

JANUARY 21, 2021

A REGULARLY SCHEDULED MEETING OF THE BOARD OF DIRECTORS OF THE UPPER OCCOQUAN SERVICE AUTHORITY WAS HELD JANUARY 21, 2021 IN THE OPERATIONS BUILDING LOCATED AT 14631 COMPTON ROAD, CENTREVILLE, VIRGINIA 20121.

A. Calling of the Meeting to Order

1. The Board of Directors of the Upper Occoquan Service Authority convened its Regularly Scheduled Meeting at 4:00 P.M.

Directors Present:

Tony H. Dawood	Shahram Mohsenin
Dean E. Dickey	Jeanette M. Rishell
Gary L. Fields	Glenn Simpson
Michael McGrath	Nancy Vehrs

Directors Absent:

None

Others Present:

UOSA Staff:	Charles P. Boepple
	Robert W. Angelotti
	Brian L. Owsenek
	Kevin D. Wolfe
	June A. Mahoney

Legal Counsel:	Sally Ann Hostetler
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Engineer:	Don Forgacs, CH2M/Jacobs
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B. Approval of Minutes

1. Chairman Mohsenin referenced the Board Minutes dated November 19, 2020 and asked the Board for their approval.

MOTION: Director Rishell moved to approve the minutes of the November 19, 2020 Board meeting.

SECOND: Director Dickey

ABSTAINED: Director Dawood

VOTE: Unanimous

C. Financial Reports

1. Chairman Mohsenin referenced staff memorandum, *November 2020 and December 2020 Financial Summaries* (filed as Exhibit A and B).
 - a. Chairman Mohsenin requested that staff report on the more recent information. Mr. Wolfe stated that the December Financial Summary reflected lower O&M expenses than planned primarily due to lower

requirements for Facilities Maintenance and budget timing differences for Process Chemical and Miscellaneous expenses. Flows were 12.9 percent higher than planned for the month. Year-to-date FY-21 expenses through December were lower than budget by approximately \$1 million, primarily due to lower Facilities Maintenance, Miscellaneous and Administration expenses, and budget timing differences for Contract Services and Process Chemicals. Year-to-date flows were 4.4 percent higher than planned.

- b. In response to Director McGrath, Mr. Wolfe explained that the negative amount shown under Miscellaneous was from the revenue received from UOSA's septage receiving facility.

MOTION: Director Vehrs moved to receive and file the December 2020 Financial Summary.

SECOND: Director Simpson

VOTE: Unanimous

D. FY-21 Second Quarter Plant Performance Report

- 1. Chairman Mohsenin referenced staff memorandum, *FY-21 Second Quarter Plant Performance Report* (filed as Exhibit C).

- a. Mr. Owsenek reported that performance during the quarter was excellent as the plant continues to perform in an outstanding fashion. He announced as a result of staff's hard work, UOSA will become eligible to apply for and receive the NACWA16 Platinum Peak Performance Award during this calendar year.

- b. Chairman Mohsenin congratulated the staff for this achievement.

MOTION: Director McGrath moved to receive and file the FY-21 Second Quarter Plant Performance Report.

SECOND: Director Vehrs

VOTE: Unanimous

E. Jurisdictional Constituent Loading

- 1. Chairman Mohsenin referenced staff memorandum, *Jurisdictional Constituent Loading* (filed as Exhibit D).

- a. Mr. Boepple stated at the November meeting, the Board requested staff to provide the methodology used to determine the individual jurisdictional constituent loadings delivered to the plant. Along with the memo, there were updated slides (filed as Exhibit E) which can be found at Member's seats. Ms. Mishelle Noble-Blair was asked to present the slides and explain the complex calculation process.

- b. Ms. Noble-Blair presented helpful diagrams and further examples that explained the information that was summarized in the memo.

- c. In response to some questions from the Board, Ms. Noble-Blair stated through the UOSA's Pretreatment Program, Micron reports their daily loadings in the their self-monitoring report submitted each month. She also stated that the septage haulers are required to provide manifests that track the originating address and volume of each load that is brought to UOSA's Septage Receiving Facility (SRF).

