Council work session agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Tuesday, July 16, 2019 **2:00 PM** **Metro Regional Center, Council Chamber**

2:00 Call to Order and Roll Call

2:05 Safety Briefing

Work Session Topics

2:10 Clean Air Construction Standard 18-5249

Presenter(s): Tracy Fisher, Metro
Jenna Garmon, Metro

Attachments: Work Session Worksheet
Clean Air Construction Standard
Clean Air Construction Standard Background Summary

2:30 Regional Solid Waste System Infrastructure 18-5250

Presenter(s): Roy Brower, Metro

Attachments: Work Session Worksheet
Rate Setting Criteria

3:00 Chief Operating Officer Communication

3:05 Councilor Communication

3:10 Adjourn

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ការគោរពសិទ្ធិពលរដ្ឋរបស់ ។ សំរាប់ព័ត៌មានអំពីកម្មវិធីសិទ្ធិពលរដ្ឋរបស់ Metro ឬដើម្បីទទួលពាក្យបណ្តឹងរើសអើងសូមចូលទស្សនាគេហទំព័រ www.oregonmetro.gov/civilrights។
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February 2017

Clean Air Construction Standard
Work Session Topics

Metro Council Work Session
Tuesday, July 16, 2019
Metro Regional Center, Council Chamber

CLEAN AIR CONSTRUCTION STANDARD

Date: July 2, 2019

Department: PES, FRS

Meeting Date: July 16, 2019

Prepared by: Jenna Garmon, x1649, jenna.garmon@oregonmetro.gov and Tracy Fisher, x7596, tracy.fisher@oregonmetro.gov

Presenter(s) Jenna Garmon, Tracy Fisher
Length: 20 min.

ISSUE STATEMENT

Pollution from diesel exhaust poses a threat to the health of people living and working in the greater Portland area. Diesel pollution is presently at unhealthy levels; in some areas, like near freight corridors, rail yards or construction sites, diesel pollution levels are over 10 times higher than state health benchmarks. Clackamas, Multnomah and Washington counties rank in the top 5 percent of all counties nationwide for ambient diesel particulate concentrations. The majority of diesel pollution in our region comes from nonroad construction equipment. Although newer diesel engines have pollution controls that minimize diesel emissions, older dirty diesel engines are still prevalent due to their long lifespan.

To address this issue and improve air quality in greater Portland, staff from Metro have been participating in a regional collaborative with partners from the City of Portland, Multnomah County, Washington County, Clackamas County, Port of Portland and Trimet. The Clean Air Construction Collaborative (Collaborative) has collectively developed a Clean Air Construction Standard (Standard) that would require cleaner equipment and vehicles to be used on public construction projects to reduce diesel pollution.

To date, the City of Portland and Multnomah County have adopted the Standard; other partner agencies are at various stages of adoption. The Collaborative is currently developing a framework for administering and implementing the Standard at a regional level, as well as collaborating in pursuit of grant funding to provide support for COBID-certified firms to comply with the Standard.

ACTION REQUESTED

Staff requests Council guidance on adoption of a Clean Air Construction Standard for Metro projects.

At this work session, staff will present an overview of the regional work to develop a Clean Air Construction Standard and the status of work done to date to consider how that Standard might be applied to Metro projects.

If Council provides direction to proceed with development of a Standard, then staff will bring a proposed final version to Council for consideration for adoption later this year.

IDENTIFIED POLICY OUTCOMES

Council direction to date on reducing diesel emissions has come from Council letters of support for the Clean Air Construction Standard and Metro's *Sustainability Plan for Internal Operations* and *Strategic Plan to Advance Racial Equity, Diversity and Inclusion*.

Council letters of support

In February 2019, Councilor Chase sent a letter of support for the Professional Business Development Group's application for the Environmental Protection Agency's Diesel Emission Reduction Act grant funds for 2019. These grant funds would be used to replace equipment and trucks owned by minority and women owned businesses to help them comply with the Standard.

In March 2019, Council President Peterson sent a letter of support to Portland Mayor Wheeler in support of the City's proposal to serve as the lead agency in administering the Standard, and stating Metro's intent to adopt the Standard by the end of the calendar year.

Metro Sustainability Plan

Metro's adopted Sustainability Plan for internal operations (2010) identifies the following actions related to diesel emissions in support of the climate and toxics reductions goals:

> *Climate Action 2.2 Reduce emissions from the consumption of carbon-intensive fuel related to business operations by adopting sustainable fuel use standards. Standards should include:*
>
> - *Provisions for back-up generators, heavy equipment, offroad vehicles and other equipment;*
> - *Idle reduction policy for fleet and contractors;*
> - ***Diesel emission standards for off-road equipment based on EPA's Tier system, and retrofit or replace equipment to meet those standards; and***
> - *Fuel efficiency standards for fleet vehicles and increased use of alternative fuels where available.*
>
> *Toxics Action 2.3 Adopt diesel particulate matter (PM) reduction strategies for internal operations and on Metro property.* ***Include idle reduction policy and require use of diesel PM control technology for all diesel-burning equipment.***

Strategic Plan to Advance Racial Equity, Diversity and Inclusion

Environmental justice communities, including communities of color and low-income populations, experience a disproportionate burden of exposure to diesel pollution in the Portland Metro area because they often live and work in areas with higher pollution levels. **Goal E – Metro's resource allocation advances racial equity** directs Metro to "create and implement policies and procedures to ensure that its resources and investments advance racial equity". Reducing diesel emissions on Metro projects will improve health outcomes for those individuals with greatest exposure. In addition, in recognition that COBID-certified firms already face barriers to participation in public contracts, providing support to COBID-certified firms in complying with the Standard is crucial.

POLICY QUESTION(S)

1. Does Council direct staff to tailor the Clean Air Construction Standard for adoption at Metro and continue working with other agencies to develop a regional framework for administering the Standard?

If Council responds "yes" to question 1:

2. Does Council have guidance on the appropriate scope for projects subject to the Standard at Metro?
3. What additional strategies and resources should be pursued to ensure equity goals are reached through the Standard?

POLICY OPTIONS FOR COUNCIL TO CONSIDER

Scope of projects subject to the Standard

One key policy consideration concerns the dollar threshold that would trigger application of the Standard to Metro projects. Following are threshold options that staff have considered and pros and cons of each option, as well as the number of projects that fit within those thresholds over the last three years. The two options below balance the priorities of reducing diesel emissions and reducing contracting barriers for COBID firms.

