

PORT OF SEATTLE ENVIRONMENTAL REPORT TO THE COMMUNITY



Where a sustainable world is headed.™

2009
2010





A LETTER FROM TAY YOSHITANI, CEO

▼ Scope of Report:

This report covers data and activities for the year 2009. It does not identify every accomplishment but rather provides an overview of successes and challenges during the past year. We continue to improve our use of data and metrics to measure our environmental performance across time and against our goals, and acknowledge there still are improvements to be achieved in this arena.

More information:
[www.portseattle.org/
community/environment/index.shtml](http://www.portseattle.org/community/environment/index.shtml)

The Port of Seattle's primary function is to create and support the 194,000 jobs in this region that depend upon Port related businesses. But we can't sustain those businesses without sustaining the environment in which we work.

The Port of Seattle has begun an important journey that will be continuous. The goals of that journey are to be a national leader in environmental and sustainability programs, and to make our green initiative a substantial thread that runs through everything we do.

Our employees have embraced these goals fully, including everything from turning off lights at their work stations to writing federal grant proposals for multi-million dollar energy-saving projects.

Our employees bring passion and energy to our environmental work just as they did for the 10-year capital investment program that brought you the new Central Terminal, third runway and Concourse A at Seattle-Tacoma International Airport, renewed facilities at Fishermen's Terminal and Shilshole Bay Marina, and upgraded container cargo terminals that compete successfully in the global marketplace.

Admittedly, passion and energy alone cannot solve all of our challenges. We face some highly complex issues that touch many stakeholders and many lives. We don't have all the answers. We know we need partners with like goals, and we need the appropriate funding for major projects that pay off in the long run but can be quite costly to initiate.

The good news is the economic crisis we have experienced has done little to dampen our enthusiasm for environmental progress. If anything, the crisis has been a motivator by showing how improved efficiencies that are better for the environment can actually *reduce* cost.

The Port of Seattle's primary function is to create and support the 194,000 jobs in this region that depend upon Port-related businesses. But we can't sustain those businesses without sustaining the environment in which we work.

That's what our journey is all about, and it will not end as long as there are new ideas and better solutions to explore. In the following pages, I'm proud to present some of our progress.

Tay Yoshitani
Chief Executive Officer

CONTENTS

4 Green Gateway

6 Section 1: Air Quality and Global Climate Change

10 Section 2: Water Quality and Puget Sound

14 Section 3: Conserving Resources

18 Sea-Tac Environmental Metrics

20 2010 Sustainability and Earth Day Events



THE GREEN GATEWAY

Shipping and travel-related operations have environmental impacts. We keep tabs on new products and technologies that can help us reduce pollution or replace old processes.





The Port of Seattle is The Green Gateway for travel and trade—it's a statement to our customers, tenants, and local community that we place a high priority on environmental stewardship, and as a result can offer our trading partners and the traveling public an international gateway that is clean, energy efficient, and improving every day.

In May of 2009, we released the results of a study that confirms what we've believed for a long time—that Puget Sound ports offer the lowest carbon footprint for cargo shipped by sea from Asia to major markets in the Midwest and East Coast.

This is a competitive advantage that we believe will attract higher cargo volumes through our load center. And, it's an environmental advantage because those same shipments require less fuel, and therefore lower greenhouse gas emissions, from point to point.

Additional programs we've developed—like cleaner fuels for cargo handling equipment and electrical plug-ins for cruise ships to reduce diesel emissions—are doing even more to reduce the environmental impacts in our community. That's why we can call our Port The Green Gateway.

While the 2009 research addressed ocean-going cargo, Sea-Tac Airport is also The Green Gateway, where passengers take noise-reducing flights departing from an energy-efficient airport, and land on runways built from recycled concrete and state-of-the-art materials.

Sea-Tac has had innovative environmental programs in place for decades, and recently established an aggressive five-year agenda featuring model programs that already have been recognized nationally.

Shipping and travel-related operations have environmental impacts. We are continually exploring new products and technologies that can help us reduce pollution or replace old processes, and we track our own progress through:

Comparative Research

In 2009, the Port funded the "Carbon Footprint Study for the Asia to North America Intermodal Trade," conducted by Herbert Engineering. Studies like this help us compare our environmental status in relation to other seaports and airports.

Partnerships

Through the Northwest Ports Clean Air Strategy and other partnerships, we've set collaborative goals that drive programs to produce measurable reductions in harmful air emissions.

Benchmarking

In 2005 and 2007 respectively, the seaport and airport conducted baseline studies measuring air quality around our facilities, and then established clear metrics to measure our progress toward improvement. (See Metrics, pages 18-19).

Being The Green Gateway is about creating a business culture that balances the economic benefits of international trade and travel with the practices that will sustain our environment and community.

JOBS

MARINE CARGO

21,695

DIRECT JOBS CREATED
BY CONTAINER CARGO
ACTIVITY AT SEATTLE'S
SEAPORT

AIRPORT

89,902

DIRECT JOBS CREATED
BY ACTIVITY AT SEA-TAC
INT'L AIRPORT

SECTION

1

AIR QUALITY AND GLOBAL CLIMATE CHANGE:

Maintaining and improving regional air quality and reducing greenhouse gas emissions that contribute to climate change are important priorities for the Port. We are continually collaborating with business partners, tenants and customers.

