

GATEWAY

AREA DEVELOPMENT DISTRICT

Water Management Council Meeting

September 25, 2018 | 12:30 PM

Meeting Location:
Gateway Area Development District
110 Lake Park Drive
Morehead, Kentucky 40351

Water Management Council Members

Judge Wallace Johnson, Montgomery County
Fiscal Court
Mayor Edward Bryant, City of Frenchburg
Tony Pence, City of Morehead (Proxy)
Keith Dulen, City of West Liberty (Proxy)
Travis McKinney, City of Jeffersonville

Phil Adkins, Morehead Utility Plant Board
(Proxy)
Chad Linkous, Levee Road Water Association
Kenny Barber, Bath County Water District
Jerry Patrick, Rowan Water, Inc.

Guests

Troy Hogge, Kentucky Engineering Group
Tony Harover, Bell Engineering
Jonathan McCracken, Integrated Engineering

Eddie Mesta, Integrated Engineering
Adam Scott, Cann Tech
Ernest Wrentmore, Multivista

Gateway Area Development District Staff

Emily Jordan

Jocelyn Gross

Meeting Notes

Judge-Executive Wallace Johnson called the meeting to order and welcomed those in attendance. All Water Management Council members and guests introduced themselves and their affiliation.

The first item on the agenda was the review and approval of the June 26, 2018, meeting notes. A motion to approve the minutes was made by Travis McKinney with a second by Mayor Edward Bryant. The motion carried unanimously.

The second item on the agenda was the review and approval of the FY 2019 Water Management Council Meeting Schedule. A motion to approve the meeting schedule was made by Travis McKinney with a second by Kenny Barber. The motion carried unanimously.

The third item on the agenda was the review, discussion, and Council Endorsement of Water/Wastewater Projects. One new project and six project revisions were presented.

SX21175023 – City of West Liberty – Control Panel Replacement and Upgrade Project: The proposed project will replace three aging control panels (Keeton Heights, Brooks Hill, Town House, and McClain Way Control Panel; Index Hill Control Panel; and the Commercial Bank Control Panel), add a quick hook up for a generator at the Main Station, and purchase a portable generator large enough to power the system's 40 HP pumps.

Estimated Project Cost: \$273,000

WX21175009 – City of West Liberty – Water Quality Improvement Project: The proposed project will improve water quality and service throughout West Liberty's water system.

McClain Way residents' potable water is provided via the 1,500,000 gallon elevated Prison Tank. The current configuration of the Prison Tank only allows for the City of West Liberty to utilize the top 1/3 (500,000 gallons) of the tank via an internal standpipe and 8" outlet waterline. When water levels in the tank approach 2/3 full, residents in the McClain Way area of the City experience low water pressure and periodic outages in service.

Water is fed into the bottom of the tank's bowl, through a booster station, via a 10" waterline. The prison meter is tapped and fed from the 10" waterline as well. When the booster station is on, the tank is filled via the bottom of the bowl. When the booster station is off, the prison meter is back fed from the bottom of the tank with fresh potable water.

Given that McClain Way residents are fed via the top 1/3 of the tank, and water enters at the bottom of the tank, water does not circulate and is not often turned over. This can lead to water quality issues for the City's customers.

To remedy the water service and potential water quality issues, the City of West Liberty proposes to construct a new 100,000 gallon steel ground storage tank on Tower Hill Lane to serve the households in the McClain Way area. The proposed tank will connect at Tower Hill Lane via 350 LF of 6" PVC waterline. An 80 GPM, 10 HP pump station will be installed on US 460. The existing West Liberty pressure zones would be modified so that the proposed tank could service the west side of West Liberty, which includes a school, hospital, nursing home, and various businesses. A new 4" meter would be installed to serve the Eastern Kentucky Correctional Complex (EKCC); the existing meter is not reading accurately.

