RAMONA MUNICIPAL WATER DISTRICT

AGENDA MEMO

Agenda Item No. 4.
Special Board Meeting of August 20, 2019

Jim Robinson, President
and Members of the Board of Directors
Ramona, CA 92065

RE: DISCUSSION AND POSSIBLE ACTION FOR A STUDY OF THE DISTRICT'S UNTREATED WATER SYSTEM

Members of the Board:

Purpose

To obtain Board approval of an evaluation of the existing untreated water system.

Background

Ramona Municipal Water District (District) has a total service area of approximately 75 square miles, located within the eastern mountains of San Diego County, encompassing the Santa Maria Valley and surrounding hills, with elevations ranging between 1,300 and 2,100 feet mean sea level (msl). The potable water supply for the community of Ramona is derived from the San Diego County Water Authority (SDCWA) aqueduct system. The Poway Pump Station, located at an approximate elevation of 775 feet msl, conveys water over 1,000 vertical feet to serve the residents of Ramona.

In addition to imported potable water supplies, the District imports untreated water from the SDCWA, using a second set of pumps located at the Poway Pump Station. Untreated water is conveyed from the SDCWA untreated water aqueduct to Lake Ramona. Approximately 200 agricultural users make use of this untreated water supply and untreated water is not available for domestic consumption. In additional to agricultural uses, the untreated water system provides fire protection to the western extents of the District Fire service area.

In the early 1980s, as the result of ongoing drought and continued growth, the District defined the need to acquire more regional water and provide more water storage. The District put the issue to a vote seeking funds to build a large reservoir. The measure was approved by a narrow margin and significant opposition to the project continued. In 1988, the District completed construction of Lake Ramona, located in the western portion of the District service area on the Green Valley Truck Trail. The original design for Lake Ramona included additional pipelines, pumps and a water treatment facility for Lake Ramona to achieve its projected potential as an emergency and domestic water supply for Ramona. Another vote of the people to approve the funding was never completed and the original design for Lake Ramona was never completed.

Construction of Lake Ramona resulted in various District obligations with the Blue Sky Preserve and the Malone property, located to the west of the lake outside the District service boundary. Through agreement, the Malone property has rights to approximately 300 acre-feet of untreated water from Lake Ramona on an annual basis and the District is required to convey water into Lake Ramona to offset this untreated water demand.

Finally, the District incurs various regulatory and operational requirements associated with Lake Ramona. The District incurs annual permitting obligations of approximately $70,000, as well as SDCWA capacity fees of approximately $120,000. Operationally, the District has an annual cost of approximately $410,000 to offset evaporation of untreated water from Lake Ramona.

Discussion

As discussed above, the annual cost to the District for the various legal, regulatory and operational obligations of importing untreated water and Lake Ramona can be up approximately $1,000,000 per year, depending on weather and other factors.

The annual use of untreated water within the District has dramatically decreased over time. In FY 2017/18 there was 1,322 acre feet of untreated water used at RMWD, compared to 7,473 acre feet in FY 1996/97.

Additionally, the SDCWA has projected the cost of untreated water to increase over the coming years which will put additional downward pressure on untreated water use.

As the use of untreated water continues to decrease, the cost per unit will increase to cover fixed costs and at some point, the viability of an untreated water system diminishes to unsustainable levels.

To address the ongoing challenges of the untreated water system, District staff is proposing to conduct an Untreated Water System Concept Study (Concept Study). The objective of the Concept Study is to define alternatives to the untreated water system, identify opportunities to reduce operational and maintenance costs, potentially increase recycled water use and maximize the current facilities. The Concept Study will review several alternatives to identify the most cost efficient and operationally efficient options including:

- Conversion of the untreated water system to a recycled water system over time
- Conversion of the Woodson Untreated Reservoir to recycled water
- Conversion of the untreated water system to treated water, serving both non-potable and potable demands
- Identification and possible abandonment of unused portions of the untreated water system to reduce costs
- Conversion of the untreated water system to a treated water non-potable system
- Options for fire protection currently being provided by untreated water system
- Options for pumping untreated water
- No project (do nothing)

The Concept Study is not intended to culminate in design or construction at this time. Rather, the intent is to evaluate the legal, operational, maintenance and regulatory considerations and define future policy for the untreated water system.

Fiscal Impact

The proposed Concept Study is not currently identified in the District Water Facilities Plan. The proposed not to exceed costs for the Concept Study is $50,000.

Recommendation

Staff respectfully recommends that the Board approve completion of the Untreated Water System Concept Study to be brought back to the Board for further consideration.

Prepared by: D. Michael Metts, PE, District Engineer

Submitted by: David Barnum, General Manager