



City of Los Angeles Food Waste Diversion Program: In-Sink Pilot

LARA Meeting - Lynwood

March 15, 2018

10:00 AM - 1:00 PM

Meet the Team

LA Sanitation

Alex Helou

Robert Potter

Rowena Romano

Darshna Patel

James Roska



APTIM

Environmental

Primary Consultant



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Community Outreach and
Education Sub-Consultant





Food Waste Pilot Program



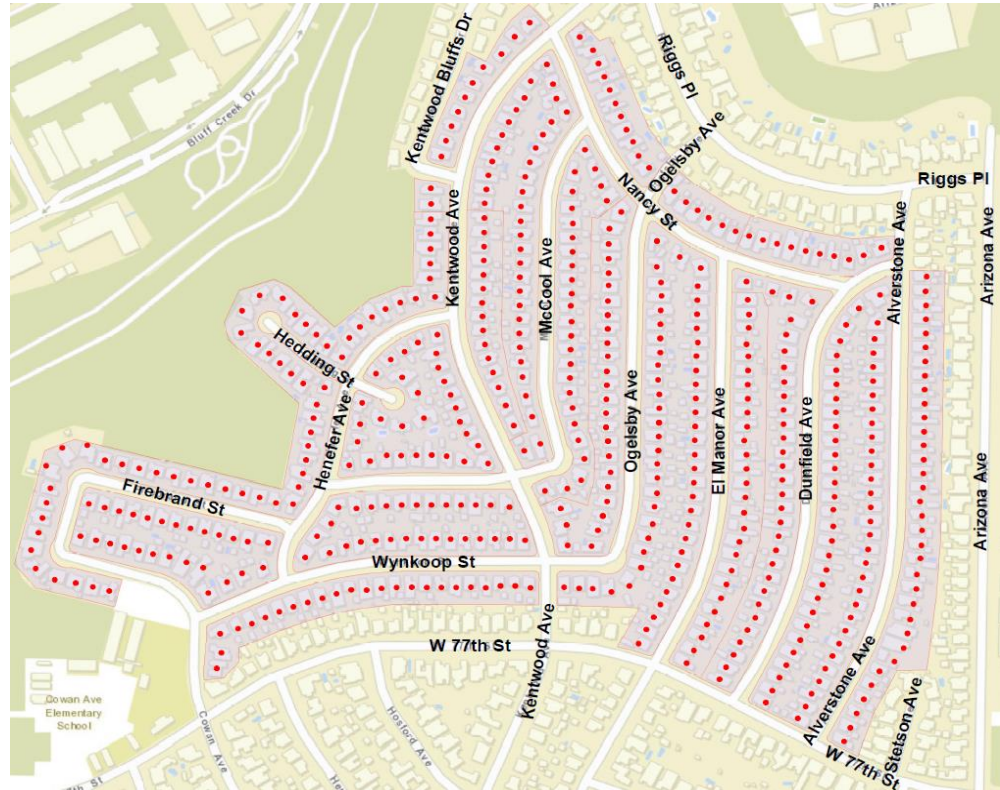
Pilot Area and Schedule

Pilot Area

- North Kentwood neighborhood of Westchester
- 522 Homes

Schedule

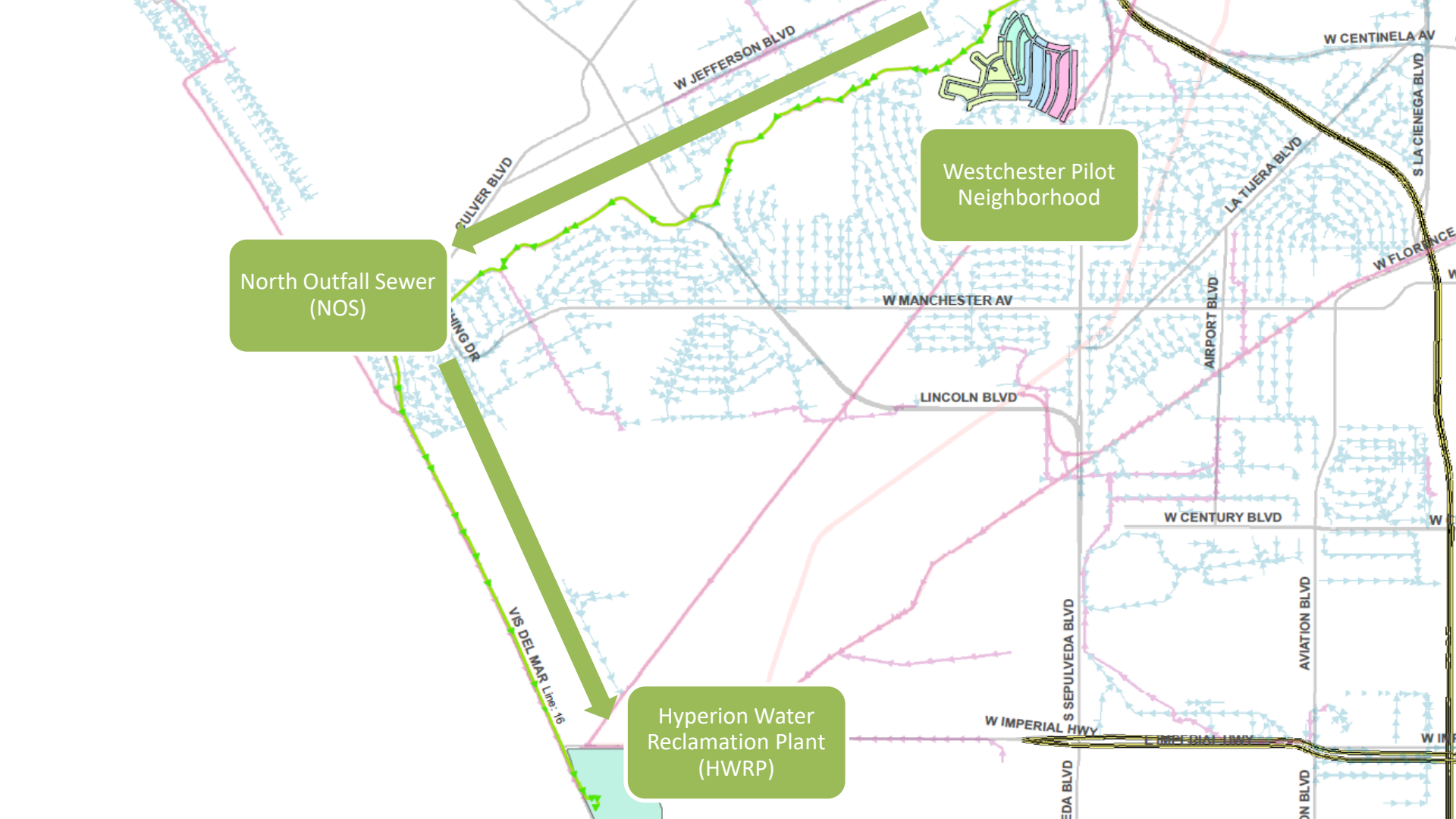
- 3-month pre-implementation phase
 - June 2017 – August 2017
- 1-year implementation phase
 - September 2017 – September 2018
- 3-month post-implementation phase
 - October 2018 – December 2018

