

Organics Co-Collection for Residential Markets



Debra Darby
Hauling Innovation and Entrepreneurial Opportunities
for the Residential Market

August 5, 2020 10:00am - 11:30am

About Tetra Tech

Industry Knowledge:

Solid waste professionals with 40+ years of industry experience

International experience with countries leading waste management innovation

Following regulation and legislation



Experience in:

Organics Management

Zero Waste Planning

Product Stewardship

Education & Consultation

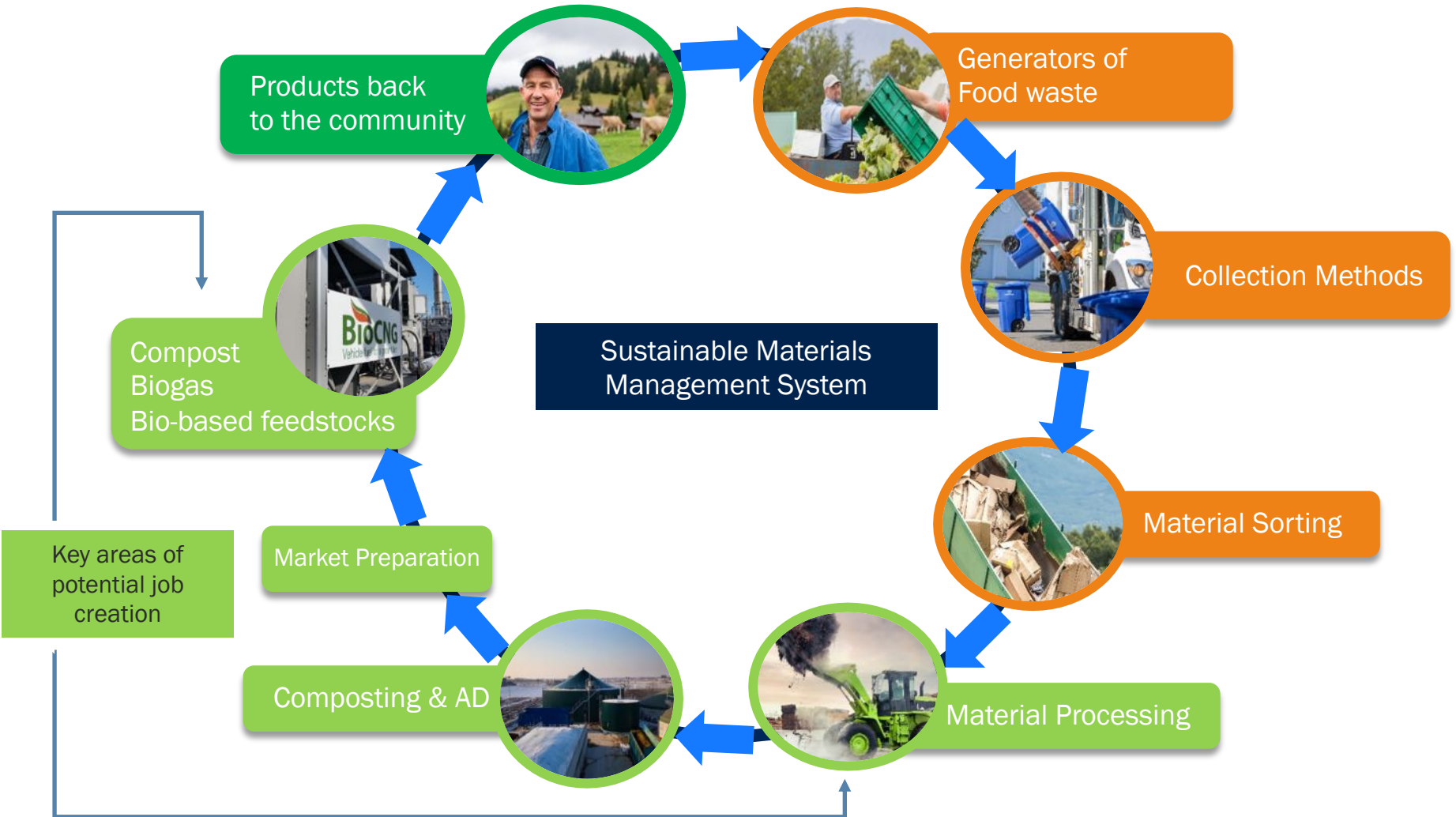
Design & Construction

Building Organics Infrastructure



Organics Material Management

Circular Economy



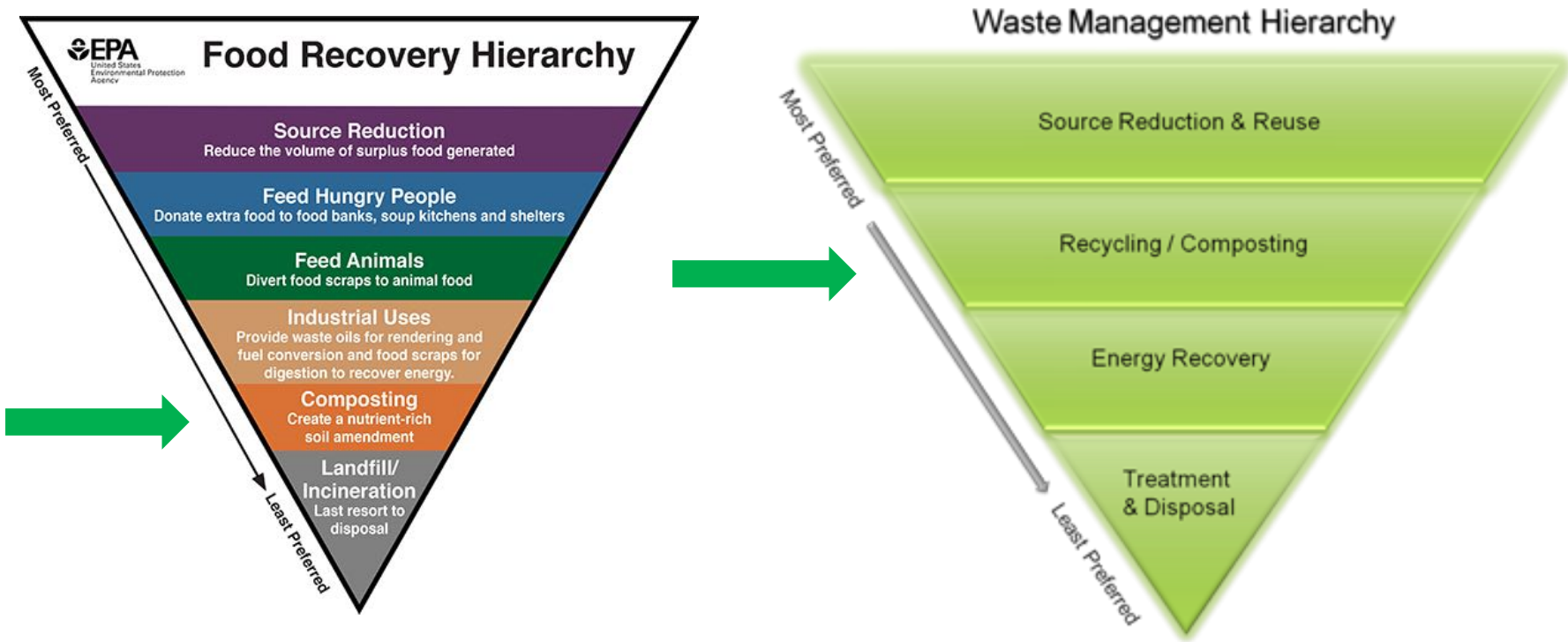
Source: Expanding Organic Waste Diversion in New England at the Municipal Level, Darby, D. 2016

Organics Recycling

Closed Loop



EPA: Reducing the Impact of Wasted Food



Source: www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy

Organix Co-Collection

**One Truck.
One Durable Compostable Bag.**



Organix Co-Collection

Research and Develop

Hennepin County - Organics Diversion in 2002

- 2 interested parties: City of Wayzata and Randy's Environmental Services
- How to launch an organics pilot as part of recycling
- What evolved over a decade to the present system Blue Bag Organics® Co-collection in MN
- Amount of time and dedicated research invested for a solution



* Randy's is the parent company of Organix Solutions.

