

Staff Report

TO: Board of Directors

FROM: Chip Close, Water Operations Manager
Thor Larsen, Water Resources Superintendent

DATE: July 13, 2022

SUBJECT: Application for Water Energy and Efficiency Grant (Consent)

WATER OPERATIONS

RECOMMENDATION:

Adopt Resolution No. 2022-44 (Authorizing Application for a Water and Energy Efficiency Grant for Upgrading Irrigation System Water Measurement and Control), authorizing the General Manager (or designee) to sign an application, and provide the related documents necessary to process and file a grant application for a Water and Energy Efficiency Grant with the Bureau of Reclamation.

BACKGROUND:

The Bureau of Reclamation has established the Water and Energy Efficiency Grant program to provide financial assistance for drought resiliency related projects. The program goals are to increase water supply reliability for states, tribes, cities, irrigation, and water and flood control districts across 17 western states.

As an irrigation district with a wide array of outdated infrastructure, NID is a prime candidate for this type of reliability and efficiency grant. Staff is eager to explore the Federal grant process to determine the level of detail necessary for qualification and compliance with grant funding. Additionally, one of the District's product vendors has offered assistance with insights from past successful applications.

Timing for the grant funding is narrow, therefore staff is recommending a small project as an introduction to the program. The proposed project includes the replacement and automation of two canal flow and measurement control structures. The new gates will allow for real time flow measurement in combination with remote automation for flow adjustments at the head of NID's canals. The use

of technology and automation will allow the District to reduce flows in near real time during periods of low irrigation demands that are experienced during overnight hours, or during sporadic weather events during the irrigation season.

In addition to water efficiency benefits, NID will realize a savings in labor with the proposed project. The stations slated for replacement currently require staff to complete a daily check for measurement and monitoring. The proposed replacement equipment will electronically measure and transmit all flows back to the NID headquarters and thereby substantially reduce the number of physical visits necessary by staff.

The installation of remote operating and measuring stations is one of the efficient water management practice goals highlighted in the District's 2020 Agricultural Water Management Plan. Additionally, the proposed retrofit is in line with the District's strategic plan goal #4, "We believe the integration of proven practices and technologies enhances efficiency and reliability throughout the District".

BUDGETARY IMPACT:

The Water and Energy Efficiency Grant generally involves a 50% cost share from the grant applicant. The current cost estimate for the purchase and installation of the automated stations is \$100,000. Therefore, the District's obligation after all grant funding is anticipated to be over \$50,000.

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Attachments (1): Resolution 2022-44



RESOLUTION NO. 2022-44
OF THE BOARD OF DIRECTORS OF THE NEVADA IRRIGATION DISTRICT
AUTHORIZING APPLICATION FOR A WATER AND ENERGY EFFICIENCY GRANT
FOR UPGRADING IRRIGATION SYSTEM WATER MEASUREMENT AND CONTROL

WHEREAS, Nevada Irrigation District (District) provides water for residential, commercial, industrial, agricultural, municipal, environmental, recreation, hydroelectric generation, and fire protection and prevention purposes, as well as other beneficial uses of water; and

WHEREAS, article X, section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use be prevented, and that water be conserved for the public welfare; and

WHEREAS, the District operates and maintains numerous raw water flow control and measuring structures that are critical in ensuring accuracy, efficiency, and reliability of distribution flows; and

WHEREAS, many of the District's flow control and measuring structures have met their life expectancy and are in need of replacement; and

WHEREAS, conversion of the District's flow control and measuring structures from manual to automated remote motor operated gates will contribute to water conservation through real time flow adjustments that provide only the water necessary to meet demand in real time; and

WHEREAS, automation of the stations will contribute to staff efficiency via remote reporting that will reduce the number of site visits necessary; and

WHEREAS, the United States Department of the Interior, Bureau of Reclamation has announced the Water and Energy Efficiency Grants in order to support the implementation of drought mitigation projects that will build long-term efficiency and resiliency to drought; and

WHEREAS, the proposed retrofit is in line the District’s strategic plan goal #4 “We believe the integration of proven practices and technologies enhances efficiency and reliability throughout the District”; and

WHEREAS, Automation of canal structures is specifically identified within NID’s 2020 AWMP as an Efficient Water Management Practice (EWMP) which the district is actively implementing where applicable to system efficiency; and

WHEREAS, it is in the best interest of the District’s customers to expedite the preparation and submission of an application for financial assistance from the Bureau of Reclamation, in the form of a grant

NOW, THEREFORE, BE IT RESOLVED AND PROCLAIMED by the Board of Directors of the Nevada Irrigation District that the General Manager (or designee) is hereby authorized and directed to sign an application and all related documents necessary to file and process a grant application for the Water and Energy Efficiency Grant program.

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PASSED AND ADOPTED by the Board of Directors of Nevada Irrigation District at a meeting duly called and held within the District on the 13th day of July, 2022, by the following roll call vote:

AYES: Directors:
NOES: Directors:
ABSENT: Directors:
ABSTAINS: Directors:

President of the Board of Directors

Attest:

Secretary to the Board of Directors