Environmental Quarterly Update

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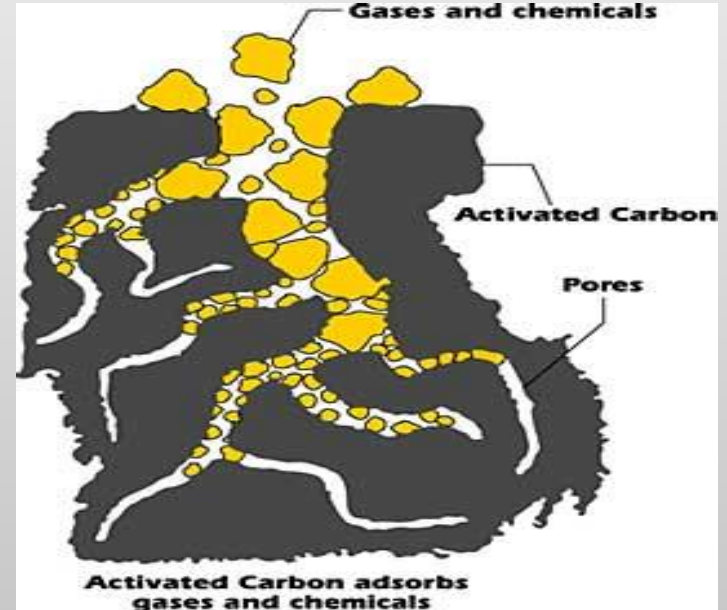
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Port
of Seattle®

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Key Environmental Highlights

- Lower Duwamish Pilot Project
- Salmon Safe Certification
- Waste Reduction & Recycling Improvements
- Program to offset passenger air travel emissions
- Education & Outreach

Highlights of 2016 accomplishments and preview of future initiatives

Lower Duwamish Waterway
Activated Carbon Pilot Project

- An innovative cleanup technology to trap contaminants in waterway sediments

- If successful, can be used more widely

- Placement is complete and monitoring began this year

Gases and chemicals

Activated Carbon

Pores

Activated Carbon adsorbs gases and chemicals

Pilot Project to inform the Future Cleanup Design

Water Initiatives
Salmon-Safe

- **Marine Port - Parks**
  - 2017
    - Integrated pest management, water shortage contingency, shoreline restoration and more
  - 2018
    - Two stormwater treatment & two restoration projects

- **Aviation**
  - Salmon-Safe Certification June 6, 2016
  - 2016/17
    - Low impact development guidelines, infiltration feasibility, landscape management plan update, water harvesting feasibility

Projects and procedures to improve salmon habitat

Reducing Solid Waste

Airport

- Mandatory **recycling** for airport concessionaires
- Mandatory use of **compostable/recyclable service ware** for concessionaires

Seaport (P69 & Shilshole Bay Marina)

- Performed waste audits late December 2016
- 2017 goal - Divert an additional 20 tons of garbage

New compostable service ware reduces waste in landfills

Good Traveler Program

- Good Traveler sells carbon offsets for air passengers
- Developed in San Diego, and launched at Sea-Tac Airport in December 2016

Good Traveler offers public a way to participate as a partner

Sustainable InSights

- Sharing our initiatives and successes with the public

- Installed messaging with symbols:
  - Column wraps
  - Water refill stations
  - Hanging origami

Messaging helps passengers see sustainability in action

Looking Ahead

- EPA community pilot project, Duwamish

- Renewable natural gas

- Energy & Sustainability Policy Directive

- Aviation biofuels

There is a lot more to come!

Resource Slides

Renewable Energy Projects

- **Aviation**
  - Airport Solar Analysis
    - Evaluating sites on and off airport property
    - Prioritizing sites and analyzing glare for pilots
  - Continuing to evaluate Renewable Natural Gas (RNG) opportunities

- **Maritime**
  - P69 Solar feasibility analysis and Commerce grant application
  - CEM Solar analysis with UW Solar/POS Engineering in process

Reducing reliance on fossil fuels and advancing the clean energy economy

Maritime Solar

Net Sheds

- Construction funding Approved Q4 2016
- Contracting (BID) Q1 2017
- Construction Q2 2017

kWh Produced	11,000
Deferred utility costs (annually)	$840
CO_2 Deferred	279 lbs

Pier 69

- Preliminary Engineering Feasibility Study
- Dept. of Commerce Grant Application: Q1 2017
- Prepare Environmental Analysis for project
- Request Design/construction: Q3 2017

kWh Produced	90,000
Deferred utility costs (annually)	$7,000
CO_2 Deferred	1.15 $MtCO_2$

Exploring Solar Energy Use across Maritime and Real Estate Portfolios

2017 Planned Maritime Energy Efficiency Projects

Planned Energy Efficiency Projects	Annual kWh Savings	Savings ($)	CO_2 ($MtCO_2$)
SBM	120,001	9,600	1.5
Jack Block Park	58,390	4,671	0.75
Fishermen's Terminal	419,420	33,554	5.37
Bell Street Parking Garage	TBD	TBD	TBD
2017 Facility Reduction Totals	**597,811**	**$47,825**	**7.62**

Equivalent to providing 50 homes for a year

Not burning 900 gallons of gasoline

Planning for new energy efficiency projects at additional facilities in the works in 2017

Environmental Scorecard

- Includes 12 categories

- Green indicates progress, red indicates no progress

- Scorecard will provide focus on metrics for Century Agenda progress

Water Initiatives
Marine Stormwater Utility

Milestones

- Began Utility-funded infrastructure work, Jan 2016
- Signed interlocal agreement with City of Seattle, Nov 2016
- Utility funds in 2016 = $4.7M
  - Used to upgrade Stormwater Infrastructure and to manage stormwater

Utility Work

- Purchased equipment to support work & improve infrastructure – CCTV truck, assessment software, tide gates
- Began stormwater system assessment, cleaning & urgent repairs – upgrade infrastructure will improve runoff quality to Puget Sound
- Progress: 24,444 linear feet (LF) inspected/assessed; 15229 LF cleaned; 69 LF repaired; 15 tide gates installed

Identify Repairs to Improve Water Quality

Water Initiatives
Aviation Stormwater Program

- Continued 100% treatment and flow control of Airport runoff

- Retrofitted 20 acre logistics area with LID bioretention treatment swale

- Updates to Airport Stormwater Manual

Advanced stormwater Low Impact Development at Airport

Reducing Impacts from Transportation

- **Electric Vehicle Infrastructure Plan**
  - Recommend charging stations for passengers, visitors, and employees
  - Identifies locations, number and level of charging stations
  - Estimate budget and schedule
- **Sea-Tac Airport Transportation Access Plan**
  - Evaluate range of transportation modes
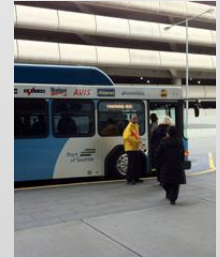 - Improve efficiency and advance sustainable transportation modes

Transportation remains one of our greatest challenges

Port Employee Transportation

- **Port-wide Green Fleet Plan**
  - Increase EVs
  - Right size vehicle requirements
  - Improve vehicle efficiency

- **Port-wide Commute Trip Reduction Plan**
  - Reduce ride-alone trips from employees
  - Increase ridesharing among employees
  - Expand to businesses with employees commuting to port facilities

Using advanced technologies to reduce reliance on fossil fuels