# Olmsted County

Southwest Regional Development Commission

November 27, 2023





Delivering sustainable resource management solutions for the community

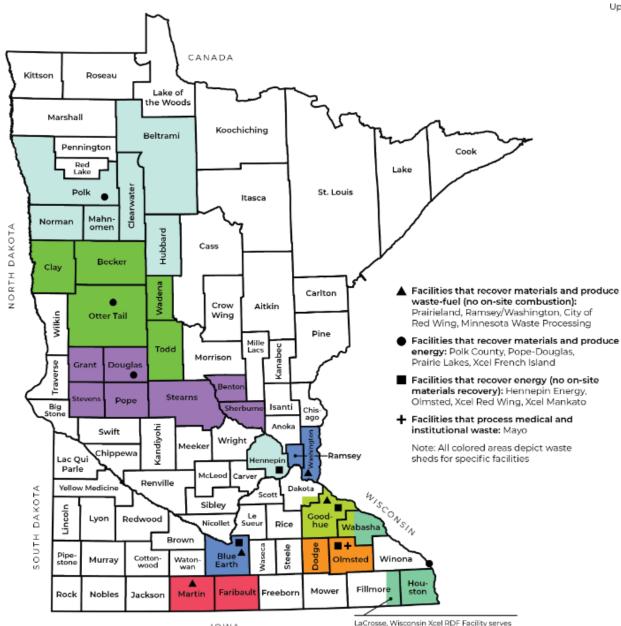
- Comprises of both public and private organizations that represents resource recovery facilities across Minnesota.
- MRRA facilities manage solid waste locally by keeping trash from entering landfills and using the waste as a resource to produce power for our communities.





#### **Minnesota Resource Recovery Facilities and Service Areas**

Updated: October 2022



#### Combined MRF & WtE Plants

- · Polk County Facility: Polk, Beltrami, Norman, Mahnomen and Clearwater counties. Contact: Jon Steiner
- · Pope-Douglas Facility: Grant, Douglas, Pope, Stevens, Benton and Sherburne counties. Contact: Steve Vrchota
- · Prairie Lakes Facility: Clay, Becker, Ottertail, Wadena and Todd counties. Contact: Chris McConn
- · Xcel French Island: Wabasha, Winona, Houston and Fillmore counties. Contact: Brian Schmidt

#### WtE & Bio-Medical Only Plants (no MRF)

- · HERC: Hennepin county. Contact: Dave McNary
- · Mayo Facility: Olmsted county. Contact: Wade Schwinefus
- Olmsted Facility: Olmsted and Dodge counties. Contact: Tony Hill
- Xcel Red Wing Facility: see Ramsey/ Washington R&EF and Prairieland. Contact: Brian Schmidt.
- Xcel Mankato Facility: see Ramsey/ Washington R&EF and Prairieland. Contact: Brian Schmidt

#### MRF/RDF Only

- · Minnesota Waste Processing: Contact: Steve Metz
- Ramsey/Washington Recycling & Energy Facility: Ramsey and Washington counties. Contact: Dave Brummel and Michael Reed
- City of Red Wing Facility: Goodhue, Wabasha and Olmsted counties. Contact: Jeff Schneider
- · Prairieland Facility: Jackson, Martin and Faribault counties, Contact: Billeye Rabbi



- Chris McConn, Prairie Lakes
- Steve Vrchota, Pope-Douglas
- Michael Reed, Ramsey County
- David Brummel, Washington County
- Dave McNary, Hennepin County
- Jon Steiner, Polk County
- Jared Graham, Xcel Energy
- Tony Hill, Olmsted County





- Mission To safely operate resource recovery facilities using state-of-the-art technology solutions that are part of integrated solid waste programs the protect the environment, people, and the economy.
- Vision To promote a zero-waste society that advocates for reducing waste, sustainably reusing resources and less landfilling.





