

2017-201<u>8</u>

Environmental Objectives and Targets

Port of Portland's aviation, marine and industrial development operations have an impact on the environment. To address those impacts and fulfill our environmental policy, the Port sets yearly environmental objectives and targets to meet goals in five program areas: air quality, energy management, natural resources, water resources and land quality. Goal-setting is part of our Environmental Management System that continuously and systematically improves our performance. By setting goals and tracking progress, we can measure our success. Program managers, operational staff and other stakeholders develop targets and actions that will minimize our environmental footprint, innovate on current practices or respond to stakeholder concerns. We are pleased to announce 19 new and ongoing targets and actions for the 2017-18 fiscal year. Unless otherwise specified, these are due to be completed by June 30, 2018.

Air Quality

Objective: Minimize impacts to air quality

The Air Quality Program facilitates implementation of the Port's Air Quality Policy, which promotes clean air for all who live in airsheds affected by Port activities. To reduce air quality impacts of current and future activities, we invest in cleaner engines, alternative fuels and anti-idling programs. Regular emissions inventories of Port facilities measure and monitor our progress. We report our greenhouse gas emissions to The Climate Registry. Recognizing that not all emission sources are under the Port's direct control, we seek opportunities to improve air quality by facilitating and encouraging partnerships, education and outreach to assist customers, tenants and other stakeholders in reducing marine and aviation-related emissions. The Port supports efforts of the International Maritime Organization and International Civil Aviation Organization to set global standards to reduce emissions from marine vessels and aircraft.

Reduce diesel particulate matter by 75% from Port-controlled operations from 2000 baseline levels by 2020. Timeframe: 2015-2020

We have reduced diesel particulate matter emissions by approximately 67% from Port-owned and controlled equipment. To support reaching our goal of a 75% reduction, planned projects include: 1) replacing the primary Central Utility Plant emergency generator with a generator certified to EPA Tier IV, the cleanest generator available, cost: \$1,735,200; and 2) repowering the *Tug Clackamas* engine (contingent on grant funding), cost: \$470,000.

Reduce Port direct and indirect greenhouse gas emissions 15% below 1990 levels by 2020. Timeframe: 2009-2020

We will continue to meet this target by completing planned energy efficiency improvements and purchasing certified Renewable Energy Certificates exceeding 100% of Port-wide electric energy use. As of 2016, the Port has achieved a 71% reduction from the 1990 baseline (including REC purchases). In addition, we will begin to investigate and adopt a new, more aggressive greenhouse gas emissions reduction target.

Participate in the Airports Council International (ACI) Airport Carbon Accreditation Program to achieve Level II (Reduction) by 2016; Level III (Optimization) by 2018 and Level III+(Neutralization) by 2035 for Portland International Airport (PDX), Hillsboro Airport (HIO), and Troutdale Airport (TTD). Timeframe: 2015-2035

This year's action is to achieve Airports Council International (ACI) Airport Carbon Accreditation Level III (optimization) accreditation for PDX, HIO, and TTD, which widens the scope of our emissions inventory to include Scope 3 carbon emissions, including registration, preparation of inventory, and independent third-party verification.

Advocate for unleaded fuel use for appropriate aircraft at Hillsboro Airport by completing an unleaded fuel study and working with HIO fueling companies to initiate an unleaded fuel program facilitated through existing Airport Minimum Standards. Timeframe: 2015-2019

We will continue to look for opportunities to offer unleaded fuel at HIO and communicate the results to the community and interested stakeholders.

Reduce emissions from marine and aviation-related sources not under the Port's direct control, including Port customers, tenants and other stakeholders. Timeframe: 2016-2018

Regionally, we will work with City of Portland, Multnomah County, Metro and Oregon Department of Environmental Quality to explore the feasibility of developing an effective, implementable and uniform clean diesel construction specification that could be voluntarily adopted by participating jurisdictions in the Portland metropolitan region. At marine terminals, we will continue to look for ways to partner with businesses to support the replacement, or retrofit, of older switcher locomotives. At PDX, we will look for opportunities to work with, or support, the replacement of older ground service equipment with cleaner equipment that runs on electricity.

Reduce aircraft-related GHG emissions at PDX by 25% from 2010 levels by 2035. Timeframe: 2016-2035

We will complete the installation of pre-conditioned air units on 26 loading bridges at the PDX terminal, allowing aircraft to shut down jet fuel-powered auxiliary power and use a cleaner fuel source. The Port will continue to support an aviation industry clean fuel program by working to ensure PDX can accommodate airlines' needs and interests for using sustainable biofuels. We will complete an engineering-level description of PDX aircraft fuel delivery infrastructure and processes that could meet the needs of the Port and airlines.

Energy Management

Objective: Reduce energy consumption and carbon emissions

The Energy and Carbon Management Master Plan outlines our strategy to reduce energy consumption and carbon emissions. The plan aligns closely with the Air Quality Program and presents a six-point approach for reaching the Port's greenhouse gas reduction goal by establishing targets and a portfolio of projects identified and scheduled for implementation at Port facilities. The plan integrates facility engineering with environmental operations and planning for new construction to achieve maximum energy efficiency.

Reduce Port-wide energy consumption (kWh) by 20% from the 2011 baseline by 2020. Timeframe: 2014-2020

The Port is currently at a 16% reduction in overall energy consumption. This year we will continue to implement planned energy efficiency projects. This includes verifying and measuring energy savings of completed marine and aviation projects (Portfolio 1). And, initial design will begin for energy efficiency projects related to infrastructure for airlines (Portfolio 2). Where applicable, we will add energy efficiency measures to the planning and scope of existing or open projects.

