

# MADISON ORGANICS AND THE NEW FOOD SCRAPS RECYCLING PILOT



# ORGANICS BIRTH

After years of research and site visits, an organics program got off the ground.

- 2011 - a collection pilot began with two volunteer areas. 500 homes and a handful of small restaurants.
  - Pilot accepted food scraps, food-stained paper, diapers, pet waste, and wax paper.
- 2012-2013 - Pilot expands to a few additional homes and program & future planning continues



*Photo from 2008 from San Francisco's organics recovery system*

# ORGANICS STRUGGLES

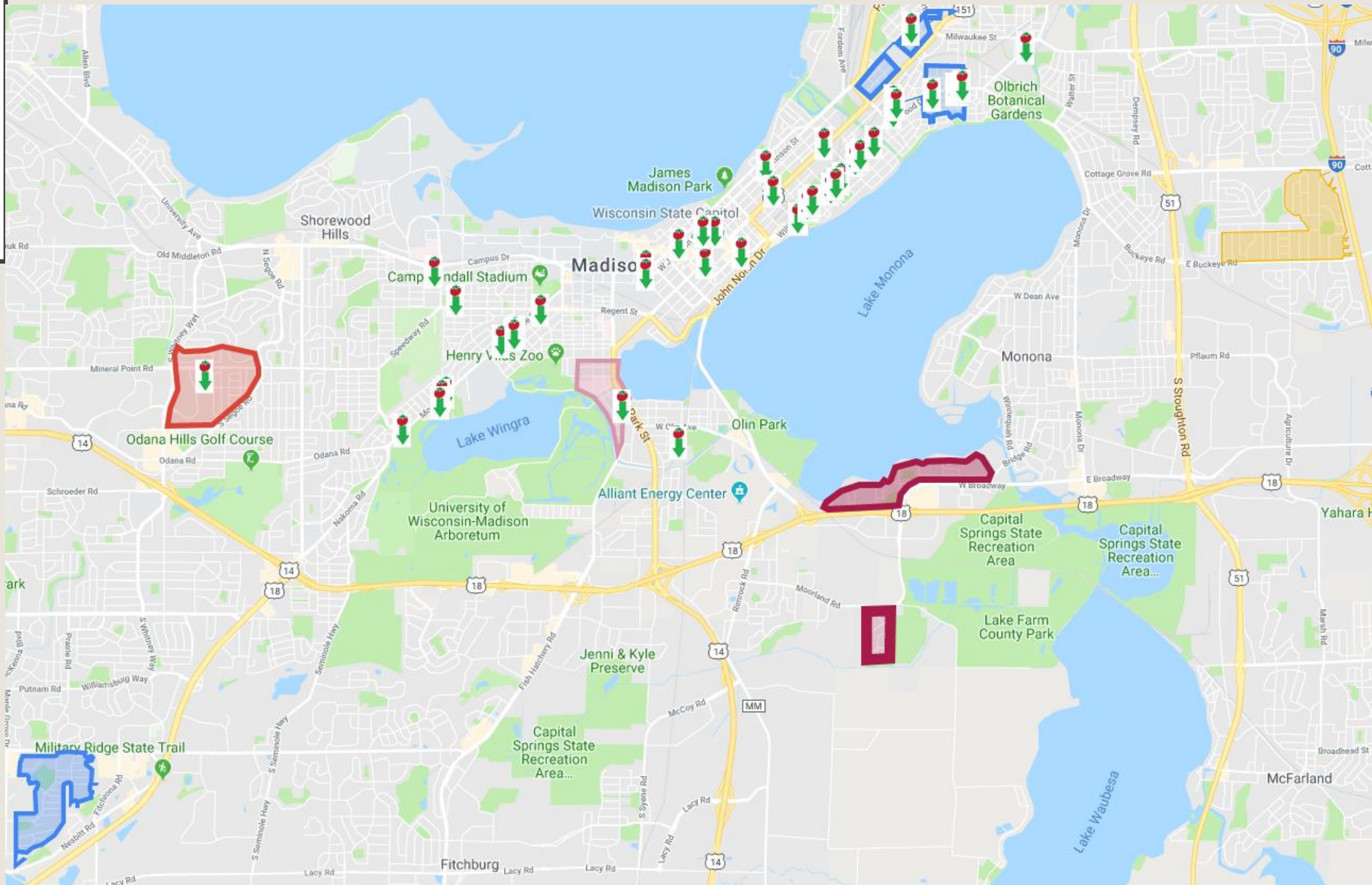
- 2014 – Composter that had been accepting pilot materials closes. Ending pilot discussed, but it continued.
- 2015 – Material taken to UW Oshkosh digester. But material too dirty for Oshkosh and Madison loads were rejected. Material now goes to Middleton biodigester. Also \$18M for digester removed from capital budget. Pilot expands again with an opt-out neighborhood.
- 2016 – Contamination issues cause Middleton digester to reject Madison loads. Material now hauled to a composter in Caledonia, WI (Blue Ribbon Organics). Pilot expanded again.
- 2017 – Contamination issues cause Caledonia to reject Madison loads. Promise of depackaging equipment at Middleton digester and potential partnership with MMSD meant collection of material continued.



