

PROCEEDINGS OF THE CENTRAL BROWN COUNTY WATER AUTHORITY
TECHNICAL COMMITTEE

Pursuant to §19.84 Wis. Stats, a regular meeting of the Central Brown County Water Authority **Technical Committee** was held on Tuesday, January 12, 2021 at the Town of Ledgeview Public Works Shop, 1915 Scray Hill Road, De Pere, WI, and via video conference. Note that in light of public health concerns regarding COVID-19, this was a telephone/video conference meeting for Committee members. Members of the public were offered the opportunity to either attend the meeting at the location noted above or to contact the Water Authority to obtain telephone or internet access to the meeting.

Members Present: Allouez – Sean Gehin
Bellevue – Shawn Geiger
De Pere – Eric Zygarlicke
Howard – Geoff Farr
Lawrence – Kurt Minten
Ledgeview – Andy Tenor (in person), Greg Potts (in person)

Also Present: Rob Michaelson – Manitowoc Public Utilities
Gary Rosenbeck – McMahon, Inc.
Nic Sparacio, CBCWA General Manager

The January 12, 2021 Central Brown County Water Authority – Technical Committee Meeting was called to order at 1:30 p.m. by Chair Greg Potts of Ledgeview.

Roll Call:

Attendance was recorded as shown above. (Note that all attendees listed were present via video conference or teleconference unless otherwise noted as “in person.”)

Approval of Agenda:

1. Approve Agenda

Motion made by Ledgeview, seconded by Lawrence to approve the agenda.

MOTION UNANIMOUSLY APPROVED

Approval of Minutes:

2. December 3, 2020

There were no revisions to the draft minutes.

Motion made by Allouez, seconded by Bellevue to approve the December 3, 2020 minutes as presented.

MOTION APPROVED UNANIMOUSLY

Appearances:

3. None

Communications:

4. None

Agenda Items:

5. **Request for easement modifications at Trinity Ridge Farms, Unit 1, Town of Ledgeview**

Nic Sparacio described the location of this property and the request by the owner to adjust the easement location. This undeveloped lot contains an easement with the Water Authority transmission main and a Town of Ledgeview water main. He stated that he has been working with the owner, the Town of Ledgeview, and the Water Authority's engineering and operational support to evaluate the request. Sparacio is not recommending that the Technical Committee accept the site layout that has been proposed, and he explained the operational and engineering concerns with development as shown on this lot. He has communicated this to the owner, who now has the option of providing an alternative layout. No action is needed on this item.

6. **McMahon Task Order 8, Evaluation of Emergency Water System Interconnections**

Sparacio provided a presentation on the past studies performed on the topic of emergency back-up water supply and on the proposed new study, Task Order 8 from McMahon. The 2012 Water System Optimization Plan performed by McMahon addressed this topic. It included details on the estimated cost of maintaining the existing well network and the locations and direction of flow for existing interconnections between members. The 2019 study of water system interconnections with the Green Bay Water Utility included discussion of capacity limitations within Green Bay's infrastructure and estimated costs for two interconnection options. Sparacio also presented a summary of the financial analysis performed on the preferred interconnection option at that time.

The Committee discussed the cost of the original construction of the Water Authority transmission main, various assumptions for emergency water supply needs, and new the McMahon Task Order. Sean Gehin asked for clarification on how much of the Water Authority's emergency supply needs could be met without triggering the need for increased infrastructure capacity with the Green Bay water system. Gary Rosenbeck responded by explaining how the new task order would answer that. The study will include various system failure scenarios and alternative responses for meeting emergency supply from various sources. Discussion continued on average and maximum day flows for the Water Authority and for Green Bay, on the available capacity of the Water Authority system, and on the capacity of the better-quality wells to augment the total regional water supply.