## Minnesota's waste management hierarchy





- Manage over 1 million tons of trash each year that would otherwise be landfilled
- Reduce greenhouse gas emissions by nearly one ton per ton of processed trash
- Methane, produced trash in landfills is 28-36x more harmful over 100 years to the environment
- Counties with resource recovery facilities have the highest rates for recycling and composting in the state



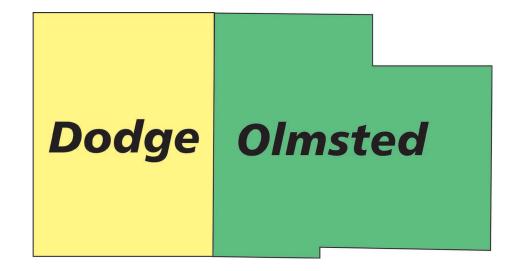








- 2 County Solid Waste Management System
  - Olmsted County Population = 162,847
  - Dodge County Population = 20,867
- Oversight By Olmsted-Dodge Solid Waste Management Joint Powers Board
  - 2 Olmsted County Commissioners
  - 2 Dodge County Commissioners
- Olmsted and Dodge counties have worked together since the 1980s to manage waste responsibly



## **Overarching Policies**

#### Fiscal Responsibility and Fairness

- No property taxes
- 100% user fees
- Volume based fees
  - the more you "throw away" the more you pay
- Handle our waste in our own back yard (keep control of the wastes) and above ground

#### Limit Future Liability

- Waste does not transfer title
  - generator of the waste is responsible for future harm caused by waste
- In our system the generator of the waste pays for the proper management
- Avoid future liability for environmental damage







# **Overarching Policies**

#### Solid Waste Hierarchy

- Maximizing the benefits and use of materials over disposal
- Managing waste higher in the hierarchy

#### Programs and Services

• Develop, enhance and expand high-quality services for the community's solid waste needs

#### Environmental Benefits

- Reducing environmental impacts
  - Protecting the air, soil and water resources



