



**RAMSEY/WASHINGTON
RECYCLING & ENERGY**
CONNECTING VALUE TO WASTE



2023

RAMSEY/WASHINGTON RECYCLING & ENERGY

Annual Report

LETTER FROM THE CHAIR

As Board Chair, it is with great pleasure that I present the Ramsey/Washington Recycling & Energy (R&E) annual report for 2023. The achievements highlighted showcase our dedication to our core values of commitment, teamwork, respect, trust and innovation.

In 2023, we expanded our waste prevention efforts to move waste up the Minnesota waste hierarchy, which guides our work and prioritizes reduction, reuse and recycling. Notably, we launched and expanded the highly anticipated Food Scraps Pickup Program to 40,000 households, with rollout continuing over the next several years, and implemented cutting-edge technology at the R&E Center to support the program. Additionally, programs like mattress recycling, food waste prevention and BizRecycling moved hundreds of thousands of pounds of materials up the waste hierarchy. Our educational initiatives and facility tours have played a crucial role in fostering understanding of the counties' responsible waste management practices, enhancing community engagement with our mission.

We extend our sincere gratitude to our partners and community members for their continued collaboration and commitment to creating healthy, vibrant communities. As we look to the future, we remain dedicated to advancing our mission and fostering partnerships that contribute to the sustainability and vitality of our communities.



A handwritten signature in black ink, appearing to read 'Fran Miron'.

Commissioner Fran Miron
R&E Board Chair

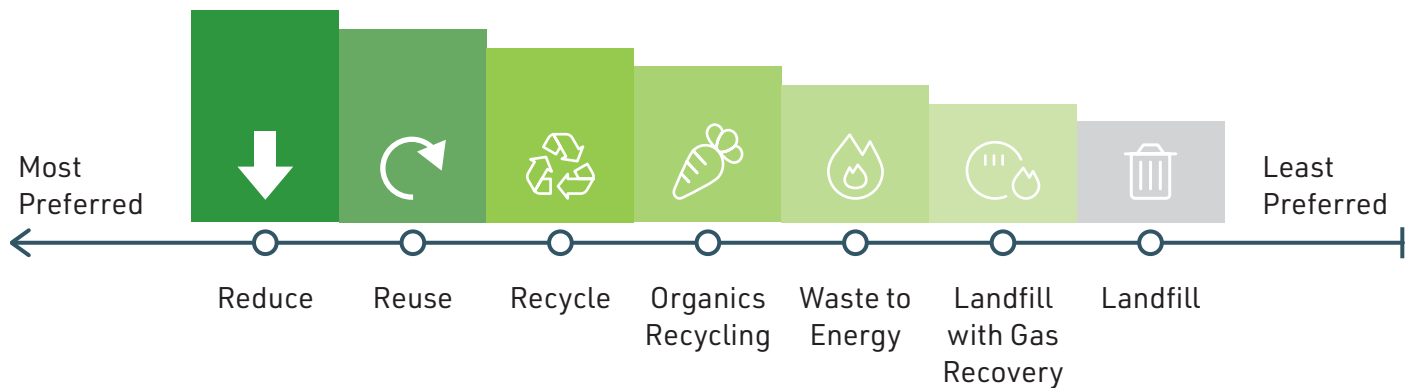
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ABOUT R&E

R&E is the organization through which Ramsey and Washington counties collaborate to responsibly manage waste. Through R&E, the counties strive to protect health and the environment and meet the state of Minnesota's 75% recycling goal by 2030. R&E offers programs to help residents and businesses reduce waste and recycle better. R&E also manages the R&E Center, which processes trash from the two counties to recover valuable materials and divert waste from landfills. R&E employs 90 union and 33 non-union staff and collaborates with staff from two counties to perform this work.

Through all its work, R&E's goal is to move materials up the waste hierarchy, pictured below, to ensure those materials don't arrive at the R&E Center.



