WASHINGTON COUNTY
BOARD OF COMMISSIONERS
WORK SESSION
ROOM 120D
PUBLIC SERVICES BUILDING
February 26, 2019

1:00 p.m. 1. Board of Commissioners Communication
(15 min.)

1:15 p.m. 2. Discussion of Formal Agenda Items
(15 min.)

1:30 p.m. 3. 2019 Legislative Update
(30 min.)
-Jonathan Schlueter, Government Relations Manager

2:00 p.m. 4. Design and Construction Standards Update
(30 min.)
-Nora Curtis, Conveyance Department Director; and Damon Reische,
Development Services and Systems Planning Division Manager

2:30 p.m. 5. Clean Air Construction Standards
(30 min.)
-Kathleen Johnson, Senior Program Coordinator; and Suzi Fulcher, Purchasing
Manager

Break – 10 Minutes

3:10 p.m. 6. TV Hwy Project Refinement and Delivery Strategy
(20 min.)
-Andrew Singelakis, Director; and Erin Wardell, Principal Planner, Land Use and
Transportation

3:30 p.m. 7. Proposal to Create a Communities of Color/DEI Advisory Board
(15 min.)
-Sia Lindstrom, Deputy County Administrator; and Amanda Garcia-Snell,
Community Engagement Manager

3:45 p.m. 8. Appointment of Budget Committee and ESPD/URMD Budget Committee
Members
(15 min.)
-Jack Liang, Chief Finance Officer

4:00 p.m. 9. Debt to Refund 2009 FF&C Bond (HAWC) and Budget Adjustments
(10 min.)
-Jack Liang, Chief Finance Officer

4:10 p.m. 10. Board Staffing Requirements
(10 min.)
-Robert Davis, County Administrator

End Time:
4:20 p.m.
WORK SESSION
WASHINGTON COUNTY BOARD OF COMMISSIONERS

Work Session Date:  February 26, 2019  Length of Time Requested:  30 minutes
Title of Topic:  2019 STATE LEGISLATIVE UPDATE
Department:  CAO – Intergovernmental Relations
Presenter Name(s):  Jonathan F. Schlueter
Presenter Title(s):  Government Relations Manager

LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:
Joint Letter of Support for HB 2063 to House Energy and Environment Committee

PURPOSE:
In a continuing effort to update and inform the BCC on the status of key issues and interests listed in the 2019 State Legislative Agenda, the Government Relations team will report on recent developments in Salem, with emphasis to issues identified in Washington County’s 2019 State Legislative Agenda, and additional interests identified by Board members. These reports are currently scheduled every 2 weeks, throughout the Oregon Legislature’s 160-day “long” session.

SUMMARY OF TOPIC:
Throughout the 2019 Oregon legislative session, the county’s Government Relations staff and hired consultants will provide regular reports on the status of House and Senate bills identified as priority interests of the BCC, County Administration and Departments; allied organizations and jurisdictions. Commissioners will discuss interests and implications for these measures and provide direction to the Government Relations team to either support, oppose, continue to monitor, or remain neutral on measures presented.

DESired OUTCOME:
Information only. No formal action is requested or anticipated at this time.
Dear Chair Helm and members of the Committee:

Oregon has a unique opportunity to address an acute air quality threat that shortens the lives of over 400 Oregonians annually: pollution from dirty diesel engines -- including off-road engines used in construction equipment.\(^1\) By applying Volkswagen settlement funds to cleaning up dirty engines the legislature will improve the quality of life for Oregonians, while also reaping long-term savings from avoided medical costs and lost worker productivity. For every dollar invested in cleaning up old diesel engines, the state will earn back ten dollars in public health benefits.\(^2\)

The methodology laid out in HB 2063 for dispersing Volkswagen settlement funds presents a reasonable and well thought out approach. The open and flexible approach prioritizes spending in areas with the highest concentration of pollution from diesel engines and for contractors with the greatest financial need, like disadvantaged business enterprises.

Local governments in the Portland Metro area are doing our part to address pollution from dirty diesel engines. Over the past two years, the City of Portland, Multnomah County, Metro, Port of Portland, Washington County, and Clackamas County have worked together to develop Clean Air Construction Standards. These standards are contracting specifications that participating governments will apply to public construction projects. The standards will phase in the use of the cleanest available equipment over time.

The jurisdictional partners carefully considered the standards to strike the proper balance between pollution reduction goals while also providing a flexible timeline for industry compliance. There is particular concern that these standards could create barriers for small businesses. For this reason, the successful implementation of these local programs hinges on the use of Volkswagen settlement dollars. If the legislature adopts the methodology outlined in HB 2063 then local contractors can compete to upgrade their non-road equipment and comply with the Clean Air Construction Standards. These funds are especially important for small contractors who are State-certified COBID firms.

We strongly urge the legislature to adopt the methodology outlined in HB 2063 for allocation of Volkswagen settlement dollars. The approach will help to ensure the success of local programs, prioritize VW settlement dollars towards those firms most in need of financial support, direct resources to areas of the State with the highest concentration of diesel pollution, and yield the greatest returns for the state overall.


WASHINGTTON COUNTY BOARD OF DIRECTORS

WORK SESSION

Work Session Date: February 26, 2019  
Length of Time Requested: 30 mins

Title of Topic: DESIGN AND CONSTRUCTION STANDARDS UPDATE

Department: CLEAN WATER SERVICES

Presenter Name(s) and Title(s): Nora Curtis, Conveyance Department Director  
Damon Reische, Development Services and Systems Planning Division Manager

LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:
Power Point presentation  
Link to Design and Construction Standards website

PURPOSE:
1) Update the Board on the purpose, proposed approach, and proposed schedule for adoption of new Design and Construction Standards addressing hydromodification  
2) Provide information on stakeholder feedback to date

SUMMARY OF TOPIC:
Clean Water Services’ (District) Design and Construction Standards (Standards) describe development and permitting requirements related to the public stormwater and sanitary system, and the protection of Water Quality Sensitive Areas within the District’s boundary. The District periodically updates the Standards to maintain compliance with regulatory requirements, clarify policies and procedures, reflect new technologies and improve the construction, function, and maintainability of sanitary, stormwater, and surface water management facilities.

