



Metro

Solid Waste Forecast FY 2017 – 18
Review of methods, process and results
January 19, 2017



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Director of Property & Environmental Services



Solid Waste Forecast FY 2017-18

www.oregonmetro.gov/solid-waste-forecast

Agenda

1. Purpose and Uses of the Solid Waste Forecast
2. Internal Review Process
3. Methods and Assumptions
4. Results
5. Question & Answer Period

Purposes of SW Forecast

1 Setting Solid Waste Rates



2 Estimating Costs & Revenues



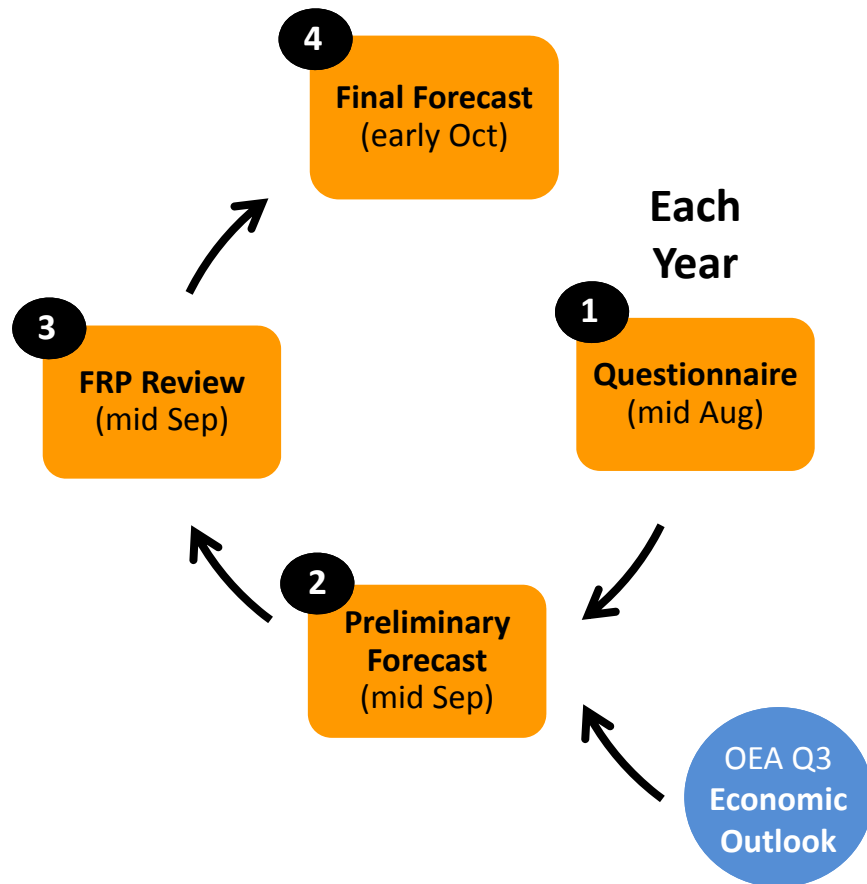
3 Establishing Allocation Bases



4 Aiding Other Planning Functions



Review Process



1 Questionnaire

- Distributed internally
- Solicits key forecast assumptions
- Forms basis for preliminary forecast

2 Preliminary Forecast

- Based on Office of Economic Analysis (OEA) 3rd quarter economic outlook & questionnaire feedback

3 Forecast Review Panel

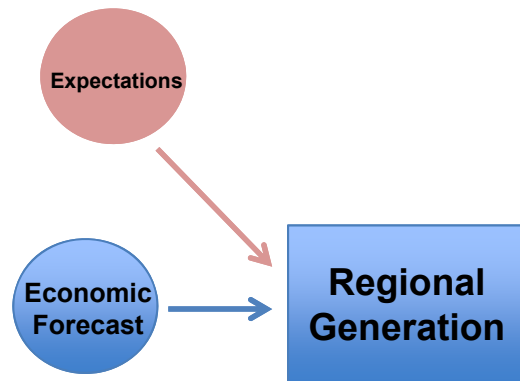
- SW directors, Metro economist
- Meet to review preliminary forecast
- Forms basis for final forecast

4 Final Forecast

- Distributed to all stakeholders

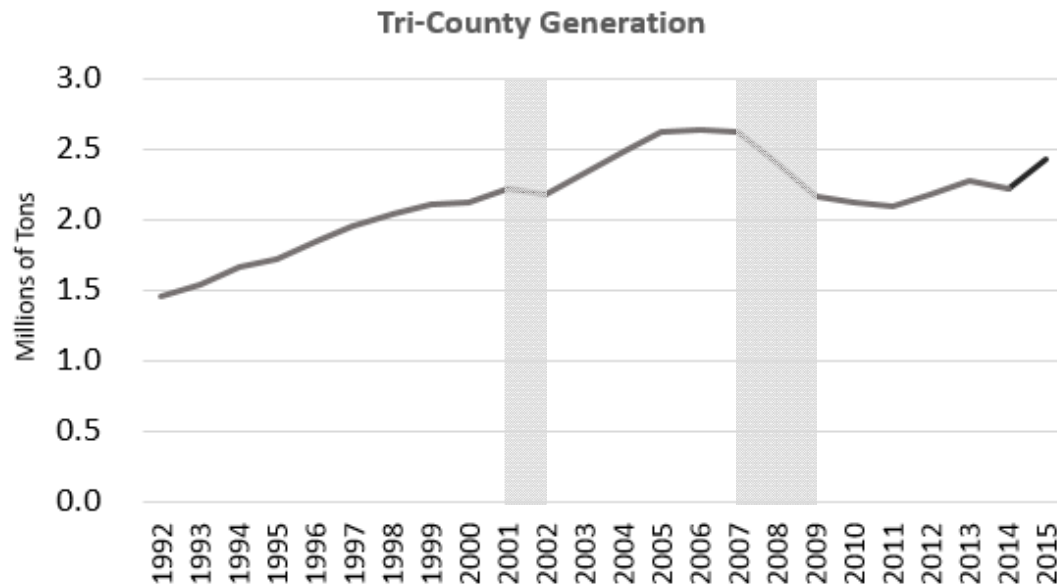
Methods & Assumptions

Generation



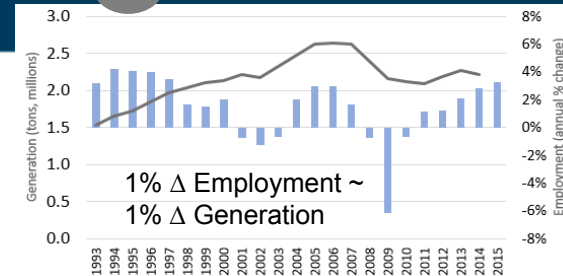
Methods & Assumptions

Generation

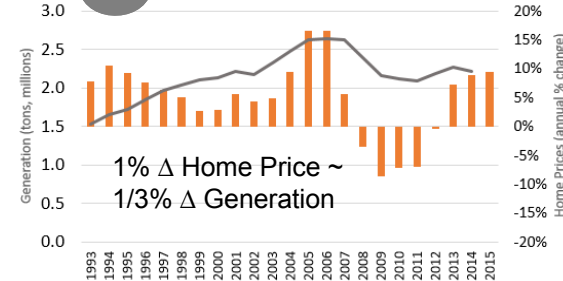


Sources: Oregon DEQ 2014 Oregon Material Recovery and Waste Generation Rates Report
 Metro Solid Waste Information System
 National Bureau of Economic Research

