

Town of Montville Water & Sewer Commission
REGULAR MEETING MINUTES
April 3, 2023-- 6:00 PM
Town Council Chambers – Town Hall

1. Water and Sewer Commission

a. Call to Order

Chairman Longton called the regular meeting of the Water and Sewer Commission to order at 6:01 p.m.

b. Pledge of Allegiance

All stood and pledged the flag.

c. Roll Call

Present were Commissioners Chuck Longton, Town Councilor Alfred Mandler, Brian Quinn, and Anthony Siragusa. Commissioner Kevin Lathrop was absent. A quorum was present.

Also present were Superintendent Derek Albertson, and Wright-Pierce Professional Engineers Barry Parfitt and Mariusz Jedrychowski. Mayor McDaniel was absent from the meeting.

d. Alterations to the Agenda -- None

e. To consider and act on a motion to approve the Regular Meeting Minutes of March 6, 2023
Motion by Commissioner Siragusa; seconded by Commissioner Mandler to approve the Regular Meeting Minutes of March 6, 2023. Discussion: none. Voice vote: 3-0-1; Commissioner Siragusa abstained. Motion carried.

f. Communications pertaining specifically to matters which concern the Commission --
None

g. Remarks from the Public Regarding Items on the Agenda with a three-minute limit
Chairman Longton asked three (3) times for remarks from the public. There were none.

h. Report from Operations/Administration Division

Superintendent Albertson submitted an Operations/Administrative Report for March 2023, as follows:

1.0 Compliance/Process

1.1 Water Pollution Control Facility

The Montville Water Pollution Control Facility (WPCF) met required state and federal standards for effluent discharged to the Thames River. Please note that municipal wastewater facilities are also referred to as a Water Resource Recovery Facility (WRRF) or Wastewater Treatment Plant (WWTP) depending on the governmental agency nomenclature. Extreme temperature fluctuations were observed this month which presented some process challenges. No local or formal complaints were received regarding the collection system or the WPCF.

Average daily influent (average) flow to the WPCF was approximately 2.3 mgd with a total treatment volume of 74 mg for the month. Influent flows have slowly decreased as compared to January. The significant snow event (February 28) did not interfere with operations.

Each day, approximately 0.80 mg of the treated effluent was recycled (sold) Rand-Whitney Container Board (RWCB). RWCB had a scheduled outage on February 8. The startup following an outage can cause some process challenges (high wastewater loading/recycle water demand).

Process control was generally good with high removal efficiencies for BOD₅ and TSS. As is typical of the spring months (and the recent, unusual temperature fluctuations) BOD removal was a challenge; the daily maximum level (45 mg/l) was exceeded in the effluent on February 16 (46

mg/l). Total Nitrogen (TN) loading was discharged in the treated effluent well below the permit (loading) level with high removal efficiency. Waste activated sludge (WAS) was over 5%.

1.2 Water Supply

The Montville Water Supply (WS) met required state and federal standards.

1.3 Water Usage Event

On January 11 at approximately 5:45 a.m. a sudden increase (80 to 90 gpm) of flow was noted on hydrographs (SCADA system at Peter Road meter station). The water loss control program was initiated. Water loss is either through leaks and/or unauthorized consumption.

The critical first step of the water control program was to investigate the potential for leaks. Then, conduct a water audit. The third step is the intervention process which addresses the findings of the water audit through implementation of controls to reduce or eliminate water losses. The evaluation (final) step uses performance indicators to determine the success of the chosen intervention actions.

No pressure drop was encountered so no “boil water” notice was made. No reports of pressure loss or cloudy water were received from ratepayers. Further physical examination (i.e., road surface, catch basins, hydrants) was conducted of the target area (for potential usage increase or leakage) which included areas south of the 1401 PS and east of the Maple PS to the Peter Road meter.

Hydrophones were employed by WPCA and GU staff on two days initially to identify leaks in the system. Two different companies were contracted (Conn Professional Services and Upstate Leak Detection) to listen to the supply system during the day (and night) time hours. All hydrants were surveyed. Ultrasonic leak detection is an industry standard method of pipeline leak detection that uses a directional hydrophone that 'listens' for ultrasounds generated by leaking fluids passing through an orifice under pressure. No leaks were detected.

