STAFF REPORT

Meeting Type:	Board of Directors
Title:	Purchase of SCADA Equipment to Replace Outdated Equipment at Ignacio Water Quality Station
From:	Darren Machado, Director of Operations
Through:	Shaun Horne, General Manager
Meeting Date:	November 17, 2026

TYPE OF ITEM: X Action Information

RECOMMENDATION: Approve the purchase of replacement SCADA equipment from Graybar to replace the outdated SCADA equipment at the Ignacio Water Quality Station for a total amount not to exceed $163,200.09 and authorize the General Manager to execute a purchase order

SUMMARY: As automated control technology advances for water treatment plants, equipment must be upgraded to maintain functionality, efficiency and availability. Most controls upgrades are in the form of electrical components, which must be replaced more often than traditional water infrastructure like pipes or valves due to shorter lifecycles and becoming functionally obsolete. The Supervisory Control and Data Acquisition (SCADA) system that District Operators use to run the Ignacio Water Quality Station is hosted on numerous Programmable Logic Controllers (PLCs) and support equipment. To perpetuate reliability, replacement of existing controls equipment is planned. This includes replacement of PLCs, Input-Outputs, operator displays, power supplies and other appurtenant devices that enable operators to monitor facility conditions, receive alarms and control equipment.

DISCUSSION: The Ignacio Water Quality Station is a chemical feed and water quality monitoring station. This facility receives potable Sonoma County water, adds chemicals to match the water quality characteristics of the District's system, and pumps the water south for use within the District's service area. The Ignacio Water Quality Station was originally constructed in 1976, with a major rehabilitation in 1996.

While initial operation of the Ignacio Water Quality Station was once done completely by treatment plant operators, technology developed over the last 50 years has reduced the manual operations processes by using programmable equipment and remote monitoring. Currently, processes can be automated using sensors that monitor flow, pressure, voltage, current, electrical charge, chemical residual or other water quality characteristics. Operators interact with Ignacio Water Quality Station through a SCADA system, which is customized software that allows operators to interface with the remote sensors.

The SCADA software is implemented through the installation of Programmable Logic Controller (PLC) and Input-Output (I/O) equipment that are utilized to provide communication between the Operator and the remote equipment. Programming was introduced to the Ignacio Water Quality Station in 1996. The existing PLCs and appurtenant hardware have been discontinued, and replacement parts for the units will soon become unavailable.

The Ignacio Water Quality Station relies on continuous monitors to control chemical feeds and other equipment remotely. The PLC is controlled from Bon Tempe and/or San Geronimo Treatment Plant through the SCADA system. To perpetuate reliability, replacement of existing controls equipment is planned. This includes replacement of PLCs, Input-Outputs, operator displays, power supplies and other appurtenant devices that enable operators to monitor facility conditions, receive alarms and control equipment. Installation will be completed by District staff over several days during planned shutdowns.

Staff recommends the Board approve the purchase of replacement equipment in support of the SCADA Upgrade Project from Graybar for the Ignacio Water Quality Station in an amount not to exceed $163,200.09 and authorize the General Manager to execute a purchase order.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: Funding for this operational maintenance item was identified in the 2026/2027 Capital Budget. The cost of the equipment purchase is not to exceed $163,200.09.

ATTACHMENT(S): None.

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Operations	Darren Machado	Shaun Horne
	Darren Machado **Operations Director**	**Shaun Horne** **General Manager**