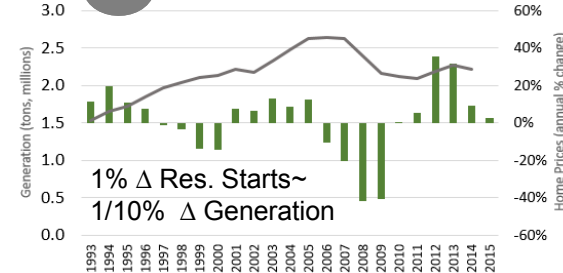
1 Labor Markets



2 Home Prices



3 Construction

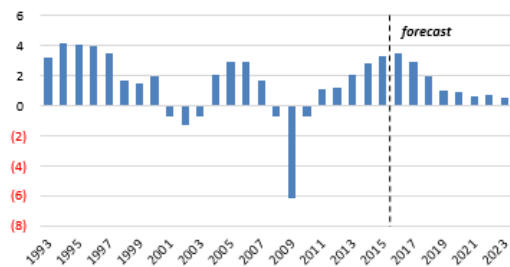


Sources: 1) Bureau of Labor Statistics (Oregon total non-farm)
 2) FHFA (Oregon home price index)
 3) US Census BPS (Oregon residential house starts)

Methods & Assumptions Generation

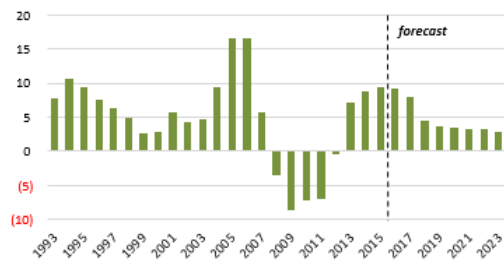
OEA Economic Outlook – June 2016

Employment, Total Non-Farm (annual change, %)



Source: Bureau of Labor Statistics; Oregon Office of Economic Analysis

Home Prices (annual change, %)



Source: Federal Housing Finance Agency Index; Oregon Office of Economic Analysis

Construction, Res. Starts (annual change, %)

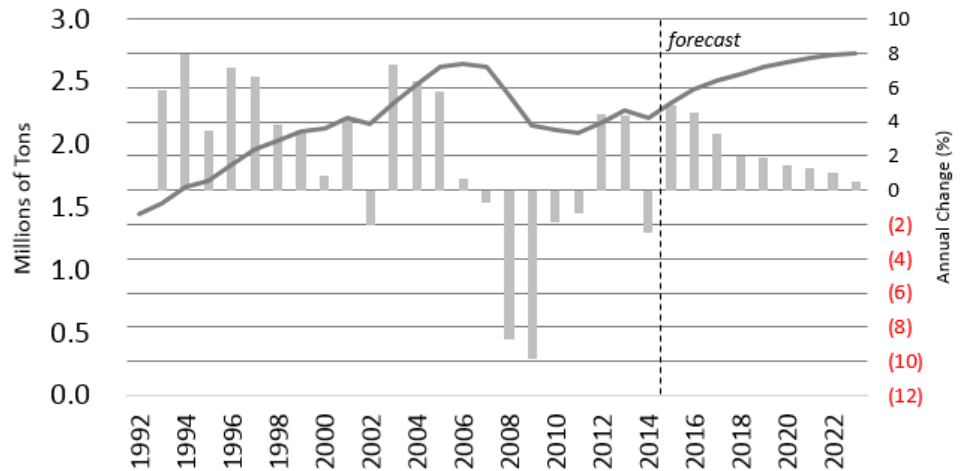


Source: US Census Building Permits Survey; Oregon Office of Economic Analysis

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Expectation

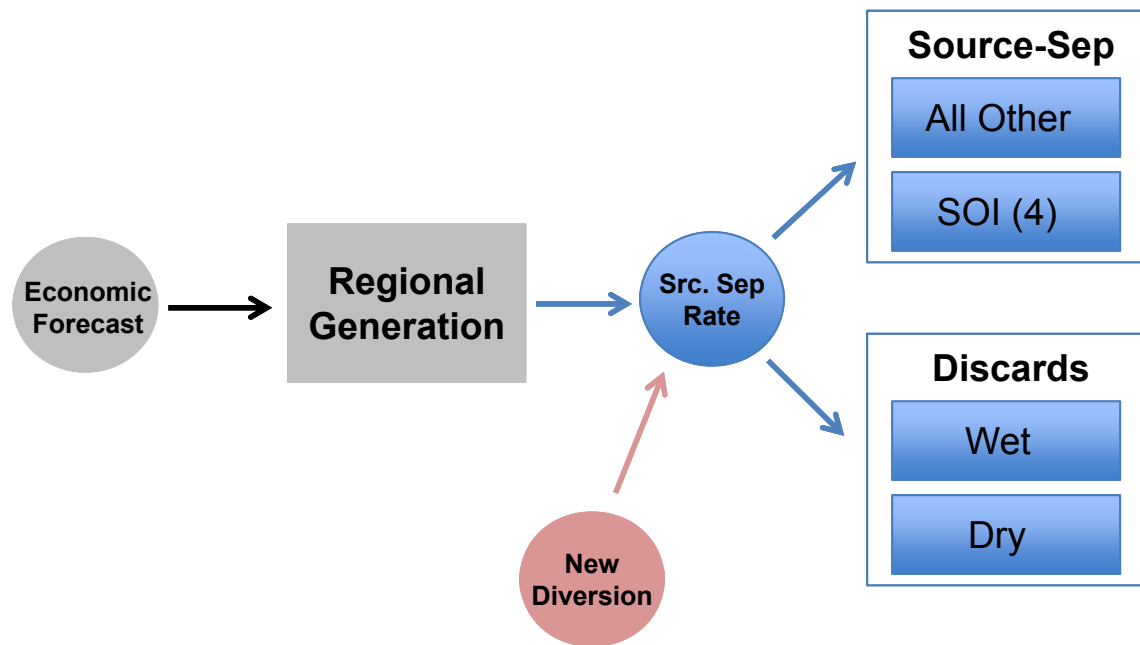
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Tri-County Generation



