1998	5.7 cfs	91CW103
Priority No. 23	Bear Creek	03/16/1869	5/13/1998	4.21 cfs	91CW103
Priority No. 25	Bear Creek	05/01/1871	5/13/1998	13.54 cfs	91CW103
Priority No. 30	Bear Creek	03/01/1882	5/13/1998	6.82 cfs	91CW103
Priority No. 67 Domestic (irrigation season)	Bear Creek	12/05/1889	9/24/1935	25.50 cfs	C.A. 91471
Priority No. 68 Domestic (non-irrigation season)	Bear Creek	12/05/1889	9/24/1935	148.35 cfs	C.A. 91471
Priority No. 69 Domestic (irrigation season)	Turkey Creek	02/01/1890	9/24/1935	4.805 cfs	C.A. 91471
Priority No. 70 Domestic (non-irrigation season)	Turkey Creek	02/01/1890	9/24/1935	29.97 cfs	C.A. 91471
Priority No. 77 Domestic (irrigation season)	Bear Creek	08/15/1892	9/24/1935	19.16 cfs	C.A. 91471
Priority No. 78 Domestic (irrigation season)	Turkey Creek	08/15/1892	9/24/1935	4.50 cfs	C.A. 91471
Priority No. 79 Domestic (non-irrigation season)	Bear Creek	08/15/1892	9/24/1935	76.65 cfs	C.A. 91471
Priority No. 80 Domestic (non-irrigation season)	Turkey Creek	08/15/1892	9/24/1935	18.03 cfs	C.A. 91471
Hodgson Ditch					
Priority No. 3	Bear Creek	06/01/1861	5/13/1998	1.55 cfs	91CW102
Priority No. 9	Bear Creek	05/31/1862	5/13/1998	0.39 cfs	91CW102
Pioneer-Union Ditch					
Priority No. 5	Bear Creek	12/10/1861	5/13/1998	4.98 cfs	91CW100
Priority No. 11	Bear Creek	09/01/1862	5/13/1998	3.26 cfs	91CW100
Priority No. 15	Bear Creek	03/15/1865	5/13/1998	10.09 cfs	91CW100
Robert Lewis Ditch	Bear Creek	10/01/1865	5/13/1998	6.96 cfs	91CW105
Simonton Ditch	Bear Creek	12/25/1860	5/13/1998	19.67 cfs	91CW106
Warrior Ditch					
Priority No. 4	Bear Creek	12/01/1861	5/13/1998	4.46 cfs	91CW109
Priority No. 8	Turkey Creek	04/16/1862	5/13/1998	1.03 cfs	91CW109
Priority No. 14	Bear Creek	10/31/1864	5/13/1998	9.21 cfs	91CW109
Priority No. 16	Bear Creek	04/01/1865	5/13/1998	4.16 cfs	91CW109

