

# Charting the Course to Zero: *Port of Seattle's Maritime Climate and Air Action Plan*

## Quick Reference Community Review Guide

March 2021 Draft

This Review Guide was created to provide a brief summary of the Port of Seattle's draft Maritime Climate and Air Action Plan and highlight sections that may be of interest to members of Seattle's near-port communities. **The Port of Seattle is seeking feedback on the draft Plan by March 31, 2021** but ongoing engagement is critical to identify, develop, prioritize and implement projects that improve air quality, protect community health, and stop climate change.

- Charting the Course to Zero: Port of Seattle's Maritime Climate and Air Action Plan (March 2021 draft for public comment):
  - [Draft Executive Summary](#)
  - [Full Draft Plan](#)
- [Survey to submit comments](#) (comments due March 31)

**Please contact Ryann Child ([child.r@portseattle.org](mailto:child.r@portseattle.org)) if you have any questions or need to request an extension to provide comments.** Your feedback will inform development of a final draft, which will be presented to the Port of Seattle commission in June for adoption.

## About Port of Seattle's Implementation Plan

*Charting the Course to Zero: Port of Seattle's Maritime Climate and Air Action Plan* (the MCAAP) is a comprehensive plan to address climate change and air pollution from maritime sources. It charts the course to achieve the Port's [Century Agenda](#) greenhouse gas (GHG) reduction targets and implement the [2020 Northwest Ports Clean Air Strategy](#) (2020 Strategy) vision to phase out emissions from seaport-related sources by 2050.

The MCAAP was created to address the urgency of the climate crisis and to reduce maritime-related emissions in near-port communities in Seattle that are disproportionately impacted by air pollution. As the Port of Seattle works toward the 2020 Strategy vision to reach zero emissions by 2050, the MCAAP identifies strategies and actions the Port will implement in the next ten years to reduce air pollutant and GHG emissions from port maritime sources.

## What sources of emissions are covered in the MCAAP?

The MCAAP covers GHG emission sources related to **Port Maritime Administration** operations by Port of Seattle's Maritime and Economic Development Divisions. These include emissions from the energy used in Port of Seattle's buildings, fuel used in fleet vehicles and equipment,

and emissions associated with employee commuting and solid waste transportation and disposal. The Plan also covers diesel particulate matter (DPM) and GHG emissions sources from Port of Seattle’s **Maritime Activities**. These sources include ocean-going vessels like cruise ships and grain ships, cargo handling equipment, harbor vessels, such as tug boats, recreational vessels, and the Port’s commercial fishing fleet, trucks serving the cruise industry and fishing fleets (container trucks are included in the Northwest Seaport Alliance’s Implementation Plan), and rail locomotives serving the Port’s grain terminal.

In addition to emission reduction opportunities, the Plan also includes actions to restore shoreline and habitat for its the future carbon sequestration potential.

**Table 1. Port of Seattle’s maritime emissions sources covered by the MCAAP**

<b><u>Port Maritime Administration</u> GHG Emissions Sources</b>	<b><u>Maritime Activity</u> GHG and DPM Emissions Sources</b>
<ul style="list-style-type: none"> <li>• <b>Building and Campus Energy:</b> Electricity and natural gas used in 80 buildings across 10 major campuses in Seattle</li> <li>• <b>Fleet Vehicles and Equipment:</b> Fuel consumed by 400+ maritime fleet vehicle and equipment assets</li> <li>• <b>Employee Commuting:</b> Port employees commuting to maritime properties.</li> <li>• <b>Solid Waste:</b> Transport and disposal of solid waste generated at the Port’s maritime properties</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Oceangoing vessels:</b> Cruise, grain ships</li> <li>• <b>Harbor vessels:</b> tugboats, commercial fishing, and recreational vessels</li> <li>• <b>Cargo-handling equipment:</b> equipment used to lift and move goods to and from storage areas, ships, trucks, and railcars</li> <li>• <b>Trucks:</b> Cruise buses and shuttle vans and trucks that support cruise and commercial fishing operations</li> <li>• <b>Rail:</b> Switcher (used on terminal) and line-haul (used off terminal) locomotives serving grain operations</li> </ul>

*NOTE: The Northwest Seaport Alliance is developing a similar implementation plan that addresses all emissions from Seattle and Tacoma’s maritime cargo industry and operations.*

The MCAAP does not address GHG or DPM emissions associated with Seattle-Tacoma International Airport (SEA Airport) administration, airlines, tenants, or ground transportation. SEA Airport creates its own separate plans and inventories to track and address these sources (learn more in the [Sustainable Airport Master Plan](#)). The MCAAP also excludes emissions from container cargo terminal operations managed by the Northwest Seaport Alliance (NWSA). As a partner on the Northwest Ports Clean Air Strategy, NWSA is developing a similar plan with actions to reduce emissions from these sources, which will be developed in collaboration with near-port communities in Seattle and Tacoma. Like Port of Seattle, NWSA commits to ongoing engagement to identify, develop and equitably implement strategies to reduce climate and air pollution.

