



R·R·R·A·S·O·C

2022 Annual Report

Member Communities

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

Board of Directors

Chairman

Fred Zorn, City Administrator, Southfield

Vice Chairman

Don Green, Township Supervisor, Milford Township

Treasurer

Chelsea Pesta, Assistant City Manager, Walled Lake

Secretary

Gary Mekjian, Assistant City Manager, Farmington Hills

David Murphy, City Manager, Farmington
Christian Wuerth, Village Manager, Milford
Victor Cardenas, Interim City Manager, Novi
Paul Zelenak, City Manager, South Lyon
L. Dennis Whitt, City Manager, Walled Lake
Steve Brown, City Manager, Wixom

Designated Board Alternates

Chuck Eudy, Director, Farmington Department of Public Services
Karen Mondora, Director, Farmington Hills Department of Public Services
Derrick Schueller, Superintendent, Farmington Hills Department of Public Works
Mike Karll, Director, Village of Milford Department of Public Services
Jeff Herczeg, Director, Novi Department of Public Works
John Michrina, Deputy City Administrator, Southfield
Tim Sikma, Director, Wixom Department of Public Works

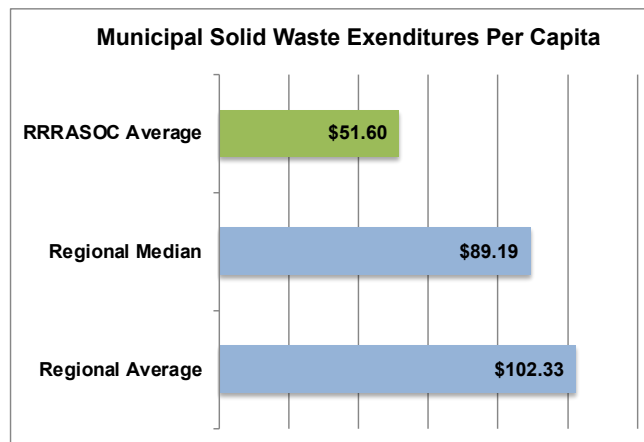
RRRASOC Staff

Michael Csapo, General Manager
Laura Shaw, Administrative Secretary
IRIS Waste Diversion Specialists, Education and Outreach Coordinators

During 2022, RRRASOC and its Member Communities maintained their focus on cost-effective, environmentally responsible materials management programs while evaluating programs and facilities with an eye toward ensuring sustainability.

Notable activities and accomplishments last year included:

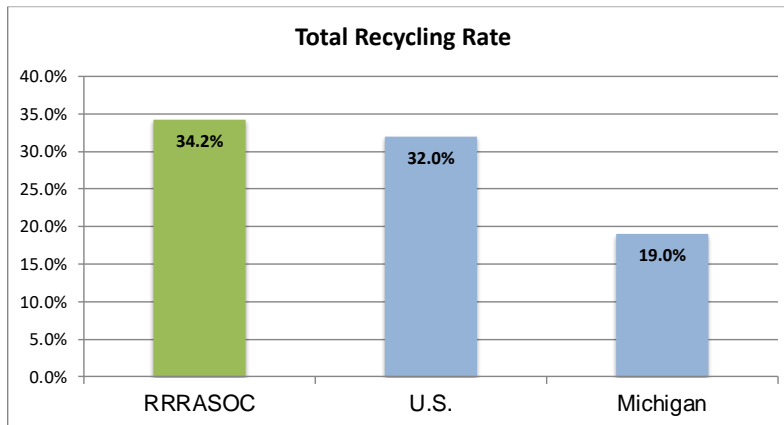
- RRRASOC completed the installation of a document shredder for residential use at the Southfield Drop Off Center at the MRF, which was 80% funded by a Michigan EGLE grant of nearly \$65,000;
- RRRASOC completed Phase Two of a project with IRIS Waste Diversion Specialists and The Recycling Partnership to improve material quality and processing safety by reducing recycling contamination, using a \$50,000 grant from the Michigan Department of Environment, Great Lakes, and Energy (EGLE);
- The Michigan Department of Agriculture increased RRRASOC's Clean Sweep grant to \$26,000, helping RRRASOC facilitate the collection of pesticides throughout the region;
- RRRASOC helped two communities navigate soliciting new proposals for curbside collection services while assisting a third in negotiating a contract extension;
- RRRASOC partnered with Glacier (a private sector robotics company), SOCRRA, The Recycling Partnership, the Carton Council, and the Foodservice Packing Institute to develop a project to test Glacier's innovative robotic applications at recycling facilities. The project was awarded funding from Michigan EGLE and is expected to be deployed in 2023;
- RRRASOC partnered with SOCRRA to develop a Storm and Disaster Debris Management Planning project that was accepted into the NextCycle Michigan program. An RFP is scheduled to be released in 2023;
- The HHW program set a new program participation record;
- The annual audit by Plante Moran of the *RRRASOC Financial Report for FY 2021 – 2022* showed that RRRASOC conducted its financial affairs in accordance with generally accepted accounting principles and that the Authority improved its financial position;
- The completion of the *FY 2022 – 2023 Solid Waste Expenditure Benchmark Study* demonstrated the continued cost-effectiveness of the programs in the RRRASOC communities.