Scope options:

Threshold	Average # of projects (past 3 FYs)	Pros	Cons
$500,000	8/year average Average value: $1.5 million	• Would be consistent with Multnomah & Washington County thresholds • Would likely apply to fewer COBID firms (unless subs on larger projects) • Allows Metro to ease into requirement; threshold could be lowered over time	• Reduced diesel pollution benefits compared to lower threshold • Would not align with any other procurement thresholds so may add confusion about whether Standard applies to projects
$100,000 for public improvement*; **$150,000** for other construction services*	29/year average Average value: $600,000	• Applies to more projects, so would more comprehensively address diesel pollution • Less confusion around whether Standard applies or not due to alignment with other procurement thresholds	• Potentially higher costs for contractors to comply with Standard (would get passed on to Metro) • Standard might apply to more COBID firms • Higher Metro contribution to regional program administration costs • Would likely require additional staffing support to administer

* These mirror Metro's Formal Procurement thresholds

Support for COBID-certified firms

Another key policy consideration is how the Standard applies to COBID-certified firms and the support made available to COBID firms to comply with the Standard. Compliance may

impose additional costs on contractors to upgrade equipment. The proposed regional framework includes the following elements to assist COBID firms with compliance:

- One method of meeting the Standard includes retrofitting existing equipment; this compliance method is gradually phased out over time. However, after the standard is fully-implemented in 2026, COBID-certified firms may continue to use additional types of emissions control devices on retrofitted equipment.
- The Collaborative is working to secure funding to help COBID-certified firms to retrofit or replace construction equipment and vehicles, including:
    - Volkswagen settlement fund: Oregon is eligible to receive at least $72.9 million in settlement funds earmarked for efforts that reduce the impacts of diesel engines. A bill passed in the 2019 Oregon legislative session explicitly allows the use of these funds for construction diesel engine retrofit, repower or replacement, with particular preference for certified firms.
    - EPA DERA grant funds: This federal program supports projects that reduce diesel emissions. Professional Business Development Group (PBDG), a local organization working to improve conditions in the construction industry by increasing capacity and utilization of COBID firms, has submitted a grant application for $750,000 to replace vehicles and equipment owned by COBID firms. Metro has provided a letter of support for this application.
- Additional program support for COBID-certified firms:
    - more in-person compliance support
    - targeted outreach and engagement
    - grant application support (e.g., mailers, outreach, informational meetings)

Metro could consider implementing these additional support mechanisms:

- Additional financial support options such as:
    - Low-cost financing partnerships with local financial institutions for diesel engine replacements
    - Contributing funds to its own or a centrally-managed fund to provide additional grants
- Additional outreach and/or technical support

STAFF RECOMMENDATIONS

Staff recommends that Council:

1. Direct staff to develop a Clean Air Construction Standard for Metro projects.
2. Support staff's continued engagement in the development of a regional framework for administering the Standard.
3. Support staff working with jurisdictional and organizational partners to encourage adoption of the Standard.

STRATEGIC CONTEXT & FRAMING COUNCIL DISCUSSION

Racial equity goals

Adoption of a Clean Air Construction Standard for Metro projects would impact racial equity in two primary ways:

- *Help to decrease diesel emissions, which have a disproportionate impact on communities of color.* According to a Portland Air Toxics Study, African American

and Latinx populations in the Portland Metro area face up to three times higher exposure rates.

- *Potentially create a barrier for COBID-certified firms to participate in Metro construction contracts.* In recognition that COBID-certified firms already face barriers to participation in public contracts, the framework includes the above-mentioned elements to support COBID firms in complying with the Standard.

Climate action goals

In addition to Metro's *Sustainability Plan for internal operations*, adoption of the Standard aligns with Metro's desired outcome for the region to be a leader on climate. Diesel exhaust is the largest source of black carbon particles in the nation. Black carbon is the second most important global warming pollutant, behind carbon dioxide. Black carbon particles released to the atmosphere absorb heat, increasing air temperatures.

Stakeholder engagement

The Collaborative has completed outreach to stakeholder groups including construction project managers, equipment operators, construction firms including COBID firms, industry associations, environmental organizations, and neighborhood and community groups. See the background document for a full detail of outreach activities.

Anticipated effects

It is anticipated that implementation of this Standard would accelerate the timeline for upgrading diesel equipment and vehicles in the region to cleaner versions, resulting in improvements to air quality and health outcomes in the region.

Financial implications

Adoption of the Standard has financial implications at a project and program level.

- Project: Construction contractors will likely increase project costs to cover their compliance expenditures. An evaluation of 11 public improvement projects subject to similar requirements found that retrofitting costs ranged from 0.06% to 0.57% of contract costs. The Standard includes phased in timelines to allow contractors to plan for needed investments.
- Program: The City of Portland will serve as the lead agency in administering the program for all regional partners, including overall program management and communications, equipment and vehicle registration, regional database development and maintenance, compliance and enforcement, and COBID support. Metro will need to contribute funding toward these regional program administration costs; Metro's contribution will in part depend on the number of Metro projects subject to the Standard.

ATTACHMENTS

- Clean Air Construction Standard
- Background information
- Is legislation required for Council action? **No**
- If yes, is draft legislation attached? **No**

CLEAN AIR CONSTRUCTION STANDARD

DEVELOPED BY THE OREGON CLEAN AIR CONSTRUCTION COLLABORATIVE, NOVEMBER 2018

Applicability & Effective Date

Effective January 1, 2020, the following requirements apply to construction projects that [agency name] solicits and contracts for that are over [enter dollar threshold] and when the funding for the project does not prohibit the [agency name] ability to do so.

Standard Review

The following clean air construction requirements may be updated [add agency process reference]. Specifically, updates may be triggered by changes/developments in 1) availability of emission control technologies, 2) alternative fuel technologies, 3) expanding requirements to address other air pollutants besides diesel particulate matter.

The Clean Air Construction Standard shall be reviewed for effectiveness and updates no later than four years after the initial effective date. Results shall be published on the applicable agency's website and any proposed updates to the Standard vetted through a public stakeholder process.

Idle Reduction Requirements

Beginning January 1, 2020 contractors working on [agency name] construction projects shall take the following steps to reduce unnecessary diesel equipment idling:

- All nonroad diesel equipment must shut down after five (5) minutes of inactivity, and
- All nonroad diesel equipment shall have decals/prompts visible to the operator to remind them to shut down the equipment after five (5) minutes of inactivity, and
- Contractors will post "Five Minute Limit" signs in high foot traffic areas of the job site, visible to workers, and
- Contractors will ensure all diesel equipment operators are aware of the policy.

Exemptions to the above idle reduction requirements are allowed in circumstances where:

- the safety of contractors and their employees may be compromised if diesel equipment is turned off; for example, where employees are working in a trench; or
- the equipment meets the most stringent EPA emissions standards or has been retrofit with a DPF; or
- frequent shutdowns may be detrimental to the exhaust control system, reducing the effectiveness of that system by lowering the exhaust temperature; or
- equipment requires testing, servicing, inspection, or repairs.