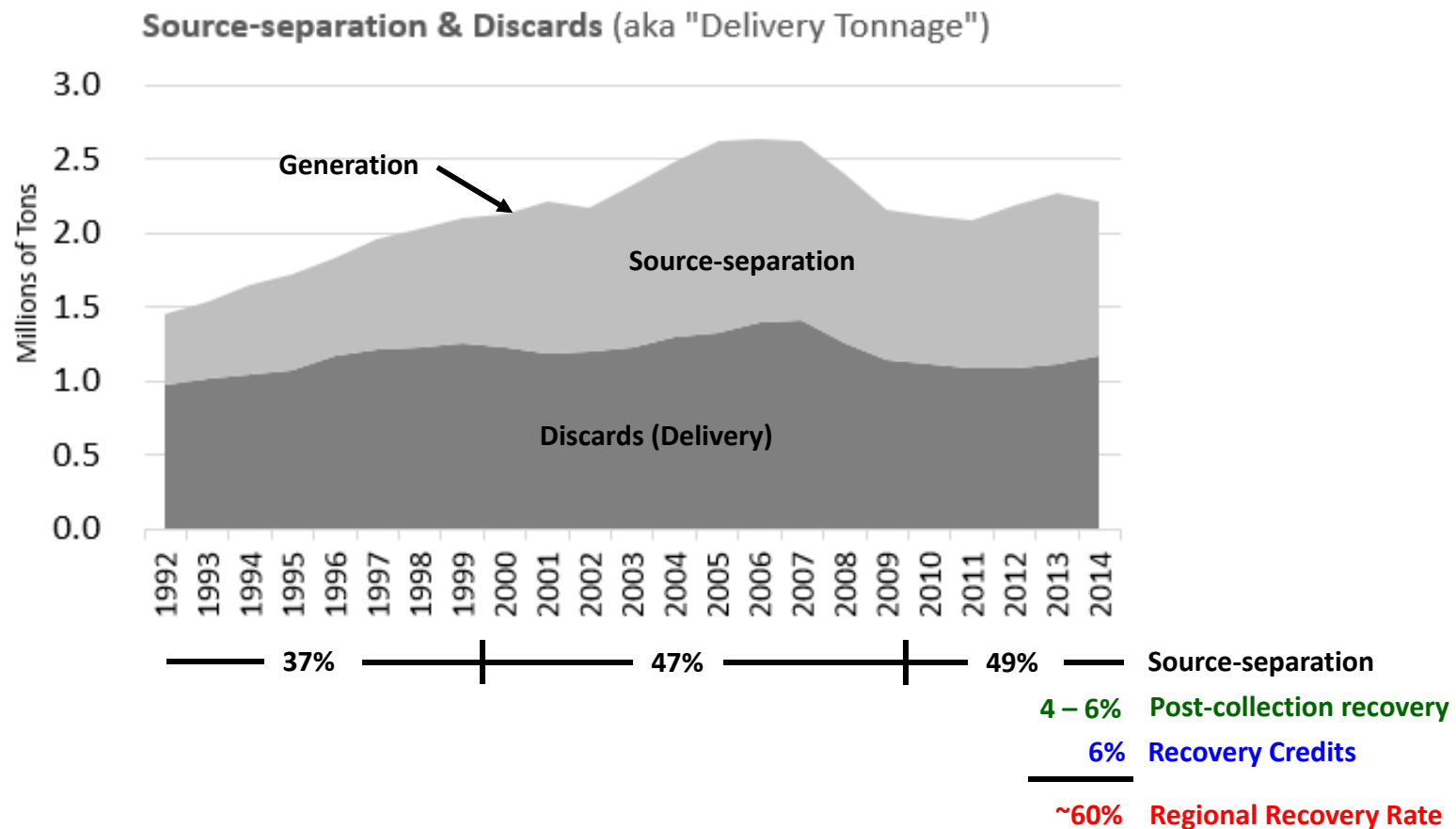
Methods & Assumptions

Source-separation & Discards



Methods & Assumptions

Source-separation & Discards



Methods & Assumptions

Source-separation & Discards

New Residential FW/YD Programs

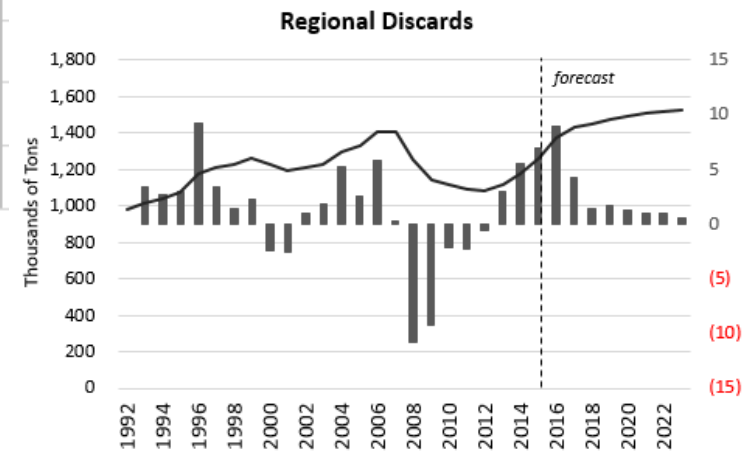
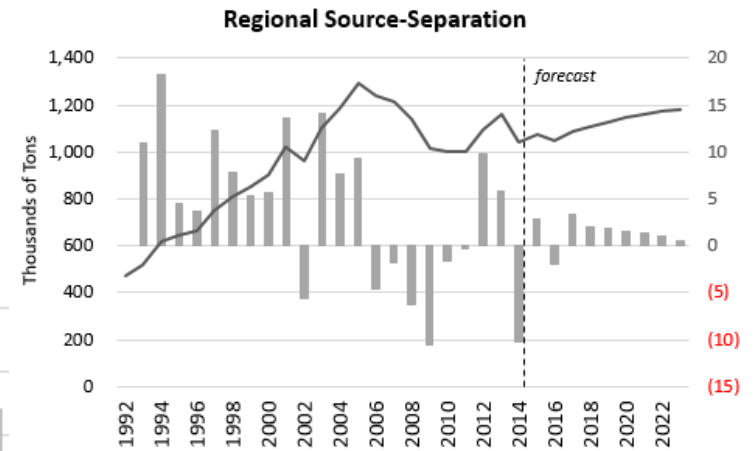
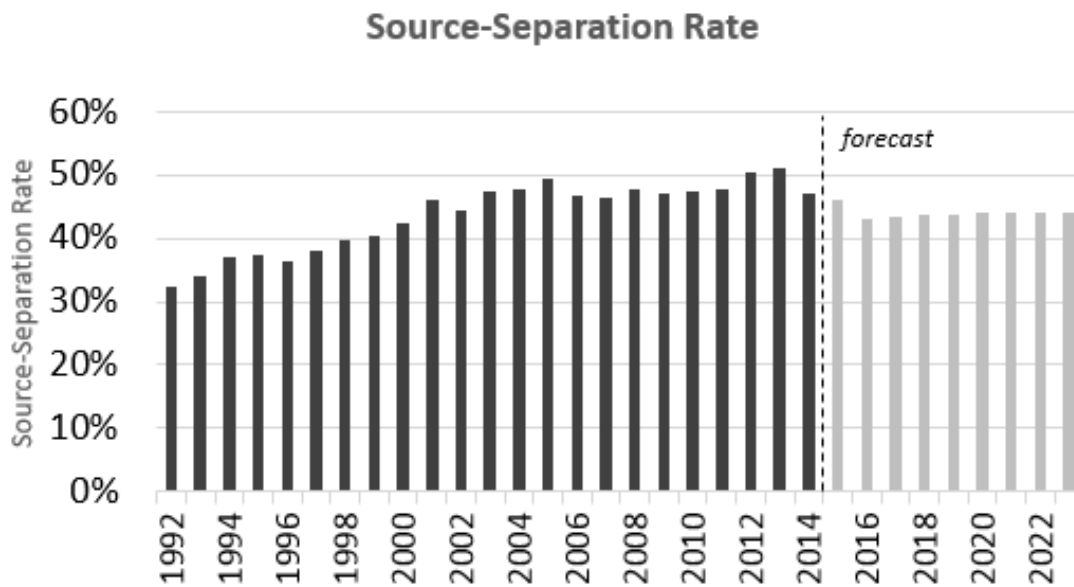
- Recent programs – Cities of Forest Grove, Lake Oswego
- Likely programs – Cities of West Linn, Gresham, and WA County
- 3,400 tons per year additional diversion – by CY 2018

New Commercial FW Programs

- Metro program under development
- City of Portland program – Spring 2018 (Phase 1) – Spring 2021 (Phase 4)
- 23,000 tons per year additional diversion – by CY 2021/22

