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July 7, 2023

VIA ELECTRONIC MAIL - UCBEfficiency@usbr.gov

U.S. Bureau of Reclamation
Upper Colorado River Basin System Conservation and Efficiency Program

RE: Joint Comments on Bureau of Reclamation's Request for Input for the Upper Colorado River Basin System Conservation and System Efficiency Program.

The undersigned organizations appreciate the opportunity to engage with the Bureau of Reclamation (Reclamation) regarding the "Request for Input for the Upper Colorado River Basin System Conservation and Efficiency Program" (UB Program or Program). The UB Program is aimed at implementing funding from the Inflation Reduction Act (IRA) to help mitigate the effects of drought in the Upper Colorado River Basin (UB). We expressly support inclusion of projects that track with the IRA provisions to incentivize long-term, durable solutions to mitigate drought, including: (1) system conservation and efficiency projects that achieve verifiable, multi-year reductions in use of or demand for water supplies; (2) demonstration projects to spur advances in water conservation and efficiency using innovative techniques; and/or (3) ecosystem and habitat restoration projects to address issues directly caused by drought.¹ We also support making sufficient funds available to support the full lifecycle of suitable projects including building internal capacity within eligible entities and supporting external capacity of partners, such as nonprofits, academics and others, in further cultivating and developing good projects for the UB Program. We provide the following comments for Reclamation's consideration regarding the scope and nature, types of eligible projects, selection criteria, and administration of the Program to award and distribute this important IRA funding.

Scope and Nature of Program

The IRA expressly authorized drought mitigation in the western US by appropriating \$4 billion for Reclamation to address the 20+ year drought in the Colorado River Basin and other basins experiencing comparable levels of long-term drought. The scope of such responsibility extends beyond Reclamation's

¹ Specifically, the IRA's Drought Mitigation provisions authorize funding for: 1. Compensation for a temporary or multiyear voluntary reduction in diversion of water or consumptive water use. 2. Voluntary system conservation projects that achieve verifiable reductions in use of or demand for water supplies or provide environmental benefits in the Lower Basin or Upper Basin of the Colorado River. 3. Ecosystem and habitat restoration projects to address issues directly caused by drought in a river basin or inland water body.

general authorities and funding opportunities to help the Colorado River community and natural environment survive the vagaries of long-term drought and build resilience to the changing climate throughout the Basin.

As Reclamation focuses its attention on implementing the UB Program, it will have to employ the IRA law to its fullest extent to meet the unique needs for drought mitigation above Lake Powell. Extended drought has undeniably reduced the Colorado River system's ability to consistently meet water demands in the UB. But the increasingly warming climate in the Basin has also upgraded the risk of devastating wildfire, desiccated soils, and disconnected tributaries and watersheds that undermine the reliability of natural systems, water supply, water quality, and infrastructure that are critical to the social, economic, and cultural fabric of tribal and other communities throughout the UB. To effectively implement the upcoming Program, Reclamation has to adjust the scope of its current programming² to include ecosystem and habitat restoration projects that are separate and in addition to voluntary reductions in water consumption and system conservation projects. We are pleased to see Reclamation's request for input do just that by considering the three separate project categories for potential IRA funding.

Types of Eligible Projects:

Maximizing the UB Program will require incentivizing projects that help the Colorado River community and natural ecosystems withstand the extremes of drought accelerated by climate change going forward. Specific project types that should be made eligible for IRA funding to achieve this objective include (in no particular order):

- Habitat and ecosystem restoration projects that help sustain the UB watersheds' functionality and work to mitigate the effects of drought and/or reductions in consumptive water use. These include projects tailored to certain UB headwater ecosystems, such as wet-meadow restoration and beaver dam analogues that provide critical habitat and fire breaks and reduce flood incidence and intensity while enhancing water reliability. For example, wetland and riparian restoration projects can help increase groundwater infiltration, promote natural water storage, and attenuate runoff, which collectively can enhance late season flows for both water users and the environment. These natural systems can also help address excess sedimentation, which contributes to the loss of UB storage capacity. It also includes activities aimed at consistently maintaining riparian flows and current habitat and recovery programs like the Upper Colorado River and San Juan River Fish Recovery Implementation Programs for areas impacted by drought. Examples of habitat and ecosystem restoration projects include:
 - o Kawuneeche Valley Ecosystem Restoration Collaborative, Colorado River, CO: The Kawuneeche Valley Ecosystem Restoration Collaborative is a group of agencies and