Two-day and two four-day water audits (purchased versus sold water) were completed. No significant increase in “lost water” was found to indicate a release, but rather some unaccounted water was noted. Several meters were found to be inactive and were turned on. Additionally, several erroneous readings were encountered for residential and light commercial buildings. As part of the Montville Water Supply’s diversion permit (from GU), the CTDPH requires an annual audit and testing to confirm readings supplied as related to usage/lost water. All of the aforementioned work supports the diversion permit filings.

As part of the intervention process, a meter review program will begin to identify aging or failing meters for replacement. Additionally, technical support will be sought from the Ti Sales (metering supply company) to obtain new meters (when required) as well as new software for better (more accurate) meter readings. Additional water audits will be conducted every week and then each month to confirm improvements in readings and overall understanding of the supply system. Finally, a review of changes will be made to evaluate their effectiveness.

2.0 Staff

2.1 Health and Safety

No injuries, grievances or job-related concerns were reported for staff. Tier II and OSHA inspections were conducted of the WPCF on February 14. Tier II reporting was supplied to the Fire Marshal. The annual Fire Marshal inspection was completed on February 15. Emergency lighting, eyewash stations and signage were improved. The SPCCC Plan was reviewed and updated on February 16 with subsequent inspections.

2.2 Training

Staff continued to receive training to (state or professional organization sponsored) meet CTDEEP and CTDPH requirements for (wastewater /water certification) training credits. Training is also conducted to keep employees safe and to comply with OSHA’s hazard communication standard. Additionally, the Town sponsored cybersecurity training was completed in February. The four most common violations are the lack of a written program, training, lack of SDS, and labeling.

TSYS (Total System Services, LLC)/Global Payments (credit card) requires compliance with the Payment Card Industry Data Security Standard (PCI DSS) which was completed in February.

One-third of the water workforce becomes eligible to retire in the next ten years. This industry faces a shortage of professionals qualified to perform mission-critical jobs of operating and maintaining facilities and infrastructure. Additionally, the loss of institutional knowledge is substantial. The Superintendent is still working with area schools to encourage students to be career-ready with employability skills and acquisition of industry credentials. The *Assistant Superintendent* of Montville Schools (Dr. Dianne Vumback) and *Head of School* (Mark Fader) for The Williams School have both planned for a plant visit by environmental science classes. The Williams School AP Environmental class visited the plant on February 28. Eventually, it is the goal to establish a high school internship program with area schools.

3.0 Equipment

3.1 WPCF/Collection System

Routine maintenance was performed at WPCF. All pump stations were inspected and cleaned. Following the extreme cold event (February 3 and 4), a review of heating systems for all equipment/interior spaces was reviewed; an additional heater was installed at the Golden Road pump station. A GBT belt replacement was conducted on February 8. During an inspection, the support system for water/sewer pipes was found to be corroded. An engineering inspection was completed on February 16 to determine remedy options. Continual reviews of the Town operated Grinder Pump Locations are conducted to ensure the “sunset clause” is adhered to.

4.0 Projects

A summary of existing projects is provided in an attached project summary table.

4.1 WPCF/Collection System/Water Supply

A cybersecurity review was conducted for the two risks (SCADA and Windows 10). Additionally, a shift has begun from cybersecurity to cyber resilience. The WPCF and collections system continue to implement automation, requiring increased vigilance against bad actors looking to interrupt utility service. Executive Order No. 13636 (Improving Critical Infrastructure for Cybersecurity) was initiated in 2013 and improved by the NIST Cybersecurity Framework in 2018. No network exists at the WPCF so no virus spread can occur between workstations. Double fire-walls exist to prevent third-party intrusion.

Woodard & Curran personnel were met on February 15 to review/enhance their designs for the proposed d-box (as part of the engineering study). As part of the FY 2023 CIP, a line drawing (for electricity) in the blower building will be completed.

The SBR-1 seal replacement procedure was outlined by staff and the Engineer on February 17 and 22. The replacement work was completed on March 2 and is scheduled to be paid for under the existing grant.