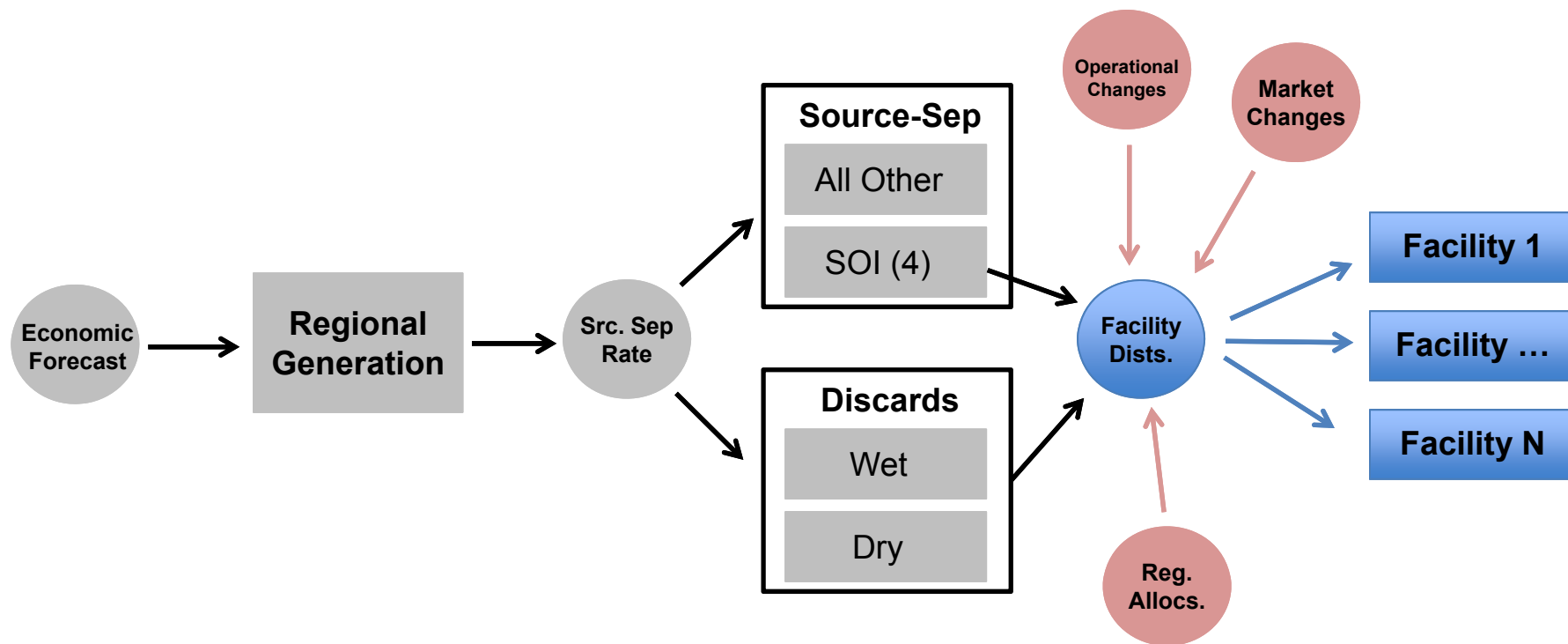
Methods & Assumptions

Source-separation & Discards



Methods & Assumptions

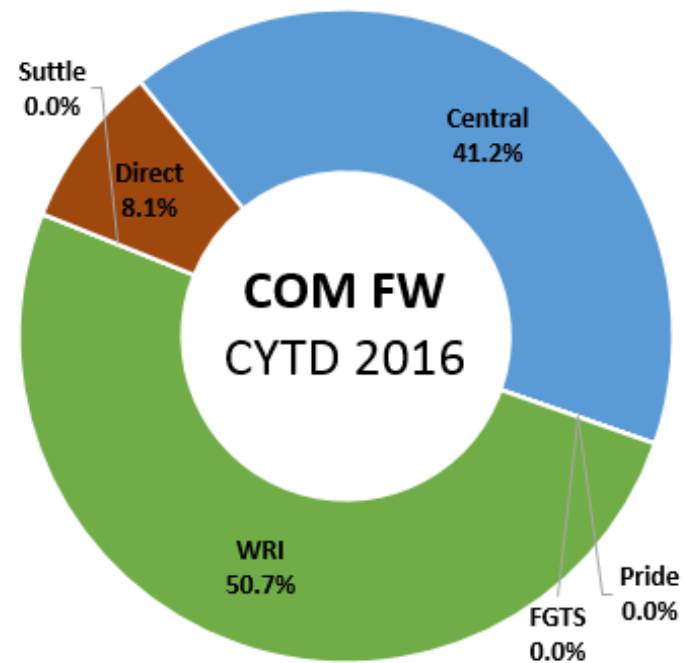
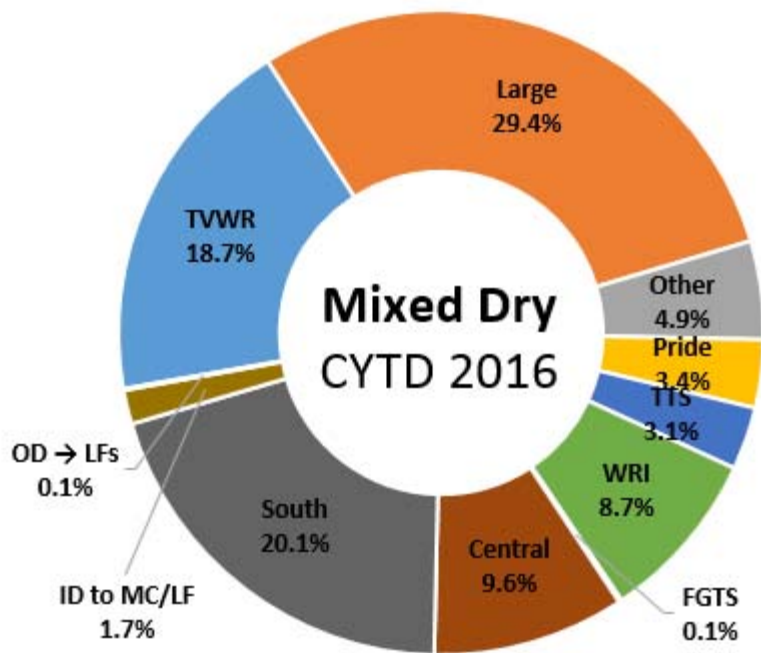
Facility distributions