Diesel Engine Requirements and Phase-In Schedule

Effective January 1, 2021 and in accordance with the phase-in schedule outlined below all diesel-powered nonroad construction equipment greater than 25 horsepower and all on-road diesel dump trucks and cement mixers used on [agency name] construction projects must meet the following requirements:

Effective Date of Diesel Engine Requirement	Nonroad Diesel (over 25hp)	On-Road Diesel (cement mixers and dump trucks)
January 1, 2020	No Idling	
January 1, 2021	No tier 0 engines allowed[1]	
January 1, 2022	No tier 1 engines allowed[1]	
January 1, 2023	No tier 2 engines allowed[1]	
January 1, 2024	No tier 3 engines allowed[1,2]	No pre-2007 engines[1,2]
January 1, 2025	Tier 4 only[1,2]	
January 1, 2026	Tier 4 only[3]	No pre-2007 engines[3]

[1]Diesel engine retrofits (emission control devices) allowed on older equipment/vehicles following the Compliance Options Protocol provided herein.
[2]No new DOC emission control devices allowed. Equipment retrofitted with DOC emission control devices prior to 2024 are allowed.
[3]No older equipment/vehicles allowed unless it was retrofitted with a DPF prior to 2026. Exemption: construction firms that are certified by the State of Oregon Certification Office for Business Inclusion and Diversity (COBID) may use equipment/vehicles retrofitted with a DPF or DOC prior to 2024 and 2026 (for DPFs).

Contractors may apply for exemptions to the above diesel engine requirements on a per project basis in circumstances where:

- The equipment/vehicle is required for an emergency (including for underground equipment operators).
- After following the Compliance Options Protocol, the required emission control device would obscure operator lines of sight or otherwise impact worker safety or the equipment is not able to be retrofit with a verified emission control device; and no compliant rental equipment is available within 100 miles of the job site.
- After following the Compliance Options Protocol, the contractor can demonstrate that due to the uniqueness of the equipment/vehicle or similar special circumstances, it is not reasonable to comply with the diesel engine requirement for a specific piece of equipment/vehicle.

Compliance and Verification
Contractors (prime and sub-contractors, and applicable suppliers) will demonstrate compliance with the Clean Air Construction Standard on an annual basis by providing to the [agency name], or approved program operator, all requested diesel equipment/vehicle information needed to verify compliance, including confirmation that retrofit devices are maintained on the equipment in proper operating condition. Upon determining compliance with the requirements, the [agency name], or approved program operator, will issue an equipment/vehicle decal for each compliant piece of equipment/vehicle. This decal must be displayed on the compliant equipment/vehicle at all times in a location readily visible

to [agency name] staff. In addition, random on-site inspections by [agency name] staff (or approved program operator) will be conducted on a project by project basis.

Compliance Options Protocol

Compliance with the Diesel Engine Requirements contained herein will be determined according to the following protocol:

Protocol Step	Question(s)	Answer	Action
1	Is the nonroad equipment over 25hp? Is the on-road vehicle a cement mixer or dump truck?	YES	Go to Step 2
		NO	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
2	Is the equipment/vehicle required for an emergency? (including for underground equipment operators)	YES	Request Exemption
		NO	Go to Step 3
3	Is the equipment/vehicle powered by electricity or alternative (non-diesel) fuel?	YES	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
	Is the diesel cement mixer or dump truck 2007 or newer? Does the diesel nonroad equipment utilize only a Tier 4 engine(s)?	NO	Go to Step 4
4	Can the equipment/vehicle be repowered or retrofit with a CARB or EPA verified DPF or equivalent?[1]	YES	Repower or retrofit equipment and obtain compliance verification.
		NO	If 2023 or earlier, go to Step 5 If 2024 or later, go to Step 6.
5 (pre-2024)	Can the equipment/vehicle be retrofit with a CARB or EPA verified emissions control device other than DPF (or equivalent)?[1]	YES	Retrofit equipment with an emission control device that maximizes diesel particulate matter emission reduction. Obtain compliance verification.
		NO	Go to Step 6
6	Is compliant rental equipment available within 100 miles of the job site?	YES	Rent equipment and obtain compliance verification.
		NO	Request Exemption.
[1]Equivalent is defined as achieving the same level (within 10%) of diesel particulate matter (PM) emissions reduction as a DPF.			

Terms/Definitions

CARB: California Air Resources Board, a state regulatory agency charged with regulating the air quality in California.

Diesel Particulate Matter – the solid or liquid particles found in the air released through the exhaust from diesel vehicles/equipment. Exposure to diesel particulate matter increases the risk of heart attack, stroke, cardiovascular disease, exacerbates asthma, and can lead to low-weight and pre-term births. Diesel particulate matter is also a known as a human carcinogen as determined by the International Agency for Research on Cancer.

DOC: Diesel oxidation catalyst. A device designed to reduce harmful diesel emissions such as carbon monoxide, hydrocarbons and certain diesel particulate emissions.

DPF: Diesel particulate filter. A device designed to trap all diesel particulate matter above a certain size.

Emission Control Device: technology added to equipment to reduce harmful emissions. These may include catalytic converters and particulate filters, among other technologies. For the purpose of this policy, all emission control technology must be verified by the EPA or CARB.

EPA: U.S. Environmental Protection Agency, a federal regulatory agency charged with regulating the environment.

EPA Nonroad Emission Ratings/Tiers

Nonroad Diesel Emission Ratings (EPA)								
ENGINE MODEL YEAR	HORSEPOWER RANGE							
	25-49	50-74	75-99	100-174	175-299	300-599	600-750	750+
1995	**T0**	**T0**	**T0**	**T0**	**T0**	**T0**	**T0**	**T0**
1996	**T0**	**T0**	**T0**	**T0**	**T1**	**T1**	**T1**	**T0**
1997	**T0**	**T0**	**T0**	**T1**	**T1**	**T1**	**T1**	**T0**
1998	**T0**	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**	**T0**
1999	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**	**T0**
2000	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**	**T1**
2001	**T1**	**T1**	**T1**	**T1**	**T1**	**T2**	**T1**	**T1**
2002	**T1**	**T1**	**T1**	**T1**	**T1**	**T2**	**T2**	**T1**
2003	**T1**	**T1**	**T1**	**T2**	**T2**	**T2**	**T2**	**T1**
2004	**T2**	**T2**	**T2**	**T2**	**T2**	**T2**	**T2**	**T1**
2005	**T2**	**T2**	**T2**	**T2**	**T2**	**T2**	**T2**	**T1**
2006	**T2**	**T2**	**T2**	**T2**	**T3**	**T3**	**T3**	**T2**
2007	**T2**	**T2**	**T2**	**T3**	**T3**	**T3**	**T3**	**T2**
2008	**T4a**	**T4a**	**T3**	**T3**	**T3**	**T3**	**T3**	**T2**
2009	**T4a**	**T4a**	**T3**	**T3**	**T3**	**T3**	**T3**	**T2**
2010	**T4a**	**T4a**	**T3**	**T3**	**T3**	**T3**	**T3**	**T2**
2011	**T4a**	**T4a**	**T3**	**T3**	**T4a**	**T4a**	**T4a**	**T4a**
2012	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**
2013	**T4b**	**T4b**	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**	**T4a**
2014	**T4b**	**T4b**	**T4a**	**T4a**	**T4b**	**T4b**	**T4b**	**T4a**
2015	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**
2016	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**
2017	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**

2018	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**
2019	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**
2020	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**	**T4b**

Nonroad: Construction equipment and vehicles that fall under the EPA non-road engine equipment category, which includes all diesel equipment not intended for highway use. For the purpose of this policy, these vehicles/equipment include only diesel construction vehicles/equipment with engines larger than 25 horsepower, which includes tractors, excavators, dozers, scrapers and other construction vehicles/equipment.