Division/District and Name of Structure or Water Right Name	Source	Appropriation Date	Decree Date	Amount	Case No.
District No. 23 Storage Rights					
Antero Reservoir	South Fork South Platte River	10/8/1907	5/31/1913	85,564 AF	C.A. 1678
Antero Reservoir Refill Right	South Fork South Platte River	12/31/1929	3/24/1953	20,046 AF	C.A. 3286
Antero Reservoir Exchange Right	South Fork South Platte River	4/1/1935	3/24/1953	20,046 AF	C.A. 3286
Even Mile Canon Reservoir					
1st Enlargement	South Fork South Platte River	7/10/1926	3/24/1953	81,917 AF	C.A. 3286
Refill Right	South Fork South Platte River	10/7/1957	4/27/1972	15,862 AF	C.A. 3701
Exchange Right	South Fork South Platte River	12/31/1929	3/24/1953	81,917 AF	C.A. 3286
Cheesman Reservoir					
1st Enlargement	South Fork South Platte River	06/27/1889	5/22/1913	30,691 AF	C.A. 1636
Refill Right	South Fork South Platte River	09/24/1893	5/22/1913	48,373 AF	C.A. 1636
Exchange Right	South Fork South Platte River	12/31/1929	3/24/1953	79,064 AF	C.A. 3286
District No. 23 Direct Flow Rights					
Beery Ditch	Four Mile Creek, South Platte R	06/15/1861	7/14/1976	13.0 cfs	W-7739-74
Four Mile No. 9 Ditch	Four Mile Creek, South Platte R.	06/01/1868	11/12/1982	7.00 cfs	80CW313
Water Division No. 5					
Exchange Rights from Williams Fork Reservoir to:					
Dillon Reservoir and Roberts Tunnel	Blue R, Snake R, Ten Mile Cr	6/24/1946	3/10/1952	252,678 AF	Cons. 2782, 5016, 5017
Dillon Reservoir and Roberts Tunnel	Blue R, Snake R, Ten Mile Cr	6/24/1946	5/30/1972	93,637 AF	C.A. 1430
Dillon Reservoir and Roberts Tunnel	Blue R, Snake R, Ten Mile Cr	6/24/1946	11/10/1992	96,822 AF	88CW382
Fraser River Diversion Project c	Fraser River and tributaries	11/10/1935	11/5/1937	93,637 AF	C.A. 657
Williams Fork Diversion Project c	Williams Fork River & tributaries	11/10/1935	11/5/1937	93,637 AF	C.A. 657
Cabin- Meadow Creek System	Cabin-Meadow Creek and trbs.	7/2/1932	10/12/1955	70 cfs/5,100 AF	Cons. 2782, 5016, 5017
District No. 36 Storage Rights					
Dillon Reservoir j	Blue R, Snake R, Ten Mile Cr	6/24/1946	3/10/1952	252,678 AF	C.A. 1806
Refill Right j	Blue R, Snake R, Ten Mile Cr	1/1/1985	8/23/1999	15,000 AF ^{D,F}	87CW376
District No. 36 Direct Flow Rights					
Blue River Diversion Project j	Blue R, Snake R, Ten Mile Cr	6/24/1946	3/10/1952	788 cfs ^{A,D}	Cons. 2782, 5016, 5017
District No. 51 Storage Rights					
Williams Fork Reservoir c	Williams Fork River	11/10/1935	11/5/1937	93,637 AF	C.A. 657
Williams Fork Reservoir	Williams Fork River	10/9/1956	5/30/1972	93,637 AF	C.A. 1430
Meadow Creek Reservoir l	Meadow Creek	7/2/1932	11/5/1937	5,100 AF	C.A. 657
Meadow Cr Res - Miffat Tunnel Collection Sys.	Meadow Creek	8/30/1963	5/30/1972	5,100 AF	C.A. 1430
Wolford Mountain Reservoir o					
Enlargement	Muddy Creek	12/14/1987	12/20/1989	23,997 AF	87CW283
Substitution	Muddy Creek	1/16/1995	12/31/1995	2,400 AF	95CW281
Emergency Exchange	Muddy Creek	3/3/1987	3/5/1996	200 cfs	91CW252
District No. 51 Direct Flow Rights					
Fraser River Diversion Project c	Fraser River & Tributaries	7/4/1921	11/5/1937	1280 cfs ^D	C.A. 657