The District also holds a watershed-based National Pollutant Discharge Elimination System (NPDES) permit with the State of Oregon Department of Environmental Quality (DEQ). The 2016 renewal of the NPDES permit included the regulatory requirement for District to develop and implement a program to address the effects of hydromodification by April 22, 2019. “Hydromodification” refers to the increase in the volume and rate of stormwater runoff resulting from development and the conversion of pervious surfaces to impervious. This permit condition requires updating the Standards.

The District is proposing a variety of stormwater management approaches that can be used at different scales to address the effects of hydromodification including stream enhancement, Low Impact Development Approaches (LIDA) and detention. The combination of approaches allowed for a development will be based on landscape setting, historic and anticipated development patterns, project size, and stream condition. A proposed draft Base Strategy and Methodology was created and released to stakeholders January 4, 2019. Refinements based on stakeholder input and additional supporting documents have been subsequently released, with the most recent draft of the proposed Standards released on February 14, 2019.

DESIRED OUTCOME:
1) Board understands the drivers, purpose, scope and schedule for adoption of new Standards  
2) Board is aware of the general content of comments and concerns received to date
CWS Design & Construction Standards Update and Hydromodification

Nora Curtis, Conveyance Department Director
Damon Reische, Planning and Development Services Division Manager

Clean Water Services Board Worksession
February 26, 2019
Agenda

• Background on Standards and Permit Requirements
• Timeline and Major Tasks
• Hydromodification Strategies
• Initial Stakeholder Comments & Response
• February 14, 2019 Rollout Contents
• Next Steps and Schedule for Adoption
Two-Phase Update Process

- **NPDES Permit Issuance**
  - April 22, 2016

- **1st Anniversary**
  - April 22, 2017
  - 1,000 SF Treatment Threshold

- **2nd Anniversary**
  - April 22, 2018
  - LIDA Prioritization

- **3rd Anniversary**
  - April 22, 2019
  - Implement Hydromodification Plan

Watershed-Based NPDES Permit Requirements

**Phase 1**

**Phase 2**
D&C Standards Update: Timeline & Major Tasks

Phase 1 Updates
- 1,000 SF Threshold
- LIDA Prioritization

Phase 2 Update Milestones
- NPDES Permit Issued: April 22, 2016
- Implementation Policy Adopt: Nov 2018
- Anticipated Standards Effective Date: April 22, 2019
- Stakeholder Feedback Collection
- Hydromodification Strategy Development
- Remaining Stakeholder Engagement Phase 2: 2/19 – 4/19
  - Co-Implementers - Monthly
  - Clean Water Advisory Commission (CWAC) - Monthly
  - Tualatin Riverkeepers – January 31st
  - Tualatin River Watershed Council – February 6th
  - Portland Home Builders Association – February 22nd
  - General Stakeholder Meeting – February 22nd
  - Public Hearing – March 26, 2019

Stakeholder Engagement Phase 1 & 2: 8/16 – 1/19
- Public Hearings – 2
- Board Meeting – 3
- Co-Implementers Meetings – 12
- General Outreach Presentations – 7
- Clean Water Advisory Commission Meeting – 6
- Ongoing Information on CWS Website & Factsheet
- Email Notification Sent to D&C Update List – 350+ Individuals
What is Hydromodification?
Integrated strategy to address Hydromodification

• Furthers broad District & community goals
• Meets MS4 permit requirements
• Implementable D&C Standards and fee structure
• Compatible with other agency requirements (DSL, NMFS, etc.)
• Defensible: economic, legal & regulatory
• Suite of tools (right place, right time)
• Can be implemented at a site or regional scale
• Adaptable and expandable (phased implementation)
Sub-Basin Strategies
Base Strategy to Address Hydromodification Impacts
Base Strategy Concept

• Stormwater Management Approaches Based on:
  ▪ Project Size Category
  ▪ Development Class
  ▪ Hydromodification Risk Level

• Need to know 3 things:
  ▪ Where project is (address, tax lot[s], intersection)
  ▪ How much impervious area is planned
  ▪ Where project discharges to stream
General Stakeholder Comments

• Simplify/Clarify Methodology and Map
• Provide flexibility in standards

• Allow for simplified/familiar detention sizing method
• Tailor methodology to the Tualatin River Basin
General Stakeholder Comments

- Avoid cumulative small project impacts by reducing thresholds for small projects
- Avoid over-burdening small projects

- Allow for greater flexibility to use Fee-In-Lieu, especially for medium projects in infill locations
- Limit the use of Fee-In-Lieu; ensure each project has on-site measures to protect all streams
February 14, 2019 Rollout Contents

• Updated Standards Language Including:
  ▪ Chapter 1-Definitions
  ▪ Chapter 4-Stormwater Standards

• Guidance Document
• Revised Web Map Tool
• “Executive Summary”
Web Address: cleanwaterservices.org/dncupdate

Email Comments to: dncupdate@cleanwaterservices.org
4.01 General Provisions

4.01.1 Introduction

The purpose of this chapter is to outline design requirements for storm and surface water management related to water quality, water quantity, hydromodification, and Low Impact Development Approaches (LIDA). The provisions of this chapter are intended to prevent or reduce adverse impacts to the drainage system and water resources of the Tualatin River Basin.

