COMMISSION AGENDA

Item No: 7A

Meeting: 11/18/21

DATE: November 3, 2021

TO: Port Commission

FROM: Eric D. Johnson, Executive Director

Sponsor: Jason Jordan, Director, Environmental and Planning Services

Project Manager: Steve Nicholas, Environmental Senior Project Manager

SUBJECT: NWPCAS Implementation Plan and Resolution 2011-11-PT

A. ACTION REQUESTED

Request that the Port of Tacoma Commission pass Resolution 2021-11 adopting the Port of Tacoma's 2021-2025 Clean Air Implementation Plan.

B. SYNOPSIS

The 2020 Northwest Ports Clean Air Strategy (NWPCAS) – unanimously adopted by the Port of Tacoma Commission in April 2021 – sets a bold new vision for clean air and climate action by the NWSA: "…**phase out emissions from seaport-related activities by 2050.**" This Clean Air Implementation Plan outlines the key actions the Port of Tacoma will take in the next five years (2021-2025) to advance that vision and the Port's interim targets for greenhouse gas (GHG) emission reduction: 50% by 2030, and 70% by 2040. In all, the implementation plan lays out 17 milestones to be achieved by the end of 2025. The Port of Tacoma's Air Quality & Sustainable Practices Team will be responsible for coordinating implementation of this plan, tracking progress against these milestones, and reporting annually to senior executives, the Port of Tacoma Commission, and our government, industry, community, and NGO partners and stakeholders. Staff briefed individual commissioners on the Implementation Plan in the run-up to this full Commission meeting.

C. BACKGROUND

Context: The adoption of the 2020 NWPCAS and the development of associated implementation plans (including this one) are well-timed. As climate impacts increase in both frequency and intensity, so does the spotlight on clean air and climate solutions – internationally, nationally, in Washington state, and locally. The focus on the role of international shipping and the maritime industry – and pressure on the International Maritime Organization (IMO) to take stronger action – is increasing and is a major focus at COP26 (the annual United Nations conference on global climate action) that is happening in November 2021 in Glasgow, Scotland. Here in the State of Washington, two recently passed pieces of legislation – the Clean Fuels Standard and the Washington Climate Commitment Act – are heading into rulemaking and program development and implementation.

Both policies are expected to significantly change the economics of climate solutions in our state and will create new revenue streams that could help finance emission reduction initiatives at ports, including some of those outlined in this implementation plan. At the same time, promising zero and near-zero emission technologies are under development and advancing in key areas, including ocean going vessels, drayage trucks, tugs, and cargo-handling equipment.

Goals: The overarching goals of this implementation plan are as follows:

- ***Do our part to improve local air quality***, especially in places where environmental health disparities exist, according to the Washington Department of Public Health.
- ***Do our part to meet the global climate challenge*** – limit global temperature rise to 1.5°C to stave off what the International Panel on Climate Change (IPPC) calls "severe, widespread, and irreversible impacts".
- ***Sustain and strengthen our competitiveness*** in the cargo shipping and real estate development industries to advance our core mission of facilitating international and domestic trade, creating jobs, and fostering economic opportunity in Pierce County and Washington state.

Sources of Emissions: Seaport-related emissions in the Tacoma Harbor result from a variety of activities that can be attributed to both the NWSA and the Port of Tacoma's operational scopes. Figure 3 details the diesel particulate matter emissions in the Tacoma Harbor (NWSA and PoT combined) and Figure 4 shows the GHG emissions in the Tacoma Harbor. Note that the emissions in the Port's direct operational scope, excluding NWSA activities, represent a relatively small fraction of the total emissions.