Division/District and Name of Structure or Water Right Name	Source	Appropriation Date	Decree Date	Amount	Case No.
Cabin - Meadow Creek System					
Hamilton- Cabin Creek Ditch	Fraser River Tributaries	7/2/1932	11/5/1937	70 cfs	C.A. 657
Extension and Enlargement Hamilton Ditch	Fraser River Tributaries	7/2/1932	11/5/1937	25 cfs	C.A. 657
Moffat Tunnel Collection System	Fraser River & Tributaries	8/30/1963	5/30/1972	100.0 cfs	C.A. 1430
Williams Fork Diversion Project	Williams Fork River & Tribs	7/4/1921	11/5/1937	245 cfs a	C.A. 657
NOTE: The information contained in this Attachment A is for descriptive purposes only, and is not intended to represent an interpretation, admission or modification of any of the water right decrees.					
A.Pending claim in Case No. 2006CW255 to make 654 cfs absolute.					
B.Pending claim in Case No. 2007CW031 to make 245 cfs absolute. Conditional water rights associated with the enlargement and extension of the Williams Fork Diversion Project will be developed cooperatively with West Slope Entities pursuant to Article I.C.3.					
C.Reuse of return flows generated by diversion and importation through the Moffat and Jones Pass Tunnels of this water right are subject to the ruling in Case No. 81CW405, Water Division No. I. If the agreement or ruling is modified such that Denver Water is able to reuse these return flows, such return flows shall be subject to Articles I and II.					
D.Water right is partially absolute and partially conditional.					
E.Pending application in Case No. 2008CW159 to make 672 cfs absolute.					
F.Pending application in Case No. 2003CW039 to make 141,712 acre feet absolute. Under the decree in 87CW376, Denver may import through the Roberts Tunnel 150,000 af over any consecutive 10 year period.					
G.By agreement dated July 21, 1992, Denver Water has 40% interest in Wolford Mountain Reservoir capacity and water right. Although Wolford Mountain Reservoir water is not physically used on the east slope, Denver Water operates an intergrated system and Wolford Mountain enables it to more fully use its Colorado River basin supplies.					
H.Amount is for portion of conditional right, which when added to the amount absolute, equals the physical capacity of the facility.					
I.Applies to only that portion of the water right needed to satisfy Denver Water's obligations under Articles I.A and I.B.					
J.Water provided to Denver Water pursuant to the terms of paragraph 9 of the May 15, 2003 Memorandum of Agreement Regarding Colorado Springs Substitution Operations shall be used for the same uses and locations as the rights listed on this Attachment A.					
K.Maybe used to satisfy Denver Water's obligations stemming from the ruling in Case No. 81CW405 in addition to use under Articles I.A and I.B.					
L.Denver Water's interests in this water right are the setforth in an agreement dated August 11, 1995 between Denver Water, City of Englewood and Climax Metals Company.					

RECOVERY AGREEMENT

This RECOVERY AGREEMENT is entered into this 14th day of February, 2000, by and between the United States Fish and Wildlife Service (USFWS) and the City and County of Denver, acting by and through its Board of Water Commissioners (Denver).

WHEREAS, in 1988 the Secretary of Interior, the Governors of Wyoming, Colorado and Utah, and the Administrator of the Western Area Power Administration signed a Cooperative Agreement to implement the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program); and

WHEREAS, the Recovery Program is intended to recover the endangered fish while providing for water development in the Upper Basin to proceed in compliance with state law, interstate compacts and the Endangered Species Act; and

WHEREAS, the Colorado Water Congress has passed a resolution supporting the Recovery Program; and

WHEREAS, on December 20, 1999, USFWS issued a programmatic biological opinion (1999 Opinion) concluding that implementation of specified elements of the Recovery Action Plan (Recovery Elements), along with existing and a specified amount of new depletions, are not likely to jeopardize the continued existence of the endangered fish or adversely modify their critical habitat in the Colorado River subbasin within Colorado, exclusive of the Gunnison River subbasin; and

WHEREAS, the 1999 Opinion in the section entitled "Reinitiation Notice" divided depletions into Category 1 or Category 2 for reinitiation purposes; and

WHEREAS, Denver is the owner and operator of water diversion projects and facilities decreed for diversion from the Fraser, Williams Fork, Blue, Eagle and Colorado Rivers and their tributaries (Water Facilities). The operation of Denver's Water Facilities includes using water stored in Williams Fork and Wolford Mountain Reservoirs for substitution and in Williams Fork Reservoir for exchange purposes. Denver's Water Facilities cause or will cause depletions to the Colorado River subbasin within Colorado, exclusive of the Gunnison River subbasin; and

WHEREAS, Denver desires certainty that its depletions can occur consistent with Section 7 and Section 9 of the Endangered Species Act (ESA); and

WHEREAS, USFWS desires a commitment from Denver to the Recovery Program so that the Program can actually be implemented to recover the endangered fish and to carry out the Recovery Elements.

