



Request for Expression of Interest

Pre-Submission Conference
Rob Smoot, Senior Engineer



April 17, 2015



Let's Make better use of what we don't want

Good Morning

Welcome to Metro and Thank you for being here today

I am Rob Smoot, a senior engineer in the Solid Waste division of Parks and Environmental Services.

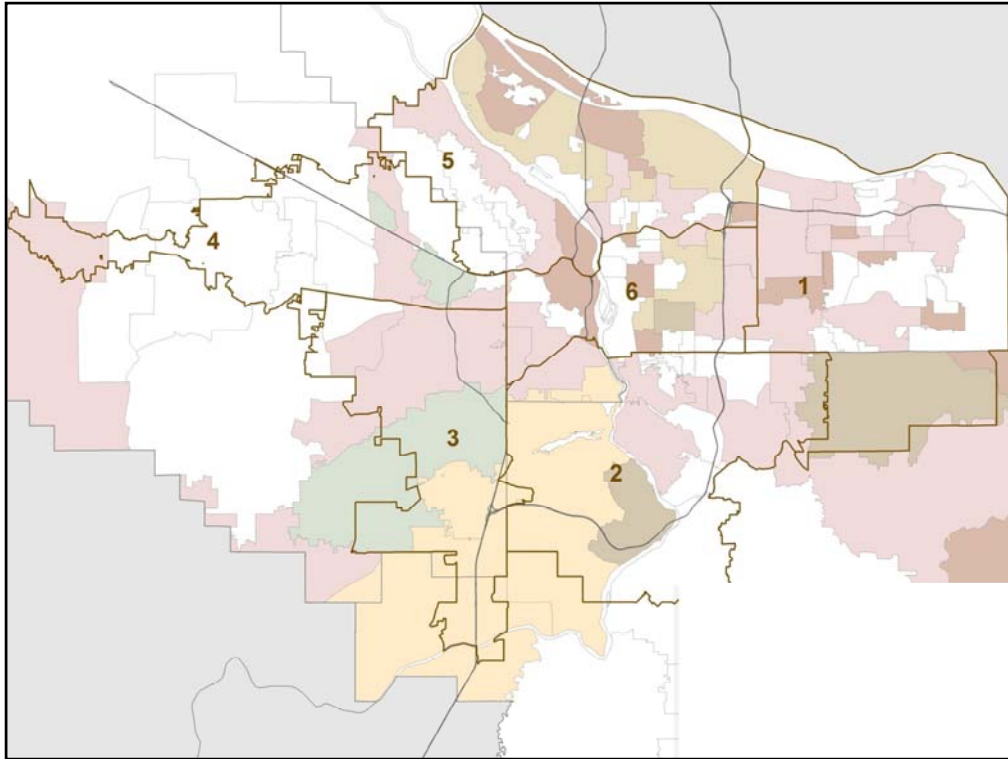
I am here to answer your questions regarding our Request for Expressions of Interest

But before I take questions I would like to make sure you all know what Metro is and provide a little background on our Region's solid waste system and this project.

I am going to rush through this so that I can get to answering the questions that have already been submitted and then take your questions.

Outline:

- Who is Metro
- Overview of the Regions waste management system
- Summarize research, analysis and findings
- Explain purpose of RFEOI what are we asking for, who are we asking, why are we asking, How are we using the information,
- Explain the process for submission including finding answers to questions
- What is next-- this depends on what is received through this RFEOI