The R&E Board

The R&E Board governs the organization in carrying out its vision of “*vibrant, healthy communities without waste.*” Comprising of commissioners from both Ramsey and Washington counties, as well as ex officio members from the City of Newport and the Minnesota Pollution Control Agency, the R&E Board brings together a mix of knowledge and expertise that oversees the impactful work that the organization conducts.

2023 R&E Board Members

Fran Miron, Chair

Washington County Commissioner

Victoria Reinhardt, Vice Chair

Ramsey County Commissioner

**Trista Martinson,
Secretary/Treasurer**

Ramsey County Commissioner

Karla Bigham

Washington County Commissioner

Mai Chong Xiong

Ramsey County Commissioner

Michelle Clasen

Washington County Commissioner

Nicole Joy Frethem

Ramsey County Commissioner

Rafael E. Ortega

Ramsey County Commissioner

Stan Karwoski

Washington County Commissioner

Gary Kriesel (alternate)

Washington County Commissioner

Mary Jo McGuire (alternate)

Ramsey County Commissioner

Tom Ingemann (ex officio member)

City of Newport

Dave Benke (ex officio member)

Minnesota Pollution Control Agency

Staffing

As R&E continues to grow and evolve, several positions were added to the organization to ensure a sustainable staffing level in support of the R&E Center and Joint Activities programs: Food Scraps Pickup Program Supervisor, Food Scraps Pickup Program Communications Specialist, Food Scraps Pickup Program Customer Support Associate, HR Generalist and Contract Specialist.



Partnership on Waste and Energy



Ramsey, Washington and Hennepin counties continued to collaborate to maximize diversion of waste resources through integrated waste management solutions. Learn more about the work conducted by the partnership in 2023 by reading the [PWE Annual Report](#).



PROGRAMS – UPSTREAM WASTE PREVENTION



R&E works with the counties and partners to provide programs to promote waste reduction, reuse and recycling. This collaboration supports local food recovery efforts, helps businesses operate more efficiently and provides resources to help community members live more sustainably.

Food Scraps Pickup Program

Approximately 20% of waste collected in Ramsey and Washington counties is food scraps, like fruit and vegetable peels, eggshells, bones and coffee grounds. To keep this material from becoming trash, the counties and R&E worked together to develop and launch the Food Scraps Pickup Program – a new way for residents to recycle food scraps from home. The program is currently rolling out over several years to all residents in Ramsey and Washington counties.

The program utilizes thick, compostable “food scrap bags” to collect this material. Food scrap bags are collected with trash and then sorted from the trash at the R&E Center, where they are then sent to a processing facility and turned into nutrient-rich compost. This system requires no additional carts or collection trucks and allows all residents to participate, regardless of city, housing type or hauler.



How It Works



Order your free supply of food scrap bags.



Collect your food scraps in the bags. Once a week or when the bag is full, tie a knot at the top to close the bag.



Place your bag inside your trash cart or dumpster for collection.



Done! Your trash is collected as usual, and the bags are sorted from the trash and composted.

Celebration Event at the R&E Center

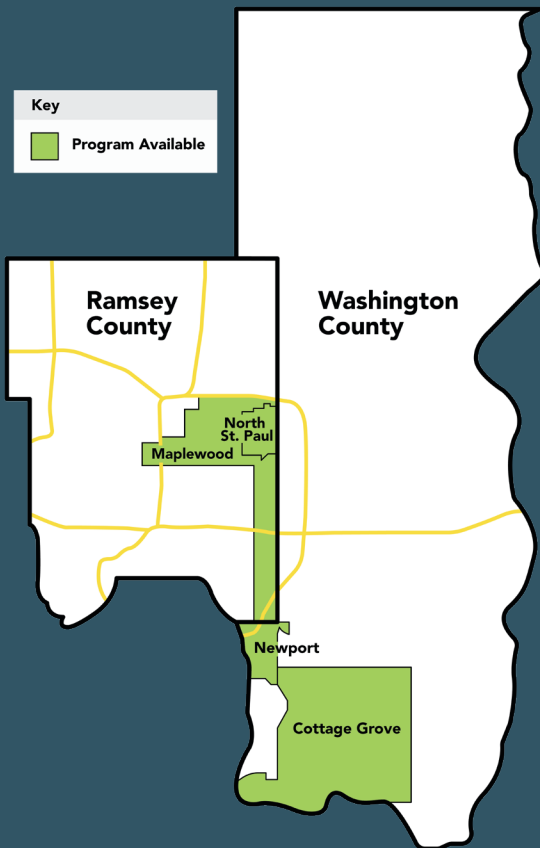
On July 17, 2023, state, county and local officials joined R&E, Ramsey and Washington County staff in celebrating the completion of the facility enhancements that will be used to recover food scrap bags and recyclables from the waste stream. More information can be found in the [event press release](#).



