



TO: Environmental Commission

FROM: Howard S. Lazarus, City Administrator

DATE: February 22, 2017

SUBJECT: Follow-Up Items Regarding Ann Arbor MRF Status Update and Staff Recommendations for Next Steps

PURPOSE: This memorandum provides information and responses to questions resulting from the February 15, 2017 special meeting of the Environmental Commission.

BACKGROUND: This section provides additional information to the Commission (the "Commission") on the assessment of the Materials Recovery Facility (MRF).

Assessment of MRF Equipment

The City received a report on the condition of the MRF processing equipment on Thursday, February 16, 2017 from CP Manufacturing, the manufacturer of the City's single-stream equipment. Staff has provided a copy of this report in Legistar as an attachment to Legistar Item 17-0242 on the Commission agenda for February 23, 2017. The Commission will consider providing a recommendation to Council at the Commission's February 23, 2017 meeting. Staff has provided the key findings from the report below:

"During the site visit, and concluding from the pictures taken, it is safe to say that the facility is in dire need of many upgrades and much maintenance. Unfortunately most of the equipment have not been maintained properly to allow for the full function it was designed to do. In consulting with Craig [Frisch of CP Manufacturing], it would be best to consider having a sales engineer meet with the city, to discuss options of upgrading the facility with newer equipment and designing a system that would capture the needs of the city. The cost of labor and parts needed to restore the current equipment in the facility, would be excessive as most parts are damaged beyond repair and needs to be replaced."

"From a mechanical perspective, the equipment cannot perform as designed. Most items are in need of repair for the equipment to continue to function properly well into the future. Maintenance of equipment cannot be seen through a screenshot of this facility. Many items have been omitted or have been repaired by standards not safe for a working environment. The cost

of parts and labor to repair this facility to its original state, or to the point of functionality, would be excessive. It is the recommendation that many of the installed equipment be overhauled to newer standards for optimal use and enhanced recovery of materials. Some notable observations as follows:

- Return rollers on most conveyors should be replaced to avoid belt damage, if belts were replaced
- 95% of the belts on equipment are worn beyond optimal function and are in need of repair
- Due to a lack of maintenance, most head and tail shafts have taken on tremendous wrapping, shafts are bent, pulley drums are damaged and replacement of all is required.
- Bearings are damaged which is causing many other components to take on excessive strain to function to the designed capability.
- Because the facility has not been in operation since July 2016, it is recommended that an electrical audit be conducted to determine the extent of damage and/or functionality”

The City has now received three assessments of the MRF processing equipment in order to bring the MRF back up to full on-site operation and processing of recyclables:

1. An unsolicited three-page memo titled “AA MRF Evaluation” by RRS, Inc. was included in the Recycle Ann Arbor (RAA) proposal that stated in its conclusions that “our professional opinion is that repair work would take no longer than 60-days and cost no more than \$200,000 to bring the Ann Arbor MRF back into safe and efficient operation. Based on that conclusion, we strongly recommend that RAA provide a price proposal for operating the Ann Arbor MRF in order to recover the City’s recyclables.” However, as noted in the staff report memo of February 10, 2017, when asked by the staff committee during the interview if the team would include this time duration and cost figure as fixed, guaranteed contract items, RAA declined to include that provision to the contract. In the face of two separate contrary opinions and RAA’s unwillingness to stand behind its representations contractually, staff finds the RRS conclusions to carry high operational risk.
2. Waste Management (WM) and its subcontractor Alexander Industrial Technologies, Inc. provided an equipment assessment as a specific task under the Short-Term Operations contract. This review estimated the minimum range of investment to perform repairs just to enable the equipment to be safely turned-on and observed is \$100,000 - \$400,000, and noted that there would be additional repairs at an unknown cost identified after the equipment were placed back in operation. City staff observed the performance of this analysis, and determined it to be credible.
3. CP Manufacturing’s report indicating that the costs to repair the equipment to bring it back “to the point of functionality, would be excessive.” As stated above, CP is the original manufacturer of the equipment, and staff determined the opinion to be credible.

Based upon the above reviews, staff’s determination is that replacement of the processing equipment is necessary in order to have the MRF brought back to full processing of recyclables on-site. Due to the large capital investment necessary for the equipment replacement, on-site processing of material is not feasible

under the Interim Operations Contract. Staff will integrate a strategy for local processing of recyclable materials into the procurement approach for the upcoming long-term contract.