Methods & Assumptions

Facility distributions

Status Quo for Mixed Dry and Commercial FW



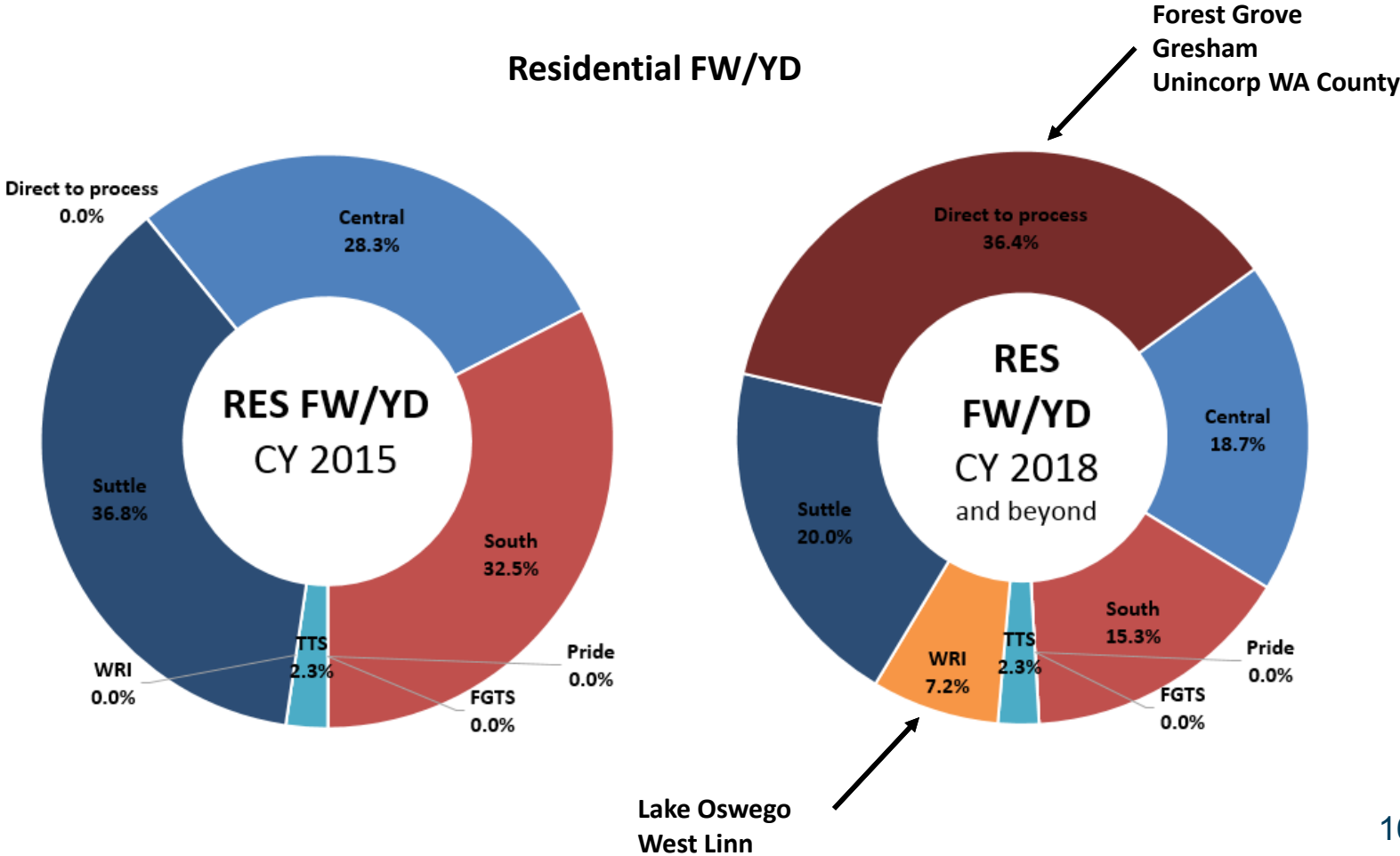
MRF Categories

- Large (ECR, Greenway, Suttle)
- Other (Aloha, CORE, KB, NW Shingle(s), Foster)

Methods & Assumptions

Facility distributions

Residential FW/YD



Methods & Assumptions

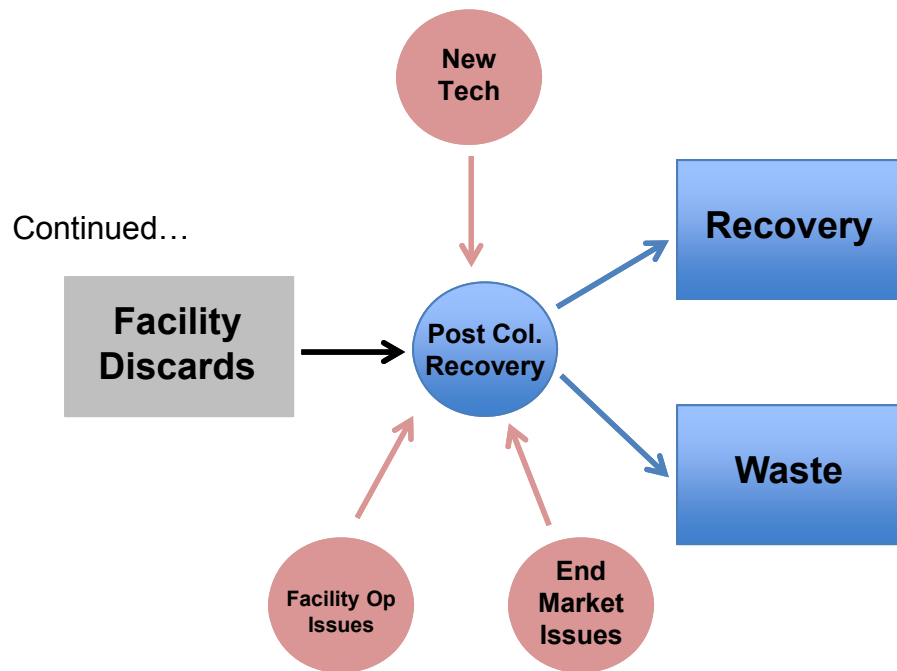
Facility distributions

Putrescible

	CY 2015		CY 2017			CY 2018 - CY 2023
	Percentage		Allocatable	Allocation	Resulting %	
Based on Percentage						
Pride	10.69 %	X	724,649	= 77,435	10.69 %	●————→
TTS	10.69 %	X	724,649	= 77,435	10.69 %	●————→
WRI	10.69 %	X	724,649	= 77,435	10.69 %	●————→
Based on Tonnage						
FGTS	---	--	---	125,000		●————→
New TS/Gresham	---	--	---	23,000	3.17 %	●————→
New TS/CORE	---	--	---	1,000	.14 %	●————→
Direct to Vancouver	---	--	---	30,119	4.16 %	●————→
Direct to Canby	---	--	---	16,600	2.29 %	●————→
Direct to Covanta	---	--	---	1,680	.23 %	●————→
Direct to Landfill	---	--	---	180	.03 %	●————→

