Organics Recycling Summit

WELCOME!

Organics Recycling Work Group Purpose

1. Gather stakeholder input that helps identify and prioritize actions to expand and enhance organics recycling and ensure a sustainable organics recycling system for the future.
2. Set the stage for participating organizations to work together in the future on the solutions identified.

Organics Recycling Summit #1

AGENDA	
9:30am-10:15am	Welcome & Opening Remarks
10:15am-11:45am	Context Setting/Stories
11:45am-12:15pm	Lunch Break
12:15pm-1:15pm	Challenges & Opportunities: Impact Statements
1:15pm-2:00pm	Solutions: Unlocking Innovation Part 1: Small Groups
2:00pm-2:15pm	Break
2:15pm-2:45pm	Solutions: Unlocking Innovation Part 2: Small Groups Report Back
2:45pm-3:45pm	Mapping our Path Forward
3:45pm-4:00pm	Wrap Up & Adjourn

Organics Recycling Summit #2 Preview

When: Wednesday, April 17th

9am-2:45pm

Where: Tukwila Community Center

Desired Meeting Outcomes:

- Share information learned since Summit #1
- Create prioritized list of recommended solutions

Overview of Organics Mgmt. System, Problems and Opportunities

Josh Marx
King County Solid Waste Division

King County
Department of
Natural Resources and Parks
Solid Waste Division

Waste Prevention | Resource Recovery | Waste Disposal

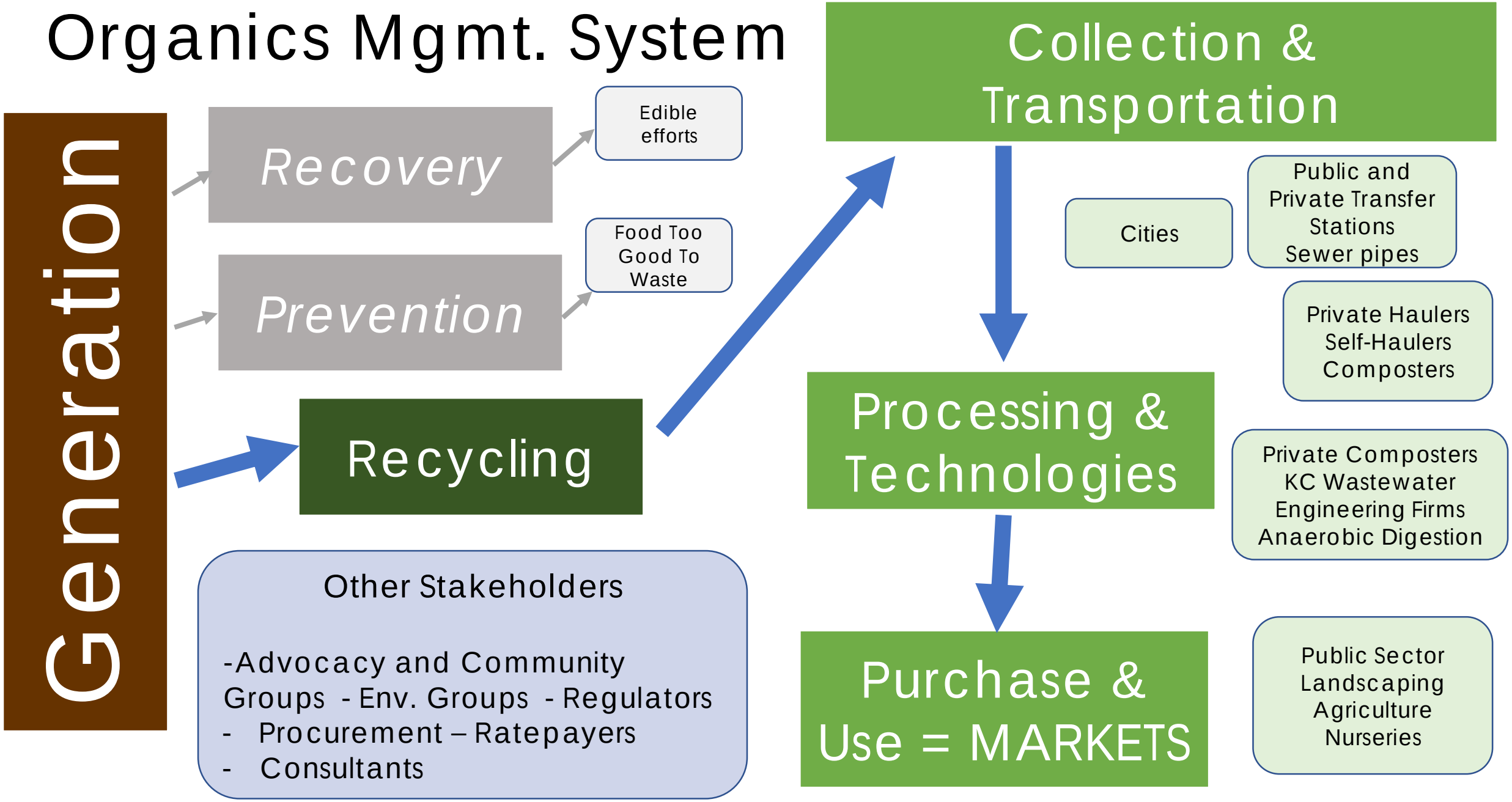
Why are we here today?

Ultimate Goal: *A sustainable organics recycling system in our region*

By working together, we can:

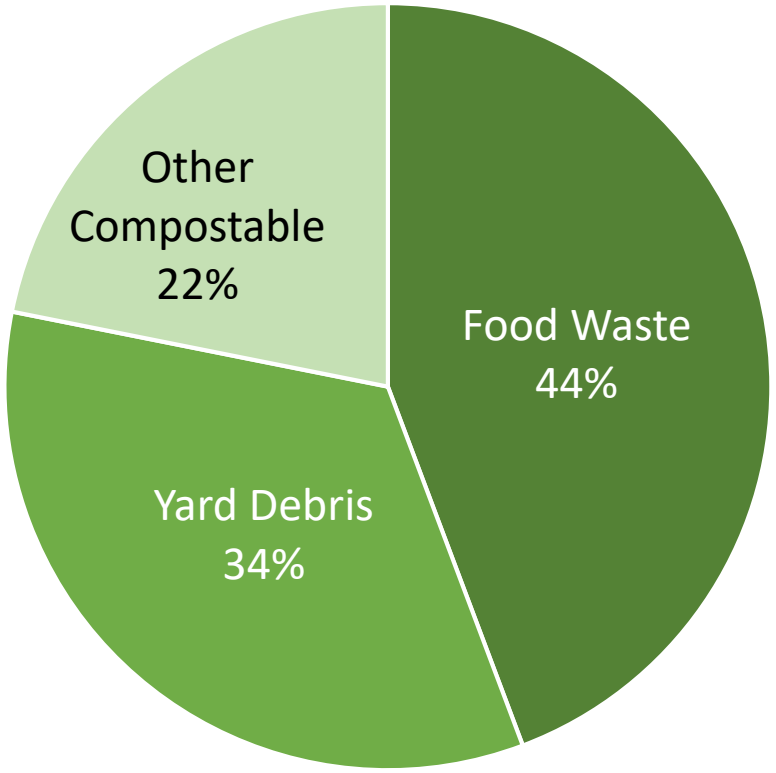
- *Collect* critical input and insights from all of you
- *Identify and prioritize* actions to expand and enhance organics recycling
- *Collaborate* to map the way forward and make progress towards our goal

Organics Mgmt. System



Organic Material Generation

In 2018, King County and Seattle generated 858,000 tons of organics, mostly food and yard debris.



