



Resource Recovery & Recycling Authority of Southwest Oakland County

20000 W. 8 Mile Rd
Southfield, MI 48075-5708
Office: 248.208.2270
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www.RRRASOC.org

THE RECYCLING AUTHORITY
Since 1989

**Agenda
December 1, 2022
RRRASOC Board of Directors
Regular Meeting
9:30 am**

**Southfield Municipal Complex
City of Southfield Parks and Recreation
2nd Floor, Room 223
26000 Evergreen Road, Southfield MI 48075**

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Audience Participation
5. Matters for Discussion/Action
 - A. MRF Project - Consultant Presentation**
 - B. MRF Operating Agreement**
 - C. Glacier Robotics Project**
 - D. Federal Recycling Grant Program**
 - E. Novi Regional Recycling Drop-Off Center Agreement**
 - F. Prairie Robotics Proposal**
6. Manager's Report
7. Other
8. Consent Agenda
 - A. Material Management Report
 - B. MRF Operations Report
 - C. Payment of Bills Report
 - D. Investment Report
 - E. Revenue and Expenditure Report
 - F. Minutes of October 27, 2022 Regular Meeting
9. Adjournment

RRRASOC Member Communities
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Novi ♦ South Lyon ♦ Southfield ♦ Walled Lake ♦ Wixom



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To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 23, 2022

Re: **MRF Project - Consultant Presentation**

Overview

The attached memo from RRS provides an analysis of potential equipment and technology upgrades. RRS will be on hand to present and discuss the information. The RRS presentation will not require any direct action at this time but will be presented for purposes of discussion and information.

The use of the information will include, but not be limited to, the following:

- Possible MRF Operating Agreement extension discussions with Republic Services;
- Informing a review of proposals received following the issuance of an RFP for the operation of the RRRASOC MRF and/or the processing of the recyclables collected within the RRRASOC communities;
- Planning of potential capital expenditures by RRRASOC;
- Seeking of grant funding from Federal, State, and other third party programs.

Total potential future costs, which include processing system capital costs, potential building and grounds repairs or enhancements, and operating costs, and the degree to which any of them will be borne by RRRASOC and/or its Member Communities will depend on the outcome of considerations regarding operation of the RRRASOC MRF and/or the processing of the recyclables collected within the RRRASOC communities, the condition of the commodities markets, and potential grant and third party funding. A more detailed analysis will be provided at future meetings as information becomes available and the requisite analysis is completed.

Please let me know if you have any questions or comments.

Attachment

RRRASOC Member Communities

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TO: MICHAEL CSAPO, RRRASOC
FROM: KERRY SANDFORD, DAVID STEAD, JIM FREY
DATE: 11.21.2022
RE: RRRASOC MRF UPGRADE SCENARIOS

Based on RRS analysis, no increased capacity should be planned for the upgrade of the RRRASOC MRF.

- The baseline is based on existing conditions with the possibility of processing up to 67,646 tons annually over two operating shifts.
- Scenario 1 drops that upper limit to 44,000 tons annually with the opening of the GFL MRF in Pontiac. That volume of materials can be processed in one shift if the upgraded MRF is able to process 24 tons per hour with 7 production hours per day. Peak season periods would likely require extended shifts or weekend hours to keep up. Alternatively, the MRF could be redesigned to run less tons per hour and more hours per day. This approach might make sense if the MRF is highly automated.
- Scenario 2 assumes that both the GFL MRF in Pontiac and the WM MRF in Detroit come online. In that case, the upper limit on tons drops to 25,000 annually. At 25 tons per hour, that material could be processed in 4 production hours per day or within one shift 3 days per week. Alternatively, the MRF could be redesigned at a lower throughput rate and run a full shift, 5 days per week.

Municipality	Baseline	Scenario 1 - Pontiac MRF Open	Scenario 2 - Pontiac and WM Detroit Open
Genesee County (Republic Transfer)	4,000		
Emterra	5,371		
Livingston	1,500		
Macomb	7,500	7,500	
Northern Oakland County	6,500		
Western Wayne	17,500	17,500	10,000
Detroit	3,800	3,800	
Bay City (WM)	1,179		
Mid-Michigan Authority Saginaw (WM Transfer)	5,199		
Total Third Party	52,548	28,800	10,000
RRRASOC Total	15,097	15,097	15,097
Grand Total	67,646	43,897	25,097
MRF TPH	37	24	14
MRF TPH 2 shifts	19	12	7

UPGRADE CONSIDERATIONS

Any upgrade to the MRF needs to achieve the following:

- Provide adequate throughput to allow the MRF to keep up during peak season even with typical equipment failures
- Make efficient use of capital investments and labor to achieve competitive processing costs
- Assure long equipment life if equipment is properly maintained
- Reduce dependence on an unreliable workforce
- Have reasonable maintenance requirements

UPGRADE STEPS

At a minimum, until more is known about the plans of large haulers, RRRASOC needs to pursue a path that can provide a solution for either Scenario 1 or Scenario 2. This either means developing a plan to meet the needs of Scenario 2 and adjust operating hours as needed if reality proves closer to Scenario 1 or develop two separate upgrade plans with one being chosen based on events later in the process.

The recommended steps for the upgrade follow:

1. Develop preliminary plan for relevant scenarios identifying equipment that will be replaced or undergo major modifications
2. Perform a detailed facility inspection to determine if any of the equipment being reused needs to be replaced or needs a major rebuild. This inspection can be limited to equipment targeted for reuse; however, it may be advantageous to have this inspection be part of a full MRF inspection that will be used to hold the existing contractor liable for failure to maintain and repair equipment per operating contract stipulations. In either case, this inspection should be performed by factory trained experts and should include removal of guards, and where necessary, belts to allow measurement of wear and identification of hidden damage.
3. Once the inspection is completed the upgrade plan will need to be updated to include additional equipment that needs to be replaced and to identify major repairs to be included
4. Select appropriate scenario
5. Develop upgrade specifications for use in procurement documents

RECOMMENDED UPGRADES BY SCENARIO

RRS recommends that the focus be on developing a plan that meets the needs of Scenario 1. This plan can then be modified where cost savings are practical to meet the needs of Scenario 2.

The existing MRF was designed to process 20 tons per hour. It is likely that the facility needs to be derated by as much as 10 percent of throughput capacity because of decreasing feedstock density and changing composition. Accordingly, to manage the full volume of Scenario 1 in a single shift, the throughput capability of some components would need to be increased. The alternative is to operate more hours than two shifts and not try to achieve 24-25 tph throughput. Given that the cost of upgrading the front end of the MRF to handle more volume throughput would likely be prohibitive and that one of the goals of the upgrade is to reduce labor dependence, RRS will not focus on increasing volume throughput, but rather on improving quality of sorting and reduction of labor needs. This also means that the difference between the upgrade to meet the throughput needs for Scenario 1 and 2 will be slight, mostly in the sizing of a few components.

SCENARIO OPTIONS

This section recommends specific upgrades along the path of the recyclables in the MRF. The options are focused on two different objectives. Option 1 is designed to provide minimal improvement to current basic operations while achieving little reduction in labor. Option 2 is designed to achieve improved quality of material and allow for additional material sorts on the container line in the future, while significantly reducing labor needs. Option 3 builds on Option 2 and is designed to allow the production of a higher grade of paper (SRPN) in addition to OCC and mixed paper and further reduction of labor needs.

Feed: The feed hopper, bottom conveyor, metering drum, and inclined conveyor do not need to be replaced. Based on inspection of factory trained representatives, major repairs and belt replacements may be needed. These costs are likely to be more than \$250,000.

Presort and OCC:

Option 2: No change.

Option 1: Replace OCC Screen with Anti-Wrap OCC Screen. This change would cut cost of cleaning the screen by 75%. Other costs would be similar to existing screen. Estimated installed replacement screen cost is \$500,000.

Option 3: Presort could be made safer and more effective with the placement of an auger screen in place of the presort and OCC screen. The auger screen would remove large materials to an OCC QC line where bulky non-OCC items would need to be manually sorted off the line. The auger screen would also remove stringy items. The unders would fall to the glass breaker (the current unit might be adaptable. The overs from the glass breaker would proceed to a smaller QC station where film and trash would be removed. 2-4 presort workers would be needed at this presort station. The unders from the glass breaker would proceed to the current glass cleanup system. The auger screen and modifications to the presort and OCC sort areas is expected to cost \$1,200,000. Currently auger screens are offered by VanDyk and CPG.

Glass Cleanup: All glass cleanup systems are maintenance intensive. The current unit has been demonstrated to work well when properly maintained. If there is a commitment to move the glass to a cullet market, there also needs to be a commitment to maintain the glass cleanup system. Unless the glass market specifications change, there is no need to upgrade the glass cleanup system.

Paper Sorting: There are a few choices for upgrading the paper screens. These need to be replaced with a design that greatly reduces or eliminates wrapping.

Option 1 & 2: Replace Existing Paper Screens with New Screens with Anti-Wrap Shafts

If trying to maximize throughput for the system, anti-wrap disc screens may be the best option. This option would reduce the effort to clean screens by about 75%. Other aspects would not change much. The estimated capital cost to change to wrap-resistant screens is \$1.2-1.6 million.