# ORGANICS PEAK

1,100 homes

40 business  
(including 3  
schools and  
a church)



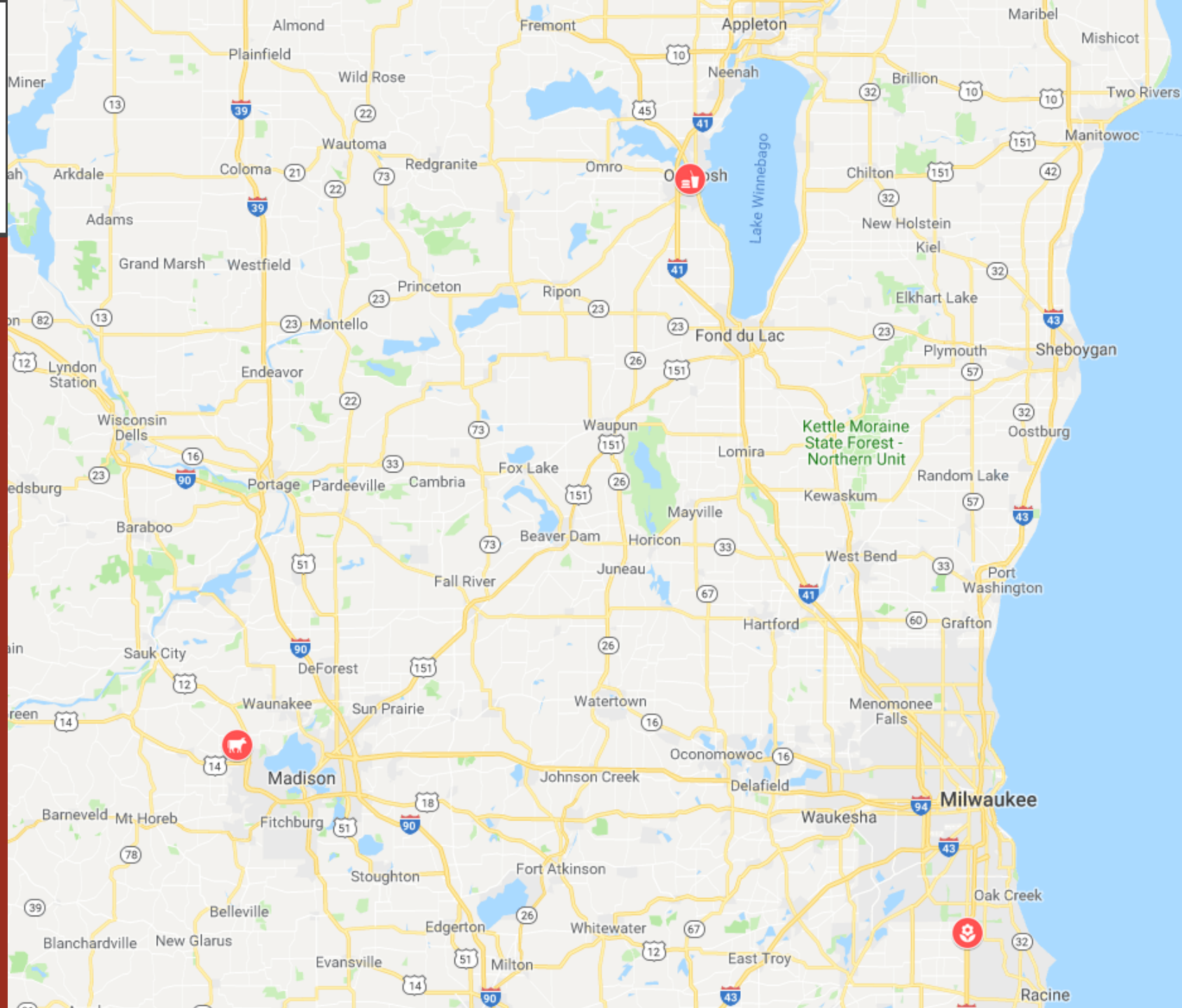
# ORGANICS CONCLUSION

- 2018 - Partnership with Madison Metropolitan Sewer District did not yield a processing option
- Depackaging equipment at Middleton facility did not solve contamination issues.
  - Waste collected by organics program required significant labor & water to process through depackaging unit
  - Required a very high tipping fee (\$200/ton)
- With no other options, the initial pilot ended in 2018.



# THE FIRST MAJOR HURDLE: PROCESSING OPTIONS

Only three places  
within a four-hour  
round trip drive to  
take post-consumer  
food scraps



