

**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, August 13, 2019 at the Bellevue Public Safety Building Conference Room – 3100 Eaton Road, Bellevue, Wisconsin

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**Members Present:** Allouez – Sean Gehin, Mike Mahloch  
Bellevue – Shawn Geiger  
De Pere – Scott Thoresen  
Lawrence – Kurt Minten  
Ledgeview – Dave Strelcheck

**Excused:** Howard

**Also Present:** Nic Sparacio, Manager  
Rob Michaelson – Manitowoc Public Utilities  
Gary Rosenbeck – McMahan, Inc.

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The August 13, 2019 Central Brown County Water Authority – Technical Committee Meeting was called to order at 1:35 p.m. by Chairman Shawn Geiger of Bellevue.

**Roll Call:**

1. Attendance was recorded as shown above.

**Approval of Agenda:**

2. Approve Agenda  
**Motion made by De Pere, seconded by Lawrence to approve the agenda.**  
**MOTION UNANIMOUSLY APPROVED**

**Approval of Minutes:**

3. There were no questions or comments on the July 9, 2019 minutes.  
**Motion made by Ledgeview, seconded by Lawrence to approve the July 9, 2019 minutes as presented.**  
**MOTION APPROVED UNANIMOUSLY**

**Appearances:**

4. None

**Communications:**

5. None

**Agenda Items:**

6. County Trunk Highway R bridge replacement project

Manager Sparacio described the location and details of this Brown County highway project. The Water Authority transmission main is located within about 50 feet of the bridge supports where new pilings will be driven. Vibration impacts to the 48-inch steel water pipe are the concern. The Water Authority is a permitted utility in the Brown County right-of-way, so it is the Authority's responsibility to relocate or otherwise protect its facility.

Gary Rosenbeck then described the potential vulnerabilities at this location and the need to establish conservative vibration limits for protection of the pipe. Pre-boring the pilings has been discussed as an appropriate mitigation measure. Discussion ensued regarding other possible methods of mitigating vibration impacts. Rosenbeck responded that we can ask for advice on additional mitigation methods from the consultant hired to develop the vibration limits.

Sparacio continued that he, Gary Rosenbeck, and Rob Michaelson have had several conversations with Brown County and its consultant. As a result of those conversations, the construction project specifications have been modified to alert bidders to the concern and the requirements for vibration monitoring and mitigation. Since pre-boring of every piling will not necessarily be required to protect the pipe, Brown County determined that this item should be handled as a change order to take effect only when vibration limits are exceeded at any point during the construction. The contractor could then attempt to use a smaller hammer to drive the piles or begin to pre-bore the remaining pilings. All costs related to vibration mitigation will be the responsibility of the Water Authority. Estimated costs for pre-boring and the additional piling length total \$300,000. Brown County is planning to fund the vibration monitoring which is estimated at \$35,000.

Sparacio further explained that Brown County is requesting that the Water Authority provide a letter of commitment to fund the mitigation measures. Discussion ensued regarding the timing of when the letter of commitment could be provided relative to completion of the vibration monitoring and control plan. No action was taken.

**7. Proposal for vibration monitoring plan from Vibrattech**

Sparacio explained that Brown County has requested that the Water Authority provide the limits of vibration that would be established for the County Highway R bridge replacement project. The attached proposal from Vibra-Tech would produce that deliverable. He further explained that there are limited firms in the Midwest that are able to provide these services, so we only have one proposal. Rosenbeck added that he also requested a second proposal, but that firm was not willing to provide this particular service. This is very likely the only proposal that we will receive for this service. There was a consensus that this service is absolutely essential.

**Motion made by Lawrence, seconded by Ledgerview to recommend to the Board acceptance of the proposal from Vibra-Tech for a vibration monitoring and control plan, contingent upon review by the Water Authority attorney.**

**MOTION UNANIMOUSLY APPROVED.**

**8. Proposal for fiber network mapping from Nsight**

Sparacio explained that these services from Nsight would provide the information that would allow for a faster response to any future fiber outages. The information gathered will provide a “map” that shows exactly how each of the facilities are communicating with each other. Michaelson added that he contacted EFI, the firm that did the original installation, and they are not able to provide us with this detailed level of network mapping.