- d. In response to Director Fields, Ms. Noble-Blair stated that the process to calculate the background data can be somewhat complex, especially when staff must remove the flow and loading contributions from Micron and the SRF for each day and then include them back in for only those jurisdictions they came from.
- e. Mr. Boepple reminded the Board that the City of Manassas was anticipating the exceedance of Ammonia as a result of Micron's contribution and entered into an Ammonia Cost Agreement in 2019 with UOSA. The Agreement describes how the City of Manassas would be responsible for the energy costs and methanol costs, as well as the O&M costs associated with their exceedance. He said that this Agreement also has a clause that would allow any other jurisdiction, that may have similar exceedances, the same responsibility for similar costs should they exceed that parameter.
- f. Mr. Boepple said that while a real world example of a 24,000 pounds exceedance may appear to be a lot, it equates to approximately \$1,700 in operation costs.
- g. In response to Director Simpson, Ms. Noble-Blair said that, generally speaking, domestic wastewater has the same characteristics no matter which jurisdiction it is coming from. This is the reason staff removes the Micron and SRF data to obtain the background wastewater data that represents UOSA's domestic wastewater profile. This process is the same for other constituents, not just Ammonia.
- h. In response to Director Dawood, Ms. Noble-Blair confirmed that UOSA's Pretreatment Program is used to evaluate potential users within its service area. She said that there are no industrial pretreatment permits for data centers in Prince William County at this time, although she stated that this can depend on what type of cooling system will be used. UOSA is not concerned with air-cooled system, only those with water-cooled systems. She also advised that best business practices have changed over the years. In the past UOSA was worried about water-cooled systems that used and discharged cooling water containing bromide or molybdenum from their system blow downs. Now, there are more options on the market to choose from that do not contain these chemicals of concern.
- i. In response to Director Rishell, Mr. Angelotti advised that unlike meters routinely used at various points in the collection system to automatically monitor sewage flow, current sensor technologies do not allow for reliable automatic concentration measurements of all parameters tracked for loadings. He advised that to obtain loads at all the billing meter stations would be extremely expensive from a labor stand-point and a significant undertaking with respect to equipment resources (i.e. auto-samplers, daily sample collections, lab staff and reagents to analyze all those samples) and would cost significantly more than the \$1,700 cost considered in the example. Director Rishell thanked staff for the explanation as she thought there would be more automation available today, similar to flow meters which could be applied for loading.
- j. Director Dickey reminded staff of the Nutrient Exchange Association and suggested that there may be a possibility for UOSA to request the use of credits from member jurisdictions should UOSA find themselves in the need for unused credits that could prevent a plant exceedance. He said unused credits could come from Prince William or Fairfax County as they have other POTWs within their jurisdictions. He asked staff to consider

this in the future as a possible option. Mr. Boepple advised that once a methanol facility is up and running, the risk of permit non-compliance for the UOSA plant as a whole would be fairly small.

- k. Director Dickey initiated a brief discussion on pump and haul services. Mr. Angelotti and Mr. Owsenek confirmed that UOSA does not issue or administer pump and haul permits.

MOTION: Director Dickey moved to approve staff's recommendation.
SECOND: Director McGrath
VOTE: Unanimous

F. Condition Assessment for Little Rocky Run Force Main

- 1. Chairman Mohsenin referenced staff memorandum, *Condition Assessment for Little Rocky Run Force Main* (filed as Exhibit F).
 - a. Mr. Boepple stated that Little Rocky Run Force Main is an asset where O&M costs are reimbursed by Fairfax County. An agreement from Fairfax staff states there is no redundancy for the Force Main, and also advises that it would be wise to perform a sophisticated condition assessment because the 36-year old asset has no redundancy. For the reasons stated in the memo, staff believes there is really only one source practicably available for this assessment work and staff is seeking the adoption of the sole source resolution presented to the Board.
 - b. In response to Director Dawood, Mr. Boepple and Mr. Owsenek explained that as a result of a selection process by Fairfax County and UOSA, the chosen vendor was found to be the only one of two available technologies. The second vendor opined that its system is ill-advised due to added pipe failure risks from pressure considerations, making the first option the only one practical.