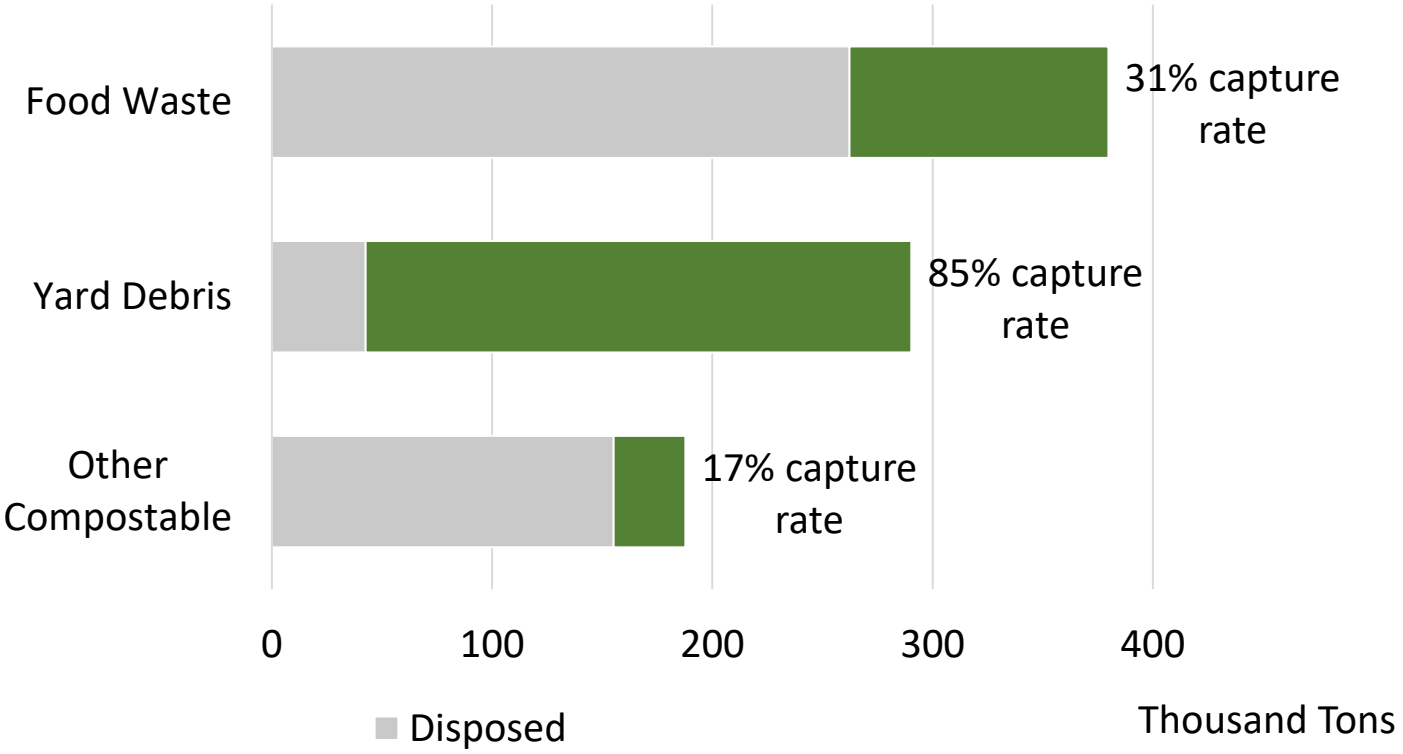
Composition of 2018 organics generation (in percentages by weight), King County and Seattle.

Organics Currently Processed

Nearly half (46%) was processed.

There is room for more organics recovery, especially food waste.

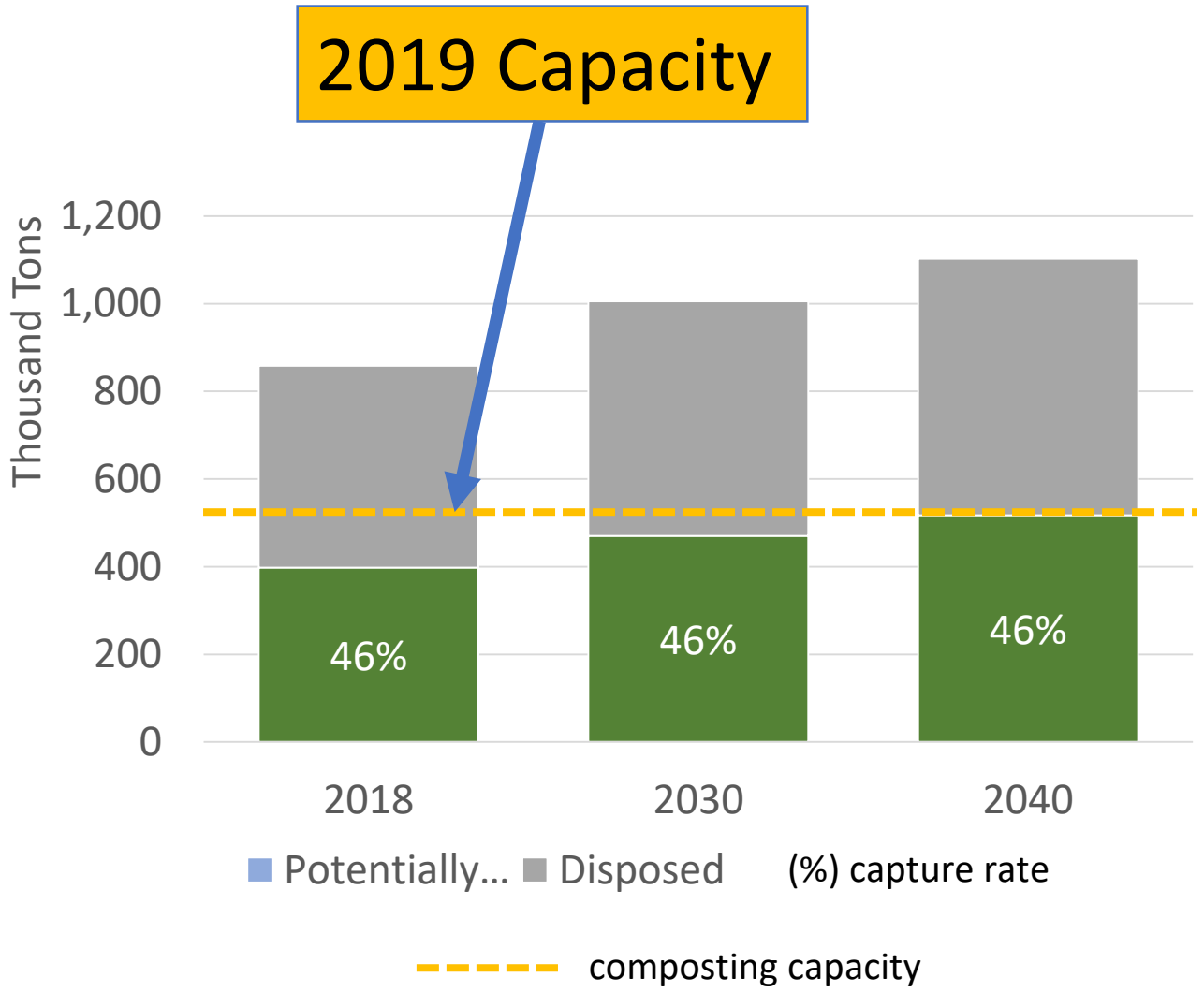
2018 organics generation (tons) and capture rates (%) by material type, King County and Seattle.



