









November 8, 2023

Mr. Wayne Pullan, Regional Director U.S. Bureau of Reclamation Upper Colorado Basin Regional Office 125 South State Street, Room 8100 Salt Lake City, Utah 84138-1147

Re: Dolores Carriage Contract and Operating Agreement EIS Request Letter

Dear Mr. Wayne Pullan:

American Rivers, American Whitewater, Conservation Colorado, San Juan Citizens Alliance, and Sheep Mountain Alliance write regarding two contracts between the Bureau of Reclamation ("Reclamation") and the Dolores Water Conservancy District (DWCD) related to the Dolores River, which are nearing the expiration of their terms in 2025: the Contract between the United States and the Dolores Water Conservancy District for the Carriage of Water through Project Facilities, Contract N. 7-07-40-W0470 ("Carriage Agreement") and the McPhee Dam and Reservoir Operating Agreement between the United States and the Dolores Water Conservancy District, Contract N. 99-WC-40-R6100 ("Operating Agreement"; collectively, the "Agreements").

The Agreements were executed in 2000. Since then, there have been significant changes in the condition of the Dolores River, updates to best management practices across federal and state agencies, and significant changes in the understanding of the present and foreseeable future hydrology of the Colorado River Basin. Most relevant here, the transbasin diversion of most of the flow from the Dolores River under the Agreements has resulted in devastating impacts to the Dolores River and the ecosystem services that it provides. The extent and severity of those impacts were not fully considered or disclosed in the 2000 Environmental Assessment (EA) that Reclamation prepared 25 years ago and ultimately relied upon when it approved the original Agreements. Compounding this issue is the Millennium Drought and the steady aridification of the West due to a changed and changing climate.

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¹ See Final Environmental Assessment, Dolores Project Carriage Contract: Contract between the United States and the Dolores Water Conservancy District for the Carriage of Water through Dolores Project Facilities, United States Department of the Interior Bureau of Reclamation Western Colorado Area Office Grand Junction and Durango, Colorado (May 2001).

² Salehabadi, Homa and David Tarboton, Eric Kuhn, Brad Udall, Kevin Wheeler, David Rosenberg, Sara Goeking, John C. Schmidt. The Future Hydrology of the Colorado River Basin. The Future of the Colorado River Project, Center for Colorado River Studies, Quinney College of Natural Resources, Utah State University, White Paper No. 4. December 9, 2022. Available at: https://qcnr.usu.edu/coloradoriver/files/news/White-Paper-4.pdf.

The Agreements will expire in 2025 unless Reclamation renews them for an additional term of 25 years prior to expiration. We write regarding Reclamation's responsibility to comply with the National Environmental Policy Act (NEPA) prior to any decision to renew the Agreements. As described in more detail below, the analysis in the 2000 EA was based upon outdated assumptions, management practices that have since evolved, and biophysical conditions that have changed significantly. Regardless of Reclamation's prior finding of no significant impact, the facts here clearly show that a decision to renew the Agreements to permit continued diversions and operations on the same or similar terms would be a major federal action, significantly affecting the Dolores River and water users for decades to come. In short, the EA certified in 2000 does not satisfy Reclamation's duty to fully consider and disclose the impacts of a decision to continue the transbasin water transfers under any renewed Agreements.

Accordingly, under NEPA section 102, 42 U.S.C. § 4332, Reclamation is required to prepare an Environmental Impact Statement (EIS) that discloses and takes a "hard look" at those impacts based upon best available science, and then considers a range of reasonable alternatives to mitigate or avoid those impacts *prior to* renegotiating or renewing the Agreements.

We look forward to participating in this process and helping Reclamation incorporate the latest scientific data into the EIS, including developing and analyzing a suite of alternatives that more accurately characterizes the potential outcomes of Dolores Project operations to meet the considerable needs of communities, native fish, wildlife, outfitters and guides, recreationists, and agricultural producers that are reliant upon the Dolores River.

