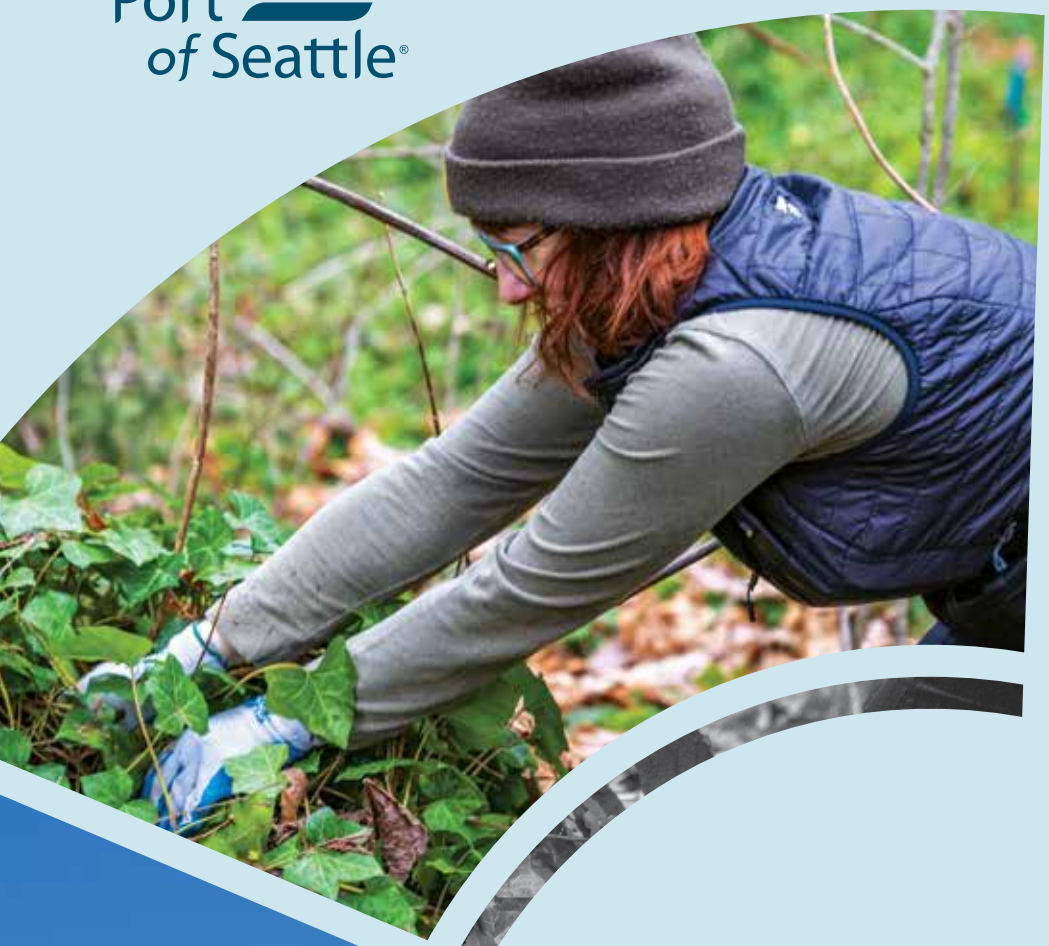
Port of Seattle®



DRIVING A SEACHANGE FOR OUR FUTURE

ENVIRONMENT AND SUSTAINABILITY
2024 ANNUAL REPORT

contents

foreword

The Port of Seattle is privileged to operate amidst extraordinary natural resources and a community deeply invested in environmental stewardship. Recognizing that our influence extends beyond our seaport and Seattle-Tacoma International Airport (SEA), we are striving for a SEA CHANGE – a fundamental transformation of our aviation and maritime operations toward a more sustainable port for the future.

True and lasting change happens when we lead by example, foster collaboration, and take calculated risks. The 2024 Environment and Sustainability Annual Report highlights the significant progress the Port of Seattle has made toward our ambitious environmental and sustainability goals. The accomplishments detailed in this report stand as a testament to the hard work, innovation, and unwavering commitment of our staff and partners.

The report documents momentous achievements in 2024. We became the first airport to transition our fire department fleet to PFAS-free foam. We adopted the SEA Land Stewardship Plan to guide our property management and launched a sound insulation repair and replacement pilot program for near airport residences. Our airport also requires all tenants to use compostable or reusable service ware, significantly reducing single-use plastics and overall waste.

At the waterfront, all three cruise berths are now equipped with shore power, reducing cruise emissions while at berth. This makes us among the first homeports in the world to offer these connections at all cruise terminals. We became the first port in the nation to require shore power usage for cruise ships independent of state regulations, starting with the 2027 season. We took bold steps in completing the Seattle Waterfront Clean Energy Strategy – a roadmap to upgrade our power infrastructure over the next 20 years. We launched a sustainable maritime fuel collaborative and an e-methanol feasibility study for cruise ships because we know that sustainable fuels are the future of transportation. We removed over 40 tons of marine debris from subtidal areas and renewed our Salmon-Safe certification for waterfront properties and public parks.

The Port understands that regional sustainability is a collective achievement. We proudly honor our tenants and customers who champion environmental goals and demonstrate exceptional sustainability leadership. Their efforts contributed to significant progress this past year in key areas such as energy efficiency, waste and emission reduction, airport noise reduction, the health of salmon and Southern Resident killer whales, and the modernization of operations.

In 2024, we faced challenges that tested our resilience – a cyberattack, supply chain issues, complex project conditions, and other unexpected events. Nevertheless, we emerged with renewed dedication to our goals. We appreciate the vision, partnership, and steadfast support from our Port of Seattle Commissioners, as we strive to push boundaries and innovate.

The Port continues to adapt and lead, not only because of our mission, but because it is our responsibility to the region we serve, the environment we steward, and the future we envision. We invite you to join us in this critical endeavor, as together, we chart a course towards a thriving, sustainable Port for the future.

SANDRA KILROY
Senior Director, Environment and Sustainability
Port of Seattle

STEPHEN P. METRUCK
Executive Director
Port of Seattle

DRIVING A SEACHANGE FOR OUR FUTURE

Seaports and airports are core transportation hubs for moving people and goods around the world. Our values demand that we do this work responsibly, centering sustainability and environmental stewardship.

Since 1911, the Port of Seattle (Port) has been a driving force behind the region's economy, fostering job creation and a high quality of life. This success extends beyond the economic sphere. We've become a leader in innovative environmental stewardship, going beyond mere compliance, to achieve sustainable growth alongside environmental regulation and protection. Good stewardship isn't just a legal obligation; it's ingrained in our mission and fuels our future. At the Port of Seattle, we are undergoing a SEA Change — a transformative shift toward a more sustainable future.

The Port is a unique leader, managing both a major international airport and a global seaport. This position drives our innovative approach to sustainability. We strategically invest in programs and initiatives designed to protect our natural resources and establish ourselves as the greenest, most energy-efficient port in North America.

The Port has a comprehensive Environment and Sustainability program that includes decarbonization, sound insulation and noise abatement, wetlands and habitat restoration, waste reduction and recycling, stormwater management, hazardous materials management, contaminated site cleanup, and energy conservation.

As environmental stewards, the Port embraces its responsibility not only to the region's economic prosperity, but also to its environmental health. This includes promoting environmental justice by ensuring that communities, especially those historically overburdened by pollution, benefit from our sustainability efforts. We actively engage with residents, community groups, and local organizations to understand their concerns and to tailor our programs to address local needs.

We understand that achieving our sustainability goals requires strong partnerships. The Port actively engages with a diverse range of stakeholders, from local partners to international organizations. Through collaboration, we develop and implement effective programs that address our region's environmental challenges and help build sustainability into operations to achieve global impact.

With extensive knowledge, experience, and unwavering determination, the Port of Seattle drives transformation by modeling best practices, leading research and innovation, building sustainable infrastructure, and advocating for supportive policies.

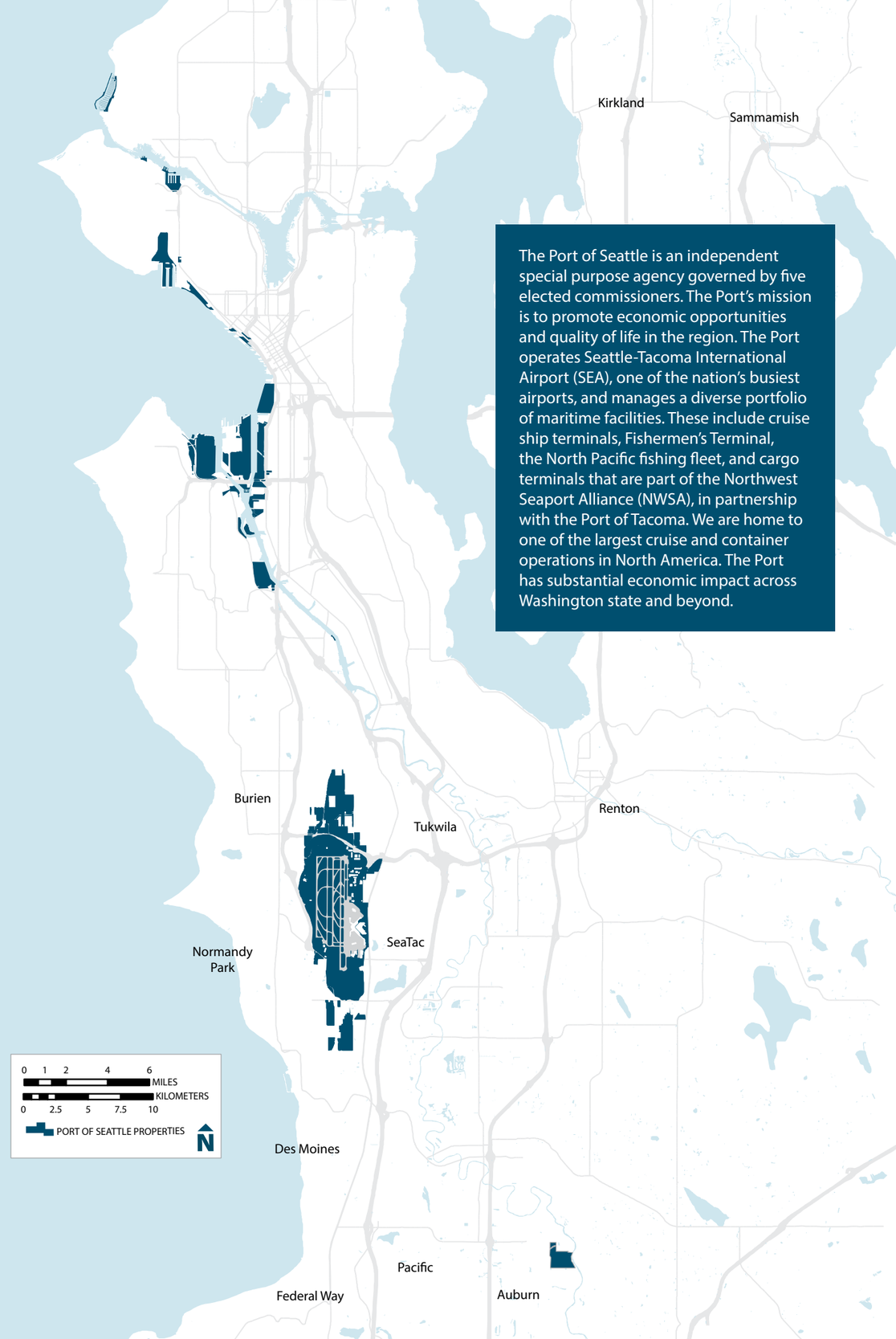
198k+
jobs supported

$1.1B
operating budget

$47.4B
business activity contributing to Washington state's GDP

SUSTAINABLE DEVELOPMENT GOALS

The Port of Seattle supports the United Nation's Sustainable Development Goals (SDGs) as part of its commitment to environmental responsibility. The Port actively pursues initiatives aligned with the 17 SDGs, addressing climate change, ecosystem health, and economic prosperity for all. This is indicated via goal icons throughout the report.



The Port of Seattle is an independent special purpose agency governed by five elected commissioners. The Port's mission is to promote economic opportunities and quality of life in the region. The Port operates Seattle-Tacoma International Airport (SEA), one of the nation's busiest airports, and manages a diverse portfolio of maritime facilities. These include cruise ship terminals, Fishermen's Terminal, the North Pacific fishing fleet, and cargo terminals that are part of the Northwest Seaport Alliance (NWSA), in partnership with the Port of Tacoma. We are home to one of the largest cruise and container operations in North America. The Port has substantial economic impact across Washington state and beyond.