## How will Port of Seattle reduce maritime emissions?

As outlined in Table 1 above, the MCAAP covers the Port’s maritime-related emissions and emission reduction strategies in two parts: Port Maritime Administration and Maritime Activity.

## Port Maritime Administration

**Section 3 of the MCAAP identifies 23 strategies across five sectors to reduce GHG emissions from Port Maritime Administration sources.** Port Maritime Administration strategies focus on three themes:

1. Reduce energy and fuel use
2. Shift from fossil-based energy to renewable energy
3. Leverage habitat restoration projects to sequester carbon

**Table 2. Highlights of Port Maritime Administration GHG Emission Reduction Strategies**

Sector	Strategy Examples
Building and Campus Energy	Eliminate building fossil natural for heating gas by 2030
Fleet Vehicles and Equipment	Transition fleets to electric or renewable fuels by 2030
Employee Commuting	Encourage flexible work arrangements (including telework) to reduce employee commuting emissions
Solid Waste	Minimize solid waste generation
Habitat Restoration and Carbon Sequestration	Complete Smith Cove Blue Carbon Benefits Study, continue to restore shoreline habitat

## Maritime Activity

**Section 4 of the MCAAP identifies 19 strategies across the five Maritime Activity sectors that align with the [2020 Northwest Ports Clean Air Strategy](#) objectives:**

1. Continually improve efficiency and reduce emissions
2. Provide infrastructure needed to support zero-emission equipment by 2030
3. Demonstrate and adopt zero-emission equipment by 2050

**Table 3. Highlights of Maritime Activity GHG and DPM Emission Reduction Strategies**

Sector	Strategy Examples
<b>Cross-Sector</b>	<ul style="list-style-type: none"> <li>• Facilitate cross-industry planning through the Seattle Waterfront Clean Energy Strategic Plan</li> <li>• Update green lease terms and incorporate into all new and renewed landside leases</li> <li>• Advocate for local, state, and federal policy and funding that supports climate action</li> <li>• Engage and collaborate with community, industry, and government</li> </ul>

<p><b><u>Waterside:</u></b>  <b>Oceangoing vessels and harbor vessels</b></p>	<p><b>Shore power:</b></p> <ul style="list-style-type: none"> <li>• Install shore power at the Bell Street Cruise Terminal at Pier 66 by 2023</li> <li>• Reach 100% shore power-equipped, homeport<sup>1</sup> calls and 100% connection rate by 2030</li> </ul> <p><b>Research:</b></p> <ul style="list-style-type: none"> <li>• Complete Port of Seattle-specific cruise ship emission research and a cruise environmental strategy</li> <li>• Participate in development of International Association of Ports and Harbors (IAPH) at-berth cruise reporting</li> <li>• Evaluate emissions impacts of slow steaming with the Quiet Sound program</li> </ul> <p><b>Demonstration:</b></p> <ul style="list-style-type: none"> <li>• Work with governments, industry, and NGOs to support development and demonstration of a zero-emission ocean-going vessel and harbor vessel by 2030</li> <li>• Demonstrate zero-emission outboard engines in Port-owned vessel fleets and communicate result</li> </ul>
<p><b><u>Landside:</u> Cargo-Handling Equipment, Cruise/Fishing Trucks and Buses, On-Terminal Rail</b></p>	<p><b>Industry engagement:</b></p> <ul style="list-style-type: none"> <li>• Engage Port tenants to begin planning and designing infrastructure to support zero-emission cargo-handling equipment and on-terminal rail</li> <li>• Engage commercial fishing and cruise trucking industry to discuss truck fleet needs and opportunities for alternative fuels or zero-emission technology</li> <li>• Work with Port tenants to accelerate replacement of unregulated switcher locomotives for near or zero-emission alternatives</li> </ul> <p><b>Research:</b></p> <ul style="list-style-type: none"> <li>• Evaluate environmental incentive programs to accelerate Port tenant and customer cargo-handling equipment upgrades or low carbon fuel use</li> <li>• Research and develop strategies to reduce emissions from passenger ground transportation serving cruise terminals</li> </ul> <p><b>Demonstration:</b></p> <ul style="list-style-type: none"> <li>• Collaborate with terminal operators and fishing operations to assess the feasibility and demonstrate zero emissions equipment, trucks, and buses</li> </ul> <p><b>Advocacy:</b></p> <ul style="list-style-type: none"> <li>• Explore opportunities to advocate for regulatory changes that reduce emissions from Class I Railroads.</li> </ul>

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<sup>1</sup> Homeport calls are cruise calls that start and end their journey in Seattle.

## Commitment to continued engagement with near-port communities

While the MCAAP charts the course toward zero emissions at Port of Seattle, many decision points remain intentionally open-ended regarding the Port’s actions and priorities. Engagement with near-port communities impacted by maritime emissions, maritime industries, government agencies, Tribal nations, and others will be critical to identify, develop, prioritize and implement projects that can improve air quality, protect community health, and stop climate change. The Port is committed to working with near-port communities on an ongoing basis to identify community-based projects and investment priorities and to helping lead an equitable transition to a carbon-free port. This commitment is stated in the “cross-sector” strategies on page 61 (PDF reader page 84) and elsewhere throughout the MCAAP (see table 4).