▼ The Port is a founding member of the Climate Registry, a nonprofit collaboration that sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions into a single registry. In 2009, the Port submitted its initial emissions report to the Climate Registry. Annually gathering emissions data assists us in identifying mitigation opportunities and tracking progress towards emission reduction goals. In 2006, Sea-Tac became one of the first U.S. airports to conduct a comprehensive greenhouse gas emissions inventory.

Pre-Conditioned Air System

A major project underway is pre-conditioned air at Sea-Tac Airport gates, which will allow aircraft to shut down auxiliary power units that emit carbon dioxide and are costly to run. We've designed a system to provide cooled or heated air into parked aircraft from a central utility plant at the airport. Construction is expected to start in July 2010 and be complete by December 2012.

The system will reduce greenhouse gas emissions by more than 69,000 metric tons per year and save airlines nearly \$400,000 in the first year alone. Carbon dioxide (CO₂) savings are estimated at 2 percent of Sea-Tac's annual aircraft emissions—roughly equal to taking 13,500 cars off the road. By displacing fossil fuel use, this project also reduces other aircraft emissions by at least 200 tons of nitrous oxides, 1000 tons of carbon monoxide, and 50 tons of hydrocarbons annually.

Estimated to cost about \$33 million, nearly \$22 million for the project may be funded through the Federal Aviation Administration's Voluntary Low Emissions (VALE) Grant Program. The VALE program is an important part of FAA's commitment to improve airport air quality. The rest will be paid through Airport Development Funds and a cost-per-enplanement increase to airlines of \$0.12. This cost will be more than offset by decreased airline operating costs, which could save more than \$19 million over the life of the project, based on fuel costs of \$2 per gallon.

Electrifying Ground Support

In addition to aircraft emissions, Sea-Tac is focusing on its ground fleet, aiming to be the first airport in the nation to fully electrify its ground support fleet.

Converting more than 650 vehicles from fossil fuels to electricity does raise some financial and logistical challenges, but it will save more than 400,000 gallons of fuel per year and reduce CO₂ emissions by more than 4,000 metric tons, 800 tons of carbon monoxide, 100 tons of nitrous oxides, and 50 tons of hydrocarbons.

In 2009, Sea-Tac was awarded \$5 million from the U.S. Department of Energy's Puget Sound Clean Cities Coalition to replace gas and diesel vehicles with electric vehicles and add electric charging stations. This initial project will focus on baggage tractors and loading equipment because they are large consumers of petroleum fuel. We'll also install new electric charging stations on the ramp area.

The grant money to purchase new electric vehicles will be matched through a cooperative agreement between the Port and our airline customers.



▲ We've designed a system to provide cooled or heated air into parked aircraft from a central utility plant at the airport.

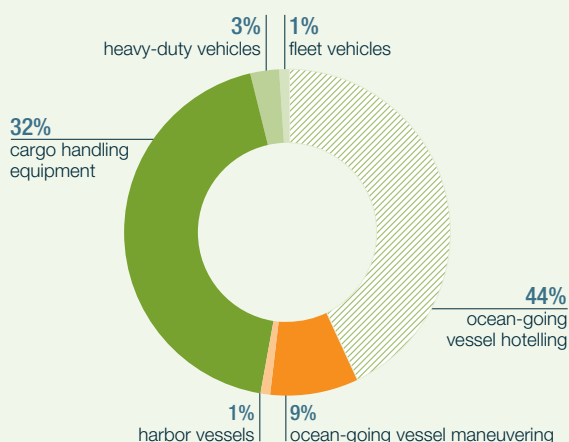
▲ In 2009, our ABC Fuels Program encouraged shipping lines to burn cleaner fuels while at Seattle cargo terminals.

Greenhouse Gas Emissions (GHG)

GHG AT SEA-TAC AIRPORT	2006	2008	2009
POS Emissions [metric tons]	66,491	46,079	43,347
POS Emissions per airline passenger [lbs]	4.89	2.86	2.78
Airlines/Tenant Emissions [metric tons]	4,214,806	*	*
Public Emissions [metric tons]	373,033	*	*

* Will be inventoried every 5 years at a minimum.

PUGET SOUND MARITIME AIR EMISSIONS INVENTORY



PORT OF SEATTLE EMISSIONS OF DIESEL PARTICULATE MATTER. COMPLETED IN 2005, THIS INVENTORY IDENTIFIES EMISSIONS SOURCES AS A BASELINE AND HELPS TARGET SECTORS FOR IMPROVEMENT.

ELECTRIFYING GROUND SUPPORT EQUIPMENT AT SEA-TAC AIRPORT

SAVING MORE THAN
400,000
GALLONS OF FUEL

CONVERTING MORE THAN 650 VEHICLES FROM FOSSIL FUELS TO ELECTRICITY WILL NOT ONLY SAVE THOUSANDS OF GALLONS IN FUEL, IT WILL REDUCE CO₂ EMISSIONS BY MORE THAN 4,000 METRIC TONS PER YEAR.