A request was made to the CTDEEP to approve an aerobic digester at the site (SBR conversion). This has shown to lower the waste sludge volumes considerably. The trucking and disposal (incineration) of thickened (waste) sludge represents the bulk of the cost of running their operation (outside energy). These costs can range anywhere from 40-60% of total plant costs, depending on the size of the plant and initial wastewater characteristics.

CCTV inspections enable observation of the condition of pipes firsthand and address defects that could result in costly repairs in the future. Targeted inspections of some of the 1,650 manholes in the collection system were made.

Municipalities are using Geographic Information Systems (GIS) to support better decision making and improve task efficiencies. Often with a municipal GIS, the initial implementation includes a focus on the digital parcel layer. This is typically the first layer to be created and it sets the foundation for using GIS across many different departments. The Superintendent met with the Town GIS contractor (CAI Technologies, Littleton, NH) four years ago to meet federal/state controls for the water and sewer systems. Recent improvements in the water supply layer now shows account numbers and other ratepayer data.

Cross-country clearing (FY 2022 CIP) was completed in February with the final walkthrough inspection on February 16. The water and sewer pipes supported beneath the bridge extending over Stoney Brook (adjacent to Police Station) were inspected twice during the month. The supports appear to be failing due to corrosion. Cor Tec (subcontractor with expertise in this type of situation requiring remedy) was contacted for a quote to repair the supports.

Titan Energy submitted an application for the incentive program and will be hearing about the status in March 2023. If favorable, pre-meter savings will be made with the use of solar panels placed at the WPCF.

The Superintendent completed the 2023 *CBYD Annual Member Registration* for the utility.

In January, the WPCA Engineer received news that funding is available from the CTDPH Revolving Fund (ARPA funded) for the Cook Water replacement project. The WPCA and TC will approve the construction of the new water tower as well as the funding options. Wright-Pierce engineers were met on January 10 to review the timeline for the potential Cook Water Tower replacement, funding and bidding options. Formal approval for the specifications was received on January 24. The Pre-Bid meeting was held on February 16.

4.2 Regulatory Oversight

No regulatory oversight or action is ongoing for the WPCA. No existing *Consent Decrees* or *Consent Orders* currently exist. No complaints have been received from the appropriate regulatory bodies.

Permit renewal activities will begin in April 2024; as stipulated, a permit renewal package must be formally submitted to the CTDEEP six months prior to the federal NPDES permit expiration date (October 31, 2024). As part of the permit support, the Superintendent and Lab Director conducted an inventory of equipment and disposable items.

Call Before You Dig (CBYD) released a new version of their Design & Survey tool this week. The Design and Survey tool is intended to facilitate communication between excavators or project planners/engineers and underground utility owners. The requester or excavator is responsible for following up with each utility owner directly for planning after submitting their design request online.

5.0 Development

Several inquiries for potential development projects have been presented to the WPCA for review/comment. Discussions with P & Z included properties at 67 Kitemaug Road and 303 Norwich-New London Turnpike (CT Route 32). The environmental professional for the Oxoboxo Lofts development requested confirmation of connection(s) for properties near that property.

6.0 Financial

The WPCA operates with an *Enterprise Fund* which is operated like a private sector business account except with a target zero-balance ending. In other words, it is understood that a utility is a customer service business. The FY 2023 WPCA Sewer and Water Budgets began on July 1.

Operating expenditures continue to climb; rising 15 percent in the last ten years. Operating costs are proposed to climb higher still with rising capital (maintenance) costs and institutional knowledge loss; the next decade will likely show a 60% rise in operating costs with labor and depreciation projected to be more than half. The FY 2023-2024 budgets/CIP plans adequately responds to the needs of the utility's operations as well as assets. Traditional approaches to infrastructure management included "fix it when it breaks" have been abandoned because it misses an opportunity to repair or addresses needs at a lower cost. The fund balance offers support for capital improvement and budget balance.

CLA (Clifton Larson Allen LLP, Town Auditor) have cleared their technical review process and the financials were issued on February 28 along with a management representation letter. No WPCA specific findings/concerns were identified.

