Executive Summary
The focus of the Colorado River Bureau Work Plan is the continued protection and development of the water resources of the Colorado River Basin allocated to New Mexico via interstate compacts. This work includes engaging in various Basin Programs and initiatives as well as identifying and reviewing projects or proposed actions by other agencies, states or private interests to ensure New Mexico’s continued compliance with those compacts and relevant court decrees. Additionally, the Work Plan is focused on a number of long-term planning efforts involving the seven Colorado River Basin States, the Upper Colorado River Commission (UCRC), and certain agencies of the federal government to mitigate the effects of the long-term drought in the basin and prepare for potentially reduced water supplies as a result of long-term warming.

This Work Plan also includes evaluation, review and support of multi-state, multi-agency projects and studies which improve water management operations and thus aid in continued compliance by New Mexico with the Colorado River Basin compacts. Finally, the Work Plan includes development and implementation of internal projects to pursue those same objectives.

The five (5) major work plan elements include:

- Colorado River Basin Drought Contingency Plan Implementation,
- San Juan River Basin Recovery Implementation Program (SJRIP) Activities,
- Upper Colorado River Commission Planning and Coordination,
- San Juan Consumptive Use Crop Survey Work, and
- Support for and Development of Animas-La Plata Project (ALP) and Navajo Reservoir Release Routing Processes.

Total FY2020 work plan budget is $610,000.

Background
The Colorado River Bureau is responsible for protecting, developing, investigating and conserving the water resources of the Colorado River Basin allocated to New Mexico. Roughly the western fifth of the state lies within the Colorado River Basin, including the San Juan, Gila...
and Little Colorado River basins. In addition, the San Juan-Chama Project, which provides for many water uses in parts of the Rio Grande Basin of New Mexico, receives its supply from the Upper Colorado River Basin.

The Colorado River Bureau’s FY2020 Work Plan is focused primarily on consultation with Reclamation and the Lower Basin States on their drought contingency plan as it is implemented; evaluating options for the Demand Management Storage part of the Upper Basin Drought Contingency Plan; seeking funding for the SJRIP and evaluating possible next steps for when federal authorization for the SJRIP expires; and protecting the water resources allocated to New Mexico by the four Colorado River Basin compacts to which New Mexico is signatory.\(^1\) The Gila and San Francisco portions of the Colorado River Bureau work are presented in a separate work plan.

The elements of this work plan are described below.

**Element 1) Colorado River Basin Drought Contingency Planning**

- **Description**

  After more than a year and a half of intense negotiations, the Colorado River Basin Drought Contingency Plan was finalized in May 2019. Consequently, this element focuses on beginning implementation of the Plan. The Upper Colorado Basin relies heavily on Lake Powell on the Utah-Arizona border as a regulating reservoir from which to provide Compact-mandated deliveries to the Lower Basin. In turn, the Lower Colorado Basin relies heavily on Lake Mead and the water released from Lake Powell. Due largely to extensive drought and the continued high annual draw from Lake Mead, water levels in Lakes Powell and Mead have been fluctuating near critically low levels. Even with the very good snow year, the potential exists for Lake Mead to drop to levels within a few years that require delivery shortages to certain Lower Basin contract holders. Moreover, should severe to extreme drought continue

\(^1\) New Mexico is signatory to the 1922 Colorado River Compact, the 1922 La Plata River Compact, the 1948 Upper Colorado River Basin Compact and the 1968 Animas-La Plata Project Compact.
for several years after this wet year, a lower hydraulic head at Lake Powell could result in constrained releases and the Upper Basin could then be on course to fall out of compliance with the 1922 Colorado River Compact’s delivery requirements. Lower water levels at Lake Powell also could cause reductions in hydropower revenue which is used for operations and maintenance of multiple major water supply projects in the Upper Basin (such as the San Juan-Chama Project and the Navajo Indian Irrigation Project) and for several important programs (endangered species recovery on the Upper Colorado River and San Juan, the Glen Canyon Dam Adaptive Management Program, salinity control, etc.).

The Seven Basin States (Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming) developed drought contingency plans to reduce the likelihood of unwanted outcomes at Lake Mead and Lake Powell. The Lower Division States (Arizona, California, and Nevada) negotiated the Lower Basin Drought Contingency Plan to support maintaining certain water level elevations at Lake Mead. Doing so triggered corresponding provisions in Minute 323 of the 1944 Mexican Water Treaty, which could result in Mexico leaving more water in Lake Mead thus aiding in Lower Basin Drought efforts.