▲ Sustainable Biofuels Initiative

While still in their infancy, sustainable biofuels for aviation offer a significant opportunity for the industry to reduce its impact on climate change. In 2009, Seattle-based AltAir Fuels announced an agreement with 14 major airlines to produce and deliver 750 million gallons of jet fuel and diesel derived from *Camelina sativa* or false flax, a renewable resource. The fuel, to be produced at a new facility in Anacortes, Wash., would replace about 10 percent of the petroleum fuel consumed annually at Sea-Tac Airport, and significantly reduce carbon emissions. The Port of Seattle will continue to partner with the airlines to promote the use of sustainable biofuels at Sea-Tac, and has been working with stakeholders to identify principles and criteria for the sustainable production of biofuels in the Pacific Northwest.

Working On Our ABCs

In its first year, the Northwest Ports Clean Air Strategy's At-Berth Clean (ABC) Fuels Program exceeded expectations. This pilot program was designed to reduce diesel emissions from ships in Elliott Bay.

Through a cooperative agreement with the Port, Puget Sound Clean Air Agency provides financial incentives (per vessel call, \$1,500 in 2009, \$2,250 in 2010) for shipping lines to use 0.5% sulfur fuels in auxiliary engines while at a Port of Seattle berth. We have nine participating lines: Hapag-Lloyd, Matson, APL, Maersk, Norwegian Cruise Line, Princess Cruises, COSCO, Hamburg Süd and Evergreen.

Participants are given a Green Gateway flag to hoist above their ships.

In 2009, 236 ship calls from those lines, or 30 percent of all our vessel calls, prevented almost 68 metric tons of sulfur from entering our environment as a result of their participation in the ABC fuels program.

ABC FUELS VIDEO

Cruise Power

Opening the new Smith Cove Cruise Terminal at Pier 91 last year did not alter our commitment to green cruising in Seattle.



▲ At our newest cruise facility, we welcomed 134 ship calls in 2009 (64 percent of all cruise vessel calls) from Princess Cruises and Holland America Line. Ships calling at Smith Cove that are equipped for electrical power can plug into the grid while at berth rather than running diesel auxiliary engines. The Port of Seattle remains one of few cruise ports in the U.S. to provide shore power at two berths.

CRUISE JOBS

2,277

DIRECT JOBS
CREATED BY ACTIVITY
AT SEATTLE CRUISE
TERMINALS





SEAPORT CLEAN TRUCK PROGRAM, MARCH 2010:

144

PRE-1994 TRUCKS SCRAPPED
BY MARCH 2010

\$720,000

PAID IN CLEAN TRUCK INCENTIVES

Cleaner Trucks

In 2009, we took an important step to eliminate older polluting trucks that call at our seaport cargo terminals. In exchange for rent relief during the worst of the economic crisis, we asked our marine terminal operators to sign lease amendments requiring them to implement our Clean Truck Program.

In 2011, this will mean turning away the dirtiest trucks on the road, those with pre-1994 engines. This also will mean enforcing more stringent standards in 2015 and 2017.

To help truck operators affected by these amendments, the Port invested \$2.3 million in Puget Sound Clean Air Agency (PSCAA) programs, including a buy-back of pre-1994 engine trucks to scrap them.

Launched in November, the Scrappage and Retrofits for Air in Puget Sound (ScRAPs) program provides \$5,000 or Blue Book value (whichever is greater) for trucks turned in for scrapping. This incentive can be used toward purchase of a newer truck. As of March 30 of

this year, 144 trucks had been scrapped, and \$720,000 had been paid in incentives.

Leveraging DERA

Earlier this year the leaders of the six major West Coast ports—Long Beach, Los Angeles, Oakland, Portland, Seattle and Tacoma—sent a letter to Senate Majority Leader Harry Reid, requesting continued funding for the Diesel Emissions Reduction Act. These ports have long supported DERA as an effective, efficient funding program to reduce harmful diesel emissions in and around port facilities.

The ports were able to leverage DERA funding in last year's stimulus package to invest in engine retrofits, anti-idling technologies, and vessel shore power infrastructure—initiatives that benefit communities and protect the family-wage jobs ports generate.

▲ Light Rail Connects to Sea-Tac

December 2009 brought the opening of Sound Transit's Link Light Rail station at the City of SeaTac, and the skybridge and walkway connecting it to Sea-Tac Airport. Electric-powered trains provide a green travel alternative for passengers to get from Seattle's Westlake Station to the airport in about 36 minutes.

SECTION

2

WATER QUALITY AND PUGET SOUND:

Just as critical to our community as air quality programs, our Puget Sound programs are designed to clean up pollutants from early industrial practices and reestablish the habitat necessary to support salmon and other wildlife.