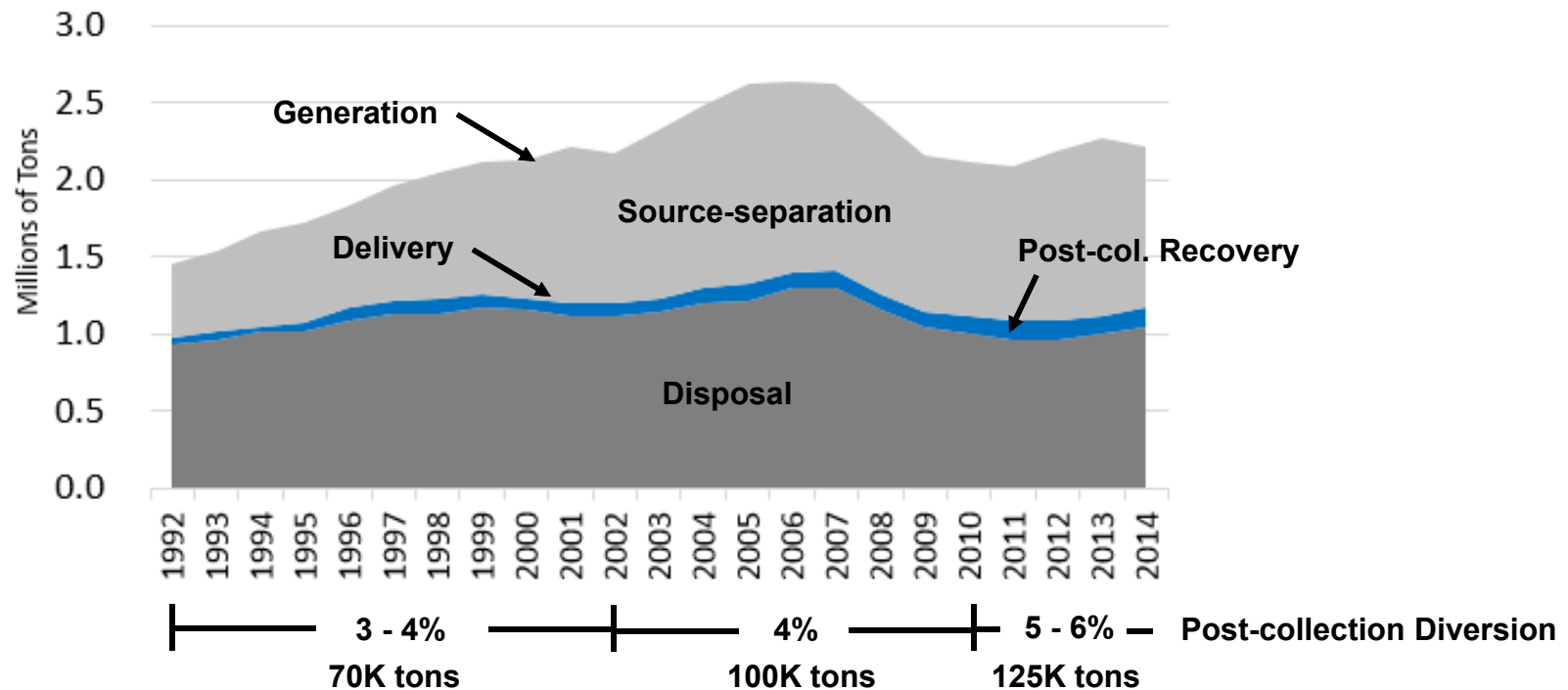
Methods & Assumptions

Post-collection Recovery



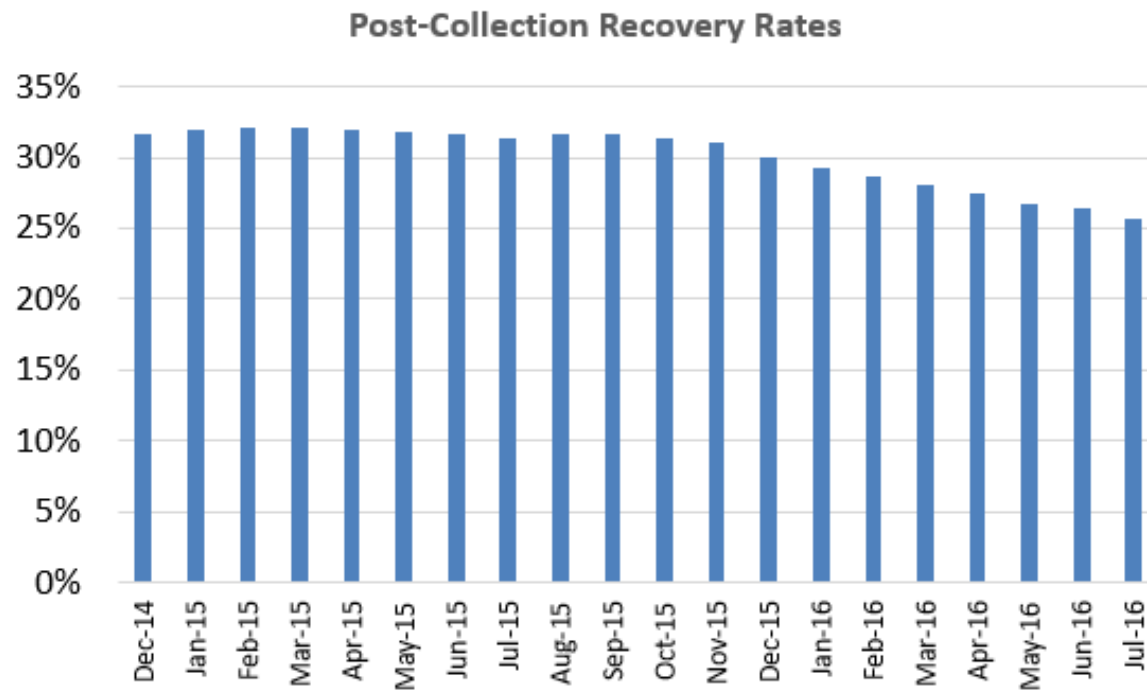
Methods & Assumptions

Post-collection Recovery



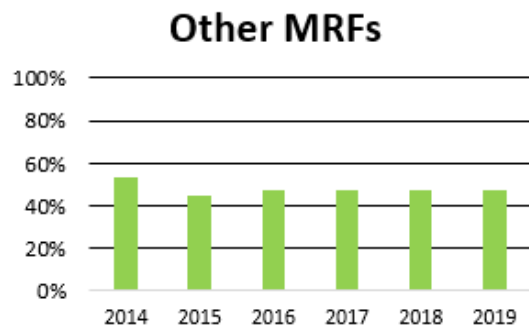
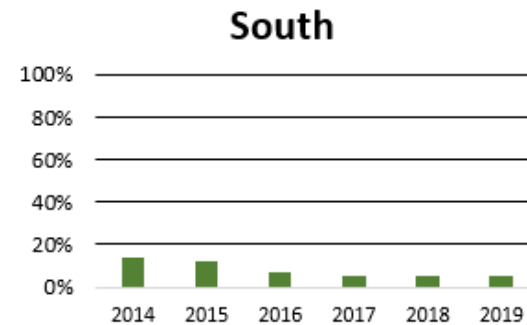
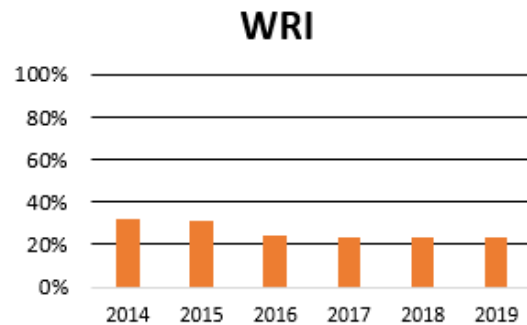
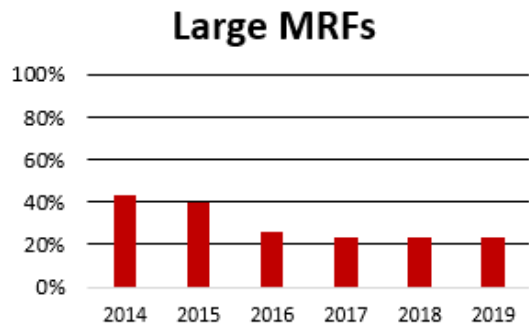
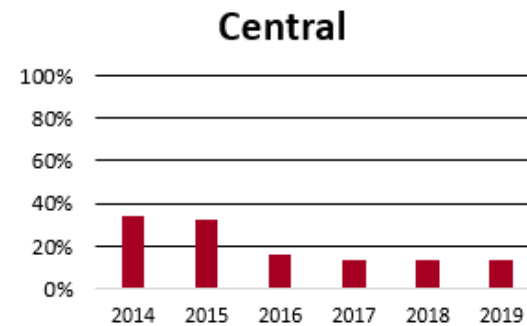
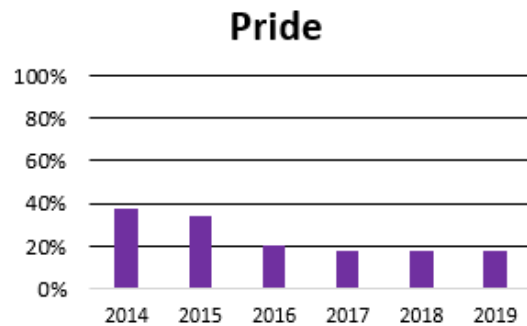
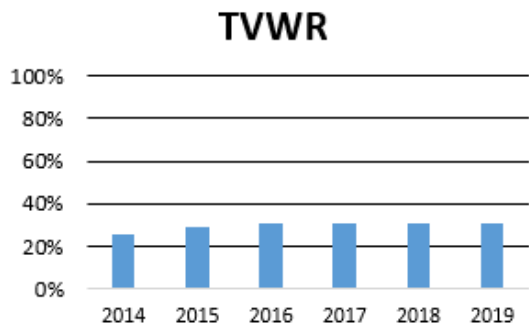
Methods & Assumptions