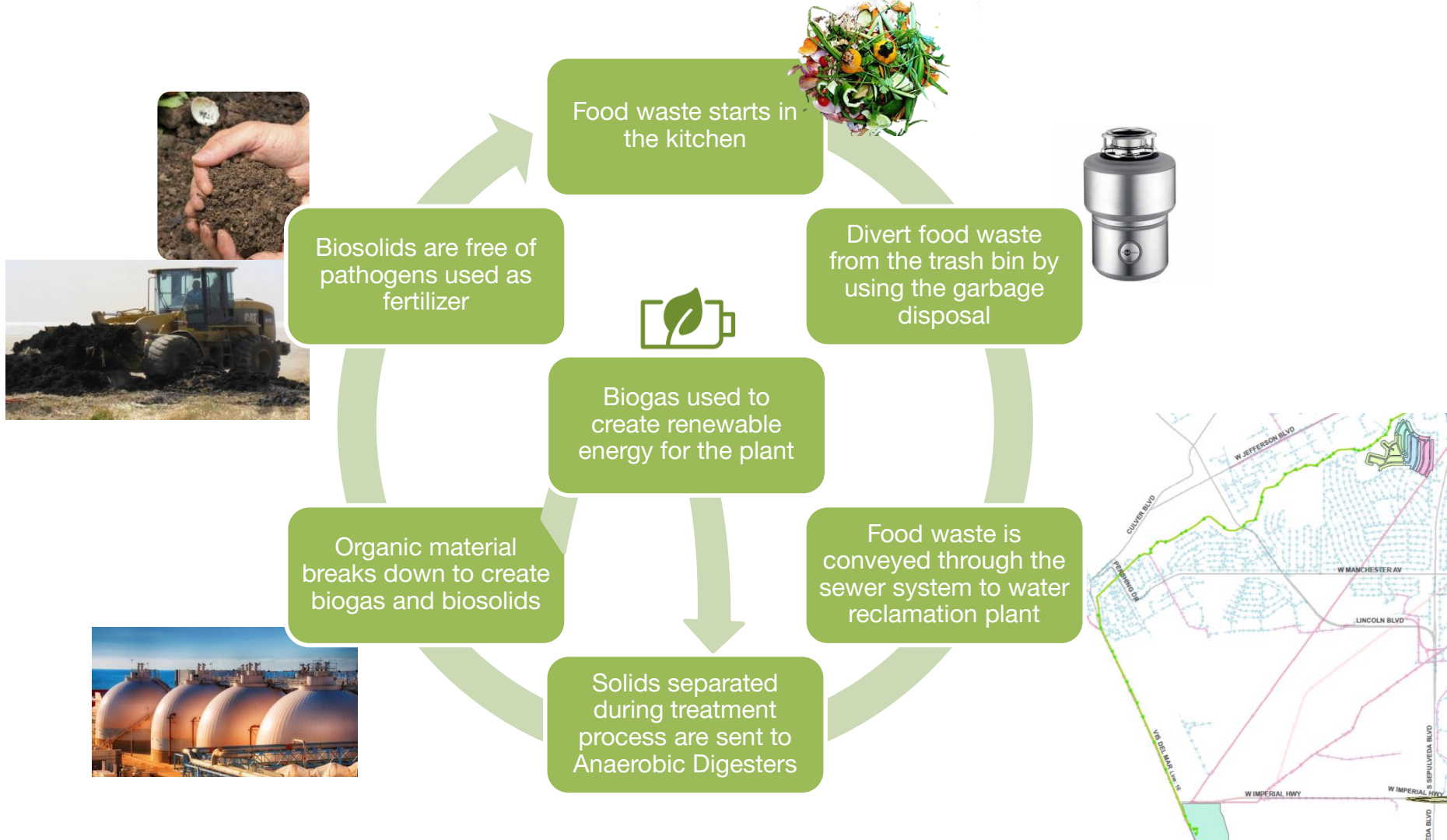


North Outfall Sewer
(NOS)

Westchester Pilot
Neighborhood

Hyperion Water
Reclamation Plant
(HWRP)





Pilot Program Tasks

Tasks

1. Resident Engagement
2. Education and Outreach
3. Wastewater Sampling
4. Closed Circuit Television (CCTV)
5. Waste Characterization
6. Bench-Scale Testing
7. Water Reclamation Plant Modeling



Resident Engagement

Notified residents of upcoming pilot program in their neighborhood

Engaged residents to sign-up and participate in program

Out of 522 homes in the pilot area, 209 took the baseline survey:

140 residents signed up to participate

- 99 received newly installed InSinkErator 1100XL
- 41 using current garbage disposal



Education



RESIDENTIAL FOOD WASTE DIVERSION PILOT PROGRAM

AN EASY AND GREEN SOLUTION TO FOOD WASTE

Big Problem, Easy Solution:
Like composting, placing your food waste in your garbage disposal is another environmentally friendly method to keep food scraps out of landfills.

Benefits of Food Waste Diversion:

- Reduces the amount of trash sent into landfills.
- Reduces greenhouse gas emissions from decomposing food waste.
- Creates renewable energy.

3 EASY STEPS TO PARTICIPATE IN THE PILOT PROGRAM



01: Enroll!*

To become part of our program you can use your existing garbage disposal or you can install/upgrade to a free, high-power, ultra-quiet, InSinkErator Model Pro 1100XL*.



02: Use it!

Place your food scraps into your garbage disposal instead of a trash bin. By participating in the program you will receive complimentary maintenance for 15 months.



03: Enjoy it!

Use your garbage disposal to save money on trash bags, save time taking out the trash, and eliminate unwanted food odor in the home.

For information about the pilot program, plumbing related services or repairs, please call 1-833-388-4324.

*The deadline to sign up for a garbage disposal upgrade is August 18th, 2017.

Please also visit our website at www.lacitysan.org to learn about LA Sanitation programs and services.



WHY IS FOOD WASTE DIVERSION IMPORTANT?

Food waste is the largest portion of residential disposable waste, accounting for 21% of all residential waste.*

Greenhouse gases, such as methane, generated from the decomposition of food waste in landfills are not efficiently captured and utilized.