² Reclamation has implemented the IRA, thus far, by prioritizing near-term water conservation to reduce the risk of dangerously low storage supplies at Lakes Powell and Mead (*See Phase 1 of the Lower Colorado River Basin Conservation and Efficiency Program and Upper Colorado River Basin System Conservation Pilot Program*). It has also promoted efforts to restore the Salton Sea (*See Agreement to Help Fund the Salton Sea Management Program*) and initiated a program for advancing longer-term/durable projects that have a connection to water conservation in the Lower Basin (*See Funding Opportunity for Voluntary Participation in the Lower Colorado River Basin Conservation and Efficiency Program*). Projects eligible in the the IRA's long-term/durable funding in the Lower Basin may include activities that provide additional benefits - e.g., environment/ecosystems, disadvantaged communities, economic or otherwise - so long as they are part of, or in addition, to a water conservation component to any project proposal.

organizations focused on ecosystem restoration of the Kawuneeche Valley to support its ecological, economic and community well-being. The group formed in 2020 to facilitate process-based restoration work in the Kawuneeche Valley, and includes the Town of Grand Lake, Grand County, The Nature Conservancy, Rocky Mountain National Park, the United States Forest Service, the Colorado River District, and Northern Colorado Water Conservancy District.

- Sage Creek Restoration Project, Upper Green River Basin, WY: The Sage Creek Restoration Project will increase drought resilience in the Upper Green River Basin by reducing erosion and sedimentation, increasing floodplain aquifer recharge and static water table levels, and increasing riparian and wet meadow plant community extents for species of concern. This project will install 60 beaver dam analogs (BDAs) on 2 miles of Trout Creek, install 160 aggradation structures on 5.6 miles of Sage Creek, install an aquatic invasives barrier, and conduct riparian re-seeding and plantings along both banks of 7.6 miles of Sage and Trout Creek to restore 453 acres of valley floor habitat. This project is the result of a partnership between Trout Unlimited, Wyoming Game and Fish, Rock Springs Grazing Association, Greater Little Mountain Coalition, Ramsay Ranch, US Fish and Wildlife Service, and Wyoming Landscape Conservation Initiative.

- Multi-benefit agricultural upgrades and innovations that help the agricultural sector adapt to reduced water availability while mitigating the effects to the environment. Infrastructure projects should include upgraded diversion, conveyance, and on-farm infrastructure that help reduce water diversions and provide opportunities for enhanced river health, as well as projects that aid in addressing the current lack of adequate monitoring and measurement devices in the UB. Non-infrastructure projects are equally important, and should include providing technical and financial assistance to reduce the financial risk to producers experimenting with transitioning to lower consumptive use activities. This includes, but is not limited to, lower water use crops across the wide array of growing climates in the UB, and incentivizing broad adoption of crop switching once they have a proven track record. Addressing supply chain and market access issues for lower water use crops is a less obvious innovation that could nonetheless play a significant role in facilitating durable water savings and agricultural drought resilience. Examples of multi-benefit agricultural upgrades and innovation projects include:
 - Maybell Irrigation Diversion Rehabilitation & Construction, CO: Located on the lower Yampa River, the Maybell diversion provides irrigation water for agricultural producers in northwest Colorado. The diversion structure, built in 1896, channels water through a broken, antiquated headgate into the Maybell Ditch, an 18-mile canal that flows roughly in line with the river and irrigates hay pasture and ranchlands. In collaboration with the Maybell Irrigation District, The Nature Conservancy is working to rehabilitate the diversion and modernize the headgate, ensuring that the diversion provides water to the users who need it. At the same time, TNC is coordinating with the recreation community and Upper Colorado River Endangered Fish Recovery Program to ensure safe watercraft passage and fish movement through the new diversion. The project is expected to result in increased ecological connectivity, resilience to climate change, and improved control of the irrigation system for the agricultural water users. Key partners include the Maybell Irrigation District, The Nature Conservancy, Friends of the Yampa, Moffat County, Colorado River District, NRCS, and Reclamation.
 - Testing drought resilient perennial forage crops for the Intermountain West, Upper Colorado River Basin: Irrigation of forage crops, primarily alfalfa, grass hay, and pasture, consumes most of the water used in the Upper Colorado River Basin. At the same time,

