

**Minutes**  
**MCRWASA Board of Directors Regular Meeting**  
**March 23, 2017**

The Martin County Regional Water and Sewer Authority (MCRWASA) Board of Directors met for its Regular Meeting on Thursday, March 23, 2017 at 3:00 p.m. in the MCRWASA Water Treatment Plant Building, 1001 Park Street, Williamston, NC.

**ASSEMBLY**

Members present: Chairman David Bone, Vice Chairman Al Chesson, Board Director Hilton Keel, Board Director Julius Patrick, Board Director Tommy Bowen (alternate), and Secretary Marion Thompson.

Board Director Junious Horton (alternate) and Treasurer / Deputy Secretary Cindy Ange were not in attendance.

Others present: Martin County: Water District Supervisor Ed Warren and County Commissioner Dempsey Bond, Jr.; SUEZ: Project Manager Joe Thaxton; Town of Williamston: Water System Operator Gary Barmer.

Chairman Bone called the meeting to order at 3:00 p.m. Chairman Bone requested a moment of silent prayer for Board Director Junious Horton and family, over the loss of his wife, Ms. Annie Mildred Horton.

**AGENDA APPROVAL**

Vice Chairman Chesson made a MOTION to approve the agenda as presented, with a SECOND by Director Keel. The motion was APPROVED unanimously.

**APPROVAL OF MINUTES** – February 23, 2017, Regular Session

Director Keel made a MOTION to approve the minutes as presented, with a SECOND by Vice Chairman Chesson. The motion was APPROVED unanimously.

**PUBLIC COMMENTS** – None

**BUSINESS ITEMS**

**Groundwater Management Associates (GMA) Reporting – MCRWASA Well #1**

There were some isolated complaints about cloudy water shortly after the MCRWASA Well #1 came online, on August 1, 2016. The Martin County staff increased the frequency of flushing of

the Water District #1 lines to address the issue. The MCRWASA Well #1 was taken offline, and currently, the Water District #1 Hassell Well is being used.

At its February 23<sup>rd</sup> meeting, the MCRWASA Board approved Budget Amendment #5, which provided funding for the consultative work of Groundwater Management Associates (GMA) and related expenses concerning a hydrogeological analysis of MCRWASA Well #1.

Engineer Brian Johnson, of The Wooten Company, provided a summary of the report at the meeting. Engineer Johnson stated the X-ray analyses in the report confirmed as suspected that the source of turbidity is from Kaolinite native clay that commonly occurs in the Cape Fear Aquifer. The persistent turbidity is not a result of residual drilling mud.

Mr. Jay Holley, representing GMA via teleconferencing, stated prior to GMA's arrival on February 23, 2017, the well had been idle for several weeks. SUEZ Project Manager Joe Thaxton was on site to assist GMA in conducting four separate pumping events.

The first pumping event, after the well was left idle for about one month, the water was dark orange, and iron oxide from oxidizing the steel well casing and pump column pipe was likely present in addition to clays.

During the second pumping event at 420 gallons per minutes, there was no orange color. The water appeared light milky gray from 3 to 6 minutes.

The third pumping event ran at 320 gallons per minutes. The water appeared light milky gray after 4 to 6 minutes.

The fourth pumping event started at 310 gallons per minutes; then ramped up to 490 gallons per minutes near the end; light milky gray water from 3 to 6 minutes; and then a minor turbidity spike at 25 to 30 minutes, when the pumping rate was increased.

During all four pumping events, the maximum turbidity occurred within 3 to 5 minutes of pumping, and turbidity dropped to below 10 Nephelometric Turbidity Unit (NTU) within 10 minutes of continuous pumping.

Listed below are the four recommendations GMA made as potential corrective actions:

- ***Install a pump check valve.*** The pump check valve would prevent back flushing within the well and it would keep the line shaft bearings lubricated by preventing water from evacuating the pump column. If a check valve was installed, the lube line could remain in place, but MCRWASA could dramatically reduce the flow of chlorinated water into the pump column pipe. Reducing the chlorine level in the column pipe should slow the corrosion of the pump and reduce or eliminate the rusty water production on start-up. (estimated cost approximately \$5,000)

- ***Eliminate the “trickle flow” of chlorinated water or, at a minimum, use a lower concentration or non-chlorinated solution.*** If installation of a check valve was not desired or feasible at this time, then GMA recommended that MCRWASA should minimize the volume of lube line trickle flow and reduce or eliminate the chlorine concentration in the trickle-flow. The use of chlorinated solutions likely oxidized the steel column pipe and well casing, resulting in the orange to rust-colored water at pump start-up after a period of rest. The chlorine in the trickle flow may have also be interacting with the normally anoxic native groundwater in the aquifer outside the screen, thereby causing local chemical reactions that could affect the mobility of native clays in the aquifer system. (No cost)
- ***Set-up an automatic blow-off from the wellhead for 10 minutes.*** If check valve installation and/or elimination of chlorinated water injected into the pump did not eliminate the turbidity, then design and install an automatic blow-off valve system that pumps water to waste for the first 10 minutes following start-up. This modification would allow turbid, milky water to be removed prior to directing the water into the distribution system. The blow-off interval could be reduced, and may be eliminated entirely, if the historical trend of declining turbidity continues with future operation of the well. GMA anticipated that extended use of the well may result in the removal of available kaolinite, thereby eliminating the need for blow-off prior to pumping into the system. (estimated cost approximately \$10,000)
- ***Prevent short-cycling of the well by modifying the pumping schedule to allow the well to be used for longer periods of time.*** This would reduce the “water hammering”: agitation, in addition to the amount of the water wasted during blow-off on a daily basis. This may require adjustment of the automatic level control switches that determine when the well turns on and off.