2024 highlights

3.7k+

First U.S. airport to use cleaning technology to remove PFAS-containing foam from firetrucks; 3,795 gallons removed

First port in the nation to require **shore power usage** for cruise ships starting with the 2027 season

3

Installed shore power at Pier 66, bringing clean electricity to all 3 cruise berths

500

Landmark agreement for sell of 500 mitigation banking credits

Adopted the **SEA Land Stewardship Plan and Tree Replacement Standards** — formalizing sustainable planning operations and development at the airport

$226k+

in grants to 6 environmental organizations and projects

New requirement for SEA dining and retail tenants to use **compostable or reusable service ware**

$3M

secured in federal grants to support research on zero-emission harbor craft and ocean-going vessels

Completed a **Sound Insulation Repair and Replacement Assessment**

14%

increase of composted waste at SEA since 2023

26k+

meals donated to local food banks

6

building projects targeting environmental certifications

15%

decrease in aircraft auxiliary power unit emissions since 2023 at SEA

75+

habitat tours and volunteer events held

40

tons of marine debris removed from subtidal areas near Terminal 18 and Terminal 46

$33M

in cost recovery for clean up efforts

Verified Scope 1 and 2 GHG inventory through **The Climate Registry** + Level 3 Airport Carbon Accredidation

Launched a new multi-year Part 150 **Noise and Land Use Compatibility Study** update for SEA

2k+

trees and shrubs planted

CHARTING THE COURSE TO ZERO

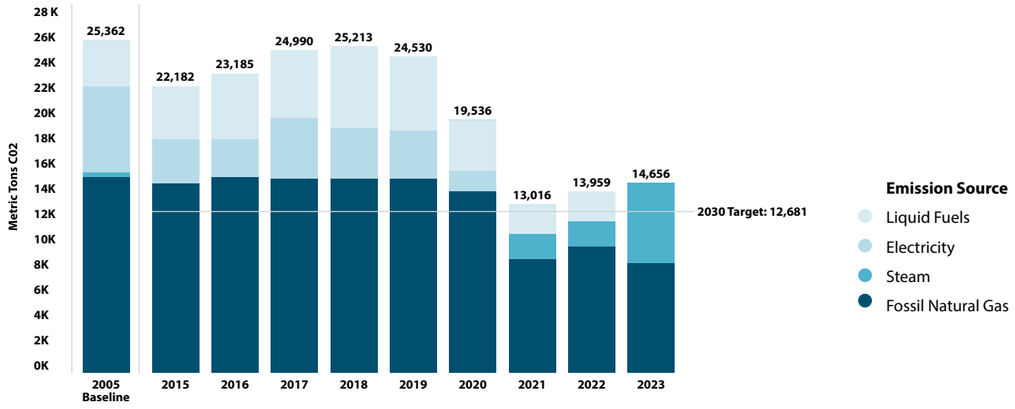
The Port of Seattle takes a comprehensive approach to sustainability, focusing on emissions reductions, climate change mitigation, air quality improvements, and resource conservation. Our ambitious goals drive our strategy: achieving net-zero greenhouse gas (GHG) emissions for Port-owned operations by 2040 and collaborating with customers and tenants to achieve carbon neutrality across the entire Port by 2050. The Port fosters collaboration with tenants, industry partners, regional entities, and the public. Our aim is to help drive the transformation of the industry by modeling best practices, leading research and innovation, and advocating for supportive policies.

SCOPE 1 & 2 EMISSIONS PORT-CONTROLLED EMISSIONS

The Port of Seattle is aggressively tackling our own emissions, aiming for net-zero emissions or better for Port-controlled sources by 2040. Our Port-controlled emissions come from building energy, fleet vehicles, and other direct Port operations. To advance progress, we set an interim goal to achieve a 50% reduction from a 2005 baseline by 2030. Since 2020, SEA has purchased renewable natural gas (RNG) to replace fossil natural gas used for heating the airport terminal and fueling the rental car and bus fleet. In 2023, the Port replaced all fossil natural gas used in Maritime and Economic Development Division buildings with RNG (172K therms) and in all the non-terminal buildings at SEA (133K therms). Also in 2023, SEA achieved a 40% reduction in Scope 1 and 2 GHG emissions from 2005, and the Maritime and Economic Development Division achieved a 64% reduction. Given SEA's larger share in the Port's total emissions, this amounts to a combined 42% reduction across all Port-controlled emissions.

Scope 1 & 2 Emission Sources

This graph tracks the emissions volumes from different Scope 1 and 2 emission sources over time at the Port.



Due to the timing of this report, emissions data is available up to 2023. Emissions data from 2024 will be included in the 2025 annual report.

Please note, prior reports referencing the 2023 emission data used the previous year's electricity emission factor, which was updated later in the year to reflect the year's actual values. Due to low snowmelt and streamflow, hydropower sources were diminished in 2023, and other non-renewable resources were acquired by utilities leading to an increase in emissions outside the Port's control.

Emissions Verification

The Port of Seattle made significant strides in carbon accounting and reporting, demonstrating its commitment to environmental sustainability. In 2024, the Port received Level 3 Airport Carbon Accreditation, recognizing its progress in reducing carbon emissions within its aviation operations. Furthermore, the Port successfully verified its Scope 1 and 2 GHG inventory through The Climate Registry, ensuring accurate and transparent reporting of its emissions from maritime and airport activities. This is the first time our maritime operations have been verified. These achievements highlight the Port's ongoing efforts to measure, manage, and reduce its carbon footprint across all its operations.

42% reduction in Port-controlled emissions compared to 2005

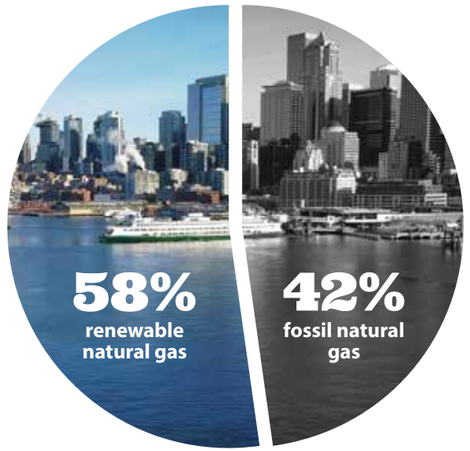
scope 1 & 2: port-wide

Renewable Energy and Energy Efficiency

Energy efficiency and renewable energy are cornerstones of our climate strategy at the Port of Seattle. We're committed to reducing our energy use, lowering GHG emissions, and saving costs, all while ensuring our energy needs are met sustainably. We're actively implementing strategies across our operations, including conservation measures identified through energy audits, installation of energy-efficient lighting and controls, elimination of fossil natural gas use, and maximizing renewable energy production.

SEA Airport is working to upgrade the concourse and terminal heating and cooling systems to meet our goals. In 2024, the Port kicked off an evaluation of SEA's central mechanical plant (CMP) and decarbonization alternatives. The feasibility study examined the airport's existing heating and cooling systems and demand profiles, potential technologies to decarbonize the CMP, geothermal feasibility based on future conditions, future load projections considering weather and airport growth, and selected decarbonization scenarios for future analysis.

Building Energy Use: Natural Gas



Zero-Emission Fleet Vehicles and Equipment

The Port of Seattle relies on a robust fleet of vehicles and equipment to keep daily operations running smoothly. Fleet vehicles and equipment have historically run on fossil fuels like diesel, gasoline, propane, and natural gas. Transitioning this vital fleet to zero-emissions is a critical step in reducing our Scope 1 and 2 emissions. In 2021, the Port published a Sustainable Fleet Plan that outlines actions to reduce GHG emissions, including developing a plan to expand electric vehicle (EV) charging, prioritize investments in fleet management technology, and support efforts to modernize and electrify the Port's fleet.

In 2024 the aviation fleet EV charging infrastructure study was completed. The analyses and recommendations are organized by the following three time periods:

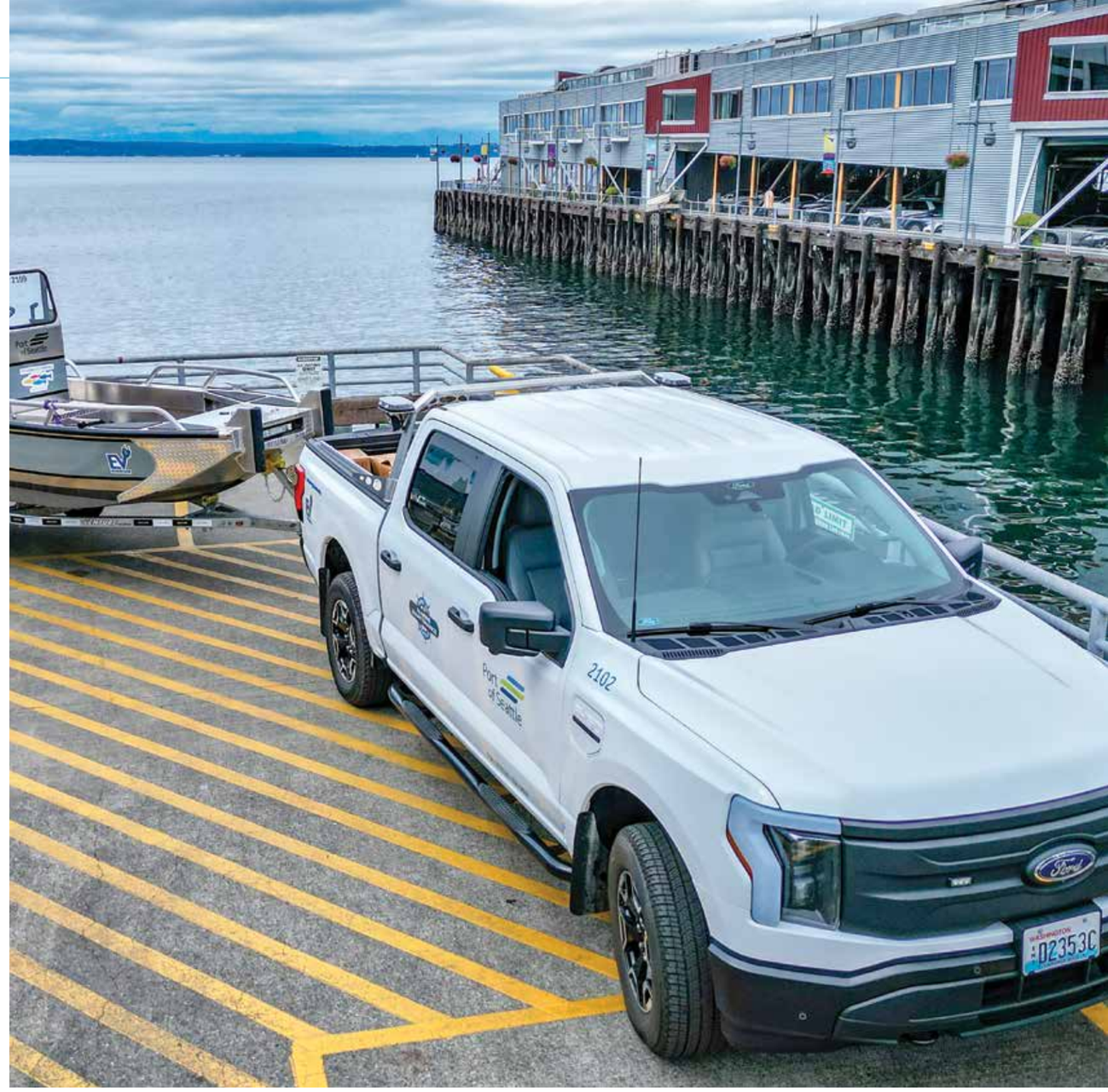
- Short-term (2026) where charging infrastructure can be in place within two years
- Mid-term (2030-2035) demand levels 5 to10 years from the existing condition, charging infrastructure that can be delivered in 3 to5 years. The year of 2035 is the mid-term analysis year used in this study
- Long-term (2050) demand levels over 25 years from existing condition, providing a high-level long-term vision of energy needs

In 2023, the Port completed a study for fleet EV charging infrastructure across waterfront properties. These projects began moving forward with design and procurement in 2024 and will begin phased construction in 2025.