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A concern has been raised about SB 916 - *An Act Concerning Foreclosure, Assignment and Other Enforcement Actions For Unpaid Sewer Assessments and Other Fees And Charges*. This is a newer version of a bill that has been proposed over the last couple of years; a municipality cannot assign any liens or begin the foreclosure process on a resident unless assessment fees, connection charges, or sewer user fees exceed a \$4000 threshold. Older versions of this bill indicated a \$10,000 threshold. CTWEA and other professional organizations have stood against this bill in the past, it strips away at the only leverage a municipality has on collecting on delinquent accounts.

6.1 Accounts Review

Asset management is the process for maintaining a desired level of customer service at the appropriate cost and lowering asset risk. Current rates (and ancillary fees) appear to be adequate at this time to cover costs for water and wastewater activities. No use of the “fund balance” (revenue) has been employed in the last two years to balance the budgets. FY Budgets proposed for sewer and water show a modest increase which is considerably less than the current CPI.

Synagro is putting together a price for our residual solids transport-and-disposal (that incorporates beneficial reuse). Additionally, the potential use of an aerobic digester onsite will lower costs for solids.

Next fiscal year, the Superintendent will employ the Engineer to conduct a rate survey. Of note, septic receiving has been encouraged with Calendar Year total revenue of approximately \$300,000 (up 13% from 2022). RWCB billing was observed to have increased approximately 17%.

6.2 Assets

The WPCA will enhance its understanding of the WPCF and Water Supply assets with the permanent/inspection attributes positioned on the water and sewer GIS platforms. As previously noted, the cost of depreciation is provided in utility spread sheets, but it is not an “out-of-pocket” expense.

6.3 Grants/Funding

Some current wastewater projects are funded by State funds including two bonds and one grant (CTDEEP \$5 million *Grant-in-Aid for Sewage Treatment Facility Infrastructure Improvements and Upgrades at the Montville WPTF- State Grant Agreement 2017-170491*, approved via March 2014 Town of Montville Resolution No. 2014-25). We received a total to date of \$3,746,856.19. The bonds were for infrastructure improvements within the plant including the new chlorine system, new recycling pumps, seal replacement at SBR-1 decanter, and grit removal system. Additionally, the aeration diffuser systems for SBR-1, 2, 3, 5 and 6 will be replaced. The Mayor requested an extension for the Grant. A review of the approximately \$4.5 million in grant monies (slated for the WPCF) indicated adequate funding for the proposed projects.

Based on a review of the WPCA’s *Eligibility Application* the CTDPH DWS had determined that the Cook Water Tower replacement project was ready to proceed and that DWSRF funding will be available.

The DWSRF Program is now accepting Eligibility Applications from eligible public water systems seeking funding for projects during SFY 2024. Monies may be available to Montville WS for the water extension in the vicinity of the fire location.

6.4 Energy

Overall, there has been a continued decrease in plant energy (kWh) demand observed associated with the lower (and more consistent) DO settings in the process tanks and the new (more efficient) turbo blowers and air diffusers. On average, monthly energy bills showed a 20% drop in overall plant demand. An Eversource (Most Beneficial Rate) Review showed that the billing rate should be changed from Rate 30 to Rate 30A resulting in \$100 per month savings.

Electrical energy is supplied to the plant by the Doosan Fuel Cell America, Inc. fuel cell (onsite generation), Eversource (transmission) and *First Point Power* (generation). The power generation was formerly supplied by *Constellation Energy*. Approximately 85% of the energy demand was supplied from the fuel cell.

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The Doosan *PureCell Model 400* Fuel Cell unit began producing power onsite in June 2020 resulting in a large drop in grid power demand. Of note, the Doosan Corporation formally changed its legal entity name to HyAxiom, Inc. (effective February 24). The HyAxiom 460 kW fuel cell ran close to perfection (96%) in 2022. The unit is the best performing in Connecticut. The onsite generation has led to significant savings by reducing the transmission costs because most of the power used is generated onsite.