Option 3: Replace Disc Screen with Ballistic Separators

If throughput is not increased above 20 tph, switching to ballistic separators will screen paper well, while minimizing labor needed to keep screens clean. Ballistic separators also avoid the maintenance intensive and costly need to periodically replace discs. Replacing the existing ONP and Polishing screens with ballistic separators and making needed conveyor modifications is expected to cost approximately \$1.4-1.8 million. Machinex and Stadler offer ballistic separators suitable for these operations

Paper Sorting/Quality Control:

Manual QC of the paper streams can be eliminated or greatly reduced if optical sorters are added to each fiber QC line. These optical sorters can be setup to operate in various configurations. If there is a significant price advantage to producing a clean ONP rather than a mixed paper, these can be setup with dual eject to eject brown paper one direction and non-paper in another direction. The paper would be cleaner than most manually sorted streams but could be cleaner still with added manual QC after optical sorting. The non-paper would be directed to the container line and the browns to the OCC. Other configurations are possible depending on the best market options.

Option 1: No change - No optical sorting on paper stream

Option 2: One Optical Sorter on Small Paper QC or Large Paper QC

Located on the small paper QC, an optical sorter can reduce labor and produce clean mixed paper. Located on the large paper QC, an optical sorter can reduce labor and produce either SRPN or mixed paper products. Estimated installed cost is \$1.2-1.5 million depending on routing of ejected and default materials.

Option 3: Optical Sorter on Small Paper and Optical Sorter on Large Paper QC.

This approach would maximize the recovery of OCC, SRPN, and a quality mixed paper, while reducing or eliminating labor on both sorts. Estimated installed cost is \$2.4-3.0 million.

Tomra, Pellenc, VanDyk, Machinex, CPG, and BHS offer optical sorters suitable for these applications.

Container Line:

The existing line uses two optical sorters, an overhead magnet, manual sorters, and an Eddy Current Separator (ECS). The existing OS unit that removes paper from the container is probably functional going forward if refurbished. For now, we will consider this OS unit adequate. If a replacement is needed, this OS could be moved further down the line to sort another material.

The existing PET optical sorter is also assumed to be adequate. If the portion of the stream that is containers has increased, this OS may also be undersize unless the facility throughput is decreased.

RRS recommends the following optical sorting operations on the container line:

- Fiber recovery to mixed paper (currently done)
- PET Sorting – This assumes that thermoform PET can be combined with PET bottles. (Currently done)
- PET QC
- HDPE Natural sorting
- HDPE Natural QC
- HDPE colored sorting (in current market QC not likely needed)
- PP Sorting (in current market QC not likely needed) This sort might be possible by a pair of robotic sorters.
- Missed recyclables recovery and/or Mixed plastics sorting (most likely robotic sorting)

Option 1: Three Robots to Reduce Labor at Selected Locations

Robots would be installed to QC PET, QC aluminum and sort a portion of the HDPE. Estimated installed cost is \$1,200,000.

Option 2: Two Additional Optical Sorters

Through a combination of dual eject and multi-lane optical sorters, all these sorting operations can be completed with 3-5 optical sorters. If using the existing OS units, at least two new OS units will be needed. Significant repairs are likely needed on the current units. The two new OS units will cost \$2-2.7 million with needed conveyors, support structures and compressed air source. These optical sorters could be provided by Tomra, Pellenc, VanDyk, Machinex, CPG, or BHS. Refurbishing of the existing optical sorters could cost as much as \$150,000.

Option 2: Two Additional Optical Sorters + Robot to QC Aluminum

In this option, the manual QC of aluminum can be replaced with one delta-style robot for an additional \$400-450,000 investment. The total estimated cost of this option is \$2.4-3.15 million.

Alternate Option 2: Multiple Robot Approach

Some savings may be possible if instead of two new optical sorters multiple robotic sorter are installed. An array of 4 delta-style robots will sort HDPE, PP, and cartons. By integrating the robots with underlying conveyors, all robots can sort HDPE grades and at least 2 can sort each of the other materials. This approach maximizes recovery for the number of robots used. Another two robots are used to QC PET and aluminum. The estimated installed cost of this approach (6 robots and accessories) is \$2.2-2.6 million including conveyors, structures, and air supply.

If PET thermoforms must be separated from bottles, another sorting step and another bunker will be needed.

Metals Removal and QC: The existing overhead magnet may need to be refurbished (new belt) but otherwise can be fully functional in the updated system. The eddy Current Separator (ECS) will also continue to be functional. Its splitter needs to be replaced with a more durable part. The belt may need to be replaced. Its magnet drum needs to be inspected for need of bearing replacement or drum shell replacement. These repairs could add as much as \$50,000.

Sorted Product Storage Bunkers: The existing bunkers provide adequate storage for the upgraded system unless new product sorts are added. The bunkers and the bunker reclaim conveyor need to be carefully inspected for damage and needed repairs.

Baler and Baler Feed: The Existing baler is more than capable of baling the products from a reduced throughput MRF. The baler needs to be carefully inspected for wear on wear-surfaces and the status of the wire tie components and the feed conveyor, hydraulic system including cylinders, valves, and pumps. Prior to inspection, it should be assumed that at least \$200,000 will be set aside for baler refurbishing.

Residue Transfer: The existing residue transfer system will continue to be workable assuming the disposal haul distance does not change substantially. Compactors, power units and conveyors need to be inspected. The primary concern is that the power units and compactor cylinders function as needed to provide optimal compaction.

Control System: One of the challenges of updating an existing MRF is that different equipment vendors use different control equipment, different communication protocols and different controls strategies/programs. This means that adding equipment from a competing vendor usually results in the loss of some of the original features of the control system. Because no one vendor offers all the desired upgrades, either a less than optimal upgrade will be selected, or an integrator will need to work with multiple equipment vendors. What is possible to be specified will depend on how the procurement is done and how much leverage RRRASOC is willing to exert over the vendors to assure there are no pointing fingers and the system works well. Ultimately, the control system needs to be well-integrated to allow smooth operation and needed equipment monitoring.

Data Collection: Several vendors offer SCADA systems that can collect data from a range of operations in the MRF. The best of these track baler production by product, infeed rate, optical sorter ID data, robot ID data and in more recent systems using AI cameras, product quality going to bunkers. Some SCADA systems track motor data from the system controls and provide reports of potential problem areas and needed maintenance. These are options that RRRASOC might want to consider, but no specific package is recommended here.

OPTION 1: REPAIR/REFURBISH CAPITAL COST SUMMARY

IMPROVEMENT CATEGORY	DETAILS	OPTION 1	OPTION 2	OPTION 3
FEED	Repair drum, conveyors, hopper and guards	\$250,000	\$250,000	\$250,000
PRESORT/OCC	All major components replaced	\$125,000	\$50,000	Included
GLASS CLEANUP	Screen, Wallair, Blowers, Belts	\$100,000	\$100,000	\$100,000
PAPER SORTING	Conveyor repairs	\$50,000	Included	Included
CONTAINER LINE	Repair existing OSs, Repair conveyors, Repair magnet, Repair ECS	\$250,000	\$200,000	\$200,000
OTHER CONVEYORS	Connecting and residue conveyors	\$150,000	\$150,000	\$150,000
STORAGE BUNKERS	Doors, slats, hydraulics, belt	\$25,000	\$25,000	\$25,000
BALER/FEED	Conveyor, hydraulics, liners, tier, other	\$200,000	\$200,000	\$200,000
RESIDUE TRANSFER	Repair power units, compactor, shuttle conveyor	\$10,000	\$10,000	\$10,000
CONTROL SYSTEM	TBD			
DATA COLLECTION	New			
TOTAL CAPITAL		1,160,000	985,000	935,000
ANNUALIZED CAPITAL	10 Years at 6%	(\$148,686)	(\$126,255)	(\$119,846)
Scenario 1: 44,000 Tons		(\$3.38)	(\$2.87)	(\$2.72)
Scenario 2: 25,000 Tons		(\$5.95)	(\$5.05)	(\$4.79)


The above costs are intended to cover the effort of restoring most equipment in the MRF to near original performance specifications. These are conservative preliminary estimates without the benefit of detailed inspections by factory trained technicians. These can be treated as capital costs or as operating costs that the operator will need to cover during the first two years of the operating contract.