I. Description of Conservation Groups

1. American Rivers

American Rivers is a national, non-profit, 501(c)(3) river conservation organization with offices in Washington, D.C., Flagstaff, Arizona, and Denver, Glenwood Springs, and Durango, Colorado. Serving more than 300,000 members and supporters nationwide and more than 50,000 supporters in the Colorado River Basin, we are dedicated to protecting wild rivers, restoring damaged rivers, and conserving clean water for people and nature. Additionally, American Rivers promotes public awareness about the importance of healthy rivers and the threats that face them. American Rivers' programs address flood control and hydropower policy reform, endangered aquatic and riparian species protection, instream flow, clean water, and urban rivers. One of its principal programs is the protection of rivers from uneconomic or otherwise unwise hydroelectric development that negatively impacts fish and other aquatic organisms, water quality, recreation, and cultural values of North American rivers.

2. American Whitewater

American Whitewater is a national 501(c)(3) non-profit organization with a mission to protect and restore our nation's whitewater resources and enhance opportunities to enjoy them safely.

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With over 6,000 individual and 100 affiliate club members, American Whitewater represents the interests of over 80,000 river enthusiasts nationally. As conservation-minded whitewater recreationists, we place a high value on protecting naturally functioning river ecosystems, including their fish and wildlife, geomorphic processes, and potential to provide clean and safe drinking water. American Whitewater is the primary advocate for the preservation and protection of whitewater rivers throughout the United States, and we have members that live, recreate, and depend on the outdoor economy of the Dolores River.

3. Conservation Colorado

Conservation Colorado Education Fund is a statewide non-profit 501(c)(3) organization based in Denver with offices across the state of Colorado. Conservation Colorado works to protect Colorado's climate, air, land, water and communities through organizing, advocacy and elections to protect Colorado's climate, air, land, water, and communities through advocacy and organizing its members to take action. Conservation Colorado has a near 60-year history of collaborating with a broad spectrum of communities to tackle the key environmental issues of the day, and establishing strategic partnerships to find conservation success at the state and federal levels. The organization has a long history of working on a wide array of issues across Colorado, particularly public lands and water issues on Colorado's western slope.

4. San Juan Citizens Alliance

San Juan Citizens Alliance (SJCA) is a regional non-profit 501(c)(3) organization based in Durango, Colorado. SJCA was founded in 1986 and advocates for clean air, pure water, and healthy land – the foundations of resilient communities, ecosystems and economies in the San Juan Basin. SJCA has 1,000 members across southwest Colorado and northwest New Mexico, and has participated in regional conversations around improved management of the Dolores River for the past 20 years.

5. Sheep Mountain Alliance

Sheep Mountain Alliance (SMA) is a grassroots non-profit 501(c)(3) organization dedicated to the conservation of the natural and human environment of southwest Colorado. SMA, based in Telluride, Colorado provides protection to and education about regional ecosystems, wildlife habitats, and watersheds, serving nearly 20,000 residents and visitors of the San Juan Mountains and the San Miguel and central Dolores River watersheds. This area spans red rock desert, high alpine lakes, jagged snow-capped peaks, pristine river canyons, and dense aspen-conifer forests that are home to endangered species such as the Canada Lynx and the Gunnison Sage Grouse. SMA works directly and effectively to improve policy and management across the public lands and natural resources that these landscapes encompass.

II. Background

1. Description of the Dolores River

Over the course of millions of years, the Dolores River has carved one of America's most stunning canyon systems. From its upper reaches in the forested peaks of the San Juan

Mountains through ponderosa gorges and slickrock canyons to its confluence with the Colorado River in Utah, the Dolores River cuts an extraordinary path through our public lands. The Dolores River has been the backbone of life in the region for millennia, supporting Indigenous communities, nurturing vibrant wildlife and unique plant species, sustaining small towns and agriculture, weathering the boom and bust of the mining industry, and inspiring unparalleled outdoor recreation opportunities. But the river's health and its flows are increasingly tenuous.

In 1976 the *Dolores River Wild and Scenic River Study Report* recommended the Dolores River as *suitable* for designation under the Wild and Scenic Rivers Act for its free-flowing character and outstanding values, conferring administrative protections to the river to protect those values. The U.S. Forest Service and U.S. Bureau of Land Management have maintained suitability for the Dolores River in all subsequent Land and Resource Management Plans.³ Significantly, water quantity is not one of those protections even though it is the primary limiting factor impacting beneficial uses and users of the river.

