



Seattle-Tacoma International Airport  
**A VISION FOR 2014 AND BEYOND**  
 Environmental Strategy Plan  
 Quito Ecuador ACI-World Environmental Seminar




**Outline of Presentation**

- Introduction to Sea-Tac Environmental Programs
- Overview of Five-Year Environmental Strategy Plan
- Questions




**Introduction**

**Why Sea-Tac Chose to be an Environmental Leader:**

- Airports are the front doors to our communities
- Airports are the – or one of the – most important and visible public facilities in most communities
- Airports can be entrepreneurial and focus on long-term
- Environmental leadership is good business




**Development of the Plan**

**Broad cross section of staff developed goals and objectives**

**Reasons for Development of Plan:**

- Organize staff around common environmental goals
- Tool for planning, setting priorities, and allocating resources
- Provides clear message to the public about priorities
- Objective criteria (metrics) for evaluating progress




**Development of the Plan**

**Plan is organized into three themes identifying:**

- Key environmental indicators
- Goals
- Objectives
- Performance metrics
- Actions and strategies

	<b>Moving People and Goods Efficiently</b>
	Air Quality and Climate Change Energy Use and Conservation Buildings and Infrastructure
	<b>Managing Natural Resources Wisely</b>
	Materials Use and Recycling Water Resources and Wildlife
	<b>Promoting Sustainable Communities</b>
	Noise Education and Integration



**Energy Use and Conservation**

Goals	Objectives	Metrics
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**Structure of Plan**

**Goal: Electricity Use**  
Sea-Tac will meet all future load growth through conservation measures and renewable energy.

**Goal: Natural Gas Use**  
Sea-Tac will continue to reduce natural gas consumption per square foot of terminal space through cost-effective conservation and efficiency measures.

**Goal: Technology Deployment**  
Sea-Tac will serve as a leader in identifying and implementing leading-edge technologies and process improvements that reduce energy demand and improve efficiency.



## Energy Use and Conservation

Goals
Objectives
Metrics

### Structure of Plan

**Goal: Natural Gas Use**  
Sea-Tac will continue to reduce natural gas consumption per square foot of terminal space through cost-effective conservation and efficiency measures.

**Objectives:**

- Identify conservation projects through a comprehensive resource efficiency study
- Identify heat recovery opportunities
- Identify internal and external opportunities to fund conservation efforts
- Seek opportunities to displace natural gas use with other more environmentally friendly fuels or technologies
- Maximize boiler efficiency through preventative maintenance



## Energy Use and Conservation

Goals
Objectives
Metrics

Electricity Use (kWh)	2000	2005	2008
Total kWh of electricity used	133,508,734	145,087,553	148,715,000
kWh per passenger	4.70	4.95	4.62

**Conservation**

Total kWh/yr. of energy saved	46,282,904
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**Renewable Energy**

*Green Power* (purchased/used as a % of total energy use)	2000	2005	2008
	0%	0%	25%

**Natural Gas Use (Therms)**

Total therms used	2000	2005	2008
Total therms used	2,375,219	2,476,400	2,813,851
Therms per passenger	0.083	0.085	0.087
Therms per sq. ft. of terminal	1.03	0.81	0.92



## Air Quality and Climate Change

Goals
Objectives
Metrics

**Goal: Air Quality**  
Sea-Tac will improve the overall efficiency of its vehicle fleet 30 percent above 2006 levels by 2015.

**Goal: Air Quality**  
Sea-Tac will continue to work with its business partners to consolidate trips, reduce vehicle miles travelled, and promote clean vehicles from taxis, shuttles, buses, construction vehicles, service equipment, and ground support equipment.

**Goal: Greenhouse Gas Emissions**  
Sea-Tac will reduce airport owned and controlled greenhouse gas emissions by 15% below 2005 levels by 2020.

**Goal: Transportation**  
Sea-Tac will increase the average occupancy of passenger vehicles accessing the airport from 2.6 in 2009 to 3.6 in 2015.