OPTION 2 and 3: QUALITY IMPROVEMENT CAPITAL COST SUMMARY

IMPROVEMENT CATEGORY	DETAILS	OPTION 1	OPTION 2	OPTION 3
FEED	No improvements			
PRESORT/OCC	Varies	No Improvements	750,000 Anti-wrap OCC	1,200,000 Auger screen 250,000 Repair feed
GLASS CLEANUP	No improvements			
PAPER SORTING	Varies	\$1,400,000 Anti-wrap screens	\$1,400,000 Anti-wrap screens \$1,350,000 One OS	\$1,600,000 Ballistic Separator \$2,700,000 Two OS
CONTAINER LINE	Varies	\$1,200,000 3 robots at selected stations	\$2,400,000 Two OS w/accessories	\$2,800,000 Two OS w/accessories & AI robot
STORAGE BUNKERS	No improvements			
BALER/FEED	No improvements			
RESIDUE TRANSFER	No improvements			
CONTROL SYSTEM	Varies with vendor mix	\$100,000	\$800,000	\$1,000,000
DATA COLLECTION	TBD			
TOTAL CAPITAL		2,700,000	6,950,000	9,550,000
ANNUALIZED CAPITAL	10 Years at 6%	(\$346,079)	(\$890,832)	(\$1,224,093)
Scenario 1: 44,000 Tons		(\$7.87)	(\$20.25)	(\$27.82)
Scenario 2: 25,000 Tons		(\$13.84)	(\$35.63)	(\$48.96)
POTENTIAL LABOR REDUCTION		3 sorters, some reduced maintenance	Paper 2-6 less sorters, Containers 3-5 less sorters More reduced maintenance	Presort 2-4 less sorters, Paper 4-9 less sorters, Containers 4-6 less sorters Most screen maintenance eliminated

The operating cost reduction will depend on condition of equipment at the end of the current operating contract and the structure of equipment ownership and the cost of labor under a new operating contract. The outcome for staffing that could be achieved includes the following reductions:

- Presort and OCC Screen with Auger Screen would save 2-4 sorters compared to the current configuration.
- Optical Sorter on Large Paper QC would reduce sorters on the ONP line from 2-6 to 0-2.
- Optical Sorter on Small Paper QC would reduce sorters on the ONP line from 2-3 to 0.
- Combine Paper Stream to One Optical Sorter would reduce the number of paper QC sorters from 4-9 to 0-2.
- Two Optical Sorter Approach or Robots eliminates all container line manual sorters and is expected to improve recovery of target materials. With the existing setup, we should expect the following staffing to effectively achieve the target sorts on the container line:
 - 1 PET QC
 - 2 HDPE sort & QC
 - 1 Mixed plastic (Human sorting of PP is not very accurate)
 - 1 Cartons and Mixed plastic (could be eliminated with sufficient robotic sort capability)
 - 1 Aluminum QC (could be eliminated with sufficient robotic sort capability)
 - 1 End of line recovery



The conclusion is that if the goal of RRASOC and its contracted operator is to achieve the highest quality commodities and to market to the highest value end markets then implementing Option 2 or 3 would be the recommendation. Otherwise, the refurbishment of the existing system achieves the lowest capital cost with some reduction in staffing but does not provide the capabilities to achieve the highest value for materials and to meet future changes in the incoming recyclable stream.



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To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 23, 2022

Re: **MRF Operating Agreement**

Action Requested

Authorize the release of a Request for Proposals (RFP) for the Operation of the RRRASOC MRF and/or the processing of the recyclables collected within the RRRASOC communities.

Background

As you are aware, the current MRF Operating Agreement with Republic Services expires September 30, 2023. It may be extended for two years at the discretion of Republic Services, with notice no later than March 30, 2023. RRRASOC has requested that Republic Services issue such a notice earlier than required.

Should Republic Services not seek to extend the Agreement, it becomes necessary to enter into a new agreement for the operation of the RRRASOC MRF and/or the processing of the recyclables collected within the RRRASOC communities. Waiting until March 30 to accept and review proposals is not advised. The intent is to issue an RFP, with proposals due in February, administrative and consultant review to occur in February/March, and potential action taken by the RRRASOC Board of Directors in April. Should Republic Services opt to extend after the receipt of proposals but prior March 30 deadline, then the proposals will remain with the consulting firm and not released.

Please note that the existing MRF Services Agreements between RRRASOC and each Member Community also expire on September 30, 2023. As such, those agreements will need to either be extended or new agreements designed to comport with any new operating arrangements that flow from the RFP process.

Recommendation

Authorize the release of a Request for Proposals for the Operation of the RRRASOC MRF and/or the processing of recyclables collected within the RRRASOC communities.

Please let me know if you have any questions or comments.

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To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 23, 2022

Re: **Glacier Robotics Project**

Action Requested

Authorize entering into the following agreements as necessary, subject to receipt and review of the grant agreement between Glacier and EGLE and review of the agreements by RRRASOC legal counsel:

1. Customer agreement between RRRASOC and Glacier;
2. Grant agreement between RRRASOC and The Recycling Partnership (TRP);
3. Grant agreement between RRRASOC and the Foodservice Packaging Institute (FPI);
4. Grant agreement between RRRASOC and Carton Council of North America, Inc. (CCNA).

Background

As you are aware, RRRASOC is party to an EGLE grant application that will allow for the installation and testing of a sorting robot on the MRF residue line, as well as analytics cameras on the residue and commingled container lines. Also party to the application are the following:

- Glacier (robotics company)
- SOCRRA
- Centrepolis Accelerator
- Lawrence Technological University
- The Recycling Partnership
- The Foodservice Packaging Institute
- Carton Council of North America

The primary grant applicant is Glacier, with in-kind and financial support from the partnering entities. The project budget is \$735,800, with in-kind and financial support of \$368,800 (50.12%). The remainder of the costs are to be covered by the EGLE grant. Glacier has been notified that it has been awarded the grant but the grant agreement between Glacier and EGLE has not been finalized.

RRRASOC's direct costs are \$22,000 to supply the appropriate on site locations with the necessary electrical, Ethernet, and pneumatic lines for the robot and the cameras. Those funds were actually included in last year's budget but were not expended due to delays by EGLE. The funds will be re-allocated in the amended FY 2022 - 2023 budget.

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Should the robot pass the specified performance testing, RRRASOC will retain possession of the robot (valued at \$165,000) at no additional capital cost. It is expected that the robot will improve material capture, reduce the MRF's residue costs, and potentially reducing staffing needs.

Implementing the project will require a customer agreement between RRRASOC and Glacier. A similar customer agreement will be between SOCRRA and Glacier. A draft has been prepared and preliminarily reviewed. We are currently waiting to receive and review the grant agreement between Glacier and EGLE to confirm that the customer agreement with Glacier comports with the grant agreement. Once the customer agreement is completed, it will be forwarded to RRRASOC legal counsel for review.

Support from TRP, FPI, and CCNA require grant agreements between those individual organizations and both RRRASOC and SOCRRA. Those agreements are being developed and will be reviewed for consistency with the EGLE grant agreement and reviewed by legal counsel.

Recommendation

The initial grant application was submitted in January 2022, with internal approval recommendations shortly thereafter. Formal approval and the preparation of the grant agreement by EGLE has taken much longer than expected.

In order to accelerate the project, it is recommended that RRRASOC Board authorize entering into the following agreements as necessary, subject to receipt and review of the grant agreement between Glacier and EGLE and review of the agreements by RRRASOC legal counsel:

1. Customer agreement between RRRASOC and Glacier;
2. Grant agreement between RRRASOC and The Recycling Partnership (TRP);
3. Grant agreement between RRRASOC and the Foodservice Packaging Institute (FPI);
4. Grant agreement between RRRASOC and Carton Council of North America, Inc. (CCNA).

Please let me know if you have any questions or comments.



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To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 23, 2022

Re: **Federal Recycling Grants**

Action Requested

Authorize and support applications for Federal SWIFR and REO grants.

Background

On November 14, 2022 the U.S. EPA opened a Request for Applications (RFA) for the Solid Waste Infrastructure For Recycling (SWIFR) and Consumer Recycling Education and Outreach (REO) grant programs. Notices of Intent to Apply are due by December 15, 2022 and applications are due by January 16, 2023. Notifications of selection are anticipated in April 2023, with anticipated awards taking place October 2023.

Among the objectives of the SWIFR grant program is to "establish, increase, expand, or optimize capacity for materials management." The minimum individual award is \$500,000 and the maximum individual award is \$4,000,000. No matching funds are required.

The objectives of the REO grant include informing the public about residential or community recycling programs, providing information about the recycled materials that are accepted, increasing collection rates, and decreasing contamination. The minimum individual award is \$250,000 and the maximum individual award is \$2,000,000. No matching funds are required.

Of note, eligible entities are "political subdivisions of states and territories". The EPA considered counties, cities, towns, parishes, and similar units of governments that have executive and legislative functions to be political subdivisions of states. Special districts must provide documentation that the state in which they are located considers these entities to be political subdivisions. As of this writing, it is unclear whether or not RRRASOC would be considered an eligible entity by the EPA. We are in the process of seeking clarity from the EPA.

Importantly, however, groups of two or more eligible applicants may form a coalition and submit a single application under the RFA. One entity must be responsible for the grant. As such, should RRRASOC not be considered an eligible entity by the EPA, applications could be submitted with one of the Member Communities designated as the official grant recipient.

Recommendation

Authorize and support applications for Federal SWIFR and REO grants.

Please let me know if you have any questions or comments.

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To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 21, 2022

Re: **Agreement to Maintain A Regional Recycling Drop-Off Center**

Action Requested

Approve an extension of the attached Agreement for five years as permitted under Section 8 of the Agreement.

Background

As you are aware, RRRASOC operates a Regional Recycling Drop-Off Center located at the Novi Department of Public Works pursuant to the attached agreement.

The current agreement expires next March but may be extended for an additional five years.

The site continues to be very popular. It receives more than fifty tons per month and averages 125 users per day. Users include residents of all of the RRRASOC communities and businesses throughout the area. More than 80% of the users are residents of the RRRASOC communities, with the remainder being area businesses or residents of nearby communities.

Recommendation

Approve an extension of the attached Agreement for five years as permitted under Section 8 of the Agreement.

Please let me know if you have any questions or comments.

attachment

RRRASOC Member Communities

Farmington ♦ Farmington Hills ♦ Milford ♦ Milford Township
Novi ♦ South Lyon ♦ Southfield ♦ Walled Lake ♦ Wixom



March 29, 2018

CITY COUNCIL

Mayor
Bob Gatt

Mayor Pro Tem
Dave Staudt

Andrew Mutch

Wayne M. Wrobel

Laura Marie Casey

Gwen Markham

Kelly Breen

City Manager
Peter E. Auger

City Clerk
Cortney Hanson

Mr. Michael J. Csapo, General Mgr.
Resource Recovery & Recycling
Authority of Southwest Oakland Co.
20000 West Eight Mile Road
Southfield, MI 48075-5708

Re: Agreement to Maintain a Regional Recycling
Drop-Off Center

Dear Mr. Csapo:

Enclosed for your records, please find an original Agreement which was approved by Novi City Council on March 26, 2018.

