

MINUTES
MURFREESBORO WATER RESOURCES BOARD
January 26, 2021

The Murfreesboro Water Resources Board met on Tuesday, January 26, 2021 in the conference room at the Operations and Maintenance Building, 1725 S. Church Street. Consistent with the Governor’s Executive Order, members of the Water Resources Board participated by electronic means as has been determined necessary to protect the public health, safety, and welfare in light of the COVID-19 pandemic. Present at the meeting were Board members: Dr. Al Carter, Mr. John Sant Amour, Mr. Ron Crabtree, Mr. Brian Kidd, Ms. Sandra Trail, Ms. Kathy Nobles, Mr. Kirt Wade, and Ms. Madelyn Scales-Harris. Also present were Darren Gore, Michele Pinkston, Valerie Smith, Doug Swann, Roman Hankins, Steve Tate, Sharon Seibert, Matt Powers, Alan Cranford, Joe Russell, John Strickland, Donald Hughes, Randy McCullough, Alandria Barker, Travis Wilson, Mike Bernard, Linda Sullivan, Brent Fowler, Jay Bradley, and Ronnie Martin along with other members of the public.

The Consent Agenda was presented for the following considerations:

A. Consider abandonment of sewer easement along Middle Tennessee Blvd –

Joe Swanson, Jr. is requesting the abandonment of an existing sewer easement. This easement was dedicated by plat for the sewer main installed to 680 Middle Tennessee Blvd. Joe Swanson proposes to install another sewer main extension just north of the existing sewer main and abandon the existing. This will allow the construction of another building in the location of this existing main. Easement will be dedicated for the new sewer main therefore, the existing easement will no longer be necessary.

Staff recommended that the Board recommend to City Council approval of abandoning the existing sewer easement once the new main and easement are in place.

B. Consider Customer Service drive thru replacement –

MWRD Admin and Customer Service areas were renovated in the 90s. The drive thru lanes have required regular service calls the last few years. Staff has had to replace control boards multiple times and consistently have the vendor come out and make adjustments to settings on the equipment. In addition to the cost, having to close a lane causes inconvenience to our customers wishing to use the drive thru. During the pandemic, staff has at times used the drive thru to conduct business with customers who could not come into the lobby.

Staff received three bids for the replacement:

BankPak	\$15,919.75
Diebold	\$19,961.85
Quci Tube Systems	\$22,035.00

Staff recommended that the Board approve the lowest bidder, BankPak. They are our current vendor. Funding for this work was budgeted in the FY21 Capital Budget.

C. Consider O&M GPS Rover Units upgrades & new purchase –

MWRD purchased a Leica GPS (Global Positioning System) reference station and survey grade rover unit in 2003 from Earl Dudley & Associates for the purpose of locating and re-locating all of MWRD's visible above-ground assets related to its water distribution system and sewer and stormwater collection systems. The reference station/units have been upgraded/replaced over the years to keep pace with changing technology.

MWRD purchased three Non-Survey Grade Rover Units (model Zeno 20) from Leica in 2017/2018 for use by O&M field crews. The purpose of these units is to have a tool for collection of data in the hands of staff as they are doing the work in the field. Locations of water leaks, corp stops, curb stops, step system tanks, and water service lines have been collected using these units. The data that these units have collected has been beneficial to the understanding of our utility systems and useful in identifying areas of concentration.

From November 2019 thru March 2020, a global retirement/depreciation of a widely used security protocol affected the ability to use these rover units; the input devices simply would not update or work because of the new TLS protocols. Leica was quick to offer a trade in/upgrade solution to remedy the problem, but MWRD was limited by budget constraints. In addition, a purchase "freeze" was in effect after the 2020/2021 budget was passed which prevented purchase at that time, even though funds (\$30,000) had been allocated.

Leica performed an on-site demonstration with an intended replacement rover unit that showcased some of Leica's newest hardware used in conjunction with a mobile phone type of data input device that was very user friendly and easily updatable. The consensus among staff was to spec and procure the exact rover set-up that was demonstrated. It was also determined that an additional rover unit could be utilized in the AMI Department while leveraging an existing carbon fiber pole that MWRD had already purchased.

Staff recommended the Board recommend to City Council approving the purchase of four Leica Zeno FLX 100 upgrades with associated pole mounts, clamps, and handheld input devices in the amount of \$23,178.60.

D. Consider SRWTP distribution monitoring panels replacement –

Distribution monitoring panels are compactly constructed with instrumentation for measuring chlorine residual, turbidity, pH, conductivity, pressure, and temperature. These panels are designed to assist in identifying potential problems that pose risks to public health when they occur in our distribution system.