With headwaters at 14,000 feet and a 240-mile run to its confluence with the Colorado River, the Dolores River is a gateway to world-class scenery and habitat. The headwaters of the Dolores River and West Dolores River are in the San Juan Mountains, with both branches flowing southwest before converging just above the town of Dolores. McPhee Reservoir, where the Dolores River is impounded to irrigate approximately 61,660 acres of agriculture in the adjacent San Juan River Basin, is located west of the town. Despite being the fifth largest reservoir in Colorado, in most of the past 20 years, McPhee Reservoir has not had the capacity to store enough water to satisfy agricultural rights, flows for recreation, and sensitive native fish and wildlife species.

Water released from the dam flows sharply northwest through Ponderosa and Slickrock Canyons, through the Paradox Valley, then joins the San Miguel River before flowing through Gateway Canyon and into the Colorado River east of Moab, Utah. On the rare occasions when water releases reach recreational use thresholds, the nearly 170 miles of river below the McPhee dam are floated by recreationists from across the U.S. Prior to construction of McPhee dam, the Dolores River was one of the most popular multi-day rafting destinations in the country. Now, due to the practical elimination of high flow events, the river channel has narrowed and become overgrown with vegetation, impeding recreational boating and encroaching on campsites even on the rare occasions when the river is floatable. Commercial rafting on the river has steeply declined since 2001 due to the lack of consistent and predictable flows.⁴

³ Final San Juan National Forest and Proposed Tres Rios Field Office Land and Resource Management Plan, August 2013. Available at:

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwimp8Tbz7KAAxUlOTQI Hbm7DDQQFnoECA4QAQ&url=https%3A%2F%2Fwww.fs.usda.gov%2FInternet%2FFSE_DOCUMENTS%2Fst elprdb5435201.pdf&usg=AOvVaw3PSVjC3zlb0MVDYjcB_qDi&opi=89978449.

⁴ Colorado River Outfitters Association. Commercial River Use in the State of Colorado 1988-2022. Available at: https://www.croa.org/wp-content/uploads/2023/06/2022-CROA-Commercial-Rafting-Use-Report.pdf.

McPhee reservoir was completed in 1984 and, in 1990, a dry summer limited flows from McPhee to less than 20 cubic feet per second (cfs), resulting in a major kill of cold-water fish. Even lower spring and summer flows have been recorded in recent years, since the Millennium Drought took hold in 2001, killing both native and sportfish, simplifying the channel and negatively impacting fish habitat, and shorting irrigators. In fact, flows in the Dolores River below McPhee Dam have declined by 67% relative to the mid-20th century due to consumptive uses and decreased precipitation.⁵ The hydrology, geomorphology, and biology of the Dolores River channel downstream from McPhee Reservoir have all been altered due to the changes in stream flow and sediment supply caused by the presence of McPhee Dam. The post-McPhee Dam Dolores River has experienced documented riparian vegetation encroachment, channel simplification, narrowing, and loss of native fish and vegetation.⁶

2. Description of Dolores Project

The Dolores Project was authorized in 1968 as part of the Colorado River Basin Project Act and is a participating project of the Colorado River Storage Project Act (CRSP). The main features of the Project are McPhee Dam and reservoir, completed in the 1980s. Carriage infrastructure construction was started in the 1990s and completed in 2000, which also happened to coincide with the onset of the Millennium Drought.⁷ The Project is managed by the Dolores Water Conservancy District (DWCD) pursuant to the Operations Agreement with Reclamation. Project water is meant to serve farmers in the Dove Creek area, the Ute Mountain Ute Tribe, the downstream fishery, and municipalities. Montezuma Valley Irrigation Company's (MVIC) 19th century private surface rights are also stored in McPhee Reservoir and delivered pursuant to separate contracts.

Any proposal to renew the Agreements and memorialize current operations would III. be a major federal action requiring preparation of an EIS.