In addition to the new 100,000 gallon steel ground storage tank, 80 GPM duplex pump station, and 4" meter, the City of West Liberty proposes to replace aging, undersized, and problematic waterline in order to improve water quality and service on Glenn Avenue (approximately 1,100 LF), Main Street (approximately 1,798 LF), Court Street (approximately 684 LF), Broadway Street (approximately 88 LF), Rupe Drive (approximately 142 LF), Branch Street (approximately 224 LF), and Davis Lane (approximately 1,490 LF of 6" PVC waterline, which will improve the water pressure, flushing, and fire protection capabilities to approximately 8 households). Furthermore, waterline service will be extended approximately 528 LF from

Branch Street to Glenn Avenue Loop via a proposed 6" PVC waterline. Additionally, six fire hydrants and 21 6" valves will be replaced within the proposed project area.

Estimated Project Cost: \$1,500,000

**Previous Project Cost: \$262,500*

***Change in Scope: Added the construction of a new 100,000 gallon steel ground storage tank on Tower Hill to serve the households in the McClain Way area, which will connect at Tower Hill Lane via 350 LF of 6" PVC waterline; added an 80 GPM, 10 HP pump station on US 460; added line replacements on the following streets: on Glenn Avenue (approximately 1,100 LF), Main Street (approximately 1,798 LF), Court Street (approximately 684 LF), Broadway Street (approximately 88 LF), Rupe Drive (approximately 142 LF), Branch Street (approximately 224 LF), and Davis Lane (approximately 1,490 LF of 6" PVC waterline, which will improve the water pressure, flushing, and fire protection capabilities to approximately 8 households), added a waterline extension (approximately 528 LF) from Branch Street to Glenn Avenue Loop via a proposed 6" PVC waterline, added six fire hydrants and the replacement of 21 6" valves.*

WX21205048 – City of Morehead/Morehead Utility Plant Board – Regional Water Treatment Plant Construction: The proposed project will construct a new 12 million gallons per day (MGD) regional water treatment plant (WTP) to replace Morehead Utility Plant Board's existing 8 MGD WTP.

The existing treatment plant was constructed in 1968 and currently requires continuous maintenance to adequately serve approximately 3,500 customers in and around Morehead and two wholesale customers, Bath County Water District and Rowan Water, Inc. Many of the WTP components are original to the 1968 facility, including the backwash pump. Other components such as the high service pumps, belt filter press, and filter controls date back to the 1980's expansion. Given the age of most of the equipment, repairs must be retrofitted and/or custom-made as replacement parts are no longer readily available. These issues result in repair delays, increased maintenance costs, and potential interruption in water service to customers.

The proposed 12 MGD regional WTP will feature new and improved technologies that have been introduced to the treatment process since the last major expansion of the existing plant in 2002. The plant will employ Actiflo treatment technology with gravity filtration. The new WTP will include all new treatment and administration facilities on a site near the existing WTP, upgraded SCADA/telemetry for the WTP and distribution system sites along with an increased clearwell capacity of 1,800,000 gallons (currently 1,237,000 gallons). The site will be secured through the construction of security fencing to surround the facility.

The new water treatment plant will not contain treatment components to comply with cryptosporidium requirements of the LT2 rule. To the best of our knowledge, the City of West Liberty and Cave Run Water Commission, two other utilities which utilize Cave Run Lake as their water source, have never had a positive raw water cryptosporidium sample.

The project will also include the construction of a new raw water intake structure on Cave Run Lake. The new intake will be a fixed structure and will allow variable intake depths. The existing intake structure is located approximately three miles below the Cave Run Lake dam on the Licking River. Within a three month period, maintenance costs to rebuild one pump, repair pump bases,

and replace wiring at the existing aging water intake totaled approximately \$100,000. The pump rebuild took weeks to complete, and could have resulted in water treatment interruption should one of the two remaining pumps have required repair. The new intake location will provide several benefits including decreased chemical costs, low raw water turbidity, and avoiding debris and grit from being pumped to the WTP. The Cave Run Lake raw water intake structure will include a new 1,000 kW standby diesel generator. The intake structure will feature security fencing to encompass the site. Approximately 6,500 LF of 24" DI pipe will be installed to connect the intake structure to the water treatment plant.