Staff is requesting to purchase two distribution monitoring panels, one for Stoney Meadow tank and one for Jones Boulevard tank. These panels are to ensure that water quality is consistent with Department, TDEC and EPA standards and to indicate possible contamination or degradation of the water

quality in our distribution system tanks. Any deviation in water quality would allow the plant operator to isolate the tank until the issue is identified and corrected. Stoney Meadow and Jones Boulevard are the last of the five distribution tanks to be upgraded with new distribution panels.

Staff received a GSA price and a direct quote from HACH, Inc. The GSA price is \$18,548.44 for a total of \$37,096.88. The direct quote based upon the Department's purchases with HACH is \$16,956.90 for a total of \$33,913.80. HACH is the sole source vendor for HACH, Inc. manufactured equipment.

Staff recommended the Board recommend the City Council to approve the purchase of two distribution monitoring panels in accordance with the quote provided by HACH, Inc.

E. Consider SRWTP Trane HVAC unit replacement –

The Facilities Management Department conducted a citywide analysis on the current HVAC systems being operated by the city in 2019 and identified units needing replacement. The units needing replacement use R-22 refrigerant which is no longer produced. Over the next 5-years these units need to be replaced. There is \$73,100 budgeted for replacement at the water treatment plant for FY21. Six units have already been replaced in the amount of \$61,794 and one more is needed due to unit failure in the amount of \$14,540. The unit is in the Pretreatment Building Control Room.

Trane has been providing service for several years on new HVAC equipment at the water treatment plant. During this period, staff has been pleased with Trane's support. Staff requested that Trane look at the units needing replacement and provide a proposal based upon an existing Co-op contract.

Trane provided the requested proposal for replacing the Pretreatment Building Control Room unit. The proposal and contract were reviewed by Purchasing and Legal prior to submission to the Board.

The cost to replace the unit is \$14,540. If approved, \$3,234 would come from reserves and \$11,306 would come from the FY21 capital budget.

Staff recommended that the Board recommend to the City Council approving the purchase of the unit from Trane in accordance with their proposal.

F. SRWTP Commercial Structures & Facilities Painting Change Order # 2 Amended –

Staff brought Change Order # 2 for consideration to the Board at the December 6, 2020 Board meeting for recommendation to City Council in the amount of \$7,750. That amount has been increased to \$10,700 and was taken for approval to the January 21, 2021 City Council meeting.

The initial cost presented to the Board for this change order was to address issues with the surface preparation and coating for the center column and rake arm of Basins #3 and #4. An area of the pipe gallery wall was submerged at that time and when discovered required an additional \$2,950 for remediating and painting.

The original painting contract was awarded in December 2018, the total project cost for the original contract cost was \$1,126,240. The cost per fiscal year is FY19 - \$224,900, FY20 - \$342,790, FY21 - \$397,200 and FY 22 - \$161,350. There were some issues with the flooring coatings and preparation in the

Membrane Room and Post Treatment Room that had to be corrected. The increase in the coating and preparation of the floors increased the cost by \$27,123 for FY20 with the adjusted total cost for FY20 being \$369,913 and bringing the total cost of the contract to \$1,153,363. Both were approved by the Board and Council. FY21 original cost was \$397,200. The \$10,700 change order increases that to \$407,900.

The current cost of the FY21 project is \$397,200. There is \$415,900 in the FY21 capital budget for painting. The total project cost is adjusted to \$1,164,063.

This was approved by Council to allow the contractor to complete repairs and continue with the project and is for informational purposes only.

G. TDOT contract supplements to Salem Highway Widening Phase 2 –

The Salem Highway Widening project from Old Fort Parkway to Cason Lane was originally all one project. In 2017 TDOT split the project into two phases, one from Old Fort Parkway to I-24 and the other from I-24 to Cason Lane which is currently under construction.

Original contracts were completed in 2017 and the Department submitted plans for both water and sewer relocations at that time. TDOT made the decision to use one water contract and one sewer contract which would cover both phases.

Since that time, TDOT's requirements changed and they would no longer allow the water main to be completely within the roadway. Wisser Company redesigned portions of the water main outside the roadway as well as designed a couple of sewer main relocations because of newly discovered conflicts within Phase II of the project which is set to bid this Spring. The cost estimates changed, therefore TDOT has prepared Supplements to the original contracts.

This project is a Chapter 86 project, which means that TDOT will reimburse the Department up to \$1.75M for water relocation costs and an additional \$1.75M for sewer relocation costs. The current construction estimates, including engineering, are \$1,270,375 and \$155,326 for water and sewer respectively.

Of the water estimate, the Department will be funding \$65,000 for the upgrade, or "betterment" of an existing 8" water main crossing Salem Hwy. to 16".