▼ Plastic Pilings

As part of a new pilot program, the Port of Seattle is replacing aging creosote-treated wood piles at the Maritime Industrial Center's east pier with plastic and fiberglass fender piles. The new low-maintenance pilings are made of recycled materials that are impervious to marine borers, and resistant to corrosion. Once driven into the ground, the pilings will act as a buffer between a ship or barge and the wooden docks. The Port is testing what could be a clean, green alternative that will help protect the Ship Canal and the fish that either live there or pass through en route to their spawning habitat.

A Plan for the Duwamish

A major accomplishment in 2009 was the Port Commission's adoption in July of the Lower Duwamish River Habitat Restoration Plan. Home to industry and manufacturing as well as wildlife, the waterway was designated as a Superfund site by the Environmental Protection Agency.

The restoration plan incorporates significant community input and provides a framework on how Port-owned portions of Duwamish River shoreline will combine industrial, commercial and residential areas with natural habitat.

The plan focuses on 4.6 miles of navigable river extending upstream from Harbor Island and includes Port-owned shoreline sections as well as upland Port terminal properties. With the goal of balancing the needs for habitat creation and protection with the industrial needs of our working waterfront, the plan identified 31 potential habitat restoration sites along the river, and represents almost 60 percent of Duwamish shoreline designated for habitat.

Cleanup at Seaport Terminal 117

One of the most important and complex projects we've taken on in the Lower Duwamish Waterway is cleanup of a former asphalt manufacturing site in Seattle's South Park neighborhood. The EPA identified Terminal 117 for Early Action cleanup because river sediment offshore of the terminal had high concentrations of PCBs (polychlorinated biphenyls) that originated from the adjacent upland property. Exposure to PCBs can cause a number of serious health risks.

The Port acquired the site in 1999 and entered into a cleanup order with EPA oversight. Since then, we've continued efforts related to site investigation and cleanup design, including interim actions to remove above-ground equipment associated with the old asphalt plant, an underground storage tank, and hot spots of PCB contaminated soil. We are expecting EPA's final approval of the cleanup action plan later this year, and plan to begin sediment and upland cleanup in 2012.

The Big Sweep at Shilshole

As a means of monitoring pollution, the Port is required by the Department of Ecology (DOE) to sample stormwater and sediment that runs off of Port-operated facilities, such as at Shilshole Bay Marina, and enters Puget Sound.

The Port takes many actions to prevent pollution in Puget Sound including cleaning stormwater catch basins, removing dirt from the parking lot through sweeping, and educating people about how to properly dispose of used oil. However, to determine whether these actions were working, the Port had to invent some way to measure their effects.

With the help of the project consultant, improvised sampling devices were installed at four of Shilshole's outfalls to collect the dirt that runs off from the parking lot. This dirt is analyzed for oil, metals and other constituents. These devices are working so well, DOE and others are beginning to use them in other locations. During this three-year program, managers are varying the frequency of sweeping to find the optimum level that not only keeps surfaces clean, but also reduces contamination in Puget Sound.



▲ An improvised collection device is being used to study runoff at Shilshole Bay Marina

▲ 31 sites along the Duwamish River are identified for habitat restoration



Stormwater System

Sea-Tac sediment detention ponds handle runoff associated with airfield operations and industrial construction activities.



Aviation High School

For sophomores at Aviation High School in Des Moines, Port and school staff developed a one-week annual curriculum called *Airports and the Environment*. Through hands-on exercises, the teens discover how pilots help minimize aircraft noise, how the airport tests fluids for contaminants, how their own school could enhance its recycling practices, and much more. They tour airport wetland and stormwater treatment sites, and teachers integrate the airport experiences into their math, language arts, history and science lessons. The students solve a complex airport environmental issue and then present and defend their solutions before a panel of aviation and environmental professionals. The student projects give airport staff new things to consider in our ongoing efforts.

SEA-TAC AIRPORT WATER QUALITY

	2006	2007	2008	2009
% Acreage with water quality Best Management Practices (BMPs)	49	78	100	100
% Acreage with flow control BMPs	7	58	85	90
NPDES permit exceedance	-	-	39	27

Airport Stormwater Management

The airport operates on one of the most stringent National Pollutant Discharge Elimination System permits in the state. This comprehensive permit regulates all discharges to the streams that flow around the airport, as well as direct discharges to Puget Sound. It includes numeric effluent limits specifically designed to protect these local waters and a rigorous monitoring program.

To meet the challenge presented by the NPDES permit, the Port began an extensive \$80 million retrofit of its stormwater management system in 2005. Stormwater detention and treatment is now provided for nearly all runoff leaving the airport. As a result, we have seen a dramatic decrease in the levels of turbidity, metals and other potential contaminants.

In 2009, we improved a pump station that was not performing up to standard and had caused some discharges to exceed the permit level. We implemented a voluntary corrective action plan in October, and now the system is working as it should.

We also have identified and begun design on four additional improvements that should further reduce the concentration of metals in stormwater runoff leaving the airport. These improvements are targeted for construction in 2010. We continue to monitor the water flowing from the airport and look for improvements where the results don't meet the requirements.

Cleaner Water, Restored Habitat

The Port of Seattle has completed wetland and stream mitigation at Sea-Tac Airport, and tested new products for improved stormwater treatment.

