



# PROSPECT RECYCLES!



## THE SCIENCE & ECONOMICS OF RECYCLING

### Did you know?

**Americans recycle 13 million** glass bottles and jars every day.

**Recycling one ton of plastic** saves about 3.8 barrels of oil.

**One large plastic bottle can** conserve enough energy to run a 60-watt bulb for 5 hours.

**Office paper waste is estimated** at 12.1 TRILLION sheets of paper per year.

### Scholarship team from U. N. Carolina



**The FOUR Morehead-Caine scholars** completed their 8-week "Civic Engagement Project" in July. While visiting they focussed on sustainability issues here in Prospect, including electric and hybrid service vehicles, solar powered streetlights and recycling in general.

They presented their findings and recommendations at the July 3 meeting of the Prospect/Goshen Rotary Club.



### What is "Methane Capture" (and Why Should I Care?)

Methane is a potent greenhouse gas, with a global warming potential approximately 86 times greater than carbon dioxide over a 20-year period. Capturing and utilizing landfill methane can mitigate its impact on climate change, and offers significant environmental, economic, and public health benefits.

#### Here's an overview of the key advantages:

##### Improved Air Quality:

By capturing landfill gas (LFG), emissions of volatile organic compounds and other pollutants are reduced, leading to better air quality in surrounding communities.

Continued.....





## This Issue: PLASTIC

### Jug. Bottle. Tub. Cup.

### All you need to know.

Plastics can be among the most confusing material categories being recycled, primarily because there are so many types.

Decades ago recyclable plastics were given numerical values to identify their composition, melting point, and more.

Although most all plastics can be recycled, our waste removal partner, Rumpke, accepts specific kinds of plastic, and we can OPTIMIZE our efforts with Rumpke, by selecting our plastics BY SHAPE, NOT by number.

SIMPLIFY recycling in your home based on the images on the top of your recycle bin.

If it is a “Jug”, a “Bottle”, a “Tub” or a “Cup” it goes in the recycler. **ANY OTHER PLASTIC** goes in the trash, to be taken to landfill. (Some citizens keep “clamshells”, like berries come in, and take them to another recycle center every so often.)



## Economic advantages

Captured landfill gas can be converted into electricity or pipeline-quality renewable natural gas, providing clean energy and revenue. In the U.S., roughly 580 landfill-gas projects now capture about 72% of **biogas** output, most of which fuels power generators.

Upgrading gas to renewable natural gas qualifies for federal fuel credits, and sale of high-quality carbon offsets monetizes the avoided emissions. These projects often pay for themselves quickly. For example, Corpus Christi's landfill-gas plant generated \$4.6M in revenue and saved \$230K in costs in its first year, **cutting emissions equal to ~83,000 cars.**

Ultimately, as climate targets and clean energy goals tighten, expanding landfill methane recovery is essential to sustainable waste management, offering cities a cost-effective, forward-looking strategy to cut emissions, improve air quality, and generate clean energy revenue.

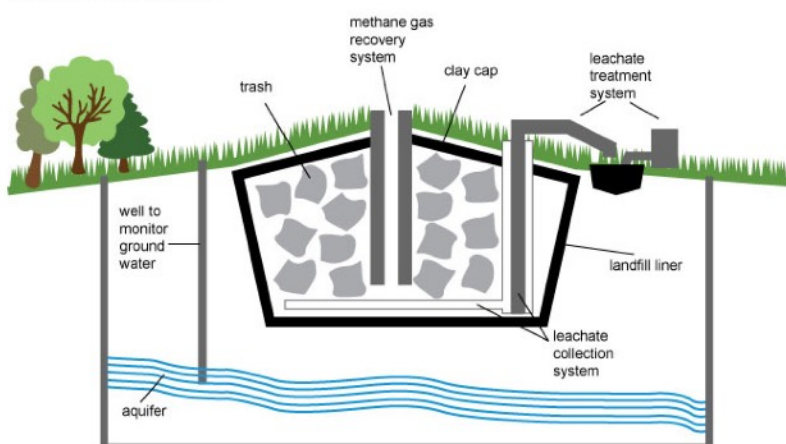
Waste volumes are rising worldwide. Harnessing landfill methane is thus both an environmental imperative and a smart economic choice for forward-looking cities. For municipalities, this means turning a waste liability into revenue and improved public health.

On the June visitation to the landfill and Material Recycling Facility (MRF) near Cincinnati, we learned that RUMPKE refines methane gas from its OWN landfills to fuel some of its OWN fleet.

Think of the recovery system as a large drinking straw, with a fan-motor. Methane Capture is not pretty to look at, and you may never see a real landfill, but take comfort that the experts in sustainability are doing all they can to turn “rot” into fuel.

And now, about those cattle farts....

## Modern landfill



Source: Adapted from National Energy Education Development Project (public domain)

**WE GET BETTER WITH PRACTICE AND KNOWLEDGE.**

Visit our “*Prospect Recycles*” display table at the Monarchs Concert August 27

This project is a collaborative involving the City of Prospect, Western Kentucky University, and Rumpke, with a grant from Prospect/Goshen Rotary Club 2024.

**PROSPECT CARES**