This was taken to Council for approval to meet a TDOT submittal deadline and is for informational purposes only.

A motion was made by Ron Crabtree to accept the Consent Agenda as presented and it was seconded by Kirt Wade. The Board voted unanimously to approve.

The December 8, 2020 Board Minutes were unanimously approved as presented.

The Board considered O&M vehicle purchase.

In MWRD's approved Lift Station Capital Budget FY21, there is a line item in the amount of \$70,000 to purchase a work truck for the additional full-time maintenance technician hired last year. The

desired vehicle is included on the State of Tennessee Vehicle Contract. The lowest bidder, Wilson County Motors, is unable to fulfill the order due to product unavailability from GM.

VEHICLE DETAILS		
	Description	Cost
Wilson County Motors	2021 Chevrolet Silverado 3500HD 4WD Double Cab	\$68,237
Ford of Murfreesboro	2021 Ford F-350 Super Cab 4x4	\$69,600
Lonnie Cobb Ford	2021 Ford F-350 Super Cab 4x4	\$76,775
Freeland Automotive	2021 Chevrolet Silverado 3500HD 4WD Double Cab	\$77,350

Staff recommended the Board to recommend the City Council to approve the purchase of this vehicle from the second lowest bidder, Ford of Murfreesboro.

John Sant Amour made a motion to approve. Sandra Trail seconded. The motion unanimously passed.

The Board considered John Bouchard & Sons Task Order 20-09, CIP Tank Replacement at WTP.

Task Order No. 20-09 for the Water/Wastewater Mechanical/Electrical Services Contract is to remove one sodium hydroxide bulk tank and one citric acid bulk tank each size 1,500 gallons and replace each tank with 2,050-gallon size tanks. The Scope of Work also includes modification of the piping to new locations as a result of the increase in the size of the tanks.

These tanks were installed with the Pall membrane system in 2008 and are used to hold chemicals used for the clean-in-place process for cleaning the membranes. Due to the nature of the tanks, they cannot be repaired when they fail.

The project cost is \$35,035.44. The cost of this project was not in the FY21 budget, funding would come from reserves.

Staff recommended the Board recommend to the City Council approving JBS Task Order 20-09 in accordance with the JBS estimate.

Sandra Trail made a motion to approve. Brian Kidd seconded. The motion unanimously passed.

The Board considered SRWTP pipe gallery expansion joint repairs.

In 2017, the Board and Council approved repairing the 200-foot long trough that transports water to the softening basins by using Tyfo® Fibrwrap® system using Tyfo Weld to cover the trough. The trough had numerous leaks that were flooding the pipe gallery with water. This work was completed over two years ago and there were two leaks that were not able to be resolved using this method. These two leaks were coming from two major expansion joints. The City settled with Fibrwrap and looked for another solution that was cost effective and acceptable to staff and SSR.

In September 2019, staff brought a solution to the Board and Council to make the repairs to the two expansion joints inside the trough. This work took place when the sludge vacuum system and beam relocation work took place in August 2020, and was performed by Industrial Repair, Inc. The work was

completed as scheduled and all the leaks from the trough were effectively stopped. Now staff would like to get the remaining expansion joints replaced in the pipe gallery to prevent water from seeping back into the pipe gallery from rain and to prevent further degradation of the concrete.

The expansion joint repairs project will include providing labor, equipment, and materials to make repairs to existing expansion joints throughout the pipe gallery and to repair the busted concrete at one location due to the trough leak that was going on for several years.

Staff received three quotes for the replacement of the pipe gallery expansion joints.

Premier Coatings Company, LLC	\$16,790
Montgomery Rubber & Gasket	\$18,583
Industrial Repair, Inc.	\$20,677

Industrial Repair's quote did not include removal of existing expansion joint materials. Premier Coatings and Montgomery Rubber & Gasket covered all requirements in the scope of work. Premier Coatings Company, LLC is the low responsible and responsive quote.

Staff recommended that the Board recommend to the City Council accepting the quote from Premier Coatings Company, LLC in the amount of \$16,790 with funding coming from reserves.

John Sant Amour made a motion to approve. Kathy Nobles seconded. The motion unanimously passed.

The Board considered proposal for appraisal services from Boozer & Company for Salem Highway Widening Phase 2.

Original contracts were completed in 2017 and since that time, TDOT's requirements changed and they will no longer allow the water main to be completely within the roadway. Wisner Company redesigned portions of the water main outside the roadway as well as designed a couple of sewer main relocations because of newly discovered conflicts within Phase II of the project which is set to bid this Spring.