1. Reclamation would be the lead agency responsible for preparing the EIS under the National Environmental Policy Act (NEPA)

NEPA embodies a national policy to encourage the harmonious coexistence between humans and their environment and to affirmatively seek to prevent or eliminate damage to the environment. 42 U.S.C. § 4331(a). In order to carry out this policy, "Reclamation must be environmentally aware in looking at the relationship its planning actions, projects, and programs have with the human environment now and in the future." Reclamation NEPA Handbook, p. 2-1; see also 42 U.S.C. § 4331(b).

⁵ Gianniny, Gordon and John C. Schmidt. Dewatered Rivers of the Upper Colorado River Basin. June 19, 2023. Available at: https://gcnr.usu.edu/coloradoriver/blog/Gianniny.

⁷Salehabadi, Homa and David Tarboton, Eric Kuhn, Brad Udall, Kevin Wheeler, David Rosenberg, Sara Goeking, John C. Schmidt. The Future Hydrology of the Colorado River Basin. The Future of the Colorado River Project, Center for Colorado River Studies, Quinney College of Natural Resources, Utah State University, White Paper No. 4. December 9, 2022. Available at: https://qcnr.usu.edu/coloradoriver/files/news/White-Paper-4.pdf.

Reclamation is subject to the procedural requirement under Section 102 of NEPA, which directs a federal agency to prepare an EIS for any proposal for a major federal action significantly affecting the quality of the human environment. 42 U.S.C. § 4332(2)(C); *see also* Reclamation NEPA Handbook, p. 3-3.8 The purpose of an EIS is to demonstrate that the federal agency undertaking or authorizing the action has satisfied NEPA's "twin aims," as described below.

"First, '[NEPA] places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action." *Id.* (quoting *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 553, 98 S.Ct. 1197, 55 L.Ed.2d 460 (1978)). "Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process." *Id.* These goals are "realized through a set of 'action-forcing' procedures that require that agencies 'take a 'hard look' at environmental consequences,' and that provide for broad dissemination of relevant environmental information." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350, 109 S.Ct. 1835, 104 L.Ed.2d 351 (1989) (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n. 21, 96 S.Ct. 2718, 49 L.Ed.2d 576 (1976)). 10

Reclamation's NEPA Handbook presumes that the agency will prepare a NEPA document in most circumstances and describes only very limited circumstances when preparation of a NEPA document will not be required: "No NEPA documentation is needed if there is no Reclamation action or no Federal discretion." NEPA Handbook, p. 3-3. However, "[i]f there is a Reclamation discretionary action, and it is not [specifically listed as an exempted activity], it will likely require some NEPA documentation." *Id*.

The proposed action to negotiate new carriage and operating contracts is not an exempted activity.¹¹ Further, Reclamation's decision regarding any renewal of the Agreements could have significant environmental impacts for the reasons discussed above and below. In these circumstances, NEPA requires Reclamation to prepare an EIS that includes "analysis ... that support[s] the full display of potential impacts, with an emphasis on potentially significant impacts and reasonable mitigation." Reclamation NEPA Handbook, pp. 3-14 – 3-15.

2. Any action to renew the Agreements would have significant environmental impacts.

⁸ By contrast, preparation of an Environmental Assessment is appropriate "for a proposed action that is not likely to have significant effects or when the significance of the effects is unknown" 40 C.F.R. § 1501.5(a). Again, the circumstances here clearly show that the proposed action would likely have significant effect that must be fully analyzed in an EIS.

⁹ Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97, 103 S.Ct. 2246, 76 L.Ed.2d 437 (1983). ¹⁰ Gov't of the Province of Manitoba v. Salazar, 691 F. Supp. 2d 37, 44–45 (D.D.C. 2010), clarified on denial of reconsideration sub nom. Gov't of Province of Manitoba v. Salazar, No. CV 02-2057 (RMC), 2010 WL 11595314 (D.D.C. June 17, 2010).

¹¹ 43 C.F.R. 46 Part 516 Chapter 14.5.

Reclamation previously found that the Agreements for McPhee Dam and reservoir would not have a significant impact. This conclusion relied on several key findings that are no longer valid. Conditions have changed over the decades since the Agreements were executed, including the well-documented, accelerating impacts from climate-induced aridification and the overallocation of water in the Southwest U.S., and how these impacts have affected both communities and wildlife in disproportionate and unforeseen ways.

