Celebrating Earth Day: PNWA members contribute to a sustainable Northwest

Environmental stewardship is extremely important to Pacific Northwest navigation, trade and energy stakeholders. Protecting the environment is a key goal of everyone in the region and PNWA is proud to call attention to our members' great work in this area. In celebration of Earth Day, we have recognized the excellent work our members below.

PNWA Towboat Members

Foss, Shaver and Tidewater are investing millions of dollars to build new tugs and upgrade existing tugs with EPA Tier II compliant clean burn diesel engines, cutting fuel consumption by 32%, oil consumption by 90%, and emissions by up to 50%.

Foss Maritime is committed to reducing its carbon and emissions footprint and adhering to the principles of sustainability and safety in its operations. Foss received the US Coast Guard Admiral Benkert Award gold medal for environmental excellence in 2008 and the prestigious ISO 14001 environmental certification in 2010. Foss built the world's first true hybrid tugboat, and continues to take the lead in the industry to aggressively pursue opportunities to work environmental stewardship into all aspects of its worldwide operations.

Shaver Transportation continues to improve their emissions footprint by increasing the capacity of their Rainier Oregon cold iron facility for tugs. With increased need for vessel
assist in the Longview and Kalama harbors, this additional capacity allows for more tugs to be cold ironed between assignments.

**Tidewater Barge Lines** was recently featured in the April 2015 issue of the Oregon Business Journal, which highlighted their environmental and safety record. Tidewater has a six-member Environmental, Health, Safety & Security (EHS&S) team that is responsible for diligently reporting to over 25 regulatory agencies, maintaining a global EHS&S management system, and running an audit program that traces every accident to its cause and takes corrective action. Tidewater also recently took delivery of their new state of the art vessel, Crown Point, the first of three new tugboats being built for the firm. The vessel incorporates new features which make it more fuel efficient, quieter, and safer to operate.

**PNWA Member Ports**

**Port of Camas-Washougal.** In 2011, the Port received a $200,000 Integrated Planning Grant (IPG) from the Washington State Department of Ecology to develop a plan for the best use for a 50-year old former sawmill property located along the Columbia River. The Port purchased this property with a focus on economic development and waterfront revitalization of the scenic Columbia River. In 2015, after undertaking a clean-up of the site, the Port will be constructing a 3-acre park and a trail .8 of a mile in length on this site. When completed, this will not only tie both Camas and Washougal's trail systems together, but will also link these systems to both the Port's levee trail system that extends east along the Columbia River to the Steigerwald National Wildlife Refuge and into the Columbia Gorge's Towns to Trails comprehensive trail system that wraps around the Columbia Gorge.

**Port of Garibaldi.** In 2015, the Port of Garibaldi formally adopted the Oregon Department of Environmental Quality publication "Best Management Practices for Oregon Marinas" and the Oregon State Marine Board's "Clean Boater Guide" as the guiding principles for the port's environmental best practices. This builds on the port's 2011 certification as an Oregon Clean Marina. The port's environmental best practices also include using absorbent bilge pads to soak up oil and fuel, proper oil filter disposal, and not allowing the discharge of contaminated bilge water. Further regulations include a limit of one gallon for open paints and solvents on the dock, mandating the use of a drop cloth for any painting, and a ban on in-water hull scraping.

**Port of Hood River.** The Port has recently gone under contract to purchase 9 acres of an old lumber mill site in Odell, OR that has been sitting idle for years. The Port partnered with the current owner, the DEQ and Business Oregon to analyze the potential contamination on the site. Phase 1 and Phase 2 environmental assessments as well as geotechnical work have been completed. Under-ground storage tanks and surface petroleum contamination have been removed and mitigated. The Port is currently
working with the US EPA on a grant that would complete the clean-up of an estimated 13,000 CY of wood waste. The buildings on site contain asbestos which will be mitigated in upcoming months. Once this site is cleaned up, the Port can add much needed industrial lands to the County’s very limited supply.

**Port of Longview.** The Port of Longview developed a new partnership with the Cowlitz and Wahkiakum Conservation Districts to repurpose the old fender piling that the Port removes from their docks. The piling were used to create new habitat, helping to protect stream banks from grazing livestock, and to cool water and create slower water critical for native fish populations. The Port also partnered with Contech as a pilot site for the new UrbanGreen BioFilter, which treats storm water and removes contaminants generated by heavy industrial activity. In addition, the Port has removed 150,000 pounds of scrap metal to improve storm water quality. The Port owns three water treatment plants and 75 acres of wetlands.