CLEAN AIR CONSTRUCTION STANDARD – BACKGROUND INFORMATION

Need for a clean diesel standard

Everyone deserves to breathe healthy air. However, in the Portland metro area, the air is unhealthy to breathe because of the presence of fine and ultra-fine particulate matter from older dirty diesel engines. Clackamas, Multnomah, and Washington counties rank in the top 5 percent of all counties nationwide for ambient diesel particulate concentrations and have the highest exposure rate of all counties in Oregon. In some areas, like near freight corridors, rail yards or construction sites, levels of diesel pollution are over 10 times Oregon health benchmarks. Off-road equipment, primarily construction equipment, is responsible for 65 percent of diesel particulate matter in the Portland area. Children are especially vulnerable because their lungs are still in the developmental phase and they breathe, on average, 50 percent more air per pound of body weight than adults do.

According to the Oregon Department of Environmental Quality (DEQ) study, The Concerns about Diesel Exhaust, diesel engines are disproportionate emitters of fine particulate matter. Exposure to diesel engine exhaust can cause cancer, increase the risk of heart attack, stroke and cardiovascular disease, cause adverse nervous system impacts, exacerbate asthma, and can lead to low-weight and preterm births. The levels of diesel pollution in Oregon have significant public health impacts; a snapshot of annual impacts include:

- Up to 460 premature deaths,
- 145 non-fatal heart attacks, and
- 25,910 work loss days.

The monetized value of health impacts in Oregon exceeds $3 billion annually. Reducing diesel particulate pollution would yield approximately a 10:1 return in human health benefits per dollar invested in off-road engines, according to U.S. EPA's Diesel Emissions Quantifier Health Module.

The harms associated with diesel exhaust are not distributed evenly; environmental justice communities, including communities of color and low income populations, experience a disproportionate burden of exposure to diesel pollution because they often live and work in areas with higher pollution levels, such as near busy truck and bus routes, areas of chronic traffic gridlock, freight terminals and construction sites. Using DEQ air quality modeling data, an assessment by Multnomah County determined that African American and Latinx populations in the Portland Metro area face up to three times higher exposure rates.

Fortunately, solutions are available. Diesel trucks and heavy equipment built today are up to 99 percent cleaner than earlier models because of Federal regulation. EPA pollution control standards for on-road trucks with engines built after 2007, and off-road, Tier 4 equipment available in the marketplace beginning in 2008, have resulted in very low-emitting engines that are considered "clean". For existing engines, techniques are available to reduce emissions, including cleaner fuel and modifying vehicle operations, such as idling

reduction. The most cost-effective approach is to install emission control devices, which are typically done as a muffler replacement.

Many jurisdictions across the country have procurement standards that require cleaner construction equipment on their publicly funded projects. The Clean Air Construction Collaborative hired a consultant to evaluate 14 of these programs to better understand clean diesel construction procurement standards and determine best practices. This research informed development of the Clean Air Construction Standard.

In addition, the City of Portland and Multnomah County co-funded an air quality feasibility study in 2018 to perform an in-depth assessment of various strategies actionable by local government to address Portland metro's air quality issues. A top recommended action in the study was to implement diesel engine specifications for public construction projects.

Survey of Diesel Trucks and Equipment Owned by COBID Firms in the Portland Area

The cleaner equipment and vehicles required by this standard represent a capital investment for businesses owning older diesel equipment, especially for COBID firms. To gain a better understanding of the potential impacts to COBID firms and inform policy development, the Collaborative contracted with Professional Business Development Group (PBDG) to conduct a survey to determine the emission status of diesel vehicles and equipment owned by construction firms in its membership. The survey results, covering 14 firms, showed that of the 70 pieces of nonroad equipment, 48.6% (34) were Tier 4 or Tier 4i engines; 34% (24) were either Tier 2 or Tier 3, and 17% (12) were either Tier 0 or Tier 1. This indicates that just under half of the equipment already complies with the highest requirements in the Standard. The COBID connections and information collected as part of this survey were also used by PBDG to submit a proposal for $750,000 in funds from the EPA to replace vehicles and equipment.

Stakeholder engagement

The Collaborative has completed outreach to stakeholder groups including construction project managers, equipment operators, construction firms including COBID firms, industry associations, environmental organizations, and community and neighborhood groups. The Collaborative held a large stakeholder meeting on August 22, 2018 to take feedback on the proposed approach. The proposed contracting standard was revised based on stakeholder feedback at the Portland City Council hearing on Resolution 37387 in September 2018. In addition, the City of Portland and Multnomah County solicited public comments over a two week period in November 2018. 138 comments were received: 98% in support (with 39% calling for accelerated and additional action); and 2% opposed the Standard.

There has been significant public pressure on government entities to take action to improve local air quality. Community organizations such as Oregon Environmental Council Neighbors for Clean Air and Portland Neighbors for Diesel Action are supportive of local governments taking leadership on this issue, although they strongly advocate for an accelerated timeline for implementation.

Regulation of diesel emissions on public projects was opposed by members of the contracting community, although they acknowledge regulation of diesel emissions will ultimately occur. They advocated for an approach that keeps a level playing field across the region for contractors bidding on jobs, provides a long enough lead time to plan for equipment upgrades and provides financial resources to support COBID-certified firms. This input informed development of the Clean Air Construction Standard.

The proposed Standard balances the health and environmental concerns raised by stakeholders by lowering the equipment horsepower threshold to 25hp to include more equipment, while phasing in the standards over seven years to allow the contracting community to plan ahead for investments and spread out costs. In addition, the proposed standard includes extended compliance timelines and flexibility for COBID certified firms.

Metro staff plans to engage further with local environmental justice communities, informed by the racial equity analysis. Metro staff also plans to conduct additional outreach to contractors with particular emphasis on COBID-certified contractors and smaller firms. Outreach activities may include:

- Direct communication to existing and prospective Metro contractors
- Utilizing existing networking channels (e.g., OAME, NAMC, PBDG, etc.)
- Metro's annual Small Business Open House

Regional Solid Waste System Infrastructure
Work Session Topics

Metro Council Work Session
Tuesday, July 16, 2019
Metro Regional Center, Council Chamber

REGIONAL SOLID WASTE SYSTEM INFRASTRUCTURE

Date: July 2, 2019

Prepared by: Tom Chaimov, 503-797-1681, tom.chaimov@oregonmetro.gov

Department: Property and Environmental Services

Presenter: Roy Brower

Meeting Date: July 16, 2019

Length: 30 minutes

ISSUE STATEMENT

At the June 11 Council Work Session, staff presented a concept for solid waste system modernization by way of investment in multiple new public solid waste facilities across the Metro region to address shortages in adequate and equitable access and services. This need for new investment is driven by a decades-old system of facilities, with a growing population and demand for services that outstrip current facilities' capacity to provide. Metro Council voiced support, in concept, to the proposed public investment direction. Such investment will require a financing strategy that follows best practices and principles.

ACTION REQUESTED

Staff requests Council direction on refinement of financing strategies for solid waste system investments.