Figure 3: Tacoma Harbor Diesel Particulate Matter (DPM) Emissions by Sector

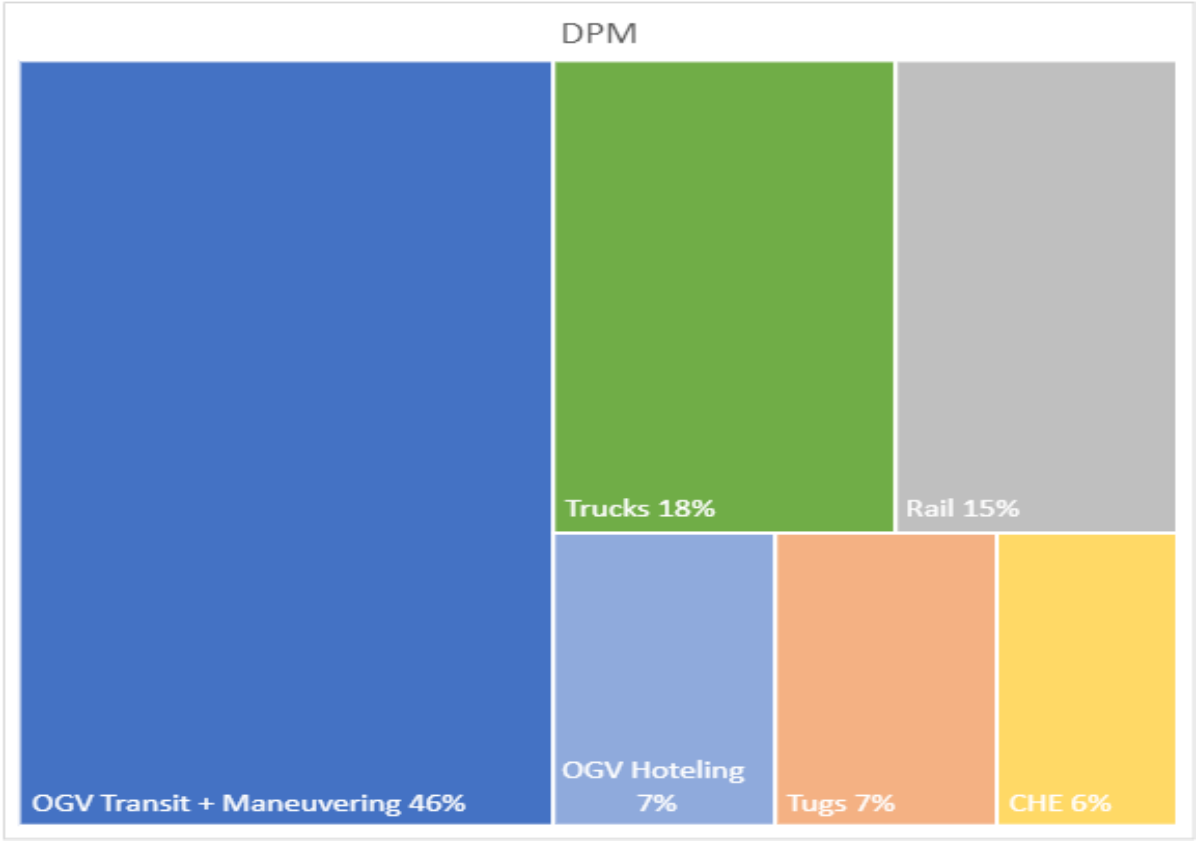
