



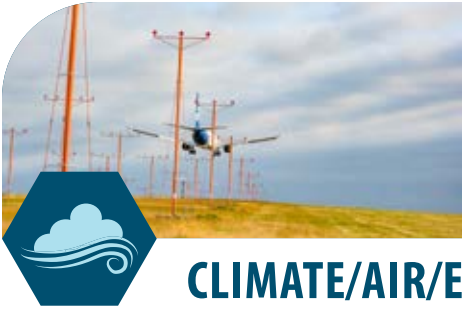
# PORT OF SEATTLE CENTER OF EXPERTISE Environment, Sustainability, and Engineering

## 2021 ACCOMPLISHMENTS

The Environmental and Engineering programs have built a stellar reputation for the Port of Seattle as a leader in both infrastructure development and environmental protection. 2021 was no exception. Through the challenges of a pandemic, the teams worked strategically and tirelessly to achieve a substantial number of accomplishments including more “firsts” for the Port. Emboldened by these achievements, we will continue to seek innovative ways to restore and protect our environment and the health of our local communities. Many thanks to all employees for their contributions and accomplishments that make Port of Seattle one of the best in the industry.

– Sandra Kilroy, Sr. Director

*Together we will revolutionize Port operations for a sustainable future.*



## CLIMATE/AIR/ENERGY

- Accelerated Port goals to achieve net zero by 2040 for port operations and carbon neutral by 2050 for our partner industry
- Adopted the Northwest Ports Clean Air Strategy – an international collaboration
- Adopted Charting the Course to Zero: Maritime Climate and Air Action Plan
- Implemented first full year of a 10-year contract for renewable natural gas at SEA, achieving 50% reduction goal for Port-owned carbon emissions a decade early.
- Completed a Port-wide Sustainable Fleet Plan
- Drafted a Green Lease Guide
- Completed the first Community Engagement Playbook
- Advocated successfully for passage of Washington's first Clean Fuel Standard
- Signed agreement with King County to study conversion of municipal solid waste into sustainable aviation fuel in WA.
- Successfully implemented the Sustainable Evaluation Framework to integrate sustainability into capital projects for both SEA and Maritime
- Identified strategies to improve pre-conditioned air system performance and supported pilots to avoid idling aircraft at our gates



## HABITAT RESTORATION/PLANNING/PERMITTING/COMPLIANCE

- Established the Alternative Streambank Stabilization Program
- Worked with partners to officially set up the Quiet Sound program to reduce underwater noise impacts on Orcas
- Completed first Ocean Acidification Action Plan
- Negotiated 5-year Vessel Coordination Agreement with Suquamish Tribe & Muckleshoot Indian Tribe
- Conceptual approval of T-25S habitat restoration and green stormwater infrastructure
- Achieved LEED Silver certification for the North Satellite project at SEA
- Obtained dozens of permits for SEA, Maritime, NWSA and EDD projects, including securing complex permits and permit modifications on high priority projects such as T5
- Navigated significant progress and problem solving on SAMP NTP Environmental Review
- Completed tree obstruction removal, mitigation, and monitoring for the current phase of the Flight Corridor Safety Program
- Progress on Duwamish River People's Park and Shoreline Habitat



## REMEDIATION, SPILL RESPONSE AND WASTE DIVERSION

- Completed cleanup and remedial actions at the Lora Lake Apartments MTCA Site. After two decades of work, we removed over 20,000 CY of dioxin-contaminated soil
- Diverted nearly 45% of solid waste at SEA from landfills by recycling and using all compostable or reusable service ware at SEA
- Developed strategy to reduce single use plastics at SEA Airport
- Completed the activated carbon pilot study project for Lower Duwamish Cleanup
- Initiated remedial design sampling and design for the upper 1/3 of the LDW cleanup
- Continued work preparing for EPA's proposed cleanup plan for East Waterway
- Abated 8 derelict vessels from Shilshole Bay Marina and Fisherman's Terminal
- Supported Emergency Management's resiliency efforts by ensuring the environmental protection control systems for fuel spills were incorporated