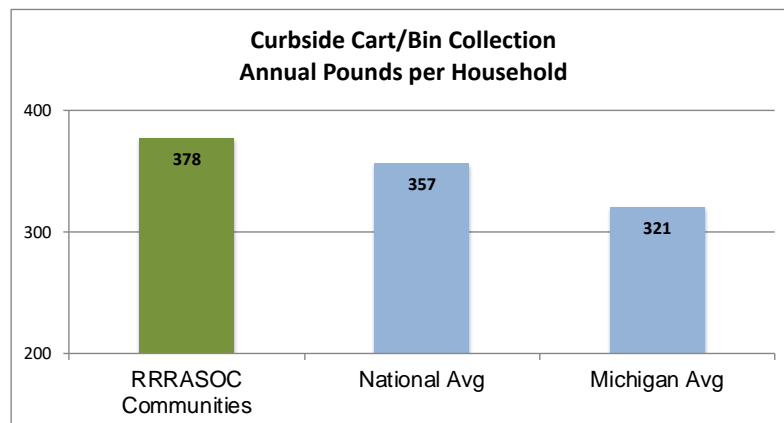
Last year, 15,018 tons of paper, plastic, glass, and metal were recycled; 19,238 tons of yard waste were composted; 11 tons of clothing were collected for reuse; 278 tons of hazardous material were collected for recycling or disposal; and 66,485 tons were landfilled.

In total, nearly 34,550 tons of recyclable and reusable material, yard waste, and household hazardous waste items were collected and diverted from local landfills through the RRRASOC curbside collection, drop-off, and event-based programs.

The combined recycling rate of the RRRASOC communities increased from last year to 34.2%, which is higher than both the U.S. and Michigan rates.



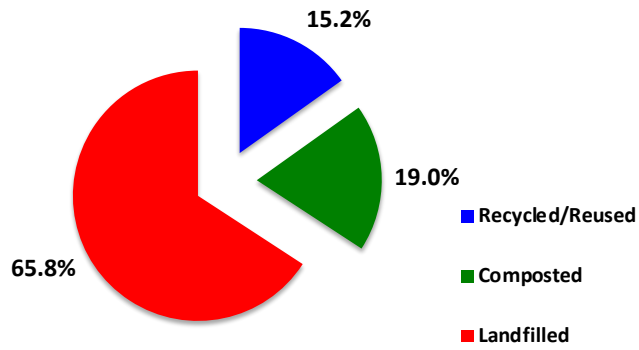
The RRRASOC communities collected more than 378 pounds per household with their curbside cart/bin collection programs, exceeding the national and Michigan averages.



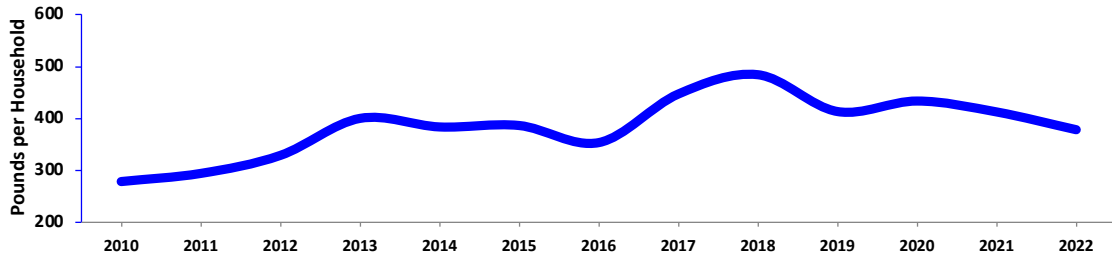
Lifecycle analysis shows that recapturing those resources for value-added economic activity also yielded significant environmental benefits, including the following:

- ♻️ Conserved nearly 151 billion Btu, which is the equivalent of the annual energy consumption of 1,495 households;
- ♻️ Reduced CO₂e emissions by 35,400 metric tons;
- ♻️ Preserved more than 113,000 trees;
- ♻️ Reduced airborne pollution emissions by 16,932 tons;
- ♻️ Reduced waterborne pollution emissions by 63 tons.

