

Lower Rio Grande Water Management Pilot Program FY2020 and FY2021 Work Plan

Executive Summary

The New Mexico State Legislature, at its 2020 Session in Santa Fe, appropriated \$17 million to the Interstate Stream Commission for use in fiscal years 2020 through 2023 “to develop and fund a water management pilot project for the Lower Rio Grande”. This work plan for the Lower Rio Grande Water Management Pilot Program (Program) consists of five elements proposed to be implemented starting this fiscal year and continuing through fiscal year 2021 (the next thirteen and a half months):

- 1) Determine the resources needed to plan, implement, administer, and verify results of various water management actions in the Lower Rio Grande basin (LRG) to reduce water consumption; and
- 2) Develop economic and market information required to effectively implement initial management actions (i.e., fallowing of irrigated land) without harm to the LRG economy; and
- 3) Establish a test process for fallowing irrigated lands; and
- 4) Develop hydrological studies to evaluate how effectively different management actions reduce consumption, promote aquifer health and improve surface water deliveries; and
- 5) Explore best practices in water conservation governance and operations with a focus on groundwater conservation, work to establish an entity to manage a longer-term Program, and develop any draft legislation necessary to support such conservation in the LRG.

Total FY2020 and FY2021 work plan budget is \$1,675,000

Background

The Program is proposed for fiscal years 2020 through 2023 to examine and test a variety of water management actions designed to reduce water consumption in the Lower Rio Grande basin (LRG) and promote long term sustainability within the New Mexico portion of the Rio Grande Project. The specific appropriation language is as follows:

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STATE ENGINEER \$17,000,000

For the interstate stream compact compliance and water development program to develop and fund a water management pilot project for the Lower Rio Grande for fiscal years 2020 through 2023. No more than two million dollars (\$2,000,000) from this appropriation may be expended for startup costs in fiscal years 2020 and 2021 and no more than five million dollars (\$5,000,000) from this appropriation may be expended in each fiscal year from fiscal years 2021 through 2023. Local entities shall be responsible for cost-share contributions beginning in fiscal year 2021

The Program is ultimately intended to develop an array of tools that can be used in the LRG in the future to better manage water, especially during extended drought such as the mega-drought that has been on-going since the late 1990's. Water management actions to be examined and tested over the next three fiscal years include rotational fallowing, aquifer recharge, infrastructure improvement, and supply augmentation. The primary focus for FY2021 will be on instituting rotational fallowing, evaluating local governance alternatives, and working with local LRG entities to establish a water user entity to manage longer-term Program efforts in conjunction with the New Mexico Interstate Stream Commission (NMISC or Commission).

All funding for this effort is from the above cited special appropriation to the NMISC included within the FY2021 state budget. This Work Plan covers the portion of the initial \$2,000,000 startup appropriation that will be needed for contractual services during FY2020 and FY2021. An additional \$5,000,000 is appropriated for Program operations in FY2021. This Work Plan will be amended and presented to the Commission later during FY2021 to cover the additional \$5,000,000 for operational costs.

Element 1)

- **Description**

During the remainder of FY2020 and through FY2021, NMISC will determine the resources needed to plan, implement, administer, and verify results of various water management actions in the LRG with a focus on reducing water consumption through groundwater conservation. Much of this work will be conducted in-house by existing staff, including OSE and ISC executives and representatives from the Litigation and Adjudication, Program Support and Water Resources Allocation programs. Staff will

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develop an initial Project Management Plan (PMP) and associated timeline. Given the complexity of the Program, it is anticipated this task will be transferred to contractual assistance. Additional contractual support is expected for input to the PMP, including project management, hydrology, economics, public outreach, and legal services.