Regional Capacity

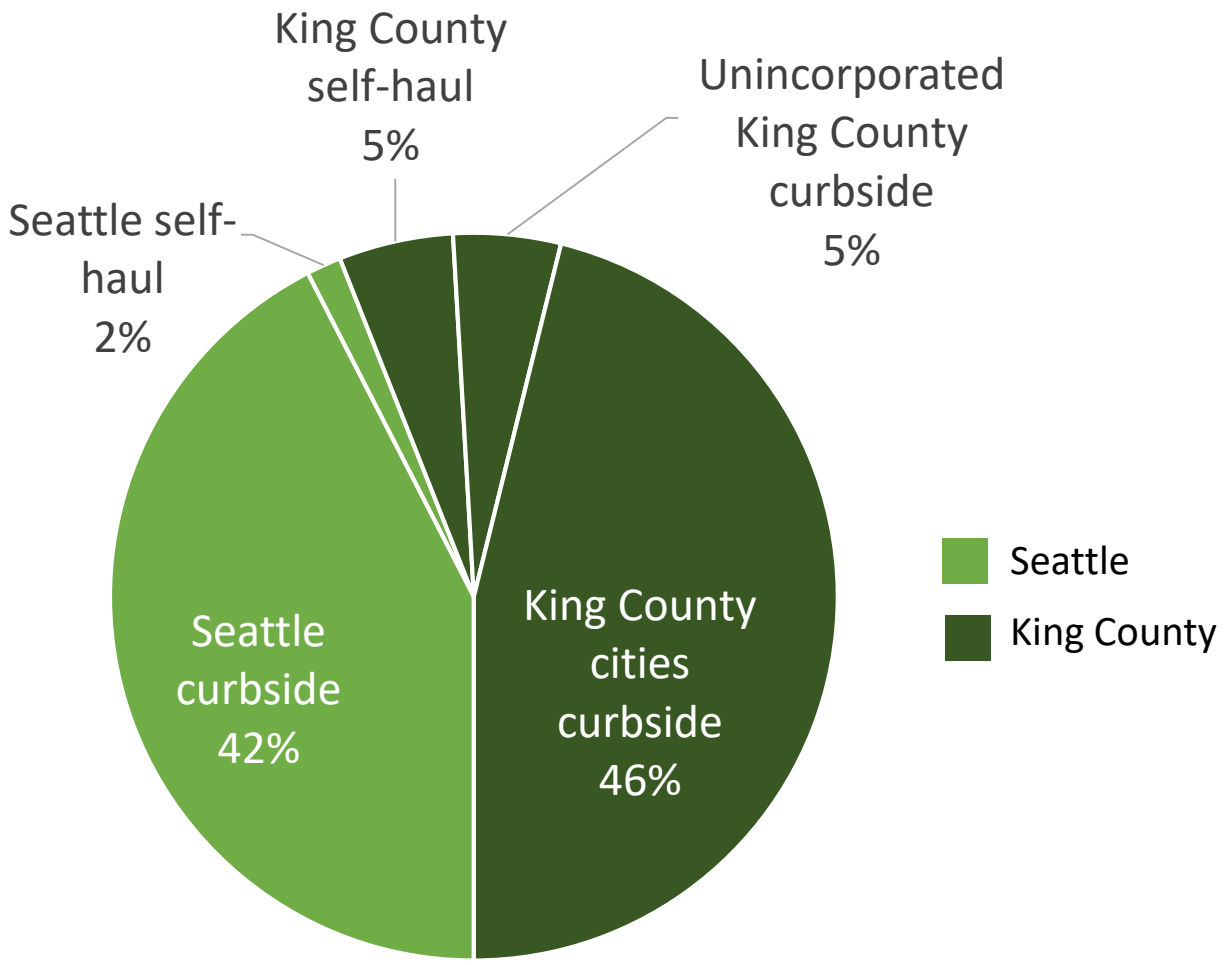
Regional composting capacity is currently adequate, but more capacity will be needed to meet organics recovery goals.

Projections of future organics generation vs. current permitted composting capacity, King County and Seattle.



