#### **ENERGY FOR TODAY**

## Meet the MRRA

#### Minnesota Resource Recovery Association (MRRA)

represents public and private partners managing solid waste locally at resource recovery facilities in lieu of landfilling.



# Resource recovery is any waste management process that reclaims materials or energy from waste.

This includes anaerobic digestion, pyrolysis and waste combustion (to produce electricity or steam).

We process more than 1,000,000 tons of waste each year from more than 30 Minnesota counties.





#### **SOLID WASTE - THE BIGGER PICTURE**



### **Waste Management Hierarchy**

State and Federal Policy prioritize waste management methods. The most preferred method is waste reduction, then reuse, then recycling. Landfilling is the least preferred.

#### MINNESOTA SOLID WASTE SCORE CARD

## Minnesota is currently landfilling too much and recycling too little. As

the graph shows, from 2015 to 2020 landfilling increased 460,000 tons/year. Recycling grew at a lesser rate (392,000 tons/year). This is similar to national trends. While many aspire to "zero landfilling", there is little progress.

What is Zero Waste?

A system where all discarded materials become resources for future use.



#### What is the role of MRRA?

We believe in moving towards zero landfilling! Resource Recovery is more favorable than landfilling and less favorable than recycling. MRRA is loyal to the waste management hierarchy. We only want to process waste that can't be reduced, reused or recycled. When all waste can be reduced, reused or recycled, then resource recovery will be obsolete!



## Why is Resource Recovery preferred in lieu of Landfilling?

For decades the MPCA, EPA and global environmental leaders have agreed that with modern emission control technology, resource recovery is a sustainable practice—preferred in lieu of landfilling. Below are some reasons why:



Per ton of waste, resource recovery generates one ton less carbon emissions than landfilling. **Resource Recovery reduces greenhouse gases.** 



Landfills are the third largest source of humangenerated methane. One ton of uncontrolled landfill methane is over 28-36 times more harmful to the environment than one ton of carbon dioxide.



Landfills carry long term liabilities, occupying valuable land and risk of contaminating groundwater. The State of Minnesota has spent over \$400 million on landfill cleanup. Over \$400 million more in future cleanup is projected.

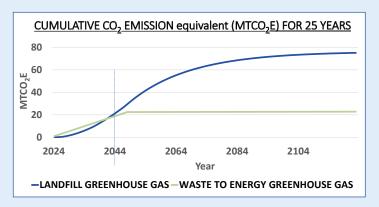
Resource recovery protects Minnesota's environment.



Over 440,000 Megawatt\*hours of electricity and over 840 Million pounds of steam are generated and sold each year by resource recovery facilities. *Resource recovery contributes to clean energy in Minnesota.* 



Resource Recovery Facilities use specialized equipment like optic sorters, air knives, magnets and eddy current separators to remove recyclables from waste. *Resource Recovery increases recycling.* 



#### More about what we do

- MRRA counties are Minnesota's leaders in recycling and composting.
- We support environmental justice.
- Member counties invest millions of dollars in new technologies to increase reduction, reuse, recycling and landfill diversion.
   Planned projects include anaerobic digestion, composting, metals recovery and ash reutilization.
- Without resource recovery, landfilling will continue to increase. In 2018, the Elk River Resource Recovery Facility closed. In the following years, landfilling increased 230,000 tons per year and recycling decreased 110,000 tons per year.

#### **The Future of Solid Waste**

The future is challenging! MRRA is working hard with local and state partners to make a difference. Please support our efforts to manage waste better! Some future challenges and opportunities include:

- Municipal Solid Waste is very diverse and difficult to recycle. Extended Producer Responsibility will be essential for future success.
- Resource Recovery is more expensive than landfilling. We believe revenue generated from the state solid waste management tax revenue should be spent on making solid waste management more affordable.