Thank you.

Very truly yours,

Sue Troutman
Executive Secretary
City Clerk's Office

Enclosure

cc Victor Cardenas, Assistant City Manager
Jeffrey Herczeg, Director of Public Services
Matt Wiktorowski, Field Operations Sr. Mgr.
Jeff Van Curler, Sr. Customer Service Rep. (Field)
Christine Slater, Sr. Customer Service Rep. (DPS)

City of Novi
45175 Ten Mile Road
Novi, Michigan 48375
248.347.0460
248.347.0577 fax

cityofnovi.org

AGREEMENT TO MAINTAIN A REGIONAL RECYCLING DROP-OFF CENTER

THIS AGREEMENT, amended as of MARCH 26, 2018, is between the CITY OF NOVI, a Michigan municipal corporation whose address is 45175 W. Ten Mile Road, Novi, Michigan 48375-3024 ("Novi") and the RESOURCE RECOVERY AND RECYCLING AUTHORITY OF SOUTHWEST OAKLAND COUNTY, a Michigan public body corporate whose address is 20000 W. Eight Mile Road, Southfield, Michigan 48075-5708 ("RRRASOC").

WHEREAS, RRRASOC has been incorporated by its constituent municipalities (the "Member Communities"), including Novi, to provide regional recycling programs and services in a cost-effective manner; and

WHEREAS, RRRASOC has previously identified an opportunity to improve the recycling drop-off services provided to the residents and businesses of Novi and the residents and businesses of the other RRRASOC member communities while providing significant cost savings through economies of scale and combining the resources available to RRRASOC; and

WHEREAS, RRRASOC has established a regional recycling drop-off center at the site of the Novi Department of Public Works;

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. The "RRRASOC/Novi Regional Recycling Drop-Off Center" (the "Center") established at the site of the Novi Department of Public Works shall continue. The Center shall be available to all residents and businesses of RRRASOC Member Communities.
2. The recyclable materials collected at the Center are described in Exhibit A. Additional material types permitted for collection at the Center may be recommended by RRRASOC from time to time, but no such additional material types shall be permitted to be collected at the Center without the prior approval of Novi, and Novi shall not be responsible for any additional costs associated with the drop-off and collection of such additional materials. Novi shall use its reasonable discretion in considering any recommendation from RRRASOC as to additional material types.
3. Novi shall retain day-to-day site management responsibility and operating costs of the Center, including staffing, maintenance, insurance and contacting haulers/vendors designated by RRRASOC to collect and process recyclable materials. Hours of operation of the Center shall be unchanged from the hours of operation identified in Exhibit A unless changed by agreement between Novi and RRRASOC.
4. RRRASOC shall pay Novi an annual Host Community Management Fee (the "Host Fee") of Sixteen Thousand Dollars (\$16,000). The Host Fee shall be payable annually on or before June 30th. Payment shall be made by check or draft payable to the City of Novi, and shall be delivered either in person or by first class mail, to the Treasurer of the City.
5. RRRASOC shall be responsible for all equipment rental costs, hauling costs, processing fees, and residual disposal costs attributable to the operation of the Center. RRRASOC shall provide sufficient containers to permit the orderly operation of the Center. RRRASOC will ensure that all containers that are at least half full are emptied each Friday.
6. RRRASOC shall be responsible for monitoring all recyclable materials marketing by designated haulers/vendors and shall be entitled to all revenue generated by the sale of marketed recyclable material. Only recyclable materials that can be processed at RRRASOC's Materials Recovery Facility (the "MRF") shall be required to be picked up by RRRASOC, and RRRASOC shall have no responsibility for the collection or disposal of any materials that cannot be processed at the MRF.
7. During the term of this Agreement, Novi shall continuously maintain property insurance and public liability coverage, either from private carriers or on a self-insured basis, on the Center as part of Novi's standard coverage of its municipal facilities. Such policies of insurance and public liability coverage shall name RRRASOC and its officers, employees and agents as an additional insured party as their interests may appear. Novi shall

AGREEMENT TO MAINTAIN A REGIONAL RECYCLING DROP-OFF CENTER

provide RRRASOC not less often than annually with evidence that such policies of insurance and public liability coverage remain in force and effect. To the extent permitted by law, and without waiving government immunity the City would be entitled to as a result of the conduct or actions of the City or its officers, agents, employees or contractors that is the subject of any claim or action resulting from the obligations under this agreement, Novi shall indemnify and hold harmless RRRASOC and its agents against claims asserted by or on behalf of any person or entity arising or resulting from the operation of the Center, only to the extent of the degree of fault of the City or its officers, employees, agents, or contractors. Likewise, to the extent permitted by law, RRRASOC shall indemnify and hold harmless the City of Novi and its City Council, officers, employees, agents and contractors against claims asserted by or on behalf of any person or entity arising or resulting from the actions or inactions of RRRASOC and its employees, agents or contractors with respect to the operation of the Center, only to the extent of the degree of fault of RRRASOC or its employees, agents or contractor. RRRASOC maintains and shall maintain property insurance and public liability coverage, either from private carriers or on a self-insured basis, for its operations at the MRF. Such policies of insurance and public liability coverage shall extend to RRRASOC's operations, either acting itself or through RRRASOC's vendors or agents, at the Center. RRRASOC may satisfy the obligations of this section by causing its private vendor to extend insurance coverage in accordance with the terms of this section. Proof of such insurance, whether provided by RRRASOC or its private vendor, shall be provided to Novi on an annual basis.

8. The initial term of this Agreement shall be for five (5) years, with the option to extend the Agreement for an additional term of five (5) years. Novi and RRRASOC shall monitor the operation of the Center and determine annually on or before each January 1 whether the terms of the Agreement should be modified. Novi and RRRASOC each agree to use their reasonable discretion in considering any proposal for amendments to this Agreement made by the other party.

9. This Agreement may be terminated for any reason by either party, upon 120 days written notice given to the other party.

10. RRRASOC shall make available to Novi legal and technical advice relating to the operation of the Center, which advice will be provided on a reasonable basis and upon Novi's request.

IN WITNESS WHEREOF, Novi and RRRASOC have executed this Agreement as of the date first above written.

CITY OF NOVI

By 

Robert J. Gatt, Mayor

By 

Dawn Spaulding, Acting City Clerk

RESOURCE RECOVERY AND RECYCLING AUTHORITY OF SOUTHWEST OAKLAND COUNTY

By 

Michael J. Csapo
General Manager

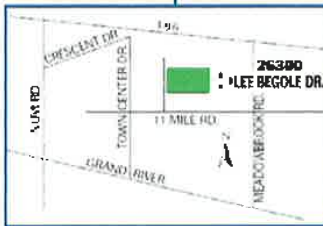
AGREEMENT TO MAINTAIN A REGIONAL RECYCLING DROP-OFF CENTER

Attachment A



In Novi

The drop-off area is open during daylight hours, seven days a week.
The following items may be deposited, unsorted, into on-site receptacles:



- Magazines
- Newspapers
- Plastic Containers (both narrow-neck and wide-neck containers; #1, #2, #4 - #7)
- Bulky #2 Plastics (like cat litter buckets and kids' molded furniture)
- Glass Bottles and Jars
- Catalogs, Junk Mail, & Phonebooks
- Household Metals (including pans and small scrap metal)
- Garden Plastics
- Paper Drink Cartons
- Boxboard
- Cardboard



Resource Recovery & Recycling Authority of Southwest Oakland County

20000 W. 8 Mile Rd
Southfield, MI 48075-5708

Office: 248.208.2270

Fax: 248.208.2273

www.RRRASOC.org

THE RECYCLING AUTHORITY
Since 1989

To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 21, 2022

Re: **Prairie Robotics Proposal**

Action Requested

Review and comment on the proposal from Prairie Robotics.

Background

As you are aware, recycling contamination can create safety, efficiency, and material quality issues for material recovery facilities (MRFs). While the contamination levels in the material from the RRRASOC communities are generally low and the plant-wide residue levels at the MRF are within industry norms, continued educational programming to maintain and/or reduce contamination levels is necessary and recommended.

Traditionally, outreach and education efforts by RRRASOC and its Members Communities have followed a passive approach. However, studies show that more proactive approaches such as curbside cart inspections, tagging, and rejection are more effective in reducing contamination.

Nevertheless, while RRRASOC has conducted curbside cart assessments for purposes of data collection, we have avoided more aggressive or proactive approaches. In short, we've opted not to use cart inspections as a means to educate directly since it can be interpreted as admonishing and/or penalizing residents.

Despite our history of preference for the more passive educational approach, after being approached by Prairie Robotics, we agreed to review the attached, unsolicited proposal.

Traditionally, cart inspections are conducted manually, with cart tags being used to directly educate the homeowner and, if the cart contents are rejected, explain why. Prairie Robotics uses collection truck mounted cameras, GPS, and AI to analyze cart contents as they get dumped into the truck, identify and photograph contaminants, and generate a post card that is directly mailed as a notification of the problem to the resident. According to Prairie Robotics, the system has been successfully deployed in a number of locations in North America, primarily in Canada.