While the turbidity improves over time, Mr. Holley recommended trying step #1 – install a pump check valve, first, then steps #2 thru #4. The Wooten Company concurred with GMA’s recommendation. Hopefully, changing out the check valve will eliminate the issue altogether, and the remaining steps would not be needed. The cost for the check valve was estimated to be approximately \$5,000. Magette Well, the original installer of the well, was to be consulted about the installation of the check valve.

Director Patrick made the MOTION to proceed with The Wooten Company recommendation to replace the pump check valve on MCRWASA Well #1, with a SECOND by Director Keel. The motion was APPROVED unanimously.

### **Capital Requests by SUEZ**

Chairman Bone recalled SUEZ capital requests were discussed in February. As per the agreement with SUEZ, MCRWASA has an obligation to fund capital improvements; whereas, SUEZ has the responsibility of recommending necessary capital improvements. The agreement defines “capital improvements” as “all costs related to the construction, installation, repair or replacement of any component of the System in excess of \$5,000 per item.” SUEZ provided a

summary of proposed capital projects with a total estimated cost of \$67,500, at the February 23, 2017 meeting.

There was consensus at the February 23, 2017 MCRWASA meeting to pursue the Vulnerability Assessment update through the NC Rural Water Association membership, at no cost. Additionally, there was consensus to remove the interface lockout of the generator at the raw water pump station.

The MCRWASA Board was asked to approve a slate of capital projects for the 2017-18 year in the amount of \$50,000.

Vice Chairman Chesson made the MOTION to adopt the SUEZ updated recommended capital improvements not to exceed \$50,000, with a SECOND by Director Patrick. The motion was APPROVED unanimously.

The MCRWASA Board approved the following slate of capital improvements:

Description of Project	Original Estimated Cost	Status Update	Updated Estimate
SUEZ recommends a new <b>Vulnerability Assessment</b> be completed. The system's vulnerability assessment (VA) has not been updated, nor has it been revised to address the addition of the new plant. ANSI/AWWA G430-09 (First Edition) section 4.4.2.1 states, "The utility shall establish and maintain a schedule for periodic review and update, based on the utility-specific circumstances. The interval shall not exceed five years or may be more frequent, if required by law or regulation." Section 4.4.2.2 states "The utility shall review and update the vulnerability or risk assessment after significant events, such as major facility construction projects, adding new infrastructure through construction or acquisition, acquiring new information about specific threats, or significant attacks or other events that would cause reconsideration of utility risk."	\$3,500	<b>Status:</b> Pursuing through Rural Water Association - at no cost to MCRWASA.	\$ -
The Bailey Pump Station lacks an <b>Intrusion Detection System</b> . This would be linked to SCADA and activated to the call out system to SUEZ. The Guidelines for the Physical Security of Wastewater/Stormwater Utilities ANSI/ASCE/EWRI 57-10 (Appendix A, page 46)	\$4,000		\$4,000
<b>Four Screened Vent Covers</b> are recommended for the Finished Water Clear Well.	\$12,000	<b>Status:</b> reviewing second bid.	\$6,000
The WTP lacks CCTV coverage in selected areas (i.e. Pulsator, Raw Water Pond, sludge tanks, etc.). The Guidelines for the Physical Security of Wastewater/Stormwater Utilities ANSI/ASCE/EWRI 57-10 (Appendix A, page 47) A.11.0 <b>Closed Circuit Television (CCTV) Surveillance</b> " A.11.1 General	\$18,000	<b>Status:</b> Bid from Soundside, the local I/T support provider for MCRWASA, is about the same.	\$18,000

There are a number of concrete step up/down areas throughout the areas outside of the buildings on the plant site. Most of these areas are a change of 1" - 3". <b>Provide edge definition (yellow paint) at each of the step up/down areas of the plant.</b> We also would <b>add 2 steps</b> to Intermediate lift building to prevent falling out of the building.	\$5,000	<b>Status:</b> seeking a revised bid.	\$5,000
<b>Sun shield for Power activated Carbon Control panel</b> to keep excessive heat off the controls. This is used for taste and odor for the water system.	\$4,000	<b>Status:</b> strongly recommended	\$4,000
<b>Add Air condition to the High Service VFD's</b> which are in a high humidity and high temperature area of the building. These are 100,000 each VFD's and provide the main water flow to the 400,000 water tank.	\$10,000	<b>Status:</b> strongly recommended	\$10,000
<b>Interface lockout of Generator at raw water</b> with a larger UPS for the controls - if during a very bad weather or flooding the generator is not needed, we don't waste diesel.	\$11,000	<b>Status:</b> consensus was to not fund this item.	\$ -
<b>Total Capital Budget Needs</b>	<b>\$67,500</b>		<b>\$47,000</b>