- **Type of Contractual Services Needed**

- The types of contractual services that may be required for Element 1 are surface water hydrology, fluvial geomorphology, geohydrology, biology and ecology, and water resource planning; see Exhibit A, the list of Professional Water Resources Contractors (SWEP 6), Page 1, columns labeled A, C, D, and E, respectively, and OSE professional service contracts for on-call water resources services, page 7, columns A, B, C, and D. Task/work orders will be negotiated and issued for these services.
- Professional On-call Engineering contract services may be required for Element 1, see Exhibit A, Pages 2 and 8 for Professional On-call Engineering contractors.
- Professional legal services may be required for Element 1, see Exhibit A, Pages 3 and 9 for Professional Legal Services contractors.
- Construction/engineering services may be required for this element, see Exhibit A, Page 5 for Non-Professional River Channel Maintenance Services.
- Small professional service contracts (under \$50,000 each) may be required to provide management and technical support.
- Professional service contracts with New Mexico universities and colleges and federal government agency contracts may also be required for this element.

- **Budget, Funding Source & Time Frame**

- The estimated budget for Element 1 is \$400,000.
- Element 1 is funded from the special legislative appropriation.
- The time period for Element 1 is through June 30, 2021.

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Element 2)

- **Description**

During FY2020 and FY2021, NMISC will work to develop economic and market information required to effectively implement water management actions, with focus on groundwater management, that will not harm the LRG economy. Work to be conducted as part of this element may include determining the gross income of specific crops, research on typical water lease prices, economic incentives needed for fallowing land, crop rotation needs, and other economic considerations.

- **Type of Contractual Services Needed**

- The types of contractual services that may be required for Element 2 are surface water hydrology, fluvial geomorphology, geohydrology, biology and ecology, and water resource planning; see Exhibit A, the list of Professional Water Resources Contractors (SWEP 6), Page 1, columns labeled A, C, D, and E, respectively, and OSE professional service contracts for on-call water resources services, page 7, columns A, B, C, and D. Task/work orders will be negotiated and issued for these services.
- Professional legal services may be required for Element 2, see Exhibit A, Pages 3 and 9 for Professional Legal Services contractors.
- Professional service contracts with New Mexico universities and colleges and federal government agency contracts may also be required for this element.
- Request Commission authorization to issue a new Request for Proposals for economic and market information services through the State Purchasing Division (SPD). The NMISC Contract Manager will request authorization from the Commission in a public meeting to enter into a contract with the selected finalist(s) contingent upon final approval by SPD.

- **Budget, Funding Source & Time Frame**

- The estimated budget for Element 2 is \$200,000.
- Element 2 is funded from the special legislative appropriation.
- The time period for Element 2 is through June 30, 2021.

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Element 3)

- **Description**

During FY2020 and FY2021, NMISC will work to establish a test process for fallowing irrigated lands. This will involve identifying producers willing to engage in fallowing, using results of Element 2 to determine costs, and developing a fallowing assessment, contracting and payment processes. Much of this work will be conducted in-house by existing NMISC and NMOSE staff but given the complexity of this process and the current state government hiring freeze, it is anticipated this task will use a combination of staff and contractors. This work would be used to develop and support an upcoming request to the Commission for use of a part of the outstanding \$5,000,000.

- **Type of Contractual Services Needed**

- The types of contractual services that may be required for Element 3 are surface water hydrology, fluvial geomorphology, geohydrology, biology and ecology, and water resource planning; see Exhibit A, the list of Professional Water Resources Contractors (SWEF 6), Page 1, columns labeled A, C, D, and E, respectively, and OSE professional service contracts for on-call water resources services, page 7, columns A, B, C, and D. Task/work orders will be negotiated and issued for these services.
- Professional On-call Engineering contract services may be required for Element 3, see Exhibit A, Pages 2 and 8 for On-Call Engineering Services contractors.
- Professional legal services may be required for Element 3, see Exhibit A, Pages 3 and 9 for Professional Legal Services contractors.
- Construction/engineering services may be required for this element, see Exhibit A, Page 5 for Non-Professional River Channel Maintenance Services.
- Professional service contracts with New Mexico universities and colleges and federal government agency contracts may also be required for this element.