# THE SECOND MAJOR HURDLE: CONTAMINATION

Plastic lids

Plastic trays

Plastic wrappers

Plastic bags

Plastic, plastic,  
plastic

Clothing,  
Styrofoam, and so  
much more

And different  
processors means  
new contamination  
sources



# LESSONS LEARNED

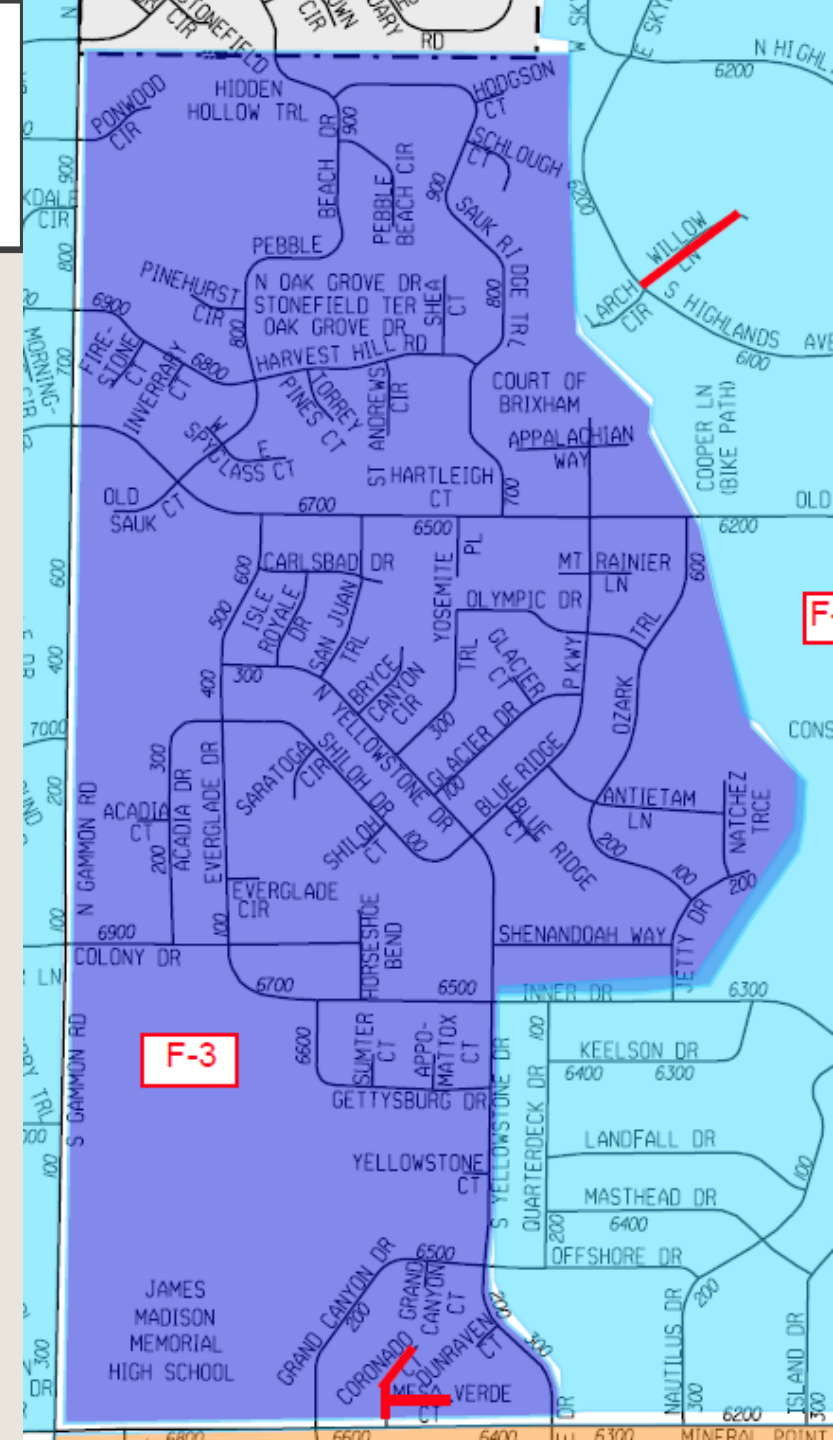
- “Organics” not the right name for the program
  - Not concrete enough
  - Likely a problem during resident turnover b/c new resident in home that signed up would not understand what “ORGANICS ONLY” written on carts would mean.
- Accepted too much material at first
  - And we couldn’t correct behavior later when processors changed
- Need to prevent contamination at the curb
  - Once it’s in the truck, it’s too late





