

Item No. 3c_supp_1

Date of Meeting June 28, 2016



Seattle-Tacoma International Airport

MEETING OUR GREEN GOALS

Port of Seattle Commission | June 28, 2016



✓ Long-range plan (e.g. SAMP)

- Campus-wide, comprehensive plan
- Facility requirements in 5-year increments to 20 years
- Alternatives analysis
- Narrow to Preferred Alternative(s)
- 20-year facilities development plan
 - Balance capacity to 3-runway airfield
 - Phasing plan for level of service, continuity of operations
- Capital program / plan of finance

□ Project definition (e.g., concourse layouts for new gate piers)

- Program development for individual projects
- Adequate detail required to transition projects to design

□ Project design

SAMP Environmental Review

Extensive Study under Federal and State Requirements

NEPA

Compliance with FAA Requirements

SEPA

Compliance with Port Commission Resolution No. 3650

Current Status

Landrum & Brown selected to conduct the environmental review

Evaluating baseline conditions and developing outreach strategy

Twenty-four environmental categories will be evaluated under NEPA/SEPA

Review Completion by Q4 2017

SAMP Environmental Review

Two Dozen Categories within the Review

- Air Quality and Greenhouse Gases
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Public Land and Recreational Impacts
- Endangered and Threatened Species
- Essential Fish Habitat
- Migratory Bird Act
- Floodplains
- Solid Waste Impacts
- Cumulative Impacts
- Shoreline
- Hazardous Materials
- Historical and Archeological Resources
- Light Emissions and Visual Impacts
- Energy Supply and Sustainable Design
- Noise
- Induced Impacts
- Socio-Economic
- Environmental Justice
- Environmental Health
- Water Quality
- Wetland
- Transportation

History of Noise Mitigation

Approximately \$400 million Spent on Sound Mitigation Around Sea-Tac

Residential Sound Insulation

- Approximately 9,400 homes
- Seven Highline School District Schools
- Five Condominium Complexes (totaling 246 units)
- Fourteen Buildings on the Highline College Campus

Acquisition due to Impacts from Noise, Construction, Safety

- Five Mobile home parks (totaling 359 mobile home units)
- Sixty-nine Homes north of the 3rd runway (safety and noise)
- 1,400 single family homes including 3rd runway project acquisition (noise and construction impacts)

FAA Noise Contour Rules

FAA Governs Development of Contours and Airport Noise Mitigation Programs

- Day Night Level (DNL) – Annual cumulative average of noise emitted from aircraft operating at Sea-Tac airport
 - 10 dB penalty for aircraft operating between 10pm and 7am
- 65 DNL Contours:
 - MUST be developed by using FAA Airport Environmental Design Tool (AEDT)
 - Is a depiction of the cumulative impacts of noise
 - Contours must be approved by FAA to be eligible for project funding
- FAA will not allow the use of noise monitoring data for defining contours
- Only mitigation within the 65 DNL Contour is eligible for funding

Future Noise Mitigation

From 2014 Part 150 Program Recommendations

- Single Family Sound Insulation
- Condominium Sound Insulation
- South ATZ Residential Acquisition
- Mobile Home on Private Land Avigation Easement
- Apartment Sound Insulation
- Places of Worship Sound Insulation
- Ground Run-up Enclosure
- Highline Schools Sound Insulation

Sustainability Goals and Objectives

Integrating Sustainability into the Master Plan

Environmental Goals and Directives

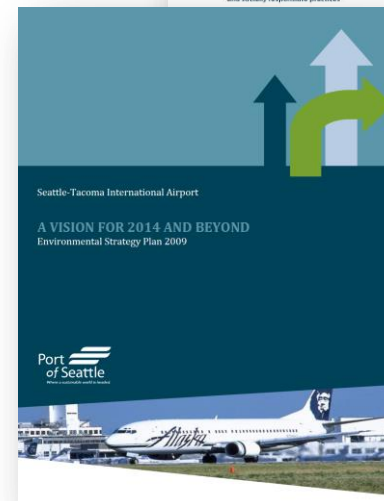
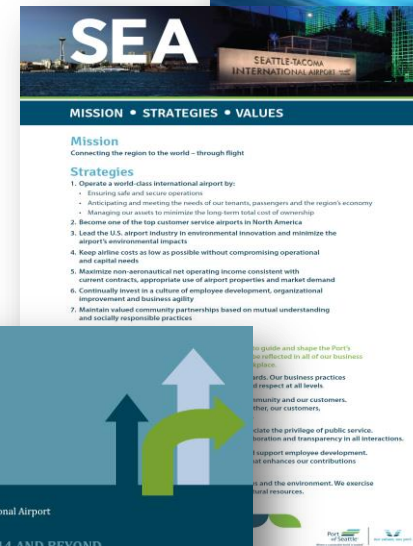
“Lead US airport industry in environmental innovation and minimize the airport’s environmental impacts.”