IDENTIFIED POLICY OUTCOMES

The 2030 Regional Waste Plan was developed through extensive community engagement and creates a framework for action over the next 12 years. The current suite of Metro's garbage and recycling capital projects is guided by the Regional Waste Plan values of:

- Protecting the environment and human health
- Conserving natural resources
- Advancing environmental literacy
- Fostering economic well-being for all
- Ensuring resilience of our garbage and recycling system
- Providing excellent and equitable service

Goals 1 through 4 of the Regional Waste Plan (RWP) speak to shared prosperity in the garbage and recycling system, through increased engagement (Goal 1), local benefit (Goal 2), living wage jobs (Goal 3), and workforce diversity (Goal 4). The RWP does not specifically address financing of the system; however, Metro follows best practices for issuing debt (per Metro's financial policies adopted in Resolution 19-4984), and Metro relies on long-standing rate setting criteria (adopted in Resolution 93-1824A) for evaluating different approaches to recovering the cost of such financing.

POLICY QUESTIONS

- What information does Council need in order to support a particular financing strategy?
- Council must approve all real property purchases (cf. Metro Code 2.04.050). What level of ongoing involvement does Council want as staff work toward making specific recommendations for real property purchase?

POLICY OPTIONS FOR COUNCIL TO CONSIDER

1. Use a combination of Solid Waste Fund undesignated reserves and debt to fund capital improvements and real property purchases.
2. Use rate setting criteria to evaluate different approaches to raising revenue for debt repayment.

STAFF RECOMMENDATIONS

Staff recommend continued pursuit of real properties, including expenditure of moneys to enable and conduct environmental, economic, and neighboring community research and due diligence.

Staff also recommend development of a financing strategy or strategy options for Council approval to support purchases and capital improvements.

STRATEGIC CONTEXT AND FRAMING COUNCIL DISCUSSION

The Metro Charter, the Oregon Constitution and Oregon statutes grant Metro broad authority for planning, managing and overseeing the regional solid waste system to protect public health and safeguard the environment, including broad authority to charge fees, issue debt, and administer a solid waste enterprise fund on behalf of the region. As a part of these responsibilities, Metro is responsible for developing a regional plan that sets direction for programs, services and facilities. The 2030 Regional Waste Plan lays out an ambitious agenda that aims to influence the entire life cycle of the products we use, from design to production to use, until they go to a recycler, landfill or thrift store.

Metro has an obligation to maintain a resilient and responsive solid waste system that provides equitable services to all residents throughout the region. Many parts of the region have limited access to services. Only modest investment has been made in the last two decades, and Metro has not built any new facilities in more than 30 years. At one time the regional system was considered state of the art, but it has fallen behind other regions in technology, investment and innovation. The region is at a critical juncture that requires a significant investment of public resources to modernize and upgrade its garbage and recycling system. New and expanded public services are needed to meet the needs of a growing population and achieve the Metro Council's environmental and racial equity objectives. The system must also be prepared for the ongoing impacts of weather-related climate change and potentially disruptive disasters.

Garbage, recycling and related sectors make up a significant part of the region's economy, employing thousands of people and generating more that $537 million in economic activity

each year. Strategic investments in the region's garbage and recycling infrastructure, guided by Metro's financial policies and rate setting criteria will help advance racial equity goals with economic opportunities for communities of color by creating new jobs and working to improve the pay and benefits of system jobs (Goal E).

BACKGROUND

Metro has been evaluating system investments and upgrades over the past several years. Top priorities include expansion of service provision near Metro South Station in Oregon City to alleviate congestion, traffic and long lines. Improvements at Metro Central Station are necessary to establish commercial food waste processing. During the development of the 2030 Regional Waste Plan, significant service gaps on the west side of the region were identified, including self-haul drop off for garage cleanouts, construction debris, recyclables and household hazardous waste. In contrast to the central and east side of greater Portland, the west side of the region has no public transfer option, which has resulted in inequitable access to services and higher rates paid by west-side residents.

If all investment concepts are pursued, the total public investment could far exceed Metro's Solid Waste Fund reserves. Metro has a strong financial foundation for issuing debt, and solid waste provides a steady revenue base for debt repayments. Prudent planning for financing and cost recovery will be an integral part of Metro's overall strategy to improving solid waste system infrastructure.

ATTACHMENTS

- Is legislation required for Council action? ☐ Yes ☒ No
- If yes, is draft legislation attached? ☐ Yes ☐ No
- What other materials are you presenting today?

Attachment

Rate Setting Criteria

Adapted from Resolution #93-1824A

1. *Consistency:* Solid waste rate setting should be consistent with Metro's agency-wide planning policies and objectives, including but not limited to the Solid Waste Management Plan.

2. *Revenue Adequacy and Reliability:* Rates should be sufficient to generate revenues that fund the costs of the solid waste system.

3. *Equity:* Charges to users of the waste management system should be directly related to services received. Charges to residents of the Metro service district who may not be direct users of the disposal system should be related to other benefits received.

4. *Waste Reduction:* The rate structure should encourage waste reduction, reuse, and recycling.

5. *Affordability:* Rate setting should consider the customers' ability to pay, e.g., the cost of living for residential customers and the cost of doing business for commercial customers.

6. *Implementation and Administration:* Rate setting should balance the relative cost and effort of implementing and administering the rates with financial and policy goals. Rates should be enforceable.

7. *Credit Rating Impacts:* The rate structure should not negatively impact Metro's credit rating.

8. *Authority to Implement:* Metro should ensure that it has the legal ability to implement the rate structure; or, if such authority is not already held, evaluate the relative difficulty of obtaining the authority.

9. *Predictability:* Metro rate adjustments should be predictable and orderly to allow local governments, haulers, and rate payers to perform effective planning.

Materials following this page were distributed at the meeting.

