

Engineering and Operations Committee Meeting

Minutes

November 29, 2012

Mr. Harrison convened the meeting at 3:04 P.M., Thursday, November 29, 2012, at the Lakeway Municipal Utility District's office located at 1097 Lohmans Crossing, Lakeway, Texas 78734-4459.

The following Engineering and Operations (E&O) Committee members were in attendance:

Don Walden, *Chairman*,
Carl English, *Committee Member*,
Earl Foster, *General Manager (GM), Lakeway M.U.D.*,
Harvey Harrison, *Committee Member (Vice Chairman)*,
Bob Rives, *Committee Member (Secretary)*,
Pat Rossmiller, *Committee Member*.

Jerry Hietpas, *Board Member and Board Liaison to Committee*.

The meeting's agenda had been distributed to all Committee and Board members by e-mail on November 27, 2012. The designated Agenda for the meeting was issued by Mr. Foster in the following manner:

1. Wastewater Update from Roger Fry
2. Water-Model Update from Engineer
3. Update on Emergency Order that LCRA is submitting to TCEQ

Mr. Foster introduced Wastewater Plant Supervisor, Roger Fry, who proceeded to give the committee an update on his operations. Mr. Fry handed out diagrams regarding the S-4 Plant & Reuse Flows and the same for the S-5 Plant, both of which covered the time period from January 1, 2012, up to and including the full month of October, 2012. The first diagram showed wastewater production figures that included the total flows for the S-4 Plant, Yaupon Golf Course, Lakeway Boulevard plus Lohman's Crossing, and the outside 210 Reuse.

Total S-4 Plant flow was 111.149 MG, which was estimated at about 46 to 48% of its capacity. Yaupon Golf course during this period had a flow of 78.977 MG, the L-Blvd. plus LohC. used 14.322 MG, and the 210 Reuse produced a total flow of 49.352 MG. The smaller S-5 Plant had a total flow from January-October 2012 of 36.053 MG and a 63.798 MG was used by Live Oak's Golf Course.

In conjunction with the two plants the Fecal Coliform, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), NH₃N, and Turbidity (TURB) were within the required TCEQ wastewater-standard range. This produced a discussion within the committee as to the potential for adding more wastewater customers, most especially in regards to the 210 Reuse under the landscape irrigation permits. Mr. Foster reiterated that the two wastewater plants were not sufficiently interconnected and that a capital project would be required for increased production, and then only after a complete study prior to developing a plan. Further discussions developed along the thought of maximizing any idle wastewater periods by using modulating/equalization tanks to better spread the usage. Again, this is in the realm of future planning.

The S-5 wastewater plant provides treatment of wastewater for the Rough Hollow area and Haythem Dawlett has the option to expand the S-5 plant on his dollar by two-times for his Highlands developments, MUDs 11, 12, AND 13. It is our understanding that he is presently reviewing a possible new wastewater plant instead. It was also noted that our present contract with Rough Hollow is capped at so many gallons per day.

Mr. Fry was asked if his men were licensed. He said that all his employees are licensed by TCEQ. He described the license system as: “D” requires no experience, “C” 1-year experience plus 60 hours of class work, “B” 5-years of experience and 180 hours of class work, “A” is 8-years of experience and 220 hours of class work. He said that he wants a “C” license as a minimum for his employees and encourages all to go higher. He also advocates that his personnel be licensed both in wastewater plant and water plant so they can interact between the two systems.

Engineer C. Castleberry had joined the meeting earlier and at this time gave an update on the hydraulic model system. Castleberry indicated that she has reached a benchmark in the hydraulic model such that the model has now been calibrated on the real-water demands that occurred on September 12, 2012. She pointed out that there are not any official established standards for calibrations; however, commonly referenced guidelines hold that the hydraulic grade lines (HGL) predicted by the model should be within 5 to 10 feet of those recorded in the field, and furthermore that the water-level fluctuations predicted by the model should be within 3 to 6 feet of those actually recorded. The SCADA vs. Model Results on the high-flow day of 9/12/12 are now within those calibration standards. As such, the model is considered complete and ready for use by L.M.U.D. for system performance analyses. She will now evaluate the model’s performance with the District’s current system under two more test scenarios; that of Average Day Demand (recorded on 4/24/12) and Peak Day Demand (recorded on 8/31/11). This will be followed by a Build-out Demand scenario applicable for simulation of changes to the District’s future system. By January, 2013, she hopes to have modeled the water-system improvement alternatives that will insure better distributed water supplies from the W-3 Tank to the area of demand within the Upper West Pressure Plane. She will test three alternatives for design modifications to the District’s current water distribution system that will include: 1). New Pump Capacity Alone, 2). New Pumps and Clearwell Capacity, and 3). Additional Storage Capacity for West Upper Pressure Plane. The last alternative will have further considerations of an elevated storage location at S-5 and an elevated storage location at the W-3 WTP. Both alternatives one and two will consider the 8-inch distribution piping within the West Upper

Pressure Plane located along the east side of Lakeway Boulevard. This modeling for the redistribution of water supply will ensure effective system operation during peak demand periods thus providing the necessary engineering and economical information needed for definite future use of the organization and alleviate present water-distribution problems at the E-1 Tank.

Earl Foster gave an update on the Emergency Order that LCRA is submitting to TCEQ. The LCRA is a state agency that manages the Highland Lakes and the Lower Colorado River. It is in charge of the two main reservoirs of Lakes Buchanan and Travis, which provides drinking water to the people of Austin, Lakeway, and other municipalities, as well as industrial customers. However, the larger share of the water collected by those lakes goes downstream to help grow rice in Texas. Their plan is that if on January 1, 2013, Lakes Buchanan and Travis have less than 775,000 acre-feet of water in them (or roughly 39 percent full), then water will not be sent downstream to three of the four irrigation districts serving rice farmers downstream in South Texas. If the rainfalls between January and March are such that the lakes rise to 775,000 acre-feet or above, a limited amount of water relative to the standard plan would go downstream under the Emergency Order. L.M.U.D.'s concern is if the lakes are deemed full enough under the emergency plan and water does go downstream that it does not guarantee that there will be enough water left for the City of Austin, Lakeway, and other customers if drought conditions persist. Health concerns would also be a potential problem for the Lake Travis area in this case. Foster noted that the LCRA latest update is from September 30, does not reflect current forecasts nor the lack of rains during this October and November. The local alliance that is opposed to the water releases wants a new plan to assure that no water would be let downstream as long as the lakes contained 850,000 acre-feet or less of water. Mr. Foster said that there will be a meeting on December 19th with LCRA to rethink their emergency order. This is a regular LCRA Board meeting. There is an additional meeting on January 16th, 2013, with TCEQ. If the drought continues and water is released downstream we could easily be in for an additional 20% curtailment.

Mr. Foster said that he will meet with *More Aqua* concerning their proposed project on Monday, December 3, 2012. He noted that he has contacted TCEQ and they do not have a problem with the study. If the meeting goes well, Mr. Foster said they will then figure out a contract and present it at the next meeting.

The committee inquired about a tour of the L.M.U.D. facilities and Mr. Foster said he would arrange for it in early January of 2013.

It was tentatively agreed that the next meeting would be on January 3, 2013, at 3:00 PM. The meeting was adjourned at 4:50 PM.

The Minutes have been read and approved by email:

December 3, 2012