RESPONSES TO QUESTIONS: Staff has provided responses to the Commission's questions (bold and italicized type) and comments regarding the method(s) for handling the single-stream recycle materials during the interim period below:

The quality of the baled recyclables is greatly decreased (or the amount of residual material is increased) when the material is baled prior to processing. On October 5, 2017, Systems Planning Manager Cresson Slotten witnessed the material composition audit performed by WM on Ann Arbor's single-stream recyclable material. To perform this audit, WM gathered a full week's volume of material baled and transported from Ann Arbor's MRF to their Akron MRF facility and stockpiled it separately from all other materials, not processing it until the audit. The day and evening before the audit, the processing equipment was "run dry" of all other material so that on the day of the audit only Ann Arbor's weeks' worth of material would be processed. WM further sorted for distribution all of the materials the Ann Arbor program collected. The residual rate from this audit and the processing of the baled and transported material was 11%. This result is in-line with the residual rate realized at the City's MRF when the operator processed the materials on-site, and stands in contrast to the concern that baling the materials provides a significantly less optimal approach.

The City says that loose loading will result in higher greenhouse gas (GHG) emissions, but since Recycle Ann Arbor proposal is the only one that includes recycling of glass that will more than offset these GHG impacts. The City recognizes that recycling glass does have a positive effect on GHG emissions, and notes that this offset is also provided by WM by sending glass to CAP Glass in the greater Pittsburgh area of Pennsylvania for recycling.

The City says that two contractors can't work at the transfer station at the same time safely to do recycle loose loading and municipal solid waste (MSW), but there's plenty of capacity/room to do that. Staff disagrees with this statement. As indicted in our report of February 10, 2017 and the staff presentation on February 15, 2017, the contractor selected through the recently issued RFP 17-05 (*Solid Waste Transfer, Transport and Disposal Services*) will operate the transfer station beginning on July 1, 2017 (the City's consultant (CB&I) recommended including operation of the transfer station in the Solid Waste contract). As the contracting owner, it is not prudent to have two separate contractors performing different operations with different materials in the same space not only from a contract management standpoint, but equally important, the safety risk created by multiple operations at the transfer station. The station (both the bays and the site itself) was not designed for high traffic resulting from two contractor operations or the handling multiple material streams.

If the Transfer Station isn't available for loose loading by Recycle Ann Arbor, they can perform the loose loading at the MRF at the same cost as at the Transfer Station. The MRF is neither designed nor equipped to support the loose loading of materials into open-top high capacity trailers. The lowered "loading area" is at conventional loading docks at the northwest corner of the building to load conventional rear-open trailers. To loose load into open top high-capacity trailers, the trucks would need to enter into the building in the same area where the collection trucks enter and dump their material. A push wall for filling the loader bucket most likely would have to be erected/installed inside the building. In addition, the loader available at the MRF does not have the reach to be able to load a high-capacity top load trailer, as well as

having an excessive amount of operating hours (over 19,000 hours) and it may not be operable for the duration of the Interim Contract under this heavier use if it is able to load the trailers. Notwithstanding the operational risk involved, RAA would need to consider these additional costs its proposal for loose loading.

How was Waste Management's proposal viewed as being a responsive proposal when they did not include operation of the MRF if the equipment were to be repaired in their proposal? WM indicated that they did not know the staffing and operating needs for the equipment in the MRF, and thus they were not able to include provisions for this aspect in their proposal. Further, the operation of the MRF (as stated above) is not a feasible option for the interim period.

If the Fee Proposal aspect of the proposal is only 10% of the weighting of the evaluation scoring, how can the costs be such a deciding factor between Waste Management and Emterra? As noted previously, in Section H. **Type of Contract**, found on p. 6 of the RFP:

"The City reserves the right to award the total proposal, to reject any or all proposals in whole or in part, and to waive any informality or technical defects if, in the City's sole judgment, the best interests of the City will be so served."

In addition, Section Q. **Reservation of Rights**, found on page 8 of the RFP states:

"1. The City reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause."

When presented with the evaluation of all factors, I concurred with the recommendation of staff that the while both Emterra and WM are capable of providing the requested services, the additional value Emterra added was not proportionate to additional cost.