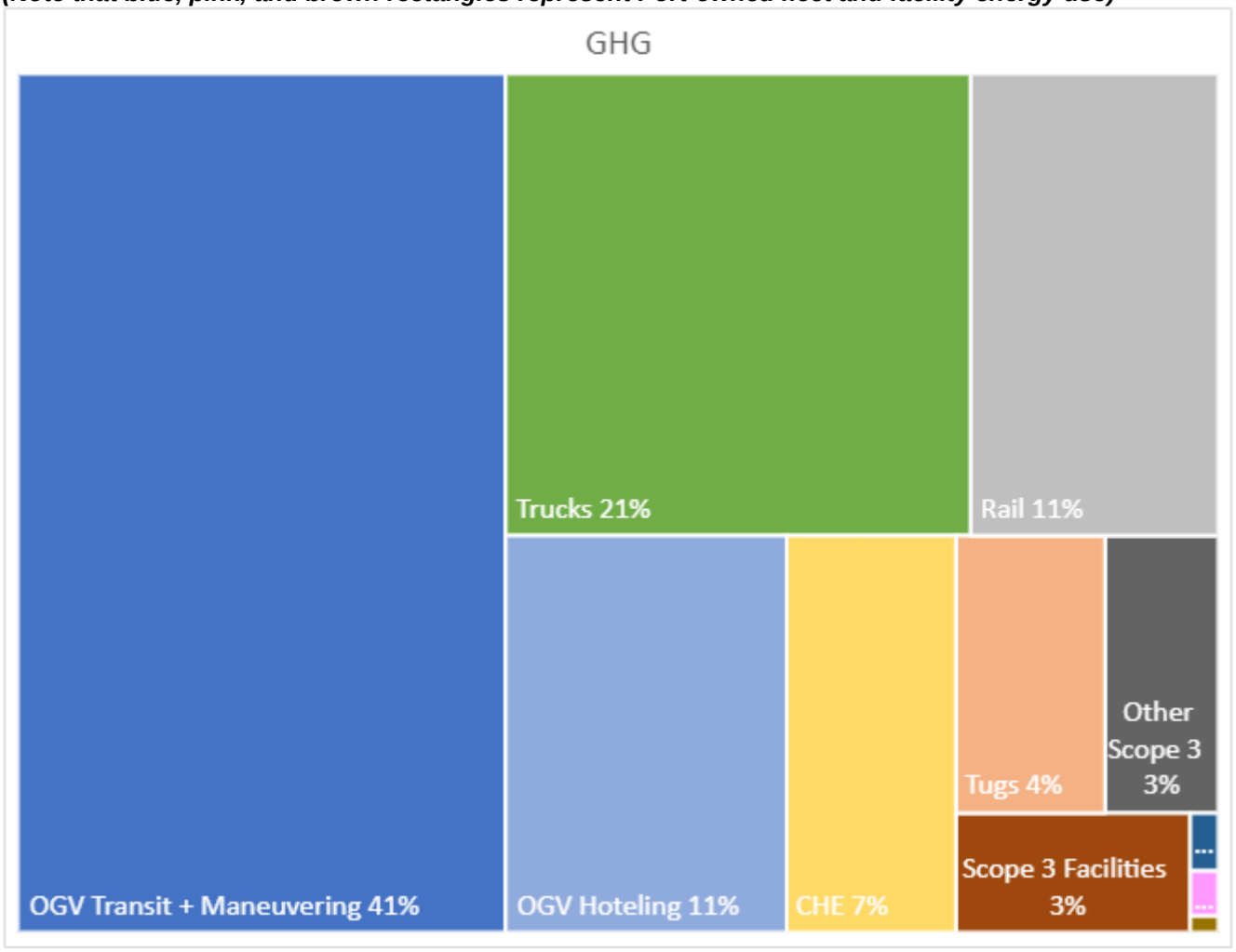
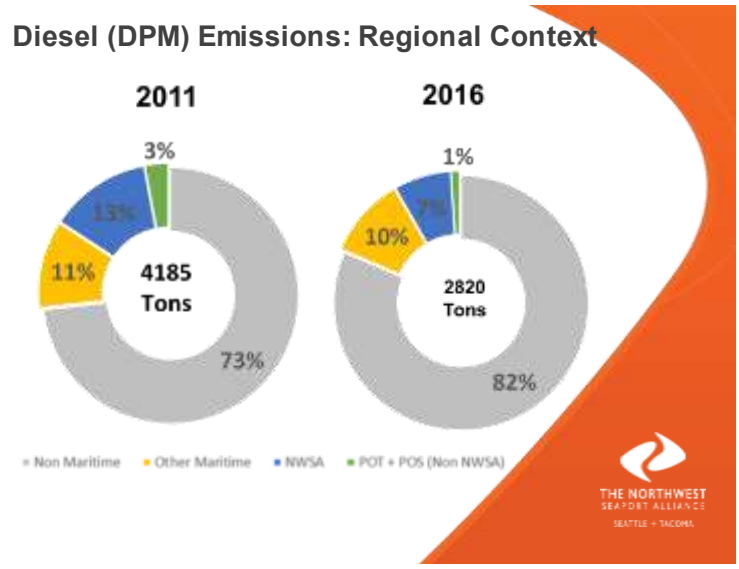