Program Rollout

Program Pilot (April-October 2023)

In April 2023, the Food Scraps Pickup Program was pilot tested with about 2,000 households in areas of Cottage Grove, Maplewood, North St. Paul and Newport. The purpose of the pilot was to test the program with a limited number of households before scaling it up. Pilot areas were chosen based on hauler routes and population representation across the two counties. Around **260 eligible households participated** in the program's pilot, with a participation rate of 12%. Feedback was gathered from eligible pilot households to improve the program as it rolls out.

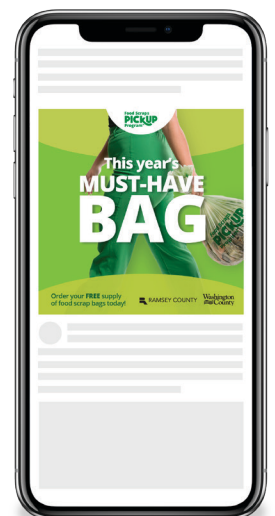


Program Expansion

In October 2023, the program expanded to all residents of Cottage Grove, Maplewood, North St. Paul and Newport – about 39,000 households. At the end of 2023, the program had a participation rate of **7.8%** with **2,861 households** enrolled.

Communications, Outreach and Community Engagement

A variety of participant resources and communications tactics were used throughout 2023 to ensure easy access to program information, including: a [program website](#), e-newsletters with programmatic email updates, customer service (including a phone line, chat and contact form), direct mail, social media and traditional marketing campaigns, community events and in-person engagements and partnerships with municipalities. Program resources are available in English, Spanish, Hmong, Somali, Karen and Oromo.



BizRecycling

BizRecycling helps businesses, nonprofits, apartments and schools reduce waste and recycle better by providing free technical assistance and funding through various [grant options](#).

2023 BizRecycling Impact

\$510,302

in grants awarded

1,171

tons of CO₂ avoided equivalent to 254 cars

\$24,461

in annual cost savings to businesses

139

businesses received on-site consultations

14

started collecting recycling

29

started collecting organics

81

awarded grants

1.1

million pounds of waste diverted from the trash

60

made improvements to existing collection systems

19%

of businesses that received grants are owned by people of color

\$290,838

in grants awarded

504

pounds of CO₂ avoided equivalent to 60 cars

\$8,740

in annual cost savings to apartments

103

new apartments received on-site consultations

6

apartments started collecting recycling

25

awarded grants

261,586

pounds of waste diverted from the trash

33%

of buildings are in neighborhoods highly vulnerable to climate change

Businesses and Institutions

Apartments and Condos

BizRecycling Partners

[BizRecycling Partners](#) facilitate relationships and create two-way communication channels between the local public waste management system and the commercial sector by:

- › Disseminating information.
- › Engaging members to provide input.
- › Connecting members to resources, such as BizRecycling, to implement best practices.

R&E currently works with **18 local chambers and economic development groups** to better connect with the business community. In 2023, the [Midway Chamber of Commerce](#) became BizRecycling's newest partner.



Cottage Grove Chamber of Commerce, a partner of BizRecycling since 2017, visiting the R&E Center.