4.01.2 Application and Interpretation of Chapter

a. The provisions of this chapter shall apply to all development projects within District and City jurisdiction. Interpretations of such provisions and their application in specific circumstances shall be made by the District and City.

b. Any City operating a local program may adopt stricter design specifications within its jurisdiction than the specifications stated in this chapter.

c. Where District and City standards conflict, the District’s standards shall apply.

d. The use of development techniques that mimic natural systems, including Low Impact Development Approaches (LIDA) and green infrastructure, shall be emphasized.

4.01.3 Organization of Chapter

The organization of this Chapter is intended to follow the site evaluation and

Reader Notes- Feb. 2019 Draft
Standards Change- Section 4.01.1 and 4.03 are added to provide clarification for the user.
Organization Change- Section 4.01.2 is renumbered.
D&C Standards Update: Timeline & Major Tasks

Phase 1 Updates
- 1,000 SF Threshold
- LIDA Prioritization

Phase 2 Update Milestones
- April 22, 2016: NPDES Permit Issued
- Aug 2017: CWAC Phase 2 Kick-Off Meeting
- Mar 2018: CWAC Phase 2 Meeting
- Nov 2018: Implementation Policy Adopt
- Dec 2018: Begin Drafting
- Jan 2019: Base Strategy Methodology Rollout
- Feb 2019: Initial Complete Draft
- Feb 26, 2019: Board Work Session
- Mar 26, 2019: Public Hearing & Final Edits
- April 22, 2018: Adopted Requirements

Stakeholder Engagement Phase 1 & 2: 8/16 – 1/19
- Public Hearings – 2
- Board Meeting – 3
- Co-Implementers Meetings – 12
- General Outreach Presentations – 7
- Clean Water Advisory Commission Meeting – 6
- Ongoing Information on CWS Website & Factsheet
- Email Notification Sent to D&C Update List – 350+ Individuals

Remaining Stakeholder Engagement Phase 2: 2/19 – 4/19
- Co-Implementers - Monthly
- Clean Water Advisory Commission (CWAC) - Monthly
- Tualatin Riverkeepers – January 31st
- Tualatin River Watershed Council – February 6th
- Portland Home Builders Association – February 22nd
- General Stakeholder Meeting – February 22nd
- Public Hearing – March 26, 2019
Website

http://cleanwaterservices.org/dncupdate

Questions or Comments

dncupdate@cleanwaterservices.org

Damon W. Reische
Systems Planning and Development Services Division Manager
reisched@cleanwaterservices.org
WORK SESSION

WASHINGTON COUNTY BOARD OF COMMISSIONERS

Work Session Date: February 26, 2019  
Length of Time Requested: 30 minutes

Title of Topic: CLEAN AIR CONSTRUCTION STANDARDS

Department: Health and Human Services, Land Use and Transportation, Support Services

Presenter Name(s): Kathleen Johnson and Suzi Fulcher

Presenter Title(s): Senior Program Coordinator and Purchasing Manager

LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:
Clean Air Construction Standards
PowerPoint Presentation

PURPOSE:
The Board will receive a briefing on the impacts of diesel exhaust and the importance of reducing diesel pollution. The Board will receive an update on regional work related to the development of Clean Air Construction Standards. The Board will be asked to provide direction to staff on Clean Air Construction Standards.

SUMMARY OF TOPIC:
Pollution from diesel exhaust poses a threat to the health of people living in Washington County. The majority of diesel pollution in our region comes from off-road construction equipment. To address this public health threat, staff from Health and Human Services, Support Services, and Land Use and Transportation have been participating in a regional collaborative with partners from Clackamas County, Metro, Multnomah County, City of Portland and the Port of Portland. The Collaborative has collectively developed Clean Air Construction Standards and is working toward the development of core program elements. The standards would require construction contracts funded by Washington County to adhere to specific equipment standards that would ultimately reduce diesel pollution from construction sites.

DESIRED OUTCOME:
- The Board directs staff on Clean Air Construction Standards.
- The Board supports staff’s continued engagement in the development of a regional program.
- The Board supports staff working with jurisdictional and organizational partners to encourage adoption of standards.
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:
<table>
<thead>
<tr>
<th>Effective Date of Diesel Engine Requirement</th>
<th>Nonroad Diesel (over 25hp)</th>
<th>On-Road Diesel (cement mixers and dump trucks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2020</td>
<td>No Idling</td>
<td></td>
</tr>
<tr>
<td>January 1, 2021</td>
<td>No tier 0 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2022</td>
<td>No tier 1 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2023</td>
<td>No tier 2 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2024</td>
<td>No tier 3 engines allowed&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>No pre-2007 engines&lt;sup&gt;1,2&lt;/sup&gt;</td>
</tr>
<tr>
<td>January 1, 2025</td>
<td>Tier 4 only&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2026</td>
<td>Tier 4 only&lt;sup&gt;3&lt;/sup&gt;</td>
<td>No pre-2007 engines&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup>Diesel engine retrofits (emission control devices) allowed on older equipment/vehicles following the Compliance Options Protocol provided herein.

<sup>2</sup>No new DOC emission control devices allowed. Equipment retrofitted with DOC emission control devices prior to 2024 are allowed.

<sup>3</sup>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 (for DOCs) 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:

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

1Equivalent 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 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