Organics Collection

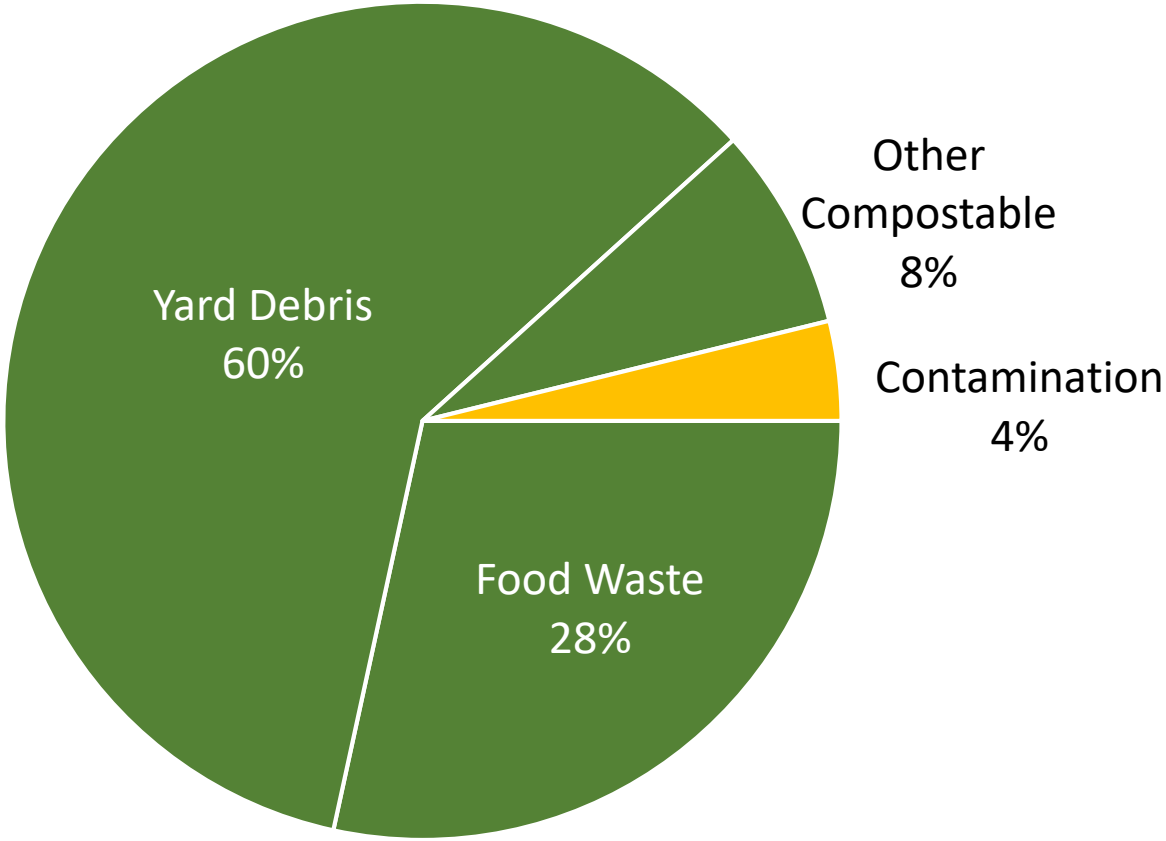
Most organics for composting is collected at curbside, but 7 percent is self-hauled to local transfer stations.



2018 organics stream by collection type
(in percentages by weight), King County and Seattle.

Contamination

Contamination is small by weight in material collected for composting, but its volume and visibility are ongoing challenges.



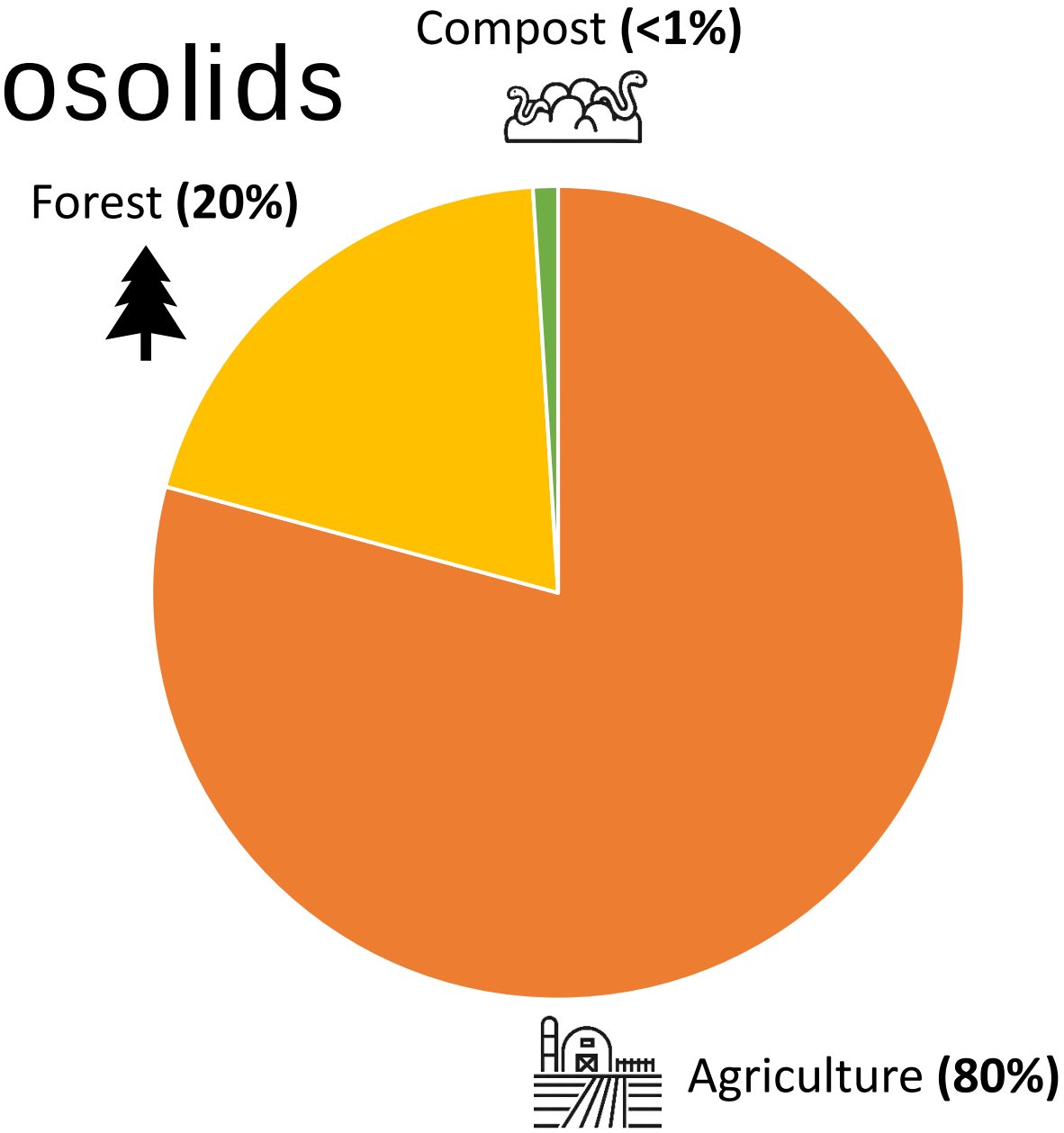
Composition of 2018 organics stream (in percentages by weight), King County and Seattle.

King County Loop Biosolids

72 billion gallons of wastewater treated

120,000 tons of biosolids processed

Primarily agricultural use, but exploring composting options.



What can we do with all the compost that gets produced?

Examples of compost end uses

Agriculture

Stormwater Control

Land Restoration

Erosion Control

Compost benefits include: Add/restore soil nutrients, improve soil quality, reduce soil compaction, promote growth of new vegetation, support erosion control and manage run-off.