MOTION: Director McGrath moved to approve a Sole Source Authorization to Pure Technologies and proceed with the condition assessment of the Little Rocky Run Force Main for the cost estimated.
SECOND: Director Rishell
VOTE: Unanimous

G. Major Project Reports

- 1. Chairman Mohsenin referenced staff memorandum, *January 2021 Project Summary* (filed as Exhibit G).
 - a. Mr. Angelotti reported on Plant Projects. The AWT project bids were opened on December 17, 2020 and a favorable bid was received. A recommendation for contract award is included as a separate agenda item.
 - b. The Ozone Bio-filtration project engineer is working with staff on design comments and questions that arose from the sixty percent design review workshop and the team continues to progress the design towards the ninety percent level.
 - c. The ARRP project contractor completed demolition of the old structures

in the area of the ozone building, and are installing the structural backfill required for the new building's foundation. Mechanical demolition tasks within Building M were completed and the contractor is planning for demolition of the remaining exterior chemical storage tanks. Substantial Completion Date remains the same at April 19, 2021.

- d. The Contract CTIE contractor reached Substantial Completion effective November 10, 2020 ahead of the contractual date of January 15, 2021. The change order rate was quite low at approximately 1.1 percent. Overall this was a very successful project and it will be removed from future monthly reports.
- e. The Contract R2D2 (Renovations to Residuals and Building D/2) contractor demonstrated that much of the equipment in Building D/2 is operational and test and commissioning work continued as the teams prepare for performance testing of the centrifuges. Digester 7/2 was filled with clean water and successfully passed the leak test. The contractor continued work on digester equipment such as recirculation pumps, heat exchangers, electrical and control infrastructure that will be commissioned with the first renovated digester. Training for UOSA O&M staff by the contractor and engineer is forthcoming. He reported that the contractor did miss the January 1, 2021 Substantial Completion Date for the Subproject A work in Building D2. However, there are several outstanding claims for time extensions which are currently under evaluation. Substantial Completion Date remains at January 11, 2022 for Subproject B work.
- f. For the P2NR (Phase 2 Nutrient Reduction) settling pilot, the team continued to assess the impact of the hydrocyclones on the secondary system during cold weather months.
- g. Mr. Angelotti reported on the MNIU (Manassas Northside Interceptor Upgrade) Delivery System Project. He stated that the contractor reached Substantial Completion which was granted effective December 12, 2020. There is good news as the contractor is working on the permit closeout items that are required by the City of Manassas. The team is awaiting closure on some of those outstanding final completion items before resuming settlement negotiations. In accordance with UOSA's prior pattern and practice, when a project reaches Substantial Completion, staff removes it from the monthly reports.
- h. Mr. Angelotti reported that the YPIU (Yorkshire Park Interceptor Upgrade) fifty percent design review workshop was conducted in December 2020 and the teams are working on the design review comments and finalizing the design for the next review submission.
- i. In response to Chairman Mohsenin and Director Dickey, Mr. Angelotti advised the Board that the recommended energy conservation measures (ESCO) were only being reported monthly while they were in the design and construction phases. He stated that ESCO related projects are no longer active and no longer being reported monthly with this agenda item, although staff will continue to provide the Board with an annual report on ESCO performance.

MOTION: Director Fields moved to receive and file the report.
SECOND: Director McGrath
VOTE: Unanimous

2. Chairman Mohsenin referenced staff memorandum, *AWT Physical Improvements (Contract AWT) Contract Award Recommendation* (filed as Exhibit H).
 - a. Mr. Boepple said bids for the AWT removal and replacement project were received on December 17, 2020. A low bidder has been determined to be both responsive and responsible as American Contracting and Environmental Services (known as ACE). The bids had a fairly decent spread and the low bid of approximately \$8.1 million was about \$1.3 million below the engineer's estimate. A resolution was before the Board to move forward with the notices and award for this work to begin.
 - b. In response to Director Dawood, Mr. Boepple stated that ACE had been used by UOSA twice in the past. He also read aloud the positive recommendation by Mr. John Airhart, UOSA's Manager of the Capital Improvements Section.

