

2015-2016 Environmental Objectives and Targets Results

Each year the Port of Portland sets objectives and targets to meet goals in five environmental program areas: air quality, energy management, natural resources, water resources and waste minimization. We use this process to set goals, track progress and measure our success. Program managers, operational staff and other stakeholders develop annual targets or actions in support of multi-year targets that minimize our environmental footprint. This process is part of the Port of Portland's Environmental Management System (EMS) designed to continuously and systematically improve our environmental performance. The EMS integrates responsible environmental stewardship into aviation, industrial development, navigation and marine operations on a daily basis.

To share our performance with the public, we report yearly on progress towards achieving targets. This document outlines achievements for Fiscal Year (FY) 2015-2016. The Port pursues targets using internal resources and expertise from across the organization and by teaming up with external partners. The Port of Portland is proud to report that we completed 13 out of the 15 targets and actions set for FY 15-16 and made significant progress on the remaining two targets.



Air Quality

Objective: Minimize impacts to air quality

Target: Reduce particulate matter emissions from diesel at Port-controlled operations by 25 percent from 2000 baseline levels by 2020. This is a multi-year target.

This year's action supported equipment replacement planned within the next five years. We identified and researched EPA-verified engine upgrade technology and designs for workboat vessels (such as dozers and tugs) with Tier III and IV engines which meet Diesel Emission Reduction Act (DERA) grant eligibility requirements. The assessment provided an implementation timeline for equipment replacement and evaluation of non-road dredge material placement equipment options. The analysis yielded specific recommendations that were integrated into capital planning that will reduce emissions over the next five years. We also developed reduced-emissions engine specifications to aid in future equipment procurement.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Reduce Port direct and indirect greenhouse gas emissions 15% below 1990 baseline levels by 2020. This is a multi-year target.

The Port continues to meet this target through the purchase of certified renewable energy credits (REC) equal to 100% of Port-wide electric energy usage and completing planned energy efficiency improvements.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Participate in the Airports Council International (ACI) Airport Carbon Accreditation (ACA) Program to achieve Level II (Reduction) by 2016; Level III (Optimization) by 2018; Level III+(Neutralization) by 2035 for Portland International Airport (PDX), Hillsboro Airport (HIO), and Troutdale Airport (TTD). This is the second year of a multi-year target.

This year the Port achieved ACA Level II Accreditation for PDX, HIO, and TTD airports and began work on achieving Level III accreditation through developing an approved model using the ACI's Airport Carbon and Emissions Reporting Tool (ACERT). Through the initial assessment, we identified data needs and options for data sources to use in the model.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Advocate for unleaded fuel penetration for the Avgas fleet at Hillsboro Airport (HIO) by working with General Aviation Operations to complete an unleaded fuel study and by working with fueling companies at HIO to initiate an unleaded fuel program that can be facilitated through the existing standards.

The Port completed an unleaded fuel study and shared it with fueling companies to support the provision of unleaded Mogas to small aircraft. This effort included Port investment in upgrading a fuel storage tank specifically for Mogas and offering a subsidy to offset new fuel distribution costs for HIO fuel providers.

The Port is advocating for unleaded fuel penetration for the Avgas fleet at HIO by working with fueling companies at HIO to initiate an unleaded Mogas program that can be facilitated through the existing airport standards. This FAA-approved nationwide replacement fuel is a pilot project, targeted to be available in 2018.

Progress: The actions for this target are 90% complete for FY 15-16.



Energy Management

Objective: Reduce energy consumption and carbon emissions

Target: Reduce Port-wide energy consumption by 20% from 2011 baseline by 2020.

The Port continued implementation of the Terminal Efficiency Improvement Program to reduce energy consumption and GHG emissions. The Portland International Airport-wide lighting upgrade project is expected to finish construction in 2016, which will reduce annual energy consumption by 1,383,000 kWh and result in a carbon footprint reduction of approximately 1,020 metric tons per year.

Energy conservation opportunities identified by the Carbon Management Study are under evaluation for inclusion in the upcoming PDX Terminal and Concourse Capital Projects expansion work.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Purchase 100% of all Port electric energy from renewable sources by selecting cost-effective options in the energy market for Renewable Energy Credits (REC), Vintage Year 2015.

The Port continued to uphold its commitment to 100% renewable power by purchasing 75,000 Renewable Energy Credits (RECs) last year, equating to about 75 million kWh of electricity consumption. This target resulted in the Port again being consistently listed in the Top 10 in the Local Governments category (#9) and in the Top 100 (at #78) among 100% Green Power Purchasers under the U.S. Environmental Protection Agency's Green Power Partner ranking system.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Develop an energy baseline metering, tracking and analysis system for Portland International Airport (PDX) terminal complex and other large Port building's or systems utility service.