Waste Reduction & Innovation Grant

The [Waste Reduction & Innovation Grant](#) supports businesses in implementing large-scale waste prevention projects. These projects can take many different forms, including buying in bulk, package reduction, reuse and remanufacturing.

Two Waste Reduction & Innovation Grants were awarded in 2023, totaling **\$85,000**. Projects are being implemented in 2024, with an anticipated reduction of **2,131 tons of waste**.



Apartment Recycling Specialists

Apartment Recycling Specialists build community capacity for waste reduction and recycling, and act as trusted messengers in their multi-unit communities.

In 2023, there were five residents within the counties that served as Apartment Recycling Specialists. This year's specialists organized several programs, including plastic film collection, food scraps collection, educational tabling, residential outreach and mattress and electronic collection events.



Food Recovery Grants and Food Waste Prevention

In 2023, R&E partnered with organizations to support food waste reduction efforts. Some of the highlights of this work in Ramsey and Washington counties includes:

- › Providing operational support for five food recovery organizations totaling **over \$175,000**.
- › **Over \$200,000** in Food Recovery Grants awarded to 15 organizations.
- › **Over 14 million pounds** of food recovered and distributed to people in need.
- › **Over 25,000 pounds** of local, fresh produce collected from farmer's markets and distributed to food shelves.
- › **Over 1 million meals** produced using recovered food and served to communities.
- › A continued partnership with the LEAFF Program, operated by The Good Acre, supported BIPOC farmers that reside and farm in our two counties, ensuring that all their produce went to communities and helping farmers maximize their crops. This prevented **30,000 pounds** of locally grown fresh produce from going to waste.

Food Recovery Grant Success Story Basic Needs, Inc.

With the help of a **Food Recovery Grant**, Basic Needs, Inc. of South Washington County opened their food market in Cottage Grove. The market is stocked with food recovered from local grocery stores and provides a retail-like setting for community members experiencing hunger to select food they want in a dignified way. The market creates a convenient way for recovered food to be distributed to community quickly to ensure food goes to its best use – feeding people. The Food Recovery Grant supported necessary equipment for safely moving and storing food, as well as staff time and software to efficiently manage food donations.



Business Pollution Prevention

The [Business Pollution Prevention Program](#) (BP3) provides free technical and financial support of up to \$50,000 to help businesses – like dry cleaners, auto body shops, industrial painters and printers – to transition to using safer, more sustainable chemicals and high-efficiency equipment.

R&E awarded a record-setting seven grants this year, **totaling \$188,000**. The program funded a couple new types of projects, such as dust collectors (which capture fine particulate matter) as well as solvent recyclers (which allow chemical solvents to be reused several times before disposal).

BP3 also helped fund the decommissioning of the last perchloroethylene (PERC) dry cleaning machine in the two counties.

R&E is pleased to announce that Ramsey and Washington counties are PERC-free.

Projects funded by BP3 in 2023:

Reduced annual VOC
(volatile organic compound) emissions by

1,240 pounds

and hazardous waste generation by

4,050 pounds



BP3 Success Story Escape Climbing

[Escape Climbing](#), a wall climbing molds designer and manufacturer in Little Canada, recently used the Business Pollution Prevention Program to install a solvent recycler to reclaim isopropyl alcohol. Solvent recyclers allow solvents to be reused several times before disposal. This results in decreased solvent use, hazardous waste generation and associated costs.

Early pollution reduction results are positive, with Escape Climbing on track to recover 65 gallons of isopropyl alcohol every year. This will reduce their hazardous waste volume by one-third and save nearly \$900 annually.



Bulky Waste Diversion

Deconstruction Grants

Deconstruction is the process of taking apart a building so materials – like cabinets, light fixtures, structural lumber, doors and more – can be reused instead of being sent to a landfill. In addition to encouraging reuse, the grant also requires material that is unable to be reused to meet an elevated recycling rate. The deconstruction grant program requires proper management of hazardous materials prior to salvage and/or structural removal.