Exploring Barriers & Opportunities

- Do target audiences understand the value, benefits and importance of organics?
- Are product availability, cost or transportation a limiting factor?
- Is product quality (i.e. contamination) a key concern of buyers?
- Do we have the right policies and rate structures in place to incentivize use?
- What is the **"lowest hanging fruit"** in terms of market expansion?
- What is the role of new and emerging technologies in our system?

Thank you for joining
King County in this quest!

Let's get to it with our 4 stories!

King County
Department of
Natural Resources and Parks
Solid Waste Division

Waste **Prevention** | *Resource* **Recovery** | *Waste* **Disposal**

1. Wasted Resources: Benefits of capturing organics for recycling rather than disposal
2. Contamination: Strategies for keeping the stream clean
3. Processing Capacity: Ability of the region to locally process all of our organics waste
4. End Markets: Benefits of using compost

Wasted Resources

Rebecca Singer

WTD Resource Recovery
King County

The reason we are all gathered here today,

WE CARE ABOUT...

Food and Crop

Wood

Biosolids

Yard

Beneficial Wastes

What does organic waste have to offer?

- Methane
- Carbon
- Nitrogen
- Phosphorus
- Micro/macro nutrients
- Climate resiliency
- Sustainability
  - Environmental
  - Fiscal
  - Social

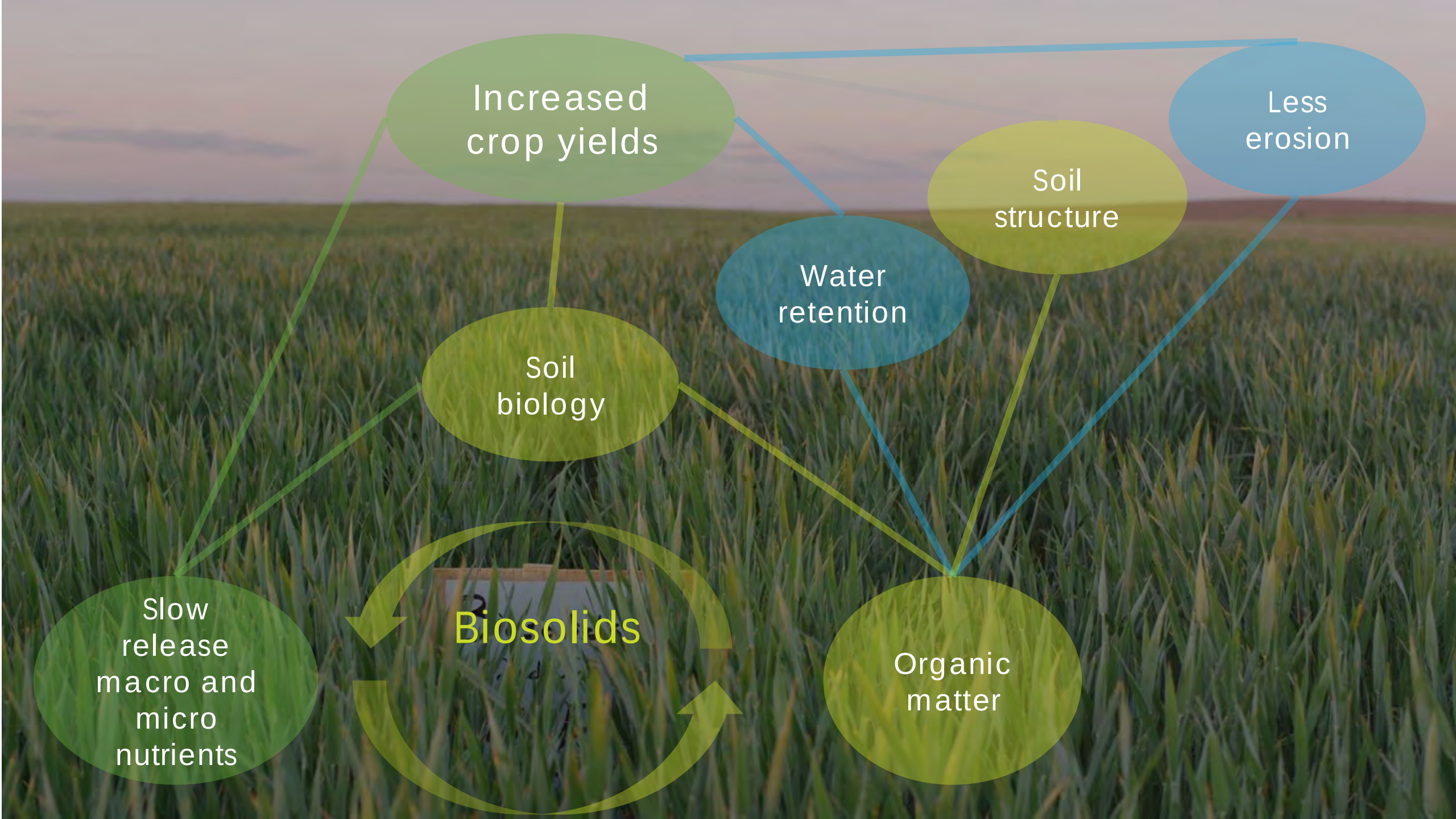
Healthy Soils

What do soils need?

- Carbon
- Nitrogen
- Phosphorus
- Micro/macro nutrients

What do healthy soils provide?

- Healthy Food
- Carbon sequestration
- Climate resiliency
- Sustainability
  - Environmental
  - Fiscal
  - Social


Increased crop yields
Less erosion
Soil structure
Water retention
Soil biology
Slow release macro and micro nutrients
Biosolids
Organic matter