Master Plan

Designed to meet sustainability goals in the Century Agenda, Airport’s strategic goals, and Strategy for a Sustainable Sea-Tac (S3)

Integrates sustainability in three phases:

1. What and where we build
2. How we build
3. How we operate



Developing Management Plan

- Estimating future impacts, comparing to goals
- Evaluating the gaps between the forecasts and the goals
- Assess a broad range of programs, initiatives, and actions

Use Internal Stakeholder Process

- Refine initiatives and operational approaches
- Make recommendations and finalize Sustainability Management Plan

Conduct Formal Environmental Review for SEPA/NEPA

The Port demonstrates exemplary leadership in:

- **Air Quality and Climate Change**

Converting all GSE to alternative fuels, serving as a founding member of the National Climate Registry, and conducting a GHG inventory

- **Energy Use and Conservation**

Developing a Server Virtualization Strategy and a Green Data Center Strategy

- **Recycling**

Returning revenue/cost savings from recycling directly to tenants

- **Wildlife Management**

Developing bird radar, non-toxic wildlife control, and toxicity testing in nearby waterways to preserve habitat

- **Community Outreach**

Designing an airport environmental issues curriculum for local secondary schools

- **The Port's airport sustainability work is groundbreaking in 10 of 13 survey categories**
- **Opportunities for the Port to expand its leadership include:**
 - Transportation
 - Employee Health and Welfare
 - Water Quality & Conservation

Port of Seattle's Sustainability Leadership by Category

Survey Summary

Category	Basics	Best Practices	Ground Breakers
Air Quality and Climate Change: Criteria Pollutants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality and Climate Change: GHG Reduction, Renewable Energy, and Adaptation Planning	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality and Climate Change: Transportation	<input checked="" type="checkbox"/>		
Energy Use and Conservation: Electricity Use, Gas Use, and Energy Efficiency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Buildings and Infrastructure: Sustainable Buildings, Asset Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Material Use and Recycling: Recycling, Construction Waste, Environmentally Preferable Products	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Material Use and Recycling: Hazardous Materials	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water Quality and Conservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Wildlife Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Noise Mitigation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Employee Health and Welfare	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Community Outreach	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Economic Development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Moving people and goods efficiently

Air quality and climate change	air quality, greenhouse gas emissions, transportation, adaptation planning, clean energy
Energy use and conservation	electricity use, gas use, technology deployment
Buildings and infrastructure	sustainable buildings, asset management

Managing Natural Resources Wisely

Materials use and recycling	recycling, construction waste, hazardous materials and waste, environmentally preferable products
Water resources and wildlife	water quality, wildlife habitat, water conservation

Promoting Sustainable Communities

Noise mitigation	
Employee health and welfare	training, diversity, engagement programs
Organizational integration	integration with capital programming, planning, procurement, policies and procedures
Community outreach	communications strategy, engagement programs
Economic development	promoting small and local businesses, increasing jobs, decreasing airport costs, increasing revenue

The survey covered:

- 18 Airport responses to our sustainability survey
- Airport Sustainability Plans and Strategies
- Airport Websites
- SAGA (Sustainable Aviation Guidance Alliance) Database
- ACI Environmental Benchmarking Survey
- ACRP Reports
- Other Industry Journals/Publications
- NGO websites and/or documents that relate to sustainable aviation (US Green Building Council, International Organization for Standardization, etc.)

- **Airports in the US and around the world have considered the following greenhouse gas reporting/certifications:**
 - The Climate Registry (used by the Port)
 - Airport Carbon Accreditation

- **The following additional standards and accreditations are being sought by an increasing number of airports:**
 - Global Reporting Initiative
 - ISO Standards
 - LEED (used by the Port)
 - EPA Green Power Partnerships
 - ACI Environmental Achievement Awards

- **External standards and accreditation can provide consistent measures across airports**

- **Energy Conservation and Community Outreach initiatives vary widely**
 - These categories allow for a variety of innovative initiatives
 - Effective community outreach depends on airport location and community needs
 - Energy conservation depends on the local environment and new technologies
- **No airport is doing groundbreaking noise mitigation in 2013**
 - Noise best practices have become standardized
 - Aircraft are getting quieter
- **Reported recycling rates are not standardized, making comparisons between airports difficult**
- **Europe and Asia lead carbon offsetting projects and certifications**
 - European climate policy drives airport policies with a focus on carbon neutrality
 - ISO Standards are widely recognized outside the United States
 - Europe and Asia lead employee health and welfare programs
- **Progress on ACI-NA Environmental Goals is strong among top North American airports**

- Evaluating options for green tenant spaces
- Implement compostable service ware
- Expand use of electric vehicles
- Feasibility study to provide aviation biofuels at Sea-Tac Airport
- Research sources of renewable natural gas
- Green roofs/Low impact development
- Finalize Strategy for a Sustainable Sea-Tac (S3)