- › In 2023, R&E dispersed funds for two grants, one from each county, totaling **\$7,530**.
- › Ramsey County issued one grant for a renovation project. The majority of the salvage work and documentation was completed by the homeowners themselves.
- › Washington County issued one grant for a complete structural removal. The property owner partnered with a local deconstruction firm to complete salvage work. Coordinating with their demolition contractor, they sent all non-reusable material after salvage was completed to a recycling and processing facility.
- › From just two grants in 2023, over **10 tons** of materials were documented for reuse and **59 tons** of material was recycled.
- › Program staff collaborated with multiple additional outside county partners to help inform development of similar programs in their respective counties.



Mattress Recycling

Mattresses are considered bulky waste and are often unable to break down naturally. Many parts of mattresses are recyclable – from the steel inner spring to foam toppers to box springs! R&E works with cities and multi-unit properties to offer mattress collection through Second Chance Recycling.

In 2023, **5,600 mattresses** were collected, preventing **154 tons** (or 308,000 lbs.) of waste. Various strategies were used to collect mattresses, including:

- › **1,700** through municipal drop-off events
- › **700** from multi-unit buildings
- › **2,800** through residential curbside collection
- › **375** from public property

Compost Market Development

As the Food Scraps Pickup Program ramped up in 2023, R&E continued to explore ways to increase demand for compost in the two counties. As the counties are sending more food scraps to compost facilities, we also want to ensure that there is adequate demand for this valuable end-product. R&E and Ramsey County provided **231 cubic yards of food scrap-derived compost** to 24 community gardens and a community event at no cost. Over **250 cubic yards of compost** was also distributed for free to Washington County residents and community gardens through yard waste sites and the Environmental Service Center. R&E provided free soil nutrient testing to community gardens in both counties prior to compost distribution to encourage gardeners to make informed choices about soil amendments.

R&E continued to provide compost and monitor results of a study conducted by Alliant Engineering and the City of Roseville exploring impacts of compost on an area near an urban bike and pedestrian trail. Results continue to demonstrate improved soil health, plant growth and health in areas treated with compost.



Reuse Engagement Research

Throughout 2023, R&E worked with [Wilder Research](#) to learn more about the reuse industry in the two counties. Wilder engaged with residents and reuse businesses to better understand behaviors, interests and needs within the reuse industry. Wilder conducted a resident survey, business interviews and resident focus groups to gather information for a report of findings and recommendations related to reuse in the two counties. Results of this work will be used by R&E, Ramsey and Washington counties to determine opportunities to better support reuse efforts throughout our communities.

The following are key findings of this research:

- **Many residents are supportive of and engaged in reuse efforts.**
- **Barriers to reuse stem from access and limited resources.**
- **Reuse-related businesses represent diverse operations and services.**

R&E, Ramsey and Washington County staff will continue to reference the report to inform future reuse work and explore the actions recommended by Wilder.

Communications, Education & Outreach

R&E Center Tours

Over 100 tours welcomed **750+ individuals** from a wide range of groups – including K-12 students, resident and community organizations, businesses and industry and governmental partners. Efforts were made to standardize tour resources, presentations and activities, and interactive elements and resources were added to enhance the tour experience.



Development of Educational Materials

R&E and county staff continued working on the development of classroom resources for K-12 students, including video lessons, teacher guides and activity sheets.

Food Waste Reduction Campaign

At the end of 2023, R&E and the counties completed a digital ad campaign to increase visibility of food waste reduction information and tips. Across several platforms, including online blogs [Minnesota Parent](#) and [Twin Cities Mom Collective](#), the campaign received over **1.3 million impressions**, with over **14,000 individuals clicking** through to the [food waste reduction tips](#) on R&E's website.



Website & Social Media Statistics

In 2023, **39,000 visitors** came to R&E's website, looking for information on [food waste reduction](#), how residents can [drop off items](#) at the R&E Center and the Food Scraps Pickup Program (which now has its [own website](#) upon launch of the program in April 2023). To better serve the community, website changes are being made to prioritize requested information, including mattress drop off and recycling options.