Solar energy produced **179,757 kWh of renewable energy** over the year

Construction began for **solar projects** at Terminal 91 Berths 6-8 and the Fishermen's Terminal Maritime Innovation Center

7 projects are underway to transition our seaport to LED lighting and upgrade lighting controls



9%
of maritime light-duty fleet are electric

8%
of aviation light-duty fleet are electric

53
electric vehicles

SCOPE 3 EMISSIONS TENANT AND CUSTOMER EMISSIONS

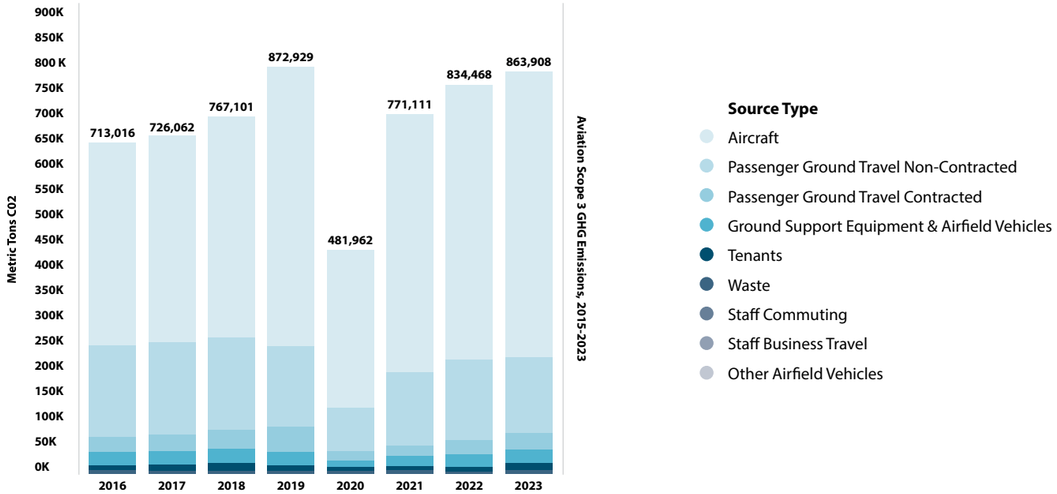
Emissions from our Port businesses and tenants beyond the operations we directly own and control are known as Scope 3 emissions. Scope 3 emissions sources include oceangoing vessels, airplanes, tenant-owned equipment and energy use, and even customer travel to and from SEA. While these activities are critical to the region's economy and transportation needs, they also contribute to GHG emissions and climate change at a scale much larger than the Port's Scope 1 and 2 emission sources. Without direct control over these sources of emissions, the Port focuses on collaboration with tenants, industry partners, policymakers, and other stakeholders to reduce emissions and support the transition to zero-emission fuels and technology needed to achieve our Scope 3 GHG goal of carbon neutral or better by 2050. With our partners, the Port of Seattle aims to create a cleaner transportation hub for the entire region.

SEA AIRPORT

SEA is one of the busiest airports in the United States, connecting Washington state and the Pacific Northwest to destinations worldwide. Built in 1949 to serve a fraction of its current capacity, SEA now welcomes over 50 million passengers annually. The growth of the Seattle region continues to be reflected at SEA as annual passenger volumes reached a record 52.6 million in 2024, breaking the previous record set in 2019. Forecasts predict that 2025 volumes will be even higher, with an estimated 2% increase.

SEA champions sustainability initiatives and strives to reduce greenhouse gas emissions even as operations grow. As airplanes and passenger vehicle emissions comprise most of the airport's Scope 3 carbon emissions, sustainability programs focus on promoting clean, low carbon fuels, vehicles, and infrastructure, and fuel-reducing behaviors and programs.

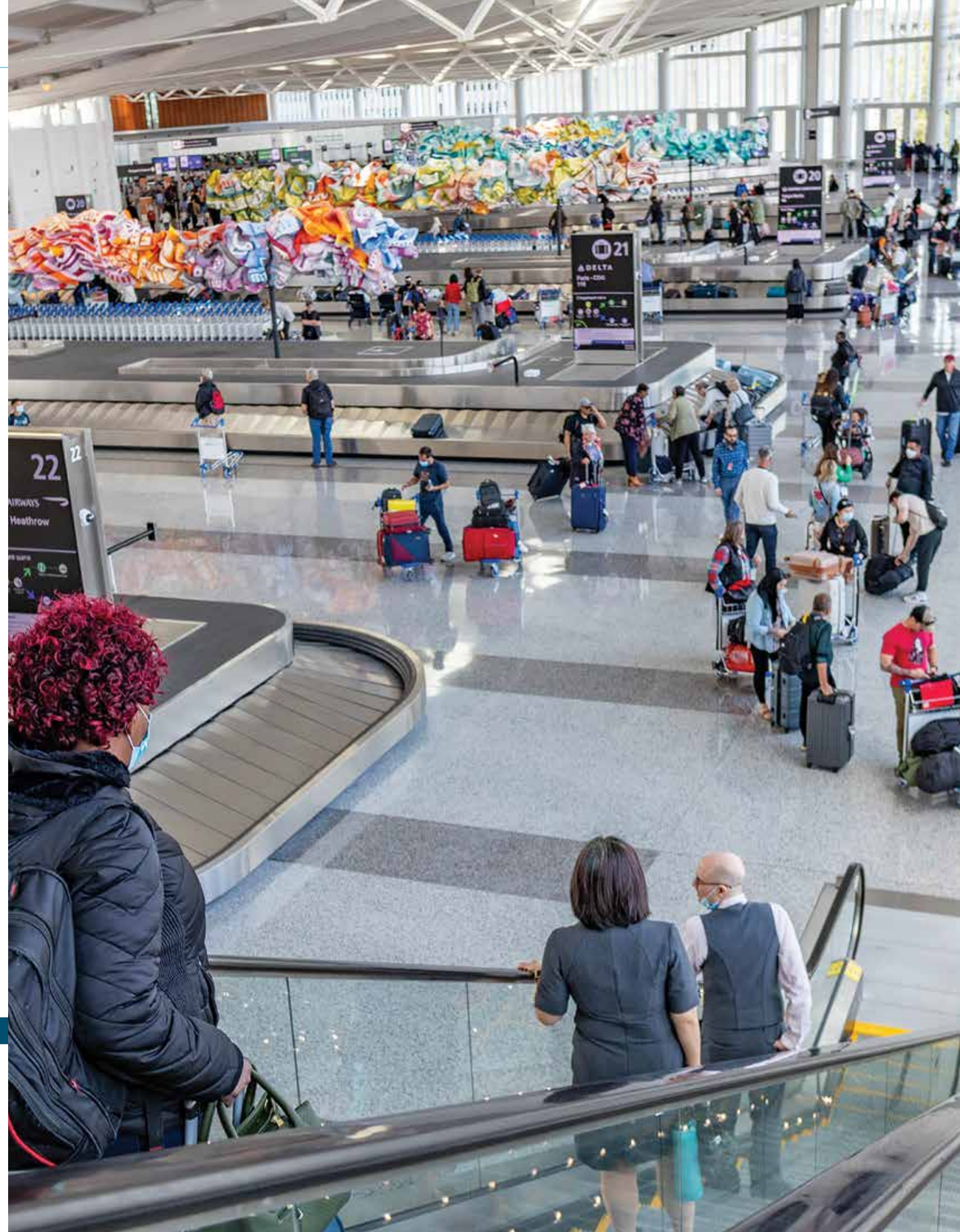
Airport Scope 3 Emission Sources



Due to the timing of this report, emissions data is currently available up to 2023. Emissions data from 2024 will be included in the next annual report.

Flight Operations and Passengers by Year

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Flights	412,170	416,124	438,391	450,487	296,048	374,510	401,351	422,497	434,321
Passengers	45,737,115	46,934,619	49,849,520	51,829,239	20,045,348	36,154,015	45,964,167	50,885,450	52,640,716



Preconditioned Air Systems

Preconditioned air (PCA) systems are specifically designed for airplanes to provide temperature and humidity-controlled environments inside the aircraft while parked at the gate. These systems allow airplanes to shut down their auxiliary power units (APUs), which emit GHG and other emissions, and add to airline fuel costs. SEA has 83 gates equipped with units that connect the plane to the PCA system, which includes all the fixed gates at the airport (i.e. not available at regional jet gate positions). In 2024, the Port initiated a capital project to repair and improve the PCA system. We also collaborated with Alaska Airlines to test new air hose styles and hose cradles with the aim of improving airflow to the aircraft.

Alaska Airlines and Delta Air Lines achieved their highest connection rate to date.

63% increase for Alaska Airlines since 2023

34% increase for Delta Air Lines since 2023

Sustainable Aviation Fuel

Traditional jet fuel is a significant contributor to greenhouse gas emissions in the aviation industry. The Port of Seattle was the first United States airport operator to set a specific timetable and goal for transitioning all airlines at SEA to commercially competitive sustainable aviation fuels (SAF). The first goal is to power every flight fueled at SEA with at least a 10% blend of SAF by 2028. SAF is a jet fuel made from renewable or waste-derived sources, such as cooking oil, municipal solid waste, and renewable energy. The Port is a strong advocate of local, state, and federal policies and programs to promote SAF financing, production, and use.

In 2024, the Washington State Alternative Jet Fuel Working Group completed their biannual report to the legislature with key policy recommendations. The Port actively participated in this working group and supported the recommended policies, including the development of a SAF infrastructure grant program. This program would support the planning, engineering, design, research, development, demonstration, and construction of SAF blending and storage into SEA that the Port identified in 2016.

The Port also maintained its participation and support for the Cascadia SAF Innovation Accelerator, collaborating with Snohomish County, Alaska Airlines, and other regional partners. The Port actively advocated for state budget priorities, including over $6 million for the Accelerator. Additionally, the Port championed over $40 million in state budget priorities for SAF research, development, and capital investments, which are anticipated to be enacted into law in 2025.

At the federal level, the Port has been a strong advocate for policies and investments that facilitate the development and implementation of SAF, from continued funding of the Aviation Sustainability Center (ASCENT) co-led by Washington State University to the extension and expansion of the SAF Blender's Tax Credit (BTC) created by Congress in 2022.

To help demonstrate the broad national support for SAF – from airports and airlines to farmers, refiners and major corporations whose employees utilize air travel – the Port is one of the founding members of the SAF Coalition, a federal advocacy effort to maximize bi-partisan support for the SAF BTC, especially as part of Congress' efforts in 2025 to move major tax policy legislation. The Port also participated in the Center for Climate and Energy Solutions advocacy trip to DC in July, which included a wide range of Washington stakeholders in support of SAF policy priorities.

Ground Transportation

Vehicles traveling to and from SEA, including passenger drop-off, taxis, and ride shares, and employee cars contribute to airport emissions. The Port encourages the use of public transportation and electric vehicles and is actively assessing strategies to reduce emissions from ground transportation. At SEA, taxis and Transport Network Companies (TNCs), such as Uber and Lyft, are incentivized to meet miles per gallons thresholds to encourage emission reductions. 17% of TNCs at SEA are electric. The Port has also invested in charging stations at in holding areas and waiting lot for TNCs and passenger use.

The Port is also partnering with the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) on a computer model to estimate carbon reductions from a range of strategies to influence passenger travel behavior, including access fees and incentives for public transit use.

In 2024, the Port made progress on documenting research completed to support a broad Ground Transportation Emission Reduction Strategy, one element of which is an Active Transportation Plan, to evaluate:

- Carbon reduction strategies, including opportunities to electrify select commercial vehicles, such as taxis and TNCs, that transport passengers to and from SEA
- Key infrastructure needs to connect cyclists and pedestrians to SEA facilities
- Options to improve access to and from airport and seaport properties for bikes and scooters to create an extensive network of bike and pedestrian trails around the region

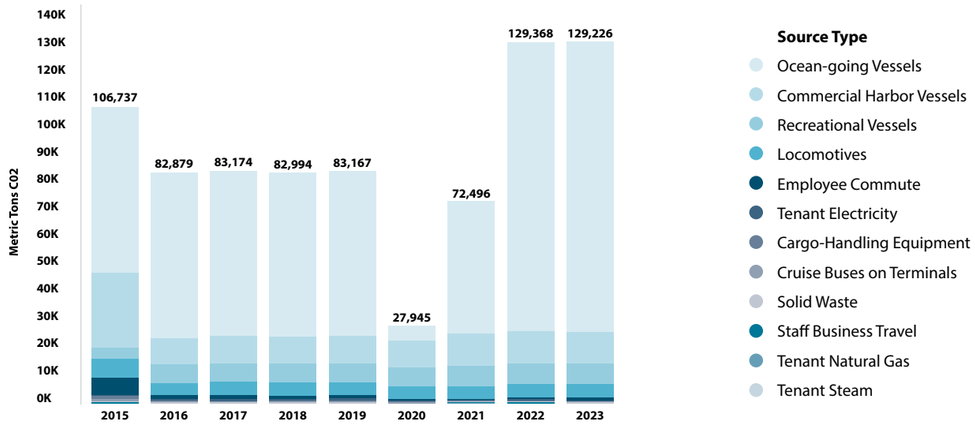
Additionally, SEA has experienced approximately 20% growth in the electrification of ground support equipment over the past two years. This includes over 600 electric baggage tugs, belt loaders, and pushbacks now operating on the airfield.