**Motion made by De Pere, seconded by Lawrence to recommend to the Board acceptance of the proposal from Nsight for fiber network mapping, contingent upon review by the Water Authority attorney.**

**MOTION UNANIMOUSLY APPROVED.**

**9. Water System Improvement (Contract B) pay request from Reeke-Marold Co.**

Rosenbeck presented the pay request from Reeke-Marold Co. The request is for materials ordered, and most of the work is now completed by this time. McMahon reviewed the pay request, reduced the amount, and is recommending approval as modified.

**Motion made by De Pere, seconded by Bellevue to recommend to the Board payment to Reeke-Marold Co. in the amount of \$90,000.**

**MOTION UNANIMOUSLY APPROVED.**

**10. McMahon Task Order 5, Evaluation of Emergency Water System Interconnections**

Sparacio explained that this study would analyze potential interconnections at the local level and noted that members would need to provide updated well data, hydrant flow testing, and lab analyses of well water. He asked for feedback on the scope of work.

Rosenbeck added that this expands on the work started in 2012 by exploring flow potential between local distribution systems. The 2012 report identified where existing interconnections are located but did not determine whether it would actually be feasible to serve each other in an emergency situation. He asked for feedback on whether this is needed in each member community. In other words, which communities are fully satisfied with the emergency supply and water quality provided by their existing wells.

Thoresen asked for clarification on how this project differs from the interconnection study that was performed with the Green Bay Water Utility and whether it will consider the Water Authority taking over local wells. Rosenbeck responded that it could still involve Green Bay, but it would not include the construction of major new interconnections. This study would explore the potential to utilize existing interconnections and smaller, less costly improvements. This study will also explore whether some wells, rather than all of the wells, can be abandoned through some cost-effective combination of wells and interconnections to meet all members’ emergency supply needs with better quality water. Water Authority involvement in coordinating operation and maintenance of wells for cost savings would also be reviewed.

Discussion ensued, and there was a consensus that additional time is needed for the Technical Committee to review this proposal. The Committee requested that a summary of the actions and decisions to date be provided on this topic. We need to clarify our

understanding of how this could benefit each member, how this continues to foster our relationship with Green Bay Water, and how this relates to the long-term plans to maintain wells as an emergency water supply. Sparacio stated that this study is not intended to interfere with Allouez or Bellevue having individual conversations with Green Bay Water toward local-level emergency interconnections. They should continue to reach out to Green Bay.

**11. Preliminary 2020 Budget and Capital Improvement Program**

Sparacio presented the preliminary 2020 budget. Budgeted flows for the 2020 budget are 25 million gallons lower than the 2019 budget, which means the water purchase rate must increase if expenses do not change. Several budget and rate scenarios are then being considered in order to generate the additional funds for the unexpected expense on the CTH R bridge replacement project. The rate stabilization funds were depleted with 2019 member rebates, so the felt impact of any rate change will be greater than the actual rate change. Expected member charges were presented relative to the various rate scenarios.

Scott Thoresen asked for the recommended level of unrestricted cash and where the Water Authority currently sits relative to that benchmark. Sparacio responded that in the 2019 budget, the Board discussed maintaining unrestricted cash reserves at a minimum of 25% of annual expenses. End of 2019 projections indicate that we would be at about 34% if all goes as expected for the rest of the year, so we are well within recommended levels.

Sparacio distributed an updated copy of the 2020-2029 Capital Improvement Program (CIP) and explained the changes that were made since the last version that was provided in June. There are still some modifications that are potentially needed. He reviewed the sources of funds for the 2020 CIP including unrestricting \$200,000 from the Renewal and Replacement fund. Discussion ensued regarding the changes that may yet be made to the 2020 CIP. There was a consensus that the Technical Committee is supportive of the intended projects and understands that minor changes in the costs and other details can still be made as part of the budget process.

**Motion made by De Pere, seconded by Ledgeview to recommend to the Board adoption of the 2020-2029 Capital Improvement Program with the understanding that minor changes in the costs and other details can still be made as part of the budget process.**

**MOTION UNANIMOUSLY APPROVED**

Sean Gehin asked whether the preliminary 2020 budget includes any funding for depreciation expense as discussed at the Board level. Sparacio responded that it does include a small earmark to start funding depreciation expense. The intent is to start the discipline of funding depreciation even though the rate impact of adding more significant funds for this purpose would not be affordable until existing debts are paid off. Sean Gehin and Mike Mahloch left the meeting at this time.