Composting

Digestion

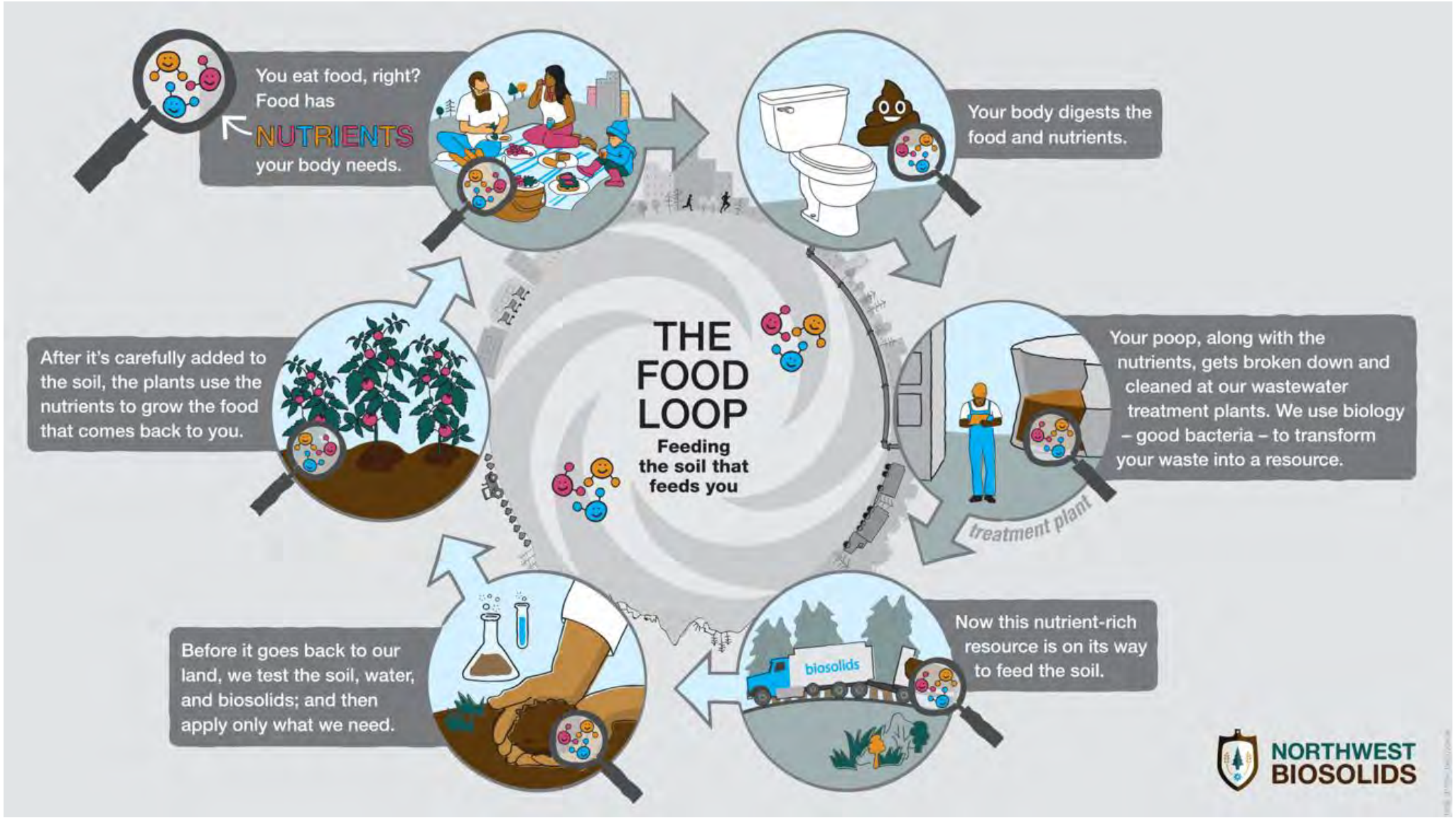
Landfill

Incineration

Current Management

Lost Value of Wasted Resources

- Environmental
  - Soil Building
  - Water Retention
  - Slow Release Nutrients
  - Carbon Sequestration
- Financial
  - Lost Revenue Source
  - Lower Crop Production – less $$ for farmers
- Social
  - Lower Community Engagement
  - Less Food for Food Banks
  - Lower Food Quality



We have an opportunity to create a better future

Conclusions

Doing the right thing

For the right reason

At the right time

That time is <u>now</u>

Questions?

Rebecca.Singer
…@kingcounty.gov

King County

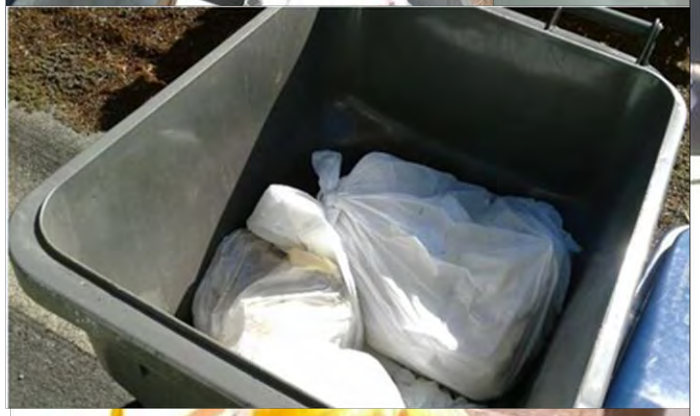
Questions

Compost Contamination Reduction Strategies

John MacGillivray
Solid Waste Programs Supervisor
City of Kirkland


In a
Perfect
World ...
Dole
Think Green
Think Clean

Reality



Some Contributors to Growth in Compost Contamination

- Lack of sustained and coordinated regional education
- Too much promotion without education
- Programmatic inconsistencies
- "Bio-degradable" products
- Disposal bans/mandatory participation
- Diverse populations
- Lack of enforcement or consequences

Consequences of Contamination

- Increased processing costs (fuel, screening equip, labor)
- Increased disposal costs (garbage residual)
- Increased contract rates and contamination fees
- Decreased compost quality
- Long term system sustainability

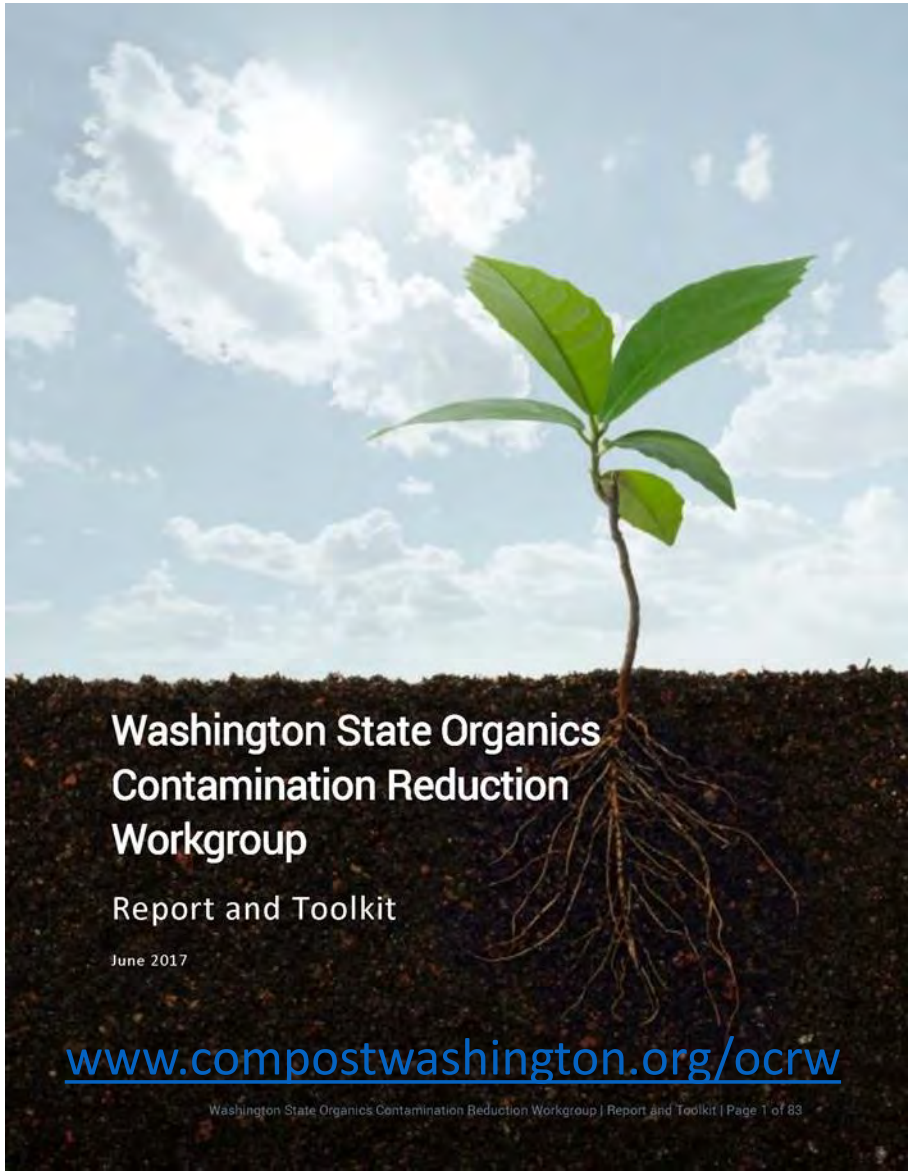
Organics Contamination Reduction Workgroup

