

## AGENDA REPORT

TO: Mayor & City Commission  
FROM: Ken Hibl, City Manager  
DATE: March 31, 2010  
RE: Ammonia Reduction System Pilot Project Study



For the Agenda of April 5, 2010

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Background. As the City Commission is aware, the City has been formally put on notice by the Michigan Department of Natural Resources & Environment (MDRNE) that it must reduce its level of ammonia discharge at its wastewater treatment plant or be in jeopardy of losing its discharge permit. To facilitate accomplishment of this MDNRE edict, the City has applied for and received a low-interest, long-term USDA loan. The sale of bonds to consummate the loan has been noticed, and we are currently awaiting closure of the mandated public comment period before we proceed with the loan closing.

During this interim period, Gourdie-Fraser, our engineer of record, has solicited bids for systems and processes that will be installed at our wastewater treatment plant to reduce our ammonia discharge levels. Concurrently, GFA has obtained MDRNE and USDA approval on our behalf to conduct a pilot study of the system selected prior to actually installing the full-blown system to ensure that the system will actually do (reduce our ammonia discharge levels) what we intend it to do, thereby precluding us from expending a large amount of money to buy a system that will not work.

The att'd correspondence from Gourdie-Fraser outlines the process for the bid solicitation, the bids received, analysis of the bids, and the cost of both the pilot study and the actual cost of the two systems that were proposed in the bid process.

GFA representatives are scheduled to be at Monday's meeting to answer any questions related to the pilot study, the bid process, and the information outlined in the attached correspondence. The City Commission is asked to consider and approve the recommendations of our engineer, thereby allowing us to proceed with the pilot study.

Issues & Questions Specified. Should the Clare City Commission approve the commencement of the pilot study?

Alternatives.

1. Approve the recommendation to proceed with a pilot study of the low bidder.
2. Approve the process to proceed with the proposed pilot study of the high bidder.
3. Bypass the pilot study and proceed directly to installation of one of the two proposed ammonia reduction systems.
4. Set the matter aside for consideration at a later-scheduled commission meeting.

Financial Impact. The fiscal impact is directly correlated to the alternative selected. However, it is important to note that there is a \$300K+ cost between the two systems,

thus it would appear to be prudent to proceed with the pilot study of the lower cost system (\$15K for the pilot study) to ensure that it will reduce ammonia discharge levels and thereby potentially save the \$300K difference in system purchase costs.

Recommendation. I recommend that the Clare City Commission approve the commencement of the pilot study using the Entex Technologies, Incorporated system (Webitat Modules) by adoption of Resolution 2010-022 (*copy att'd*).

Attachments.

1. GFA Correspondence.
2. Resolution 2010-022.

March 30, 2010

Ken Hibl  
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Clare, MI 48617

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[www.gourdiefraser.com](http://www.gourdiefraser.com)

RE: Ammonia Reduction  
Letter of Recommendation

Dear Mr. Hibl,

This letter is in regards to the Request for Proposal (RFP) package for the Ammonia Reduction System at the City of Clare's WWTF. The following is a description of the procurement process, results and Gourdie-Fraser's recommendations.

On March 3<sup>rd</sup>, five (5) RFP's were issued to manufacturer representatives and each confirmed interest in submitting a proposal. At noon on March 15<sup>th</sup> only two (2) bids were received and opened at City Hall. The two bidders were Entex Technologies, Inc with Webitat modules and Wastewater Compliance Systems, Inc with Poo Gloo modules. A bid scoring summary sheet was prepared and is enclosed for your records. The bid scoring summary sheet was provided by Rural Development as part of the RFP package. Based on our review of the proposals and the scores generated, we recommend that you proceed with the Entex Technologies pilot demonstration. The details for the pilot demonstration are included in the Entex proposal.

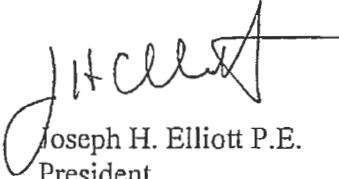
According to Wayne Flournoy, President of Entex, equipment for the pilot demonstration could begin to arrive at the WWTF starting the first week of April with a site visit scheduled for April 7<sup>th</sup> to coordinate installation and to meet the WWTF staff. Installation of the pilot demonstration will start on April 14<sup>th</sup> with it being operational on the 16<sup>th</sup>. \$7,500 is due with PO for mobilization (Entex is already processing the delivery of equipment) with \$7,500 per month for operation of the pilot. It is estimated that it will take three weeks to establish the necessary nitrification bacteria. Once established, we believe that the pilot will only need to be operational for approximately two months to demonstrate that it can successfully meet the NPDES permit limitations. We expect the total cost for Entex to perform the pilot demonstration to be \$22,500. 75% of the pilot costs will be credited towards the full scale system installation cost. Once the pilot demonstration is completed we will report on the performance and provide a recommendation for moving forward with the full scale system.