The Upper Division States (Colorado, New Mexico, Utah, and Wyoming) and the UCRC negotiated the Upper Basin Drought Contingency Plan to provide tools to help maintain Lake Powell at a water elevation that protects the Upper Division States’ compact deliveries and hydropower generation. The Upper Basin Drought Contingency Plan has three prongs: operations changes at certain Upper Basin reservoirs to deliver water from them to Lake Powell under specific circumstances; voluntary (large scale and duration) water conservation measures in the Upper Basin with associated storage; and weather modification. The first two prongs are intended to be contingency measures that would be undertaken voluntarily to help avoid an emergency in a manner that is consistent with the Law of the River and state water law.
The winter weather modification component of the Upper Basin Drought Contingency Plan includes stream flow augmentation via continued and increased winter weather modification activities in the Rocky Mountains in years with low snow pack. New Mexico’s contribution involves financial support of existing Colorado Water Conservation Board (CWCB) projects for winter weather modification in the San Juan Mountains of southwestern Colorado. The goal of the work for New Mexico is to increase precipitation and snowpack in that portion of the San Juan River watershed which runs off (primarily) into Navajo Reservoir and/or to increase stream flow in the Colorado River system.

**Type of Contractual Services Needed**
1. The types of contractual services needed for Element 1 are surface water hydrology and water resources planning. See Exhibit A, page 1, columns A and E, for a list of professional service contractors that may be used.
2. We propose to again use the comprehensive multi-state agreement, approved by the Commission in February 2018, to provide $20,000 to CWCB for Colorado’s weather modification program in the San Juan Mountains upstream of Navajo Reservoir.

**Work Plan Budget, Funding Source & Time Frame**
1. The estimated contractual cost for Element 1 is approximately $42,500; of which $20,000 is for the winter weather modification component. Christina Noftsker is the element manager.
2. Element 1 is funded from the Irrigation Works Construction Fund.
3. The period for completion of Element 1 is through June 30, 2020.

**Element 2) San Juan River Basin Recovery Implementation Program**

**Description**
Unless extended or renewed by federal legislation, the San Juan River Basin Recovery Implementation Program will end at the end of federal fiscal year 2023. The SJRIP seeks to recover the razorback sucker and Colorado
pikeminnow in the San Juan River and critical habitat has been designated for both species for a significant portion of the river in New Mexico and Utah. Many projects have been completed and the razorback sucker has recently been proposed for downlisting while the pikeminnow status is being assessed. Operations of Navajo Reservoir are conducted, in part, to provide specific flows for the endangered species. Colorado River Storage Project (CRSP) power revenues are used to pay for many SJRIP projects and activities. In addition, Colorado and New Mexico each agreed to provide funding for capital projects. Importantly, the SJRIP provides endangered species protections for all New Mexico and Colorado water users on the San Juan and its tributaries, including the San Juan-Chama Project diversions. The Commission received $420,000 towards New Mexico’s remaining SJRIP cost share this legislative session. The state committed to providing 2.744 million for the SJRIP and approximately $330,000 is still required to meet this commitment and will be requested in FY 2021.

Congress has directed the SJRIP to coordinate with the Upper Colorado River Endangered Fish Recovery Program and the Interior Department to develop a report for Congress by 2021 that describes Program activities, results, and proposed next steps, if any. While the New Mexico congressional delegation has been tremendously supportive of the SJRIP, it has been difficult to maintain annual federal funding for the SJRIP and Upper Colorado River Endangered Fish Recovery Program the last two years. The Upper Basin states were successful in receiving federal authorization for funding through 2023 but now need to seek and support appropriations annually. Staff continue to work with staff of the other Upper Basin states and our congressional delegations for that annual federal funding.

Staff will continue to engage in the SJRIP efforts during FY2020 with focus on the report to Congress, SJRIP organizational structure post-2023, and continued federal funding; submission of a capital project request in the upcoming state legislative session for the remaining New Mexico SJRIP cost
share; and utilizing existing contractors to aid in specific review, assessment, and reporting elements.

- **Type of Contractual Services Needed**
  1. The types of contractual services needed for Element 2 are surface water hydrology and biology. See Exhibit A, page 1, columns A and D, for a list of professional service contractors that may be used.
  2. The sole source contract with the National Fish and Wildlife Foundation (NFWF), which was approved for four years in 2018, will be used.

- **Work Plan Budget, Funding Source & Time Frame**
  1. The estimated contractual cost is approximately $60,000 for surface water hydrology and biology support. The $420,000 will be provided to NFWF under the above referenced sole source contract for use by the SJRIP. Rolf Schmidt-Petersen is the element manager.
  2. The Element 2 contractual cost is funded from the Irrigation Works Construction Fund. The cost share commitment is funded by a FY2020 capital appropriation.
  3. The period for completion of Element 2 contractual services is through June 30, 2020.