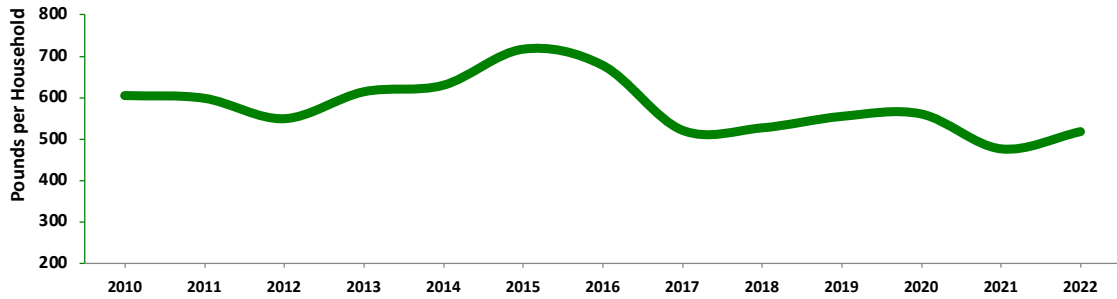
Solid Waste Disposition: 2022



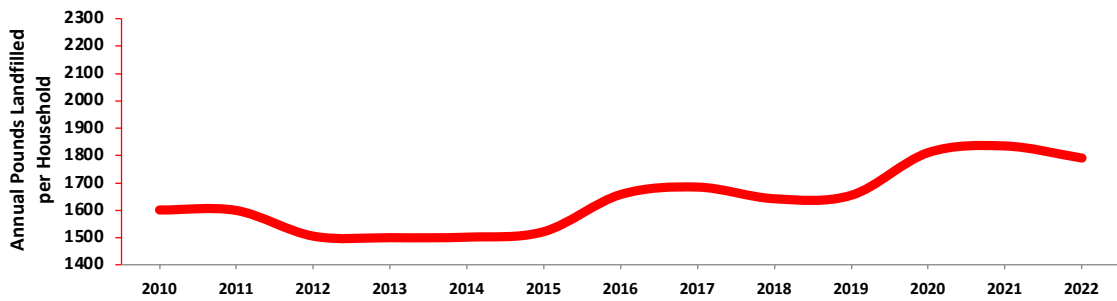
Recycling History Curbside Collection



Composting History



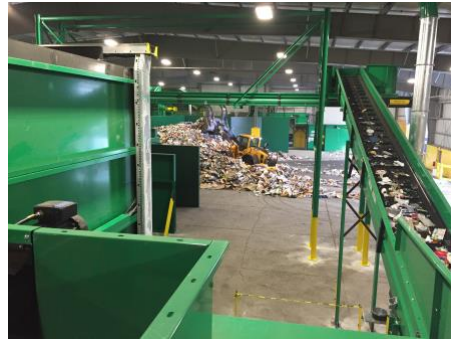
Waste Generation History



RRRASOC's contracted MRF operating partner, Republic Services, operated the MRF at full capacity, running two production shifts per day, as the MRF continued to serve as an important part of Michigan's circular economy.

Overall, the facility processed more than 61,000 tons of material during the year. The 74,300 RRRASOC area homes and the two RRRASOC drop-off centers contributed nearly 25% of the total throughput. Our communities accounted for about 15,000 tons of paper, glass, plastic, and metal that was processed at the MRF and shipped throughout the U.S. and abroad, providing critical feedstock for manufacturers and the sustainable supply chain.

During the year, RRRASOC worked with Resource Recycling Systems and Plante Moran Corporate Real Estate Advisors to conduct a thorough systems and facility assessment to identify opportunities to improve upon effectiveness and ensure sustainability.



RRRASOC's Household Hazardous Waste (HHW) collection program had another record-breaking performance in 2022. More than 9,000 residents participated in the program, which made it the highest year of participation in program history. The new overall participation record was 14% higher than the average for the prior five years.

The Wixom and Southfield spring events had their highest attendance ever, while use of the contractor's site for drop off activity nearly matched last year's record.

More than 555,000 pounds of material were collected in 2022, which is 10% more than the program average for the previous five years and 32% more than the program average for the previous twenty years.