Following conversations with Prairie Robotics, we agreed to review a cost proposal. The City of Southfield was chosen for purposes of this example.

RRRASOC Member Communities

Farmington ♦ Farmington Hills ♦ Milford ♦ Milford Township
Novi ♦ South Lyon ♦ Southfield ♦ Walled Lake ♦ Wixom

Conclusions

The ability to use state-of-the-art technology to reduce contamination while being more precise with direct-mail communications is not without merit. Cost-effectively reducing the MRF's risk profile, improving efficiency, and improving outbound material quality are among RRRASOC's goals.

However, the several items below would indicate that further consideration and/or deployment of the Prairie Robotics approach is premature. Those items include the following:

1. As described above, RRRASOC and its Member Communities have generally avoided the more aggressive, punitive approach. The question for the Board of Directors and individual communities is whether or not the more proactive program would be considered acceptable;
2. The Recycling Partnership (TRP) has funded an evaluation of the Prairie Robotics system in East Lansing. It will be using the results in the East Lansing pilot to compare the Prairie Robotics system to the more traditional, manual cart inspection and tagging approach. Those results are expected to be available in 2023;
3. While Prairie Robotics has successfully deployed the system on both municipally-owned and contractor-owned collection trucks, the current service contracts in the RRRASOC communities do not account for attaching the necessary equipment. As such, the current contractors would have to agree to the program;
4. The cost of the Southfield example is \$53,500, which comes to \$3.11 per household for the five-month period, which compares unfavorably to existing outreach and education costs. However, that cost may be substantially mitigated through Federal, State, and/or third-party grants;
5. Since the contractual arrangements for the MRF following the expiration of the existing contract are yet to be determined and the curbside contamination data for the RRRASOC communities is somewhat dated, it is not possible to evaluate the long-term financial implications of reducing contamination at this time.

Recommendation

It may be possible to adequately navigate and address items 2 through 5 above. However, those items become moot if none of the communities are interested in further exploring the approach. As such, please consider the degree to which you may entertain further evaluation for deployment in your community.

Please let me know if you have any questions or comments.

attachment



**PRAIRIE
ROBOTICS**
RECYCLING MADE SIMPLE

Resource Recovery and Recycling Authority of Southwest Oakland County (RRRASOC)

**Resource Recovery and Recycling Authority of
Southwest Oakland County (RRRASOC)**

20000 Eight Mile Road
Southfield, MI 48075
United States

Michael Csapo
mcsapo@rrrasoc.org
(248) 208-2270

Reference: 20221116-150004171
Quote created: November 16, 2022
Quote expires: December 15, 2022
Quote created by: Reid Patterson
Head of Partnerships
reid@prairierobotics.com

Comments from Reid Patterson

This quote is for services to reduce contamination along the routes of three recycling trucks for a period of 5 months.

Specifically the Prairie Robotics Recycling Platform which includes hardware, software, contamination identification analysis, will be installed on three recycling trucks.

Administrators will have access to real-time data via the Prairie Robotics web platform.

Onboarding costs are used to cover incorporating City data, educational material design, organization setup and training with administrators.

\$16,500 will be allocated towards the printing and distribution of postcards. \$1.10 is estimated for the cost of printing and distributing postcards. If unit costs are lower than this the number of postcards will be increased.

ReCollect Integration line item is for budgetary purposes only and reflects what Prairie Robotics is aware of ReCollect charging similar communities to upgrade to ReCollect's "Platinum Success Package". Final cost is to be determined between RRRASOC and ReCollect.

Products & Services

Item & Description	SKU	Quantity	Unit Price	Total
Prairie Robotics Software Recycling Education Platform Five Months		3	\$4,000.00	\$12,000.00
Prairie Robotics Hardware Platform		3	\$6,000.00	\$18,000.00
ReCollect Integration		1	\$5,000.00	\$5,000.00
Prairie Robotics Onboarding Fee		1	\$1,000.00	\$1,000.00
Prairie Robotics Postcard Design & Integration		1	\$1,000.00	\$1,000.00

Item & Description	SKU	Quantity	Unit Price	Total
Postcard Printing & Distribution		15000	\$1.10	\$16,500.00
Subtotals				
One-time subtotal				\$53,500.00
			Total	\$53,500.00

Purchase terms

Signature

Signature

Date

Printed name

Countersignature

Countersignature

Date

Printed name

Questions? Contact me



Reid Patterson
Head of Partnerships
reid@prairierobotics.com

Prairie Robotics
2960 Retallack St.
Regina, SK S4S 1S9
Canada



Resource Recovery & Recycling Authority of Southwest Oakland County

20000 W. 8 Mile Rd
Southfield, MI 48075-5708

Office: 248.208.2270

Fax: 248.208.2273

www.RRRASOC.org

THE RECYCLING AUTHORITY
Since 1989

To: RRRASOC Board of Directors
From: Michael Csapo, General Manager
Date: November 23, 2022

Re: **Manager's Report**

1. Work on the MRF evaluation continued. See agenda.
2. Implementation planning for the Glacier robotic project continued. See agenda.
3. The agreement for the Novi recycling center was reviewed. See agenda.
4. A review of truck-mounted AI-enabled cameras to reduce contamination and improve material quality was completed. See agenda.
5. Work continued on the joint Storm and Disaster Debris Management Plan. An RFP is expected to be issued by January 1. A separate report to follow.
6. The fall HHW events were completed.
7. Two tours of the MRF were conducted.
8. An assessment of public space recycling continued. A separate report to follow.
9. I was re-appointed to the Oakland County Solid Waste Planning Committee.
10. Staff attended or presented at the following:
 - A. Southfield HHW event;
 - B. NextCycle I2P3 project meeting;
 - C. NextCycle I2P3 CTIP meeting;
 - D. NextCycle TAC meeting.

RRRASOC Member Communities

Farmington ♦ Farmington Hills ♦ Milford ♦ Milford Township
Novi ♦ South Lyon ♦ Southfield ♦ Walled Lake ♦ Wixom



David T. Woodward, Chairman
(248) 858-0100 | woodwardd@oakgov.com

November 18, 2022

Mike Csapo
849 N. Leroy
Fenton, MI 48430

Dear Mr. Csapo:

It is my pleasure to inform you that at its meeting of November 17, 2022, the Oakland County Board of Commissioners reappointed you to serve as a member of the Oakland County Solid Waste Planning Committee for the term ending September 29, 2024.

If it becomes necessary to resign your position, please do so in writing to the Oakland County Board of Commissioner Office with the reason(s) for resignation. We will notify the board or commission you were appointed to of your resignation.

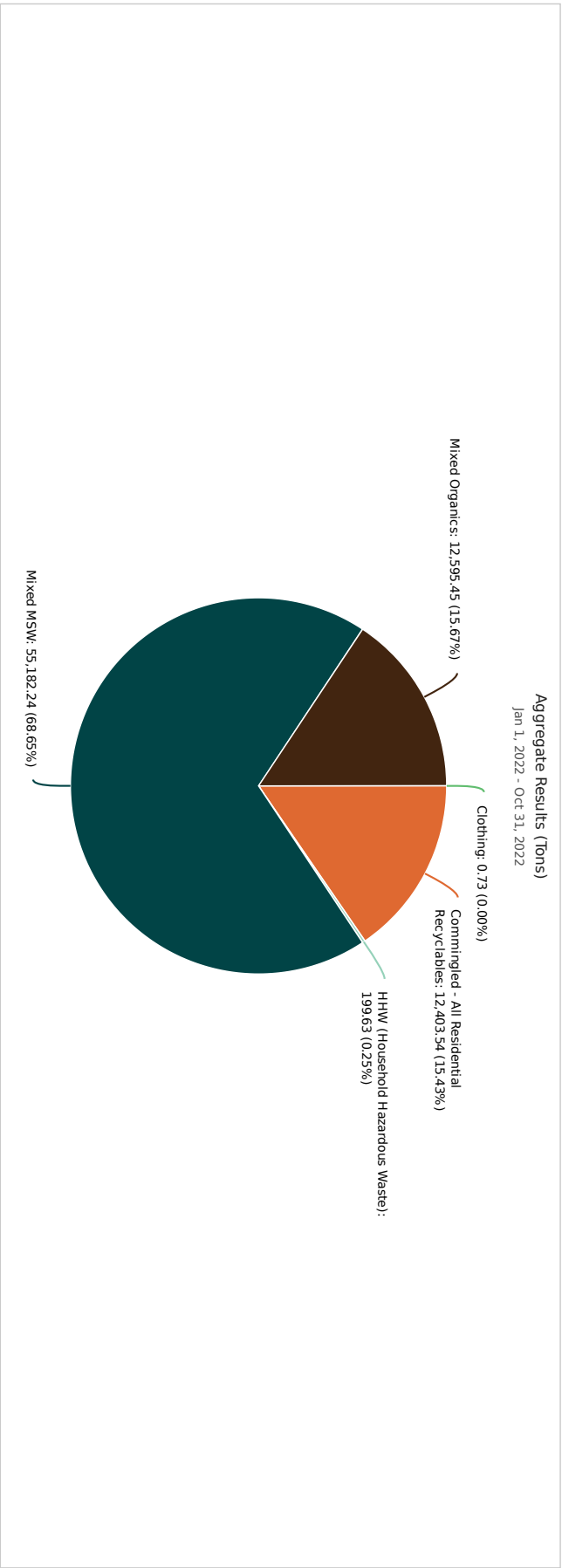
Your willingness to serve in this capacity on behalf of the County is greatly appreciated. It is always our goal to appoint individuals who share commitment to excellence in their respective fields and the commitment to serve the needs of the citizens of Oakland County.