Clean Air Construction Standard for public projects

Taking local action for cleaner air

Metro Council Work Session

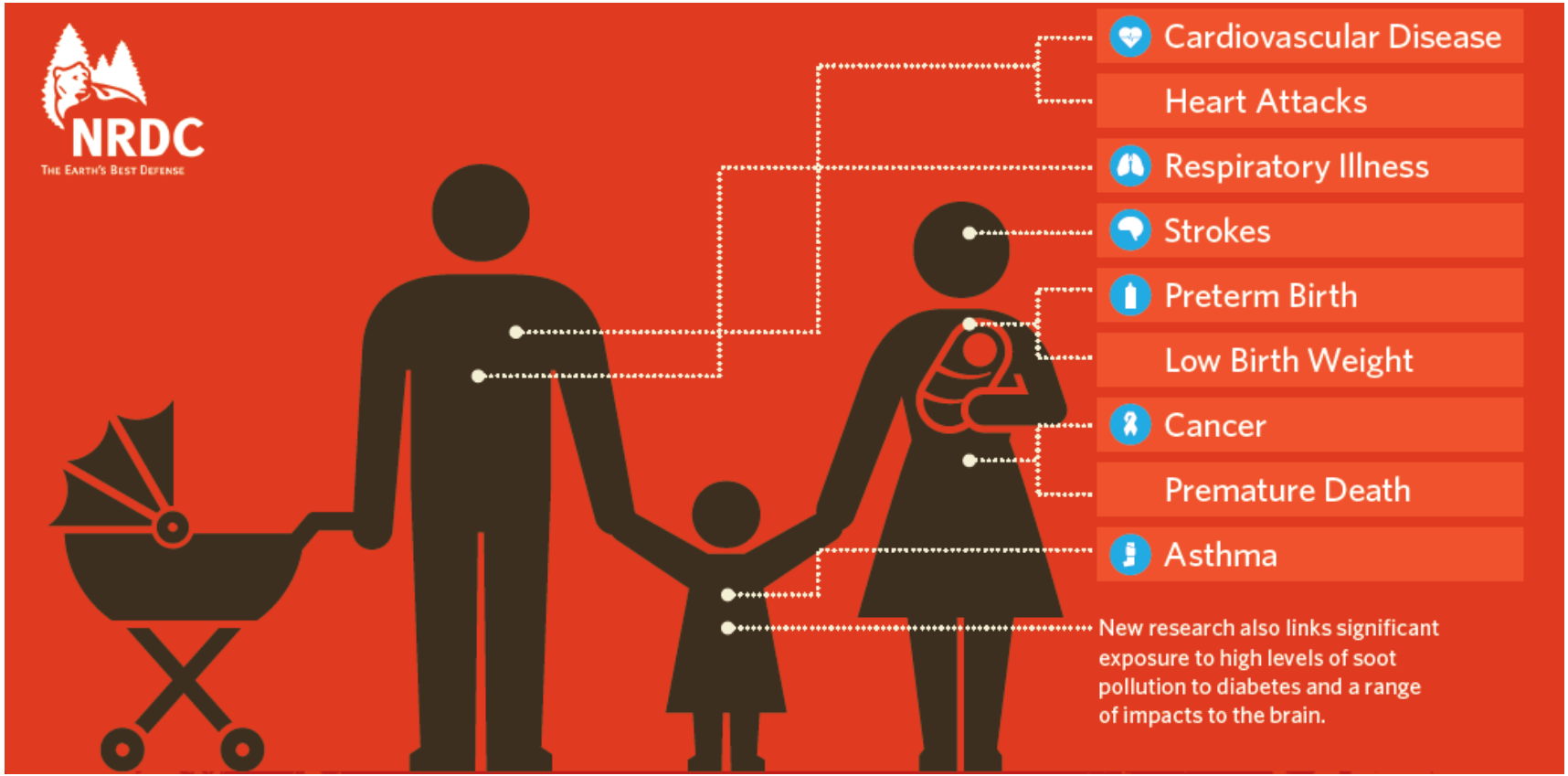
July 16, 2019

Council guidance requested

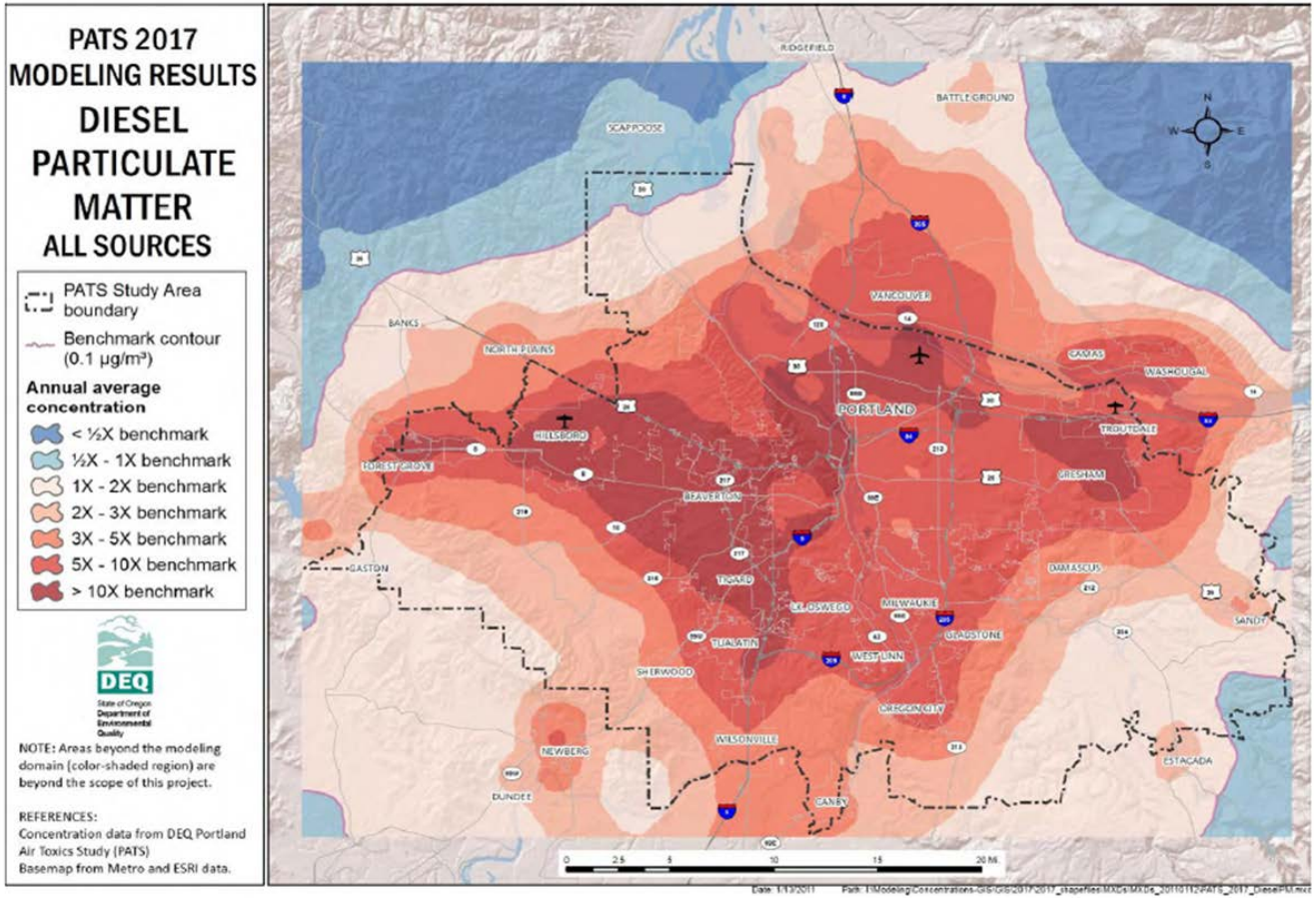
1. Direct staff to develop the Clean Air Construction Standard for Metro projects
2. Offer guidance on appropriate threshold to adopt for Metro projects
3. Suggest additional strategies to pursue to support COBID firms and racial equity

Regional approach

Why diesel exhaust?