The Port of Seattle has completed 102 acres of wetland and stream mitigation at Sea-Tac Airport related to building the third runway and other major improvements over the past decade.

In 2009, a five-acre-plus site in the City of SeaTac received wetland restoration, wetland and riparian enhancement and buffer restoration; enhancement of Miller Creek including new habitat features; and conversion of a storm drain pipe to an open "swale" for better runoff.

Also in the Miller Creek basin, the airport converted four construction stormwater ponds for permanent use. These ponds once served to treat construction stormwater while the projects were being built, and will

now be used to detain and treat stormwater from the airport's operation—another example of "recycling" at the airport.

Four years ago, the Port completed 68 acres of wetland creation and enhancement along the Green River in Auburn to create bird habitat. We continue to monitor vegetation on the site and it has performed well.

Comprehensive wildlife surveys were conducted in 2009, and 37 species were observed, including 26 bird species, five mammal species, one reptile species, and five amphibian species. In addition, while conducting vegetation sampling, Port ecologists observed a family of coyotes and a mink.

▶ Port employees join other community members each year to participate in cleanup of waterfront parks and properties during Earth Day festivities. This year the Port will participate in two Duwamish Alive! projects organized by Seaport Environmental staff. At Terminal 105, volunteers will improve an existing shoreline planting area, and at Terminal 102, they will dispose of floating debris and trash collected by participants in small boats throughout the Duwamish Waterway.





Opting for Oyster Shells

What do oyster shells have to do with an airport? Sea-Tac Airport is the first large-scale user of oyster shell as a stormwater treatment medium, exemplifying the Port's commitment to sustainability, low impact development and alternative uses for natural products.

The airport's consolidated maintenance warehouse and distribution center, just a few blocks south of the airport, houses material that supports 15 maintenance shops and nearly a dozen labor trades, and stores the spare parts and equipment needed to keep the airport functioning. The facility is one of many systems at Sea-Tac that handle stormwater runoff—a major concern for airport properties where millions of gallons of stormwater hit the concrete each year.

This new facility manages all of its stormwater through a retention "swale" (shallow, sloped area) with a secondary chamber of crushed oyster shells. Runoff is directed into the swale, where it drains slowly through layers of grass, a mix of soil and organic material, sand and pea gravel, drain rock and finally, the underlying native soil. Any stormwater that doesn't infiltrate through these multiple layers is filtered by a two-foot-by-20-foot bed of crushed oyster shell.

Stormwater from urban areas, especially rooftops and roads, has low hardness because this water has had little contact with soil or rock prior to entering the receiving water. The hardness of stormwater helps reduce the bioavailability of metals that could be toxic to fish and aquatic organisms.

Through testing, the airport's environmental team discovered that not only does the oyster shell increase hardness of the water, but also reduces metals concentrations by approximately 50 percent, basically exchanging calcium for copper and zinc.

Stormwater runoff is a major concern for airport properties where millions of gallons of stormwater hit the concrete each year.

▲ Cleaner at the Water's Edge

Shilshole Bay Marina is one of three Port-owned marinas that has earned EnviroStar recognition by King County. EnviroStars is a regional program that gives businesses incentives for reducing hazardous wastes and helps consumers identify green businesses. Also an Envirostar, Fishermen's Terminal, which moors recreational boats while the commercial fishing fleet is at sea, received a five-star rating.

SECTION

3

CONSERVING RESOURCES:

To maintain our commitment to green practices, we work with our tenants to help them meet the Port's environmental requirements, and stay abreast of new practices that could reduce costs and waste.

▼
Pier 69 Conservation

The Port's headquarters at Pier 69 has reduced its energy consumption by 44 percent since 2001, through optimization of HVAC controls, lighting controls and lighting replacements. That works out to a savings of about \$136,000 annually.

Saving Energy at Sea-Tac

In 2009, Sea-Tac Airport consumed nearly 148 million kilowatt hours (kWh) of electricity—the equivalent usage to power about 14,000 homes. While that may seem high, over the past decade Sea-Tac has conserved more than 46 million kWh of electricity through conservation measures. In addition to helping the environment, these measures saved the airport more than \$1.5 million annually in electricity costs.

Sea-Tac is continually looking for opportunities to reduce energy use through conservation and new technologies. Last year we completed a Long-term Energy Resource Plan concluding that through 2013 the airport can continue to meet its energy needs with clean, greenhouse gas emission-free power from the federally-owned hydro-electric system.

As part of its Five-Year Strategy Plan, Sea-Tac has committed to meeting all of its future electricity needs through conservation measures and renewable energy.

Working with Waterfront Tenants

Port of Seattle owns nearly 1,500 acres of property on or adjacent to the waterfront, and much of that property is leased to maritime-related businesses. To maintain our commitment to green practices, we work with our tenants to help them meet the Port's environmental requirements, and stay abreast of new practices that could reduce costs and waste.

To manage this, the Environmental Compliance Assessment Program sends its team members to tenant facilities to promote pollution prevention and good stewardship, and identify areas of concern. This reduces environmental liability for the Port, but also serves as a comprehensive evaluation from environmental professionals to help our tenants realize potential cost savings and minimize waste.