Durable Compostable Bag

Research and Development

Dedicated Organics Route Not Feasible

- Scattered routes were inefficient
- Devised plan to develop a compostable bag to be collected with the trash and placed in the same cart
- No available compostable bag was suitable
- Team decided to design its own compostable bag strong enough to make it through the collection process

City Receptive to Organics Co-Collection

- Neighborhood coordinators volunteered
- Community supported the program
- Residents participation was good, very little contamination

New Compostable Bag - Third Party Tested

- Hauled in/out of the truck
- Good puncture and tear resistant; withstands cold, rain, humidity and UV
- Biodegrades 45 days at an industrial composting facility (not backyard)

Co-Collection Program

Launched in 2012



1. Collect all food scraps and food soiled papers in the compostable bag.
2. Tie a secure (ponytail) knot to the bag and place bag in the same cart as the trash.
3. On the regular trash day, place the cart at the curb, and your hauler does the rest.

Compostable Bag Evolution

Green Bag Organix



- Over 48 cities in Minnesota have implemented the Organix Co-Collection™ program and more communities are signing on.
- Outside of Minnesota the program is marketed as the Green Bag Organix™.
- Proprietary 100% compostable liners branded as Green Bag Organix.
 - Certified by the **Biodegradable Products Institute (BPI)**
 - Standard test methods of ASTM D6400 for compostability at an industrial composting facility

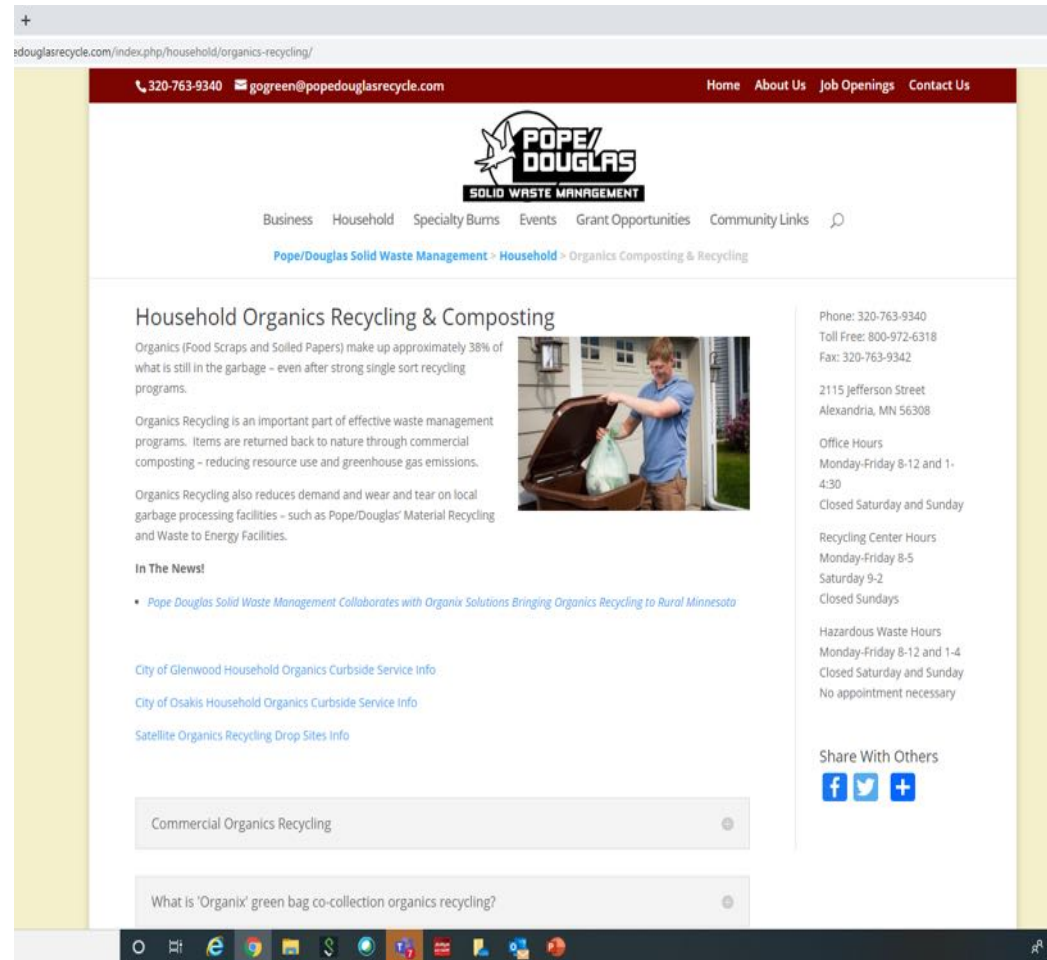
Organix Co-Collection and Automated Sort