# FOOD SCRAPS RECYCLING PILOT

- Two month trial to use the lessons learned from the previous pilot to see if we can make the waste stream clean enough for the one local processing option
- Picked a new area of Madison that was not part of previous program
- Volunteers in this neighborhood will be solicited to join the program.
- New name: Food Scraps Recycling
- Much more limited list of materials accepted into the cart to match the needs of the one local processing option.
- Inspecting the cart at the curb before dumping into cart



# WHAT WILL THE FOOD SCRAPS PILOT TEACH US?

- 1. Can we keep the material clean enough at the curb?
- 2. Will behavior change for residents who have their cart tagged?
- 3. How much material will we divert by focusing just on these limited items?
- 4. How long it will take us to collect carts after peeking inside them first?
  - And how effective the cart peek is.

# FOOD SCRAPS RECYCLING GUIDE

Place only appropriate food scraps into your wasted food cart.

When in doubt, place into the trash cart instead.

Put scraps loose in the cart or in a paper grocery bag.

## YES



Fruits & Vegetables



Dairy Products



Coffee Grounds



Baked Goods & Pastas

## NO

- Meat & bones
- Egg shells
- Seafood shells
- Food wrappers & packaging
- Yard waste & brush
- Pet waste
- Diapers



# THE LATEST FEASIBILITY STUDY

- Selected to receive a \$39,000 grant from the EPA to do an analysis if the biogas revenue potential from a regional food scraps biodigester makes building one more feasible.
- Will examine the revenue potential of a regional digester producing gas that will be injected into natural gas pipeline via Dane County's Renewable Natural Gas Facility at the Rodefeld Landfill.
  - Will also look at available feedstock within the region
  - Will make equipment & site recommendations



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# WHERE IT'S DONE: A PROJECT FOR THE FOOD WASTE & RECOVERY WORK GROUP

- Food scraps collection works in other areas of the United States, Europe, & Canada. Why?
- The Streets Division & Engineering Division asked the Food Waste Recovery Work Group to research collection models
  - Profiles on successful collection schemes
    - Voluntary vs. mandatory?
    - Fees for service vs. covered by property taxes?
    - How is the material processed – composted only vs. digested (and what type of digester?)?
    - Where is the material processed & how close by is to the source?
    - Who collects and hauls the material?
    - Other regulatory support/pressure like landfill bans, high tipping fees, or other rewards/pressure for diversion?
    - How much are their food scraps tipping fees?
    - And more

QUESTIONS?