Superintendent Albertson referenced key points from his report specifically high BOD levels in influent that created an imbalance of carbon, nitrogen and phosphorus that was corrected as well as nitrogen credits received and the Plant cited as one of the best in the State. In addition, FY 2023-2024 budgets will be reported to the Town Council for the water supply and a meeting was held with the HR Director regarding a Plant succession plan as three (3) operators will be lost within two (2) years so that staff will be available to take their places. Also reported on was the \$10 million in the bank for the sewer system and a clean annual audit for the third year in a row. The Superintendent responded to questions by Commissioner Siragusa regarding a meeting with a property owner as to whether a flow test was done on the sprinkler system and the hiring of an engineer to conduct a study concerning a rate increase that will be discussed later in the meeting. He also responded to Chairman Longton on the history of a high concentration of BOD identified by an alert from Rand-Whitney that will exceed its permit level and the adding of urea, a compound that increases nitrogen and is not costly to minimize the level. How the State will address this violation is not known. The Attorney will be sought for advice as to potential costs to Rand-Whitney associated with this issue. No feedback has been received from D & W Transport and the revenue from lost water is approximately 27%.

i. Report from Mayor.

Mayor McDaniel was absent from the meeting.

j. Report from Engineers

Superintendent Albertson reported that he included the summary of projects in his report--some are ongoing, but the vast majority of the grant ones are complete. The decanter for SBR 1 failed; and concrete is a concern at SBR 4.

k. Old Business -- *None*

l. New Business -- *None*

m. Reports/Referral from Planning & Zoning

Commissioner Siragusa reported on the water extension for the project across the street from the Town Hall that has not yet been supplied per Superintendent Albertson.

Motion by Commissioner Mandler; seconded by Commissioner Quinn for discussion by the Commission on a potential rate increase added to the Agenda as Item C.2 under the Water Commission. Discussion: none. Voice vote, 4-0, all in favor. Motion carried.

II. Water Commission

a. Report from Engineers

Superintendent Albertson commented on the \$1 million in funds in the bank and provided an update on the detection process for water loss as he discussed at the last Commission meeting and outlined in his monthly report stating every meter and every square inch of the water system had been reviewed. Per his explanation and questions by the Commission, the Superintendent reported PE Mariusz Jedrychowski went to the DOC explaining its having their water tanks and boilers on January 11 the date when the baseline lowered. Acoustic studies found no obvious leaks although there is some unmetered pipe; a conversation was had with the Fire Marshal and the Deputy Fire Marshal who determined there were no open lines of sprinklers for which the last audit rated at 22% - 26 % and actually is down 12% overall. Water billing is ahead; all bypasses and meters have been tested/recalibrated; a meeting was held with a software company for a review of the

meter at the DOC that showed transitions from low to high. The next step will involve a meeting with an acoustics group that uses a correlator to detect leaks under water. The meter at Groton Utilities and every other system meter including the one (1) at Peter Avenue is fine. Also considered was the possibility of a leak before the meter, as it was noted leaks go faster, not slow down, nor has there been a significant loss of pressure. After the DOC incident, there was extreme cold weather and the Wright-Pierce PEs responded to calls from the Superintendent and provided their expertise.

PE Jedrychowski complemented the Plant staff and Superintendent Albertson on the efforts thus far concerning the water leak and reported that the water mains were installed from 1980 – 1985 with no issue of breaks and are solid and fairly new. The Superintendent’s hire of a metering company and converting the data from the SCADA system to the accounting system and the diligence of operators John Lily and Kevin to find leaks was noted although none were found. An overview of the detection method for a water leak at the DOC and a description of its water system was explained with a determination made that the DOC is not suspect. Comparison of water usage by clients was researched but no irregularities were found. Closing off gate valves was deemed a last resort as it would need to be done at night, a time of low usage, to isolate the flow but not shut down the mains. It was explained there are not enough meters on the main lines, only on the service connection, so the DOC can be isolated. Flow at the casino is well but not at the levels they were prior to covid even with recent increased attendance. No feedback has been received from D & W Transport and the revenue from lost water is approximately 26% and 10% in lost revenue.

b. Old Business -- *None*

c. New Business

1. To Consider and Act on the Award of the Cook Hill Tank Replacement Project and forward the award to the Town Council for approval.