drought and rising temperatures are negatively impacting water supplies and putting pressure on agricultural water users to adapt. There is a growing interest in evaluating additional opportunities to conserve water through alternative, drought-resilient forage crops. To evaluate this opportunity, a group of partners is pursuing a large-scale research project to answer whether less thirsty alternative forages can sustain farms and ranches at different elevations in the West while using less water. This project is targeting three crops: Kernza® [Thinopyrum intermedium], sainfoin [Onobrychis viciifolia], and silflower [Silphium integrifolium], which have the potential to integrate food production and high-quality forage with soil and water conservation. This project proposes farm-scale research in Colorado, Utah, and New Mexico to develop best management practices (BMPs) for production of these three crops. Partners include individual farmers and ranchers, The Land Institute, Colorado State University, Utah State University, New Mexico State University, USDA, American Rivers, The Nature Conservancy, and Trout Unlimited.

- Multi-benefit municipal and industrial projects that make flexible use of conserved water in partnership with various Colorado River community members. Projects could include non-functional turf replacement and indoor water conservation in municipalities that use UB water. Projects could also include reallocation of water that was previously utilized in fossil fuel power plants and other industries to provide multiple benefits to support local communities and provide ecosystem and water conservation benefits within the basin. (See e.g., [Letter of Support regarding Municipalities and Public Water Users MOU](#). See also e.g., [Colorado Turf Replacement Program](#)).
- Multi-benefit water agreements that allow for multi-year (long and medium term) voluntary leases, permanent acquisitions, or creative management of reservoir and other water supplies consistent with applicable laws to enhance system reliability, foster flexibility within local water management systems, and achieve important environmental benefits such as helping to meet flow targets for Recovery Implementation Programs or maintaining the integrity and health of key stream reaches. Reclamation could also consider working in alignment with existing tribal, state, local, and NGO water leasing/acquisition programs that are currently in place to conserve water and increase resilience (i.e., such as Colorado's Instream Flow Program, Utah's Water Banking Pilots, and New Mexico's Strategic Water Reserve) to maximize and inform the development of leases and acquisitions that further both water security and environmental objectives. Examples of multi-benefit water agreement projects include:
 - Price Water Bank, Price River, UT: Under Utah's recently passed Water Bank legislation, this project will stand up a pilot water bank in the Price River between the Carbon Canal Company, The Nature Conservancy, Utah Division of Wildlife Resources, and Trout Unlimited to demonstrate flexible water management and test key feasibility questions related to verifying and shepherding water savings.
 - Fish Creek Instream Flow Lease, Price River Basin, UT: Lower Fish Creek was a Utah Blue Ribbon Fishery prior to the Millennium Drought that caused water managers to close flows out of Scofield Dam completely during the winter to store enough water for irrigation during the summer months. The lack of water during the winter was a limiting factor for a healthy fish population. In 2015, the Carbon Power Plant decommissioned, resulting in water rights reverting to the Carbon Canal Company that had previously been exchanged. Carbon Canal Company leased the water rights to Trout Unlimited and Utah Division of Wildlife Resources to preserve the active nature of the water right

during the winter resulting in an opportunity to release 3.5 cfs into Lower Fish Creek and begin to rebuild the Blue-Ribbon Fishery. The project serves multiple purposes: exercising instream flow legislation in the State of Utah, preserving active status of Carbon Canal winter water rights, capture of coal-fired power plant retirement water rights for conservation, and the restoration of a Blue-Ribbon fishery.