SEAPORT AND ECONOMIC DEVELOPMENT

Scope 3 sources from the Port's maritime operations primarily include cruise ships, harbor vessels, recreational vessels, and rail locomotives. The Port of Seattle is the largest cruise home port on the U.S. west coast, bringing critical economic opportunities to the Seattle region. In addition, the Port hosts the North Pacific Alaskan fishing fleet, a grain terminal, and numerous marinas. The Port has developed two foundational strategic planning documents to direct its path to decarbonization. The *Northwest Ports Clean Air Strategy* is a collaboration between the Ports of Seattle and Tacoma, the Northwest Seaport Alliance, and the Vancouver Fraser Port Authority. This plan lays out the key strategies and goals to move the regional maritime industry to zero-emission by 2050. The Port of Seattle also has a robust *Maritime Climate and Air Action Plan* that provides more detailed actions the Port will take through 2030.

Progress toward our goals is measured through emissions inventories. The Port measures its maritime Scope 3 emissions every five years through the Puget Sound Maritime Air Emissions Inventory (PSEI), an emissions modeling study that quantifies the air pollution and GHG emissions from different maritime-related activities throughout the Puget Sound region. Since maritime activities move in and out of the region (e.g., a cruise ship traveling up to Alaska and back), emissions are measured for operations within the U.S. portion of the Puget Sound-Georgia Basin airshed. The airshed spans from the Cascade mountains to the east, the Canadian border to the north, the Olympic mountains to the west, and Capital Peak to the south. Because the airshed boundary is relatively large (approximately 100 nautical miles from the Port's berths to the U.S. border) oceangoing vessels are the largest contributors to maritime Scope 3 emissions. The PSEI baseline year is 2005. As of 2022, maritime Scope 3 GHG emissions have increased 31% from the baseline. The increase is largely the result of more oceangoing and harbor vessel activity.

Maritime Scope 3 Emissions Sources



Cruise Calls and Revenue Passengers by Year

	2005 / 2007	2016	2021	2022	2023	2024
Cruise	169	203	103	296	290	274
Passengers	686,978	983,539	229,060	1,430,00	1,777,984	1,751,892

scope 3: seaport

Shore Power

Shore power is a proven and commercially available technology to nearly eliminate emissions while ships are docked at berths. Each time a cruise ship docks in Seattle, it takes an average of 10 hours to offload guests and their luggage, load provisions, welcome new guests, and prepare for its next departure. While ships are at berth, they still need energy to run lights, chill food, operate equipment, and power a myriad of onboard services. Shore power connection allows cruise ships to plug into clean electrical power and turn off diesel engines while at berth.

First Port with Shore Power at All Three Cruise Berths

In 2024, the Port completed the shore power installation at Pier 66 Bell Harbor Cruise Terminal. Now, all three of the Port's cruise berths are equipped, offering shore power connectivity to all visiting cruise vessels. The Port of Seattle also led the nation by becoming the first port to require shore power usage by homeported cruise vessels (those that begin and end their itineraries in Seattle), starting in the 2027 cruise season, three years ahead of the Port's previous goal of 2030, further solidifying Seattle's commitment to environmental leadership in the cruise industry.

3/3 cruise berths have shore power

130 connections avoided 3,964 metric tons CO2e and 1.1 metrics tons of diesel particulate matter

47% of all cruise calls connected to shore power—7% increase since 2023

47% of homeported cruise calls connected to shore power

Sustainable Maritime Fuels

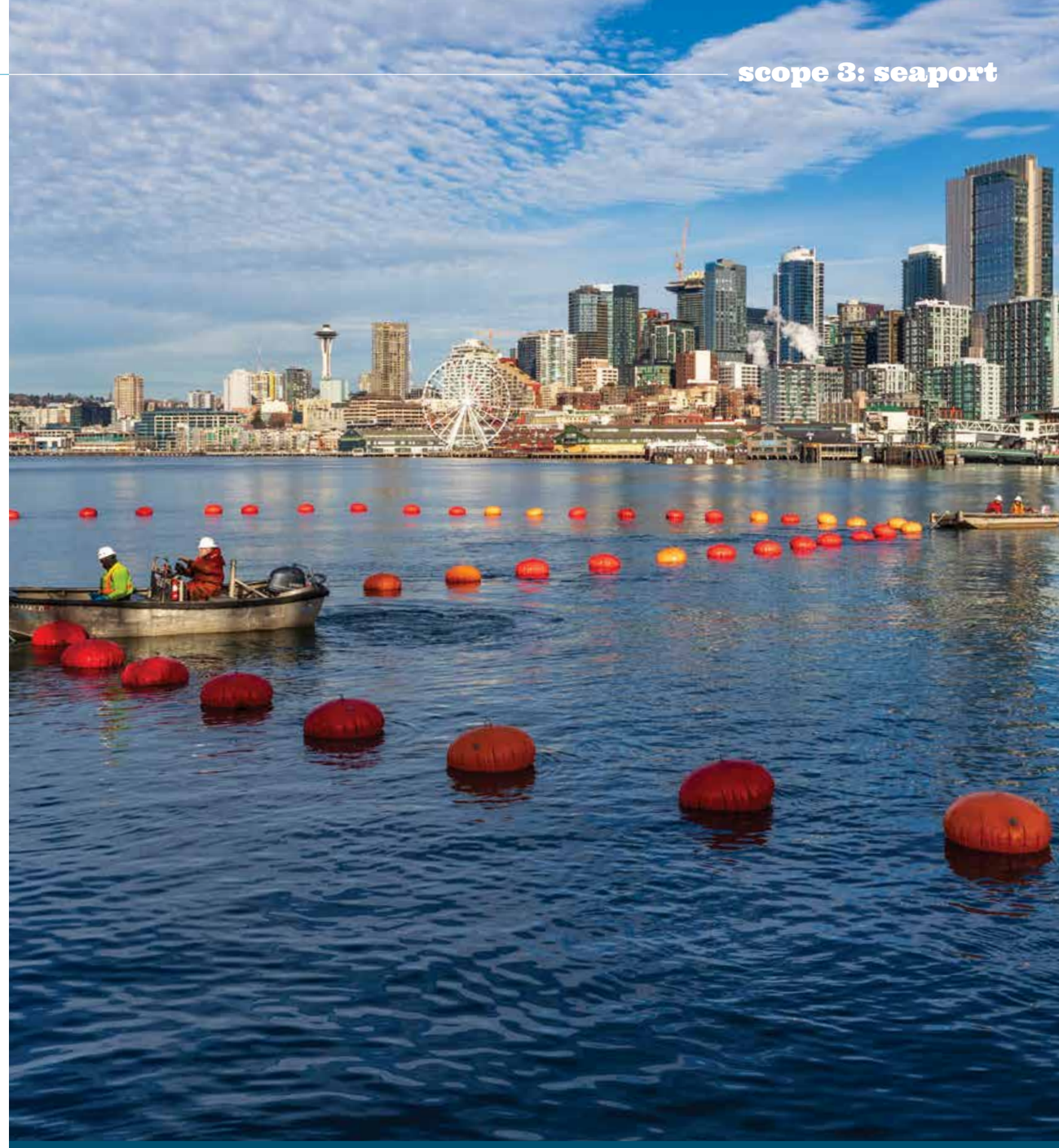
The maritime industry continues to be powered primarily by fossil fuels that contribute to air pollution and climate change. While fuel efficiency improvements and strategies like shore power can provide some reduction in emissions, achieving the Port's goals will require the large-scale deployment of zero-emission technology and fuels across the maritime industry. Although tenants are responsible for acquiring fuel, the Port is taking an active role in researching, developing, and implementing clean fuels and energy projects to support and accelerate maritime decarbonization.

Carnival Corporation Agrees to Biofuel Pilot: In 2024, as part of its long-term agreement with the Port of Seattle, the Carnival Corporation, which includes Carnival Cruise Line, Princess Cruises, Holland America Line, and Cunard brands, committed to a biofuel pilot and study in 2025. The project will identify the end-to-end challenges and opportunities for using sustainable maritime fuels at scale in Seattle. Results will be shared with the industry to accelerate the transition to alternative fuels and inform best practices for sustainable maritime operations.

Port Receives $3M in Federal Grants: In 2024, the Port was awarded $3M in federal U.S. Environmental Protection Agency (EPA) dollars to support maritime decarbonization planning work between 2025 and 2027, including efforts to advance use of sustainable maritime fuels in ships and harbor craft electrification.

Sustainable Maritime Fuels Collaborative Receives Funding: The Sustainable Maritime Fuels Collaborative unites supply and demand stakeholders to accelerate the production and use of sustainable maritime fuels and technologies in Washington state, focusing on equitable prosperity. In 2024, the group received $250,000 in funding from the state. This funding will support the official launch of the collaborative, studies, convenings, and operational capacity for Port of Seattle and its partners NWSA, Washington Maritime Blue and CHARGE to firmly establish the collaborative.

scope 3: seaport



Nearly **12 million kWh** of electricity was used as fuel, mainly as shore power for commercial fishing and cruise ships

PNW2AK Cruise Green Corridor Launches Geen Methanol Study

The Pacific Northwest to Alaska (PNW2AK) Cruise Green Corridor project launched in May 2022 as a partnership between cruise lines, home ports, and several ports of call in the Alaska cruise market to explore low and zero-greenhouse gas emission cruising between Washington, British Columbia, and Alaska. The Port of Seattle is one of thirteen "First Mover" partner organizations.

In 2024, the First Movers worked with the Maersk Mc-Kinney Møller Center for Zero Carbon Shipping to form a Project Consortium and launch a study to assess the feasibility of four cruise ships running their full Alaska itineraries on green methanol by 2032. Project partners negotiated a Project Commitment Letter and began technical work that will continue into 2025. The study will look at fuel production, and bunkering, vessel modifications and needs, passenger willingness to pay, and other areas. The PNW2AK First Movers also launched two new technical working groups: one focused on policy advocacy to advance the corridor and the other focused on developing a baseline for GHG emissions associated with cruise to Alaska for participating ships. The Emissions Baseline Working Group established a methodology and collected emissions data for the 2019 and 2023 cruise seasons. The baseline will be shared in a progress update in 2025.

Project Progress

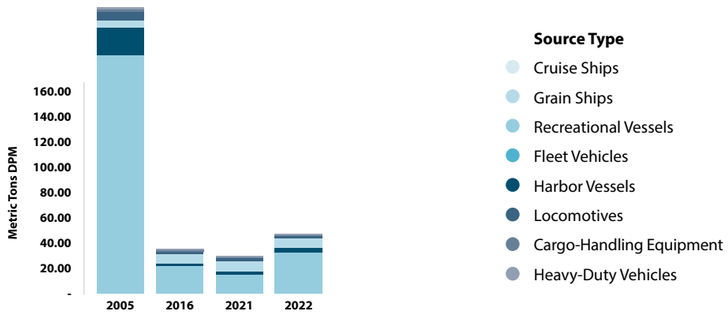
Convene Partnership | **Establish Project Charter** | **Scope Feasibility Study** | **Launch Feasibility Study** | Complete Feasibility Study | Develop Strategy Roadmap | Implementation

Diesel Particulate Matter

As part of our commitment to phasing out all seaport-related emissions by 2050, the Port of Seattle tracks diesel particulate matter (DPM) from maritime sources through our emission inventory study. Drivers in air pollution reduction since 2005 include turnover to newer, cleaner diesel and electric equipment, expanded use of shore power, and new regulations, such as the North American Emissions Control Area that require cleaner burning low sulfur fuels.