## 2017-18 Draft Budget

Treasurer/Finance Officer Cindy Ange distributed two copies of the MCRWASA FY 2017-18 Draft Budgets to the Board of Directors at the February 23, 2017 meeting. One budget was prepared without the C12/Chloramination adjustment; the other with all adjustments.

A total of 2.1 million gallons of water was used for initial and periodic testing to set chlorine and ammonia dosages to maintain adequately chloraminated water from Ed's Grocery Well. All water was diverted to an on-site fire hydrant prior to distribution entry point with the distribution valve closed, so no water went to distribution.

At the May 26, 2016 meeting, the MCRWASA Board of Directors approved a policy of adjusting off of the final annual bill the volume of water used for flushing for water quality reasons, based on the premise that anytime MCRWASA/SUEZ flushed water for water quality reasons, Member Entities shall not be charged. (The gallons of water in question were not flushed by MCRWASA/SUEZ.)

Water District Manager Warren suggested reconsideration on the motion and action taken to address the scenario regarding when flushing was not done by the MCRWASA Water Treatment Plant but flushing was needed for water quality reasons, and the water never reached the distribution system. However, based on the SUEZ computer formula, this water volume was still being charged.

Director Patrick stated unforeseen situations occur with any a new system, referring to this scenario as one of those instances. Director Patrick considered this to be an operational expense for the safety of the public.

SUEZ Project Manager Thaxton explained the Ed's Grocery Well needed to be maintained ready for consumption as an emergency backup source or to address peak demand periods.

Water District Manager Warren stated to meet state requirements for the safety of the water customers, the water coming from the Ed's Grocery Well in Water District #2 needed to be flushed before entering into the distribution system. Even though the water was being flushed on the ground, it goes through the chargeable meters. Water District Manager Ed Warren continued to advocate for the amount being subtracted from the average daily demand. Water District Manager Warren stated he believed the number of gallons used for flushing would get smaller each year, as the system became more mechanical.

After a lengthy discussion, Vice Chairman Chesson made the MOTION to move forward with the present proposed FY 2017-18 MCRWASA Budget without the C12/Chlorination adjustment in the amount of \$1,802,067, with a SECOND by Director Keel. Directors Chesson and Keel voted FOR the motion. Directors Bone and Patrick voted AGAINST the motion. The motion ended in a 2 to 2 tie, less than a majority. Thus, the motion approved on May 26, 2016 on the flushing policy remains unchanged.

Chairman Bone stated being County Manager and MCRWASA Chairman/Board Director, this puts him in a challenging position, reiterating the need to be cooperative, good, equal and fair partners. Chairman Bone stated he voted no, on behalf of the Water District #2 customers, even though he would like to have a consensus and have more thought on this matter.

Vice Chairman Chesson agreed with the need to be cooperative, good, equal and fair partners. However, Town Commissioner Chesson stated he was wearing his Town of Williamston hat for the ones he was elected to represent. Vice Chairman Chesson added he made the motion on behalf of the 2,200 residents of the Town of Williamston, Williamston Yarn Mills (Parkdale) and car washes, who have complained about rates. Vice Chairman Chesson added knowing this was a controversial issue, the matter had been discussed with the Williamston Town Council, and the instructions were to protect the customers.

## **INFORMATIONAL UPDATES**

### **Monthly Report from SUEZ**

#### *SUEZ New Employee*

SUEZ Project Manager Thaxton informed the Board newly hired Senior O & M Technician Eddie Bristow, of South Carolina, was scheduled to start his employment with SUEZ/MCRWASA on Monday, March 27, 2017, and would be introduced at the April 27, 2017 MCRWASA Board meeting. Although licensed in South Carolina, testing would be required to obtain a North Carolina Surface A and a Physical Chemical II license.

Booster Pump Station Update

SUEZ Project Manager Thaxton reported official approval had been received for online implementation for the Booster Pump Station. Plans are to go online April 6, 2017. Custom Controls should install the repeater next week. A monthly report of Booster Pump Station operations must be submitted, as per state requirements.

Warranty List Items Update

SUEZ Project Manager Thaxton stated as the repairs for warranty list item are being completed, a list of all warranty items was being created and maintained, with the expiration dates being noted for future reference.

**ADJOURNMENT**

With no further business to discuss, Chairman Bone adjourned the meeting around 4:47 p.m. The next regular meeting for the MCRWASA would be Thursday, April 27, 2017 at 3:00 p.m.

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David Bone, Chairman

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Marion B. Thompson, NCCCC  
MCRWASA Secretary