- **Budget, Funding Source & Time Frame**

- The estimated budget for Element 3 is \$300,000.

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- Element 3 is funded from the special legislative appropriation.
- The time period for Element 3 is through June 30, 2021.

Element 4)

- **Description**

Develop hydrological studies to evaluate how effectively different water management actions promote aquifer health and improve surface water deliveries. Types of work needed for this element include review of existing hydrologic research and modeling of the area, identifying an irrigated acreage baseline, utilizing existing models to develop a range of alternatives for impacts of fallowing acreage, and assessing strategies for positive impacts to groundwater from fallowing such as aquifer storage and recovery. Legal services may be needed to assess water rights issues.

- **Type of Contractual Services Needed**

- The types of contractual services that may be required for Element 4 are surface water hydrology, fluvial geomorphology, geohydrology, biology and ecology, and water resource planning; see Exhibit A, the list of Professional Water Resources Contractors (SWEP 6), Page 1, columns labeled A, C, D, and E, respectively, and OSE professional service contracts for on-call water resources services, page 7, columns A, B, C, and D. Task/work orders will be negotiated and issued for these services.
- Professional On-call Engineering contract services may be required for Element 4, see Exhibit A, Pages 2 and 8 for On-Call Engineering Services contractors.
- Professional legal services may be required for Element 4, see Exhibit A, Pages 3 and 9 for Professional Legal Services contractors.
- Construction/engineering services may be required for this element, see Exhibit A, Page 5 for Non-Professional River Channel Maintenance Services.
- Professional service contracts with New Mexico universities and colleges and federal government agency contracts may also be required for this element.

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- **Budget, Funding Source & Time Frame**

- The estimated budget for Element 4 is \$500,000.
- Element 4 is funded from the Special legislative appropriation.
- The time period for Element 4 is through June 30, 2021.

Element 5)

- **Description**

Explore best practices in water conservation governance and operations with focus on groundwater conservation, work to establish an entity to manage a longer-term Program, and develop any draft legislation necessary to establish such an entity and to support such conservation in the LRG.

- **Type of Contractual Services Needed**

- The types of contractual services that may be required for Element 5 are surface water hydrology, fluvial geomorphology, geohydrology, biology and ecology, and water resource planning; see Exhibit A, the list of Professional Water Resources Contractors (SWEF 6), Page 1, columns labeled A, C, D, and E, respectively, and OSE professional service contracts for on-call water resources services, page 7, columns A, B, C, and D. Task/work orders will be negotiated and issued for these services.
- Professional On-call Engineering contract services may be required for Element 5, see Exhibit A, Pages 2 and 8 for On-Call Engineering Services contractors.
- Professional legal services may be required for Element 5, see Exhibit A, Pages 3 and 9 for Professional Legal Services contractors.
- Construction/engineering services may be required for this element, see Exhibit A, Page 5 for Non-Professional River Channel Maintenance Services.
- Professional service contracts with New Mexico universities and colleges and federal government agency contracts may also be required for this element.

- **Budget, Funding Source & Time Frame**

- The estimated budget for Element 5 is \$275,000.

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- Element 5 is funded from the special legislative appropriation.
- The time period for Element 5 is through June 30, 2021.

Work Plan Risk(s) and Impact(s)

This Program is intended to develop and increase the number of tools available to New Mexico and New Mexicans for water management in the Lower Rio Grande Basin of New Mexico. A primary goal is to develop tools that reduce reliance on groundwater pumping and allow the aquifer(s) to recover to varying degrees. Given the budget outlook, it is important for the NMISC to move quickly to conduct a fallowing test and establish the water management program to minimize the risk of the funding for this critical Program being ‘swept’ in upcoming legislative sessions. If the appropriation is swept, the NMISC will not have the resources needed to conduct the effort.

Work Plan Manager(s)

To be determined