MOTION: Director Vehrs moved to approve the Resolution authorizing the Executive Director to issue a Notice of Intent to Award, the Notice of Award, and thereafter to proceed with execution of UOSA Contract AWT to American Contracting & Environmental Services, Inc., the lowest responsive and responsible bidder, for the contract amount of \$8,125,000.00.

SECOND: Director Simpson

VOTE: Unanimous

3. Chairman Mohsenin referenced staff memorandum, *High Voltage Transformer Replacements for the Plant's Main Electric Feeders* (filed as Exhibit I).
 - a. Mr. Boepple said that there may be no more important infrastructure at UOSA than the two very large power transformers that step down the NOVEC line voltage prior to entering UOSA's power feed systems. One transformer is owned by UOSA; the other owned by NOVEC. This has been the arrangement since the early days of UOSA. As previously reported to the Board, UOSA's transformer has failed and a temporary rental transformer is currently in its place. NOVEC's transformer is over forty years old, and has the potential to fail at any time. An engineering analysis recommends that UOSA proceed with securing two new transformers and splitting the cost of the project evenly between NOVEC and UOSA because of the ownership agreement. UOSA's estimated share of the cost is \$1.6 million. Previously staff recommended funding this work through the Reserve Maintenance portion of its CIP; therefore anticipated funds were included in the February 2020 10-year CIP endorsed by the Board last year. Staff is now requesting permission to enter into an agreement with NOVEC to fund one-half of the required transformer infrastructure project to replace those two transformers.
 - b. In response to Director McGrath, Mr. Boepple stated that the State's sewage collection and treatment regulations require two power sources. He advised that UOSA actually has three power sources when you factor in its emergency backup generators along with the two line feeds from NOVEC. He said considering UOSA's place in the water cycle for the region, UOSA's founders also saw the importance of the plant's power supply.

- c. Mr. Boepple stated that NOVEC would be managing the project with their approved contractors. He said there is a cost containment incentive for NOVEC due to the 50/50 cost share, and the project duration could be closer to a year when you consider permits and procuring equipment.

MOTION: Director Rishell moved to authorize the Executive Director to enter into an agreement with NOVEC for the required replacement of this critical electrical infrastructure, including half the cost to replace the transformers in the main UOSA plant substation.

SECOND: Director Vehrs

VOTE: Unanimous

H. Staff Reports

1. Safety Briefing

- a. Ms. Noble-Blair took a moment to introduce UOSA's new Safety Officer, Ms. Amanda Taglieri, to the Board by sharing an image of her on the screen and providing a brief bio and describing some tasks that she has already been involved with since she came on board as an intern in mid-2020. She noted that Ms. Taglieri is the primary contact and person responsible for educating dentists within the service area on the Dental Amalgam Rule and its requirements. She is making her mark on UOSA safety programs and has produced a monthly Safety Newsletter for staff for the past several months. A copy of the most recent newsletter was given to the Board.
- b. Ms. Noble-Blair reported that UOSA continues with its excellent safety trend and is well over 600 consecutive days without a lost time event. She stated that staff is preparing the OSHA Injury and Illness Summary (i.e. Form 300A) for calendar year 2020 with zero lost-time cases and only one minor reportable case that involved a tick bite. She provided an update on COVID-19 at UOSA and as she indicated in November, from the start of the pandemic back in the early spring, UOSA had two (2) positive employee cases with no transmission from those individuals at UOSA. Since then, and through the holidays, we had an additional five cases but all five employees are back to work. Staff continues to follow UOSA's Infectious Disease Preparedness and Response Plan and will be updating that the plan over the next month because the State will be issuing a permanent standard for handling infectious diseases. This standard is due to be signed by the Governor on January 27, 2021. Staff will have until March 2021 to update and implement UOSA's plan to conform with the permanent standard.
- c. Ms. Noble-Blair reported more positive news, by saying that UOSA had five fire marshal inspections, for all Fairfax County pump station facilities and the main plant, within the past month and all facilities passed with zero findings or issues to report. She said that is a first during her time at UOSA and this is a testament to UOSA employees and their attention to detail and good housekeeping.
- d. Ms. Noble-Blair advised that all member jurisdictions were notified that UOSA had Nutrient Credits available for their use and she provided them with a deadline to have the necessary paperwork back to her so that she could inform the Exchange of UOSA's intention for unused nutrient credits.