### XC4

**Engage with community, industry, and government.** The 2020 Strategy and the Port’s implementation actions were informed by a multi-year engagement process that sought input from community, industry, government, and non-government representatives. Ongoing collaboration across the Port network is essential to achieve the Strategy vision and the Port’s GHG reduction goals. The Port will continue engaging partners in the implementation of the actions identified for each sector. The Port will collaborate to conduct pilot projects, pursue funding, share progress and to use community and industry input to prioritize actions that reduce air pollution in regions that need it most.



### Actions

#### Ongoing

- ◆ Engage the Duwamish Valley Community to define climate and air quality priorities, measures, and strategies for reducing emissions from Port operations and develop materials to increase understanding of Port emission sources, strategies, programs, and engagement opportunities.
- ◆ Support workforce development and training for vessel and equipment operators and mechanics in Washington to operate and maintain zero-emission maritime equipment
- ◆ Encourage start-up businesses in Port-related industries to partner with the Port’s Maritime Innovation Center to focus on reducing emissions from the maritime sector
- ◆ Continuously improve regional air quality information, including evaluating options to inventory maritime emissions at Port of Seattle annually and improve equity indicators to measure and inform implementation
- ◆ Publicly communicate sustainability measures (e.g., shore power use, equipment replacements, efficiency measures), and implementation progress annually via Port channels.

## MCAAP sections related to Seattle’s near-port communities

The following table identifies sections of the MCAAP related to Seattle’s near-port communities.

**Table 4. MCAAP Review Guide to Sections Related to Seattle’s Near-Port Communities**

Section Title	Subsection Title	Document Page Numbers	PDF Page Numbers	Brief Description
Section 1: Introduction	The Plan depends on ongoing engagement to inform implementation	4	21	A brief overview of the Port’s commitment to continue engagement with near-port communities to guide implementation of the MCAAP and the transition to zero emission operations.
Section 1: Introduction	Why we need this plan: climate change, air quality, and the Port of Seattle	4 - 7	21 -24	This section covers the Port’s commitment to combatting global climate change and reducing maritime related air pollution. It discusses environmental health disparities in near-port communities, including the Duwamish Valley
Section 1: Introduction	Vision and Guiding Principles	8	25	An overview of the vision and guiding principles of the MCAAP, which are the same as the 2020 Northwest Ports Clean Air Strategy. These include climate urgency, community health, social equity, and accountability.
Section 1: Introduction	The Port is committed to equity, diversity, and inclusion	9 - 10	26 - 27	Discussion of the Port Community Action Team, Duwamish Valley Community Benefits Commitment, and creation of the Office of Equity, Diversity, and Inclusion at Port of Seattle.
Section 1: Introduction	Community, industry, and government engagement	10 - 12	27-29	Overview of how the Port of Seattle conducted engagement on the Northwest Ports Clean Air Strategy and MCAAP to date.
Section 3: Strategies to Reduce Impacts: Port Maritime Administration	Entire section	30 - 57	47 - 79	This section details strategies to address GHG emissions from Port Maritime Administration sources including building and campus energy, fleet vehicles and equipment, employee commuting, and solid waste.

Section 4: Strategies to Reduce Impacts: Maritime Activity	Entire Section	58 - 75	80 - 100	This section details strategies to reduce GHG and DPM emissions from Maritime Activity sources, which include ocean-going vessels, harbor vessels, cargo-handling equipment, trucks, and rail.
Section 4: Cross-Sector Maritime Activity	XC4: Engage with community, industry, and government	61	84	The Port of Seattle has identified an overarching cross-sector strategy to continue engagement with community, industry, and government entities.
Section 5: Implementation	Roles, responsibilities, and the need for collaboration	76 - 83	101- 108	This section outlines the Port’s roles and the importance of collaboration. It identifies the need for engagement with near-port communities throughout implementation and includes information on reporting and the use of an adaptive management framework.
Appendix D: Performance Metrics	Entire Section	D1-D5	123-127	This appendix summarizes the performance metrics the Port of Seattle will use to report on progress.

### For More Information

Find more information about the Northwest Ports Clean Air Strategy on the Port of Seattle website:  
<https://www.portseattle.org/page/northwest-ports-clean-air-strategy>

Please use this survey to provide feedback on the MCAAP:  
<http://survey.constantcontact.com/survey/a07ehoqr0qpkm284tw6/start>

If you have questions, would like to provide comment in a different format, or would like to arrange a meeting with Port staff, please contact Ryann Child: [child.r@portseattle.org](mailto:child.r@portseattle.org)

If you have questions about NWSA’s Northwest Ports Clean Air Strategy Implementation Plan, its development and what is included, please contact Steve Nicholas: [snicholas@nwseaportalliance.com](mailto:snicholas@nwseaportalliance.com)