Sincerely,

A handwritten signature in black ink, appearing to read "David T. Woodward", written over a horizontal line.

David T. Woodward, Chairman
Oakland County Board of Commissioners

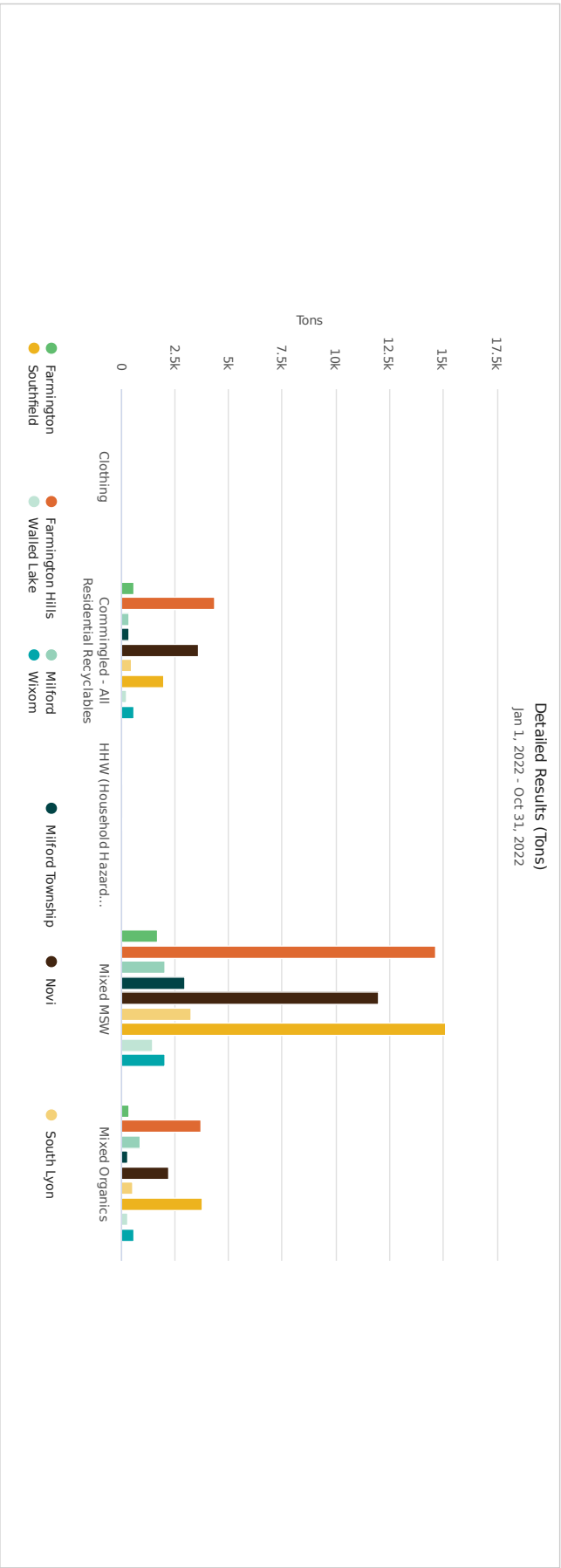
MATERIAL MANAGEMENT REPORT



Aggregate Results (Tons)

Displaying data collected for: Jan 1, 2022 - Oct 31, 2022

MATERIALS	TONS
Clothing	0.73
Commingled - All Residential Recyclables	12,403.54
HHW (Household Hazardous Waste)	199.63
Mixed MSW	55,182.24
Mixed Organics	12,595.45



Detailed Results (Tons)

Displaying data collected for: Jan 1, 2022 - Oct 31, 2022

ORGANIZATIONS	CLOTHING	COMMINGLED - ALL RESIDENTIAL RECYCLABLES	HHW (HOUSEHOLD HAZARDOUS WASTE)	MIXED MSW	MIXED ORGANICS
Farmington	0.10	556.48	8.52	1,697.36	363.70
Farmington Hills	0.18	4,371.22	63.89	14,681.31	3,718.56
Milford	0.05	325.71	13.45	2,025.33	881.63
Milford Township	0.01	329.67	17.66	2,937.92	290.00

Novi	0.16	3,615.20	45.00	11,996.64	2,203.54
South Lyon	0.05	478.70	5.85	3,246.03	509.36
Southfield	0.09	1,951.72	27.51	15,142.77	3,752.25
Walled Lake	0.01	205.13	2.21	1,441.43	300.41
Westland	0.09	569.71	15.54	2,023.45	576.00
Total	0.73	12,403.54	199.63	55,182.24	12,595.45



Resource Recovery & Recycling Authority of Southwest Oakland County

20000 W. 8 Mile Rd
Southfield, MI 48075-5708

Office: 248.208.2270

Fax: 248.208.2273

www.RRRASOC.org

THE RECYCLING AUTHORITY
Since 1989

To: RRRASOC Board of Directors
From: Mike Csapo, General Manager
Date: November 23, 2022

Re: **MRF Operations Report**

Attached are the MRF throughput figures through October 31, 2022. During the period, the MRF accepted nearly 51,463 gross tons of material, which is 9.8% less than the same period in 2021.

Nearly 13,378 tons, or 23.6%, came from RRRASOC Member Communities' programs in accordance with MRF Service Agreements or RRRASOC drop-off sites, which is 9.4% less than the same period in 2021.

As shown on the attached graph, commodity prices continued to drop. Industry sources report that prices and movement will remain relatively low through the second quarter of next year, with some experts predicting a substantial rebound later in the year.

Please let me know if you have any questions or comments.

attachment

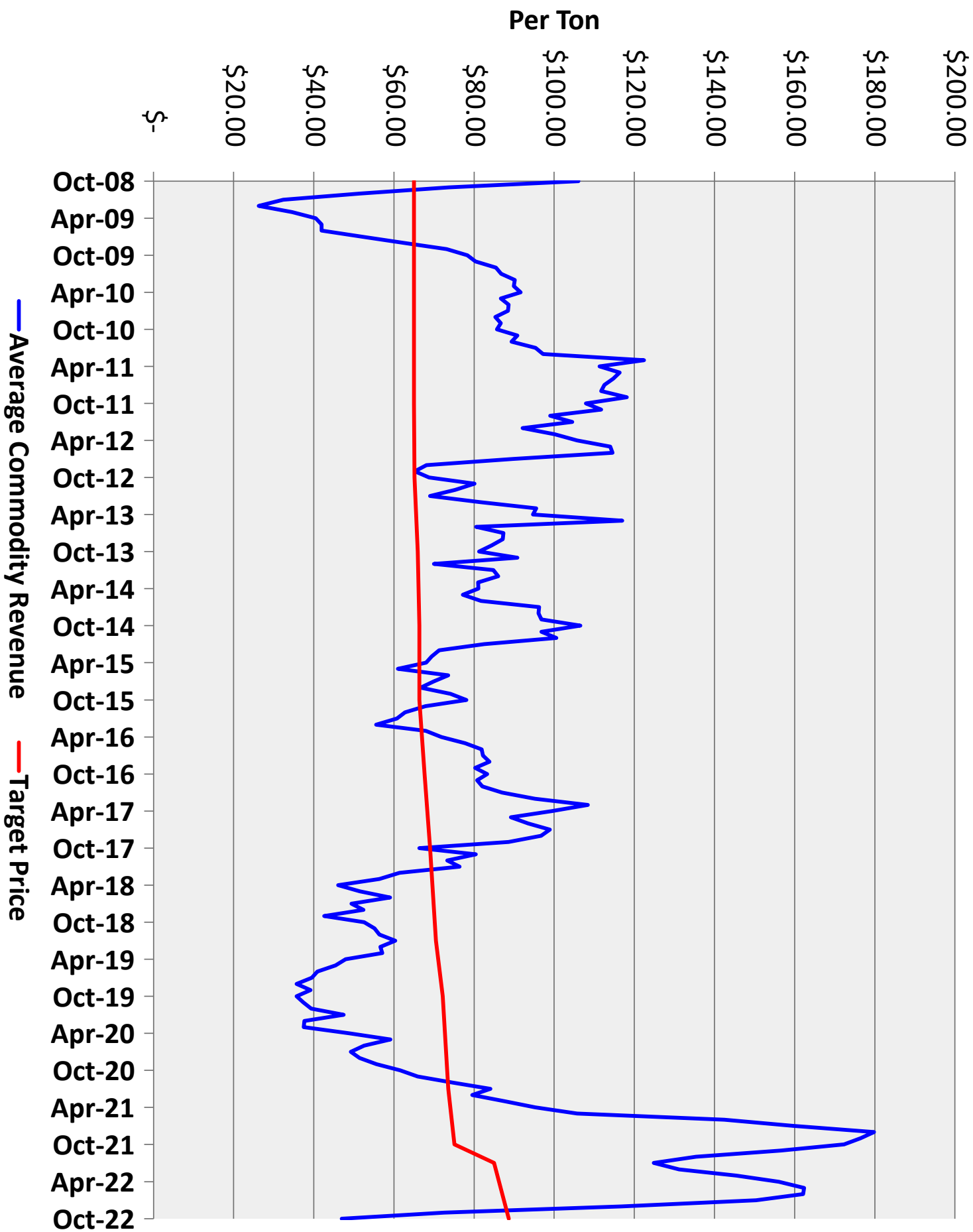
RRRASOC Member Communities

Farmington ♦ Farmington Hills ♦ Milford ♦ Milford Township
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MRF Throughput