*2014 California Disposal Facilities Report
Department of Resources

HOW YOU CAN HELP

This pilot program focuses on diverting food scraps from landfills by using the garbage disposal. By using your garbage disposal the food waste is processed at the water reclamation plant. The methane generated from food waste is captured, and is utilized as renewable energy.

Renewable energy can be used for:

- ✓ Lighting
- ✓ Heating
- ✓ Transportation

Divert food waste with your garbage disposal and reduce our impact on the environment.

Being green is easy!

THANK YOU!

By diverting food scraps you:

- ✓ Save money on trash bags.
- ✓ Remove food odors from your kitchen.
- ✓ Save time taking out the trash.

BEING GREEN IS EASY!
It all starts in your sink.

For information about the pilot program or to schedule plumbing related services or repair, please call 1-833-388-4324.

BEING GREEN IS EASY!

Learn how you can help divert food waste from the landfill.

HOW TO USE YOUR GARBAGE DISPOSAL

01. Turn on cold water.
02. Turn on your disposal.
03. Slowly feed food scraps down the disposal. Avoid putting large pieces and large amounts of food waste. Keep your hands away from the disposal.
04. When finished, turn off your garbage disposal, and then allow water to run for a few moments to clear the drain.

That's it!
You just helped turn food scraps into renewable energy with the flick of a switch.

Being green is easy!

WHAT CAN GO INTO THE GARBAGE DISPOSAL?

Yes

Put these into your garbage disposal:

- Cooked vegetables
- Lettuce
- Non-fibrous fruits & vegetables (ex: cucumber, tomato, peas)
- Non-fibrous fruit & vegetable peels
- Liquids & liquid food

No

Do NOT put these into your garbage disposal:

- Grease, oil, fat & non-food items
- Fibrous fruits & vegetables* (ex: citrus peels, corn cobs, etc.)
- Egg shells & coffee grounds*
- Starch & dairy products* (ex: bread, rice, pasta, and cereal)
- Meat & small bones*

*Household use of all listed products are discouraged. Professional use of all listed products are prohibited. Please do not dispose of any items not listed on this list. Please do not dispose of any items not listed on this list. Please do not dispose of any items not listed on this list.



RESIDENTIAL FOOD WASTE DIVERSION PILOT PROGRAM

AN EASY AND GREEN SOLUTION TO FOOD WASTE

Tips to Help You Get The Most Out of Your InSinkErator Model PRO 1100XL*
InSinkErator Model PRO 1100XL* garbage disposal provides an easy and environmentally friendly alternative to sending food scraps to landfills. By using the garbage disposal, food waste can be processed at the water reclamation plant and converted into renewable energy.

1. HOW TO USE IT:



Turn on cold water.



Turn on your disposal.



Slowly feed food scraps down the disposal. Avoid putting large pieces and large amounts of food waste.



Turn off your disposal. Run cold water for a few seconds.

2. WHAT TO PUT IN:

What's Allowed

Fruits & vegetables, including peels



Leftover food



Meat & small bones



Egg shells & coffee grounds



Starch & dairy products



Liquids & liquid food



What's NOT Allowed

Oil



Non-food items



Grease & fat



For information about the pilot program or to schedule plumbing related services or repair, please call 1-833-388-4324.

A 15-month warranty on all piping, connections, and installations made by Better Way for all pilot program participants. This DOES NOT include any manufacturer recalls. The warranty becomes immediately null and void if there are needed repairs identified that would directly affect the scope of work and it's determined by an authorized decision maker to proceed with work despite having knowledge of the repairs needed.



As a licensed entity under Title 24 of the California Code of Regulations, the City of Los Angeles has determined in the State of California that this program will provide reasonable accommodations to ensure equal access to its programs, services and activities.

What IS Allowed in the Food Waste Disposer

Other Disposal

What's Allowed

Fruits & vegetables, including peels



Leftover food



Meat & small bones



Egg shells & coffee grounds



Starch & dairy products



Liquids & liquid food



What is NOT Allowed in the Food Waste Disposer?

All Disposals

What's Allowed -

Fruits & vegetables, including peels



Leftover food



What's NOT Allowed

Oil



Non-food items



Grease & fat



Starch & dairy products

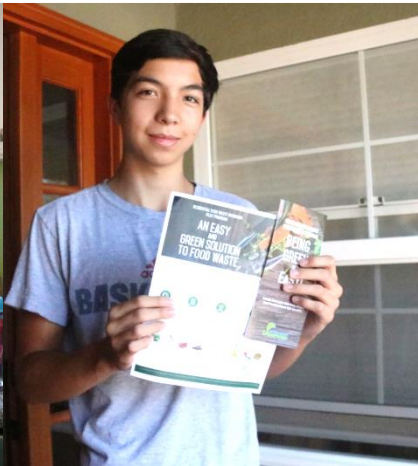


Liquids & liquid food





Westchester's Champions of Change





Outreach

Behavioral Survey

- Measure perception and continued use of disposals
- Participant feedback

Community Events

- Face to face interaction with pilot participants

Questions?