Mission: *Collaborate to eliminate contamination from organic feedstocks while expanding end products and markets.*

- Why the OCRW?
- Upstream focus: Treat the disease, not the symptoms
- 100+ stakeholders
- Four subcommittees
- Produced report

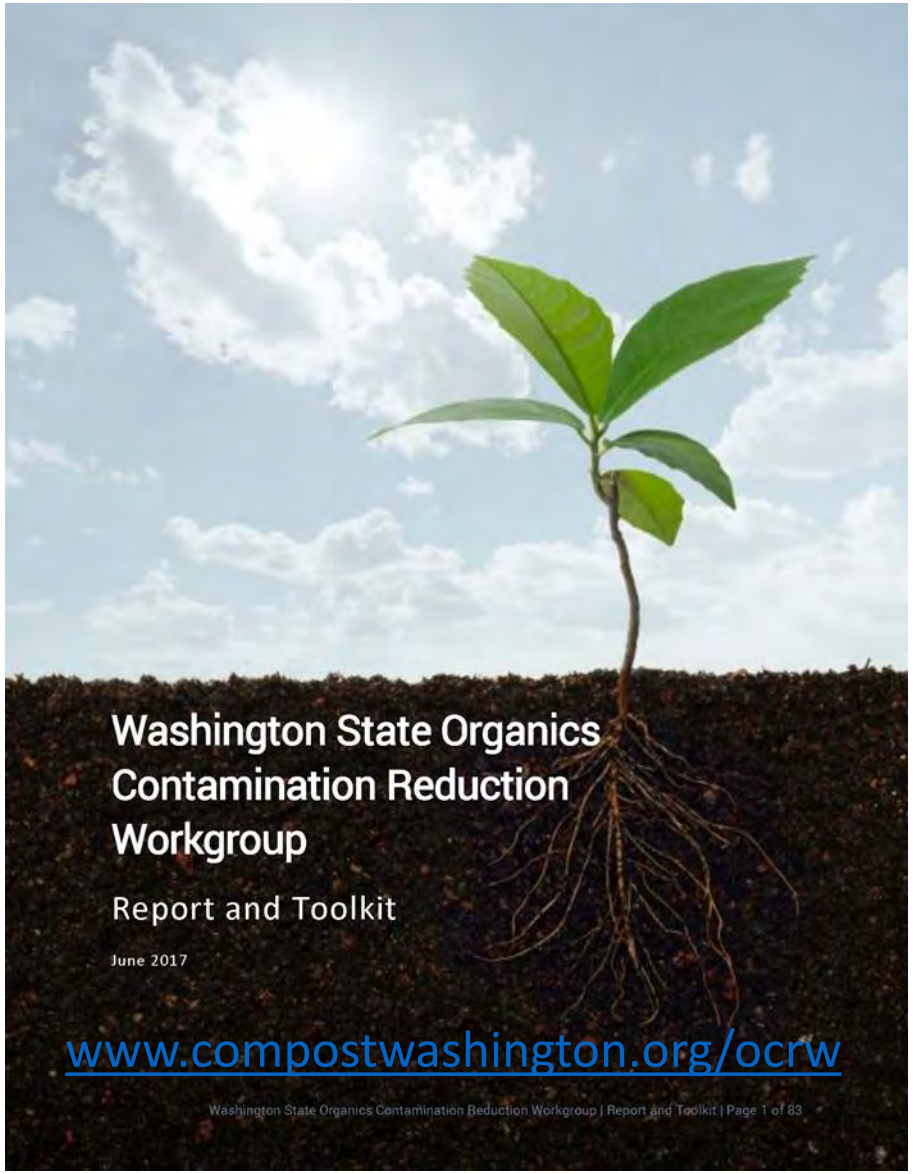
Report Conclusions

- Share accountability
- Fix jurisdictional inconsistencies
- Upstream prevention
- Processing technology
- Contaminant discrimination
- Solve the compostable packaging conundrum
- Sustained collaboration



Strategies to Reduce Contamination

- Advocate for increased resources
- Standardized educator toolkit
- Packaging design and testing BMPs
- Consistent contract language
- Spread the word to policy makers
- Cart tagging and enforcement



Questions

www.compostwashington.org/ocrw

KEEPIN' IT LOCAL: PROCESSING KING COUNTY'S ORGANIC WASTE STREAM

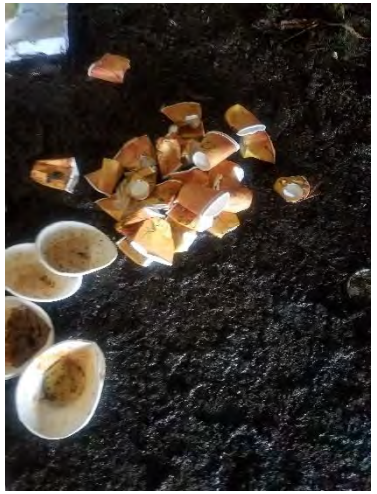
Karen Dawson
Director of Public Affairs
Cedar Grove

Importance of Processing Organics Locally

- Reduction in system costs
- Reduction in environmental costs
- Reduction in costs to government
- Reduction in costs to ratepayers

Unique Issues to Processors in Our Region

- Contamination
- True cost of recycling
- Food packaging
- Apple maggot issue
- Location