79% reduction in diesel particulate matter since 2005 (PSEI, 2021)

Maritime Diesel Particulate Matter Sources



scope 3: seaport

STEWARDING HEALTHY LAND & HABITATS

The Port of Seattle is taking action to restore critical habitat and increase public access for our communities. We are creating a legacy of stewardship that fosters the health of our communities and region for generations to come. Our work supports the survival and recovery of critical species, such as salmon and orcas, while also enhancing the health of our communities through improved environmental quality and enriching recreational opportunities, such as waterfront parks, inland creeks, and marinas.

COMMITMENT TO HABITAT RESTORATION

By 2040, the Port aims to restore, create, and enhance an additional 40 acres of habitat in the Green-Duwamish Watershed. We have already restored 14 acres and are actively working on another 11 acres as of 2024.

BUILDING SUSTAINABLE SHORELINES AND HEALTHY AQUATIC ENVIRONMENTS

The Port of Seattle plays a vital role as a steward of over 15 miles of shorelines and aquatic environments. We need hardened shorelines for our maritime operations, but wherever possible, we remove hardened banks to reconnect land and water. This includes adding native vegetation along shorelines previously dominated by hard structures such as seawalls; enhancing kelp forests and eelgrass beds that benefit fish, wildlife, and invertebrates; and deploying floating wetlands in areas where natural restoration is challenging.

31k linear feet of shoreline are currently being assessed for shoreline enhancement opportunities

Port Studying Mussels as Part of Regional Stormwater Study

As part of Washington Department of Fish and Wildlife's Stormwater Action Monitoring Puget Sound Nearshore Mussel Monitoring Survey, the Port installed cages with native bay mussels *(Mytilus trossulus)* at four locations in November 2023. The mussels were located near stormwater outfalls during the rainy season for four months and were picked up in March 2024. The 2024-2025 slowdown results are being analyzed .

Making Strides in Blue Carbon Restoration

Researching and Restoring Kelp Habitat

We partner with the Seattle Aquarium and the Puget Sound Restoration Fund to advance kelp restoration. In 2024, we completed Phase 1 of our collaborative bull kelp research initiative. This included the installation of an index station at Centennial Park, which monitors water quality in the kelp habitat. This station collects information on light, salinity, pH, temperature, and dissolved oxygen at both surface and near-bottom depths.

Combatting Ocean Acidification

The Port of Seattle continues to be the only port member of the International Alliance to Combat Ocean Acidification and to have adopted an Ocean Acidification Action Plan. We continue to pursue progress on coastal restoration and decarbonization of the maritime and aviation industries — two key strategies to combat ocean acidification.

Protecting Endangered Orcas: Quiet Sound Program

Quiet Sound is a multi-party effort, initiated by the Port of Seattle, to address underwater noise impacts to Southern Resident killer whales from marine vessels. Slowing vessels traveling in Puget Sound is a key strategy. Quiet Sound, now managed by Washington Maritime Blue, leads a voluntary slowdown. In the 2023-24 slowdown, 71% of vessel transits slowed, leading to a 50% reduction in underwater noise intensity when whales were present. The 2024-2025 slowdown results are being analyzed. A report will be available later in 2025.

Reviving Miller Creek: Stream Restoration near SEA

In partnership with the City of Burien and the City of SeaTac, the Port of Seattle is restoring a vital section of Miller Creek. This joint project involves:

- Replacing 450 feet of piping with a natural stream channel, mimicking the creek's original form and creating additional, high-quality aquatic habitat.
- Restoring the streamside forest, creating natural flood storage, and providing shade for cooler air and water temperatures.
- Replacing a fish barrier with a passable structure, allowing salmon and other aquatic organisms to migrate freely.

Construction is underway and completion is anticipated in 2025. This project demonstrates the Port's land stewardship commitment to community partnerships to facilitate initiatives and projects that wouldn't otherwise be feasible. Importantly, the restoration site also integrates community access to parkland and a regional trail system.

Duwamish River People's Park

Two years after opening the Duwamish River People's Park and Shoreline Habitat (DRPP), the largest restoration project on the Duwamish River in a generation, the site provides important ecological benefits and salmon habitat. Our team documented extensive healthy marsh and riparian vegetation and fish use during the 2024 monitoring period. 2024 marked the second of 10 years of monitoring the Port will conduct at the site to ensure that the habitat restoration project meets its performance standards. To better understand fish usage at DRPP, the Port received funding from the Puget Sound Partnership to purchase and install a passive integrated transponder (PIT) antenna array across the entrance of the marsh basin that detects PIT-tagged fish that swim in proximity to the array. PIT tags are small electronic tags surgically implanted into fish. Each tag has its own unique serial number, and when the tag passes through a PIT antenna via a fish, the tag's serial number is recorded. Organizations such as King County and the U.S. Army Corps of Engineers released PIT-tagged fish to track which habitats smolts are utilizing in the Green-Duwamish River watershed. The array at DRPP detected 43 individual PIT-tagged salmon at the site between April 19 2024, and July 2, 2024.

Mitigation Banks to Restore Habitat

Port Negotiates Landmark Agreement for 500 Habitat Credits

In 2016, the Port of Seattle launched a groundbreaking multi-site mitigation bank program aimed at restoring critical shoreline and wetland habitat in the Green-Duwamish River, a vital area for salmon recovery in our region. This self-sustaining model allows the Port to restore crucial habitat, sell credits, and re-invest the revenue to restore more habitat. In 2024, the Port negotiated a landmark agreement for the sale of 500 habitat credits, the first of its kind by a Washington port.

500

habitat mitigation credits sold in 2024

RESTORING AND PROTECTING HEALTHY URBAN TREES

Port Adopts Land Stewardship Plan, a Holistic Ecological Approach

The Port demonstrated its commitment to sustainable land stewardship by adopting a Tree Replacement Policy Directive and the Land Stewardship Plan — a comprehensive evaluation of the ecological values and management best practices for SEA properties. The Plan's goals to improve forest health are achieved in part through tree and understory planting and invasive removal completed as part of community stewardship events and other activities.

Native Pollinator Habitats

The Port of Seattle maintains bee colonies at SEA to support honeybee populations and create a native pollinator habitat in previously unused green spaces on the south end of the property. A key goal of this initiative is to breed honeybees better adapted for future survival. This project also allows the Port to monitor native pollinator activity. The presence of honeybees collecting nectar and pollen serves as an indicator of available food sources for native bee species as well. These hives have been in place since 2013, established through a partnership between the Port and the non-profit organization, The Common Acre. This collaborative project, known as Flight Path, aims to both raise honeybees and transform the area into a thriving native pollinator habitat.

Washington Conservation Corps

The Washington Conservation Corps (WCC), an AmeriCorps program administered by the Washington Department of Ecology, performed stewardship services at airport and seaport habitat restoration sites, public access, and open spaces in 2024. Seven different WCC crews from around the state removed invasive species, planted and propagated native species, supported community planting events, repaired and refurbished beach access stairs, and installed and removed goose exclusion fencing. This work took place just over 100 days and equates to approximately 5,300 hours of stewardship services performed on Port sites by WCC crews.

Purple Martins

The Port, in partnership with King County and Washington Department of Fish and Wildlife, relocated 12 purple martin *(Progne subis)* nesting gourds from derelict piling to dedicated nesting poles at Terminal 91. Eight additional nesting gourds were installed at the Elliott Bay fishing pier. Since the pier is closed to the public, these additional gourds were installed to see if they attract more purple martins and add capacity for nesting pairs.

Building Stronger Relationships with Local Tribes

The Port of Seattle has a longstanding history of collaboration with tribal governments on environmental matters, operational logistics, and permit approvals. The Port remains committed to fostering and strengthening these relationships based on mutual respect and collaboration. In 2023, the Port signed government-to-government MOUs with the Muckleshoot and Suquamish Indian Tribes that will expand opportunities for collaboration in economic development, habitat restoration, workforce development, archaeological resource protection, and fisheries. In 2025, the Port is partnering with the tribes on two important initiatives. The first will implement a study to assess alternative herring spawning substrates at Jack Block Park; the second will establish a location for transferring ice and equipment to treaty-fishing vessels.

2.4k+
trees and shrubs planted in 2024

440k
trees and shrubs planted since 2006

0.5
acres of forest restoration in 2024

CLEANING UP CONTAMINATED LAND

The Port of Seattle transforms historically polluted areas into healthy lands near our airport and waterfront, fostering economic growth and environmental stewardship.

SAFEGUARDING THE FUTURE: ADVANCES IN ENVIRONMENTAL CLEANUP

The Port of Seattle is committed to protecting the environment for future generations by investing in long-term contaminated soil, groundwater, and sediment cleanup projects. These projects involve removing and reducing exposure to harmful contaminants, often taking years and decades to complete due to their complex nature. The process, including investigations, design, cleanup, and long-term monitoring, ensures a comprehensive and scientific approach to restoring the health of our waterways and surrounding environment.

2024 highlights

The Port actively pursues cost recovery for environmental cleanup projects. In 2024, we secured about $33M.

Terminal 108: Completed the field investigation to identify the nature and extent of contamination in order to develop clean up options in 2025.

South Park Marina: The final draft of the investigation report, which identifies the nature and extent of contamination, was submitted to the Department of Ecology for their review.

East Waterway: Analyzed sediment traps results to identify sources of contamination and continued progress on sediment loading and recontamination assessment. Environmental Protection Agency (EPA) issued an Interim Record of Decision for the East Waterway. This will allow the cleanup design phase to proceed.

Terminal 91: Submitted the draft final workplan for a feasibility study (FS) to Department of Ecology.

Lower Duwamish Waterway Upper Reach: Contributed 25% of the costs to complete the design phase of the upper third of the site.

Lower Duwamish Waterway Middle Reach: Funded 25% of the costs on the design in the middle reach of the site.

Terminal 25 South: Submitted draft Engineering Evaluation / Cost Analysis report that identified the nature and extent of contamination and cleanup alternatives to the EPA for their review.

Terminal 25 South: Conducted a study to evaluate the effectiveness of reducing PCB concentrations in soil using an innovative soil washing technology.

Terminal 115 North: Completed the remedial investigation (RI) which will be shared for public comment in 2025.

Terminal 115 Plant 1: Completed Phase 1 field implementation of RI identifying the nature and extent of contamination at the site. The phase 1 work will help identify data gaps to address during Phase 2 field investigation scheduled for 2025.

Lora Lake Apartments Site: The 5th year of post-construction long-term monitoring at the Lora Lake Apartments Site was completed in 2024. Future monitoring requirements will be determined in coordination with Ecology as part of the five-year periodic review of the Site in 2025.

First Airport to Effectively Clean PFAS from Fire Trucks

Per- and polyfluoroalkyl substances (PFAS) are a growing concern due to their environmental persistence and potential health risks. Often called "forever chemicals," these human-made substances are used in a variety of common products, including firefighting foam.
After years of lobbying for changes from the Federal Aviation Administration (FAA), which historically mandated the use of PFAS-containing firefighting foam at airports, in 2024, the Port of Seattle Fire Department became the first airport in the nation to use a special cleaning technology to safely remove PFAS from its fire trucks as part of its transition to newly-approved fluorine-free foam. In addition to the Port's five vehicles, three vehicles owned by King County International Airport and operated by the King County Sheriff's Office and two vehicles owned by the Port of Bellingham were cleaned and transitioned to the new foam at SEA. Also in 2024, the Port initiated design planning for replacement of a PFAS-containing foam system located at the Consolidated Rental Car Facility. This replacement project is scheduled to occur in 2025-2026. Four additional foam storage systems managed by SEA tenants are in varying stages of the transition design process.

3.71k+

gallons of PFAS-containing foam removed from SEA

REDUCING WASTE

Operating a major airport and seaport means there can be a lot of waste. SEA alone is a 24/7 operation that serves over 50 million passengers a year and employs 20,000 people. It is akin to managing a city, including the need for waste management. The Port actively works to embrace the call to "reduce, reuse, and recycle" in all our facilities.

