

Bid Evaluation Memorandum
Marquette WWTF
Biosolids Improvements Project
City of Marquette



Date: April 10, 2023
To: Mark O’Neill, City of Marquette
Copy: Craig Heisel, Donohue
From: Allen Williams, Donohue
Re: Marquette Area Wastewater Treatment Facility Biosolids Improvements (Project)
 Bid Evaluation Memorandum

Bid Summary

This memo summarizes the bids the City received for the Marquette Biosolids Improvement Project. Bids were received on Thursday, February 16th at 2:00 PM and publicly opened at the conference room at the Municipal Service Center, 1100 Wright St, Marquette, MI 49855. The City received one bid.

The Bid Form included a base bid and six alternates. In evaluating bids for the lowest bid price, the City will consider the sum of the base bid plus any alternates it determines to award. The City has the flexibility and authority to accept any alternates it deems to be in the best interest of the City, taking into consideration financial impacts and the needs of the project. Table 1 summarizes the bids received by the City along with the Engineer’s estimate.

Table 1 Bid Summary

Basis of Bid		Miron	Engineer’s Estimate
Unit Price Schedule			
Lump Sum Bid Price -		\$12,545,138	\$9,389,217
Alternates			
1	Waste Receiving Station Equipment by Huber	\$27,642	\$62,000
2	BFP Feed Pump No 2	\$170,761	\$141,000
3	Building 960 Cake Storage Structure No. 2 Larger Footprint	\$304,194	\$240,000
4	High Pressure W3 Pump No 1	\$95,462	\$113,000
5	Additional Capital Improvements (Non SRF)	\$185,544	\$165,000
6	Odor Control System	\$217,564	\$300,000
Bidder Total			
Bidder Total		\$13,546,305	\$10,410,217

State Revolving Fund, Project Bonding, and Budget

A design and construction budget of \$11.7 M for the project was developed for the Michigan State Revolving Fund (SRF) Intent to Apply (ITA) submitted in November 2021. Bid costs received in June 2021 (plus inflation estimates) were the basis for the costs included in the ITA. The project is approved for funding through the SRF fund at an interest rate of 1.88%. The City has worked with their Bond Council to approve bonding for this project.

Bid alternate 1 includes Huber waste receiving station equipment in lieu of the base bid manufacturer. Huber is the same manufacturer as other reliable screening equipment at the plant. Alternate 1 is recommended.

Bid alternate 5 includes \$0.185 M for non-SRF related improvements. These improvements address regulatory and safety issues at the wastewater facility. Alternate 5 is recommended.

Bid alternates 2, 3, 4, and 6 will not be included in the project scope and cost. Bid alternate 2, BFP Feed Pump No 2, and bid alternate 4, High Pressure W3 Pump No 1, may be completed in the near future as separate projects. The facility will meet the 180 days of solids storage requirement from EGLE without bid alternate 3, larger cake storage structure. Bid alternate 6, odor control system, could be completed as a separate project in the future if there are odor issues with the septage receiving station.

The total project cost to the city with the base bid, Alternate 1, and Alternate 5 is \$8,681,373.

Table 2 summarizes the current SRF project budget. For comparison, the table also includes updated costs if the project were to proceed with bid Alternate 1 and 5.

Table 2 Total SRF Project Budget

Item	Project Estimate (11/21)	Project Cost with Base Bid and Alternates 1 and 5
SRF Related Construction Costs (Base Bid and Alternate 1)	\$9,934,451	\$12,572,780
Design Engineering	\$475,300	\$0 (Already Paid from separate budget)
Construction Related Services	\$336,553	\$336,553
Applications Engineering	\$205,600	\$205,600
Legal/Bonding and other Related Costs	\$100,000	\$100,000
Contingency (6%)	\$663,096	\$663,114
SRF Project Cost	\$11,715,000	\$13,878,000
Non-SRF Project Cost (Alternate 5)	\$185,544	\$185,544
SRF Principal Forgiveness	----	\$5,857,500
SRF Loan Value	----	\$5,857,500
Alternative Financing (SRF and City replacement fund)	----	\$2,348,000

Previous Bid

This project is a rebid of a similar project from June 2021. At that time, three bids were received with low bid of \$7,888,400. The total project cost to the city with the base bid, Alternate 5, engineering services, legal/bonding, and contingency was \$9,775,000.

Alternatives

The commission and board has generally been supportive of the project and the benefits to the community. However, the project is over budget. Three alternatives were developed for moving forward with the project.

Alternative No. 1 – Proceed with project with base bid, Alternate 1, and Alternate 5. The SRF bonding will fund the budgeted \$5.86M of the project cost. The remaining project cost will be funded by the City (\$1.3M through the wastewater replacement fund) and SRF loan (approximately \$1.0M additional). The bid alternates including the Huber screening system and regulatory improvements related to Alternate No. 5 are included in the project. The debt service costs is reduced by using the wastewater replacement fund.