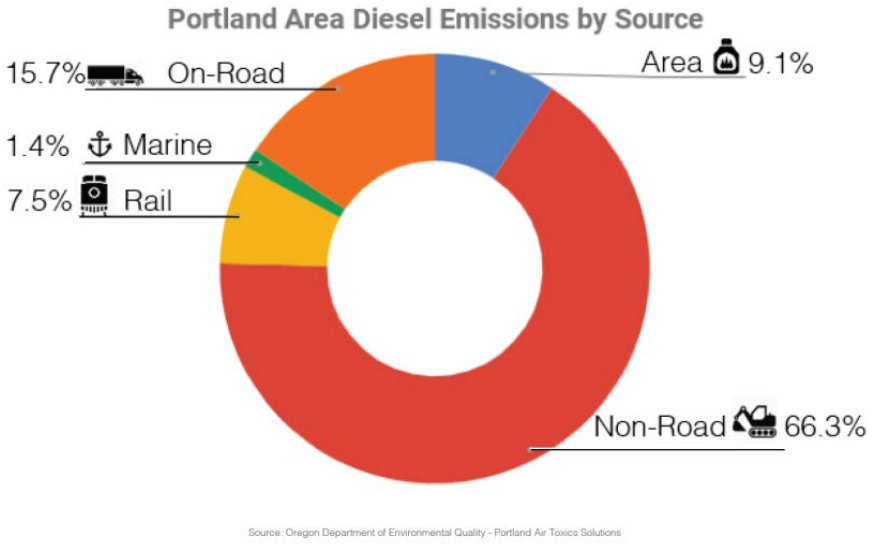


Regional diesel pollution



Why construction equipment?

Diesel emissions sources in Portland Metro area



Clean Air Construction goals

1. Reduce diesel particulate matter (PM) emissions on Metro construction sites
2. Support diverse contractor pool
3. Mitigate cost and administrative impacts
4. Foster regional adoption to further reduce diesel PM pollution

Stakeholder engagement

- Ongoing since 2010 (regionally)
- August 22, 2018 workshop
- Targeted engagement with neighborhood associations, environmental organizations, construction firms, equipment operators, industry associations
- Public comment period in November 2018

Clean Air Construction Standard

Engine requirements applicability:

- Non-road diesel equipment >25 horsepower
- On-road diesel cement mixers and dump trucks

Requirements phased in:

- Idle reduction begins 2020
- Engine requirements phase-in period: 2021-2026

Exemptions and COBID considerations included

Phased-in approach

Effective Date	Nonroad Diesel *(over 25hp)*	On-Road Diesel *(cement mixers and dump trucks)*	Retrofits allowed *diesel oxidation catalyst, diesel particulate filter*
2020	No Idling		
2021	No tier 0		Yes
2022	No tier 1		Yes
2023	No tier 2		Yes
2024	No tier 3	2007+	Some
2025	Tier 4 only	2007+	Some
2026	Tier 4 only	2007+	Some, more for COBID

Regional framework

Lead agency model

- City of Portland as lead agency

Core elements of the regional framework

- Administration
- Communications
- Registration and compliance
- COBID certified firms – specific support

Support for COBID firm compliance

- Extended compliance options
- Funding for retrofits
- Technical assistance

Financial implications

Per project costs:

- Retrofitting costs ranged from 0.06% to 0.57% of construction contract costs.

Regional administration costs:

- Metro's contribution would likely be 4-10% of annual costs, estimated at $25K to $63K

House Bill 2007

- **Directs remaining Volkswagen settlement funds to clean up diesel engines, with preference for COBID firms**
- Phases out old diesel on-road engines in Multnomah, Clackamas and Washington Counties
- Requires clean equipment for state-funded construction projects ($20M or more)
- Creates task force to consider additional funding strategies

Metro threshold

Threshold examples	# of projects (past 3 FYs)	Pros	Cons
$500,000	8 / year (average) Average value: $1.5 million	• Consistent with Multnomah Co. • Apply to fewer COBID firms • Allows Metro to ease into requirement	• Reduced diesel pollution benefits • Not aligned with any other procurement thresholds
$100,000; **$150,000** Formal Procurement thresholds	29 / year (average) Average value: $600,000	• Greater pollution reduction • Aligns with other procurement thresholds	• Potentially higher costs for contractors • Might capture more COBID firms • Higher Metro regional costs • May require additional staffing

Potential next steps

- Continue work with regional partners on framework development
- Continue stakeholder engagement
- Identify funding resources to support COBID firms
- Bring to Council for adoption

Council guidance requested

1. Direct staff to develop the Clean Air Construction Standard for Metro projects
2. Offer guidance on appropriate threshold to adopt for Metro projects
3. Suggest additional strategies to pursue to support COBID firms and racial equity

oregonmetro.gov

Part 3

Regional Solid Waste System: Financing the Future System

Council Work Session
July 16, 2019

Metro

Preparing for the Future

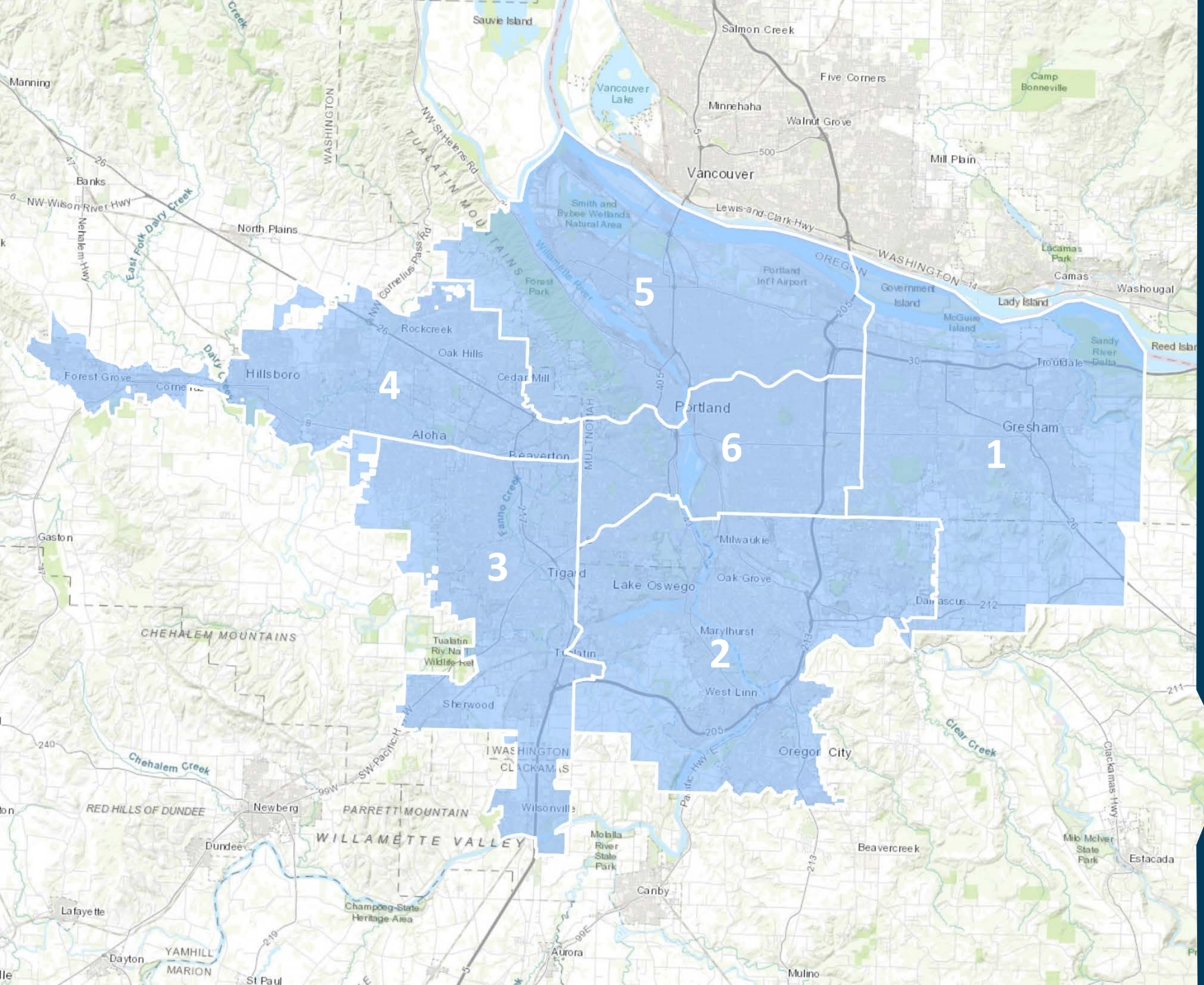
June 11 - **Part 1:** Review current state of the system
Review investments already underway