We continued to implement tenant sub-meters at PDX to promote energy conservation, recover operational costs and improve the accuracy of the Port's emissions inventory. The Port now requires tenant metering for all new PDX concession spaces (non-airline) to monitor and bill tenants for their electricity, natural gas and water consumption and encourage conservation.

On a broader scale, the Port selected a facilities master metering system services provider and has developed standards for implementation for future applications.

Progress: The actions for this target are 100% complete for FY 15-16.

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

The Port completed its one-year anniversary of its participation in the Energy Trust of Oregon SEM program. We completed several after-hours assessments of the HQ facility as well as the PDX Maintenance facilities to identify opportunities to reduce energy consumption through guiding employee behavior; for example, lights left-on or computer monitors not cycling to sleep mode. Information gained is being used for corrective work such as employee outreach, system control set points or the addition of occupancy sensors.

Progress: The actions for this target are 100% complete for FY 15-16.



Natural Resources

Objective: Minimize impacts and seek opportunities to enhance natural resources

Target: Extend partnership with Friends of Trees by sponsoring and participating in tree plantings in neighborhoods adjacent to or near Port facilities to offset impacts from Port operations. Events include an employee service opportunity.

The Port funded Friends of Trees planting projects for tree canopy enhancements in areas impacted by airport operations, which included the following community events: Alameda, Hollywood, Irvington, Sullivan's Gulch, Sabin and Grant Park neighborhoods (3/5/16), Madison South, Rose City Park and Summer Neighborhoods (3/19/16), and Jackson Bottoms Wetland Preserve (3/26/16). These events resulted in the planting of 1,020 trees and shrubs. Employees joined as volunteers at planting days. In addition, an employee service day occurred on Nov. 8, 2015 at Heron Pointe Wetlands Planting Day in Fairview in partnership with SOLVE and the local community.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Implement projects in support of the Airport Futures Intergovernmental Agreement (IGA) for environmental improvements around Portland International Airport.

This target is associated with a mitigation commitment linked to the Airport Futures planning process and provides resources to enhance the ecological health of nearby watersheds. It includes enhancements to Government Island, the Columbia Slough and surrounding neighborhoods. Specifically, the Port planted a native grassland habitat on a 50-acre upland mitigation site at Government Island; actions included site preparation, seeding, monitoring and maintenance. The project integrates research on the response of pollinator populations to grassland enhancement through a partnership with the Xerces Society.

Working in partnership with the PDX Community Advisory Committee (CAC), the Port selected two projects for funding with the Columbia Slough Watershed Council related to protecting trees from beaver damage and installing native plantings. Projects are in the planning stage.

The CAC also approved funding to support the work with Friends of Trees for tree canopy enhancements; which included the following plantings: I-205 Greenspace Planting (12/12/15) Columbia Children's Arboretum (1/30/16), Piedmont and Woodlawn neighborhoods (1/30/16), Argay, Parkrose, Parkrose Heights, Russell, and Wilkes neighborhoods (2/27/16), and Concordia and Vernon neighborhoods (3/12/2016). These events resulted in the planting of 838 trees and shrubs. Employees participated as planting volunteers.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Develop a Pacific Lamprey monitoring plan in conjunction with the US Fish and Wildlife and the US Army Corps of Engineers for locations near Port Marine Terminals by June 30, 2017. This is a two-year target that is intended to meet the Port's obligation under the 10-year terminal-wide berth maintenance permit.

We completed a monitoring plan for Pacific Lamprey in FY 15-16. The plan evaluates methodologies available to collect information about the species presence or absence and to monitor the density of larval lamprey at Port marine terminals. Future steps include working collaboratively with the Pacific Northwest National Laboratory (PNNL) and Oregon State University (OSU) scientists to utilize and evaluate these methodologies to document the presence or absence (with 80 percent certainty) of lamprey ammocoetes (larvae) at select berthing areas.

Progress: The actions for this target are 100% complete for FY 15-16.



Water Resources

Objective: Minimize impacts to water resources

Target: Reduce the Port's potable water consumption through the use of the Port's non-potable water resources to meet 100% of the non-potable water uses at the new PDX Rental Car Quick Turn-Around (QTA) Facility by June 2017.