**Port of Newport.** The $20 million reconstruction of the Port's International Terminal was completed in 2014. Full remediation of hazardous materials from two WWII concrete cargo ships, SS C.W. Pasley and SS Francois Hennebique, which were sunk in the late 1940's to form bulkheads, has been completed. Restoration included the complete removal of the Pasley from Yaquina Bay, which also served as mitigation for new construction. The Port agreed to mitigate the loss of marine habitat by upsizing a culvert and removing estuarine berms at a cost of over $600,000. In 2009, the Port of Newport was successful in its bid to bring the National Oceanic and Atmospheric Administration Marine Operations Center - Pacific to Yaquina Bay. A condition of NOAA's Solicitation for Offer (SFO), a contract document that comprises the lease agreement between the Port and NOAA, was that the development of the new facilities be Silver LEED Certified. To mitigate for impacts to eelgrass resulting from pier construction, over three acres from an adjacent site was excavated and restored to estuary. Construction of the $28.8 million facility was successfully completed on time and under budget in 2011. The Port of Newport's recreational marina in South Beach is certified by the Oregon State Marine Board under the state's Clean Marina Program.

**Port of Portland.** The Port of Portland continues to implement energy reduction projects and purchase 100 percent certified renewable power from wind energy and other sources that produce no greenhouse gas emissions from fossil fuels and reduce air pollution. The Port is a founding reporter to The Climate Registry, which provides third party verification of greenhouse gas emissions inventories. The Port's target is to take actions that will reduce greenhouse gas emissions by 15 percent below 1990 levels by 2020. Actions that directly reduce greenhouse gases include repowering The Port's cutter suction pipeline Dredge Oregon, which maintains the Columbia River navigation channel, by replacing its aging engines with new, more efficient models that burn less fuel and reduce particulate emissions by 80 percent. The Port continues to look for ways to conserve water and protect water quality. The Port has 37 acres of porous pavement and bioswales installed
at its Terminal 6 facility to manage stormwater onsite and has investigated alternative asphalt sealcoat products that minimize or eliminate the presence of polycyclic aromatic hydrocarbons (PAHs). A stormwater master plan and a water conservation study have also been completed to assist the Port in enhancing the efficiency and sustainability of its facilities and operations. The Port is also implementing a plan to achieve 90% landfill waste diversion Port-wide by 2018.

**Port of Ridgefield.** One of the largest wood treating cleanup projects in state history is rapidly winding down at the Port of Ridgefield. It's been twenty years since Pacific Wood Treating Company declared bankruptcy and left the Port and community to clean up its mess. With a strong, unwavering commitment from Washington State Department of Ecology, the cleanup is nearly done. In all, over 500 thousand pounds of contaminated waste has been removed from the site and 25,000 gallons of wood treating chemicals have been removed from an underground aquifer. Using a state-of-the-art treatment process Ecology and the Port have protected the neighboring National Wildlife Refuge and secured the site for sustainable redevelopment. Final stages of work include dredging and capping of sediments adjacent to the port. Work also included dredging and capping of sediments in Carty Lake and Lake River which was completed in January 2015. The final stage includes an analysis of soils in a nearby neighborhood looking for possible residual contamination in people yards.

**Port of Seattle.** As part of their sustainability efforts, the Port provides shore power at two cruise berths so that vessels can shut their engines off while at berth. From 2009-2014, the port's At-Berth Clean Fuels program provided financial incentives for ship operators to burn lower sulfur fuel when berthed at port piers, eliminating over 850 metric tons of sulfur dioxide emissions. The port's clean truck program has been highly successful. The program's first phase eliminated over 280 older, polluting trucks. In the second phase all drayage trucks entering Port of Seattle container terminals will be required to meet 2007 federal emissions standards by 2018. In 2013, the Port of Seattle signed on as a participant in Green Marine, the largest voluntary environmental program for the maritime industry in North America. Port of Seattle was the first U.S. port outside of the Great Lakes region to join Green Marine. The Port of Seattle was awarded the 2013 Breathe Easy Champion Award from the American Lung Association of the Mountain Pacific and the 2014 USEPA Clean Air Excellence Award for its air quality initiatives. The port has committed to restoring, creating and enhancing 40 additional acres of habitat and to meeting all increased energy needs through conservation and renewable sources.

**Port of Skagit.** The Port of Skagit has a long track record of proactive environmental stewardship. As a result of the Skagit Wetlands and Industrial Negotiations program, there are now approximately 477 acres of high functioning, protected wetlands and wetland buffers on Port property. In addition, the Port maintains approximately 20 acres of restored wetlands as a result of the multi-agency wetland mitigation agreement
implemented in 2000. The Port has developed and is updating a Stormwater Management Program that includes approximately 1,800 acres of Port-owned land and is intended to protect downstream water quality. In 2010, the Port of Skagit enacted a new Resource Conservation Plan with a goal of reducing energy consumption in port-occupied facilities by 10 percent from 2008 levels within two years. The Port also plays a leading role in the ongoing effort to keep the Swinomish Channel open, thus addressing carbon footprint/greenhouse gas savings by maintaining a shorter travel route for marine traffic on Puget Sound.

