

**Action Requested/Required:**

- ☐ Vote/Action Requested
☒ Discussion or Presentation Only
☐ Public Hearing
Report Date: _____
Hearing Date: _____
Voting Date: _____

Department: Community Development**Presenter(s) & Title:** Bethany Watson

City Engineer

Agenda Item Title:

Discussion on Caustic Tank & Line Replacement at Canton Water Treatment Plant to RemTech Engineers Remediation Specialists in the amount of up to \$65,268.72

Summary:

The City of Canton and H2O Innovations requested a quote from RemTech for the replacement of tanks and chemical lines for the Caustic system. Remtech has reviewed the current operations at the water plant and noted the upstairs day tank (insulated, 350-gallon vertical poly storage tank) and one of the downstairs supply / storage tanks needs to be replaced. In addition, the supply lines from the tanks (currently SCH 40 PVC) need to be upgraded to SCH 80 PVC. Remtech has obtained cost for direct replacement of the current tanks as well as we have a proposed alternative for the day tank which we will present.

Budget Implications:Budgeted? ☐ Yes ☒ No ☐ N/ATotal Cost of Project: \$ 65,268.72 Check if Estimated ☐Fund Source: General Fund ☐ Water & Sewer ☒ Sales Tax ☐ Other: _____**Staff Recommendations:**

Staff recommends approval of Caustic Tank & Line Replacement at Canton Water Treatment Plant to RemTech Engineers Remediation Specialists in the amount of up to \$65,268.72

Reviews:Has this been reviewed by Management and Legal Counsel, if required? ☐ Yes ☐ No**Attachments:**

Proposal
Photos



August 19, 2024

H2O Innovations
Jordan Hall
150 Bobby E Bishop Drive
Canton, GA 30114

**RE: Caustic Tank & Line Replacement (partial)
Canton Water Treatment Plant**

Jordan,

Thank you for reaching out to Remtech Engineers for the review and replacement of two of the four tanks and the supply lines for the caustic system at the water treatment plant. Remtech is pleased to present the following proposed changes along with our estimated cost.

Proposed Scope of Services

Remtech has reviewed the current operations at the water plant and noted the upstairs day tank (insulated, 350-gallon vertical poly storage tank) and one of the downstairs supply / storage tanks needs to be replaced. In addition, the supply lines from the tanks (currently SCH 40 PVC) need to be upgraded to SCH 80 PVC. Remtech has obtained cost for direct replacement of the current tanks as well as we have a proposed alternative for the day tank which we will present.

As part of the system work, Remtech understands the need to maintain a caustic supply for daily water treatment. Therefore, we are proposing to conduct the replacement work in phases to allow for proper operations during the process. Remtech can supply storage totes for temporary purposes at the plant during the work if needed. In addition, Remtech can assist with product transfers as a part of the site work.

Upstairs Day Tank

Per the communications at the plant during the review, this tank is crucial for the daily operations at the facility. Remtech would propose to drain this tank and set up a temporary 330-gallon tote within the area to allow for the feed line and supply lines to be removed and replaced as well as the removal of the current tank. To perform the site work in this area, Remtech is estimating one (1) full day depending on the tank connections that must be made. Ideally, we would want to keep the temporary storage tank above 60F during this transition work to keep the product fluid for the small peristaltic pump. We could possibly do a temporary heat trace wrap on the temporary tank if needed to maintain temperatures overnight. Once the day tank work has been completed, Remtech would plan to move to the downstairs storage room.

Downstairs Storage Area

The current configuration has two 550-gallon vertical tanks and one 1,000-gallon horizontal leg tank for storage. All three are plumbed into the supply pump as well as the supply line for chemical addition. Due to the room layout and the current configurations, Remtech is recommending a direct replacement of the current 1,000-gallon tank. In pricing this tank from the vendor, it was noted that Norwesco, the primary supplier of these types of tanks does not recommend the storage of caustic in the horizontal tanks. Instead they recommend the use of

[Site Remediation, Emergency Response & Remediation Equipment](#)

vertical tanks. However, the horizontal leg tank that is provided in this proposal appears to be an exact match to the current tank which has been in service for over 8 years. On the Norwesco 1,000-gallon horizontal leg storage tank, heavy duty (1.9 sp gravity), the manufacturer's warranty is only 3 years on the tank and if we assume the same or potentially longer life of the new tank, would be well expired if the tank needed be replaced. This would be the case with most any plastic (poly) tank due to the life cycle of the elastomers. Remtech would recommend the coating of the steel support bars for the tank with a chemical resistant epoxy material to slow the affects of corrosion on the steel.

Remtech will note that to change this tank, we will need to drain and move the outer most 550-gallon supply tank to allow for clearance. We would intend to do this when the piping is disconnected from the tank to avoid having to connect/disconnect more than once.

Line Replacement

Remtech would propose to place the new line for most of the pipe run prior to disconnecting the current piping. The long run in the hallway and a portion of the run in the day tank room can be installed prior to removing the old. At the appropriate time, Remtech would make the cut over and connect the entire new SCH 80 pipe to the system. Some or all of this work can be done during tank work as well.

Estimated Cost

For review of the cost associated with the above outlined work, Remtech has broken this down into sections. The first would be the acquisition of the pipe / pipe fittings / supports in preparation for the site work as well as orders for the tanks. The second portion is our daily charge including appropriate PPE for working with the caustic lines / tanks / product transfers during the course of the site work. The final section contains the replacement tanks as well as an alternative tank for the day tank area.

Tank orders, Pipe / Fitting / Hanging supply acquisition	\$6,755.84
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Daily site work – product transfers, tank removal, line replacement, Tank placement in building, connections, cleaning systems that will Remain in place (daily cost \$5,205.10, estimate 8 days of site work)	\$41,640.80
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1,000-gallon horizontal leg tank – 2" end bulkhead fitting, 2" top Bulkhead fitting (for fill), 16" manway with 3" vented port lid, steel Support saddles (epoxy coated for chemical resistance)	\$4,745.68
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300-gallon vertical HDPE storage tank, insulated, heat traced with Bulkhead fittings installed for top fill, bottom drain and tank level	\$6,356.80
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- Optional Tank for Day Tank area –

Utilize a 330-gallon HDPE Tote that can be connected on the bottom
Drain line and have a top fill port added to the tank. Tote would be

Positioned on a portable tank containment system (approx.. 30" tall)
And would have an insulating heater package that could be taken off
The tank in warmer months for visual observation.

\$5,769.60

The optional tank would allow for swapping out the tank without significant modification in the future (addition of the bulkheads for filling / level gauge) while keeping the heating system and the containment. It would also allow for visual observation of the contents by opening the heater wrap on the side (the insulated tank would only allow for visual observations through the lid or removal of the insulation (similar to the existing tank). The tote would also make observation of the bottom drain easier since it would not be down inside another tank prohibiting access.

As noted, Remtech would propose to conduct this work in phases according to the operational needs of the plant. We would work with you to coordinate the appropriate down times and allow for the swap out of equipment (while maintaining temporary supply for water treatment).

Please review this proposal and advise with any questions.

Respectfully,

Larry K. Seabolt Jr., CHMM
Senior Engineer, Certified Hazardous Materials Manager
Remtech Engineers