We also strongly urge that the upcoming UB Program provide support for the full project life cycle, integrate measurement and monitoring into the project activities, support the capacity needs of agencies and organizations implementing projects, and eliminate or significantly reduce match requirements. Providing financial support to build internal capacity within eligible entities to administer large infusions of federal funding and support external capacity of partners, such as nonprofits, academics, and others, is key to further cultivating and implementing projects quickly and effectively. We also recommend these funds support other necessary early stage project work such as planning, design, and engineering as well as continuing project work such as monitoring and measurement. Allowing IRA funds to support the entire project life cycle will help address typical barriers to accessing federal funds such as lack of capacity and limited funds for project development. These types of resources are particularly beneficial for critical stakeholders such as tribes, states, local governments, water users, and watershed organizations in rural regions that could be instrumental in helping deliver these funds to scale projects on the ground, but lack the capacity and financial support for project development. Overall, as we've seen with other IRA funding opportunities, investing in the capacity to administer and deliver funds goes a long way to increasing the pace and scale of projects that provide durable results for the basin.

Project Selection Criteria

In addition to project eligibility, Reclamation must also consider how best to incentivize the projects that will maximize the IRA funding for UB drought mitigation going forward. Project selection criteria, therefore, are critical to the overall success of the UB Program.

When considering appropriate project selection criteria, it is important to identify ways to encourage large scale changes that avoid negative consequences for communities and the environment. Issues such as dust emissions, soil health degradation, spread of weed species, and loss of habitat where irrigation supports wildlife are all likely outcomes if project implementation is not appropriately managed. Moreover, such outcomes can be considerable, with repercussions for human health, farm and ranch productivity, tourist-sector economic activity, and endangered species viability unless minimized as part of the actions taken to stabilize water uses within the UB. For these and other reasons, it is imperative that Reclamation consider as part of the project selection process whether and how the applicant(s) have addressed the direct and indirect impacts that their projects may have in the region. Specific criteria to maximize the benefits and mitigate the impacts of program implementation include:

- Supporting Equal Opportunity for Investments in all Project Types. We encourage the UB Program to prioritize both development and implementation of ecosystem restoration and multi-benefit agricultural projects along with longer-term water conservation projects. System and water conservation projects are complicated and can take time to work through legal and political complexities. There is also significant demand for investments in a broader range of resilience strategies in the UB, including those highlighted in the previous section. Previous Reclamation IRA funding opportunities have either focused primarily on water conservation with environmental benefits being an added side consideration or have placed significant emphasis

on the amount and duration of water savings. Again, while we support the inclusion of longer-term, innovative, and durable water conservation/efficiency investments, the criteria should also prioritize and support *standalone* habitat and ecosystem restoration projects that build resilience to drought.

