

Higgins Lake Utility Authority
Regular Meeting Minutes
November 1, 2016

The meeting was called to order by Chairperson Hartman at 10:00 a.m.

Roll call: Present: Cook, English, Wood, Hartman, and Riley. Absent: None

Public Comments: None

Motion by Riley, second by Cook, **CARRIED** to approve the agenda. Yeas: All Nays: None

Motion by English, second by Wood, **CARRIED** to approve the minutes of the October 14, 2016 regular meeting. Yeas: All Nays: None

WADE-TRIM REPORT: Mike reported that there were 7 service calls and 3 Miss Digs for the month. Mike stated that the facility has been winterized and that he and Ken met with the farmer to plan how to move forward on the hay fields in the spring.

Motion by Wood, second by Cook, **CARRIED** to approve the treasure's reports for October 2016 Yeas All Nays: None

Motion by Riley, second by English, **CARRIED** to approve the accounts payable. Yeas: All Nays: None

Report from Staff:

OLD BUSINESS: Motion by Hartman, second by English, **CARRIED** to agree to proceed with the process of hooking the North State Park based on the proposed agreement with approval of both townships and the attorney recommendation. Yeas: All Nays: None. After discussions about the new Website a Motion by Cook, second by Hartman, **CARRIED** to go public with the website. Yeas: All Nays: None

Meeting adjourned 11:54 a.m.

Respectfully submitted

Paul Tatro
Business Manager

Ron Wood
Secretary

Lyon Township
District 27
2011

ESTIMATED CAPITAL COST/BUY-IN FEE TO WWTP CAPACITY

The final construction cost of the WWTP was \$1.6 million (including design and construction engineering). As noted above, the design capacity of the WWTP is 11.8 million gallons. This equates to a construction cost of \$0.136/gallon of total annual capacity. However, the Utility Authority received a \$1.0 million grant that was applied to construction of both the collection and treatment systems. The final construction cost of the collection system was \$4 million. As such, the prorated grant amount applied to the WWTP was \$300,000. Subtracting the prorated grant amount from the final construction cost, equates to a revised construction cost of \$0.11/gallon of total annual capacity. Applying this cost per gallon of WWTP capacity to the proposed users at their proposed annual flow would result in the following Capital Cost/Buy-In Fees:

Table 4 Capital Cost/Buy-In Fees to WWTP Capacity Summary		
Location	Annual Flow (gallons)	Buy-In Fee (dollars)
Silver Dollar Restaurant & Bar	350,000	\$38,500
Silver Dollar Express	73,000	\$8,000
Future Silver Dollar Laundromat	200,000	\$22,000
Higgins Lake Sport & Party/B.J.'s Ice Cream	73,000	\$8,000
Higgins Lake Family Dentistry	73,000	\$8,000
Clip N Curl Beauty Salon	73,000	\$8,000
Lyon Township Fire Department	40,000	\$4,400
Camp Westminister	620,000	\$68,200
Ralph A. MacMillan Conference Center	1,400,000	\$154,000
Total	2,902,000	\$320,200

ESTIMATED OPERATION & MAINTENANCE CHARGES

Estimates for operation and maintenance charges for the proposed locations are based on the Lyon Township Table of Residential Equivalent Units (Appendix C). Where the types of uses are not defined in the table, engineering judgment has been used. Currently, a flat rate of \$35/month is charged per 1 REU. Refer to Table 5 - Estimated O&M Costs for detailed information on estimated operation & maintenance costs based on the REU's for each user.

\$1.6 Million Costs (WWTP)
 \$0.3 Million EPA Grant (30% of 1.0 M EPA Grant)
 \$1.3 Million Net Cost
 \$11,800,000 Gallons
 APPROX TO 11,800,000 TO (current)

10-0164 = \$0.11/Gallon
 -11- September 2011

Gerrish Township MDEQ S-2 Grant #9237-01
Higgins Lake Sewer Study-Preliminary Cost Basis of Refined Areas
Table 3-11