RESPONSIBLE DOWNSTREAM WASTE MANAGEMENT



Working with five transfer stations and over 80 haulers, the R&E Center processes all trash from residents and businesses in the two counties – That’s nearly **14% of the state’s trash!** At the R&E Center, trash is processed to recover recyclable metals and to produce fuel used in Xcel Energy power plants to generate electricity. Processing trash keeps it out of landfills and recovers value.

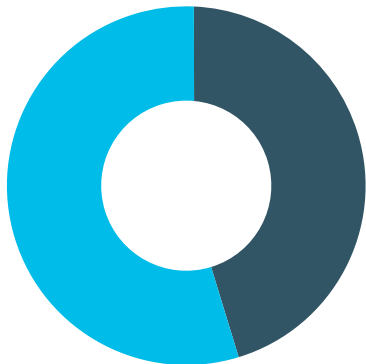


R&E Center 2023 Numbers

Waste Generation in Ramsey and Washington Counties

439,418 tons

of Municipal Solid Waste Generated in Ramsey and Washington Counties

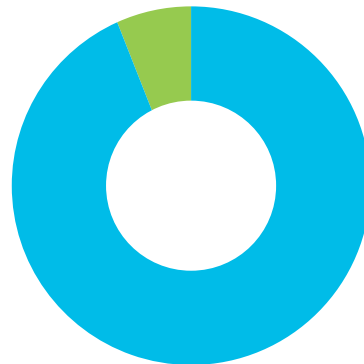


57%

delivered directly to R&E Center

43%

delivered to transfer stations



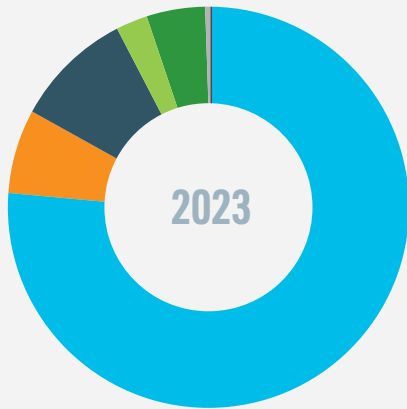
400,901 tons

processed at the R&E Center

38,517 tons

sent to landfills from transfer stations

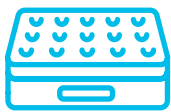
R&E Center Waste Processing



400,901 tons of Waste Managed at the R&E Center

- 331,227 tons** refuse-derived fuel produced
- 18,893 tons** process residue produced
- 30,247 tons** bulky waste landfilled
- 12,219 tons** ferrous metal recovered for recycling
- 810 tons** aluminum recovered for recycling
- 104 tons** appliances recycled
- 52 tons** tires recycled
- 1.6 tons** food scraps composted

NOTE: Total tonnage variation compared to breakout list due to factors such as moisture loss and year-end inventory.



6,256
mattresses shredded



5,616 more tons
of waste processed than in 2022

Impact of Waste Processing



99,500
fewer metric tons of CO₂ than
if trash had been landfilled

=



22,142
cars taken off the
road for a year



13,450
homes powered for a year by electricity generated
from refuse-derived fuel produced at the R&E Center

Facility Improvements

Food scrap bag sortation building and equipment

The food scrap bag sortation line began operation in April 2023 to support the pilot phase of the Food Scraps Pickup Program. The line uses artificial intelligence and robotic sorting arms to remove food scraps in compostable bags co-collected with municipal solid waste. Equipment commissioning is scheduled to be completed in early 2024.



Recyclable recovery system (RRS)

Construction on the recyclable recovery line was completed mid-2023 and commissioning of the new processing line is expected to be completed early 2024. This processing line will recover ferrous and non-ferrous metals, PET and HDPE plastics, corrugated cardboard and small organic-rich materials and is estimated to move 25,000 tons up the waste hierarchy. The remaining material will be integrated into the RDF processing line.