- Created dedicated **1-800 Number**
- Created pilot project email

E-Newsletter

- Quarterly e-newsletter about food waste disposal news, tips, and event notifications

Website

- Program overview

Bulletin Board

- Discuss with neighbors and LASAN reps
- How to maintain your garbage disposal
- Updates on the pilot program

Community Events

Cowan Elementary School Pilot Program Kick-Off



Hyperion Water Reclamation Plant and Los Angeles Environmental Learning Center Tour



Wastewater Sampling

5 Sampling Locations

- 4 zones in pilot area
- 1 control area

Measure

- Flowrate/water usage
- Change in wastewater characteristics

○ BOD, COD, Sulfate, Sulfide, Ammonia, Total Solids, Volatile Fatty Acids, etc.

- Impacts on conveyance system



Closed Circuit Television (CCTV)

Closed-Circuit Television

- Video analysis of conveyance system

Pipe Conditions

- Root Intrusion
- Structural Condition
- Debris and Blockage
- Fat, Oil, and Grease (FOG)
- Corrosion



Waste Characterization

Logistics

- Measure set-out rate from pilot area using online mapping application
- Characterization of entire load
- 24-hour sorting limit due to facility requirements
 - 30 waste sorters needed to complete waste characterization event



Waste Categories

- Food Scraps
- Packaged Food
- Glass
- Electronics
- Fines
- Medical Waste
- Metal
- Bones and Pits
- Food-Soiled Paper
- Others
- Paper
- Plastics
- Wood/Lumber
- Yard Trimmings



Bench-Scale Testing

Re-Circulating Pipe Test

- Accumulation of food waste in conveyance system

Anaerobic Digestion Test

- Generation of methane gas in conveyance system

Primary Clarifier Test

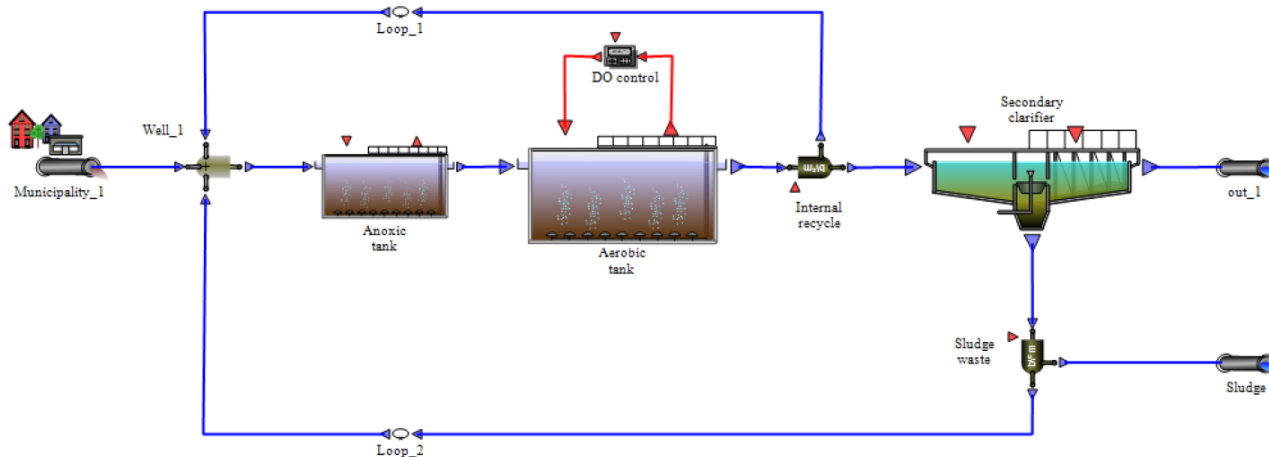
- Food waste characteristics going to digesters



Water Reclamation Plant Modeling

Simulation modeling

- Use data from other tasks to create simulation model of treatment plant
 - WEST Model by DHI
- Simulate amount of gas generation and other operational impacts to plant



Conclusion

- Based on all of the tasks we will evaluate how effective this program is
- Will determine recommendation for City-wide implementation



Thank you!
Q&A