**Element 3) Upper Colorado River Commission Coordination, Planning, and Strategy**

- **Description**
  The Upper Division States work cooperatively as part of the UCRC to address Colorado River basin issues. Issues exist in the Upper Basin, Lower Basin, and the Basin as a whole. The Commissioners and staff of the UCRC work with staff and contractors from the Upper Division States to proactively address these issues for the Upper Basin. These efforts include, but are not limited to, the Drought Contingency work described earlier, Basin Fund MOA issues and projects, Upper Basin Consumptive Use, renegotiation of the
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Interim Guidelines, and state of the science efforts. Staff will conduct the majority of the work for New Mexico but may need professional technical support for some work elements.

- **Type of Contractual Services Needed**
  1. Staff proposes entering into an agreement, perhaps as part of the Element 1 and Element 3 efforts, with the UCRC and for the UCRC to procure professional technical services in support of this effort.

- **Work Plan Budget, Funding Source & Time Frame**
  1. The estimated contractual cost for Element 3 is approximately $50,000. Paul Harms is the element manager.
  2. Element 3 is funded from the Irrigation Works Construction Fund.
  3. The period for completion of Element 3 is through June 30, 2020.

**Element 4) San Juan Basin Consumptive Use Work**

- **Description**
  The Upper Colorado River Basin Compact apportioned water between the five states of the Upper Basin in terms of consumptive use. Accurate accounting of the amount of consumptive use of water for agricultural and domestic purposes in each state’s portion of the Basin is necessary for equitable administration of the compact. The non-Indian irrigated acres in the Animas, La Plata, and San Juan River valleys will again be surveyed for the purpose of accounting the amount of consumptive use of water by New Mexico under the terms of the Upper Colorado River Basin Compact and data for other uses will be compiled. Efforts will be initiated with the IT department to further automate the consumptive use methodology.

- **Type of Contractual Services Needed**
  1. State of New Mexico participation for Element 4 will be accomplished using NMISC and NMOSE staff. No contractual services are currently foreseen for Element 4.

- **Work Plan Budget, Funding Source & Time Frame**
1. There is not an estimated SWEP contractual cost for Element 4. Up to $10,000 may be expended for computer support/IT services. Paul Harms is the element manager.

2. This is a multi-year project. The period for completion of the data collection efforts for Element 4 is through June 30, 2020.

Element 5) Support for and Development of ALP and Navajo Reservoir Release Routing Processes

- **Description**

  The San Juan Water Commission initiated discussions with the NMOSE/NMISC and Reclamation in FY2019 on processes, procedures, and, potentially, infrastructure improvements needed to successfully route and protect ALP storage releases from Lake Nighthorse in Colorado along the Animas River in New Mexico to San Juan Water Commission users. Reclamation made a similar request in regard to the releases of system water from Navajo Reservoir. NMISC staff are involved due to our interstate compact roles and responsibilities and because implementing the Upper Basin Drought Contingency Plan may require administration of releases and diversions to be successful. This multi-year effort is anticipated to involve legal, technical, and institutional issues related to the character of the storage releases when they cross the border into New Mexico, the nature of system water storage releases, river loss rates, actual natural flow depletion on a near real-time basis, the potential for curtailment of existing diversions to allow storage releases to pass downstream, release and routing procedures, and infrastructure improvements. The goal for FY2020 is to continue work with Reclamation and the NMOSE to install and monitor new river and canal gages identified in FY2019, develop draft Riverware models for the Animas and San Juan systems upstream of the confluence of the two rivers in New Mexico, and identify additional possible infrastructure improvements and necessary next steps to draft routing procedures.
NMISC staff will coordinate with NMOSE legal, technical, and Aztec District staff as well as Reclamation and the San Juan Water Commission on this effort.

- **Type of Contractual Services Needed**
  1. The types of contractual services needed for Element 5 are surface water hydrology and water resources planning. See Exhibit A, page 1, columns A and E for a list of professional service contractors that may be used.

- **Work Plan Budget, Funding Source & Time Frame**
  1. The estimated contractual cost for Element 5 is approximately $27,500. Up to $7,500 may be expended to support the NMOSE District Office in its system gaging efforts. This element is jointly managed by Rolf Schmidt-Petersen, Paul Harms, and Christina Noftsker.
  2. Element 5 is funded from the Irrigation Works Construction Fund.
  3. The period for completion of Element 5 is through June 30, 2020.

**Work Plan Risk and Impact**
Implementation of the FY2020 Colorado Work Plan will help protect New Mexico’s ability to comply with the four Colorado River basin compacts to which the state is signatory. Additionally, implementation will help protect New Mexico’s limited water resources from potential future challenges associated with reduced water supplies related to long-term drought and potential climate change.

**Work Plan Manager**
Rolf Schmidt-Petersen, Colorado River Basin Manager. Mr. Schmidt-Petersen will manage the work plan overall with Paul Harms, Christina Noftsker, and himself managing specific elements as described in the FY2020 work plan.