The program's success is measured by documentation of a tenant's environmental programs before and after, follow-up visual inspections, and comparing hard data such as stormwater and waste generation.

SEA-TAC ELECTRICITY COSTS

\$1.5M SAVED
ANNUALLY

THROUGH CONSERVATION EFFORTS
OVER THE PAST DECADE

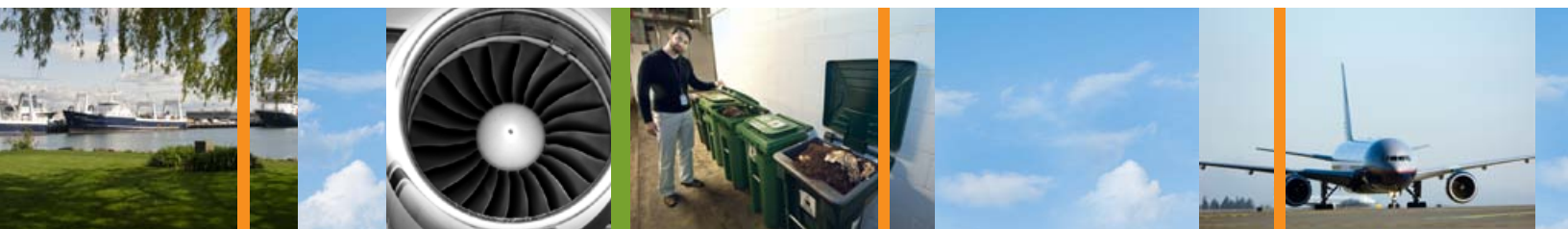
AIRPORT RECYCLING TARGETS

50%

WASTE RECYCLED ANNUALLY

\$250,000

SAVED ANNUALLY



▲ The Port uses organic landscaping practices at Smith Cove Park, one of 22 waterfront public access sites.

▲ By 2014, Sea-Tac aims to recycle 50% of its trash per year.



Recycling and Saving Dollars

When *Scientific American* magazine reported that Sea-Tac Airport is one of the U.S. airports saving the most money through recycling, it wasn't even considering the airport's goal to achieve a 50 percent recycling rate by 2014.

By recycling 23 percent of its waste (trash) per year, Sea-Tac already has saved about \$170,000 annually in landfill fees. The new target should save about \$250,000 a year.

To help accomplish this goal, Sea-Tac is going outdoors, installing six sets of large-capacity trash and recycling compactors on the airfield ramp to handle recyclable and non-recyclable material from aircraft, ground support and other ramp operations.

In 2009, the airport recycled more than 1,300 tons of material—including nearly 900 tons of mixed paper, cardboard, aluminum cans and plastic.

Sea-Tac's Thought for Food

When assessments revealed that food waste, beyond coffee grounds, represented a significant opportunity for reducing Sea-Tac's waste stream, Port staff developed a campaign to encourage airport concessionaires to recycle more food for compost. The campaign involved placing food waste recycling bins, training concession employees regarding the types of materials that can be recycled, and working with concessions to use compostable packaging.

As a result, 75 percent of all concessions and 85 percent of full-service restaurants are now participating in Sea-Tac's organics recycling programs and collectively recycling more than 14 tons of food waste per month.

By sending food waste to a composting facility instead of a landfill, Sea-Tac helps reduce the production of methane, a potent greenhouse gas; and produces compost, a valuable soil amendment that helps to reduce erosion and the need for chemical fertilizers and water.



▲ Making Recycling Even Better

Shilshole Bay Marina installed new automatic trash compactors and mixed-recyclables collection containers that are cleaner, safer and more visually appealing. The compactors will reduce collection costs by reducing the number of times a garbage truck needs to empty the containers.

SEA-TAC

RECYCLED PAPER
Purchased

2008 2009

40% 59%

CONCESSIONS
Food waste

14 TONS

RECYCLED FOR
COMPOSTING

Real-Time Bird Tracking

Sea-Tac is the first airport in the country to begin using a new advanced bird tracking system with real-time displays of bird activity on and around the airport.

A rare “teachable moment” for capturing public attention came in January 2009 when a US Airways jet crash-landed in the Hudson River after a flock of birds struck both engines. Sea-Tac Airport made national news as the aviation industry leader – already two years into the study of a new technology called “avian radar” to prevent bird strikes with aircraft.

Sea-Tac was the first airport in the nation to hire a full-time wildlife biologist, way back in the 1970s. His role is to manage the environment in and around the airfield so birds and other wildlife do not become hazards to aircraft.

Now Sea-Tac is partnering with University of Illinois researchers and the Federal Aviation Administration as the first airport in the country to begin the use of a new advanced bird

tracking system with real-time displays of bird activity on and around the airport. This enhanced technology will allow wildlife management staff to access live data as they patrol the airfield to minimize bird hazards.

News photographers crowd around a baby hawk in 2009. The hawk was part of a bird relocation program conducted by Sea-Tac Airport to protect birds and prevent safety hazards to aircraft.