Approximately 4,500 LF of finished waterline will be extended to a new 1,000,000 gallon ground storage tank. The existing US 60 tank will be decommissioned (621,000 gallons) and the new tank will serve as its replacement. The project will increase the net storage volume of the utility by 379,000 gallons once the increased clearwell capacity is obtained and the decommissioning of the US 60 tank. Given the demand for potable water in the area, no issues are anticipated with respect to mixing or turnover for the new tank. To reduce the risk of disinfection by-product (DBP) formation, this issue will be taken into consideration during the design phase and site identification of the storage tank.

Estimated Project Cost: \$28,428,000

*** Change in Scope: Increased clearwell capacity from 1,500,000 gallons to 1,800,000 gallons; increased ground storage tank capacity from 700,000 gallons to 1,000,000 gallons; added 4,500 LF of finished waterline which will be extended to the proposed 1,000,000 gallon ground storage tank.*

WX21173123 – Montgomery County Water District #1 – Montgomery County Water District No. 1 Equipment Project: The proposed project will purchase a variety of needed equipment for Montgomery County Water District #1. There will be no physical construction involved with the project or the need for engineering design work to be completed. All project equipment replacements purchased through the project will be installed by Water District employees. The Water District is applying for USDA RD Loan and Grant Funds in the amount of \$300,000 to complete the proposed project. A rate increase through the Public Service Commission will be sought as part of the project. Project components are listed below:

The proposed project will purchase a valve box locator, waterline and cable locator, chlorine test kit, Dixon pressure data logger, map cabinet for storing distribution maps, and a fireproof file cabinet. A new portable generator will also be purchased to provide backup power during outages.

The proposed project will purchase 735 radio read meters and necessary accessory equipment for installation by the District.

The proposed project will purchase a utility truck and dump trailer.

The proposed project will install approximately 8 new fire hydrants and provide maintenance on existing fire hydrants. The 8 new hydrants will be installed on the following roads: Spencer Road (3), 646 (1), Oldham Road (2), Greenbrier Road (1), and US 460 (1).

Estimated Project Cost: \$300,000

**Previous Project Cost: \$16,500*

***Change in Scope: Added 735 radio read meters and necessary accessory equipment, a utility truck and dump trailer, 8 new fire hydrants and provide maintenance on existing fire hydrants to the project profile.*

SX21175010 – City of West Liberty – City of West Liberty Sewer Line Replacement Project: The proposed project will replace aging sanitary sewer lines on Main Street, Prestonsburg Street, Trimble Street, Court Street, Glenn Avenue, and a portion of Broadway Street to reduce I & I. An I & I Study will also be conducted.

Estimated Project Cost: \$655,000

**Previous Project Cost: \$600,000*

***Change in Scope: Added an I & I Study.*

SX21165019 – City of Frenchburg – US 460 Sewer Line Extension Project: The proposed project will extend sewer line service along US 460, east of the City of Frenchburg. Approximately 5,500 LF of 3” PVC force main will be installed to connect to an existing City of Frenchburg 4” force main. The project will also install a new lift station with an approximate capacity of 60 GPM. The extension of the sewer line service will serve an area of Menifee County that will house a new Menifee County Elementary (K-8) School.

Estimated Project Cost: \$361,688

**Previous Project Cost: \$323,930*

***Change in Scope: Added an additional 1,300 LF of PVC force main, decreased the force main size from 4” to 3”, decreased the approximate capacity of the proposed lift station from 65 GPM to 60 GPM.*

SX21205037 – City of Morehead/Morehead Utility Plant Board – US 60 West and KY 801 SSO Correction Project: The proposed project will conduct improvements throughout sections of Morehead Utility Plant Board's (MUPB) collection system to correct capacity issues and sanitary sewer overflows (SSO). By installing new interceptors between lift stations and increasing the capacity and total dynamic head of several lift stations, the overall capacity in the area will increase and reduce the number of SSO events, the primary goal of this project.