As Reclamation Commissioner Camille Touton stated in her remarks to the Senate Committee on Energy and Natural Resources in June 2022, we are in a new era of water resource management: "In most Western watersheds there have been successive and compounding years of drought... Water supplies for agriculture, fisheries, ecosystems, industry, cities, and energy are no longer stable given anthropogenic climate change, which threatens food and energy security, human health, the regional economy, and biodiversity." Given these changed circumstances, as well as the previously undisclosed impacts of the Dolores Project and new best management practices, the findings of the original EA are no longer valid, and any decision by Reclamation to renew the Agreements on similar terms without further environmental analysis would be arbitrary and capricious.

The greater Colorado River Basin has seen rapid declines in flows over the past 20 years, with studies showing the southern subbasins, including the Dolores River, with 21% declines in snowpack, and flows in the Dolores below McPhee Dam have declined by 67% relative to the mid 20th century due to consumptive uses and decreased precipitation. Since the Dolores Project was constructed in 1984, flows have declined 49% in the middle Dolores at Bedrock, Colorado and 28% on the lower Dolores River near the confluence with the Colorado River. According to the Colorado River Basin Forecast Center, out of 42 years of data, four out of the five of the worst years on record have occurred since 2013. The cumulative impacts of climate change and consumptive uses caused by the Dolores Project under the Agreements have been devastating for native fish and water-based recreation, as well as creating immense uncertainty for water users. This was not adequately studied or disclosed in the original EA, and the benefits of hindsight have revealed that the Dolores Project is failing to meet its original purpose and need.

The prior environmental analyses, specifically the hydrologic studies, conducted in 1977, 1996, and 2000 did not account for the severity of climate change or the long-term drought and aridification in the West. These trends require reconsideration of the availability of water

¹² Udall, Brad. Aspen Times, "Streamflows in southern half of upper Colorado River basin declining faster" (Oct. 17, 2021). Available at: https://www.aspentimes.com/news/streamflows-in-southern-half-of-upper-colorado-river-basin-declining-faster/.

Gianniny, Gordon and John C. Schmidt. Dewatered Rivers of the Upper Colorado River Basin. June 19, 2023. Available at: https://qcnr.usu.edu/coloradoriver/blog/Gianniny.

¹⁴ HDR, Inc. Dolores River Watershed Assessment. 2020. p. 78.

National Weather Service Colorado Basin River Forecast Center, Water Supply Forecast: Dolores – McPhee Reservoir. Available at: https://www.cbrfc.noaa.gov/wsup/graph/front/espplot_dg.html?year=2021&id=MPHC2.

supplies within the Dolores River watershed to meet human and environmental demands in the short and long-term. For example, in 2021 we saw the lowest allocations ever in the history of the Dolores Project, and 2022 was not much better. The Ute Mountain Farm and Ranch Enterprise¹⁶, along with other junior water rights holders, received just 10% of its allocation in 2021, and 23% of its allocation in 2022.¹⁷ Some Full Service Farmers received even less.

Fisheries data from 2015 to 2021 show a dramatic negative effect on the biomass of trout in the tailwater fishery and extirpation of native sculpin from all but the first 2 miles below McPhee Dam. ¹⁸ Native bluehead suckers and roundtail chubs typically present in the Dolores River are now struggling to compete with nonnative smallmouth bass and green sunfish, which are able to persist in disconnected pools at low flows. ¹⁹ The record-setting water year of 2023 was a welcome and potentially anomalous respite, but it is not a long-term solution to the sustainable management of the Dolores River to meet environmental, agricultural, cultural, and recreational needs.

The hydrology Reclamation relied upon to prepare the 2000 EA, which was the basis for Reclamation's ultimate approval of the Agreements, has not materialized. Available data show that Reclamation's assumptions were not borne out by actual conditions and are not supported by hydrologic forecasts for reasonably foreseeable future conditions. The Colorado River Basin is predicted to have 20-30% less water by 2050, and 35-55% less water by 2100.²⁰ Thus, based on the best available data regarding the present and future hydrology of the Colorado River Basin, it is impossible for Reclamation to operate the Dolores Project to meet the demands of the beneficiaries under the Agreements and the environment on a consistent basis. As such, NEPA requires a hard look at the direct, indirect, and cumulative impacts of any proposed future Agreements between the United States and the Dolores Water Conservation District.