Figure 4: Tacoma Harbor Sources of Greenhouse Gas Emissions by Sector
(Note that blue, pink, and brown rectangles represent Port-owned fleet and facility energy use)

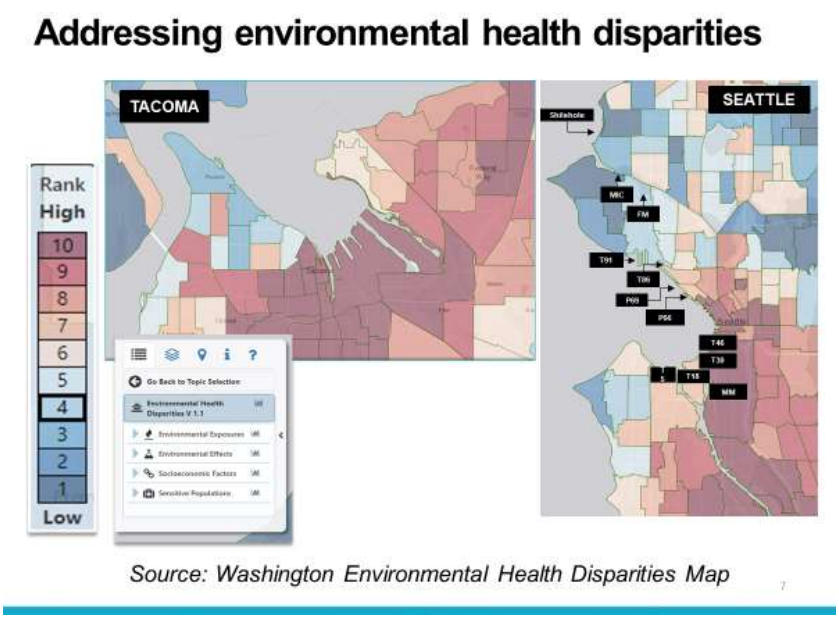


Progress to date: The ports have made significant progress in reducing emissions since the NWPCAS was first adopted in 2008. For example, between 2011 and 2016, emissions of diesel particulate matter in 13 western Washington counties were reduced by more than 30 percent – from 4185 tons to 2820 tons – and the NWSA's share of those emissions fell from 13 to seven percent.



Exposure & Impact: To better understand the impacts of port-related emissions on exposure to air pollution, the NWSA commissioned Washington State University (WSU) to do modeling and estimate how much each source contributes to human exposure.

The results of that study indicate that, when the dispersion of emissions and population data are factored in, actions to reduce emissions from ocean-going vessels at berth, drayage trucks, and cargo-handling equipment are likely to be the most impactful ways for the Port of Tacoma, the NWSA, and their myriad partners to reduce the impacts of port-related diesel emissions.



Source: Washington Environmental Health Disparities Map

Environmental Health Disparities: The Port understands that, according to the WA Department of Health, environmental health disparities exist in both harbors in which we operate. The rankings featured on this map combine some 19 factors across four categories – including everything from diesel and ozone pollution to proximity to highways and hazardous waste sites to demographic such as race and unemployment rates. As the Port and is partners continues their efforts to reduce and ultimately eliminate emissions of diesel particulate matter from its activities, it continues to make a positive contribution toward reducing these disparities.

Process: The Port of Tacoma's Air Quality & Sustainable Practices (AQSP) team lead the development of this implementation plan, working closely with an interdepartmental Climate & Clean Air Action Team (C-CAT) consisting of representatives from the major business units across the Port of Tacoma and the Northwest Seaport Alliance. In addition, a wide range of external partners and stakeholders – government agencies, tenants and other industry partners, near-port residents and community groups, and NGOs – were intensively engaged in the process, through a series of workshops, focus groups, one-on-one consultations, and on-line surveys. The six themes that emerged from engagement with external partners and stakeholders are as follows:

- Strong consensus on the need to achieve zero emission operations by 2050 and to prioritize the clean energy transition
- Divergent feedback on timelines for achieving zero emissions in some sectors and the need for interim targets
- Desire for ports to lead-by-example and prioritize climate/clean air investments to address environmental health disparities
- Desire for more accountability, communication, and transparency in reporting and decision-making
- Consensus on the importance of reducing emissions from trucks; concerns about cost, feasibility, equity
- Concern about ocean-going vessels as a major source of emissions and impacts on marine life

Based in part on this input, the following improvements were made to this final draft of the Port of Tacoma's clean air implementation plan:

Interim Targets	• Added reference to Port of Tacoma's existing 2030 target: 50% reduction (Resolution 2017-2) • Added support for state-wide 2040 target for 2040: 70% reduction (RCW 70.235.050)
Accountability Framework	• Strengthened emphasis on 5-year milestones and more clearly articulated reporting regime and adaptive management process
Community Engagement	• Added reference to Duwamish Valley Community Equity Program • Strengthened community engagement actions: ➢ Quarterly community updates ➢ Community Guide to Clean Air & Climate Solutions ➢ Collaborate with community groups to develop on-going engagement program

Strategy: The Port of Tacoma's strategy for reducing and ultimately eliminating remaining emissions is three-pronged: 1) take direct action where possible, such as the purchase of electric vehicles and installation of EV charging infrastructure for Port vehicles; 2) collaborate closely with the NWSA and other Port tenants and industry partners – through lease agreements, pilot projects, and other means – to identify, finance, and implement emission-reduction initiatives, such as the purchase of cleaner and zero-emission vehicles and equipment; and 3) track, engage in, and influence international, federal, state and local policies, programs, and funding opportunities that support clean air and climate solutions at the Port of Tacoma.

Milestones: The key milestones against which the Port's success over the next five years will be gauged are presented in the table below. Note that the shaded cells are milestones the PoT will work on jointly together with the NWSA.