**12. Project status updates**

**a. Chlorine Analyzer maintenance and reagents**

There was no report on reagent supply. Sparacio asked for the current status of the drop-out issue after Hach performed the maintenance on the analyzers. De Pere, Bellevue, and Lawrence are still having this issue. Sparacio will follow up with Hach and let them know that this is not resolved yet. Discussion ensued regarding the life of this equipment and whether they may be due for replacement. Michaelson stated that MPU moved away from analyzers that use reagents and have been using Depolox analyzers. They have been very reliable.

**b. Transmission system operation and maintenance**

Sparacio and Rosenbeck met with Michaelson and Pete Dollhopf to get started on this. The preventive maintenance plan has evolved into more of an operation and maintenance plan, and a draft will be provided by MPU at a future meeting.

**c. Water System Improvement projects**

Sparacio distributed the estimate from Reeke-Marold for additional SCADA connections from the chlorine automated shut-off alarm systems. Rosenbeck will have the Project Manager, Don Voogt, confirm the details with everyone. The need for additional shut-off valves for the Mid Valley Drive connection station (DP-3/LE-1) is resolved. Kurt Minten noted that an automatic shut-off for LE-2 will be needed in two to three years when they start to utilize that station.

**d. Manitowoc Pump Station Optimization project**

Sparacio reported on the Finished Water Pump Station (FWPS) optimization project with MPU. He reviewed the summary document from Jacobs with the costs and benefits of the four alternatives being reviewed. The project is at an important turning point, as the initial results are showing that there is little to gain in terms of additional energy savings. This is in contrast to the Water Authority's assumptions going into the study that additional savings would provide a return on investment which would then justify capital spending on the improvements to the plant.

Michaelson responded that energy savings are just one of the benefits that could have come from this study. Addressing the uneven use of the pumps and better distributing the hours was another objective. Energy savings already being experienced are the result of pumping to central storage at night, but the FWPS was not designed to do this. This must be done manually, so it has gone backward from its original design.

Sparacio continued that the project costs for these alternatives are also of concern. The potential costs for implementing these recommendations are much higher than anything the Water Authority has been budgeting for improvements at the FWPS. The impact of these results from the Water Authority perspective is that we have to revisit the conversation of how these improvements get paid for. This is then further complicated in the context of cost responsibilities for maintenance and replacements at MPU. The simple equation of the Water Authority bearing the full cost independently

was based on there being a return on investment from energy savings, but this is not going to be the case.

Michaelson stated that the FWPS can continue to run in its current state, but it represents a changed condition from its original design due to central storage. MPU wants to correct the pumping strategy, but he does not see that MPU will have any desire to fund improvements at the FWPS. The Water Authority has the incentive to make these improvements. He further noted that if the small pump fails, the one with all the hours on it, then the Water Authority will likely lose all the energy savings it has experienced over the last two years. The large pumps would have to be used while repairs are being made.

Thoresen asked what the expected hours are for the life of a pump. Michaelson responded that with proper maintenance, pump life is very long term. There are very few catastrophic failures; most issues can be repaired. Discussion continued on how central storage changed operations for the positive, but also how it represents a change in the original conditions of the water system. Thoresen also asked for an update on the study of the metering issues at the FWPS. Michaelson responded that it is included in this study, and MPU's view is that this issue is also the result of changed conditions due to central storage.

**e. Sensus AMI software updates**

Sparacio informed the committee that the hardware issues in Howard have been resolved. Once we receive some potential dates from Sensus for the cutover, that can be scheduled and this project can be wrapped up.

**f. SPLASH Study**

Sparacio reported that all updates to the business case evaluations from Allouez and Lawrence were provided to Raftelis. The next steps are to begin work on creating the collaboration clearinghouse Sharepoint site and to lay out the process for implementation planning on the topic of cross-connection control programs. Discussion continued on various alternatives for collaborating on cross-connection control.

**13. Water sales report through July 31, 2019**

Sparacio noted that water consumption increased in July. There were no comments or questions on the water consumption report.

**Old Business:**

**14.** None

**Next Meeting:**

**15. Agenda Items for the September 17, 2019 Meeting:**

No potential agenda items identified at this time.

**Adjourn:**

**Motion made by Lawrence, seconded by Ledgeview to adjourn at 3:35 p.m.**

**MOTION UNANIMOUSLY APPROVED**

Respectfully submitted,  
Nic Sparacio, Manager