THE TOWN OF MONTVILLE WATER AND SEWER COMMISSION HEREBY RESOLVES to preliminarily award the Cook Hill Tank Replacement Project to Suchocki and Son, Inc. in the amount of \$2,040,250 and forward the award to the Town Council for final approval contingent upon CTDPH approval. Final award will be on Town Council approval.

Motion – Discussion – Roll Call Vote

PE Barry Parfitt updated the Commission on the bids for water tank replacement received on March 13, 2023, that were reviewed and the bid awarded to Suchocki & Son, the low bidder. The company was vetted—references sought and called and a financial inquiry completed. A recommendation letter was assembled to Superintendent Albertson in addition to a PE summary of their assessment. Documents compiled for DPH were signed by the Superintendent and were sent off for their review of the \$2,040,250 project and the bid calculation was included with the documents sent to the Superintendent.

SAR-No. 2023-11 THE TOWN OF MONTVILLE WATER AND SEWER COMMISSION HEREBY RESOLVES to preliminarily award the Cook Hill Tank Replacement Project to Suchocki and Son, Inc. in the amount of \$2,040,250 and forward the award to the Town Council for final approval contingent upon CTDPH approval. Final award will be on Town Council approval. **Motion** by Commissioner Quinn; seconded by Commissioner Siragusa. Discussion: The project will be funded through DPH and a revolving fund of ARPA monies. Superintendent Albertson explained the two (2) scenarios for payment of the tank—1) the total cost of the project with no money down for 20 years at 2% interest or 2) a revolving fund contract with 50% from DPH that includes engineering costs of \$400,000 that includes the cost of inspection. PE Jedrychowski explained an interim loan agreement with the State would include a 5% contingency if not used with no prepayment penalty. Payments would begin six (6) months after completion and no payments will be requested until the final loan is signed. The request is for the State to approve the project based on \$2,090,000 less the \$400,000 for engineering fees. Since the Finance Committee meets tomorrow, Chairman Longton requested assurance that copies of the bid

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documents would be available for the meeting attendees. For clarification, the \$400,000 includes planning, design, and construction engineering costs. The bidder, Suchocki and Son, Inc., has a history of completing projects on time with no cost overruns and were highly recommended per the in depth evaluation by Wright-Pierce. A penalty clause is included in the contract. Roll Call vote: *In favor*: Commissioner Longton, Mandler, Quinn and Siragusa. *Opposed*: none. 4-0 vote. Motion carried.

2. Discussion by the Commission on a potential water rate increase.

Superintendent Albertson reported Groton Utilities had a public hearing on a rate increase on March 29, 2023. Their last rate hike was in October 2021 of 5% that is 1% compared to the rate now. Water is expensive and the rate needs to be raised. The rate will help pay bills, finance the loan, and the water we currently have. There are 450 residential accounts charged \$45 a month at a rate of 6.11 cents per gallon. An engineering study would evaluate where costs stands at this time in this competitive market so rates do not need to be increased again in two (2) years. A history of rate increases were mentioned and the effect of rising energy costs and the current rate that is disproportionately low at \$45 per month. A questioned was asked as to a comparison in-house with SCWA with respect to the cost of loan as well as one regarding hydro flushing for which the cost will be checked before increasing the rate. Assurance was given by Superintendent Albertson that figures would be available and completion of an internal rate study done prior to the next Commission meeting. A Town Council public hearing regarding a rate increase would be a priority.

d. Remarks from the Public

Chairman Longton asked three (3) times for remarks from the public. There were none.

e. Remarks from Commission Members

Commissioner Quinn remarked he wants to see posted the vacant Administrator position and steps taken so the Commission is not in another situation. Commissioner Mandler questioned the Superintendent regarding a bill; Commissioner Siragusa responded costs cannot exceed a line item.

f. Adjournment

Motion by Commissioner Siragusa; seconded by Commissioner Mandler to adjourn the meeting at 7:10 p.m. Discussion: one. Voice vote: 4-0 , all in favor. Meeting adjourned.

Respectfully submitted by,

Gloria J. Gathers
Recording Secretary, Town of Montville

**AN AUDIO RECORDING OF THE MEETING IS AVAILABLE ON THE TOWN OF
MONTVILLE WEBSITE.**