For more information on the Center of Excellence for Airport Technology research at the University of Illinois, look for the Avian Radar Assessment Program at <http://ceatasmp.cee.illinois.edu/>





Noise tracking

Sea-Tac Airport neighbors helped earlier this year to “scope” a new airport noise study that includes the third runway. Known officially as the Federal Aviation Administration Part 150 Noise and Land-Use Compatibility Study, it’s a voluntary effort that looks at ways to reduce aircraft noise impacts on communities.

The objectives are to determine existing noise levels, predict noise for the next five years, evaluate alternative mitigation ideas, and recommend targeted programs to minimize impacts. This is Sea-Tac’s fourth Part 150 Study since 1985, and enables the airport to use federal funds to work with the community in creating a package of noise reduction programs.

A major focus will be on Sea-Tac’s third runway and its community impacts. The study also will analyze sideline noise, noise reduction flight procedures, and the feasibility of an enclosed “hush house” for engine run-ups during maintenance. A public information and comment process is part of the effort. To follow the process, visit www.portseattle.org/community/environment/noise.shtml and sign up to receive e-mail updates.

Concessions Good and Green

Sea-Tac Airport recently took first place in the Best “Green” Concessions Practice awards among airports in North America.

The honor was announced during the 2009 Airports Council International-North America (ACI-NA) Concessions Conference in Indianapolis.

In 2009 alone, Sea-Tac Airport recycled more than 1,300 tons of material, avoiding disposal costs and generating revenue through rebates. Concessionaires also donated enough unsold food to serve 8,000 meals a year to needy families in surrounding communities.

Sea-Tac also won second place in the competition for Best Convenience Retail Program.

[Learn more about Sea-Tac’s Concessions.](#)

GREEN

SEA-TAC AIRPORT

1,300

TONS OF MATERIAL
RECYCLED

UNSOLD FOOD

8,000

MEALS PER YEAR
PROVIDED TO
FAMILIES IN NEED

YEAR

20
09

Environmental Purchasing

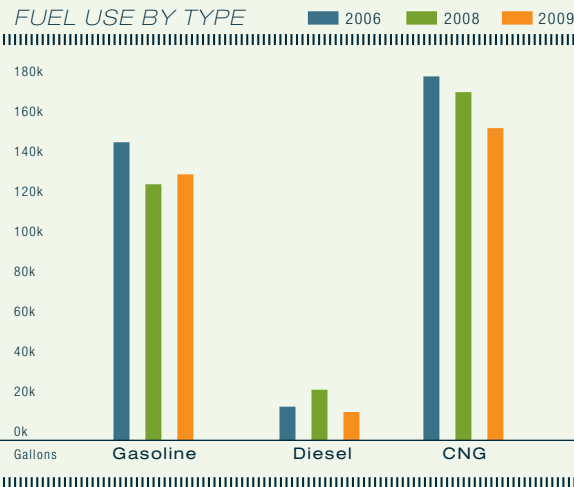
In 2009, the Port adopted an Environmental Purchasing Policy as a first step in steering our procurement toward environmentally preferable products by making environmental considerations a part of normal purchasing practice, consistent with traditional factors such as price, performance and availability. The challenge will be to integrate the policy into the existing procurement process and to educate Port staff on preferable products. Initially, we focused on the purchase of recycled paper and office products. We saw some success in 2009 but there still is progress to be made.

ENVIRONMENTAL METRICS:

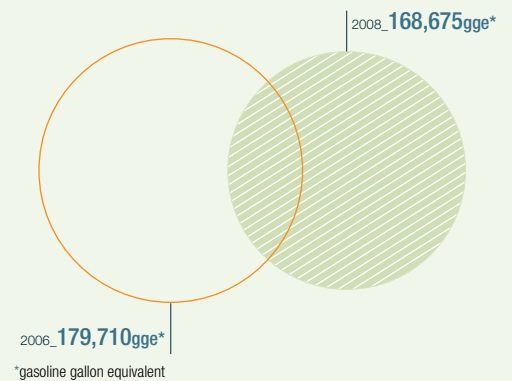
At Sea-Tac Airport, performance metrics measure our progress in key environmental indicator areas