- Organix Co-Collection curbside program
- Co-collected bags are delivered to facility mid or end-point
- Automated sorting robot removes compostable bags
- See video of Waste Robotics sorting:
<https://www.youtube.com/user/organixsolutions/videos>



Pope/Douglas Solid Waste Management Alexandria, Minnesota

- Pope Douglas Solid Waste Management Collaborates with Organix Solutions bringing organics recycling to rural Minnesota.
- Services communities in both Pope and Douglas Counties



Planning for Phase-in Pilot

Pope Douglas provided grants to the cities for the pilot program

- City of Osakis – 600 households
- City of Glenwood – 1300 households
- City of Elbow Lake – 561 households

City of Osakis City Council was in favor and supported the organics co-collection pilot

First team call on May 29, 2018 to discuss Osakis Green Bag Organix Co-Collection as a 2- year phase-in pilot

- Pope Douglas should expect to see Green Bags delivered to their facility by July 1st.
- Initial Mailer and Sign up activities to promote Organics Pilot:
Communications to get the word out

Pilot Goals

- 10% participation level is 60 households
- Identify neighborhood green team – champions who want to help build the program
- Collect metrics – number of bags, weight of each bag, diversion rate
- Ongoing education and communication are an important component to the pilot
- Collect feedback from pilot participants: telephone survey

Promoting Curbside Organics To Residents

- First Week – 71 residents in Osakis signed up for the Co-Collection program

Newspaper Advertisement

Household Organics Recycling
Join Your Neighbors in creating *less* waste and a sustainable community!
**Sign up: popedouglasrecycle.com
320/763-9340**

POPE/DOUGLAS
SOLID WASTE MANAGEMENT

Already Signed Up?
Here are a few tips:

- Check the acceptable items for organics recycling list received in your welcome kit
- Tie a sturdy knot on the top of your green bag before placing it in your trash can
- Place tied green bag on top of your other trash within your trash can
- Do not place the green bag on top of your trash can

Door Hang Tag

CUT HERE FOR HOLE

HOUSEHOLD CURBSIDE ORGANICS RECYCLING

SIGN UP TODAY! ... AND RECEIVE OUR FREE RECYCLING BAGS
IT'S EASY...

RECYCLE WASTE... AND PLACE AT CURB!