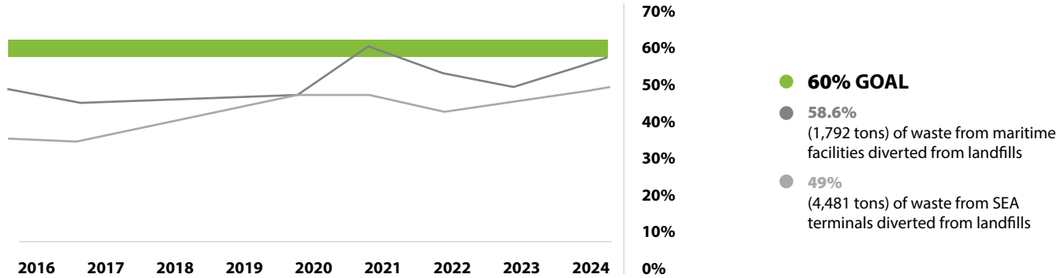
DIVERTING WASTE FROM LANDFILLS

The Port diverts materials from landfills through robust recycling, composting, and other innovative programs. Our ambitious goals include 60% diversion from landfills in municipal solid waste and 90% diversion from landfill in construction waste.

98.8%
(66,000 tons) of waste from SEA capital projects diverted from landfills

75.9%
(50 lbs.) of waste from maritime capital projects diverted from landfills

Municipal Solid Waste Diversion Rates



SEA Highlights

SEA exemplifies our dedication to waste reduction. The Port works closely with tenants to tackle waste by reducing single-use plastic, donating meals to food banks, composting, and recycling a wide range of materials, including used cooking oil. Used cooking oil is turned into renewable diesel and sustainable aviation fuel (SAF) which reduces carbon emissions.

26k+
meals donated to local food banks

14% increase from 2023 due to new policy at SEA

1.5k+
tons of waste collected for composting

138
tons (35,816 gallons!) of cooking oil recycled into renewable diesel and SAF

SEA Requires Reusable or Compostable Service Ware

To further minimize waste, new tenant requirements began in July 2024, mandating the use of reusable or certified compostable to-go options at all retail and dining locations at SEA. This significant step, combined with a successful pilot program to test a new waste separation technology, aimed to significantly reduce SEA's reliance on single-use plastics, particularly food packaging. These actions not only minimize environmental impact but also facilitate a greater amount of food waste recovery from both passengers and businesses, contributing to a more sustainable and environmentally responsible airport experience.

BUILDING RESILIENT & SUSTAINABLE INFRASTRUCTURE

Building infrastructure that is sustainable and resilient in the long-term is important for financial stewardship, community effects, and environmental protection. The Port of Seattle aims to build and maintain its facilities in a smart, sustainable way to ensure they function for our community and the environment well into the future.

PROMOTING GREEN AND SUSTAINABLE DEVELOPMENT

The Sustainable Evaluation Framework (SEF), adopted by the Port in 2020, is a key tool for integrating sustainable design and equity principles into new capital construction projects. As part of the SEF, capital project teams identify and analyze sustainability opportunities and create detailed sustainable design strategies for projects. Opportunities range from reducing carbon emissions and improving water conservation to using low carbon construction materials, more efficient energy and transportation choices, and more. As part of the SEF, capital projects are screened for sustainability opportunities and assigned a tier from 1 to 3. Tier 2 and 3 projects represent more complex projects with higher opportunities for incorporating sustainability and equity elements.

137

capital projects started the sustainable review process (39% were tier 2 and 3 projects)

10

sustainable design strategies (assessments and recommendations) in progress

2

sustainable design strategies completed

Emissions Reduction Snapshot

C Concourse Expansion

Sustainability decisions on the SEA C Concourse Expansion project is estimated to avoid over 570 tons of CO2e emissions annually. This expansion project reimagines the travel experience with an intuitive design that prioritizes calmness, climate consciousness, and passenger comfort. The new concourse will more than triple the existing space, boasting over 220,000 square feet packed with amenities inspired by the Pacific Northwest's natural beauty and Seattle's vibrancy. Notably, the C Concourse Expansion is the first airport project to follow the Port's Sustainable Evaluation Framework, setting a precedent for future Port projects with its focus on sustainability and analyses. This includes features like fossil fuel-free systems (e.g. clean electricity), rooftop solar panels, water-saving fixtures, a new employee breakroom, and biophilic design strategies that promote a harmonious relationship between design and environmental responsibility.

Maritime Innovation Center

A case study of tangible results from the SEF policy is the Maritime Innovation Center (MInC), which is currently under construction at Fishermen's Terminal and will support next generation inventions that drive the competitiveness of Washington state's Blue Economy. The MInC building creates a business incubator that can support and drive innovation in the maritime sector. The development also includes high-level building certification targets to serve as a model for other development, targeting full International Living Future Institute (ILFI) Living Building Challenge certification. Some of the MInC's sustainability features include net positive energy, salvaged materials and building reuse, natural ventilation, natural lighting, stormwater treatment, grey water reuse and rainwater capture, ground source heat exchange, and red list free materials.

In 2024, the historic building's restoration began. Construction is expected to be completed by the end of 2025.

Airport Realignment

This project relocates United Airlines, a SEA domestic-only carrier, to Concourse B and moves Delta Airlines, a SEA international and domestic carrier, into vacated gates in Concourse A. It will ultimately add an additional 13,184 square feet of conditioned space to the existing structure.

Building energy will include updated, more efficient air handling units, exterior envelope improvements, updated mechanical equipment controls, replacement of the gas water heater with an electric water heater, and reduced lighting power density.

Once completed, the project will result in a net carbon increase of 10 tons of CO2e per year due to the addition

of 13,184 square feet of conditioned space. However, if the project was built to baseline standards, there would be a net increase of 27 tCO2e per year. Ultimately, sustainability features should result in a 23% reduction in tCO2e compared to baseline.

The project will also result in a net energy increase of 515 MMBTU per year, in part due to the addition of conditioned space. However, due to energy reduction strategies identified through the SEF, the project should result in a 20% reduction in energy consumption when compared to the same project built to Port standards.

The project also includes a gender-neutral employee restroom, the first of its kind for SEA, expanded employee access to daylight and exterior views, and improved circulation space, resulting in improved indoor air quality for employees.

Fishermen's Terminal

The main building at Fishermen's Terminal (C-15) was in need of new windows and siding. After applying for SEF, the Port conducted a careful analysis and discovered significant advantages to expanding the project's scope to incorporate greater sustainability and community benefits. To address building energy use, the project will install rooftop solar panels, reducing CO2 emissions by an estimated 92 metric tons over the installation's lifespan (or 3.2 tons annually), accounting for 10% of the building's energy consumption. Further energy efficiency will be achieved by maximizing building envelope improvements, such as new cladding, insulation, LED lighting, triple-pane windows, and exterior sunshades. These upgrades are projected to reduce CO2 emissions by 955 metric tons over the building's life (or 19 tons per year) and decrease energy use by 46%. The project also focuses on waste reduction by salvaging the existing windows and metal siding, diverting an estimated 11.5 metric tons of material from landfills. Stormwater management will be improved by installing stormwater treatment on downspouts, exceeding regulatory requirements. Sustainable materials will be prioritized by procuring select red list-free options. Finally, the project will enhance community access and use by improving plaza lighting, installing bike lockers, updating the community board, adding picnic tables, and updating doors and thresholds for improved accessibility.

THIRD-PARTY ENVIRONMENTAL CERTIFICATIONS

Currently, eight projects totaling over one million square feet are pursuing or have recently received certifications:

Employee Service Center:
WELL Gold Certified in 2024

International Arrivals Facility:
LEED Silver Certified in 2024

SEA Gateway: North Main Terminal Redevelopment:
Targeting LEED Silver in 2026

Terminal 91 Uplands Phase I:
Targeting LEED Silver Certification by 2027

Maritime Innovation Center:
Targeting Living Building Challenge Certification by 2027

Concourse C Expansion at SEA:
Targeting LEED Gold in 2026 (originally targeted Silver)

Airfield Improvement Program Piloting Envision Certification by 2027

S Concourse Evolution Project:
Targeting LEED Silver 2033

infrastructure

ENVIRONMENTAL PLANNING & PERMITTING

Securing the necessary environmental approvals and permits often requires innovative solutions and a deep understanding of the complex and dynamic regulatory landscape. Port of Seattle staff navigate these challenges, integrating environmental considerations into every stage of project development. We are committed to finding sustainable solutions that balance economic growth and operational efficiency with environmental protection.

ENVIRONMENTAL REVIEW AND PERMITTING

Our expert teams go above and beyond to assure compliance, secure necessary permits, and conduct environmental reviews. In 2024, we had:

166 active capital projects in the Aviation division

114 active projects in the Maritime division

Each of these projects require numerous complex environmental and building permits. In 2024, 95 permit actions were completed to support the maritime projects, with many others continuing into 2025 and beyond.

Sustainable Airport Master Plan

The Puget Sound region is poised for significant growth, with an anticipated population increase of one million residents by 2035. To accommodate growth while upholding the Port's sustainability commitments, the *Sustainable Airport Master Plan* (SAMP) serves as a strategic roadmap for SEA's Airport's future development.

SAMP encompasses 31 near-term projects (NTPs), including a second terminal, an elevated busway, and new cargo facilities. Completed in 2018, the SAMP NTPs are currently undergoing an environmental review as mandated by the Federal Aviation Administration's National Environmental Policy Act (NEPA). The NEPA review is a comprehensive process designed to assess the potential environmental impacts of projects at Port of Seattle facilities. This evaluation encompasses a broad spectrum of environmental categories, including air quality and climate change, water resources, biological resources, and noise.

In 2024, the Port actively engaged the public through a series of community meetings and a public comment period to gather valuable input. The FAA expects to complete the NEPA review in 2025 and the Port plans to issue a Draft State Environmental Policy Act (SEPA) environmental impact statement for the NTPs in 2025 as well. The Port will continue to engage with agencies and the public.

Pier 66 Shore Power

The Port of Seattle's Bell Street Cruise Terminal at Pier 66 is shore power-enabled as of October 28, 2024. Thanks to a $44 million investment in the Pier 66 connection, all three of the Port's cruise berths are now equipped with shore power. This project required an extensive amount of close coordination across various regulatory and permitting agencies to identify the best path forward for the project. A key issue was to resolve potential impacts to tribal fisheries while maintaining the project schedule. Pier 66 Shore power required nearly 10 permits and approvals along with numerous permit revisions during construction. Our team was able to obtain permits on an expedited timeframe, with substantial negotiation for Terminal 46 construction permits for expedited review and issuance.

Resiliency and Sea Level Rise

Along with our partners, we're at the forefront of critical initiatives like solutions for sea level rise, flood prevention, regulatory streamlining, offshore wind, and infrastructure improvements (Bell Harbor Marina, Elliott Bay Connector, Coast Guard Base Expansion, and Sound Transit Light Rail extensions, to name a few). The Port is keenly aware of the