Current Cost Structure

- Tip fees
- Cost of processing
- Product sales

Importance of Innovation & Investment

- GORE System
- Plastics Removal Conveyor
- Tipping Building Monitor

Market Development & Demand

- State and local government – transportation, parks, forest stewardship, stormwater management
- Growing agriculture use
- Strategic retail management
- Ongoing investment in research

Value of Compost Use Locally

- Municipal & county use of compost
- Compost & compost-based products v. alternatives
- Facilitating compliance of new development with King County code 16.82
- Increasing tip fees would reduce compost cost

Questions

Benefits of Using Compost

Forrest Jammer
Landscape Architect
Thomas Rengstorf & Associates
Compost Believer

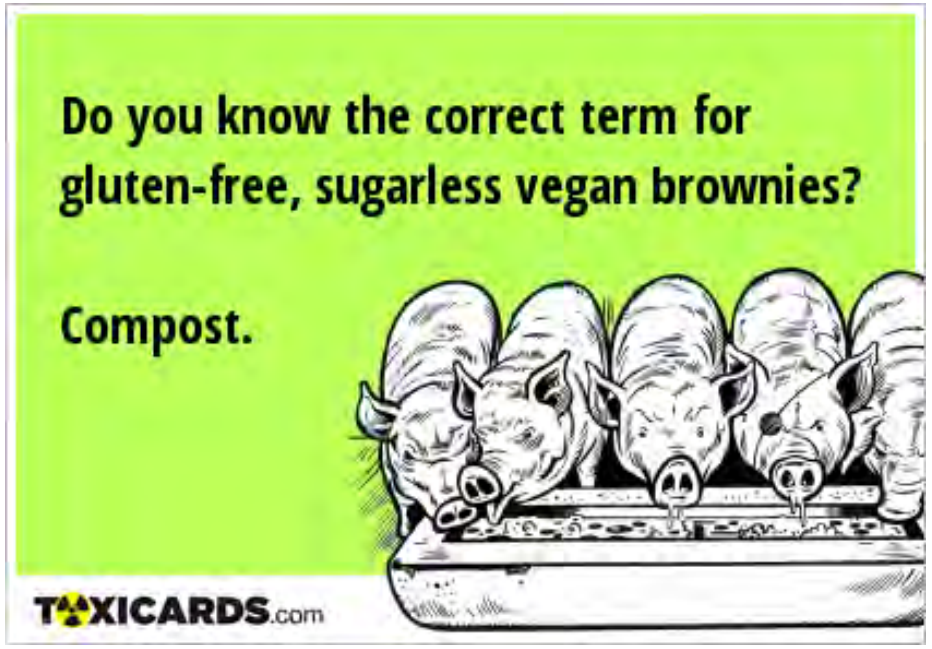
Who am I?

Family farm in Iowa

Compost, it's just the beginning…

- Life
- The Seasoning

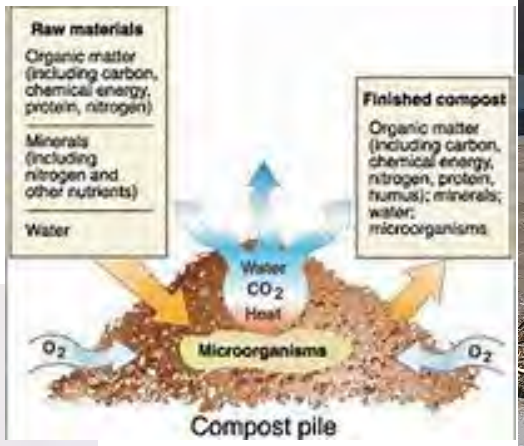
Handful of Compost



Hehehehe…

Compost

- Plants & Spaces
- Science & Farmers
- Renewable

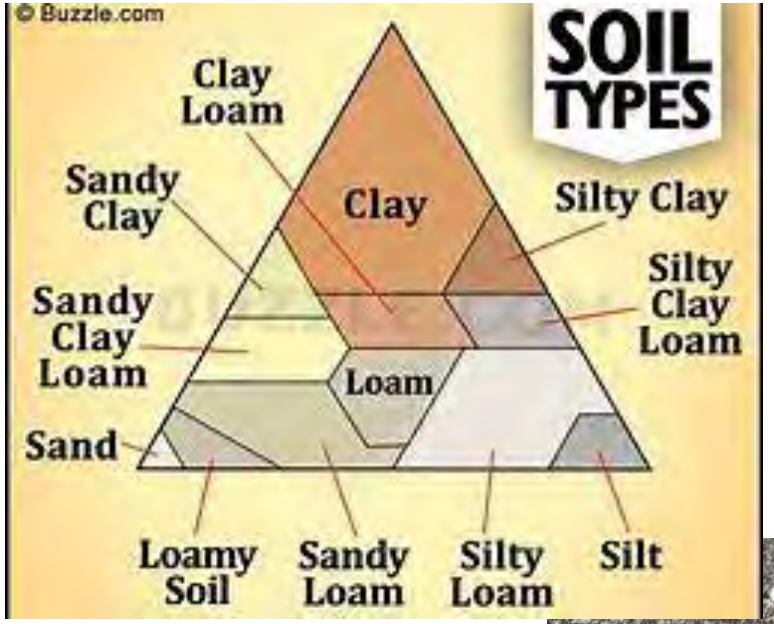


What is going on in the compost pile?

Experiment – Compost vs. soil and chemicals

Examples of Compost Rows

Soil's Today



Soil Triangle

- Soils
- Amendments

Examples of Soil Amendments

Soil amendments

- **Organic (material) amendments**
  - Organic material improves soil structure.
  - Organic material can be added to sandy soils to increase nutrient and moisture retention.
  - Clay soils can also be amended with organic material to help loosen the soil and provide better aeration and drainage.
  - Compost is the easiest organic material to use
  - A rotary tiller works best to incorporate the organic material to your soil.
  - A layer of 1 - 2 inches spread over your site should be tilled to a depth of 3 - 6 inches.

Why I love compost?

- Composted Soils
- Soil Samples
- Bottom Line

Barriers?

- Lack of awareness
- Previous unfavorable experience
- Cost
- Presence

Student Garden – Puesta del Sol Elementary

Opportunities – Spread the word

- Industry marketing
- Social media
- **National "Day"**
- Word of mouth
- Landscape contractor
- Experience
- Education

yelp

LEARN. GROW. EAT.
seattle tilth

Angie's list

Nextdoor

Home Advisor

…In closing

Questions

Lunch Break

Challenges & Opportunities

Breakout Groups

Breakout Groups

Small Group Reports & Mapping Path Forward

Wrap-Up

Summary of Actions Prior to Summit #2

- Literature review of compost best practices
- Organics market assessment update
- Initial King County stakeholder engagement and market development

Organics Recycling Summit #2 Preview

When: Wednesday, April 17th
9am-2:45pm

Where: Tukwila Community Center

Desired Meeting Outcomes:

- Share information learned since Summit #1
- Create prioritized list of recommended solutions