Air Quality and Climate Control

FUEL USE BY TYPE

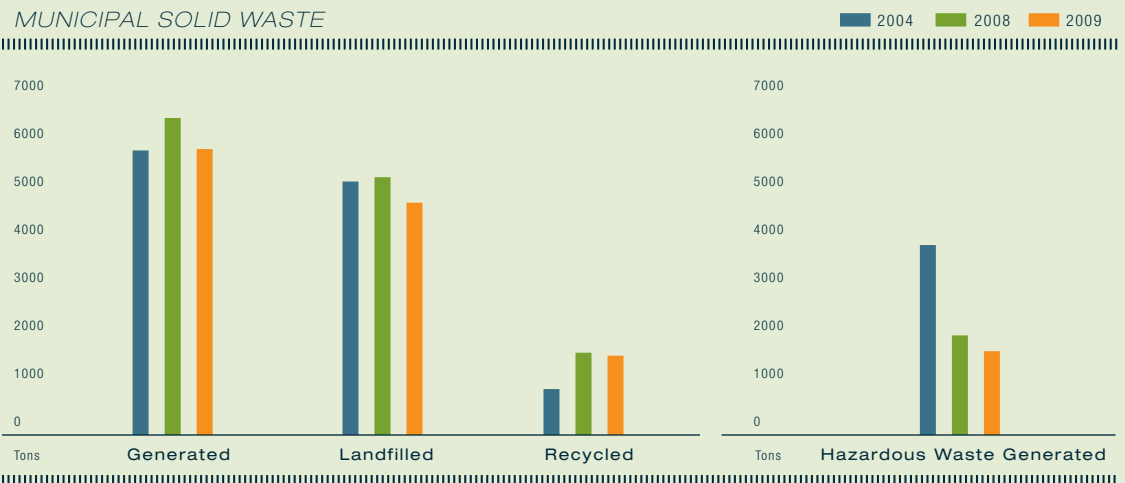


COMPRESSED NATURAL GAS USE [CNG]



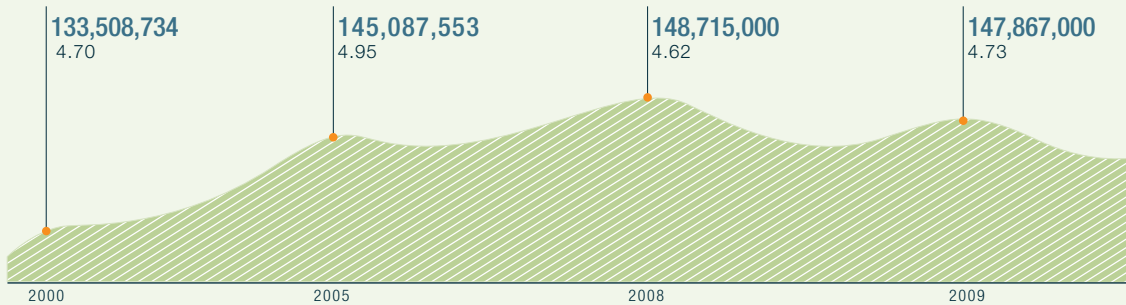
Materials Use and Recycling

MUNICIPAL SOLID WASTE



Energy Use and Conservation

ELECTRICITY USE [kWh]



CONSERVATION

139,651 kWh

TOTAL kWh OF
ENERGY SAVED
IN 2008

= Total kWh of electricity used
= kWh per passenger

NATURAL GAS USE [THERMS*]



= Total therms used
= Therms per passenger
= Therms per sq. ft. of terminal

*a unit of heat equal to 100,000 British thermal units



Buildings and Infrastructure

2008 and 2009

1,225

SQUARE FEET GREEN BUILDINGS OR
LEED™ RATED BUILDINGS

2008 and 2009

3

NUMBER OF CAPITAL, TENANT OR CONCESSIONS
PROJECTS ACHIEVING OR PROPOSED FOR LEED™
CERTIFICATION



PORT OF SEATTLE SUSTAINABILITY AND EARTH DAY EVENTS

YEAR **2010**

Monday, April 12

U.S. – Japan 150th and Earth Day 40th Anniversary Tree Planting Ceremony

12:30 to 1 p.m., Elliott Bay Park –
In partnership with Seattle Cherry
Blossom and Japanese Cultural
Festival, commemorating Japan's
first overseas mission to the U.S.
and the 40th Earth Day.

Dorothy Rissman's Recycled Pieces Art Exhibit

At Sea-Tac Airport, south end of
ticketing level. All pieces are made
from recycled materials collected
from streets, construction sites,
beaches and the city.

Tuesday, April 13

Sustainability & Earth Day: Port Commission Presentation

1 to 4 p.m., Pier 69 Commission
Chambers, highlighting the Port's
environmental projects and the "Go
Green at the Port" activities.

Wednesday, April 14

Port Earth Day Parks Tour

Noon to 2:30 p.m. – A tour of two
of the Port's 22 parks and public
access areas: Terminal 107 and
Terminal 5's Jack Block Park. Learn
about the Port's environmental
projects and Seaport's 100 percent
organic landscaping practices.

Duwamish Alive! Earth Day Festival

2 to 4 p.m., Cooper Elementary
- Pathfinder School, 1901 S.W.
Genesee St., West Seattle, featuring
environmental information booths—
one staffed by Seaport Environmen-
tal staff—food, kids' activities, music
and surprises!

Sunday, April 18

Friends of Live Earth-Seattle 6K Run for Clean Water

8 a.m. – Through Myrtle Edwards
Park and the Port's Elliott Bay Park.
Start and finish at the parking lot,
16th Avenue West (northwest of the
Grain Terminal); turnaround at SAM
Sculpture Garden. For details, visit
www.seattlerunforwater.org

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Where a sustainable world is headed.™

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**2010 Port of Seattle
Commissioners**
Tom Albro
Bill Bryant
John Creighton
Rob Holland
Gael Tarleton

Chief Executive Officer
Tay Yoshitani