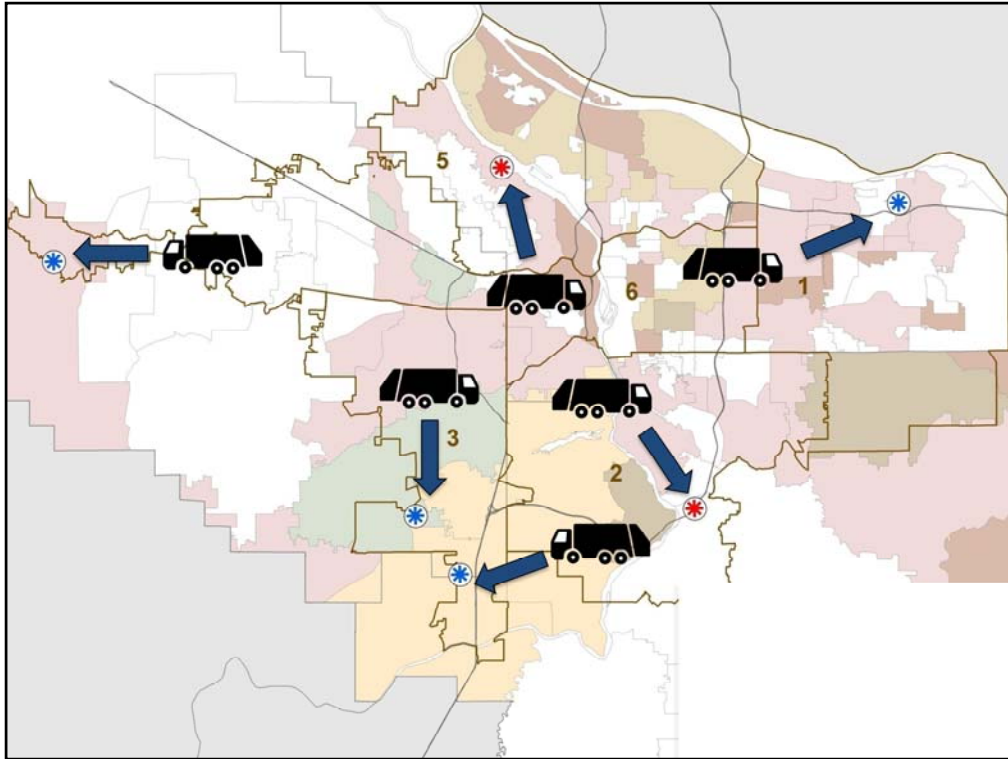
Metro is a Metropolitan Planning Organization serving nearly 1.5 million people in Clackamas, Multnomah, and Washington counties. The agency's boundary encompasses 25 cities – from the Columbia River in the north to Wilsonville in the south, and from Forest Grove in the west to Troutdale in the east.

This is a map of the Metro region. It shows our Metro Councilor districts, numbered 1 through 6; the Metro jurisdictional boundary, and the shaded and white regions represent the dozens of waste collection franchise areas across the tri-county region.

Metro is responsible for leading land use and transportation planning; is the regional clearinghouse for land information; manages natural areas, parks, trails and visitor venues; and is responsible for overseeing the region's solid waste system.

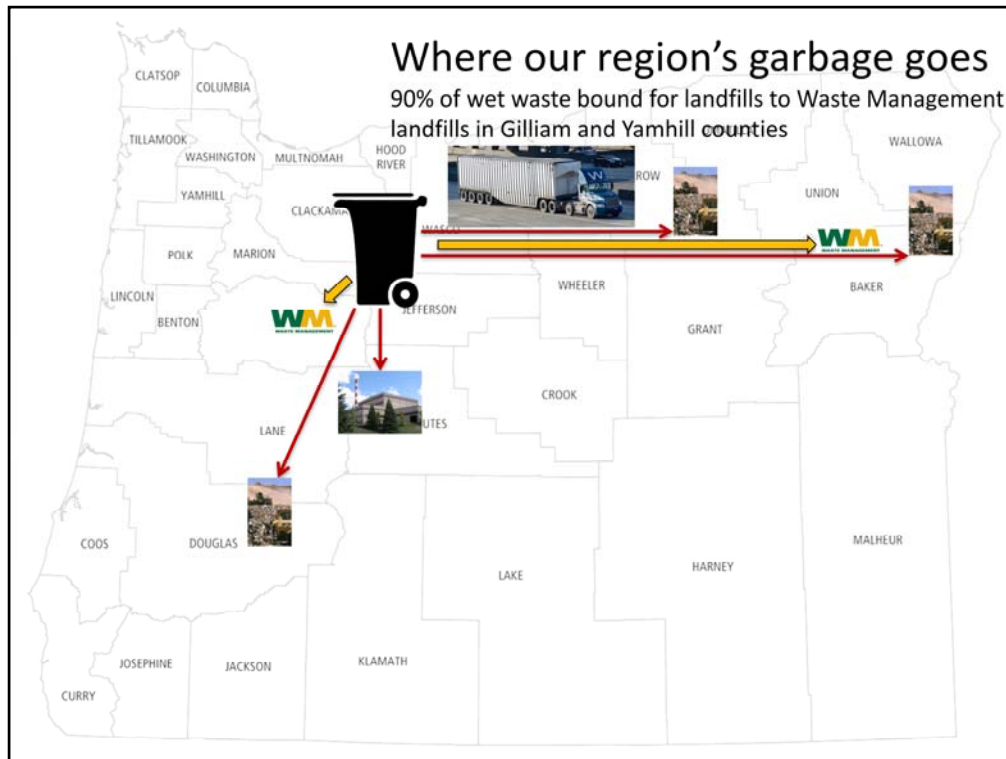
There are many players in our system, and our system is unlike any other that I know of.

Metro provides regional oversight of the entire solid waste system.



Local cities handle the franchise licenses for local pickup. Private companies pick up garbage from homes and businesses and take that garbage to one of six transfer stations in the region. The two in red are publicly owned (by Metro), the others are privately owned and operated.