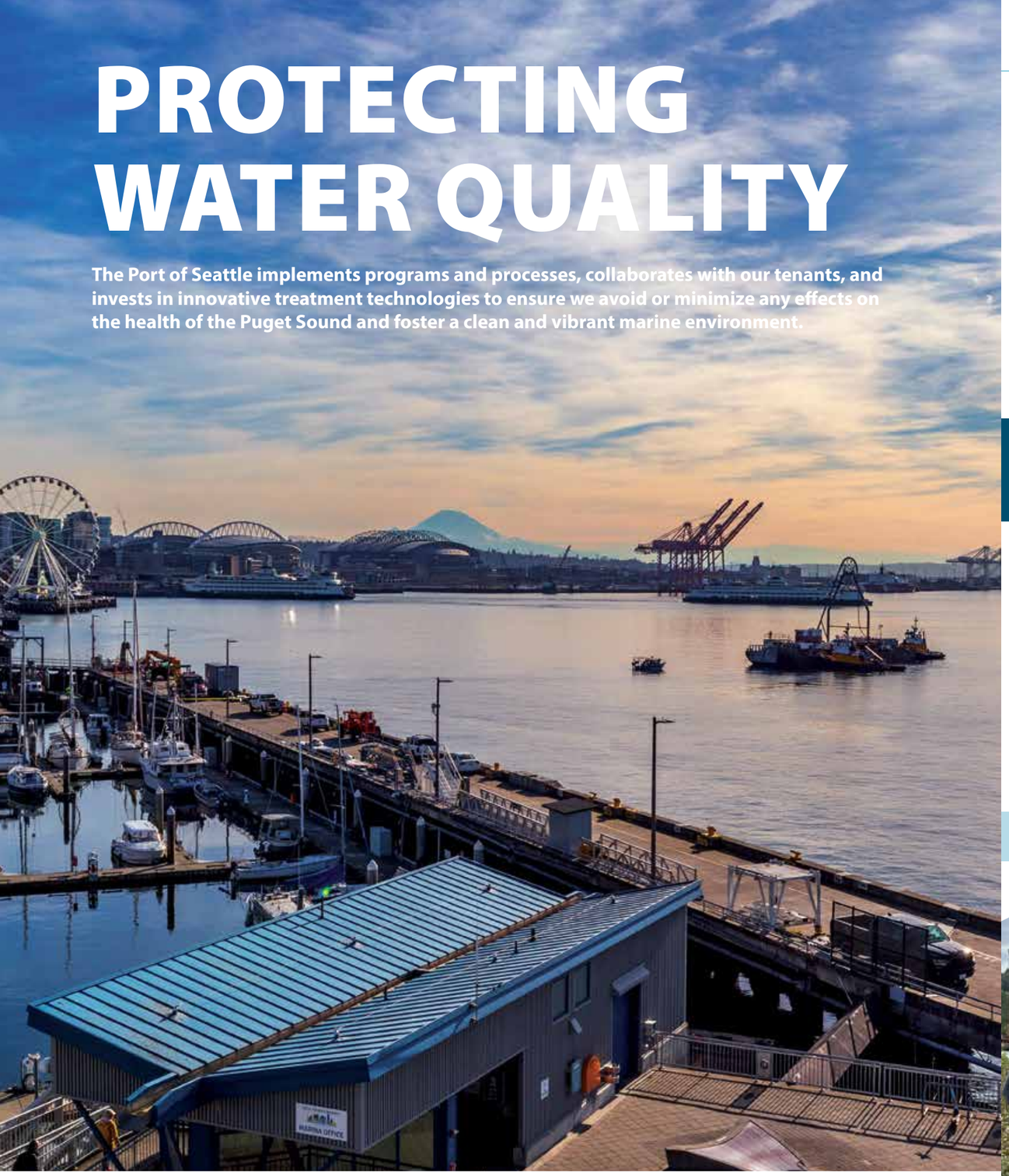
need for collective, collaborative planning for sea level rise and climate-related risks on the Seattle waterfront. Our infrastructure and operations are interwoven and interdependent with surrounding street network, utilities, stormwater drainage, public safety and regulatory priorities, and the public realm. This section below highlights collaborative efforts the Port is engaging in to ensure a holistic, resilient vision of the Seattle Waterfront.

The AdaptSea Waterfront Resilience Partnership ("Partnership"), launched in 2023, includes major Seattle waterfront infrastructure owners, operators, and regulators, including the City of Seattle, King County, and Washington State Ferries. Other private, public, and Tribal entities are engaged as advisors. The Partnership creates a forum for coordinating Seattle waterfront capital investments and climate and sea level rise adaptation projects to increase competitiveness for grants, improve effectiveness of regulation for major waterfront infrastructure, and make public investments more efficient by working together to prioritize and sequence projects to optimize for the long-term. In 2024, the partners held four meetings, which have included detailed discussions of infrastructure and assets in particular focus areas and have resulted in recommendations and information that will be included in a final recommendations report. The Partnership also successfully adopted its charter in June, the first major milestone toward establishing a formal agreement of the partners. Related to this effort, the Port applied for federal funding for a joint vulnerability assessment of the waterfront. If funded, we will seek to execute an agreement with the partners to complete this effort jointly.

Our team also coordinated and negotiated with the City of Seattle and King County executives to sign the Duwamish River Sea Level Rise Memorandum of Understanding (MOU). The Port executed the MOU to collaborate and share information, synchronize community messaging, and seek joint funding opportunities specific to planning and deploying sea level rise resilience strategies in the Duwamish Valley. The MOU responds directly to community requests to align and coordinate agency efforts to avoid community burnout and foster effective solutions to reduce impacts of sea level rise in Duwamish Valley communities.

PROTECTING WATER QUALITY

The Port of Seattle implements programs and processes, collaborates with our tenants, and invests in innovative treatment technologies to ensure we avoid or minimize any effects on the health of the Puget Sound and foster a clean and vibrant marine environment.



COMPLIANCE AND BEYOND

The Port of Seattle set a Century Agenda goal to meet or exceed agency requirements for stormwater leaving Port-owned and operated facilities. In 2024, the maritime division met all permit requirements. The airport met over 99% of its individual permit conditions but documented two minor exceedances out of over 1,000 sampling results.

We invest in innovative treatment systems to minimize stormwater runoff and debris from our facilities. Over time, we have incorporated several new techniques into our maritime stormwater system including Retain Drain and Splash Boxx products, as well as our use of oyster shells in barrels, swales, and catch basins. In 2009, SEA completed retrofit efforts to retain and treat 100% of stormwater runoff within SEA NPDES permit boundaries. In 2024, under our adaptive management program, we also completed rehabilitation of two bioswales with limestone spalls to improve pH buffering.

SEA and Maritime parks and public spaces hold prestigious Salmon-Safe certifications. Salmon-Safe is one of the nation's leading ecolabels; they recognize practices that protect water quality, maintain watershed health, and restore habitat. SEA and its Maritime parks and public spaces were recertified in 2023 and 2024.

New and Improved Systems

Port stormwater systems are critical for maintaining the safety of our facilities as well as our ability to improve water quality. SEA is also enhancing its industrial wastewater treatment system that receives and treats stormwater from the airfield. The project designer was selected in 2024 and will complete design in 2025 for construction to begin in 2026.

Rehabilitating our maritime stormwater system is essential for maintaining a highly functioning and effective system. We've set an ambitious goal of rehabilitating 75% of the system by 2035. Major progress was made this year with rehabilitation projects at Terminal 18, Terminal 5, Terminal 46, the Maritime Industrial Center, and Fishermen's Terminal.

Maritime Stormwater System Rehabilitation

Protecting Our Waterways

Taking Action on Derelict Vessels

Abandoned and neglected vessels pose a serious threat: they're not just eyesores, they're safety hazards, environmental risks, and can hinder operations. The Port of Seattle is responsible for removing derelict and abandoned vessels at or near Port properties. Quick action on these vessels helps avoid chemical and debris release and protects water quality.

14 custody actions started

10 vessels removed or custody actions resolved

4 vessels in process

Removing Debris and Marine Hazards

The Port's proactive approach to addressing marine debris and hazards near Port properties has proven invaluable for both environmental health and local operations. A key example of this occurred in 2024 with the discovery of a large, pre-1940s pile cap near Terminal 46. This pile cap, lost decades ago during construction activities, was identified using a remote underwater vehicle. Weighing over 30 tons and measuring nearly 60 feet in length, the submerged obstruction was found in over 100 feet of water with entangled fishing nets. Because its presence disrupted local fishing practices, the Port removed this obstacle to navigation and tribal fishing.

The team also successfully addressed navigation issues at Terminal 18. Several unidentified hazards were creating a navigational bottleneck and impeding cargo flow. Deploying the Port's underwater remotely operated vehicle (ROV), the team located multiple hazardous targets. Subsequently, Port staff mobilized divers and marine salvage equipment, successfully removing three of these targets and restoring safe navigational access. Normal terminal operations resumed quickly.

These efforts underscore that environmental stewardship also aids in maintaining clean and safe waterways. The Port's collaboration with local communities, especially tribal partners, and business stakeholders demonstrates the importance of integrating sustainability into maritime operations, ensuring the preservation of marine ecosystems while supporting vital maritime industries.

LESSENING THE IMPACT OF AIRCRAFT NOISE

Seattle-Tacoma International Airport was one of the first airports in the country to establish a noise mitigation program. Since 1985, the Port has been delivering a comprehensive Airport Noise Program to minimize noise pollution around the airport. The program has three main components: residential sound insulation projects, airline collaboration and recognition, and community engagement.

BUILDING A QUIETER FUTURE TOGETHER

As part of the Port of Seattle's long-term commitment to communities surrounding the airport, the Port offers sound insulation for eligible properties within the current Federal Aviation Administration (FAA) approved noise remedy boundary. In 2024, the Sound Insulation Program made significant progress in all target segments.

Apartment Units: Nine complexes with 320 apartment units had designs finalized and the construction contract awarded. At least 200 units will be completed in 2025. An additional seven-unit complex was acoustically tested and is undergoing design.

Single Family Homes: Three homes were insulated in 2024.

Places of Worship: Three places of worship are set to start construction in 2025 after a construction contract award.

Condominiums: No current projects pending.

Schools: In 2002, a partnership was formed with the FAA and Highline School District to upgrade 15 schools through a $100 million joint investment. 10 schools are complete, and Pacific Middle School will be the 11th with voter approval for a bond measure in November 2023. The Port and FAA will invest $3.4 million, supporting 950 students. Pacific Middle School is scheduled to open in August 2027.

Total Sound Insulations Completed to Date

Single Family Homes: 9,400+
Condominiums: 6 complexes
Schools: 10

Part 150 Noise and Land Use Compatibility Study

A Part 150 Noise and Land Use Compatibility Study is a voluntary FAA program that sets guidelines for airport operators to document aircraft noise exposure and establish noise abatement and compatible land use programs. These noise abatement strategies and mitigation programs must be approved by the FAA to qualify for potential federal funding. In 2024, SEA initiated the multi-year study, the fourth undertaken since 1985. Gathering aircraft operations and land use data began this year, in addition to three successful public workshops held in Burien, SeaTac, and Des Moines. The workshops provided local residents an opportunity to engage with staff and provide written comment. We also formed a Technical Review Committee consisting of Port staff, local city staff, community members, airlines and FAA. The group provides study guidance and input —two meetings were held in June and October.

Repair and Replace Pilot Program

In 2024, the Port initiated an assessment of the condition of previously installed sound insulation products near SEA. The Port has managed an airport sound insulation program since 1986. In the past few years, some residents with sound insulation packages reached out to the Port to express concerns that, due to a range of potential factors, including age or durability, their sound insulation packages may no longer be effective. The 10-month, multi-faceted assessment included surveys, acoustic testing, and field assessments to gather data and insights. Almost all (99%) of the windows installed prior to 2014 are past the industry-standard expected useful life. However, none of the 30 residences acoustically tested exceeded the FAA-established interior noise threshold for sound insulation program eligibility, indicating all acoustically tested windows and doors were continuing to provide appropriate sound insulation. Learnings from the assessment will inform a repair and replace pilot program approach in 2025.

Encouraging and Recognizing Airline Noise-Reduction Practices

The Port of Seattle's Fly Quiet Awards program celebrates airlines who go the extra mile to reduce aircraft noise and minimize their impact on local communities. Fly Quiet encourages airline compliance with noise abatement efforts by evaluating flight procedures for jet aircraft, as well as jet aircraft noise levels, and recognizing the two airlines with the best record of achievement in the scoring categories. A third award is given to an airline that showed significant noise improvement or made an impactful change that lessened their noise over the course of the year at SEA. **2024 Award Winners:** Air Canada, Frontier Airlines, and Air France

Fostering Collaboration and Community with StART

The SEA Stakeholder Advisory Round Table (StART) provides the Port of Seattle with a dedicated forum intended specifically for discussing and tackling airport and aviation industry concerns from neighboring cities and their residents. StART brings together the relevant parties with a common purpose for information sharing and collaboration to achieve results. Eighteen meetings were held in 2024, including working group meetings focused on aviation noise state and federal policy.

ENGAGING OUR COMMUNITY

Recognizing that a healthy environment is vital for both the Port and surrounding communities, the Port of Seattle prioritizes collaborative environmental stewardship. Through education and outreach programs, the Port empowers residents near Port facilities and regional communities to participate in decision-making and advocate for environmental well-being. This commitment to community engagement fosters trust, empowers informed decision-making, and harnesses the power of collective action for a more sustainable future.

EVENTS AND LEARNING OPPORTUNITIES

In 2024, the Port of Seattle actively fostered environmental stewardship and education through over 75 diverse opportunities, ranging from hands-on activities to informative tours and presentations. Key highlights include:

Community Engagement: Hosted over 50 tours and events at the Duwamish River People's Park and other habitat sites, strengthening community connections to local ecosystems. Many events were restoration and education focused with youth and local communities.

Industry Leadership: Held 18 tours showcasing the SEA Fire Department's transition to PFAS-free foam, attracting representatives from various sectors, including other airports, regulators, and elected officials.

