FOR IMMEDIATE RELEASE
October 30, 2012

Emissions report shows significant maritime-related clean air progress for Puget Sound region
Maritime-related air pollution has decreased—as much as 40 percent, depending on the type—since 2005, according to a report released today.

The report is the result of the 2011 Puget Sound Maritime Air Emissions Inventory, which provided an update to the 2005 baseline inventory.

The inventory estimated greenhouse gases, diesel particulate matter and a number of other pollutants, such as sulfur dioxides and volatile organic compounds. It focused on pollutants related to ships, harbor vessels, cargo-handling equipment, rail, heavy-duty trucks and other fleet vehicles associated with maritime activities.

Much of the clean air progress is due to significant, voluntary investments of the maritime industry and government agencies in cleaner technology, cleaner fuels and more efficient systems of operation.

Results from the 2011 inventory will help guide and focus future emissions reduction investments.

2011 results
Emissions in the airshed dropped since 2005 from the following pollutants:
- Nitrogen oxides: reduced 14 percent
- Volatile organic compounds: reduced 40 percent
- Sulfur oxides: reduced 14 percent
- Particulate matter (PM$_{10}$): reduced 16 percent
- Fine particulate matter (PM$_{2.5}$): reduced 16 percent
- Diesel particulate matter: reduced 16 percent
- Carbon dioxide: reduced 5 percent

Overall, emissions fell for most sources since 2005. Diesel particulate matter emissions are summarized below:
- Ocean-going vessels: reduced 16 percent
- Harbor vessels: increased 7 percent
- Locomotives: reduced 24 percent
- Cargo-handling equipment: reduced 40 percent
- Heavy-duty vehicles: reduced 52 percent
- Fleet vehicles: reduced 47 percent

In the harbor vessels sector, which includes ferries, tugs, fishing and recreational boats, some categories of pollutants increased. This is likely due to a 12 percent increase in boat traffic, as well as an increase in the use of larger engines, which have higher emissions.

**Reasons behind results**
The maritime industry has adopted a number of voluntary initiatives to reduce emissions, including switching to low-sulfur or biodiesel fuels, using shore power, replacing or retrofitting older engines and improving systems to use equipment more efficiently.

The [Northwest Ports Clean Air Strategy](#), a ground-breaking initiative of the ports of Tacoma, Seattle and Metro Vancouver, B.C., has helped further reduce emissions in the Puget Sound and Georgia air basins. Mandatory engine and fuel standards also have spurred adopting newer engines and cleaner fuels.

Some of the decrease also can be attributed to fewer ship calls and less cargo resulting from a sluggish economy.

**What’s next**
Inventory results will help focus future efforts and investments. The ports of Seattle and Tacoma are updating their Northwest Ports Clean Air Strategy goals based on the inventory results.

Maritime partners will continue efforts to lower diesel emissions because they pose a public health risk. Exposure to diesel pollutants can contribute to increased rates of lung cancer, chronic respiratory and cardiovascular disease and other health effects.

Maritime industry partners continue to seek ways to reduce emissions from all sources, with particular attention to ships. While ship-related emissions have dropped, they account for 63 percent of the maritime-related diesel particulate matter emissions.

The 2011 results do not account for the North American “Emission Control Area” that went into effect Aug. 1, 2012, requiring ships operating in waters along the Pacific, Gulf and Atlantic coasts of the United States and Canada to burn cleaner fuels. This regulation is expected to have a significant effect in further reducing ship-related emissions.

**About the emissions inventory**
The 2011 and 2005 reports were commissioned by members of the Puget Sound Maritime Air Forum, a voluntary association of private and public maritime organizations, ports, air agencies, environmental and public health advocacy groups.
and other parties with operational or regulatory responsibilities related to the maritime industry. Forum partners selected Starcrest Consulting Group to develop the reports.

The study area covered the U.S. portion of the Puget Sound/Georgia Basin International Airshed, an area about 140 miles long by 160 miles wide.

Find the full report at www.pugetsoundmaritimeairforum.org.