Port of Tacoma. Examples of environmental efforts at the Port include recent testing of a "tree in a box" technology to remove metals from stormwater runoff. They have also invested $1 million to endow the Port of Tacoma Chair at the University of Washington Tacoma to lead research at the Center for Urban Waters. The Port has set clean air goals as part of the Northwest Ports Clean Air Strategy; so far the first milestones of these goals have been met by 99% of trucks, 35% of ships, 77% of cargo handling equipment and 100% of rail. Shore power infrastructure has been added to allow ships to connect to electric power when docked at one of its terminals, reducing yearly greenhouse gas emissions by an estimated 1,400 tons and diesel particulate emissions by 2 tons each. The Port is also Tacoma Power’s largest purchaser of green energy through the Evergreen Options wind power program. Over the past 25 years, the port has also cleaned up over 450 acres of contaminated industrial land, as well as cleaned up 300 acres of sediment along nearby waterways, and restored more than 100 acres of habitat. Recently, the Port cleaned up a former gravel mine and created a 30 acre natural habitat.

Port of Vancouver, USA. Since 2011, the Port of Vancouver USA has purchased wind energy certificates equivalent to 100 percent of its annual electricity energy consumption. The port is nearing completion on the West Vancouver Freight Access project, a $275 million rail safety and congestion project. The project includes a new grade-separated entrance into the port that will remove a significant chokepoint from the regional rail system and allow handling of full unit trains to increase the safety and efficiency of rail infrastructure in the port. In 2014, the port completed construction of a new security building that incorporated bird-friendly window features. Port staff have also constructed over 100 floating wetlands, an innovative and affordable storm water treatment for its Terminal 4 storm water pond. The port recently entered into agreements with the city of Vancouver and two non-profit organizations. The agreements allow the non-profits to plant trees on behalf of the port throughout the community and provide the port with mitigation for future and current development.

Port of Walla Walla. The Port of Walla Walla has entered into an interlocal agreement with the City of Pasco to extend sewer services to the Burbank community. The Burbank community is located at the confluence of the Columbia and Snake Rivers and has experienced ground water problems for decades primarily associated with nitrates. The Port’s first sewer customer will be the Columbia School District. The District has
approximately 900 students and 100 employees using 10 septic tanks and drain fields. Operational this fall, the Port-owned facilities will collect and pump sewage to the City of Pasco treatment plant.

Oregon and Washington Clean Marina Programs. The Clean Marina programs in Oregon and Washington are voluntary port initiatives to protect and improve local water quality by promoting the use of environmentally sensitive practices at marinas. If a facility is in compliance with existing environmental regulations and uses a high percentage of the recommended best management practices, it can be certified as an Oregon or Washington Clean Marina. Many PNWA member ports are working to become certified, or have already done so.

Northwest Ports Clean Air Strategy. To improve air quality in their harbors, the ports of Tacoma, Seattle and Port Metro Vancouver in B.C. formed a landmark partnership in 2007 and updated it in 2013 through the Northwest Ports Clean Air Strategy. In this agreement, they set shared goals for 2010 through 2020, documenting significant progress in reducing diesel emissions and greenhouse gases.

Puget Sound Marine Emissions Inventory. The ports of Tacoma and Seattle, along with partners including the Puget Sound Clean Air Agency, U.S. Environmental Protection Agency, U.S. Coast Guard and U.S. Navy funded the Puget Sound Marine Emissions Inventory in 2005 and 2011, and plan to continue to do that every 5 years.

In addition, several of PNWA's member ports are active participants in the Joint West Coast Port Technical Committee for the development of Sustainable Design and Construction Guidelines.

Additional PNWA Members

Columbia River Bar Pilots. The Bar Pilots have made significant efforts to reduce emissions. By utilizing a sophisticated state of the art helicopter and fast cutter pilot transfer system, they are able to save an average vessel 1 hour 20 minutes steaming time. They also eliminate the need for excessive vessel maneuvering, including slowing then speeding up, which contributes to additional emissions. On a yearly basis, they save over 17 thousand tons of CO2 from entering the atmosphere from arriving and departing vessels.

Schwabe, Williamson & Wyatt. The firm is an Oregon State Bar Partner in Sustainability, holds a City of Portland Sustainability at Work Gold Certification, and received the 2011 Sustainable Law Office Leadership Award from the Oregon State Bar. Schwabe also has a sustainability committee that meets to discuss how to improve on the firm's efforts. Highlights include the recycling of 5,200 pounds of paper per month, an
innovative partnership with Starbucks to reduce disposable cup waste, compost bins, and a comprehensive office products recycling program.