Source: Farmington	Farmington Hills	Village of Milford	Milford Twp	Novi	Novi DO	South Lyon	Southfield	Southfield DO	Walled Lake	Wixom	RRRASOC Total	Third Party	Total	RRRASOC %
Jan-22	56.66	436.38	36.47	262.03	64.24	60.40	163.90	12.91	17.32	53.96	1,202.89	4,672.80	5,875.69	20.5%
Feb-22	49.36	371.87	21.79	267.35	44.75	42.28	137.50	10.08	19.78	45.59	1,039.57	3,582.36	4,621.93	22.5%
Mar-22	56.62	448.91	29.32	292.99	45.79	42.07	193.24	15.63	17.81	68.90	1,250.37	4,476.24	5,726.61	21.8%
Apr-22	57.96	462.31	31.57	259.71	50.36	48.09	178.26	16.98	18.49	53.41	1,217.70	3,854.32	5,072.02	24.0%
May-22	58.23	460.71	33.59	265.42	50.71	42.88	198.59	14.45	20.99	51.13	1,230.71	4,283.73	5,494.44	22.4%
Jun-22	61.49	487.51	27.42	294.90	62.10	61.30	208.73	15.03	22.74	73.67	1,350.16	3,808.28	5,158.44	26.2%
Jul-22	53.40	425.96	38.60	283.08	51.80	38.80	201.62	13.86	28.22	39.95	1,198.65	3,479.84	4,678.49	25.6%
Aug-22	53.31	454.15	52.58	324.60	51.42	38.32	200.76	14.72	17.37	44.45	1,283.76	3,579.90	4,863.66	26.4%
Sep-22	57.03	416.45	64.08	274.28	51.03	52.89	168.38	13.87	19.38	78.41	1,222.82	3,363.82	4,586.64	26.7%
Oct-22	52.11	382.20	54.36	256.05	51.04	51.67	160.07	13.14	23.03	54.24	1,128.35	4,256.66	5,385.01	21.0%
Nov-22														
Dec-22														
Total	556.16	4,346.45	389.78	2,780.41	523.24	478.70	1,811.05	140.67	205.13	563.71	12,124.97	39,337.95	51,462.92	23.6%
Average	55.62	434.65	38.98	278.04	52.32	47.87	181.11	14.07	20.51	56.37	1,212.50	3,933.80	5,146.29	23.6%

Commodity Value History



Check Register Report

Date: 11/23/2022
Time: 1:51 pm
Page: 1

RRRASOC

BANK: STANDARD FEDERAL BANK

Check Number	Check Date	Status	Void/Stop Date	Reconcile Date	Vendor Number	Vendor Name	Check Description	Amount
STANDARD FEDERAL BANK Checks								
13721	11/06/2022	Printed			94	COMCAST	Phone & internet	398.46
13722	11/06/2022	Printed			140	FIRE ROVER	November 2022	150.00
13723	11/06/2022	Void	11/06/2022					0.00
13724	11/06/2022	Printed			167	GOYETTE MECHANICAL	Transformer repair	1,228.58
13725	11/06/2022	Printed			167	GOYETTE MECHANICAL	Transformer repair	1,959.79
13726	11/06/2022	Printed			160	KASTLE SYSTEMS LLC	December 2022	1,118.00
13727	11/06/2022	Printed			16	MICHIGAN MUNICIPAL LEAGUE	The Review subscription	24.00
13728	11/06/2022	Printed			10	MILLER, CANFIELD,PADDOCK & STO	egal fees	1,232.50
13729	11/06/2022	Printed			184	MISSION SQUARE	11/10/2022 Payroll	1,135.02
13730	11/06/2022	Void	11/06/2022					0.00
13731	11/06/2022	Void	11/06/2022					0.00
13732	11/06/2022	Printed			33	SQS, INC.	Southfield Fall HHW	42,402.00
13733	11/06/2022	Printed			33	SQS, INC.	Farmington & SL batteries	1,234.01
13734	11/06/2022	Printed			121	TYLER TECHNOLOGIES, INC.	GL & AP	1,972.05
13735	11/11/2022	Printed			137	GFL	October 2022	11,400.00
13736	11/11/2022	Printed			123	IRIS WASTE DIVERSION SPECIAL	November 2022	6,785.63
13737	11/11/2022	Printed			123	IRIS WASTE DIVERSION SPECIAL	October 2022	8,051.89
13738	11/11/2022	Printed			123	IRIS WASTE DIVERSION SPECIAL	A2A-9/1-11/7/2022	6,468.75
13739	11/11/2022	Printed			25	RESOURCE RECYCLING SYSTEMS, IN	Monthly Labor Billings-DS	7,833.50
13740	11/11/2022	Printed			25	RESOURCE RECYCLING SYSTEMS, IN	Monthly Labor Billings-CK	1,340.00
13741	11/20/2022	Printed			124	BLUE CROSS BLUE SHIELD OF MICH	December 2022	5,436.15
13742	11/20/2022	Printed			429	CHASE	Visa	923.66
13743	11/20/2022	Printed			9	KONICA MINOLTA BUS. SOLUTIONS	Copier 10/10-11/9/22	132.44
13744	11/20/2022	Printed			184	MISSION SQUARE	10/27/2022 Payroll	1,135.02
13745	11/20/2022	Printed			184	MISSION SQUARE	11/23/2022 Payroll	1,135.02
13746	11/20/2022	Printed			129	ROUTEWARE	ReCollect 11/19/22-11/18/23	12,024.87
13747	11/20/2022	Printed			33	SQS, INC.	October 2022 appointments	10,233.50
13748	11/20/2022	Printed			130	THE HARTFORD	December 2022	527.09

Total Checks: 28

Checks Total (excluding void checks):

126,281.93

Total Payments: 28

Bank Total (excluding void checks):

126,281.93

Total Payments: 28

Grand Total (excluding void checks):

126,281.93

BANK OF AMERICA

P.O. Box 15284
Wilmington, DE 19850

AG 1115 0 307 104 17252 #01 AV 0.455
RESOURCE RECOVERY AND RECYCLING
AUTHORITY OF SOUTHWEST OAKLAND COUNTY
20000 W 8 MILE RD
SOUTHFIELD, MI 48075-5708

Customer service information

- Customer service: 1.888.400.9009
- bankofamerica.com
- Bank of America, N.A.
P.O. Box 25118
Tampa, FL 33622-5118



Please see the **Important Messages - Please Read** section of your statement for important details that could impact you.

Your Public Funds Interest Checking

for October 1, 2022 to October 31, 2022

Account number: .

RESOURCE RECOVERY AND RECYCLING AUTHORITY OF SOUTHWEST OAKLAND COUNTY

Account summary

Beginning balance on October 1, 2022	\$708,292.81
Deposits and other credits	154,634.63
Withdrawals and other debits	-150,000.00
Checks	-0.00
Service fees	-197.04
Ending balance on October 31, 2022	\$712,730.40

of deposits/credits: 6
of withdrawals/debits: 3
of days in cycle: 31
Average ledger balance: \$679,474.42

Annual Percentage Yield Earned this statement period: 0.16%.
Interest Paid Year To Date: \$270.26.



Oakland County Investment Pool
Position Report - Portrait
Investment

Oakland County Treasury

As Of November 15, 2022

Investment #		Managed Pool Accounts (PA4)	
Fund		Begin Rate 1.3522312 Current 1.6612382 Rates as of 10/01/2022 Basis 365 Interest Period ME First Interest Due 06/01/2012 <input checked="" type="checkbox"/> Add Interest to Account Balance <input type="checkbox"/> Include in Yield Calculation <input checked="" type="checkbox"/> Clearing Account Market Price 0 Market Price Date Last Withdrawal Date 11/01/2022 Last Deposit Date	
CUSIP	SYSTEM SYS		
Issuer	99999 Pooled Investments		
Cert./Acct#			
Dealer	GASB 3		
Custodian			
Asset Class	Cash and Equivalents S&P Moody's		
Investment Class	Book Value		
Beginning Balance Date 10/01/2022			
Beginning Balance 617,564.25			
Current Balance 619,105.86			
Deactivate Date			
Accrued Interest from Previous Fiscal Year 695.10		Comment Current Fiscal Year Interest Received to 1,579.50	

Passbook Transactions

Trans. Dat	Deposit	Withdrawal	Int. Rcvd.	Balance	Rate	Cd Receipt	Comments
10/01/2022	0.00	0.00	0.00	617,564.25	1.352	BB	
10/01/2022	0.00	18.61	695.10	618,240.74		FI	Interest Earnings
10/01/2022	0.00	0.00	0.00	618,240.74	1.661	R	Interest Earnings
11/01/2022	0.00	19.28	884.40	619,105.86		FI	Interest Earnings