Force Main 5 – Salt Lick to Midland

Approximately 7,900 LF of new 6” PVC force main will be installed from the Salt Lick Fire Station Lift Station (LS-48) to the Trailer Sales Lift Station (LS-46). The proposed 6” line will run in a northeasterly direction, parallel to the existing 4” line. All lift stations from the Salt Lick Fire Department (LS-48) to the Trailer Sales (LS-46) will connect to the proposed 6” line and the existing grinder services will remain on the existing 4” line.

Force Main 2 – Midland to Leo’s Lift Station

Approximately 13,000 LF of proposed 6" PVC force main will tie into the existing force main at the Trailer Sales Lift Station and run parallel to the existing 6" line to Leo's Lift Station. A valve will be inserted on the existing 6" line to restrict flow, forcing flow into the proposed 6" line. Flow from all lift stations from Trailer Sales (LS-46) west and to Leo's Lift Station will travel in the proposed 6" line. All existing grinder services will utilize the existing 6" line.

The Trailer Sales Lift Station will be rehabbed to increase the flow capacity from 204 GPM to 300 GPM. The new pumps installed at the existing lift stations will be equipped with energy efficient VFD devices.

Force Main 1 – Leo's Lift Station to WWTP

Approximately 13,600 LF of new 10" PVC force main will connect Leo's Lift Station (LS-40) to the manhole located at the MUPB WWTP. The proposed 10" line will transmit flow from the west of Leo's Lift Station to the plant. Flow from the Farmers School Lift Station and the Plumbing Supply Lift Station (east of Leo's Lift Station) will also connect into the proposed 10" force main. The existing 8" line will remain in service to transmit flow from 801 North to the interstate and 801 South.

The existing Leo's Lift Station will be demolished and a new lift station will be constructed on the adjacent property. The new lift station will increase the capacity from 550 GPM to 1,000 GPM. The lift station is being moved to an adjacent property because the existing site is not large enough for the proposed lift station. The Leo's Lift Station rehab will also include SCADA and energy efficient VFD devices.

Force Main 3 – KY 801 North to Bullfork Road

Approximately 31,250 LF of new 10" PVC force main will connect the Armory Lift Station (LS-14) to the MUPB WWTP. The new 10" PVC force main will run parallel to the existing 6" force main for 3,700 LF before deviating through the MMRC Industrial Park, running parallel to an existing waterline to Bullfork Road, crossing I 64 under an overpass bridge (via approximately 500 LF of steel casing), and continuing down Bullfork Road before crossing Triplett Creek to the WWTP. Up to 20 new customers will be added on the new 10" force main line. New customers will be added utilizing grinder pump stations. The existing Family Dollar Lift Station will be reconfigured and rehabbed by replacing the existing facility with a new lift station to increase the capacity from 78 GPM to 900 GPM. The Family Dollar Lift Station rehab will also include SCADA and energy efficient VFD devices. Additionally, the Eagle Travel Plaza Lift Station and the River Edge Lift Station will be rehabbed by replacing the existing pumps and increasing the total dynamic head.

The flow on KY 801 North will be split on the existing 6" force main by installing a valve near I-64. North of the valve, the flow will be diverted to the Armory Lift Station and through the proposed 10" line to the WWTP. This will reduce the total volume from KY 801 North that flows into the existing 8" force main near Leo's Lift Station.