Post-collection Recovery



Methods & Assumptions

Post-collection Recovery



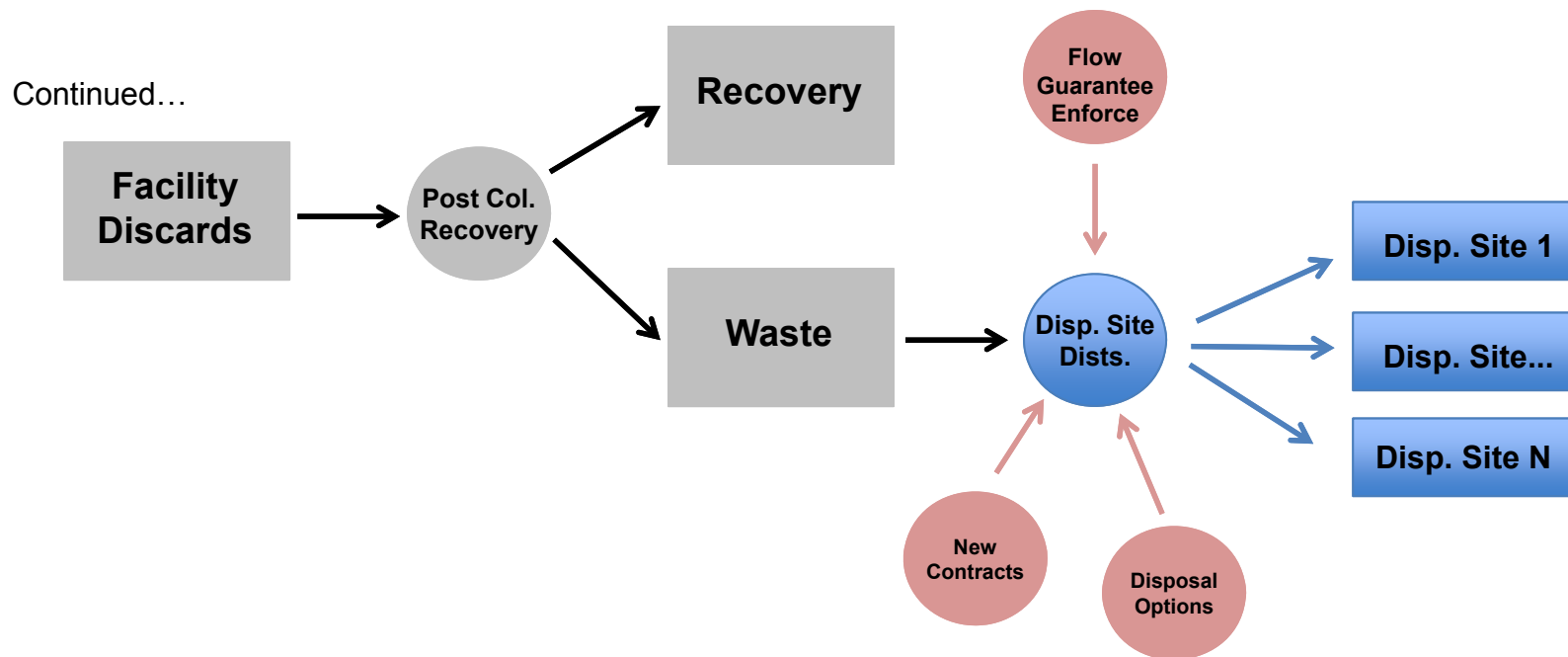
Notes

Large (ECR, Greenway, Suttle)

Other (Aloha, CORE, KB, NW Shingle(s), Foster)

Methods & Assumptions

Disposal



Methods & Assumptions

Main Assumptions

- Status quo assumed (Riverbend/Columbia Ridge an option, Waste Management disposal contractor, Flow Guarantee enforced)
- Cowlitz County Landfill comes into mix for waste
- Flow Guarantee excludes private waste post-2019

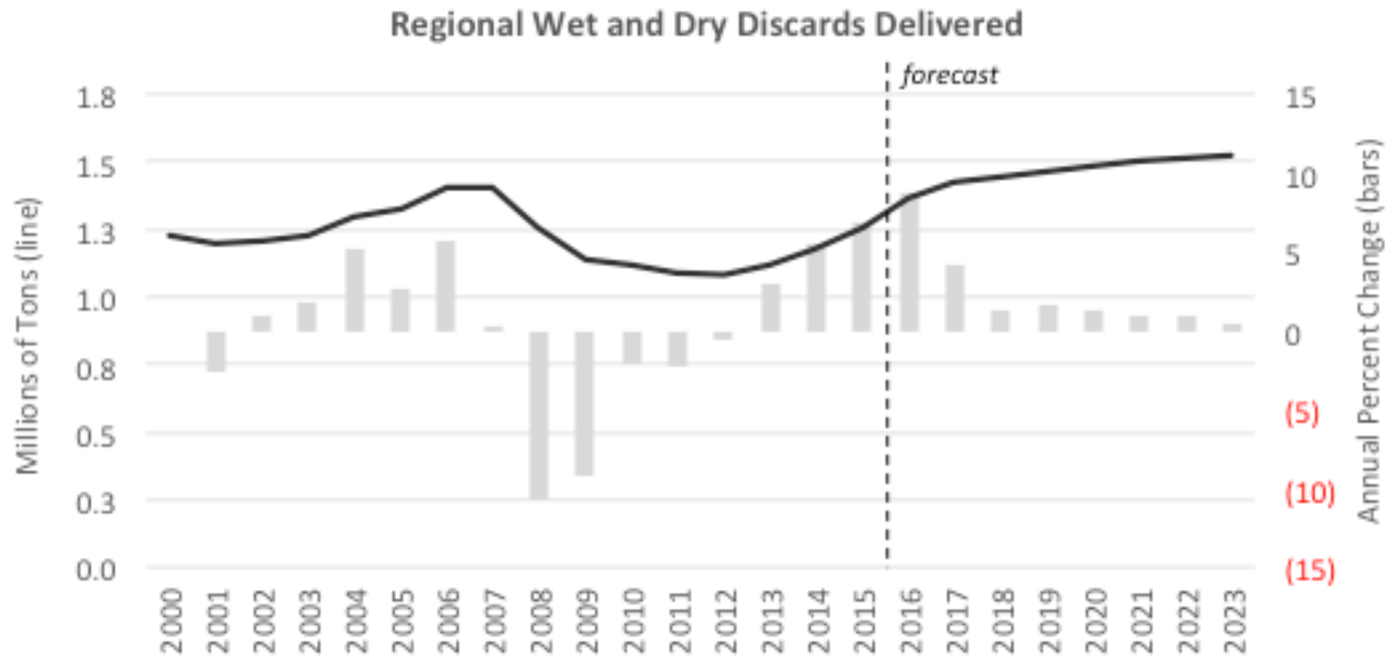
Results

Tonnage Focus Areas

- Model produces over 40 time series
- Tonnage focus areas:
 1. Core delivery tonnage (wet and dry discards)
 2. Revenue tonnage (discards subject to solid waste fees and taxes)
 3. Wet allocatable tonnage