Purchase 100% of all Port electric energy from renewable sources by selecting cost-effective options in the energy market for Renewable Energy Certificates (REC), Vintage Year 2017. The Port has purchased REC for 100% of its electricity consumption since 2010. This is an ongoing target.

This target supports the Port in achieving its Air Quality Program greenhouse gas reduction goal.

Develop an energy baseline metering, tracking and analysis system for PDX Terminal Complex and other large Port buildings or systems utility services. Timeframe: 2012-2022

This target installs meters to give PDX concession tenants direct feedback on their water, electricity and natural gas consumption to encourage conservation; it will continue for another five years to allow for upgrades over time as new PDX concessionaires sign leases. Newly-leased areas have sub-meters that create real-time database tracking used to generate automatic bills for each tenant's water, electricity and natural gas. We are also expanding the system to install standardized meters for marine and general aviation facility tenants.

Develop and deliver a Strategic Energy Management Program (SEM) for the Port's commercial energy improvements by participation in the Energy Trust of Oregon's SEM Program. Timeframe: 2015-2018

This target supports broader awareness of how Port employees and tenants can personally contribute to energy efficiency through their daily actions and habits. It will focus on communications, education, facility monitoring, and cohort participation in the Energy Trust's SEM Program.



Land Quality (formerly Waste Minimization)

Objective: Reduce waste generation and hazardous materials use

The Waste Minimization Program transitioned to the Land Quality Program in 2016 in recognition of their broader scope of work that includes spill response, site remediation, hazardous materials

management and waste minimization. Five Years to Zero Waste is the Port of Portland's ambitious plan developed in 2014 to create guidance for the actions necessary to reach zero waste status, which the EPA defines as landfill waste diversion of 90% or greater. This plan has been developed through an ongoing partnership with Portland State University's Community Environmental Services to research innovative, industry-leading waste minimization practices. This plan sets out a framework to achieve zero waste status with specific actions, priorities, and targets. For example, using waste audits and analysis to engage tenant and employees to strategically reduce waste.

Achieve 90% or greater landfill waste diversion from Port facilities by 2018. Timeframe: 2013-2018

Provide signage and conduct outreach in select areas of the PDX terminal to increase public recycling participation.

Minimize waste generation by providing waste minimization outreach and technical assistance to PDX tenants. Timeframe: 2015-2020

Conduct a Grab & Go product study with a PDX concessions partner to understand how purchasing, inventory and marketing and display practices as well as sales and passenger data affect food waste. This action builds on the 2016 Food Optimization Study that assessed how restaurant management practices in the airport affect food waste. We will also continue to develop tenant outreach materials, conduct outreach to non-terminal tenants, identify tenants interested in partnering, perform waste assessments, and report the findings and recommendations back to them.

Natural Resources

Objective: Minimize impacts and seek opportunities to enhance natural resources

The Natural Resources Program identifies potential for impact to natural resources associated with Port operations and develops strategies to avoid, minimize, and mitigate where appropriate. Habitat

type and local ecology are taken into careful consideration; activities include monitoring and management of plants and animals on mitigation lands, bird monitoring, invasive species removal, tree planting, and monitoring and managing for threatened and endangered species. Community engagement to identify enhancement opportunities is an important aspect in target selection to support regional conservation goals and initiatives.

Implement projects in support of the Airport Futures Intergovernmental Agreement for environmental improvements around PDX. Timeframe: 2010-2035

We will continue Phase II of the Government Island Grassland Mitigation Project through monitoring. We will also select and fund one Columbia Slough Enhancement Project in partnership with the PDX Community Advisory Committee, and complete one Tree Canopy Enhancement Project.

Extend partnership with Friends of Trees by sponsoring and participating in tree plantings in neighborhoods adjacent to, or near, Port facilities to help offset impacts from Port operations. Events will include employee service opportunities. This is an ongoing target that began in 2008.

Develop a Port-wide Strategic Natural Resources Mitigation Plan that will identify mitigation needs and potential mitigation options. Timeframe: 2016-2018

Water Resources

Objective: Minimize impacts to water resources

The Water Resources Program protects water quality and promotes water conservation by prioritizing infrastructure investments, investigating source control, and conducting tenant and public outreach.

The water quality aspect of the program focuses on groundwater, and prevents, reduces, and eliminates the discharge of polluted stormwater to the Columbia Slough and Willamette and Columbia rivers. The Water Conservation Strategy identifies ways to eliminate waste, improve efficiency and use alternative water sources across the Port. For example, using non-potable water where appropriate. It integrates water conservation into the Port's daily operations, business planning, maintenance, and capital projects.

Improve stormwater quality by evaluating the potential contribution of zinc from galvanized metals at Port facilities and implement recommendations for potential source control measures. Timeframe: 2016-2018

Support the water conservation program through activities that maximize efficiency, eliminate waste and use alternative sources. This is an ongoing target that began in 2017.

Conduct a non-potable water use survey for PDX and Portland International Center to identify water uses that are currently being served by potable water supply, and planned future water uses, that could be replaced or sourced with non-potable water.

Develop a Data Management Plan for water use. The plan will consist of protocol for data collection, management, reporting and quality assurance/quality control.

Update existing specifications for Port projects to optimize water conservation opportunities in design (above existing code).