Sector	Timeline	Key Milestones
Community Engagement & Partnerships	Q1 2022	Begin providing quarterly updates on NWPCAS progress.
	End 2022	Complete a Community Clean Air and Climate Resource Guide.
	End 2022	Develop and begin implementing a Tacoma community engagement and partnership program.
Infrastructure Planning and Development	Q2 2023	Complete the South Harbor Electrification Roadmap.
Technology Assessment & Advancement	End 2022	Begin conducting technology assessments (first one completed by the end of the year).
Ocean-Going Vessels	March each year	Compile data on shore power use and the fraction of shore power capable vessels calling at the grain terminal during the previous year
	End 2022	Complete vessel emission reduction study
	End 2022	Establish and begin implementing an International Engagement Strategy for reducing vessel emissions
Fleets & Facilities	End 2022	Energy efficiency improvements at Fabulich Center complete
	End 2022	Sustainable Facilities Working Group established
	End 2022	Inventory of natural gas use in buildings complete
	End 2022	Sustainable Building & Infrastructure Policy adopted
	Q1 2023	Tenant energy efficiency program established

Sector	Timeline	Key Milestones
	End 2025	Complete 1 additional energy efficiency or clean energy project
	End 2025	EV charging infrastructure installed at existing and new Port Maritime Center/Administration Buildings; EB-1 terminal; NIM yard and Maintenance Building
	End 2022	Sustainable Fleet Management Plan complete
	End 2023	Refresh Port's Commute Trip Reduction Program

D. ACCOUNTABILITY FRAMEWORK

The Port of Tacoma Air Quality & Sustainable Practices (AQSP) Team will coordinate the execution of this implementation plan, guided by the interdepartmental Clean Air & Climate Action Team and in continued partnership with a wide range of government, industry, community, and NGO partners. The AQSP Team will be responsible for tracking progress against the milestones listed in Table 3, and report annually to senior executives and the Commission, as well as our external partners. The Port also will work closely with its port partners – the NWSA, Port of Port of Seattle, and Vancouver-Fraser Port Authority – to track and report annually on our collective progress toward the "zero emissions by 2050" vision of the 2020 NWPCAS.

In addition, the partners will continue to closely track relevant developments in public policy, zero-emission technology advancement, and infrastructure development, and adjust our implementation strategy and approach accordingly. We will update the Puget Sound Maritime Air Emissions Inventory and renew the NWPCAS every five years.

E. ESTIMATED BENEFITS

The benefits of taking these actions are fourfold: 1) to reduce emissions of greenhouse gases from Port of Tacoma activities; 2) to do our part to improve air quality in and around the Tacoma Harbor and achieve associated public health benefits – and address environmental health disparities as depicted in the WA Department of Public Health's Environmental Health Disparities Map; 3) to do our part to reduce greenhouse gas emissions that exacerbate climate change; and 4) to position the Port well vis-à-vis recent and anticipated public policy changes, technology advances, and external funding opportunities.

F. ESTIMATED 5-YEAR IMPLEMENTATION COSTS

Action	Cost
Port Fleets & Facilities	
Energy efficiency upgrades	$800,000
EV charging infrastructure: existing and new Port Administration Buildings, EB-1 Terminal, NIM Yard and Maintenance Building	$3,000,000
EVs for Port Administrative fleet	$600,000
Sustainable Building& Infrastructure Policy development	$50,000
Sustainable Fleet Management Plan development	$50,000
Other Actions	
• Industry engagement • Community engagement • Policy engagement	$800,000

• South Harbor Electrification Roadmap contribution • Emissions inventory contribution • Technology assessment contribution	
Total 5-year Implementation Costs	**$5,300,000**

G. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation.
- Draft of Resolution No. 2021-11
- Final Draft of the Port of Tacoma 2021-2025 Clean Air Implementation Plan

H. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action
March, 2021	Briefing for Port of Tacoma Commission on draft Clean Air Implementation Plan
April 6, 2021	NWSA Managing Members conduct second reading of Joint Resolution 2021-01; resolution is unanimously adopted by Managing Members, Port of Seattle Commission, and Port of Tacoma Commission
February 2, 2021	NWSA Managing Members conduct first reading of 2020 NWPCAS Resolution 2021-01 and were briefed on 2020 NWPCAS proposed implementation plan development
August 17, 2017	Port of Tacoma adopts Resolution 2017-04-PT setting GHG reduction targets
December 2013	Port of Seattle and Port of Tacoma Commissions adopt NWPCAS 2013 update
January 2008	Port of Seattle and Port of Tacoma Commissions adopt original NWPCAS