Eric Zygarlicke asked whether the interconnection scenarios would assume that all the existing wells are to be retired. Geoff Farr responded that wells are valuable and low-cost assets for various back-up purposes. Sparacio explained that the McMahon study would consider various combinations of wells and interconnections to meet the needs. It was further noted that the data on the existing wells is outdated in the 2012 study and will need to be updated. Sparacio continued to summarize the major scope elements and proposed cost for the new study. He is recommending that the Water Authority proceed with the study.

Gehin asked whether the discussion with Green Bay ever addressed providing emergency water supply to Manitowoc. Rob Michaelson responded that Manitowoc has its own groundwater wells with adequate capacity to meet its emergency back-up water supply needs. He has not considered obtaining a back-up supply through the Water Authority or Green Bay. There was a consensus among the Committee that the proposed new study would be valuable. Rosenbeck clarified that the timeline would be an estimated five months after receiving flow test data from the Members, which would not be available until spring.

Motion made by Bellevue, seconded by De Pere to recommend to the Board approval of McMahan Task Order 8, Evaluation of Emergency Water System Interconnections, including the additional Task 2.6.

MOTION UNANIMOUSLY APPROVED

7. 2020 comparative meter performance and MPU revenue meter

Sparacio summarized the items that need to be addressed under this agenda item: the connection station meter calibration issue, overall meter accuracy tracking, and the MPU revenue meter. He continued with further detail on the connection station meter calibration issue. As a result of unauthorized meter calibrations made by the meter testing contractor, he and Michaelson made the decision to return the affected meters to their pre-calibration readings for November and December. This applies to the meters owned by the Water Authority at each connection station which are used for measuring individual Member volumes. The impacted meters include Allouez AZ-2, Bellevue BE-1, De Pere DP-3, and Ledgeview LW-1. A revised water consumption tracking spreadsheet was sent to the Members via email prior to the meeting.

Farr asked for clarification on what the issue was. Sparacio responded that the right steps need to be taken when meter errors are found during testing. Consultation with the Members should take place as a part of that process, and that did not happen. Gehin added that there was a basic communication breakdown. Allouez, as an example, was not made aware that its meter had been calibrated. Discussion continued on which connection stations have check meters within the Member-owned equipment areas, different methods for testing meter accuracy, and the obligations to do meter testing under AWWA standards and under the MPU Water Purchase Agreement.

Michaelson explained his concerns and recommendations. MPU was equally surprised to find that a correction factor had been applied to these meters. ME Simpson did not communicate this to MPU and had never made adjustments before with past meter testing. He is concerned about the accuracy of these meters, but he recommends that additional meter tests are performed to validate the results. If repeatable meter tests show that a meter is out of range, then it should be adjusted.

Discussion continued on acceptable levels of meter variance and accuracy. The Agreement with MPU calls for calibration if meters vary by 0.5% or more. The Agreement between the Members does not set a specific threshold for calibration. The AWWA standard for meter

accuracy is plus or minus 1.5%. Some of the meters calibrated in this round of testing were found to be inaccurate by nearly 5%. Farr stated that the accuracy of the revenue meters is critical given the large volumes and costs that they are handling. Zygarlicke asked why the meter volumes he sees in De Pere are always different from those reported by the Water Authority. Michaelson responded that there could be differences in the dates and times when meters are read, but the readings should be pretty close by the end of the year. MPU staff read meters on the last business day of the month, and the De Pere SCADA system reads daily at midnight.

Sparacio then reviewed the comparison of metered volumes for the year in total. Correlation between the various meters improved in 2020 as compared to previous years. The tank drawdown test performed in January appears to have helped the accuracy of the FWPS meter in Manitowoc in particular.

Sparacio also reported that MPU has requested that the Water Authority consider returning to the FWPS meter in Manitowoc as the revenue meter for billing the wholesale water purchase. We had mutually agreed to use the Master Meter Station meter in Ledgeview as an alternative while accuracy issues with the FWPS meter were being investigated. Sparacio stated that he does not intend to resolve this issue today but wants to at least start the discussion and get the Committee's input. He does not yet have a recommendation from McMahon on this question either. As additional context, the meeting materials include the report from MPU and Jacobs considering alternatives for improving the accuracy of the FWPS meter in Manitowoc. Andy Tenor asked when the FWPS meter gets tested. Michaelson responded that this meter is tested every year in January.

