## Text File

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**In Control:** Public Works **File Type:** Agenda Item

**Agenda Number:** 11E.

Title:

Consider and take action on a resolution authorizing staff to negotiate an agreement with Gulf Coast Water Authority (GCWA) to acquire new available water capacity in Thomas Mackey Water Treatment Plant (TMWTP) for up to 3,000,000 gallons per day (MGD) at an estimated cost of $8,400,000 (Director of Public Works)

..Background:

Approval of this item will allow staff to develop an agreement to acquire new available water capacity in GCWA's Thomas Mackey Water Treatment Plant (TMWTP) up to 3,000,000 gallons per day (MGD) at an estimated cost of $8,400,000. Approval of this item is not a binding financial commitment to acquire the proposed capacity but gives GCWA a baseline to continue efforts to negotiate contractual issues along with engineering and operational level determinations to ensure delivery of the newly allocated capacity. Associated contractual commitments will require Council's future consideration of approval.

The attached letter from GCWA is a notice of opportunity to increase the City's reserve capacity in the TMWTP. The letter dated September 10, 2020 notifies all TMWTP co-participants of the opportunity to acquire new capacity made available from the recent Texas Commission on Environmental Quality (TCEQ) approved re-rating of the GCWA treatment facility. GCWA has requested written notice specifying the desired amount of the increase in the City's reserve capacity by December 15, 2020. The GCWA Board plans to approve the allocation of reserve capacity at its December 17, 2020 meeting, for sales to be effective March 1, 2021.

The re-rated capacity of TMWTP provides 7.9 MGD of additional treated potable water to 13 municipal co-participants based on their current contracted reserve capacity allocation. Each co-participant reserves the first right of refusal to acquire their available allocation of new water. At the time of this writing, GCWA believes that several co-participants will not exercise their right to acquire additional water. This will allow the City to acquire additional water (up to 3 MGD) over its current pro-rata reserve capacity allocation. Confirmed availability for additional allocations will be determined after the December 15, 2020 notification deadline.

GCWA has established a fair market rate of $2.80 per gallon to acquire the new capacity (further detail is available in Attachment No. 3). The proposed cost of $2.80 per gallon represents the capital expenditures required to effectuate the re-rate of TMWTP and to ensure that GCWA can deliver the additional 7.9 MGD treatment capacity to its customers. Additional capital expenditures maybe required to facilitate the delivery of water to customers desiring to acquire water through this process. The proposed cost of $2.80 per gallon of new capacity is a direct result of the re-rating process. This engineering level determination utilizes historical treatment performance data to identify surplus treatment capabilities throughout the treatment process, resulting in increased capacity with minimal capital investment to the facility. Today's

cost for the capacity expansion of a conventional water treatment facility is approximately $8-$10 per gallon, making the proposed $2.80 per gallon an exceptional value.

Purpose:

The City secured an agreement with the City of Houston (COH) in October 2019, for 20 MGD of reserved raw water capacity to ensure adequate surface water supply for the City's growth through future build-out. Demand projections from the 2018 Water Master Plan identifies the need for the utilization of ground water wells to supplement current surface water supply within the next 2-5 years and exhausting current ground water capacity in 10 years, see attached Exhibit A. The proposed 3 MGD of additional surface water capacity from GCWA's water treatment facility provides sustainable "bridge" water to supplement current surface water capacity until the completion of the Southeast Transmission Line (SETL) and the future 20 MGD expansion of the Southeast Water Purification Plant (SEWPP), with proposed completion timelines of 3-5 years and 7-10 years, respectively.

Today the current water use strategy relies on the continuation of adding ground water wells with storage and pumping facilities to provide the aforementioned "bridge" water. Although ground water is a reliable source of water capacity, there are regulatory limitations on usage and problematic operational issues associated with blended surface/ground water distribution operations. Investing in additional surface water capacity provides a reliable and superior long-term source that will further diversify the City's water supply.

Funding Recommendations:

The City's current FY20-FY25 Capital Improvement Plan (CIP) includes the two (2) ground water well projects that can be delayed for future implementation so that the applicable design and construction funds can be re-distributed to acquire the proposed GCWA water capacity. Project details are as follows:

- WT10 New Water Well and GST - LC Pkwy West o FY20 Design (60% complete) - $465,000 o FY22 Construction - $5,830,000

- WT11 New Westside Booster Pump Station, GST and Well o FY22 Design - $850,000
  - o FY23 Land - $200,000
  - o FY24 Construction - $6,869,000

GCWA is currently working with COLC's water distribution operations to determine how much additional capacity could be delivered today utilizing existing treatment and conveyance capabilities. This determination along with the proposed schedule for the TMWTP re-rate improvements will provide the information necessary for GCWA to confirm a funding schedule in the near future.

Attachments:

1. Data Sheet

2. Proposed Resolution
3. GCWA Notice of Opportunity Letter dated 9.10.2020
4. League City - Future Water Demand Analysis

FUNDING
{X} NOT
APPLICABLE
STRATEGIC
PLANNING
{X} Develop and Maintain Our Infrastructure