<table>
<thead>
<tr>
<th>ENGINE MODEL YEAR</th>
<th>HORSEPOWER RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25-49</td>
</tr>
<tr>
<td>1995</td>
<td>T0</td>
</tr>
<tr>
<td>1996</td>
<td>T0</td>
</tr>
<tr>
<td>1997</td>
<td>T0</td>
</tr>
<tr>
<td>1998</td>
<td>T0</td>
</tr>
<tr>
<td>1999</td>
<td>T1</td>
</tr>
<tr>
<td>2000</td>
<td>T1</td>
</tr>
<tr>
<td>2001</td>
<td>T1</td>
</tr>
<tr>
<td>2002</td>
<td>T1</td>
</tr>
<tr>
<td>2003</td>
<td>T1</td>
</tr>
<tr>
<td>2004</td>
<td>T2</td>
</tr>
<tr>
<td>2005</td>
<td>T2</td>
</tr>
<tr>
<td>2006</td>
<td>T2</td>
</tr>
<tr>
<td>2007</td>
<td>T2</td>
</tr>
<tr>
<td>2008</td>
<td>T4a</td>
</tr>
<tr>
<td>2009</td>
<td>T4a</td>
</tr>
<tr>
<td>2010</td>
<td>T4a</td>
</tr>
<tr>
<td>2011</td>
<td>T4a</td>
</tr>
<tr>
<td>2012</td>
<td>T4a</td>
</tr>
<tr>
<td>2013</td>
<td>T4b</td>
</tr>
<tr>
<td>2014</td>
<td>T4b</td>
</tr>
<tr>
<td>2015</td>
<td>T4b</td>
</tr>
<tr>
<td>2016</td>
<td>T4b</td>
</tr>
<tr>
<td>2017</td>
<td>T4b</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Year</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
<th>T4b</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td>T4b</td>
<td></td>
<td>T4b</td>
<td></td>
<td>T4b</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
</tr>
<tr>
<td>2020</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
<td>T4b</td>
</tr>
</tbody>
</table>
Clean Air Construction Standards

Presented by:
Kathleen Johnson, Department of Health and Human Services
Suzi Fulcher, Support Services — Purchasing

February 26, 2019
Today we would like to...

- Educate the Board on the dangers of diesel pollution.
- Update the Board on the Clean Air Construction Standards.
- Seek direction from the Board on how to proceed with this work.
Presentation Outline

- Background
- Why Clean Air Construction Standards
- Standard Development Process
- Recommendations
- Next Steps
Background: Clean Air Construction
Known human carcinogen - International Agency for Research on Cancer (IARC)

Diesel exhaust poses one of the highest health risks in our regional airshed of any toxic air contaminant evaluated by DEQ.
Background: Why Diesel Pollution?
Diesel emissions sources in tri-county area
Surveyed existing contracting programs
Identified key evaluation criteria
Evaluated program alternatives against criteria
Reported findings to internal and external stakeholders
Proposed policy recommendation
Stakeholder engagement
- Ongoing since 2010 (regionally)
- August 22nd workshop
- Individual presentations to various associations, contractor and advocacy groups
- Public comment period in November 2018
Clean Air Construction Goals

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

- Idling reduction
- Cleanest available (new) diesel non-road equipment or cement mixers/dump trucks
- Older diesel equipment/vehicles retrofitted with diesel particulate filter (DPF)*
- Alternative fuel vehicles or equipment

*Certified COBID firms may have equipment with grandfathered diesel oxidation catalyst (DOC) retrofit technology.
<table>
<thead>
<tr>
<th>Value Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than $250K</td>
<td>6</td>
</tr>
<tr>
<td>$250K to $500K</td>
<td>14</td>
</tr>
<tr>
<td>$501K to $750K</td>
<td>15</td>
</tr>
<tr>
<td>$751K to $1M</td>
<td>5</td>
</tr>
<tr>
<td>$1M to $1.5M</td>
<td>7</td>
</tr>
<tr>
<td>$1.5M to $2M</td>
<td>6</td>
</tr>
<tr>
<td>$2M to $3M</td>
<td>6</td>
</tr>
<tr>
<td>$3M to $5M</td>
<td>11</td>
</tr>
<tr>
<td>Over $5M</td>
<td>11</td>
</tr>
</tbody>
</table>
Clean Air Construction Standards

- Standards would be in contract agreements
- Effective Date: January 1, 2020
  - Idle reduction requirements begin 2020
  - Engine requirements phase-in period begins 2021
- Engine requirements applicability
  - Nonroad diesel equipment >25hp
  - On-road diesel cement mixers and dump trucks
Idle Reduction Requirements

- Nonroad equipment: Shut down after five minutes of inactivity.
- Nonroad equipment: Anti-idling decals/prompts visible to operator.
- Job site: Post “Five Minute Limit” signs.
- Job site: Operator education/awareness.
Engine Requirements and the Compliance Options Protocol

- Individual equipment/vehicle focused
- Maximizes emission reductions
- Starts with the most stringent emission reduction technology option (Best Available Technology approach)
# Clean Air Construction Standards

<table>
<thead>
<tr>
<th>Effective Date of Diesel Engine Requirement</th>
<th>Nonroad Diesel (over 25hp)</th>
<th>On-Road Diesel (cement mixers and dump trucks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2020</td>
<td>No Idling</td>
<td></td>
</tr>
<tr>
<td>January 1, 2021</td>
<td>No tier 0 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2022</td>
<td>No tier 1 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2023</td>
<td>No tier 2 engines allowed&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2024</td>
<td>No tier 3 engines allowed&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>No pre-2007 engines&lt;sup&gt;1,2&lt;/sup&gt;</td>
</tr>
<tr>
<td>January 1, 2025</td>
<td>Tier 4 only&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>January 1, 2026</td>
<td>Tier 4 only&lt;sup&gt;3&lt;/sup&gt;</td>
<td>No pre-2007 engines&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
Exemptions

- Equipment/vehicle is required for an emergency
- A required emission control device would obscure operator lines of sight or otherwise impact worker safety, and no compliant rental equipment is available within 100 miles of job site
- Equipment is not able to be retrofit, and no compliant rental equipment is available within 100 miles of job site
- Special circumstance whereby compliance for a specific equipment/vehicle is not reasonable
Compliance and Verification Key Elements

- Single regional registration/compliance database
- Regional equipment/vehicle decal for easy on-site verification
Next Steps

- Continue work with regional partners and stakeholders.
- Identify funding resources to support COBID firms.
- Identify needed resources for Core Program Elements.
The Board supports the Clean Air Construction Standards.
The Board supports continued staff engagement in the development of a regional program.
The Board supports state legislation that would create funding opportunities to replace and retrofit equipment for COBID firms.
Questions?
PURPOSE:

Washington County has been offered $500,000 from Metro to refine projects along TV Highway and develop a project delivery strategy. The briefing will update the Board on the project status and proposed approach for the use of these funds.