To support conservation goals, the new QTA facility design includes a new well to supply non-potable uses. The car wash system will use non-potable sources (rainwater and well-water) and the irrigation system will use well-water. Potable water will supply internal water uses, such as sinks and drinking water. The design results in significant water conservation savings for the new two-story QTA that will offer approximately 158,000 square feet on each level. For example, non-potable use is expected to be more than 50,000 gallons per day; in contrast, potable water consumption is expected only to be about 250 gallons. The project is currently under construction.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Assess potable water system losses and identify improvements at Terminal 4 through completion of the site-wide leak detection actions and Sub-region 3 investigative tasks developed during the 2014 water audit. This assessment will provide a basis for actions that will conserve water at Terminal 4 and set the stage for a Port-wide leak detection program.

In 2014, the Port developed a Water Conservation Strategy to guide future action across all facilities, including water system audits for several high-use areas. The audits revealed Terminal 4 as a good candidate for developing a leak detection strategy and action list to assess losses and lay the groundwork for future system repair or improvements. Site-wide investigative tasks began; however, work revealed that water accounting issues need resolution before remaining tasks can be completed. As a result, engineering investigations of piping and valves will continue into the next fiscal year. They will include a reassessment and prioritization of the tasks based on initial findings.

Progress: The actions for this target are 30% complete for FY 15-16.



Waste Minimization

Objective: Reduce waste generation and hazardous materials use

Target: Zero Waste: Achieve 90% or greater landfill diversion by 2018.

The Port's Waste Management Team (WMT) conducted a waste audit, compiled results, and performed follow-up outreach on the assessment results to the Port Maintenance Annex, PDX Police Department and Landscape Maintenance. The team documented the Current Diversion Rates for the Zero Waste Plan and made recommendations for improvements to stakeholders.

The WMT also collaborated with Port and tenant construction departments to determine best practices for minimizing construction and demolition waste at the Port and to encourage material diversion and track waste materials generated. Along with participation in pre-construction meetings, the team began a project with Atlantic Aviation to track and monitor waste generated during new facility construction. The collaborations provide ongoing insights to the types of materials generated during construction phases, which will lead to developing best management practices for reducing construction/demolition waste.

Progress: The actions for this target are 100% complete for FY 15-16.

Target: Conduct a Food Optimization Study for selected businesses in the PDX Terminal.

The WMT conducted a Food Optimization Study to understand how restaurant business purchasing, inventory, and marketing models influence levels of waste generation, while simultaneously assessing new opportunities for food diversion and food waste reduction for PDX concessions. The WMT successfully completed a PDX restaurant food waste analysis, surveys, and in-depth interviews. The team analyzed data and produced a report that includes the following recommendations on how to optimize food at PDX: 1) provide guidance and mentorship for first-year restaurant managers on operating at PDX, 2) standardize the use of restaurant Grab & Go sections, and 3) increase restaurant employee involvement in food optimization including targeted outreach and developing standard waste-tracking methods for all restaurants, such as waste logs. This target contributes to the implementation of the Port's Five-year Zero Waste Plan.

Progress: The actions for this target are 100% complete for FY 15-16.

2015/16 Awards and Recognition

Airports Carbon Accreditation Program – Level II certification for PDX, HIO and TTD airports recognizes reductions in carbon emissions from in airport operations, with the ultimate goal of becoming carbon neutral.

Climate Registered™ - The Port uses The Climate Registry's robust voluntary GHG reporting program to measure, publicly report and provide third-party verification for its carbon footprint.

Sustainability at Work – Gold re-certification, Port of Portland Headquarters Building, Sustainability at Work (City of Portland Bureau of Planning and Sustainability), November 2015

Environmental Protection Agency – Top 10 in the Local Governments category and in the Top 100 (at # 78) among 100% Green Power Purchasers under the U.S.

Association of Oregon Recyclers – Recycler of the Year “Carpet” Diem Award, June 2016

Daily Journal of Commerce 2016 Top Projects – PDX Carpet Replacement Project received 3rd Place in the Public Works category, May 2016

Starnet Commercial Flooring Design Award – PDX Carpet Replacement Project received Gold in Environmental Achievement, April 2016

People's Choice, Starnet Commercial Flooring Design Awards – PDX Carpet Replacement Project received Silver, April 2016

Port-wide ISO 14001 EMS independent third-party verified certification – From the independent third-party auditors: “This EMS is the most comprehensive, advanced and effective to be audited by this audit team with a combined 38 years of experience auditing to the ISO 14001 standard.”

Environmental Equity Award – Presented by the N/NE Business Association (NNEBA) for the Port's ongoing commitment to fostering sustainability in their business practices and in the community, April 2016