June 18 - **Part 2:** Capital investment direction

July 16 - **Part 3:** Financing the future system

Next Steps …

10 Year Regional Investment Overview ($400M+)



$275-350M

$13M

?

PRIVATE INVESTMENT

$30M
3 YEARS

PRIVATE

METRO

I & I GRANTS

$13M
($1.3M ANNUALLY)

COMMUNITY ENHANCEMENT PROGRAM

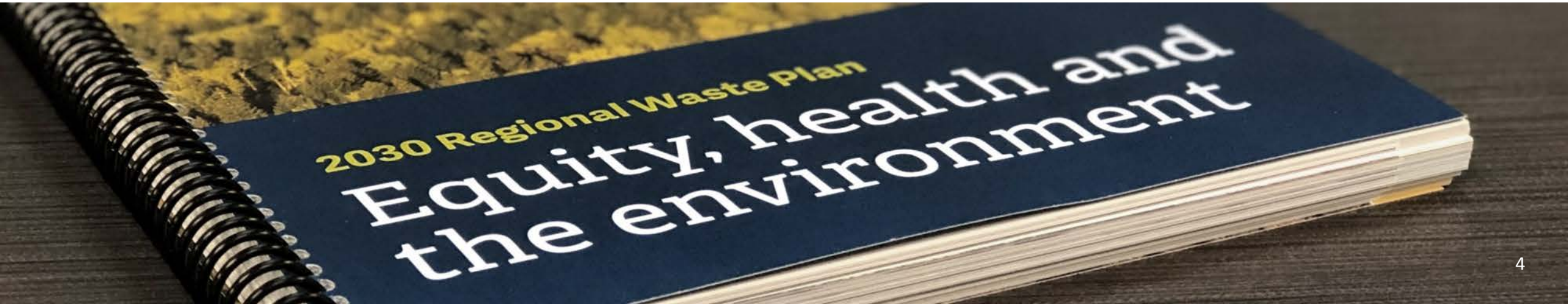
10 YEARS

METRO INVESTMENT

Preparing for the Future

The Regional Waste Plan serves as the framework for the next 12 years and is now in place

- The future is not about garbage – but about jobs, equitable access, health, environment, GHG reduction, resilience, and public services
- In a similar time as when St. Johns landfill closed and there was a need to build a regional landfill and system of transfer stations



Regional Waste Plan

System future is guided by Regional Waste Plan values:

PROTECTING THE ENVIRONMENT AND HUMAN HEALTH

CONSERVING NATURAL RESOURCES

ADVANCING ENVIRONMENTAL LITERACY

FOSTERING ECONOMIC WELL-BEING FOR ALL

ENSURING RESILIENCE OF OUR GARBAGE & RECYCLING SYSTEM

PROVIDING EXCELLENT AND EQUITABLE SERVICE

Regional Waste Plan: Framework for the Future

Goals:

- **1-4** Shared prosperity in garbage and recycling system (engagement, local benefit, living wage and workforce diversity)
- **13** Invest in communities so that those communities regard solid waste facilities as assets
- **15** Improve the system for recovery (food, recyclables, and yard debris) and to meet changing markets and evolving community needs
- **16** Maintain a system of facilities to ensure geographic distribution of services and more equitable access to them
- **18** Ensure routine garbage and recycling system can be restored quickly following a disruption

Regional System Needs

Basic Solid Waste Services

- Public self-haul
- Recycling depot
- HHW drop off
- Commercial transfer

Expanded Public Services

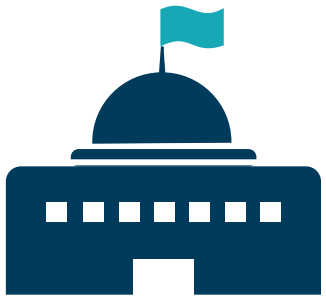
- Education and learning center
- Resale/repair store
- Community meeting space and asset
- Public park/trail
- Disaster debris staging and resilience

Other Improvements

- GHG reduction
- Flexible space for future
- Jobs and economy
- RNG fueling
- Electrification of fleet
- Potential rail option to move waste to landfills

Foundation of Community Engagement & Support

Regional Priority Outcomes



Public

Private

Partnerships

Community Enhancement Programs

Capital Improvements

Food waste collection and processing

Modernize existing infrastructure

Improve geographic distribution of services

Expand public services and equitable access

Improve recovery infrastructure

Pursue opportunity for public/private partnership

Capital Project Financing Tools

Pay as you go

Debt financing

Pay As You Go Financing

- Financing capital projects from current revenue rather than debt

Funding Sources	Permitted Uses
Solid Waste Reserves	Both operating and capital expenditures
Solid Waste Fees - Metro tip fees - Regional System Fee	

Debt Financing

- Financing capital projects through the issuance of revenue bonds

Funding Sources	Permitted Uses
Revenue bonds backed by solid waste fees	Capital expenditures

Rate Setting Process

- Cost recovery (both operating and capital costs)
- Criteria
- Annual process

Utility Financing Best Practices

- Use a combination of pay as you go and debt financing
- Update long-term capital program
- Build a detailed financing strategy

Questions

1. Is there general agreement that the financing approach is reasonable for the build out and upgrade the solid waste system?

2. Is there other information needed by Council on these topics?

Next Steps

- Tour modern facilities in Seattle area in Fall
- Secure properties in order to engage, design, and build
- Engage communities and local leaders
- Work closely with Councilors on individual projects

Council Future Topics

1. Community engagement in specific locations (South and West)
2. Investment and partnerships in regional recycling infrastructure and markets
3. Future of Investment & Innovation Grants
4. Future of Community Enhancement Program and funding
5. Further development of long range master plan for regional waste system