SUMMARY OF TOPIC:

TV Highway is a major east-west corridor in the county, is a designated freight route, carries almost 40,000 vehicles per day and serves one of the county's highest concentrations of low income and persons of color in adjacent neighborhoods and businesses. Washington County, ODOT, and the cities of Beaverton, Forest Hillsboro, Forest Grove and Cornelius have all identified projects to address safety and mobility needs in the corridor. Addressing these needs is particularly challenging in constrained sections where existing development and/or proximity to the railroad increases the need for additional right-of-way (ROW).

This project will facilitate a coordinated vision for the types of treatments envisioned to accommodate bicycles, pedestrians, transit, freight mobility and vehicles within the TV Highway corridor. The project outcome will be a consistent and robust analysis and a feasible funding approach with the aim of providing project partners a level of certainty about delivering a comprehensive set of projects. The corridor has been studied extensively over the past 10 years, and this project will compile the results of previous work into a prioritized and cost-estimated list of projects that can be delivered once funding is identified.

DESIRED OUTCOME:

Board of Commissioners will be prepared to authorize approval of an IGA with Metro to accept funds for the TV Highway Project when requested at the March 5th Board meeting and authorize an increase in LUT's spending authority.
TV Highway Corridor Projects

Board of Commissioners Work Session
Feb. 26, 2019
Agenda

• IGA with Metro to fund TV Hwy project development ($500K) – March 5
• Need for TV Hwy improvements
• Current TV Hwy efforts
• Next steps
TV Hwy overview
TV Hwy project development

- Corridor vision
- Community and partner engagement to identify projects
- Prioritized list of cost-estimated projects
- Project delivery strategy

Projects ready for regional funding package in 2020 or other funding sources
Builds on previous efforts and outreach

- TV Hwy Corridor Plan
- Aloha-Reedville Livable Community Plan
- Aloha Tomorrow
- Forest Grove, Hillsboro, Beaverton studies
TV Hwy challenges

- Equity
- Safety
- Transit delay
- Mobility challenges
Equity considerations

- Bus Line 57 provides access to communities of concern, jobs, housing and social services
- 45% of the population below 200% of the poverty line
- Hispanic/Latino residents are the dominant people of color group
High-crash corridor

• Three times the statewide average for suburban highways

• Two and a-half times the regional average for arterials
Poor walking, biking conditions

- Major streets in corridor:
  - 43% lack sidewalks
  - 63% lack bike lanes

- 84% of pedestrian crashes were within 250 feet of bus stops
Slow transit travel time

- Line 57 carries more than 7,100 riders/day
- Transit travel time in the PM peak hour is more than twice that of auto travel time
- Delay is worst in the unincorporated segment
Regional mobility

• Designated freight route
• TV Hwy volumes stagnant
• Parallel facilities to experience significant growth
• N-S volumes to grow 40% by 2040
Project: Moving Forward TV Hwy

- Document transit needs in the study area
- Identify transit service and access improvements
- Evaluate and refine Aloha Tomorrow enhanced transit and high-capacity transit concepts
- Identify next steps and responsibilities to move the project forward
Treatments being evaluated

- Improved pedestrian connectivity
- Strategic intersection and roadway improvements
- Improved bus stop amenities
- Transit priority
Implementation challenges

• Right-of-Way needs
  – Railroad on south side
  – Development on north side

• ODOT design standards

• Highest-need projects can be the most difficult to construct
Next steps

• Board approval
  – Enter IGA with Metro to accept Metro funds – March 5
  – Approval for consultant contract (tentative April)

• Board updates on progress
Questions?
WORK SESSION
WASHINGTON COUNTY BOARD OF COMMISSIONERS

Work Session Date: February 26, 2019  Length of Time Requested: 15 minutes
Title of Topic: PROPOSAL TO CREATE A COMMUNITIES OF COLOR/DEI ADVISORY BOARD
Department: County Administrative Office
Presenter Name(s): Sia Lindstrom; Amanda Garcia-Snell
Presenter Title(s): Deputy County Administrator; Community Engagement Manager

LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:
Proposal for a Washington County Communities of Color/DEI Advisory Board

PURPOSE:
Discuss options for creating a Board-appointed Communities of Color/DEI Advisory Board.

SUMMARY OF TOPIC:
During the 10/9/18 Work Session discussion about the recent Leading with Race research report from the Coalition of Communities of Color, the County Administrative Office received direction from the Board to explore the potential for creating a Washington County Advisory Board focused on racial equity.

The proposed advisory board would serve to advise the Board of Commissioners about issues concerning diversity, equity and inclusion to ensure that residents and communities are valued in decision-making which may affect them. The proposed advisory board would be coordinated and staffed by the Community Engagement program within the County Administrative Office.

If the Board of Commissioners provides direction to create such an advisory board, next steps would include:
1. Action by the Board of Commissioners to create the Advisory Board, adopt bylaws, and authorize a six-week recruitment.
2. Action by the Board of Commissioners after recruitment closes to consider applications and make appointments.

DESIRED OUTCOME:
Receive direction from the Board about whether to create a Washington County Communities of Color/DEI Advisory Board.
## Washington County Communities of Color Advisory Board/DEI Advisory Board

### Proposal – 1.30.19

#### OBJECTIVE

To identify and prioritize issues concerning diversity, equity and inclusion to ensure that residents and communities are valued and in decision-making which may affect them.