At those transfer stations, garbage is compacted, consolidated, and placed into long-haul trucks to be taken to landfill.



[Animated slide]

Most of the wet garbage from our region goes to one of two landfills, owned by Waste Management. One is near Arlington and another is just outside McMinnville.

Our region also sends some waste to other facilities in Oregon, but most goes to the two Waste Management landfills.

In 2019, Metro's current landfill contract with Waste Management ends. We have an opportunity to consider whether to continue relying on landfills or find new ways to manage our waste.



Metro has a well managed system. We do a good job or reusing, recycling, and composting the materials that we don't want.

In 2013, our region reused, recycled or composted **64 percent of its waste.**

AND we continue to look for and find ways to get more out of the stuff we consume and discard.

Having said that...

Garbage: A resource that we are throwing away?



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... individuals and businesses also throw away a million tons of garbage every year.

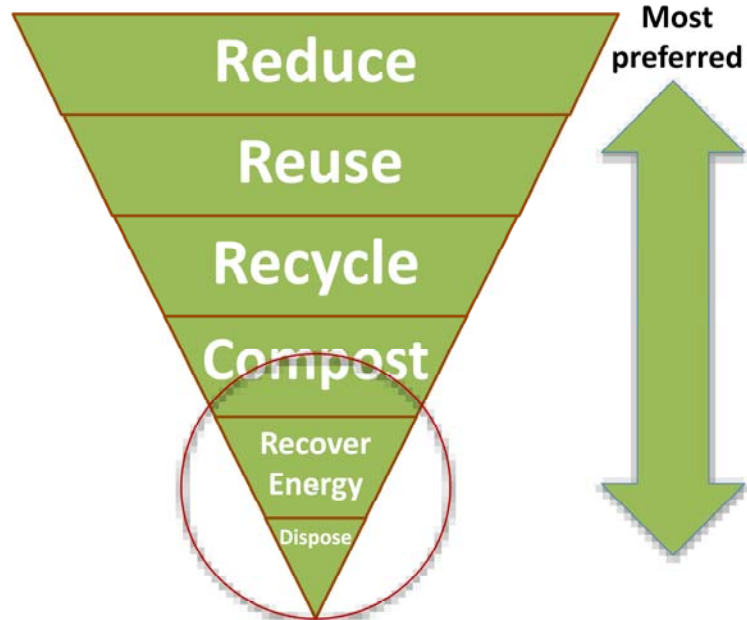
But that garbage is a resource we literally throw away.

There are still plenty of recyclables in our trash—just harder to pull out.

That trash has the capacity to provide energy – whether it is electricity, steam or other fuels.

Metro's Solid Waste Roadmap is an effort to consider the best ways to get more out of this resource, while continuing our efforts to reduce, reuse and recycle.

Solid waste hierarchy (ORS 459.015)



This is the Waste Hierarchy that directs us to consider the best use of materials that we manage. As you can see here dispose is at the bottom of the hierarchy.

Public benefits



- Keep our commitment to the highest and best use of resources
- Protect people's health
- Protect the environment
- Get good value for the public's money
- Be adaptable and responsive in managing materials
- Ensure services are available to all types of customers

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[This slide is animated. Each of the six public benefits appears with successive clicks.]

In managing the region's solid waste system, Metro seeks to achieve the following benefits for the public:

Keep our commitment to the highest and best use of resources: We're not taking our eye off the ball of reducing waste, reusing what we have, and improving our recycling and composting, but we need to consider what we do with materials that are still in the garbage and try to move up that inverted pyramid.

Protect people's health: We must manage waste in a manner that protects the public's health.

Protect the environment: We need to ensure that waste is handled responsibly and that we protect our clean air, clean water and soil.

Get good value for the public's money: Making sure the money we spend in managing garbage achieves the benefits we want and makes the most of this resource.

Be adaptive and responsive in managing materials: The waste stream has changed a lot over the years and will continue to evolve. We need to make sure our solid waste system can continue to adapt.

Ensure services are available to all types of customers: How can we continue to make sure households and small and large businesses continue to receive the services they need and keep costs reasonable for all customers?



Metro completed an initial study of alternative methods of managing solid waste.

Metro's study examined the information reviewed was not specific to the a process or technology offered by any particular vendor or developer, it was more general in nature. Metro now seeks to refine that information with real, verifiable and implementable processes.

Five Waste Management Options

1. **Advanced Materials Recovery**
Recover additional materials from waste.
2. **Direct Combustion**
Recover Energy from Waste
3. **Gasification**
Recover Energy or Alternative Fuels from Waste
4. **Dry Anaerobic Digestion**
Recover Energy from Waste and reduce GHG from Landfill residue
5. **Refuse Derived Fuel**
Recover Energy from Waste and produce fuel to replace coal

Metro narrowed an initial list of 14 possible technologies or processes to five technologies based on Metro's assessment of the present commercial viability of each technology. This list represents the technologies that Metro believes should be considered further to determine if implementation in our region could work.

