

TECHNICAL STANDARDS COMMITTEE
Minutes - Monthly Meeting
WTRRF Conference Room - 700 Doty Street
Tuesday 1:30 PM, December 19, 2017

Call to Order – The meeting was called to order at 1:30 p.m.

Roll Call – Present were Jordan Skiff, Paul DeVries, Autumn Fisher, Cody Schoepke, and Nick Leonard. Eric Otte was absent and excused.

Approval of November Minutes– A motion was made by Autumn Fisher and seconded by Paul DeVries to approve the November 2017 meeting minutes. The motion carried.

Communication Session

Reports on:

- **Correspondence Relating to the Regional Wastewater System**
◊None
- **Records Exchange – Update of Contact List**
◊None
- **Sewer or System Improvements Anticipated, in Progress or Completed (Extensions or Rehabilitations).**
◊Paul reported that pipe bursting was completed in West Johnson Street.
◊Casing pipe and water main have been installed in Fox Ridge with sanitary sewer installation to follow.
◊There was no update on the proposed addition to a building located within the City limits and the potential for that addition to connect to a sewer in the sanitary district. Last month Eric said he would speak to John St. Peter about this.
- **FP or RSAP Amendments Anticipated, in Progress or Completed**
◊None
- **Metering and Sampling**
◊Engineering staff has found a few glitches with the new flow monitoring software. Paul will be contacting the vendor about the issues and set up training with the Engineering staff.
◊Flowmeter calibrations from November 2017 were distributed.
- **Clearwater Reduction Fund Status and Party Activity**
◊None
- **Receive Sewer Project Closeout Records and Shared Sewer Cost Calculations**
◊None
- **Distribute Updates to Regional Sewer Design and Constructions Standards and TGM Revisions**
◊Paul asked that any recommended changes or additions be forwarded to him. Nick had some information on furncos and will forward the specs to Paul.
- **Review Prior Activity**
◊None

Technical Session – Consent Agenda

Review as needed:

- **Review and evaluate new products and technology for incorporation into the standard specifications.**
- **Monitor the assessment, accumulation and use of the Clearwater Reduction Funds**
- **Maintain procedures and protocol for compliance with the Agreement**
- **Review and recommend proposed changes, revisions, clarifications, and amendments to the Parties regarding the Agreement and the TGM**
- **Consider and decide requests for specification waivers**
- **Prepare appropriate specification amendments**
- **Review shared sewer cost calculations for compliance with TGM procedures Conduct review of proposed revisions to the 2000 RSAP to identify potential regional impacts**

Additional Items

- **Interceptor Maintenance**
 - ◇Paul and Autumn both said that they will get an explanation from John Mayer about what is included in the spreadsheet calculation and the cost sharing ratio.
- **WTRRF Operations Update**
 - ◇Cody reported that the plant is conducting an in-house pilot to establish more routine and consistent Biological Phosphorus Removal (BPR). This will be done by introducing a supplemental waste to the aeration basins to act as a food source.
 - ◇New probes and controls for the monitoring system of the aeration basins will be installed. This will allow WTRRF personnel to more closely monitor and control the air by running the blowers based off ammonia levels instead of just dissolved oxygen levels.
 - ◇Cleaning of the heat exchangers was completed. No struvite build-up was evident.
 - ◇Nick Manske, United Liquid Waste (WTRRF biosolids hauler) was contacted by the landfill that they had concerns that the plant cake was too wet. Plant biosolids average 26% cake solids, which is already low among industry averages. Cody said BPR affects dewatering and does produce a wetter cake. United Liquid Waste will look into other disposal options for WTRRF biosolids, either another landfill or storage capabilities, should the landfill refuse to accept our cake as is.
 - ◇The plant drone video is now available for viewing on the WTRRF web page.
 - ◇The Lift Scholarship was submitted on December 15, 2017. It's a travel scholarship and cost share for investigating wastewater technologies and processes. Many of the new technologies/processes do not have installations in the United States. Up to three WTRRF staff would be looking at the Paques anammox process, the Airprex biosolids treatment process and NuReSys nutrient harvesting systems located in Europe.
 - ◇Facility Master Plan – Autumn explained that WTRRF has extended an invitation to six different firms for the creation of a Facility Master Plan. The process will likely take between 12-18 months and will be a long range plan for the plant looking at anammox, phosphorus compliance, biosolids handling, nutrient harvesting, and biogas upgrades among other items, along with which technologies/processes to implement, and in what order to implement them. Firm selection should be made by late February 2018, with kickoff in March 2018 and completion in 2019. There is \$180,000 budgeted for the facility master plan. The last facility master plan was completed in 2004.

- **Deammonification Status**

◇The project is out for bid now. The bid opening will be 1/9/18. Nick requested a copy of the project specifications. Autumn will forward that to him.

- **Nutrient Harvesting Evaluation Study**

◇Autumn received the final draft from Strand Associates, and that is being forwarded to the WDNR. Technologies were evaluated and the best option for Fond du Lac appears to be a sludge based sequestration system. The system would be installed between thermophilic and mesophilic digestion. The struvite would be sequestered before it goes through the heat exchanger. The project cost estimate is approximately \$4.7 million dollars. The conclusion within the study would be to use sequestration, not harvesting. Sequestration will remove the phosphorus from the digesters and from coming back into the plat flow, currently representing about 30%-40% of plant phosphorus loadings. Chemical usage will also be significantly reduced.

◇Nutrient harvesting poses challenges because it changes the biosolids content by increasing the levels of magnesium, ammonium, and phosphorus. Nutrient harvesting will be part of the Facility Master Plan discussions that will take place in January and February 2018. If WTRRF would want to incorporate harvesting into the master plan and have design begin in 2018 discussions would have to begin in April or May of 2018 in order to submit Clean Water Fund Loan documentation in September in 2018. The system could be upgraded at a later date to include harvesting with the addition of one reactor, as all other infrastructure would already be in place as part of sequestration.

- **Permit Application Update**

◇The WDNR is presently reviewing the WTRRF application. WTRRF personnel will review and comment, then there will be a public comment period, and after that the permit would be issued and become effective April 1, 2018. The first MDV payment will be due in March 2019, and will cover April 1 – December 31, 2018. The payment to Fond du Lac County will be reduced by three months. Paul Tollard was notified of this.

- **Phosphorus Compliance Update**

◇There is still no word on the TMDL so there is not an update from the WDNR on phosphorus. WTRRF has had discussions in further analyzing core samples taken by the WDNR but there are questions as to the ownership of the core samples. WTRRF may take their own core samples and have them analyzed.

Adjournment

◇A motion to adjourn was made by Paul De Vries and seconded by Autumn Fisher. The motion passed. The meeting adjourned at 2:30 p.m. The next meeting is scheduled for January 16, 2018.