Alternative No. 2 – Do Not Accept Bids and Plan Project for Future. The City could reject bids and not proceed with the project. However, there is no certainty on interest rates, principal forgiveness, or inflationary pressure in the future. The City is in position to receive \$5,857,500 in principal forgiveness for the 2023 SRF fiscal year. The ITA for the 2024 SRF fiscal year has passed. Indications are that the state received more ITA submittals and more requested funds than in previous years. There is no indication that the 2025 SRF fiscal year would be different. As a result, delaying the project to the 2025 SRF fiscal year or later will result in a lower likelihood of receiving a low interest loan and a significantly lower likelihood of receiving principal forgiveness. Without principal forgiveness, the City would need a loan of \$14.3M to pay for the project with the current bid. Additionally, there are no indications that construction cost will stabilize and it is unlikely that construction costs will decrease. Therefore, it is likely that the same project would cost \$14.3M or more in the 2025 SRF fiscal year or later.

The advantages and disadvantages of the alternatives are summarize in Table 3.

Table 3 Alternatives Summary

Alternative		Advantages	Disadvantages
1	Proceed with project with base bid, Alternate 1, and Alternate 5	<ul style="list-style-type: none"> ▪ City realizes value of planned investments ▪ Keep low interest rates (1.88%) ▪ Keep principal forgiveness (\$5.86M) ▪ Address regulatory issues 	<ul style="list-style-type: none"> ▪ Project costs are approximately 30% more than anticipated
2	Do Not Accept Bids	<ul style="list-style-type: none"> ▪ No cost to City 	<ul style="list-style-type: none"> ▪ Costs likely to stay similar or rise ▪ No interest rate certainty ▪ More competition for loans and principal forgiveness in future years ▪ Continue to have limited biosolids storage, effluent DO issues, dewatering capacity issues ▪ Lost revenue and energy production

Recommendation

Table 4 compares project costs and funding details associated with the following:

- Previous bid results (6/21)
- SRF Intent to Apply (11/21)
- Bid Costs (2/23)

The bid total is 30% greater than the engineers estimate for the work. Many projects have seen recent, significant increases in cost due to inflationary costs in materials, market uncertainty, and labor availability.

Donohue communicated with multiple general contractors prior to bid opening. Contractors provided various reasons for not bidding the project. There was no indication that delaying the bid opening to provide more time would change any general contractor’s decision to bid.

The Solids Handling Project will likely cost more in the future with little or no principle forgiveness. The project team recommends awarding the project to the apparent low bidder including the base bid, Alternate 1, and Alternate 5.

Table 4 User Impact Calculations for Various Alternatives

	Bid (06/21)	SRF Funding Intent to Apply (11/21)	Bid Cost (2/23)	Notes
SRF Related Construction Costs	\$7,888,400	\$9,934,451	\$12,545,138	
Design Engineering	\$475,300	\$475,300	\$475,300	Previously paid
Construction Related Services	\$176,100	\$336,553	\$336,553	
Applications Engineering	\$105,600	\$205,600	\$205,600	
Legal/Bonding and other Related Costs	\$100,000	\$100,000	\$100,000	
Total Base Bid Project Costs	\$8,745,400	\$11,051,904	\$13,187,291	
Contingency	\$524,724	\$663,114	\$663,114	
Total Project Costs (base bid only rounded)	\$0	\$0	\$13,850,000	
1 Waste Receiving Station Equipment by Huber	\$31,200	\$62,000	\$27,642	
2 BFP Feed Pump No 2	\$118,600	\$141,000	\$170,764	
3 Building 960 Cake Storage Structure No. 2 Larger	\$147,700	\$240,000	\$304,194	
4 High Pressure W3 Pump No 1	\$65,400	\$113,000	\$95,462	
5 Additional Capital Improvements (Non SRF)	\$276,000	\$185,000	\$185,544	Cannot fund through srf, include in replacement fund below
6 Odor Control System		\$300,000	\$217,564	
Total Project Costs (base bid + accepted SRF Alternatives)	\$9,270,000	\$11,715,000	\$13,878,000	Not including Alt 5
			\$14,063,544	With Alt 5
GPR Principle Reduction	(\$283,500)	(\$5,857,500)	(\$5,857,500)	From Project Priority List After grant
Replacement fund previously committed	\$0	\$0	\$0	
Value of Replacement fund			\$2,100,000	
Replacement fund remaining reserve			\$500,000	
Ongoing Fire Alarm Project (non SRF)			\$34,601	
Replacement fund contribution to SRF portion of project)	\$0	\$0	\$1,379,855	Estimate for reference (included \$185k for non-srf portion (alternate 5)0
Total Amount borrowed =	\$8,986,500	\$5,857,500	\$6,826,189	
Total Amount borrowed srf =	\$8,986,500	\$5,857,500	\$6,826,189	
<i>Interest Rate</i>	1.875%	1.875%	1.875%	
Number of payments in years =	20	20	20	
Computed Principal & Interest for Repayment of MDEQ loan =	\$543,000	\$353,900	\$412,400	
Annual Estimated Revenue	\$150,000	\$150,000	\$150,000	
City's project Annual Debt payment (City of Marquette)	\$393,000	\$203,900	\$262,400	
Impact of Debt Repayment on Customers Annual debt (reflects 84% by City)				
City's Debt Payment - SRF only =	\$330,120	\$171,276	\$220,416	
Number of Water & Sewer Customers (City of	6,141	6,141	6,141	
Average Debt Retirement Cost Per Customer/yr=	\$53.76	\$27.89	\$35.89	
Average Debt Retirement Cost Per Customer/mo=	\$4.48	\$2.32	\$2.99	Project estimate prior to bid in 2021 was \$2.68