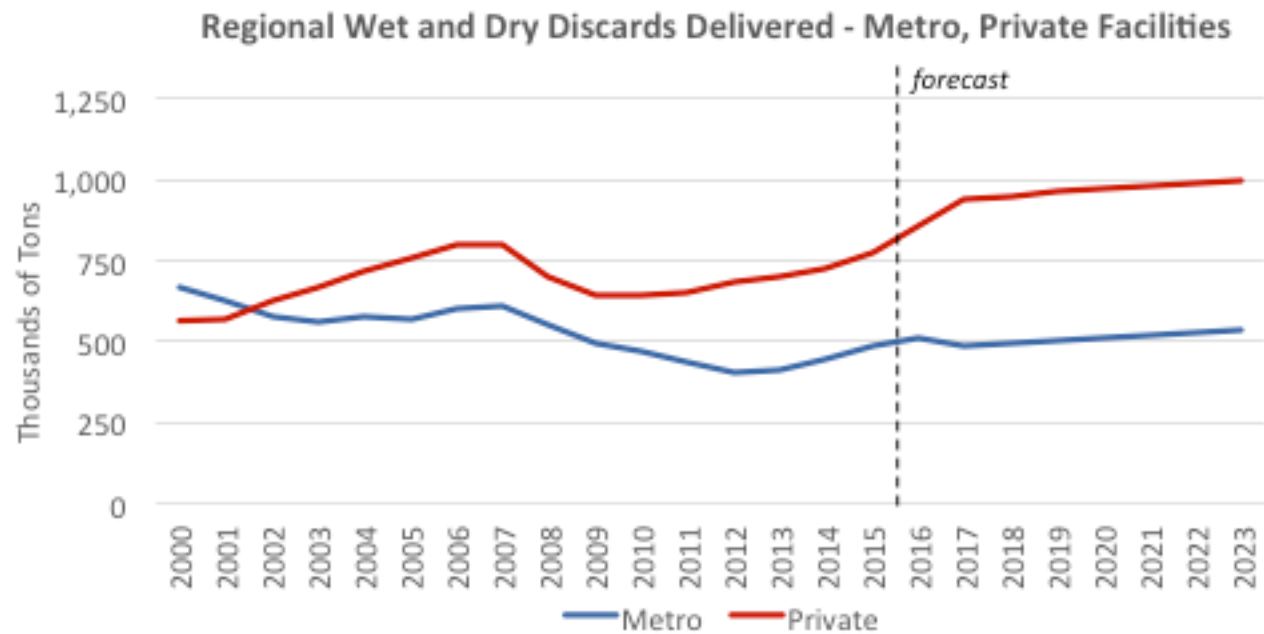
Results

Core Delivery Tonnage



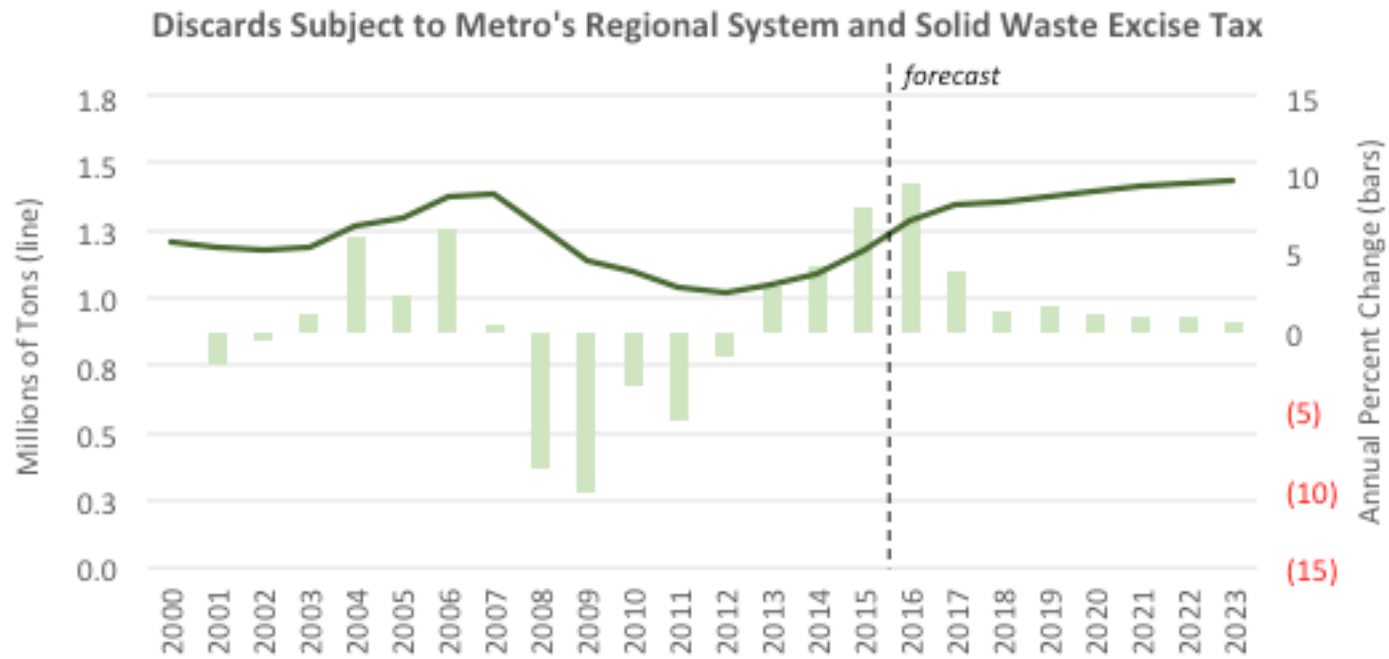
Results

Core Delivery Tonnage



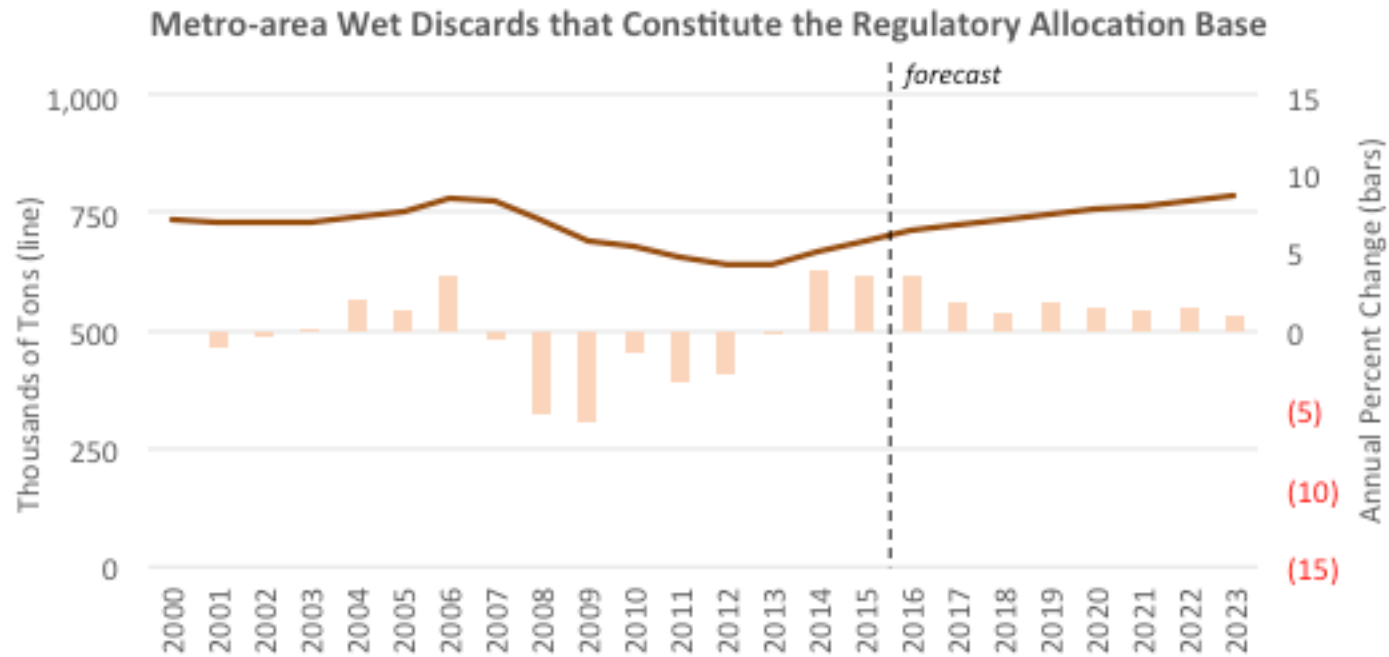
Results

Revenue Tonnage



Results

Allocation Tonnage



Summary

- Economy grows but slower in 2017 and beyond
- Generation growth shifts to long-run trend growth
- Additional food source-separation minimal and comes later in 2018
- Post-collection recovery declines stabilize mid-2017
- Discards continue strong near-term growth, then slower growth



Questions?

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Garbage and recycling

Land and transportation

Oregon Zoo

Parks and nature

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