Project Location:	Lyons Twp "A"	Gerrish South End	Gerrish C-1				Gerrish C-2				Gerrish C-1 & C-2				Gerrish SE
Treatment Location:	HLUA	Markley Twp	HLUA	New Treatment	HLUA	New Treatment	HLUA	New Treatment	HLUA	New Treatment	HLUA	New Treatment	New Treatment	New Treatment	Gerrish SE
Number of Users (REU's)	124	100	170	170	300	300	300	300	470	470	470	470	470	470	445
Total Annual Flow (32,850 gal/REU)	4,073,400 gal	3,285,000 gal	5,584,500 gal	5,584,500 gal	9,855,000 gal	9,855,000 gal	9,855,000 gal	15,439,500 gal	15,439,500 gal	15,439,500 gal	15,439,500 gal	15,439,500 gal	15,439,500 gal	15,439,500 gal	14,618,250 gal
Collection System															
Infrastructure-Low Pressure Collection Cost		\$2,183,200	\$2,428,100	\$3,597,400	\$3,597,400	\$5,423,200	\$5,423,200	\$9,020,600	\$9,020,600	\$9,020,600	\$9,020,600	\$9,020,600	\$9,020,600	\$9,020,600	\$8,652,400
Force Main to Treatment Plant Capital Cost			Incl. in collection cost	\$1,693,000	\$2,065,500	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$2,525,000	\$485,000
Treatment System															
Land Purchase for New Treatment Plant				\$100,000		\$150,000		\$200,000		\$200,000		\$200,000		\$200,000	\$200,000
Treatment Plant Construction Capital Cost				\$949,365		\$1,626,075		\$2,470,320		\$2,470,320		\$2,470,320		\$2,470,320	\$2,338,920
Capacity Buy-In Total (HLUA \$0.11/gal) - Use Existing Capacity at HLUA Plant -	\$448,074														
Capacity Buy-In Total (HLUA \$0.136/gal) - Expand Existing Capacity at HLUA Plant -			\$759,492			\$1,340,280			\$2,099,772						
Capacity Buy-In Total (Markley \$2700/REU)		\$270,000													
TOTAL PROJECT COST:		\$2,631,274	\$2,698,100	\$6,049,892	\$4,853,265	\$9,288,480	\$7,496,775	\$13,645,372	\$12,194,920	\$11,616,320					
Projected Cost per REU															
Collection Capital Cost (Per REU)	\$17,600	\$24,300	\$21,200	\$21,200	\$18,100	\$18,100	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,400
Treatment Capital Cost (Per REU)	\$3,614	\$2,700	\$14,426	\$7,387	\$12,884	\$6,912	\$9,840	\$6,754	\$6,795						
TOTAL COST per REU:	\$21,214	\$27,000	\$35,626	\$28,587	\$30,984	\$25,012	\$29,040	\$25,954	\$26,195						
Collection-Monthly Repayment @ 2 1/2%, 20 year (SRF)***	\$94	\$130	\$190	\$153	\$166	\$134	\$155	\$113	\$139	\$140					
Collection-Monthly Repayment @ 3 1/2%, 40 year (RD)***	\$69	\$95	\$139	\$112	\$121	\$98	\$113	\$101	\$102						
Treatment-Monthly Repayment @ 2 1/2%, 20 year (HLUA/HLUA)***	\$19	\$14	\$14	-	-	-	-	-	-	-	-	-	-	-	-
Monthly O&M HLUA	\$35	-	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35
Monthly O&M Markley	-	\$22	\$22	-	-	-	-	-	-	-	-	-	-	-	-
Total Monthly Cost per REU	\$148	\$123	\$166	\$131	\$225	\$174	\$188	\$147	\$201	\$156	\$169	\$133	\$190	\$148	\$137

*Loans with SRF or RD will be for the Collection System ONLY.

REU = Residential Equivalent Unit

HLUA=Higgins Lake Utilities Authority

Markley=Houghton Lake Sewer Authority (HLUA)

120028_GerrishTwpSGramAppl120028_LyonsTwpConsOpinion_140618km

**The Treatment Plant Buy-In thru the HLUA or HLUA assumes payback conditions matching the SRF program conditions in either scenario.
***The loans for Gerrish C-1, Gerrish C-2 and Gerrish C-1 & C-2 scenarios are for collection and treatment costs.

North Park Study
2016

As noted above, the actual influent flow has been averaging 24%-28% of the total annual design flow of 11,800,000 gallons for the seven years since the facility was placed on-line. The critical flow period for the WWTP is the period when the facility is unable to discharge (October 16 through April 30). The actual influent flow during this critical period has been averaging 33% (March)-48% (November) of the design flow since facility start-up. Refer to Figure 1 – Design Influent Flow vs. HLUA Actual + North park + RAM Center 2009-2015 which shows the design capacity of the facility as compared to actual 2009 through 2015 flow records. Figure 1 also shows the North Park and RAM Center individual flows and several combinations as well. Please note, the North Park is only operational during the portion of the year when the HLUA WWTP has the greatest capacity, due to the ability to discharge. The RAM Center is operational year around (2,900 gpd average). The WWTP has capacity to accept influent from both the North Park and the RAM Center and will still have some capacity remaining.

ESTIMATED CAPITAL COST AND BUY-IN FEES

Previous discussions with the HLUA have indicated that a reasonable assumption to estimate the potential Capital Cost/Buy-In Fee for future proposed customers is to use \$0.11/gallon of total annual capacity that the proposed customer would like to purchase from the HLUA WWTP. This fee is based on the original construction cost of the WWTP divided by the total volume of the facility (\$1.6 million construction cost minus a prorated grant amount of \$0.3 million/11.8 million gallons annual capacity = \$0.11/gallon). The HLUA should also consider wastewater strength for future proposed customers as well. If future customers have waste strength that would be equal to or similar to residential wastewater strength, then no additional fees should be necessary. However, if future proposed customers would have wastewater strength that is stronger than typical residential wastewater, it is recommended that a premium fee be added to the Capital Cost/Buy-In Fee or to the monthly operation/maintenance fee or both. For the North Park and the RAM Center, it is anticipated that the wastewater strength would be similar to residential wastewater strength, thus no additional premium be necessary. The capital cost/buy in fee must still be negotiated with the HLUA, however the buy in fee of \$0.11 per gallon capacity is used for the basis of calculations in this report.