REVENUE/EXPENDITURE REPORT

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11/17/2022

3:38 pm

RRRASOC

For the Period: 7/1/2022 to 10/31/2022

	Original Bud.	Amended Bud.	YTD Actual	CURR MTH	Encumb. YTD	UnencBal	% Bud
Fund: 596 - GENERAL FUND - ADMINISTRATION							
Revenues							
Dept: 521.000 ADMINISTRATION							
580.000 MEMBER CONTRIBUTIONS	360,054.00	360,054.00	346,841.25	103,438.75	0.00	13,212.75	96.3
645.000 REVENUE SHARING-RRRASOC	125,000.00	125,000.00	56,336.72	19,299.28	0.00	68,663.28	45.1
646.000 REVENUE SHARING-NON RRRASOC	7,000.00	7,000.00	3,194.74	1,048.32	0.00	3,805.26	45.6
647.000 HOST FEES	250,000.00	250,000.00	34,413.39	17,334.53	0.00	215,586.61	13.8
664.000 INTEREST INCOME	2,500.00	2,500.00	2,416.65	973.85	0.00	83.35	96.7
671.000 MISCELLANEOUS INCOME	19,432.00	19,432.00	14,392.25	1,108.52	0.00	5,039.75	74.1
ADMINISTRATION	763,986.00	763,986.00	457,595.00	143,203.25	0.00	306,391.00	59.9
Revenues	763,986.00	763,986.00	457,595.00	143,203.25	0.00	306,391.00	59.9
Expenditures							
Dept: 521.000 ADMINISTRATION							
702.000 SUPERVISORY SALARIES	121,386.00	121,386.00	42,018.21	9,337.38	0.00	79,367.79	34.6
703.000 PERMANENT SALARIES	60,072.00	60,072.00	20,620.86	4,447.64	0.00	39,451.14	34.3
705.000 OVERTIME	7,334.00	7,334.00	2,334.35	0.00	0.00	4,999.65	31.8
710.000 FICA	16,356.00	16,356.00	5,645.81	1,214.94	0.00	10,710.19	34.5
711.000 MEDICAL/DENTAL INSURANCE	68,000.00	68,000.00	27,712.45	5,542.49	0.00	40,287.55	40.8
712.000 UNEMPLOYMENT INSURANCE	884.00	884.00	0.00	0.00	0.00	884.00	0.0
713.000 WORKERS COMP.	800.00	800.00	0.00	0.00	0.00	800.00	0.0
715.000 ICMA	25,006.00	25,006.00	7,693.92	961.74	0.00	17,312.08	30.8
727.000 OPERATING SUPPLIES	750.00	750.00	0.00	0.00	0.00	750.00	0.0
728.000 OFFICE SUPPLIES	2,000.00	2,000.00	128.00	10.27	0.00	1,872.00	6.4
729.000 POSTAGE & MAILING	17,400.00	17,400.00	581.64	336.00	0.00	16,818.36	3.3
730.000 MAGAZINES & PERIODICALS	80.00	80.00	0.00	0.00	0.00	80.00	0.0
810.000 AUDIT	13,000.00	13,000.00	14,720.00	0.00	0.00	-1,720.00	113.2
811.000 CONSULTING SERV. - ENGRS.	10,000.00	10,000.00	0.00	0.00	0.00	10,000.00	0.0
812.000 LEGAL COUNSEL	2,700.00	2,700.00	0.00	0.00	0.00	2,700.00	0.0
821.000 MEMBERSHIP DUES	800.00	800.00	470.00	0.00	0.00	330.00	58.8
822.000 CONTRACTUAL SERVICES-OTHER	140,600.00	140,600.00	20,319.19	1,462.83	0.00	120,280.81	14.5
822.002 DROP-PFF	174,216.00	174,216.00	38,440.00	11,318.00	0.00	135,776.00	22.1
822.003 HHW Wash	30,000.00	30,000.00	71,174.41	53,290.97	0.00	-41,174.41	237.2
830.000 TELEPHONE	6,480.00	6,480.00	1,464.80	140.00	0.00	5,015.20	22.6
831.000 VEHICLE EXPENSE	4,800.00	4,800.00	1,600.00	400.00	0.00	3,200.00	33.3
835.000 COMMUNITY RELATIONS	8,700.00	8,700.00	1,500.00	0.00	0.00	7,200.00	17.2
836.000 PRINTING & PUBLISHING	39,915.00	39,915.00	7,236.75	95.00	0.00	32,678.25	18.1
840.000 BUILDING/LIAB. INS.	25,685.00	25,685.00	23,557.00	-3,036.00	0.00	2,128.00	91.7
850.000 EQUIPMENT MAINTENANCE	24,914.00	24,914.00	15,753.52	8,114.64	0.00	9,160.48	63.2
851.000 BUILDING MAINTENANCE	1,700.00	1,700.00	0.00	0.00	0.00	1,700.00	0.0
852.000 OFFICE EQUIPMENT RENTAL	1,000.00	1,000.00	222.42	93.77	0.00	777.58	22.2
860.000 CONFERENCES & WORKSHOPS	2,000.00	2,000.00	0.00	0.00	0.00	2,000.00	0.0
890.000 MILEAGE EXPENSES	2,500.00	2,500.00	26.56	0.00	0.00	2,473.44	1.1
970.000 CAPITAL OUTLAY	45,000.00	45,000.00	28,950.00	26,450.00	0.00	16,050.00	64.3
975.000 COMPUTER SOFTWARE	685.00	685.00	273.80	44.64	0.00	411.20	40.0
978.000 OFFICE EQUIPMENT	2,500.00	2,500.00	0.00	0.00	0.00	2,500.00	0.0
979.000 CONTINGENCY	17,205.00	17,205.00	0.00	0.00	0.00	17,205.00	0.0
ADMINISTRATION	874,468.00	874,468.00	332,443.69	120,224.31	0.00	542,024.31	38.0
Expenditures	874,468.00	874,468.00	332,443.69	120,224.31	0.00	542,024.31	38.0
Net Effect for GENERAL FUND - ADMINISTRATION	-110,482.00	-110,482.00	125,151.31	22,978.94	0.00	-235,633.31	-113.3
Change in Fund Balance:			125,151.31				
Grand Total Net Effect:	-110,482.00	-110,482.00	125,151.31	22,978.94	0.00	-235,633.31	



Resource Recovery & Recycling Authority of Southwest Oakland County

20000 W. 8 Mile Rd
Southfield, MI 48075-5708
Office: 248.208.2270
Fax: 248.208.2273
www.RRRASOC.org

THE RECYCLING AUTHORITY
Since 1989

**Minutes of October 27, 2022
RRRASOC Board of Directors Meeting
9:30 am
Farmington Hills City Hall
Planning Department Conference Room
31555 Eleven Mile Road
Farmington Hills, MI 48336**

1. Call to Order

Mr. Zorn called the meeting to order at 9:35 a.m.

2. Roll Call

Fred Zorn	Chairperson, Southfield
Don Green	Vice Chairperson, Charter Township of Milford
Chelsea Pesta	Treasurer, Walled Lake
David Murphy	Farmington
Christian Wuerth	Milford Village
Jeff Herczeg	Novi
Paul Zelenak	South Lyon
Steve Brown	Wixom
Derrick Schueller	Farmington Hills
Patrick Ryan	Southfield
Tim Sikma	Wixom

Also present:
Keith Szymanski Plante & Moran, LLC

Michael Csapo	RRRASOC
Laura Shaw	RRRASOC

3. Approval of Agenda

Mr. Green moved to approve the agenda. Mr. Wuerth supported and the motion passed unanimously by the Board.

4. Audience Participation

None.

5. Matters for Discussion/Action

A. Audit of FY 2021-2022 Financial Report

Mr. Csapo introduced Mr. Szymanski from Plante & Moran, LLC.

RRRASOC Member Communities
Farmington ♦ Farmington Hills ♦ Milford ♦ Milford Township
Novi ♦ South Lyon ♦ Southfield ♦ Walled Lake ♦ Wixom

Mr. Szymanski informed the Board that the audit for FY 2021-2022 was a clean audit with a strong balance sheet. In addition, Mr. Szymanski explained the unmodified opinion letter.

Mr. Zelenak made a motion to accept and file the Audit of FY 2021-2022 with the appropriate agencies. Mr. Murphy supported and the motion passed unanimously by the Board.

B. Sustainability Planning

Mr. Csapo explained to the Board that RRRASOC has been invited to participate on the Community Advisory Board to assist the City of Southfield Sustainability Team in developing a Sustainability Action Plan (SAP). As part of the SAP, documents have been developed to help RRRASOC communities achieve improvement in materials management. More detail, including a timeline and costs/benefits, will be developed as the process unfolds.

C. MRF Evaluation Project

Mr. Csapo informed the Board that RRRASOC is continuing to work with Resource Recycling Systems (RRS) and Plante Moran Corporate Real Estate Advisors (PM CRESA) to evaluate the MRF and potential future operating arrangements. An update will be provided at the December 1st, 2022 Board Meeting.

6. Manager's Report

Mr. Csapo informed the Board that there will be a December 1st, 2022 Board Meeting which will held at the Southfield Civic Center. Location details will be included in the packet.

7. Other

None.

8. Consent Agenda

- A. Recycling Report**
- B. MRF Operations Report**
- C. Payment of Bills Report**
- D. Investment Report**
- E. Revenue and Expenditure Report**
- F. Minutes of September 22, 2022 Regular Meeting**

Mr. Wuerth moved to approve the Consent Agenda. Mr. Schueller supported and the motion passed unanimously by the Board.

9. Adjournment

Mr. Wuerth made a motion to adjourn at 10:28 a.m. Mr. Murphy supported and the motion passed unanimously by the Board.