#### PURPOSE & DUTIES

- Advise the Board of County Commissioners, the County Administrative Office, and the Community Engagement program on diversity and equity strategies that strengthen connections among diverse community groups and with County government.
- Advise department directors on equity strategies related to specific program operations and outcomes they may choose to present to the Communities of Color/DEI Advisory Board.
- Assist the County with the identification and implementation of outreach strategies to encourage and foster the participation of historically underrepresented communities with County government.
- Advise and support pathways to participation to increase civic engagement of communities of color across the County. Pathways to participation may include leadership and capacity building programs such as the Civic Leaders Training program.
- Make recommendations to the Board of County Commissions for widespread and ongoing diverse public involvement and assist the Commissioners by advising on methods by which County residents can better participate in the decision-making process.

#### MEMBERSHIP

- Members will be reflective of the communities that the County serves
- Membership structure will include 13 members
  - At least 51% of whom will identify as being from communities of color
  - One-third may be from community based, non-profit organizations representing communities of color and other historically underrepresented groups
- Members will be required to live, own a business, or work within the geographic boundaries of Washington County

#### REPRESENTATION

- Include diverse representation from communities of color and other historically underrepresented groups as well as representation from organizations that serve those groups who:
  - Bring a connection to, relationship with, and advocacy for specific communities
o Have professional background, community leadership, or other relevant experience in equity issues
o Are familiar with institutional change in the areas of equity, diversity, and inclusion
o Have experience across multiple dimensions of diversity (intersectionality)

TERM OF OFFICE
- Term of office will be 24 months. The length of terms will be adjusted in order to create and maintain staggered terms.
- Term limits?

OFFICERS
- Officers will be a chairperson and vice chair to be elected at the first meeting. Members may elect two co-chairs in place of a chairperson.
- Board of Commissioners (ex-officio)

References
Beaverton, OR; Lane County, OR; Metro CORE, OR; Marysville, WA; Metropolitan Council – Minneapolis/St. Paul, MN
WORK SESSION
WASHINGTON COUNTY BOARD OF COMMISSIONERS

Work Session Date: February 26, 2019  Length of Time Requested: 20 Minutes
Title of Topic: Appoint members to the County's Budget Committees
Department: Support Services
Presenter Name(s): Jack Liang
Presenter Title(s): Chief Finance Officer

LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:
1) Members / applicants matrix for Washington County and Special Districts Budget Committees.
2) Applications of recommended candidates.

PURPOSE:
For the Board of County Commissioners to appoint members to fill vacancies on the budget committees.

SUMMARY OF TOPIC:
There are currently two vacancies on the Washington County and Service District for Lighting No. 1 (SDFLN1) Budget Committee. We considered six qualified and interested applicants for these vacancies and are recommending two from the six to fill the committee vacancies (see attached matrix). The two new members will have terms expiring on June 30th, 2021 which will effectively stagger the members term expiration dates to allow up to two members expiring in the same year.

There is currently one vacancy on the Enhanced Sheriff's Patrol District (ESPD) and Urban Road Maintenance District (URMD) Budget Committee. We considered four qualified and interested applicants for this vacancy and recommending one from the four to fill the committee vacancy (see attached matrix). The new member will have term expiring on June 30th, 2021.

DESIRED OUTCOME:
Authorize an action item for March 19th, 2019 Board Meeting to appoint the budget committee members.
**Washington County Budget Committee**  
**Service District for Lighting No. 1 Budget Committee**

**Description:** Reviews the proposed budget developed for the Washington County and Service District for Lighting No. 1

**Member Description:** The Board of Commissioners plus five residents of the county. The five residents must live in Washington County.

**Term Length:** 3 years

**Term Limit:** None

**Vacancy Total:** 2

**Applicant Total:** 6  *[Click here to access applications]*

<table>
<thead>
<tr>
<th>District*</th>
<th>First Appointed</th>
<th>Term Expires</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Applicants Recommended for Appointment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K S Venkatraman</td>
<td>4</td>
<td>06/30/2021</td>
<td></td>
</tr>
<tr>
<td>James Knowlton</td>
<td>3</td>
<td>06/30/2021</td>
<td></td>
</tr>
</tbody>
</table>

| Other Applicants |                  |              |          |
| Bob Zahrowski    | 2                 |              |          |
| John Junkin      | 2                 |              |          |
| Sebastian Lawler | 4                 |              |          |
| Shaun Savage     | 2                 |              |          |

| Current Members |                  |              |          |
| Leroy Bentley   | 2                 | 02/16/2010   | 06/30/2019 |
| Mark Bauer      | 4                 | 02/16/2010   | 06/30/2019 |
| Rachael Twitty  | 1                 | 07/01/2017   | 06/30/2020 |

| Mid-Term Vacancies |                  |              |          |
| Bonnie Hadley     | 2                 | 02/18/14     | 06/30/2020 |
| Janice M Essenber | 2                 | 02/18/14     | 06/30/2019 |

* For information purposes only; members are not appointed by Commissioner District.
Enhanced Sheriff’s Patrol District Budget Committee
Urban Road Maintenance District Budget Committee

**Description:** Reviews the proposed budget developed for the Washington County and Service District for Lighting No. 1

**Member Description:** The Board of Commissioners plus five residents of the county. The five residents must live in Washington County.

