

## **Engineering and Operations Committee Meeting**

### **Minutes**

**October 31, 2013**

The meeting was convened at 3:03 P.M., Thursday, October 31, 2013, at the Lakeway Municipal Utility District's office located at 1097 Lohman's Crossing, Lakeway, Texas 78734-4459.

The following Engineering and Operations (E&O) Committee Members, General Manager (GM), and Board Liaison were in attendance:

Don Walden, *Chairman*,  
Carl English, *Committee Member*,  
Earl Foster, *General Manager, Lakeway M.U.D.*,  
Jerry Hietpas, *Board Member and Board Liaison to Committee*,  
Bob Rives, *Committee Member (Secretary)*,  
Pat Rossmiller, *Committee Member*,  
Wayne Seime, *Committee Member*.

The meeting's agenda had been distributed to all Committee members by Loyd L. Smith (CPA) on October 28, 2013. The designated Agenda for the meeting was:

1. Review Responses to RFQ from Engineering Firms for Reuse Line,
2. Review Water Balance,
3. Status of Clearwell Design,
4. Update on Mono-Layer Pilot Study.

Mr. Foster handed out responses to the Request for Qualification (RFQ) from three engineering firms regarding Lakeway M.U.D.'s proposal for professional engineering services for the design and construction of the District's Reuse-Water System improvements. This includes a new reclaimed-water pipeline and its associated pumping facility required to fully integrate the S-4 and S-5 Water Recycling Plants (WRP). Statements of Qualification were received from HDR Engineering, Inc. (dated October 25), Malone/Wheeler, Inc. (dated October 21), and Steger & Bizzell Engineering, Inc. (dated October 25). Mr. Foster handed out a matric sheet for each committee member to use in their evaluations. There are nine items for point evaluations in the matric sheet. It was determined that the total points from all members would serve as a guide but not necessarily a decision maker in the Committee's final evaluation. Mr. Foster stated that there is no cost information involved in the RFQ evaluations, which is in accordance to public utility guidelines. He noted, however, that the list of firms is to be reduced to one firm and that firm will receive a Request for Proposal (RFP). The District indicated in the RFQ that it would like the reuse-line system constructed and outlined by the summer of 2015,

such that the work schedule would basically be: Preliminary Engineering Phase (3 months), Design Phase (6 months), Bid and Award Phase (3 months), and Construction Phase (9 months). Construction costs are estimated at \$2.3 million. The Committee members were asked to review the engineering firms' submittals and to submit their personal matric-point evaluations and any questions to Mr. Foster on or before November 18<sup>th</sup> with the caveat that the Committee may ask for future interviews and/or may ask that demonstrations be conducted with any responding firm in order to discuss their qualifications, resources, and their work-load capacity (with respect to their construction scheduling) so as to provide the services requested. A copy of the original Request Statement was handed out to the Committee members.

The next item on the agenda was an update of the water balance. Mr. Foster noted that Castleberry Engineering completed the *daily* water-balance modeling by the end of October as assured at the August meeting. He noted that altering the analysis from *monthly* to *daily* basis has shown a significantly-reduced required pond storage volume via irrigation to our turf and cedar areas. In case of a 25-year heavy rain the question is how do you get rid of the storage water in ponds before it over flows using a managed evaporation system of turf and cedar tracks? There is an annual nitrogen loading limit on cedar trees, which limits our application rate to 4.6 acre-feet per year, 56-inches/year/acres. The *daily* model computations used 3.8 acre-feet/year for turf and 4.6 acre-feet/year for cedar as per earlier agreement within TCEQ standards. M.U.D. has 118 acres of turf and 98 acres of cedar in the S-4 Water Recycling Plant (WRP). Since the cedar trees are limited by 4.6 acre-feet/year it requires a minimum of 98 acres of cedar in addition to 118 acres of turf. The *daily* water-balance model, however, reduced the required pond storage volume from 50.4 MG (*monthly*) to 34.3 MG (*daily*). That is a reduction of 16 MG! The S-5 WRP has a disposal of 117 acres of turf. Balance is limited by 3.83 acre-feet/area annual application rate and a design flow of 0.4 MG/d which equates to 117 acres minimum requirement. The *daily* evaluation model reduces this required pond storage from 39.6 MG (*monthly*) to 27.9 MG (*daily*) or a total reduction of 11.7 MG. Thus by using the *daily* evaluations and adding 65 acres of turf irrigation results in a 52 acres savings of cedar tract; that is, only 46 acres of cedar tract is required instead of the currently permitted 98 acres. The required storage volume is now 44.5 MG versus the 57.7 MG existing storage which means that the *daily* evaluation methodology has less storage requirements. The District has requested the TCEQ review our request for an increase in annual average application rate on turf from 3.8 to a more germane rate of 4.6 acre-feet/year, and additionally, to officially submit the *daily* water and storage balances to TCEQ for their review and consideration. The combined effect of the *daily* water-balance system along with the new reuse line (with TECQ's approval) should free up significant cedar acreage and thus allow M.U.D. to gain revenue that can significantly offset capital improvements.

Mr. Foster provided the Committee with the present status of the Clearwell Design for a million gallon precast and prestressed concrete water-storage tank. He handed out diagrams of three construction options showing altered tank structural plans resulting in foundation changes due to specific construction excavation plans so as to achieve a desired elevation slope at the purposed work site. Option 2 is considered both cheaper and it also maintains the same elevation as the half-million gallon tank that exists just to the west of the proposed tank. Committee members questioned the timing of bids such that in the winter, one might logically expect lower

construction rates; however, it was decided that because of the present high workloads within the industry it would not result in any significant lower costs.

In his final presentation Mr. Foster explained that a previously proposed Mono-Layer Pilot Study by a MIT professor would be dropped due to reconsiderations of the professor.

Earlier Mr. Hietpas had sent a letter to Mr. Foster and his staff to consider ways to cut budget costs within the M.U.D. system. As such, one response led to a study of the BP-2 pump that services the E-4 tank (the Golf Ball Tank). The study indicated that the pump was oversized and by installing a Variable Frequency Drive and a high efficiency motor the M.U.D. could save money with the installation resulting in a 5-year payback; furthermore, they could receive a possible rebate from the Austin Energy resulting in a nearly half the cost of installation. Other cost savings resulting from the letter included that of cutting charges from AT&T, thus providing long-term savings by using radios.

The next meeting was scheduled for November 21, 2013, Thursday, at 3:00 P.M. Business was completed and the meeting was adjourned at 4:30 P.M.

The minutes have been read and approved by e-mail:

These minutes approved this 6 day of November, 2013.

Yeas 3, Nays 0, Abstain     .

Robert Rives, Secretary, E&O Committee, Lakeway MUD