Organics

recycling

Landfill

with gas recovery

Reduce

Reuse

Recycle











**Waste Reduction & Education** 



**Hazardous Waste Facility** 

**Integrated Solid Waste** 

**Management System** 



**Recycling Center** Plus



Kalmar Landfill





**Compost Site** 

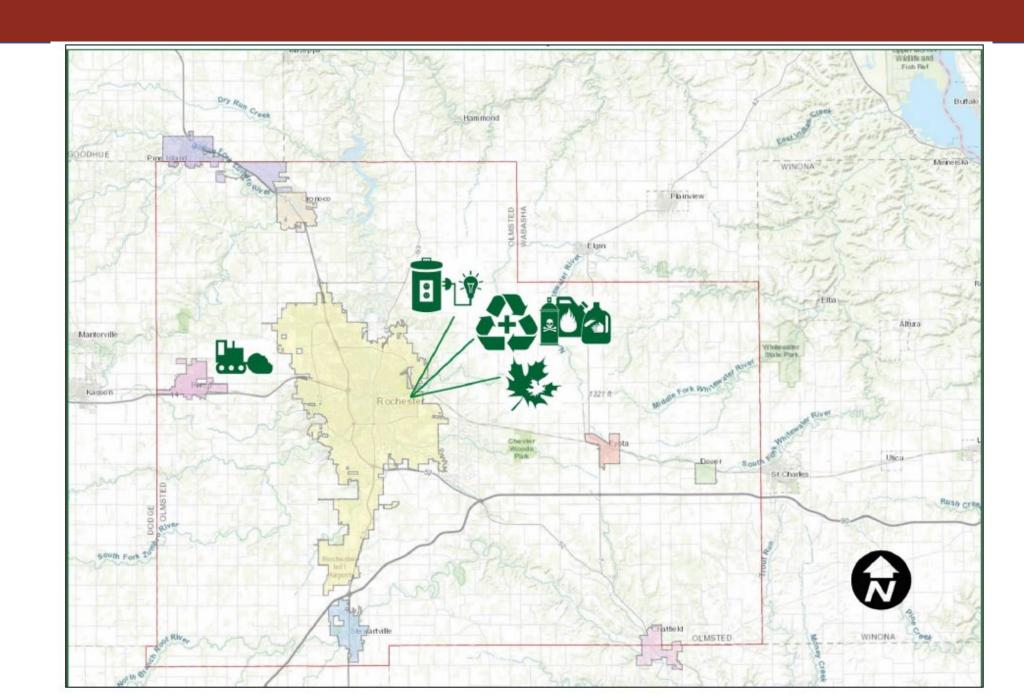
OLMSTED COUNTY MINNESOTA



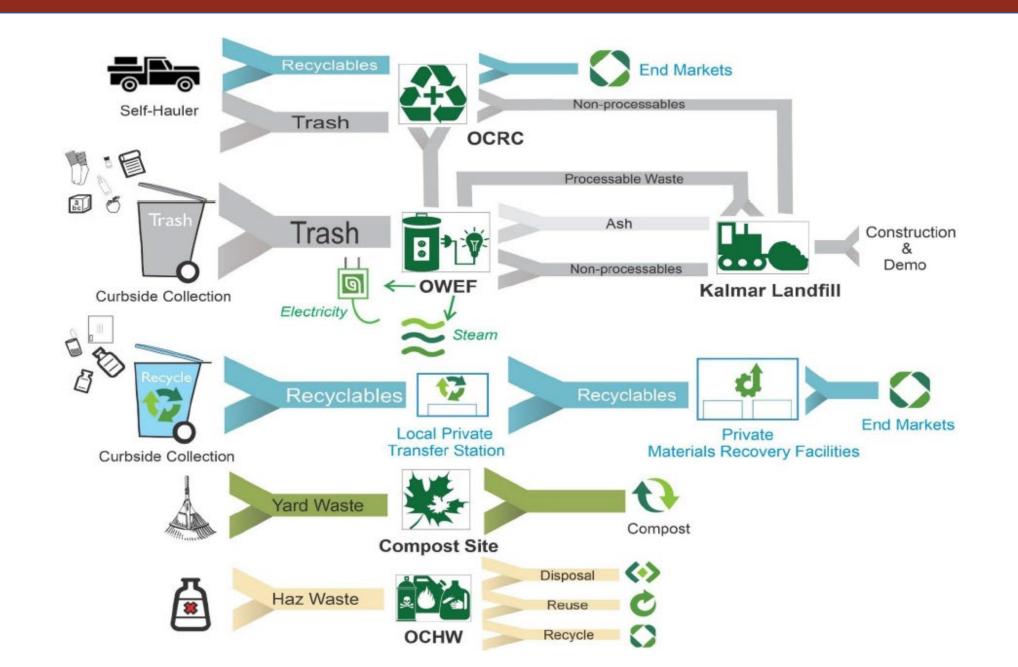




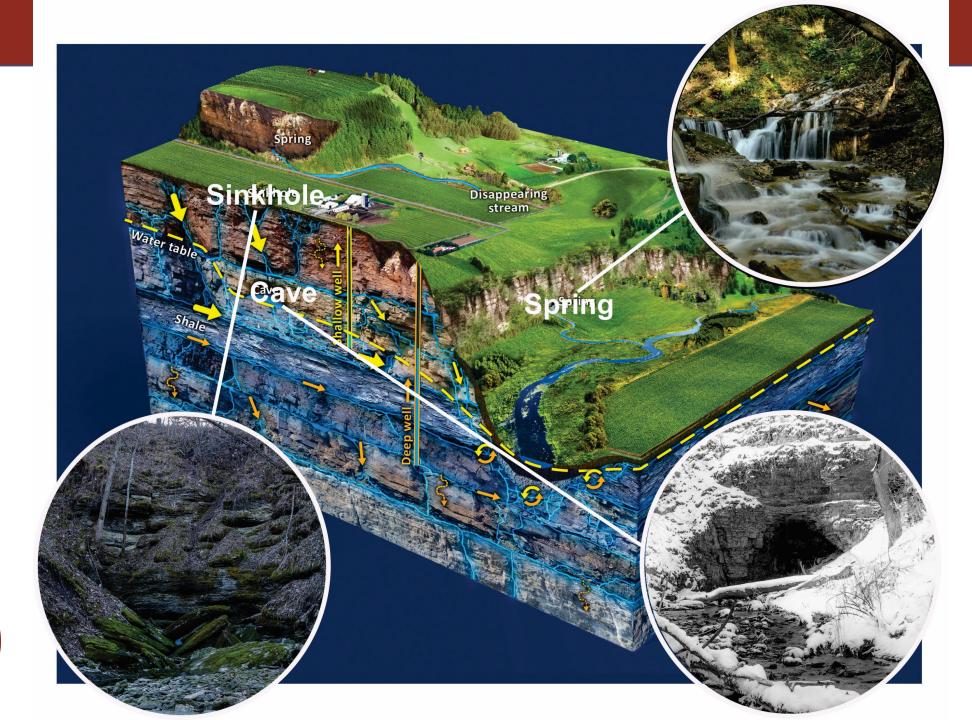














#### Olmsted Waste-to-Energy Facility (OWEF)



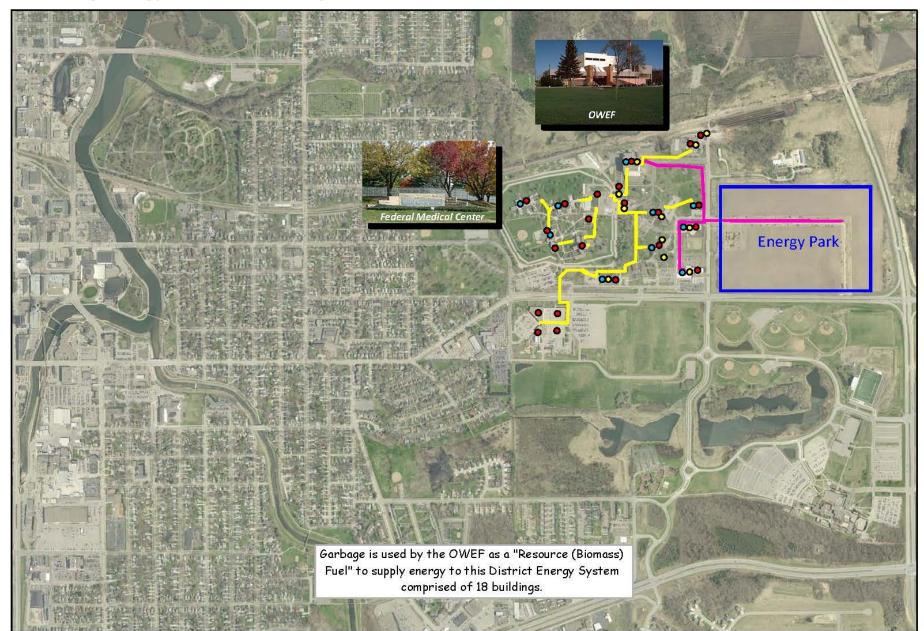


- **▶** Opened in 1987 & expanded in 2010 (Process 400 tons of garbage per day)
- **▶** Operates as a power plant 24 hours/day, 7 days/week
- **➤** Converts garbage into locally renewable steam & electricity
- **▶** 9 MW electrical capacity (sell excess electricity to SMMPA via RPU)
- ➤ Sells chilled water and energy as steam & electricity to 18 buildings on the District Energy System (DES)



#### Olmsted County District Energy System

Creating Energy From Your Garbage





## Olmsted Waste-to-Energy Facility (OWEF)

- ➤ Process around 116,000 tons annually
- ➤ 90% of the waste not recycled is used to create energy
- → 3,762 homes could be powered per year by the equivalent electricity produced at the OWEF
- 2.7 million tons of garbage diverted from the landfill since 1987
- ➤ Without waste-to-energy, existing-landfill space would have been filled by 1997 and would have needed to build 3 more landfills
- Landfilling the waste would increase greenhouse gas emissions by approximately 115,000 tons or equivalent of adding another 25,000 gas vehicles to the road