## WATER QUALITY, STORMWATER AND INDUSTRIAL WASTE MANAGEMENT

- Completed the Maritime Stormwater Utility Strategic Plan
- Achieved permit compliance with municipal and industrial stormwater permits
- Maintained Salmon-Safe certification for airport and maritime parks/public access areas
- Successfully renewed Department of Ecology National Pollution Discharge Elimination System permit, reflecting strong stormwater compliance performance
- Renewed the King County Industrial Waste Discharge permit for IWS secondary treatment of aircraft deicer runoff
- Reached agreement with King County to use innovative tests of operational options to meet new wastewater discharge permit limits, thereby avoiding noncompliance
- Tested the feasibility of "deep infiltration," a concept that would allow airport-wide management of future stormwater changes
- Supported continued work on SEA Utility Master Plan, which will identify long term infrastructure improvements for future development



## ENGINEERING DESIGN AND CONSTRUCTION MANAGEMENT

- Approval of FAA design Modification to Standards for the Airfield Improvement Program. FAA approval for any modifications to their standards are increasingly difficult to achieve. This year we had 10 different specifications that required modifications, most notably the P-501 concrete specification
- Completed the 2021 Airfield Improvement Program paving work. It was the largest amount of paving done in a single season since the reconstruction of RWY 16C in 2015 and in many ways had more complicated phasing and impacts to our airline partners. Work was completed to meet the opening commitment during the wettest November on record and a looming concrete material supply issue
- Opened the North Satellite Renovation, under budget and ahead of schedule. A Northwest Construction Consumer Council Distinguished Project Award Winner
- Completed the airport Central Terminal Infrastructure project, prepared building systems for numerous future ADR buildouts
- Completed Phase 1 of Terminal 5 Berth Modernization project, overcoming significant problems and obstacles
- Completed construction of Shilshole Bay Marina Customer Service Facilities
- Completed a major milestone for Baggage Optimization Phase 2 - connecting the permanent conveyor mainlines to the Concourse D piers
- Completed the North Terminal Utilities Upgrade Project Phase 1, on time and under budget. This was labelled a "Hot Project" due to its critical milestone to deliver the required chilled water to the NSAT project.
- Ahead of schedule on construction of T117 Duwamish River Peoples Park and Habitat
- Initiated accelerated Sound Insulation program
- Developed 360-degree Photo Tours for nine projects to assist with planning, design, and construction; enabling employees, consultants, and contractors to view project sites virtually rather than physically
- Processed nearly 4000 construction submittals and executed 725 change orders at approximately \$18 million
- Answered 1800 Requests for Information
- Completed biannual bridge inspections
- Updated Portwide Damage Assessment Plan
- Completed capacity assessment of T5 Approach Overpass for heavy vehicles, addition of 3rd lane



## CONSTRUCTION SAFETY

- Estimating approximately 1 million construction worker hours for 2021 with an estimated Occupational Injury Rate (OIR) of 3.3 and an estimated Lost Time Rate (LTR) of 0.96, performing better than WA State average of 5.2 and 1.8 respectively.



## NOISE MANAGEMENT

- Achieved an increased compliance rate of 100% for two months in a row (highest ever achieved) for noise abatement aircraft flight procedures monitoring and reporting
- Facilitated EVA Airways to agree to change their nighttime flight from a Boeing 777 to a much quieter Boeing 787 - a significant noise reduction for the community
- Accelerated the sound insulation program to meet the Commission's motion
- Completed Sound Insulation of 10 single-family homes and 7 condominium units
- Received 20 new homeowners and 11 apartment complex owners applying for the program as a result of enhanced outreach
- Through coordination and grant funds, supported Highline School District completion of work on Des Moines Elementary and Highline High School
- Awarded the Fly Quiet Program to 3 winning airlines – British Airways, Frontier Airlines, and SkyWest Airlines



## ECONOMIC VITALITY AND WORKFORCE DEVELOPMENT

- Construction Management is managing 47 major contracts and paid out nearly \$200 million this year. Also managing 92 Airport Dining & Retail and Tenant projects
- Achieved 24.8% Priority Worker Utilization - exceeding the 20% goal
- Issued first annual Priority Hire report
- Achieved 22.85% apprenticeship utilization - exceeding the 15% goal