**Term Length:** 3 years

**Term Limit:** None

**Vacancy Total:** 1

**Applicant Total:** 4  *(Click here to access applications)*

<table>
<thead>
<tr>
<th>New Applicants Recommended for Appointment</th>
<th>District*</th>
<th>First Appointed</th>
<th>Term Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daniel Hauser</td>
<td>1</td>
<td></td>
<td>06/30/2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Applicants</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Zahrowski</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bruce Bartlett</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jennifer A Shimabukuro</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Members</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leroy Bentley</td>
<td>2</td>
<td>02/16/2010</td>
<td>06/30/2019</td>
</tr>
<tr>
<td>Karen Bolin</td>
<td>1</td>
<td>08/21/2012</td>
<td>06/30/2019</td>
</tr>
<tr>
<td>Anthony Mills</td>
<td>1</td>
<td>01/05/2016</td>
<td>06/30/2019</td>
</tr>
<tr>
<td>Donna Tyner</td>
<td>1</td>
<td>01/05/2016</td>
<td>06/30/2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mid-Term Vacancy</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonnie Hadley</td>
<td>3</td>
<td>02/18/2014</td>
<td>06/30/2020</td>
</tr>
</tbody>
</table>

* For information purposes only; members are not appointed by Commissioner District.
# WORK SESSION

## WASHINGTON COUNTY BOARD OF COMMISSIONERS

<table>
<thead>
<tr>
<th>Work Session Date:</th>
<th>February 26, 2019</th>
<th>Length of Time Requested:</th>
<th>20 Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Topic:</td>
<td>Issuance of Full Faith &amp; Credit Obligation to Refund Housing Obligations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department:</td>
<td>Support Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenter Name(s):</td>
<td>Jack Liang</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenter Title(s):</td>
<td>Chief Finance Officer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## LIST OF ADDITIONAL DOCUMENTS OR PRESENTATIONS:

1) Debt Service Savings Comparison Document

## PURPOSE:

Present the Board of County Commissioners information on an action item on March 19th, 2019 to authorize issuance of Full Faith & Credit Obligations to refund the 2009 Full Faith and Credit Obligation.

## SUMMARY OF TOPIC:

The HAWC 2009 Full Faith & Credit Obligation will be available for refunding in April 2019. Based on current market interest rate, the County and HAWC will be able to achieve reduced debt service payments and improve HAWC's cash flow by refunding this obligation. Current market interest rate and impact scenarios of increasing or decreasing interest rates will be presented to the Board for consideration of authorizing the refunding of this obligation.

## DESIRED OUTCOME:

Present the Board of County Commissioners information on an action item on March 19th, 2019 to authorize issuance of Full Faith & Credit Obligations to refund the 2009 Full Faith and Credit Obligation.
### Refunding TIC Proj. NPV Savings (%) Proj. NPV Savings ($)

<table>
<thead>
<tr>
<th>Rate</th>
<th>TIC</th>
<th>2019 HAWC Proj. NPV Savings ($)</th>
<th>2019 HAWC Proj. NPV Savings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-50bps</td>
<td>3.33%</td>
<td>$3,586,892</td>
<td>13.78%</td>
</tr>
<tr>
<td>-25bps</td>
<td>3.50%</td>
<td>$2,968,528</td>
<td>11.41%</td>
</tr>
<tr>
<td>+0bps (2/5/19)</td>
<td>3.67%</td>
<td>$2,373,577</td>
<td>9.12%</td>
</tr>
<tr>
<td>+25bps</td>
<td>3.84%</td>
<td>$1,805,777</td>
<td>6.94%</td>
</tr>
<tr>
<td>+50bps</td>
<td>4.01%</td>
<td>$1,258,559</td>
<td>4.83%</td>
</tr>
<tr>
<td>+48bps</td>
<td>4.00%</td>
<td>$1,298,323</td>
<td>5.00%</td>
</tr>
<tr>
<td>+76bps</td>
<td>4.17%</td>
<td>$771,768</td>
<td>3.00%</td>
</tr>
</tbody>
</table>
# SUMMARY OF REFUNDING RESULTS

Washington County, Oregon  
Tax-Exempt Current Refunding of Series 2009 FFCO (HAWC)  
Current Market Rates as of Feb 5, 2019

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dated Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Delivery Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Arbitrage yield</td>
<td>3.000822%</td>
</tr>
<tr>
<td>Escrow yield</td>
<td>2.404012%</td>
</tr>
<tr>
<td>Value of Negative Arbitrage</td>
<td>37,884.52</td>
</tr>
<tr>
<td>Bond Par Amount</td>
<td>22,555,000.00</td>
</tr>
<tr>
<td>True Interest Cost</td>
<td>3.672210%</td>
</tr>
<tr>
<td>Net Interest Cost</td>
<td>4.042113%</td>
</tr>
<tr>
<td>All-In TIC</td>
<td>3.719873%</td>
</tr>
<tr>
<td>Average Coupon</td>
<td>4.981288%</td>
</tr>
<tr>
<td>Average Life</td>
<td>15.736</td>
</tr>
<tr>
<td>Par amount of refunded bonds</td>
<td>25,340,000.00</td>
</tr>
<tr>
<td>Average coupon of refunded bonds</td>
<td>4.556070%</td>
</tr>
<tr>
<td>Average life of refunded bonds</td>
<td>15.582</td>
</tr>
<tr>
<td>PV of prior debt to 04/01/2019 @ 3.000822%</td>
<td>30,270,759.57</td>
</tr>
<tr>
<td>Net PV Savings</td>
<td>2,373,577.39</td>
</tr>
<tr>
<td>Percentage savings of refunding proceeds</td>
<td>9.120834%</td>
</tr>
</tbody>
</table>
## SUMMARY OF REFUNDING RESULTS

Washington County, Oregon  
Tax-Exempt Current Refunding of Series 2009 FFCO (HAWC)  
Current Market Rates as of Feb 5, 2019  
+25 bps

