

Introducing the:

Muscatine WRRF



Water & Resource Recovery Facility

The Muscatine Water Pollution Control Plant (WPCP) is changing its name...again!

1965: Sewage Treatment Plant

1976: Wastewater Treatment Plant

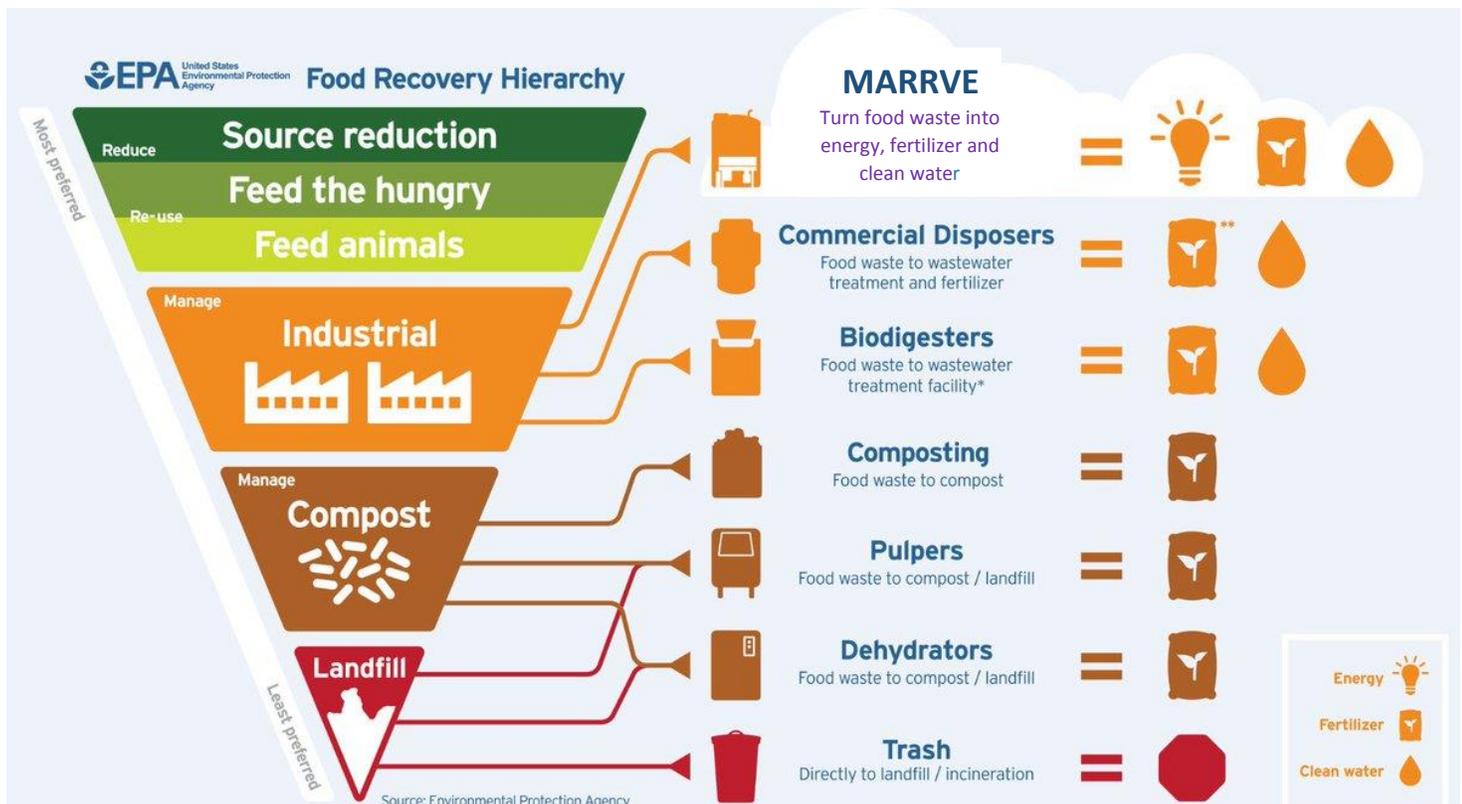
1995: Water Pollution Control Plant

2018: Water & Resource Recovery Facility



It is so much more than just a name change this time:

- People, Profit and Planet Sustainability efforts are driving innovation in your local utility.
- With the introduction of the MARRVE Program (Muscatine Area Resource Recovery for Vehicles & Energy), the name must evolve with the mission of resource recovery, not just wastewater treatment.
- Pollution control alone doesn't fit with the Utility of the Future concept and the N-E-W paradigm which focuses on Nutrients, Energy and Water.
- Organic waste will be drastically reduced in Muscatine and the region to save landfill space, curb damaging methane production and generate new revenue.
- Food waste education can increase food donations and reduce local business costs while generating renewable clean energy and natural fertilizers.





MARRVE is your solution to mixed waste recycling!

Muscatine Area Resource Recovery for Vehicles & Energy

Save Time

Save Money

Save the Environment

Mixed Grocery Waste - Before



Organics- After



Waste Packaging - After



The world of recycling has evolved and now includes organics for beneficial re-use. The technology used at MARRVE will take **packaged** or **raw** food and process them at 20 tons per hour. It is a fast and simple process that removes the labor cost of depackaging for compost or the environmental damage of sending organics to the landfill.

“**Zero Waste**” programs are quickly becoming the norm for businesses large and small. The mandate to reduce what goes into the landfill is often hampered by the distance to a processing facility and the cost of transportation. Muscatine is set to become the **regional hub** for organics recycling and renewable energy production in the Midwest. If you are looking for a partner for your zero waste program, MARRVE is the answer.

**Package
Recycling
Potential**

How we do it

**Packaged
Material
Separation**



**Organic
Fertilizer
Created**

The T42 Turbo Separator receives the mixed organic wastes **including packaging**. It process the material by breaking open the packaging allowing the organic waste inside to exit through the bottom of the machine. The packaging continues through to be removed and either recycled or discarded as a clean waste.

The removed organic material is then sent to anaerobic digesters on site that convert the material to **natural fertilizer** and **renewable biogas**. The fertilizer is applied to local farm ground as a replacement for manufactured nitrogen and phosphorus. The biogas is used to fire boilers at the City treatment facility and fuel vehicles with clean renewable natural gas.

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