- Supporting Project Development. There is urgency to build UB resiliencies to drought and climate change to address the overarching needs for the basin. However, giving significant priority to factors such as “readiness to proceed” could place certain stakeholders in more rural and underserved regions at a disadvantage compared to regions with more capacity and hence more “shovel-ready” projects. Furthermore, many of the projects that are listed for consideration under the Program, including multi-year water conservation agreements, can take significant lead time to develop. We urge Reclamation to strike a balance in implementing the Program between supporting projects ready for immediate implementation and those that require further development to generate environmental and other benefits and build resilience within the Basin. In particular, support for the early stage of projects that have already gone through a collaborative process (e.g., watershed planning) and have significant buy-in from key partners versus projects that are more conceptual will go a long way to fostering community and stabilizing local watersheds for the benefit of the UB.
- Prioritizing Multi-Benefit Projects. The Program should provide significant priority and weight to project or programmatic proposals that include proactive benefits for, or include mitigation of impacts to, watershed, river, species, and/or soil health among others. Multi-benefit projects can also include those that benefit a water user along with the environment or recreation. The wider array of benefits generated by multi-benefit projects serves to better integrate these projects into local watersheds and communities. Multi-benefit projects should also be aligned to receive funds prior to proposals with single or more limited benefits to the UB.
- Incentivizing Best Management Practices – Projects that include changes in on-farm practices such as rotational fallowing and other agricultural water conservation projects should consider how the impacts of removing water from a field will be managed. Dust should be minimized and soil health maintained through best management practices such as cover cropping, selection of pre-fallowing crops, leaving crop residues in place, and weed management. Resources and support should be available for the creation and implementation of fallowing management plans.
- Ensuring Local Community Consideration and Rewarding Collaboration– Leveraging local community knowledge and collaboration will help to mitigate regional and secondary impacts. Projects that work to provide local communities with the resources and support necessary to influence and shape project design and implementation will be more successful in mitigating regional and secondary impacts. To the extent possible, impacts should be dispersed, such as spreading fallowing activities over multiple basins. Secondary impacts should also be considered, such as those to local ecosystems and economies – projects should not have an overly burdensome impact on water available for habitat (such as from effluent or agricultural runoff) just as they should not be so concentrated as to harm local agricultural economies. Techniques to mitigate impacts, such as fallowing less productive lands, should be favored.

Furthermore, the Program would also benefit from prioritizing projects that have gone through some local or regional collaborative process - i.e., Cooperative Watershed Management Plan or

other local watershed planning effort. For example, in Colorado, both Basin Roundtables and other organizations have developed extensive project lists through integrated water planning or stream management planning processes that could be utilized as a starting point for supporting projects with local buy-in and that have multi-benefits. Overall, projects should have significant buy-in from local partners, including conservation organizations, agricultural groups, and other critical stakeholders.

Project Administration

The scale of available IRA funding has the potential to be truly transformational. Reclamation has allocated \$500 million of IRA funding for the UB that must be spent by September 30, 2026. Since only \$17 million has been spent thus far on the 2023 System Conservation Pilot Program, we strongly believe that the upcoming Program provides the most significant opportunity for advancing durable mitigation in the UB. To that end, we encourage Reclamation to employ flexible administrative options that incentivize the changes needed to bring the UB closer to a sustainable and resilient water system in a timely manner. For example, we encourage Reclamation to allow the Program to maintain flexibility in requiring significant non-federal match requirements or giving significant priority to proposals that include non-federal match as this may disadvantage participation by certain stakeholders and eligible entities with limited resources.

Additionally, the UB has thousands of water diversions spread along tens of thousands of miles of river and streams supplying irrigators and ecosystems from high mountain meadows to desert orchards. These dispersed water users are represented by and trust different regional, state and local organizations, which requires additional pathways for distributing funds. Along with coordinating with the Upper Division States and Upper Colorado River Commission, Reclamation needs to leverage the authorities available in the IRA to work directly with public entities and UB tribes to make funding available through a number of qualified governmental bodies such as state water/natural resource agencies or water authorities, UB Tribes, and municipal utilities or state water conservation/conservancy districts within the Basin) that meet Reclamation's qualifications. Including more pathways for distributing funds would allow water users to contract with organizations they know and trust, and organizations can focus on serving their water users by providing clear processes for applying and approval and simpler contracting processes for grantees. Creating pathways for direct funding to Tribal Nations is also particularly important in the UB to ensure their communities have greater opportunity to respond to drought than has historically been available going forward. Reclamation should act as stewards for such funds by qualifying and contracting with governing bodies and potentially funding large, transformational, cross-boundary projects directly.

Conclusion

We commend Reclamation for the significant strides already made with IRA funding and its ongoing commitment to securing a sustainable water future for the CRB. We look forward to continued engagement and collaboration as we address the challenges facing the Basin and leverage the opportunities provided by this historic investment.

Sincerely,

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