Tribal Partnerships: Organized site visits with Port interns and the Duwamish Valley Youth Corps at Muckleshoot Indian Tribe's Tomanomus Forest Project and engaged in discussions with Suquamish Tribe staff, gaining valuable insights into indigenous land management practices, the significance of cultural sites, and fish hatchery operations.

Workforce Development: Hosted Washington's Dirt Corps in kelp transplanting initiatives in Elliott Bay, and sponsored Seattle University's Civil Engineering capstone project.

Educational Initiatives: Continued partnership with Raisbeck Aviation High School through the annual Environmental Challenge, engaging students in a realistic problem-solving scenario related to airport operations. This year's challenge focused on finding sustainable solutions for the cell phone lot, requiring students to consider environmental impacts, operational efficiency, and community needs .

Duwamish Waterway Awareness: Led five boat tours on the Duwamish Waterway for local communities and industry partners, highlighting the river's history, ecological challenges, and ongoing restoration efforts.

Community-Oriented Environmental Programs

The Port of Seattle recognizes the power of community-driven solutions. We offer funding for environmental improvements to support local organizations working on innovative projects that address sustainability challenges. These investments empower communities to take ownership of their environmental future.

In 2024, the Port awarded $226,631 in funding for the fourth cycle of the South King County Community Impact Fund (SKCCIF) to six organizations serving communities around SEA. The program funds projects in cities around the airport to enhance livability and improve green spaces. The recipients are:

Shyan Selah Foundation: To provide environmental education and hands-on training in gardening and landscaping to Federal Way Public School students, while restoring local parks and open spaces, fostering a connection to nature.

EarthCorps: Will collaborate with community partners to restore and steward Hilltop Park in Burien, enhancing the 7.4-acre open space through volunteer efforts and community engagement.

SR3 — SeaLife Response, Rehabilitation, and Research: Works with the community in marine environment protection through beach cleanups at Des Moines Beach and a Marine Mammal Stewards program, educating beachgoers about local wildlife.

Foster High School Environmental Science Program (Tilth Alliance): Will expand the community garden at Foster High School in Tukwila, providing students with increased hands-on learning experiences in environmental science.

Toros Cycling Club: To maintain and improve the bicycle skills area in Burien's Annex Park through community clean-up efforts and enhanced signage, addressing dumping and vandalism.

Menbere Tsebaot Holy Trinity Ethiopian Orthodox Tewahedo Church: Will plant trees in Adelaide Park, Federal Way, through volunteer efforts, enhancing the city's green spaces and improving air quality in collaboration with the City of Federal Way.

Expanding SKCCIF

The Port of Seattle has committed $14 million over the next five years (2025-2029) to SKCCIF, which has been strategically refined based on lessons learned from its initial four years. Recognizing the evolving needs of the community, the program will now focus on funding projects that advance economic opportunity, rather than solely addressing COVID-19 pandemic recovery. Furthermore, the program's geographic reach will expand to include King County areas identified by the Port's Equity Index as experiencing significant disparities. Importantly, the Port will maintain its commitment to the six near-airport cities, ensuring that projects within these areas receive priority consideration.

Duwamish Valley Port Community Action Team

The Duwamish Valley Port Community Action Team (PCAT) functions as a bridge between the Port of Seattle and the surrounding community upholding the co-created Duwamish Valley Community Equity Program and Community Benefits Commitment, adopted in 2019. This collaborative effort aims to uplift the Duwamish Valley by focusing on capacity building for the Port and the community to learn from each other, supporting environmental health initiatives, and creating economic opportunities for BIPOC residents. The program aims to collaborate with and empower community members to influence Port operations and programs. The PCAT is actively working towards a cleaner, more prosperous future for the Duwamish Valley through efforts like the Duwamish River Community Hub supporting career fairs and small business as well as habitat restoration trainings and clean air education.

National and Global Collaboration

Environmental challenges transcend geographic boundaries. We collaborate with organizations across the globe to share best practices, develop innovative solutions, and advocate for sustainable policies and practices. Port staff also attended conferences and workshops across the globe where they can share key learnings and our vision with other industry leaders. In 2024, the Port participated in sustainability forums hosted by organizations such as Global Maritime Forum, Aspen Institute, and C40, among others.

PRACTICING EQUITY, DIVERSITY, & INCLUSION

The Port of Seattle actively advances equity, diversity, and inclusion (EDI) through its environmental programs. This includes prioritizing business inclusion programs that empower diverse owned businesses, fostering green job creation, and providing a pathway to economic opportunity for residents, with a particular focus on under-represented communities. Additionally, the Port champions environmental justice initiatives that address historical disparities in near-port communities.

Women and Minority-Owned Businesses (WMBEs)

The Port is committed to a more equitable and inclusive business landscape, including investing in Women- and Minority-owned Businesses (WMBE). A preliminary assessment of our 2024 environment and sustainability spending reveals a significant 25.5% WMBE allocation across projects, exceeding $4 million and directly contributing to regional economic growth for diverse businesses.

Workforce Development and Green Jobs

Most green jobs are not new occupations; they are existing occupations in construction, manufacturing, transportation, and professional services. Among all Port-related sectors, a 2022 Seattle Jobs Initiative report anticipated that the construction industry would have the highest green job demand for electricians and HVAC occupations. In 2024, Port-funded pre-apprenticeship training programs trained and placed 28 community members into apprenticeships focusing on clean and renewable energy, including the construction, installation, maintenance, and operation of these systems.

The Duwamish Green Jobs Program, a partnership with DirtCorps and community partners completed the final year of restoration, ecology operations and maintenance skills in green stormwater infrastructure in 2024. As one of the first community-driven investments by the Port in the Duwamish Valley, the Duwamish Green Jobs Program served 43 adults and 44 youth with trainings held in both English and Spanish. The training included hands-on shoreline restoration work, marsh plant propagation, solar energy jobs presentation, green stormwater infrastructure education, climate change and a just transition, environmental remediation, water quality protection, and more.

In 2024, the Coalition for Climate Careers (C3) achieved significant milestones, including the co-hosting of the Green Jobs Green Futures Summit by the Port of Seattle, City of Seattle, and King County, which connected local youth with green economy job opportunities. C3 also received a sub-award from King County's $50 million EPA Climate Pollution Reduction Grant, which will fund decarbonization projects across the region, including energy efficiency upgrades for community, government, and multi-family buildings through 2029. Additionally, C3 established its Executive Steering Committee, appointing Marie Kurose, CEO of the Seattle-King County Workforce Development Council and Michael Carter, Climate and Workforce Manager in the King County Executive Climate Office as co-chairs. Looking ahead to 2025, C3 plans to host public meetings and launch a revised website to further engage the community.

Maritime Environmental Justice Work Group

The Port operationalizes our equity and anti-racism values via the Port's Change Team and other initiatives. The Environmental Justice Work Group is an internal collective focused on both internal and external actions to enable the Port to become a more equitable and anti-racist organization while advancing environmental justice. These actions may be in the form of policy development, programs, and practices. In 2024, two job postings were reviewed by the group to ensure knowledge, skills and abilities do not present unreasonable barriers to employment. The team has 15 members that meet monthly from the maritime environmental team, Aviation division, and Office of Equity, Diversity, and Inclusion.

Environmental Justice and the Port's Equity Index

The Port of Seattle's Equity Index is an interactive map serving as a visual representation of social and environmental disparities across King County. This valuable tool utilizes 23 indicators across four categories (economy, livability, accessibility, and environment) to illuminate the disproportionate inequities faced by different communities.

In 2024, Port staff used the Equity Index to ensure environmental justice and equity were considered in Port projects and operations, including:

Capital Projects: To identify potential unintended impacts, mitigation strategies, and to maximize benefits for near-port communities on several projects at Fishermen's Terminal, Marine Maintenance South, Pier 69, and Terminal 91.

Airport Noise Programs: By leveraging the Equity Index, the Port tailored outreach materials, including a survey, to better engage residents in assessment phase of the Sound Insulation Repair & Replacement Pilot Program (SIRRPP). This included offering translated materials and using inclusive language. Additionally, the Equity Index will support the development of eligibility and prioritization criteria for the SIRRPP implementation in 2025.

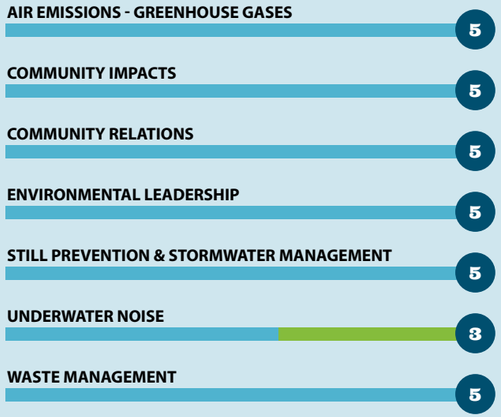
Sustainable Airport Master Plan: By leveraging the Equity Index, the project team tailored outreach materials and strategies to better engage residents in the SAMP NTPs NEPA Environmental Assessment process.

AWARDS & RECOGNITION

Throughout the year, we strive to implement innovative solutions and collaborate with stakeholders to achieve our sustainability goals. These awards and acknowledgements represent the dedication and hard work of our team and partners and further motivate us to continue our environmental stewardship and community engagement.

Green Marine

Green Marine is a voluntary environmental certification program specifically designed for the North American maritime industry. By participating in Green Marine, the Port of Seattle commits to improving environmental performance beyond what's mandated by regulations. Environmental performance is rated on a scale of 1 to 5 in accordance with the environmental program's detailed framework and an external verification of the results. Underwater Noise is a new measure and the Port's score of 3 out of 5 reflects plans and actions in development, not a statement of noise conditions.



District 2030 Leadership Award

The Seattle 2030 District has awarded the Port of Seattle its Leadership Vision Award for the Port's Sustainable Evaluation Framework (SEF). The Seattle 2030 District is a membership organization of real estate owners, architects, engineers, contractors, and community partners that bridges the gap between the private and public sector to reduce the environmental impacts of buildings in Seattle. The SEF supports the Port's Century Agenda goal of becoming the greenest and most energy-efficient port in North America and reducing greenhouse gas emissions. It provides a comprehensive approach to integrating sustainability into capital projects, enabling more transparent and data-driven decision-making in the construction and operation of Port facilities.

AIVP Rufenacht Prize

The AIVP Prize Antoine Rufenacht celebrates outstanding port city projects that address the port-city relationship within sustainable development. Port cities and authorities worldwide are recognized for their unique urban developments and emblematic architectural works that reimagine this connection. In 2024, the Port's Duwamish River People's Park and Shoreline Habitat, the largest restoration project in a generation on Seattle's only river, was selected as a finalist for this prestigious prize.

port of firsts

The Port of Seattle has been on the leading edge of many environmental initiatives. We channel the strong environmental value that defines the Seattle region and pair it with innovation and action.

we are the first port to:

1. hire a wildlife biologist for its airport (1977)
2. achieve a 100% green taxi fleet at an U.S. airport (2003)
3. establish an agreement with cruise industry to prohibit wastewater discharge in state waters (2004)
4. implement large scale flow-through construction stormwater treatment at SEA (2004-2008)
5. create the first international strategy on clean air between ports (2008)
6. conduct a comprehensive greenhouse gas inventory at a U.S. airport (2008)
7. have two cruise homeport berths with shore power (2009)
8. be certified Green Marine on the U.S. west coast (2013)
9. be certified for reducing carbon emissions by Airport Council International's Airport Carbon Accreditation program in the U.S. (2014)
10. establish and operate its own Stormwater Utility in the United States (2014)
11. achieve Salmon-Safe certification for an airport (2016)
12. require Transportation Network Companies such as Uber and Lyft serving SEA to meet strict fleet-wide carbon emission limits (2016)
13. use crushed oyster shells in stormwater catch basins and downspout barrels for removing pollutants (2017)
14. develop a Community Benefits Commitment with a near port community to pledge resources for environment, public health and jobs (2019)
15. join the alliance to combat ocean acidification (2020)
16. prohibit discharge of exhaust gas cleaning system wash water at berth in the PNW (2020)
17. initiate a partnership to explore a green corridor focused on cruise ships (2022)
18. remove PFAS chemicals from SEA firetrucks using special cleaning technology (2024)
19. in the nation to independently require that 100% of all home port cruises be shore power capable and utilize shore power (effective 2027)

thank you

The success of the Port's environmental work can be attributed to a culture of stewardship that starts from our top leadership through all of our divisions and departments. It takes all groups working together to visualize, plan, and implement our environmental work. We thank everyone for their support.

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