Puget Sound Green Infrastructure Summit
Mountaineers Club, Seattle / 8:30am-5:30pm / February 16, 2017

Seattle-Tacoma International Airport
Salmon-Safe Certified - June 2016

Bob Duffner

Puget Sound Green Infrastructure Summit 2017
Environmental Goals and Directives

"Be the greenest and most energy efficient port in North America"

- Meet all increased energy needs through conservation and renewable sources
- Meet or exceed Agency requirements for stormwater management
- Reduce air pollutants and carbon emissions
Multiple Solutions for a Complex Built Environment

Airport Profile
- 375 acres subject to aircraft deicing and fueling
- 200 acres landside - expressway, cargo, other commercial operations
- 1,025 runways, taxiways and infield

Stormwater Management
- 100% Retrofit (2004 – 2009)
  • 11 detention ponds
  • Basic treatment for runways
  • Enhanced treatment for landside
- Bioretention and infiltration (2010 – 2015)
  • Extended compost amended runway filter strips
  • 10 new and retrofitted bioretention swales
Planning for Sustainable Growth

Sustainable Airport Master Plan

- 56% increase in passengers by 2035
- Existing terminal expansion
- New north terminal
- New development and support areas
New Initiatives and Opportunities

Planning and tools for implementing LID

- Guidelines compatible with FAA regulation
- Airport-wide mapping for shallow and deep infiltration

Rainwater capture and reuse

- North Satellite Expansion
  - 1.5 mgal./year saving
- Ramp rainwater collection and reuse during non-deicing season

Deicing Runoff Management

- Reassessment of treatment technologies
Puget Sound Cities: Ready to take the Mayor’s Challenge?

Dan Kent
Salmon-Safe
I have asked that each service-delivery bureau in the city seek and achieve Salmon-Safe certification.

- Mayor Charlie Hales, June 5, 2013

World Environment Day
TRANSFORMING A CITY: BUREAU BY BUREAU

- City-wide reach
- Policy and planning focus
- Bureau-by-bureau engagement
- 5-year implementation
FOCUSED ON KEY SITES, GREEN INFRASTRUCTURE, FACILITY MANAGEMENT, AND OPERATIONS

- **STEP 1:** Engage core infrastructure bureaus: BES, PBOT, and PWB (2014-2015)

- **STEP 2:** Engage additional bureaus (e.g., OMF, Fire & Rescue) (2015-2016)

- **STEP 3:** Staff trainings, community outreach (2016)

- **STEP 4:** Bureau implementation, project monitoring, verification
Portland. The First Salmon-Safe City.
salmonsafe.org

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WSDOT’s Stormwater Retrofit Program

Jana Ratcliff
WA State Department of Transportation
Stormwater Retrofits

- Many WSDOT highways and facilities were built before the Clean Water Act
  - Most existing pavement surfaces do not have stormwater management facilities
  - WSDOT addresses these deficiencies through retrofits

- Components of WSDOT’s Retrofit Program
  - Stand-alone retrofit
  - Project-triggered retrofit
Opportunities to Partner

• Determine ownership of the stormwater system to know who to partner with (WSDOT or local jurisdiction)

• WSDOT’s focus on Practical Solutions approach

• WSDOT Community Planning Portal: http://wsdot.maps.arcgis.com/home/index.html
Challenges

- Statewide issue – large scale
- Funding

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