Should you have any questions or comments regarding the process or the pilot demonstration schedule, please let us know at your earliest convenience. We will attend the April 5, 2010 meeting to address any questions on this matter.

Respectfully,

GOURDIE-FRASER, INC.



Joseph H. Elliott P.E.  
President



Jason Borchert, P.E.  
Project Engineer

cc John Holland, City of Clare  
File

enclosure

BID SCORING SUMMARY  
 CITY OF CLARE  
 AMMONIA REDUCTION SYSTEM  
 AT THE CITY OF CLARE'S WASTEWATER TREATMENT PLANT

	Entex Technologies, Inc. (Webitat Modules)	Wastewater Compliance Systems, Inc (Poo Gloo)
<u>Pilot Demonstration Cost - 5 Points</u>	<u>Amount</u>	<u>Amount</u>
Total Pilot Demonstration Cost	\$15,000.00	\$18,900.00
Within Percentage of Low Bidder	0.0%	26.0%
Points Awarded as Proportion to Low Bidder	5.0	3.7
<u>Pilot Installation/Operate Timeline - 5 Points</u>		
Number of Days	56	77
Within Percentage of Low Bidder	0.0%	37.5%
Points Awarded as Proportion to Low Bidder	5	3.1
<u>Final System Cost - 20 Points</u>	<u>Amount</u>	<u>Amount</u>
Total Final System Cost	\$619,350.00	\$938,750.00
Within Percentage of Low Bidder	0.0%	51.6%
Points Awarded as Proportion to Low Bidder	20.0	9.7
<u>Final System Component Delivery Timeline - 15 Points</u>		
Number of Days	172	70
Within Percentage of Low Bidder	145.7%	0.0%
Points Awarded as Proportion to Low Bidder	6.0	15.0
<u>Prior Installations - 15 Points</u>		
Points Awarded	15	5
<u>Reference Responses - 5 Points</u>		
Points Awarded	5	2
<u>Ease of Maintenance - 10 Points</u>		
Points Awarded	7	5
<u>Maintenance Costs - 10 Points</u>	<u>Amount</u>	<u>Amount</u>
Total Maintenance Cost (per year)	\$4,500.00	\$5,850.00
Within Percentage of Low Bidder	0.0%	30.0%
Points Awarded as Proportion to Low Bidder	10.0	7.0
<u>Energy Usage - 10 Points</u>	<u>Amount</u>	<u>Amount</u>
Total Energy Usage Cost (per year)	\$16,191.00	\$9,855.00
Within Percentage of Low Bidder	64.3%	0.0%
Points Awarded as Proportion to Low Bidder	3.6	10.0
<u>Completeness of Submittal - 5 Points</u>		
Points Awarded	5	4
<b>TOTAL POINTS AWARDED</b>	<b>81.6</b>	<b>64.5</b>

**RESOLUTION 2010-022**

**A RESOLUTION OF THE CLARE CITY COMMISSION APPROVING AN AMMONIA REDUCTION PILOT STUDY.**

**WHEREAS**, the City of Clare has been formally notified by the Michigan Department of Natural Resources & Environment (MDRNE) that it must reduce its level of ammonia discharge at its wastewater treatment plant or be in jeopardy of losing its discharge permit; and

**WHEREAS**, the City has applied for and received a low-interest, long-term United States Department of Agriculture (USDA) loan to facilitate the accomplishment of the MDRNE mandate; and

**WHEREAS**, Gourdie-Fraser, the City's engineer of record, has solicited bids on behalf of the City for systems and processes that will be installed at the wastewater treatment plant to reduce the City's ammonia discharge levels; and

**WHEREAS**, Gourdie-Fraser has concurrently obtained MDRNE and USDA approval on the City's behalf to conduct a pilot study of the system selected prior to actually installing the system to ensure that the system installed will in fact reduce the City's ammonia discharge levels to acceptable levels; and

**WHEREAS**, two bids were received for ammonia reductions systems; and

**WHEREAS**, Gourdie-Fraser has recommended that the City approve the commencement of a pilot study of the system provided by Entex Technologies, Incorporated; and

**WHEREAS**, the City Commission has reviewed and considered the recommendations of Gourdie-Fraser and deemed that approval of said recommendations are clearly in the best interests of the City.

**NOW THEREFORE BE IT RESOLVED THAT** the Clare City Commission hereby approves commencement of a pilot study of the Webitat Modules Ammonia Reduction System offered by Entex Technologies, Incorporated for a pilot study cost not to exceed \$15,000.

**The Resolution was introduced by Commissioner \_\_\_\_\_ supported by Commissioner \_\_\_\_\_. The Resolution declared adopted by the following roll call vote:**

**YEAS:**

**NAYS:**

**ABSENT:**

Resolution approved for adoption on this 5<sup>th</sup> day of April 2010.

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Diane Schmidt, City Clerk