PUT WASTE IN ITS PLACE
320-763-9340 or 800-872-6318
WWW.POPEDOUGLASRECYCLE.COM

Enrollment: Starter Kit and Brochure

Customized Brochure

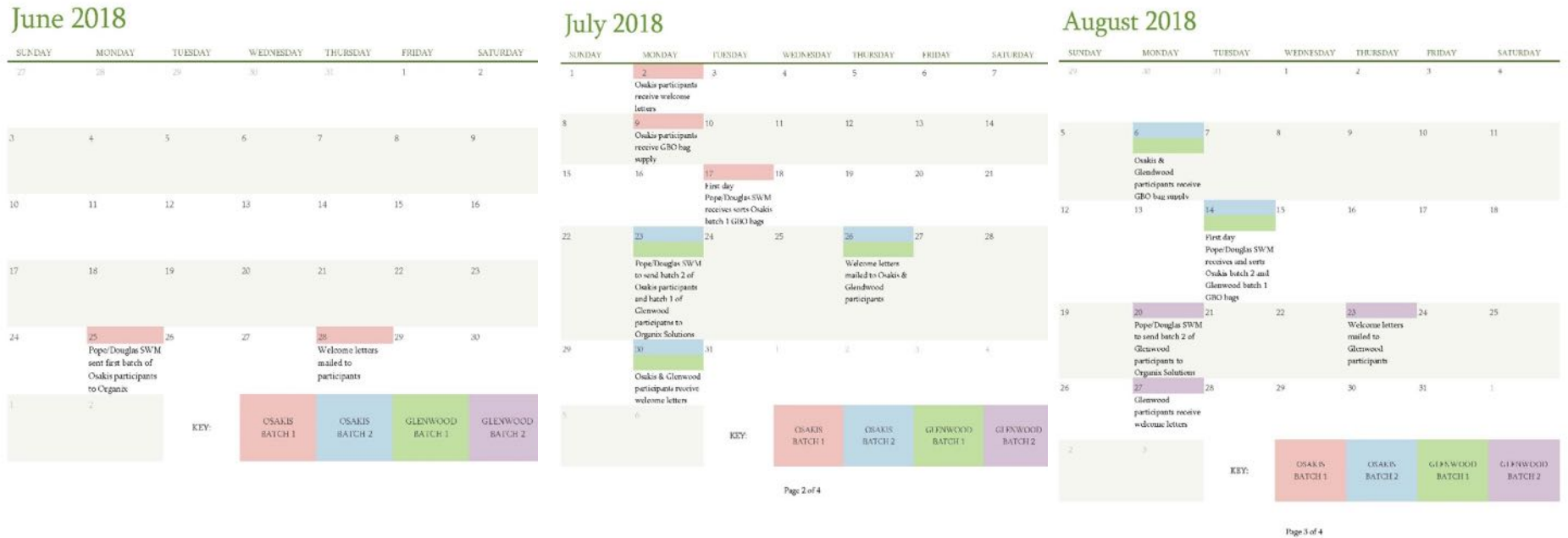


Starter Kit

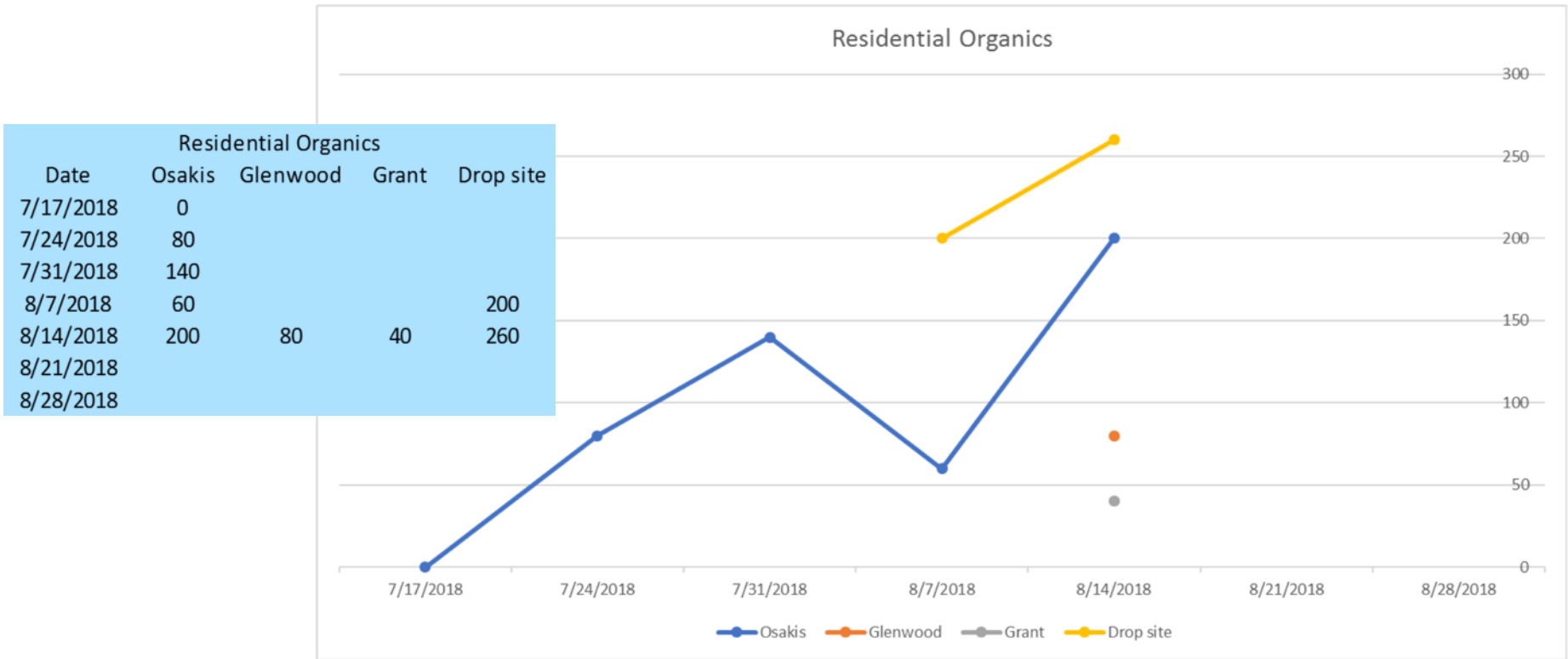


Enrollment: Phase-In Approach

- Rolling calendar to sign up Osakis and Glenwood residents: Team Communication Tool



Weekly Organics Collected Weight in Pounds



Data courtesy of Pope Douglas Solid Waste

Organics-filled compostable bags are removed during sorting

- Organix Solutions provided to staff to 'see' the compostable bags, pull the bag and drop into chute.



Photos courtesy of Pope/Douglas SW

Vermont: Co-Collection is starting up

Several Independent Haulers

- Offering Organix Co-Collection as a service
- Sorting compostable bags at their transfer stations

Town of Townshend, VT

- Launched program July 1, 2020
- Providing bags to residents

Windham Solid Waste Management District

- Accepting compostable bags for composting
- Flyers and print materials to promote composting and organics collection
- Producing high quality compost



Photo Courtesy: Steve Meyer

A.B.L.E. Compost Collection



Source Separated Organics (SSO)

Municipalities and counties are addressing the impacts of organic waste by implementing SSO programs to divert organics from landfill to compost facilities.

Challenge - do it affordably and design it to be convenient for the end user

- Haulers are under pressure to provide organics collection
- There is a cost for collection of organics – containers, collection, processing
- Route density efficiency - rural, seasonal yard waste, voluntary participation

Organix Co-Collection Program addresses all of these issues through a subscription program designed for municipalities and haulers.

Organics Material Management

Benefits of Compost use

- Sequesters carbon dioxide in soil preventing release into the atmosphere.
- Binds and degrades pollutants.
- Increases soil moisture retention, reduces runoff into waterways.
- Reduces desertification - persistent degradation of ecosystems by variations in climate and human activities.

Diverting organic materials from MSW by reducing, recycling and composting are sustainable means to protect human health and the environment.

Contact a consultant to assist you.

Permitting
Development
Design
Composting and AD facilities



Thank you!

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USCC Certified Compost Professional (CCP)