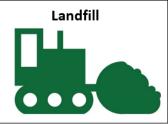




## \* Kalmar Landfill



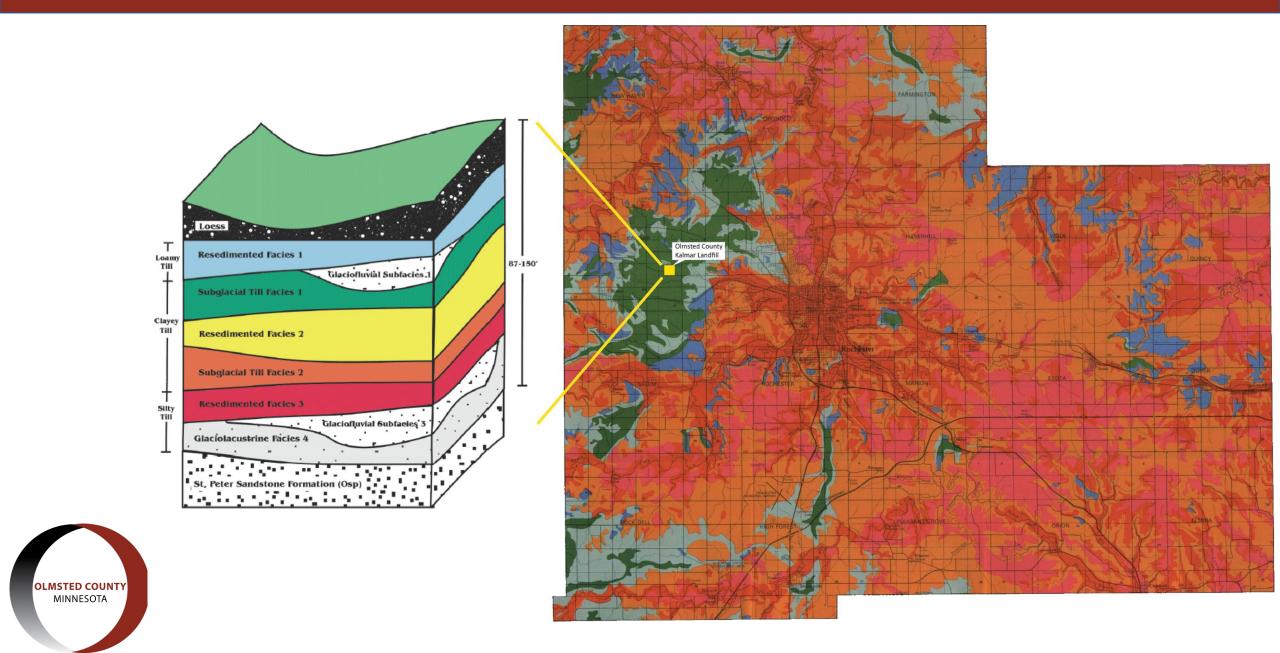
Ash







MSW/ISW



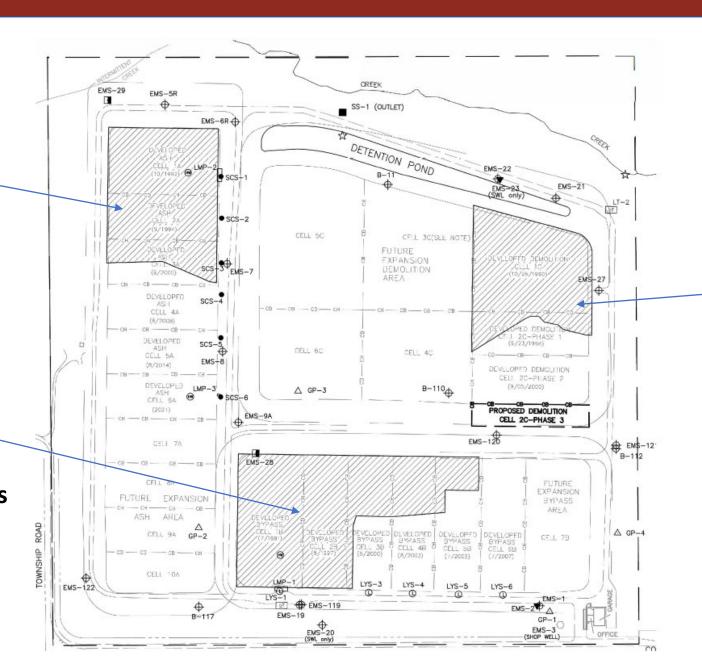


Ash - 30,000 tons



**MSW/ISW - 2,200 tons** 







**C&D – 5,500 tons** 

#### Current Issues

- ➤ Legislatures rethinking waste hierarchy
- ➤ Supply chain issues
- ➤ Cost of parts and insurance
- Staffing

# **CURRENT**ISSUES