NOW THEREFORE, Denver and USFWS agree as follows:

1. USFWS agrees that implementation of the Recovery Elements specified in the 1999 Opinion will avoid the likelihood of jeopardy and adverse modification under Section 7 of the ESA, for depletion impacts caused by Denver's Water Facilities. Any consultations under Section 7 regarding Denver's Water Facilities' depletions are to be governed by the provisions of the 1999 Opinion. USFWS agrees that, except as provided in the 1999 Opinion, no other measure or action shall be required or imposed on Denver's Water Facilities to comply with Section 7 or Section 9 of the ESA with regard to its Water Facilities' depletion impacts or other impacts covered by the 1999 Opinion. Denver is entitled to rely on this Agreement in making the commitment described in paragraph 2.

2. Denver agrees not to take any action which would probably prevent the implementation of the Recovery Elements. To the extent implementing the Recovery Elements requires active cooperation by Denver, Denver agrees to take reasonable actions required to implement those Recovery Elements. Denver will not be required to take any action that would violate its decrees or the statutory authorization for its Water Facilities, or any applicable limits on Denver's legal authority. Denver will not be precluded from undertaking good faith negotiations over terms and conditions applicable to implementation of the Recovery Elements.

3. If USFWS believes that Denver has violated paragraph 2 of this Recovery Agreement, USFWS shall notify both Denver and the Management Committee of the Recovery Program. Denver and the Management Committee shall have a reasonable opportunity to comment to USFWS regarding the existence of a violation and to recommend remedies, if appropriate. USFWS will consider the comments of Denver and the comments and recommendations of the Management Committee, but retains the authority to determine the existence of a violation. If USFWS reasonably determines that a violation has occurred and will not be remedied by Denver despite an opportunity to do so, the USFWS may request reinitiation of consultation on Water Facilities without reinitiating other consultations as would otherwise be required by the "Reinitiation Notice" section of the 1999 Opinion. In that event the Water Facilities' depletions would be excluded from the depletions covered by 1999 Opinion and the protection provided by the Incidental Take Statement.

4. Nothing in this Recovery Agreement shall be deemed to affect the authorized purposes of Denver's Water Facilities or USFWS' statutory authority.

5. The signing of this Recovery Agreement does not constitute any admission by Denver regarding the application of the ESA to the depletions of Denver's Water Facilities. The signing of this Recovery Agreement does not constitute any agreement by either party as to whether the flow recommendations for the 15-Mile Reach described in the 1999 Opinion are biologically or hydrologically necessary to recover the endangered fish.

6. This Recovery Agreement shall be in effect until one of the following occurs:

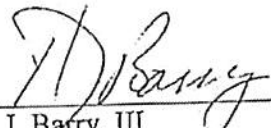
- a. USFWS removes the listed species in the Upper Colorado River Basin from the endangered or threatened species list and determines that the Recovery Elements are no longer needed to prevent the species from being relisted under the ESA; or

b. USFWS determines that the Recovery Elements are no longer needed to recover or offset the likelihood of jeopardy to the listed species in the Upper Colorado River Basin; or

c. USFWS declares that the endangered fish in the Upper Colorado River Basin are extinct; or

d. Federal legislation is passed or federal regulatory action is taken that negates the need for [or eliminates] the Recovery Program.

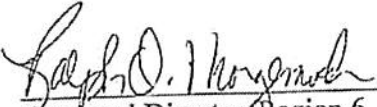
7. Denver may withdraw from this Recovery Agreement upon written notice to USFWS. If Denver withdraws, USFWS may request reinitiation of consultation on Water Facilities without reinitiating other consultations as would otherwise be required by the "Reinitiation Notice" section of the 1999 Opinion.



H. J. Barry, III
Manager, Denver Water

2/14/2000

Date



Ralph D. Hargrave
Regional Director, Region 6
U.S. Fish and Wildlife Service

2/14/00

Date