In order to obtain an easement, it is our standard process to appraise the properties and determine a fair market value for the land that will be encumbered by the easement. City Legal assisted staff by requesting a proposal from Boozer & Company for the appraisals. There are 14 properties in which we need easement. The proposal is in the amount of \$2,400 per property or tract and \$350 per hour for additional services as mentioned in the proposal. Therefore, staff anticipates the initial appraisals total to be \$33,600. Staff would like to also receive approval for an additional allowance of \$2,800 (8 hours) to pay for extra services involving potential meetings, revisions to appraisals, etc. for a total task amount of \$36,400.

Staff recommended that the Board recommend to the City Council approval for appraisal services from Boozer & Company.

Brian Kidd made a motion to approve. Kathy Nobles seconded. The motion unanimously passed.

The Board considered Liberty's Station water and sewer connection fees.

Per City Code, the Board is to recommend to City Council the sewer connection fees associated with building applications that do not fit into one of the designated categories as listed on the connection fee spreadsheet.

The fees for the proposed Liberty's Station are proposed to equal one single-family unit equivalent based on the different uses within the building.

The developer has been notified that after 12 to 18 months of water usage when the facility has been fully operational, the Department will audit the actual water and sewer usage and potentially charge additional connection fees if the facility is greater than one single-family unit equivalent.

Staff recommended the Board recommend to City Council approval of the initial water and sewer connection fees of \$1,200 and \$2,550 respectively and to re-evaluate the fees after 12 to 18 months of usage.

Sandra Trail made a motion to approve. John Sant Amour seconded. The motion unanimously passed.

The Board considered proposal for engineering services from ELI for Walter Hill Park stormwater.

Walter Hill Park / Recreation Area is an 11-acre City property adjacent the West Fork Stones River and Highway 231 North. In addition to the dam, the area includes two boat launches, about 65,000 feet of asphalt driveway and 10,000 square feet of parking spaces.

The entrance drive and certain areas of parking need repair. Much of the damage to that pavement has been exacerbated by the way stormwater runoff traverses the property.

The main problem for which ELI services are needed is the engineering of the stormwater management; to figure a solution that is most cost-effective, attractive and that will be long-lasting. Though the concept for stormwater management hasn't been worked out, ELI is estimating the construction costs for the repairs will be about \$260,000. How much of that might eventually be funded by stormwater monies has not been determined.

Staff recommended the Board recommend to City Council approving the work authorization for engineering repairs to pavement and drainage at Walter Hill Park at the lump sum amount of \$24,960. The expense would come from reserves of the stormwater fund.

Sandra Trail made a motion to approve. Kathy Nobles seconded. The motion unanimously passed.

The Board considered 2020 Sanitary Sewer Allocation Report.

The City's Sanitary Sewer Allocation Ordinance enacted on 12/5/2019 requires an annual report of the current sewer system capacity be approved by the Water Resources Board and presented to Council. A draft report was presented at a joint Planning Commission and City Council workshop on January 13, 2021.

The report breaks the City down into 18 watersheds or basins in which MWRD continuously monitors sewage flow throughout the year. The following measures were used to determine the available sanitary sewer connections per basin:

- Current or “as-is” wet weather measured flows through the basins were compared to the maximum conveyance capacity of the basins’ sanitary sewer pipelines (e.g., interceptors).
- Remaining capacity was divided by the average wet weather daily flow a sewer connection consumes in the collection system. A connection is defined as an apartment, townhome, single-family home, commercial establishment, food service establishment or retail shop.
- Previously approved and outstanding sewer connections, referenced as “committed,” since 2015 were deducted from the remaining capacity to determine available capacity.
- \$38.9M in planned sewer system upgrades were incorporated into the “to be” condition to determine an increase in 15% available future connections are available once the upgrades are completed.

The WRRF has the ability to handle the hydraulic flows with the increase in connections (given its own upgrades) but will be marginal in meeting some discharge permit limits into the WFSR. There are still several areas where sewer connections will be constricted. A lot of sewer connection capacity is centralized to the City and will not support extending sewer into the City’s urban growth boundary.

Staff recommended that the Board recommend approval of the 2020 Sanitary Sewer Allocation Report to City Council.

Ron Crabtree made a motion to approve. Kathy Nobles seconded. The motion unanimously passed.

Staff provided the Board MWRD Communications 2020 Year-End Review.

In the fall of 2018, Alandria Barker joined the WRD team, focusing on social media and communications for the department. In addition, she has worked closely with Sharon Seibert on the department’s Community Affairs efforts.

Milestones that have shaped the progress made toward external communication efforts include:

- Customer Service Online Forms Center
- Social Media Management
- Impact Event: Imagine A Day Without Water High School Video Contest

Staff presented and discussed the Water Resources Dashboard Performance for December 2020.

Staff presented the Financial Reports for the year ending December 31, 2020.

There being no further business, the meeting was adjourned.