We further describe the anticipated impacts of Reclamation's renewal of the Agreements under the same or similar terms below.

A. Impacts to sensitive, threatened and endangered fish

One of the fisheries management objectives for the Dolores River below McPhee Dam is the protection of sensitive native fish, namely flannelmouth sucker, roundtail chub, and bluehead sucker (collectively, "three native species"). Recently, Colorado Parks and Wildlife (CPW) has

¹⁶ The Ute Mountain Ute Tribe and the Ute Mountain Farm and Ranch Enterprise are not signatories to this letter, but their case is mentioned here as an example of one of the unforeseen shortcomings of the Project.

¹⁷ Despite the reduced deliveries, the Tribe was contractually obligated to pay its full share of operations and maintenance costs, limiting its resources to secure supplemental supplies. Having to pay for supplies it does not receive creates a recurring hardship for the Tribe.

¹⁸ Jim White, Colorado Parks and Wildlife 2021 Fishery Update, Dolores River Native Fish Monitoring and recommendation Team Meeting, April 29, 2022.

¹⁹ *Ibid.*

²⁰ Milly, P. C. D. and K.A. Dunn. Colorado River flow dwindles as warming-driven loss of reflective snow energizes evaporation. Science, Vol 367, No. 6483. February 20, 2020. Available at: https://www.science.org/doi/10.1126/science.aay9187.

also found federally listed endangered Colorado pikeminnow and razorback sucker utilizing the lower Dolores River. This has likely always been the case, though measurement devices such as PIT tags have only become sensitive and widespread enough to document them in recent years. The three native species in the Dolores River are important food sources for the four endangered fish species of the Colorado River, including the Colorado pikeminnow and razorback suckers found seasonally in the Dolores River.

The fish pool has always been 3,900 acre-feet (AF) less than required to meet the 1977 Definite Plan Report and Final Environmental Statement (DPR/FES) downstream release criteria. This has resulted in the fish pool being perennially shorted more than other users in times of shared shortages. The fish pool, i.e. the riverine ecosystem, is always short by approximately 13% if there is no spill prior to shared shortages. This not only results in the negative ecosystem impacts described elsewhere in this letter, but also limits the ability to use low-temperature releases to suppress nonnative smallmouth bass below the dam, one of the biggest threats to native fish and sportfish alike.

If the Agreements are renewed in their current forms, the economic, social, and environmental outcomes for the Dolores River and communities that rely on the river will only worsen. It is imperative that Reclamation take a hard look at the direct, indirect, and cumulative effects of a range of actions in order to engage with the public and water users who rely on this resource and fulfill its obligations for reasoned decision making under NEPA and the Administrative Procedures Act.

B. Impacts to the ecosystem, fish, and wildlife

The 2000 Operating Agreement (Contract 99-WC-40-R6100) and the 2001 Carriage Contract (7-07-40-W0470) largely centered downstream environmental needs and operational requirements on the now greatly diminished tailwater trout fishery. However, the three native fish species of greatest conservation concern are currently the major focus of downstream management, having been listed as sensitive in Colorado, Utah, and by the federal government.²² These species are endemic to the Colorado River Basin, but as of 2011, only 50% of their original populations were persisting in the entire Upper Colorado River Basin.²³ The dramatic decline of the three native fish species affects other important native fish species in the basin as well. For example, and as mentioned above, these three fish are important food sources for the endangered Colorado pikeminnow in the Colorado River Basin and are keystone species for Colorado River ecosystems.

²¹ Proposal To Modify Operation of McPhee Reservoir And Acquire Additional Water For Fish And Wildlife Purposes Environmental Assessment. Bureau of Reclamation. 1996.

²² Colorado River Fish and Wildlife Council. *Range-wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker, and Flannelmouth Sucker.* 2006. Available at: https://ocs.fortlewis.edu/drd/pdf/Appendix-D%20 Rangewide-3-Species-Conservation-Agreement 3-7-12.pdf.