New equipment at the facility

In 2023, the facility purchased six new walking floor trailers to transport fuel, bulky waste and process residue. R&E owns 113 trailers and has a scheduled replacement plan to maintain the fleet.



Odor Management

In 2023, there were no instances of MSW odor detections above permitted levels. R&E and its contractors conducted 701 odor inspections in 2023, with only 1.1% resulting in MSW detections, none of which were above permitted levels.

Developing New End Markets for R&E Center Byproducts

Evaluating next-generation technologies

For the past two decades, Ramsey and Washington counties have partnered to evaluate alternative waste management technologies. Through the R&E Board, the counties have prioritized moving high-value materials in waste up the waste hierarchy. The R&E Board envisions a higher use for waste materials in the East Metro to achieve environmental, economic and community benefits for the next 20- to 30-years and beyond. Pursuit of new solid waste management technologies to capture more value from waste is also a key strategy to meet the state's 75% recycling goal.

Approved contract for anaerobic digestion

Anaerobic digestion is a technology that converts organics (such as food scraps) into clean, renewable energy called biogas. In September 2023, the R&E Board approved an organic material feedstock supply agreement with Dem-Con HZI BioEnergy, LLC. Under this agreement, Dem-Con will build and operate a digestion facility at their campus in Louisville Township, just outside of Shakopee for a minimum of 50,000 tons per year food scraps and organic-rich material. The biogas will be used as a carbon-negative substitute for fossil fuels, and the remaining solids will be converted into biochar, a beneficial product used for soil amendment and remediation. The digestion facility is estimated to begin operations in early 2027.



Exploring alternatives for RDF

The R&E Center produces over 333,000 tons of refuse-derived fuel (RDF) annually, powering approximately 12,500 homes through Xcel Energy. R&E's agreement with Xcel expires on December 31, 2027, aligning with the R&E Board's strategic road map for solid waste management, which emphasizes transitioning RDF conversion technology and expanding market diversity. To evaluate future alternatives for RDF management, Commissioner Martinson, along with R&E and county staff, conducted a site visit in Oregon to observe a facility that recovers paper fibers and recyclables from trash.

FINANCIAL STATEMENTS



R&E operates out of three budgets: the **Joint Activities Budget**, the **Facility Budget** and the **Equipment Maintenance & Repair Budget**.

DISCLAIMER: Please note that the financial figures presented in this report are unaudited, and the final audited numbers will be provided at a later date.

Joint Activities Budget

The **Joint Activities Budget** supports a variety of projects to meet goals outlined in the counties' waste management plans and is funded by Ramsey and Washington counties. Both counties charge a fee associated with collecting trash, referred to as the County Environmental Charge (CEC). A portion of CEC fees funds the Joint Activities Budget.

Project Management	\$ 2,970,130
Business Recycling	\$ 3,685,868
Community Waste Solutions	\$ 247,753
Food Scrap Recycling	\$ 1,049,888
General Outreach	\$ 673,995
Policy Evaluation	\$ 1,135,613
Total	\$ 9,763,247

Facility Budget

The **Facility Budget** supports the operation of the R&E Center. This enterprise budget is funded by tipping fees.

Personnel	\$ 8,357,874
Fuel	\$ 6,415,362
Landfill	\$ 7,322,997
Transportation	\$ 8,857,103
Transloading	\$ 2,709,278
Operations	\$ 10,174,802
Enterprise Reserve Fund (ERF)	\$ 1,500,000
Transfer to Equipment Maintenance Fund	\$ 300,000
Debt Service	\$ 3,533,586
Total	\$ 49,171,001

Equipment Maintenance & Repair Budget

The **Equipment Maintenance & Repair Budget** supports equipment maintenance, repair and replacement at the R&E Center. This budget is partially funded by the sale of recyclables recovered from the trash at the R&E Center.

Equipment and Maintenance	\$ 1,257,784
Total	\$ 1,257,784



Contact Us

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