COST ANALYSIS: The cost proposals for each of the offers received consist of the following three components:

- ***Transfer Station Operation Fee:*** As noted in the staff report memo of February 10, 2017 and the staff presentation on February 15, 2017, the Interim Operations Contractor will operate the transfer station until June 30, 2017. Starting on that date, the *Solid Waste Transfer, Transport and Disposal Services* contractor (to be selected under recently issued RFP 17-05). Therefore, these fees will only be applicable until that date. Beginning July 1, 2017 fees and charges related to the Transfer Station operation will no longer be included in this contract.
- ***Recycling Fee:*** In light of the condition of the processing equipment noted above, it will not be possible to bring the MRF back on-line using the existing equipment. Therefore, the proposed fees for operating the MRF using the existing equipment are not applicable, and the fees for recycling services considered are those for baling and transporting of recyclables to the proposers processing facility. As questions/comments regarding RAA's proposal for loose loading continue, this approach is also included in the discussion below.
- ***Commodity Revenue Credit*** – Each of the three proposers included some form of credit to their recycling fees from commodity revenues from the recyclable material. RAA and WM included it in their proposal. Emterra included a fee option without a credit, and one with a credit but noted

that the City would assume the full commodity risk; thus, if the commodity revenue would become a negative value (as occurred a few years ago), the City would pay this as an added fee.

A summary and comparison table of these fee proposals submitted in response to RFP No. 980 is attached to this memorandum.

In reviewing the analysis of the cost proposals performed by members of the Commission compared to the analysis performed by City staff, the following items are noted:

- The initial analysis performed by the Commission applied WM's fuel surcharge fee to the \$50,000 flat fee for the Transfer Station Operations, however this charge only applies to the per ton charges for waste transfer and recyclables and not the flat fee. In addition, the value used by the Commission was 11.11%; however, the rate was 9.94% in September, which the City used in its evaluation.
- The Commission analysis uses the same value for the Commodity Revenue Credit for all three proposals. While the Emterra and WM Commodity Revenue Credits are both based on published industry index of commodity prices (both utilize the price issued by RISI PPI Pulp & Paper Week, and WM also utilizes the prices published at www.secondarymaterialspricing.com), RAA's proposal does not provide a published index, or other recognized method to determine the credit value. When staff sought clarification from RAA regarding their fee proposal, they indicated they would reduce value for their Average Commodity Sales by the amount of the Rumpke Brokerage Fee to calculate the Average Commodity Revenue. In addition, RAA indicated, "the baled ACR (Average Commodity Revenue) is lower, given the anticipated downgrading of material value based on baling." Due to these reductions, staff utilized a reduced Commodity Revenue Credit for RAA, specifically using the values provided by RAA during the clarification of their fees, which were \$54.53 for the baled scenario and \$67.43 for the loose load scenario.
- In its Scenario #1, the Commission's analysis compared the "Best Hauling Proposal" from each proposer, which were the baled and transport fees for Emterra and for WM, and the loose load fees for RAA. The Commission analysis added a City cost for amortization of the City's baler at the MRF which would be used for those scenarios, but would not be used for the loose load option by RAA and this charge was not added to RAA's costs. Though the baler would not be regularly operated under the loose load option, it would still need to be routinely started and have preventative maintenance (PM) performed to ensure its ability to operate when required in the future. In addition, as noted earlier in this report, it is anticipated by the City that if loose loading were to be performed by RAA inside the MRF facility there would likely be costs associated with providing a push wall and loader for this operation, which should be added to these costs. Staff has added an estimated monthly value of \$250 for RAA's loose load option for the baler PM as well as approximately \$4,900 for the loader and push wall costs.
- With the resulting duration of the Transfer Station Operations portion of the contract being approximately three months in length, the calculations have been performed including the Transfer Station fees solely for this period.

The resulting calculations based upon the above analysis for the proposals are provided below:

Based on September 2016 Tons	Emterra (Baling)	Recycle Ann Arbor (Loose Load)	WM (Baling)	Recycle Ann Arbor (Baling)
Recycled Tons	1328.45	1328.45	1328.45	1328.45
Waste Tons	4843.76	4843.76	4843.76	4843.76
April 2017 - June 2017				
Recyclable Material Revenue per ton	71.76	67.43	71.76	54.53
Hauling Recyclables Proposal per ton	188.81	146.00	132.00	214.99
Net Cost per ton	\$ 117.05	\$ 78.57	\$ 60.24	\$ 160.46
Total Cost for Hauling Recyclables	\$ 155,495	\$ 104,376	\$ 80,026	\$ 213,163
Waste Transfer per ton	\$ 17.49	\$ 14.85	\$ 8.75	\$ 14.85
Total Waste Hauling Cost	\$ 84,717	\$ 71,930	\$ 42,383	\$ 71,930
Flat Monthly Fee			\$ 50,000	
Other City Costs - Baler amortization	\$ 6,999	\$ 250	\$ 6,999	\$ 6,999
Fuel Adjustment			\$ 12,167	
Loader and Push Wall costs		\$ 4,931		
Total Monthly Net Cost: April-June	\$ 247,211	\$ 181,487	\$ 191,575	\$ 292,092
Total Cost for the Period	\$ 741,634.41	\$ 544,460.79	\$ 574,725.57	\$ 876,275.87
Beginning July 1, 2017				
Recyclable Material Revenue per ton	71.76	67.43	71.76	54.53
Hauling Recyclables Proposal per ton	188.81	146.00	132.00	214.99
Net Cost per ton	\$ 117.05	\$ 78.57	\$ 60.24	\$ 160.46
Total Cost for Hauling Recyclables	\$ 155,495	\$ 104,376	\$ 80,026	\$ 213,163
Other City Costs - Baler amortization	\$ 6,999	\$ 250	\$ 6,999	\$ 6,999
Fuel Adjustment			\$ 7,955	
Loader and Push Wall costs		\$ 4,931		
Total Monthly Cost: Beginning July 1, 2017	\$ 155,495	\$ 109,557	\$ 94,979	\$ 213,163
Total Cost for July - end of 2017	\$ 932,970.44	\$ 657,342.56	\$ 569,876.58	\$ 1,278,978.52
Total Cost for April - end of 2017	\$ 1,674,604.84	\$ 1,201,803.35	\$ 1,144,602.15	\$ 2,155,254.39

RECOMMENDATION: Staff recommends awarding the Interim Operations contract to WM for the following reasons:

- While Emterra’s technical approach was evaluated as being superior to WM’s, the “value-added” was not proportionate to the additional costs. RAA’s adjusted costs for both the loose load and the baled options were higher than WM’s.
- WM has a proven record of performance in both Ann Arbor and nationally. RAA has not previously provided this scope of services, and the lack of a performance record carries additional performance risk to the City.
- RAA’s proposal for loose loading contains assumptions that are unsubstantiated and carry excessive risk. RAA does not have demonstrated experience in these operations, and would have to provide strong performance and financial guarantees for this option to be further considered.

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- WM and Emterra both cite accepted indices for pricing recyclable materials. RAA's proposal does not provide a published index, or other recognized method to determine the credit value – creating additional cost risk for the City.

City of Ann Arbor RFP 980 Fee Proposals Comparison Table

Fee Component	Emterra	Recycle Ann Arbor	Waste Management
Waste Transfer	<ul style="list-style-type: none"> • \$17.49/ton 	<ul style="list-style-type: none"> • \$14.85/ton 	<ul style="list-style-type: none"> • \$8.75/ton • \$50,000/month flat fee • Fuel Surcharge, Based on fuel adjustment index www.wm.com/documents/pdfs for FEC/CollectionFST.pdf
Recycling (Baled)	<ul style="list-style-type: none"> • \$118.50/ton (no Commodity Revenue) OR • \$188.81/ton (City Receives 100% of Commodity Revenue, see below) 	<ul style="list-style-type: none"> • \$214.99/ton (City receives portion of Commodity Revenue, see below) • \$146.00/ton for Loose Load Option (City receives portion of Commodity Revenue, see below) 	<ul style="list-style-type: none"> • \$132/ton (City receives 100% of Commodity Revenue up to \$132/ton; if greater than \$132/ton, City receives \$132 + 60% of value over \$132/ton)
Commodity Revenue Credit for Recyclables	<ul style="list-style-type: none"> • “PPW, the price issued by RISI PPI Pulp & Paper Week (or any successor publication) for the Midwest Region, Domestic Price, 1st issue of the month, retroactive to the first of the month” 	<ul style="list-style-type: none"> • “Based on Average Commodity Revenue for AA recyclable stream characterization” • No reference to published indices or other source of basis • During review of fee proposals, staff sought clarification from Recycle Ann Arbor <ul style="list-style-type: none"> ○ Average Commodity Sales would be reduced by the amount of the Rumpke Brokerage Fee to calculate the Average Commodity Revenue ○ Per e-mail from Recycle Ann Arbor’s authorized negotiator, the baled ACR (Average Commodity Revenue) is lower for baled than for loose load, given the anticipated downgrading of material value based on baling.” 	<ul style="list-style-type: none"> • “PPW, the price issued by RISI PPI Pulp & Paper Week (or any successor publication) for the Midwest Region, Domestic Price, 1st issue of the month, retroactive to the first of the month” • “SMP, it means the price published at www.secondarymaterialspricing.com, (or any successor publication) for the Chicago (Midwest/Central) Region, first dated price each month, retroactive to the first of the month