²³ Bestgen et al., 2011. Available at: https://www.google.com/url?q=https://warnercnr.colostate.edu/wp-content/uploads/sites/2/2017/04/LFL-166-Bestgen_et_al-2011-
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Surveys from CPW and others have shown native fish populations declining in recent years.²⁴ The percentage of large bodied native fishes fell from an average of 96% of the total catch over the last 8 years to 62% in 2020 and only 31% in 2021.²⁵ Moreover, only mature fish are being found, suggesting larva and young fish are not successfully hatching or are being predated on by invasive smallmouth bass. Changes in the flow regime (primarily timing and magnitude of spring runoff, which was overlooked or undervalued in the 2000 EA) caused by McPhee Dam operations, the physical barrier of McPhee Dam itself, and invasive fish are the primary drivers of their decline in population. Native fish spawn in late spring and require a functional hydrograph to trigger spawning, which does not occur in non-spill years below the Dam.²⁶

Impacts to other wildlife species, avian, reptile, and amphibian species based upon best available data should be considered as well.

Renewal of the Agreements would exacerbate negative impacts on fish and wildlife by preferencing invasive species such as smallmouth bass, forgoing spawning triggers that native species require due to the elimination of a functional hydrograph, and continuing the decline of all large bodied fishes in the tailwater and warmwater fisheries alike, disrupting food sources for a host of mammals, fish, reptiles, and birds.

C. Impacts on geomorphology

The storage of inflows and reduced releases from McPhee dam, particularly in the spring, are impacting the geomorphology of the Dolores River. Diversions have contributed to dramatic reductions in the volume of spring flows and delayed their occurrence, if they occur at all. Overall, the river is becoming narrower and deeper (i.e., simplifying).²⁷ Summer monsoons flush sediment and debris into the river, but without consistent managed releases from the dam, there are insufficient flows to accomplish scouring of the channel. Without scouring, vegetation has grown thick in the floodplain areas, armoring the channel, and effectively removing depositional features present in a healthy river such as point bars, side bars, mid-channel islands, and sloughs.²⁸

By contrast, prior to dam construction, regular spring flooding maintained a complex channel structure that supported critical habitats like backwaters, floodplains, ripples, pools, and conditioned cobbles for spawning fishes. Average summer base flows may be higher post-dam in some years, but reproductive conditions and associated habitats for young fishes are far worse without a functional hydrograph for this perennial stream. The channelization and encroachment

²⁸ *Ibid*.

²⁴ White, 2021. Unpublished report from Colorado Parks and Wildlife. Copy available upon request.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Graf, David et al. Dolores River Adaptive Management Support (DRAMS) August 24, 2021. Available at: https://storymaps.arcgis.com/stories/dcec8dab30bd4a0d8bbabd0b712f4700.

of vegetation into the riverbed has also created navigational hazards and impacted recreationists' ability to safely access established campsites.²⁹

Renewal of the Agreements would contribute to these ongoing direct, indirect, and cumulative impacts. Reclamation must analyze and consider alternatives that could provide for a functional hydrograph, protect the geomorphic habitat of species of greatest conservation concern, and better provide for sustainable, river-based recreation.

D. Impacts on groundwater

Groundwater and aquifers are connected to stream flows in the Dolores River and groundwater recharge is largely dependent on spring runoff. The duration and magnitude of flow events have been found to correlate with the recharging of critical aquifers along riparian areas of the Dolores River downstream of McPhee Dam. Extended releases from McPhee dam directly correlate to higher groundwater levels when compared to shorter duration precipitation events of an equal magnitude. ³⁰ In other words, releases from McPhee Dam have a greater influence on groundwater levels than other types of precipitation regardless of overall volume of water.

Renewal of the Agreements without further analysis of direct, indirect, and cumulative impacts to groundwater management would contribute to ongoing depletions of groundwater recharge.