**Goal: Adaptation Planning**  
Sea-Tac will complete a risk analysis of potential climate change impacts and implications for the airport, and develop a strategy plan for avoiding/mitigating risks.



## Buildings and Infrastructure

Goals
Objectives
Metrics

**Goal: Sustainable Buildings**  
Sea-Tac will integrate LEED™ or other "green" building performance measures into all projects.

**Goal: Asset Management**  
Sea-Tac will continue to improve its asset management practices in a manner that minimizes the total cost of owning and operating facilities and maximizes environmentally-sustainable development.



## Materials Use and Recycling

Goals
Objectives
Metrics

**Goal: Recycling**  
Sea-Tac will increase the solid waste recycling rate from the current 21% in 2008 to 50% by 2014.

**Goal: Construction Debris**  
Sea-Tac will implement Best Management Practices that reduce construction, demolition and land clearing debris generated by the airport and its contractors.

**Goal: Hazardous Materials and Waste**  
Sea-Tac will continue to reduce its use of hazardous materials and the generation of hazardous wastes.

**Goal: Environmentally Preferable Products**  
Sea-Tac will increase the use of green products throughout the organization by implementing a robust environmental purchasing program.



## Water Resources and Wildlife

Goals
Objectives
Metrics

**Goal: Water Quality**  
Sea-Tac will achieve and maintain Best Management Practices for water quality treatment and flow control over 100% of airport industrial areas.

**Goal: Wildlife Habitat**  
Sea-Tac will identify and implement actions to: (a) improve wildlife habitat and protections for native species not in conflict with aviation safety, and (b) develop biologically sound approaches for managing hazardous wildlife in the context of reducing the need for direct control actions such as scare devices (e.g., pyrotechnics).

**Goal: Water Conservation**  
Sea-Tac will reduce the potable water consumption rate 5% below 2008 levels by 2015.



## ((( Noise

**Goals**   **Objectives**   **Metrics**

**Goal: Noise Mitigation**  
Sea-Tac will complete Part 150 update including FAA review and approval by the end of 2011.

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## Education and Integration

**Goals**   **Objectives**   **Metrics**

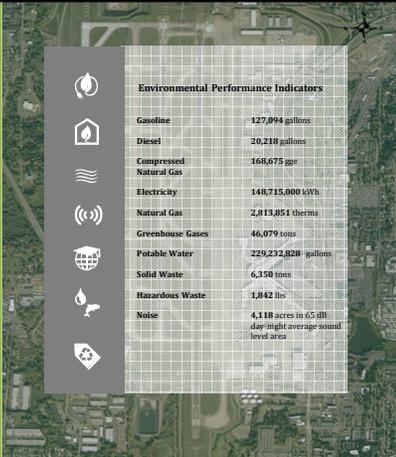
**Goal: Education and Community Outreach**  
Sea-Tac will institute an environmental education campaign to promote environmental stewardship and raise awareness of airport environmental and sustainability initiatives.

**Goal: Integration**  
Sea-Tac will integrate environmental and sustainability considerations into core business operations.

**Goal: Working with Business Partners**  
Sea-Tac will work with its business partners to extend environmental and sustainability initiatives beyond its own operations.



## Sea-Tac's Environmental Footprint 2008



Environmental Performance Indicators	
Gasoline	127,094 gallons
Diesel	20,210 gallons
Compressed Natural Gas	168,675 gge
Electricity	148,715,000 kWh
Natural Gas	2,013,851 therms
Greenhouse Gases	46,079 tons
Potable Water	229,232,020 gallons
Solid Waste	6,350 tons
Hazardous Waste	1,842 lbs
Noise	4.119 acres in 65 dB day-night average sound level area



## What is Next



- **Communicate the vision and goals**
- **Set priorities and allocate planning resources**
  - No costs associated with plan at this time
  - Each project/strategy must undergo individual cost benefit and obtain necessary Port Commission approvals
- **Create accountability structures**
- **Annual reporting**



## Questions



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