2. Executive Director's Report

- a. Mr. Boepple referenced staff memorandum, *Water Quality Management Regulation Amendment* (filed as Exhibit J), and recalled that throughout 2019 he sent multiple letters to DEQ, the Secretary of Natural Resources with accompanying testimonials by Fairfax Water and the Occoquan Watershed Monitoring Laboratory. He reminded them that UOSA's current nutrient permit limitations were specifically and scientifically derived to protect the Occoquan and that the implementation of the floating cap that regulators were attempting to implement would substantially reduce the amount of nitrate going into the reservoir and could harm water quality. Last month, the State Water Control Board issued proposed new regulations that indicated the State intended to move forward with the floating cap nutrient restrictions for most permits. Fortunately, Mr. Boepple was able to provide excellent news to the Board that the regulators listened and recognized UOSA's special circumstances which resulted in an exemption for UOSA from a floating cap. Mr. Boepple said he is pleased to end his last meeting with the Board on such a high note!
- b. The Board thanked staff for their dedication to seeing this issue through and continuing with UOSA's mission for the health of the Reservoir.
- c. Director Dickey mentioned a recent OWML report about the effects of salinity in drinking water and recalled that UOSA was mentioned in the report. Mr. Angelotti advised that staff recognizes the heightened awareness around salinity levels in the local water supply. He reminded the Board that there was a Committee formed around the time Micron was looking to expand and UOSA participated in those discussions. He also stated there is ongoing research in this area, that UOSA is involved with some of it, and there is hope that best management practices come out of those efforts. Director Dawood announced that coincidentally, the day before the Board meeting, DEQ distributed a salt management strategy, or a tool kit, for best practices for road salt applications.
- d. Mr. Angelotti referenced staff memorandum, *SARS-CoV-2 (COVID19) Investigations at UOSA* (filed as Exhibit K) and reminded the Board that a few months back UOSA was approached to be involved in a few research projects to gather more information on how the COVID virus behaves in wastewater. Unfortunately, he said the research team that UOSA joined did not make it successfully through the selection process. Subsequently, UOSA is now part of another research effort that is sponsored by the Federal Department of Health and Human Services. That project is in the early stage of sampling and UOSA hopes results will be provided free of charge in return for its participation. He advised UOSA also initiated another smaller scope study to investigate how well virus is inactivated through UOSA's treatment process.
- e. Mr. Angelotti referenced the Resolution left at the Board's places (filed as Exhibit L) for Board action. He read the resolution honoring Mr. Boepple's forty years of service to UOSA as an exceptional employee and mentor to many within the industry by renaming the Operations Building, where the Board meetings are held, as the Charles P. Boepple Building.

3. Legal Counsel's Report

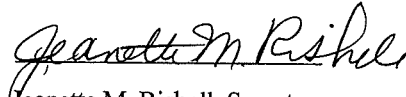
- a. Ms. Hostetler stated there was nothing to report.

H. Adjournment

MOTION: Chairman Mohsenin moved to adjourn at 5:32 P.M.

SECOND: Director Fields

VOTE: Unanimous



Jeanette M. Rishell, Secretary
UOSA Board of Directors

Date: ~~February 18, 2021~~ March 18, 2021
JAM

These minutes are unofficial until signed.