Advanced Materials Recovery



There have been many advancements in the machinery that is used to sort and separated solid waste for recovery.

This could, and probably should, be implemented in the Metro system.

Direct combustion



Barcelona, Spain waste to energy plant

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The most widely used management of solid waste, after landfills is direct combustion of solid waste.

There is a Covanta waste to energy facility less than 50 miles south of Portland in Marion County.

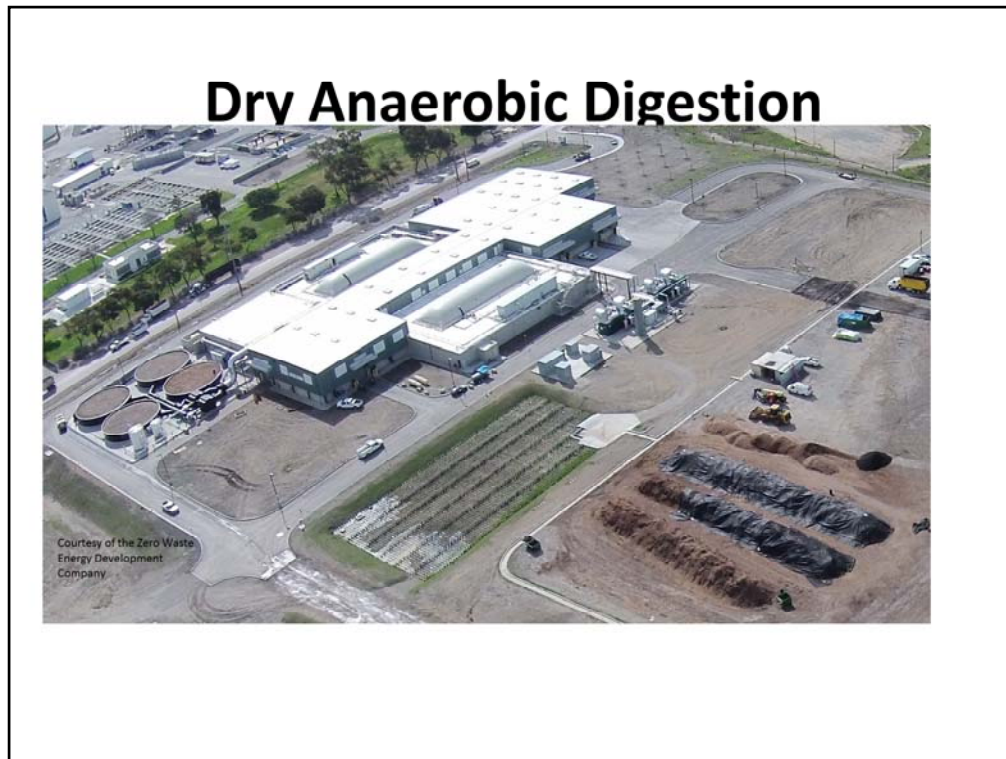
Gasification



Web photo April 2014 of Enerkem in Edmonton, Canada

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Gasification, and Plasma Arc Gasification, is still in a development stage, but worth looking at.



Anaerobic Digestion is also fairly new in its application with solid waste, but a promising technology to be considered.

Refuse Derived Fuels



HDR photo of RDF in Germany

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Creating a Refuse Derived Fuel could be combined with more advanced materials recovery, but may be subject to availability of markets.

Garbage as a Resource



- How best to manage garbage and other materials in years ahead
- How to position the region to achieve better use of discarded materials
- How the region's solid waste system can best meet the needs of the public

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[This slide is animated. Each bullet and the tagline at the bottom appear with successive mouse clicks.]

The Solid Waste Roadmap is our effort to try to get more from the waste we generate and make sure the region's solid waste system is positioned for future change.

Public benefits



- Protect people's health
- Protect the environment
- Get good value for the public's money
- Keep our commitment to the highest and best use of resources
- Be adaptable and responsive in managing materials
- Ensure services are available to all types of customers

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Again, I want to reiterate that these are the public benefits that will guide our process in considering alternative technologies for integration into the regions' solid waste system.

Schedule



- May 15th RFEOI due
- Staff and Consultant evaluate and summarize responses to RFEOI
- July 28th Staff presents to Council at a work session.
- Public Outreach
- November 2015(TBD) Council to decide what if any alternative technologies should be pursued for implementation.

The Metro Council will make decisions this year and next year that shape the future of our region's solid waste system. Here is an overview of the schedule this year.

Wrap up and Questions

We will be posting this presentation, the questions and answers and other supplemental information (or links to information) to ORPIN by Friday, April 24, 2015