RRRASOC worked with the Michigan Department of Agriculture to increase RRRASOC's Clean Sweep grant by 30% to \$26,000, which facilitates the collection of pesticides throughout the region.

ERG Environmental Services, a local hazardous waste company, handled the material. Disposal and recycling costs through ERG continued to be among the lowest in southeast Michigan. All material was handled in accordance with state and federal laws.

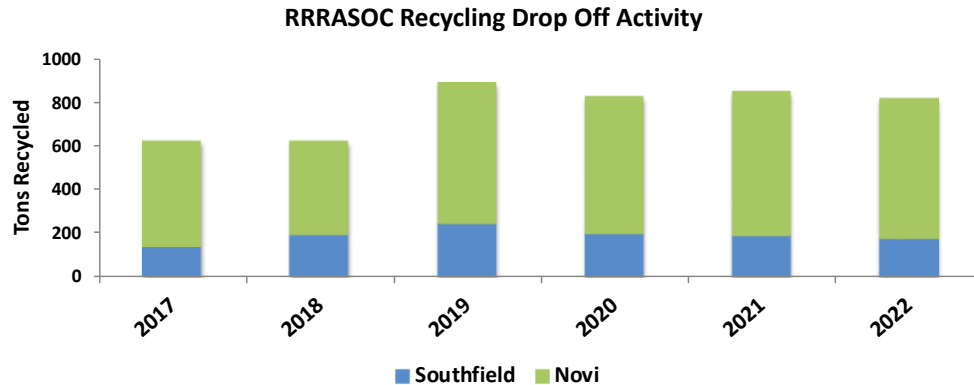


RRRASOC's recycling drop-off centers continued to be a popular recycling option for many residents and businesses throughout the region. Last year, 811 tons were brought to the sites, which is 7% higher than the average for the previous five years.

The drop-off center in Novi accounted for 639 tons of recycling, while the Southfield location contributed another 172 tons.

RRRASOC completed the installation of a document shredder for residential use at the Southfield Drop Off Center at the MRF, which was 80% funded by a Michigan EGLE grant of nearly \$65,000. The shredder is available for use by residents Monday through Friday during business hours.

RRRASOC continued to work with IRIS Waste Diversion Specialists and The Recycling Partnership to conduct analysis and education surrounding the use of the Novi site to reduce contamination and improve material preparation compliance.



RRRASOC continued to use a multi-platform approach to community outreach and materials management education. Last year's efforts complemented the communication programs of our individual communities with the following:

- Nearly 104,000 grant-funded, direct mail educational postcards;
- 18,839 first time users of the online Recycling Directory;
- 583,846 material searches by residents using our online Recycling Directory, which was 68% more than the record set last year;
- Downloads of the Recycling Directory mobile application increased nearly 7%;
- Subscribers to our monthly electronic newsletter increased by more than 10%;
- 838 new resident packets were distributed, which is 10% more than last year;
- Improvements were made to RRRASOC's digital and print information by IRIS Waste Diversion Specialists, with design and funding assistance from stakeholder organizations such as The Recycling Partnership, the Carton Council, and the Foodservice Packaging Institute.

RRRASOC COMMUNITIES SOLID WASTE & RECYCLING 2022 METRICS

HOW WELL ARE WE RECYCLING?



Paper, Plastic, Glass,
& Metal Recycled



Clothing Reused



Hazardous Materials
Properly Managed



Yard Waste Composted

34,545

TOTAL TONS UTILIZED

66,485

TOTAL TONS LANDFILLED

101,030 TONS
TOTAL SOLID WASTE



TOTAL RECYCLING RATE IN
RRRASOC COMMUNITIES, 2022
(378 lbs. per household)



TOTAL RECYCLING RATE
IN MICHIGAN
(321 lbs. per household)

RRRASOC
COMMUNITIES
HAD A HIGHER
RESIDENTIAL
RECYCLING RATE
THAN THE
MICHIGAN
AVERAGE.

HOW MUCH DID IT COST?

(per capita)

\$102.33

SOUTHEAST MICHIGAN
(regional average)

RRRASOC ONLY
SPENT ABOUT
HALF AS MUCH
AS THE REGIONAL
AVERAGE!

\$51.60
RRRASOC



ENVIRONMENTAL IMPACTS



Energy Saved



Reduced CO₂e



Trees Saved



Reduced Air/Waterborne Emissions



RRRASOC

THE RECYCLING
AUTHORITY



R·R·R·A·S·O·C

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**Resource Recovery and Recycling Authority of Southwest Oakland County
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