E. Impacts on vegetation

As described above, McPhee Dam operations under the Agreements have largely eliminated a functional hydrograph for the Dolores River below the dam, including the removal of pre-dam high-flow scenarios needed to maintain proper channel function. Ordinarily high flow events serve to move sediment and clear riparian vegetation from the channel and trigger life-cycle events in native vegetation. Absent such flows on the Dolores River, vegetation is encroaching on the river channel and channel width has decreased on average by 38% across all reaches of the lower Dolores, and the area of mid-channel and bank attached bars have decreased by 88% since the 1940s.³¹ This phenomenon has negative impacts for native fish spawning habitat, a diverse assemblage of native riparian species, and long-term sustainable conditions for river-based recreational opportunities.

Renewal of the Agreements would perpetuate the flattened and greatly diminished hydrograph that has become common for the Dolores River, contributing to the ongoing direct, indirect, and cumulative impacts to native vegetation.

F. Impacts to river-based recreational economies and traditional uses

³⁰ Boley, M., Gianniny, G.L., & Kenny, R. (2011). Dam Release and Monsoon Controlled Recharge and Drawdown of Riparian Aquifers, Dolores River, Colorado.

²⁹ Ibid.

Four Corners Water Center – Fort Lewis College, Geomorphology. Available at: https://www.fourcornerswater.org/dolores-river/geomorphology.

Before the Dolores Project was built, there was a robust recreation economy on the lower Dolores River supporting numerous local outfitters and small businesses. The Dolores River was one of the most popular multi-day rafting trips in the U.S. in the 1980s. When the project was built, Reclamation anticipated that out of 46 years, 24 years would have no boating opportunities.³² However, since 2000, nine years have had at least some boatable flows and 14 years have had no boatable flows - 9% more non-boatable years than predicted in the EA. This uncertainty has made it nearly impossible for outfitters to offer trips, train guides, or book guests, and businesses have suffered. The same has been true for private boaters who may not have the luxury to travel long distances at short notice to boat a river now characterized by uncertain flows and an uncertain duration of those flows. This has had negative downstream economic impacts on the local communities surrounding the river in this rural, economically challenged region of the state.

Renewal of the Agreements would contribute to the ongoing direct, indirect, and cumulative negative impacts to the river-based recreation and traditions, and the economic vitality of the region.

G. Impacts to agricultural economies and lifeways

Since 2000, water shortages in the Dolores River have been worse than anticipated. Years 2001, 2018, 2013, 2021, and 2022 have been the worst on record, with less than 40% of average inflow to McPhee Reservoir. Project users including the Ute Mountain Farm and Ranch Enterprise, Full Service Farmers, MVIC, and the downstream fishery all share in shortages and have received as little as 10% of their allocations.³³ This level of variability is not only unsustainable for the downstream ecosystem, but also for agricultural producers and the people that rely on this water to make a living.

Renewal of the Agreements would contribute to the negative direct, indirect, and cumulative negative impacts to agricultural economies and associated lifeways supported by the Dolores River.

IV. Conclusion

Reclamation's 25-year-old EA for the Dolores Project, which was the basis for approving the Carriage Contract and Operating Agreement, does not meet the requirements under NEPA of fully disclosing and analyzing the impacts of renewing said agreements due to a multitude of changed conditions, updated best management practices, new peer-reviewed data, and unpredicted negative outcomes. Prior to considering whether to renew those Agreements, and if

³² Dolores Project Colorado Definite Plan Report, April 1977 at 106; Final Environmental Impact Statement, May 9, 1977, p. C-38.

³³ Colorado Sun, "As drought in the West worsens, the Ute Mountain Ute Tribe in Colorado faces a dwindling water supply" (Jul. 28, 2021). Available at: https://coloradosun.com/2021/07/28/ute-mountain-ute-drought-dolores-river-four-corners/.

so under what terms, Reclamation must prepare an EIS that fully evaluates the direct, indirect, and cumulative impacts of those Agreements on the Dolores River and the ecosystem services provided by the river to people and wildlife.

We request the opportunity to meet with Reclamation to discuss future operations of McPhee Dam prior to the renewal or renegotiation of the Agreements. We look forward to participating in this process and helping Reclamation incorporate the latest scientific data into the EIS, including developing and analyzing a suite of alternatives that more accurately characterizes the potential outcomes of Dolores Project operations to meet the considerable needs of communities, native fish, wildlife, outfitters and guides, recreationists, and agricultural producers that are reliant upon the Dolores River.

Respectfully,

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