Sparacio will continue working on these metering items and report back to the Committee in February.

8. Project status updates

a. Chlorine system solenoids and analyzers

Sparacio noted that the meeting materials include a detailed update on the installation process from the installer, Craig Sampo. Sparacio also reported on the new estimate that has been provided for finishing the installation work. The estimate is \$1,800 higher than the budgeted amount, but the work being performed is also taking care of some of the SCADA work that would have been covered under another budget line. Instead of the budgeted \$600 per unit, it looks like the installation cost will be \$738 per unit. Sparacio asked if this increased cost causes any concerns. There were no objections to this cost estimate.

b. 48-inch repair materials project

Sparacio reported that the correct bolts have been delivered to the storage location in Manitowoc, but McMahon has not yet confirmed that all final materials conform with the project specifications. Don Voogt will schedule a visit to the site in the near future.

c. Manitowoc pump station optimization

Sparacio reported that the team has reviewed the 90% design specifications for the VFD, and this step is nearing completion. Our engineers with McMahon have been actively involved in the process, and it appears that there has been good communication throughout. MPU will develop the bid documents in the near future, and the tentative timeline for installation is September or October. There is a 5 to 6-month lead-time to build the VFD upon order. Michaelson added that the Water Authority will have the opportunity to review the bid package before it goes out.

d. SPLASH Study implementation

Sparacio reported that he continues to work on setting up the next meeting of the SPLASH Implementation group for January or February.

e. Member risk and resilience planning

Sparacio reminded the Members of the upcoming deadline of June 30, 2021 that applies to their local Risk and Resilience plans. He is available to answer questions about the VSAT tool, and Michaelson is available to provide insights into how MPU completed its plan. The process used by MPU may be a more helpful example to the Members, since the Water Authority has so few infrastructure assets compared to the local distribution systems.

Michaelson explained that it is helpful to first narrow down the assets that you will analyze in the VSAT tool before starting that process. His advice is not to apply the VSAT tool to all utility assets – this is too cumbersome. He also recommends involving all water utility staff in the process. Their process at MPU started with identifying all the applicable assets and the potential vulnerabilities. The vulnerabilities can then be prioritized. Develop a vulnerability score for each critical asset by ranking the consequences of a failure and the likelihood of a failure. Once you have the highest priority vulnerabilities ranked, you can decide how many of those you can realistically analyze using the VSAT tool.

9. Water sales report through December 31, 2020

Sparacio reported on water consumption for the previous month. December water use was pretty typical for this time of year. The updated water consumption spreadsheet sent out this week via email shows the latest volumes. The final water use figures are fairly close to the budgeted volume and will result in a take-or-pay invoice from MPU once again. He then reviewed the updated true-up invoice and rebate amounts for the Members.

10. Member and Water Authority operations – open discussion

Sparacio explained that this item came out of the individual meetings that he had with each of the Committee members back in December. This would be an opportunity to have open discussion on any current operational issues and to encourage the Committee alternates to attend the meetings for that purpose. Sparacio suggests that we put this on the agenda every other month and closer to the front the agenda. The Committee discussed growth

happening in some of the communities, and Michaelson noted that he would like to have an operator meeting as soon as COVID conditions allow.

Old Business:

11. None

Next Meeting:

Agenda Items for the Tuesday, February 9, 2021 Meeting

Potential agenda items for the next meeting include:

- Recommendations and updates regarding metering issues
- If available, tank drawdown results for Finished Water Pump Station meter

Adjourn:

Motion made by Lawrence, seconded by Bellevue to adjourn at 3:30 p.m.

MOTION UNANIMOUSLY APPROVED

Respectfully submitted,
Nicolas Sparacio