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dated Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Delivery Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Arbitrage yield</td>
<td>3.249424%</td>
</tr>
<tr>
<td>Escrow yield</td>
<td>2.404012%</td>
</tr>
<tr>
<td>Value of Negative Arbitrage</td>
<td>53,616.07</td>
</tr>
<tr>
<td>Bond Par Amount</td>
<td>22,985,000.00</td>
</tr>
<tr>
<td>True Interest Cost</td>
<td>3.842120%</td>
</tr>
<tr>
<td>Net Interest Cost</td>
<td>4.175875%</td>
</tr>
<tr>
<td>All-In TIC</td>
<td>3.890354%</td>
</tr>
<tr>
<td>Average Coupon</td>
<td>4.981171%</td>
</tr>
<tr>
<td>Average Life</td>
<td>15.709</td>
</tr>
<tr>
<td>Par amount of refunded bonds</td>
<td>25,340,000.00</td>
</tr>
<tr>
<td>Average coupon of refunded bonds</td>
<td>4.556070%</td>
</tr>
<tr>
<td>Average life of refunded bonds</td>
<td>15.582</td>
</tr>
<tr>
<td>PV of prior debt to 04/01/2019 @ 3.249424%</td>
<td>29,438,275.19</td>
</tr>
<tr>
<td>Net PV Savings</td>
<td>1,805,777.05</td>
</tr>
<tr>
<td>Percentage savings of refunding proceeds</td>
<td>6.937121%</td>
</tr>
</tbody>
</table>
### SUMMARY OF REFUNDING RESULTS

Washington County, Oregon  
Tax-Exempt Current Refunding of Series 2009 FFCO (HAWC)  
Current Market Rates as of Feb 5, 2019  
+50 bps

<table>
<thead>
<tr>
<th>Dated Date</th>
<th>04/01/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Arbitrage yield</td>
<td>3.498165%</td>
</tr>
<tr>
<td>Escrow yield</td>
<td>2.404012%</td>
</tr>
<tr>
<td>Value of Negative Arbitrage</td>
<td>69,327.58</td>
</tr>
<tr>
<td>Bond Par Amount</td>
<td>23,410,000.00</td>
</tr>
<tr>
<td>True Interest Cost</td>
<td>4.012797%</td>
</tr>
<tr>
<td>Net Interest Cost</td>
<td>4.306639%</td>
</tr>
<tr>
<td>All-In TIC</td>
<td>4.061555%</td>
</tr>
<tr>
<td>Average Coupon</td>
<td>4.981151%</td>
</tr>
<tr>
<td>Average Life</td>
<td>15.708</td>
</tr>
<tr>
<td>Par amount of refunded bonds</td>
<td>25,340,000.00</td>
</tr>
<tr>
<td>Average coupon of refunded bonds</td>
<td>4.556070%</td>
</tr>
<tr>
<td>Average life of refunded bonds</td>
<td>15.582</td>
</tr>
<tr>
<td>PV of prior debt to 04/01/2019 @ 3.498165%</td>
<td>28,638,297.96</td>
</tr>
<tr>
<td>Net PV Savings</td>
<td>1,258,559.09</td>
</tr>
<tr>
<td>Percentage savings of refunding proceeds</td>
<td>4.834873%</td>
</tr>
</tbody>
</table>
SUMMARY OF REFUNDING RESULTS

Washington County, Oregon
Tax-Exempt Current Refunding of Series 2009 FFCO (HAWC)
Current Market Rates as of Feb 5, 2019
-25 bps

Dated Date 04/01/2019
Delivery Date 04/01/2019
Arbitrage yield 2.751806%
Escrow yield 2.404012%
Value of Negative Arbitrage 22,097.75

Bond Par Amount 22,140,000.00
True Interest Cost 3.502554%
Net Interest Cost 3.904815%
All-In TIC 3.549695%
Average Coupon 4.981207%
Average Life 15.743

Par amount of refunded bonds 25,340,000.00
Average coupon of refunded bonds 4.556070%
Average life of refunded bonds 15.582

PV of prior debt to 04/01/2019 @ 2.751806% 31,139,273.48
Net PV Savings 2,968,527.79
Percentage savings of refunding proceeds 11.406667%
### SUMMARY OF REFUNDING RESULTS

Washington County, Oregon  
Tax-Exempt Current Refunding of Series 2009 FFCO (HAWC)  
Current Market Rates as of Feb 5, 2019  
-50 bps

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dated Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Delivery Date</td>
<td>04/01/2019</td>
</tr>
<tr>
<td>Arbitrage yield</td>
<td>2.503079%</td>
</tr>
<tr>
<td>Escrow yield</td>
<td>2.404012%</td>
</tr>
<tr>
<td>Value of Negative Arbitrage</td>
<td>6,300.22</td>
</tr>
<tr>
<td>Bond Par Amount</td>
<td>21,725,000.00</td>
</tr>
<tr>
<td>True Interest Cost</td>
<td>3.333999%</td>
</tr>
<tr>
<td>Net Interest Cost</td>
<td>3.764697%</td>
</tr>
<tr>
<td>All-In TIC</td>
<td>3.380612%</td>
</tr>
<tr>
<td>Average Coupon</td>
<td>4.981271%</td>
</tr>
<tr>
<td>Average Life</td>
<td>15.760</td>
</tr>
<tr>
<td>Par amount of refunded bonds</td>
<td>25,340,000.00</td>
</tr>
<tr>
<td>Average coupon of refunded bonds</td>
<td>4.556070%</td>
</tr>
<tr>
<td>Average life of refunded bonds</td>
<td>15.582</td>
</tr>
<tr>
<td>PV of prior debt to 04/01/2019 @ 2.503079%</td>
<td>32,043,089.90</td>
</tr>
<tr>
<td>Net PV Savings</td>
<td>3,586,892.14</td>
</tr>
<tr>
<td>Percentage savings of refunding proceeds</td>
<td>13.784813%</td>
</tr>
</tbody>
</table>
Purpose:
To discuss the Board of Commissioner support requirements and a plan to add additional staff to the County Administrative Office.

Summary of Topic:
The Board of Commissioners requires staff support beyond what is available from current staffing levels in the County Administrative Office. Staff recommends the creation of two new classifications: 1) Senior Staff Assistant to the Board; and 2) Staff Assistant to the Board and the addition of 2.0 FTE for FY 2018-19.

Desired Outcome:
Provide direction to address the Board of Commissioner staffing requirements.