***Change in Scope: Force Main 5 – Salt Lick to Midland: Changed LF from 8,000 to 7,900; Force Main 2 – Midland to Leo’s Lift Station: Changed LF from 13,500 to 13,000), removed rehab work to two existing pumps at the Salt Lick Fire Department Lift Station and one pump at the Trailer Sales Lift Station, added rehab work to the Trailer Sales Lift Station to increase the flow capacity from 204 GPM to 300 GPM; Force Main 1 – Leo’s Lift Station to WWTP: Changed LF from 13,000 to 13,600, added demolition of the existing Leo’s Lift Station and the construction of a new lift station with SCADA and energy efficient VFD devices on the adjacent property to increase the capacity from 550 GPM to 1,000 GPM; Force Main 3 – KY 801 North to Bullfork Road: Changed the route from KY 801 North to Moores Flat Road to KY 801 North to Bullfork Road, changed LF from 39,700 to 31,250, removed line running under I-64 (via approximately 500 LF of steel casing), then near Kennedy Court subdivision and along Rice Road, and finally alongside Moores Flat Road (a currently unserved section of the county) before crossing Triplett Creek to the WWTP, removed a proposed 525 GPM lift station complete with SCADA to connect to MUPB’s existing system, added line running parallel to an existing waterline to Bullfork Road, crossing I-64 under an overpass bridge (via approximately 500 LF of steel casing), and continuing down Bullfork Road before crossing Triplett Creek to the WWTP, added the existing Family Dollar Lift Station will be reconfigured and rehabbed by replacing the existing facility with a new lift station (equipped with SCADA and energy efficient VFD devices) to increase the capacity from 78 GPM to 900 GPM, added rehab work to the Eagle Travel Plaza Lift Station and the River Edge Lift Station.*

A motion to accept the new and revised projects was submitted by Mayor Edward Bryant with a second by Travis McKinney. The motion carried unanimously.

The fourth item on the agenda was a presentation by Mr. Ernest Wrentmore with Multivista. Multivista, a project documentation resource, provides customizable documentation types that track the progress of projects from start to finish. Projects can be documented using Multivista’s:

- Photography Services:
 - Progression Shoots:
 - Exterior Progression
 - Interior Progression
 - Exact-Built Shoots:
 - Site-Survey Exact-Built
 - MEP Exact-Built
 - Pre-Slab Exact-Built
 - Elevation Exact-Built
 - Existing Condition Exact-Built
 - Finished Interior Exact-Built
 - “You Name It” Exact-Built
 - Slideshows
- Construction Videos:
 - Building Walkthroughs
 - Equipment Inspection
 - Specialized Equipment Installations

- Facilities Maintenance Instructions
- Training Sessions
- Special Events or Ceremonies
- Construction Webcams:
 - Access 24/7/365
 - Mobile Access
 - Live Streaming
 - HI-DEF Imagery
 - Time Lapse Photo & Video Generator
 - Hosting for Unlimited Users

Additional information regarding Mr. Wrentmore’s presentation can be found on Gateway ADD’s website (Water Management Council Archived Meetings).

In other business, the 2020 Call for Projects will begin on October 3, 2018, and will run through December 14, 2018. The Planning Unit (County) Ranking Meetings will be held at the end of October. A Sustainable Management of Rural and Small Systems Regional Workshop will be held on October 11, 2018, from 8:30 a.m. to 4:30 p.m. at the MCTC – Rowan Campus (400 Rocky Adkins Tech Drive, Morehead, KY 40351). The water and wastewater systems in attendance gave brief updates on projects ongoing in their systems:

City of Frenchburg	● US 460 Sewer Line Extension Project
City of Jeffersonville	● US 460 Road Realignment Waterline Relocation
Levee Road Water Association	● Deficiencies in the system, looking to complete rehab work
Rowan Water, Inc.	● Tank rehab near completion
Morehead Utility Plant Board	● 158 Sewer Project near completion

The next Water Management Council Meeting is scheduled for November 27, 2018, at 1:00 p.m.

With no further business, Judge-Executive Wallace Johnson asked for a motion to adjourn. Travis McKinney motioned that the meeting be adjourned, and Tony Pence seconded that motion. The motion passed unanimously.

These minutes are respectfully submitted by:

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 Emily Jordan Gateway Area Development District Date