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

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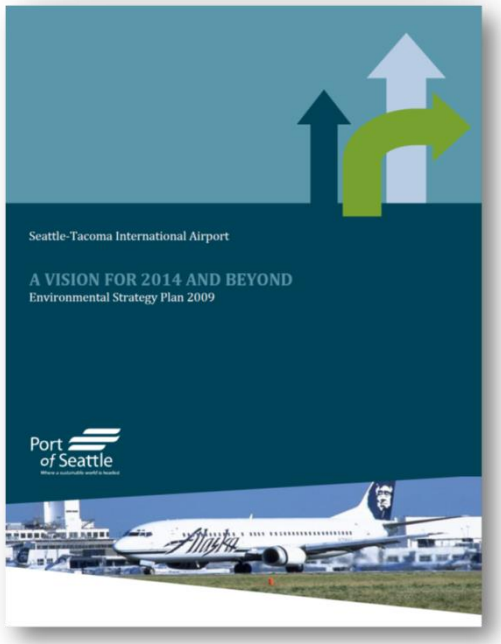
Helping Landowners Preserve the Environment

Port of Seattle

city habitats

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

Port of Seattle

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

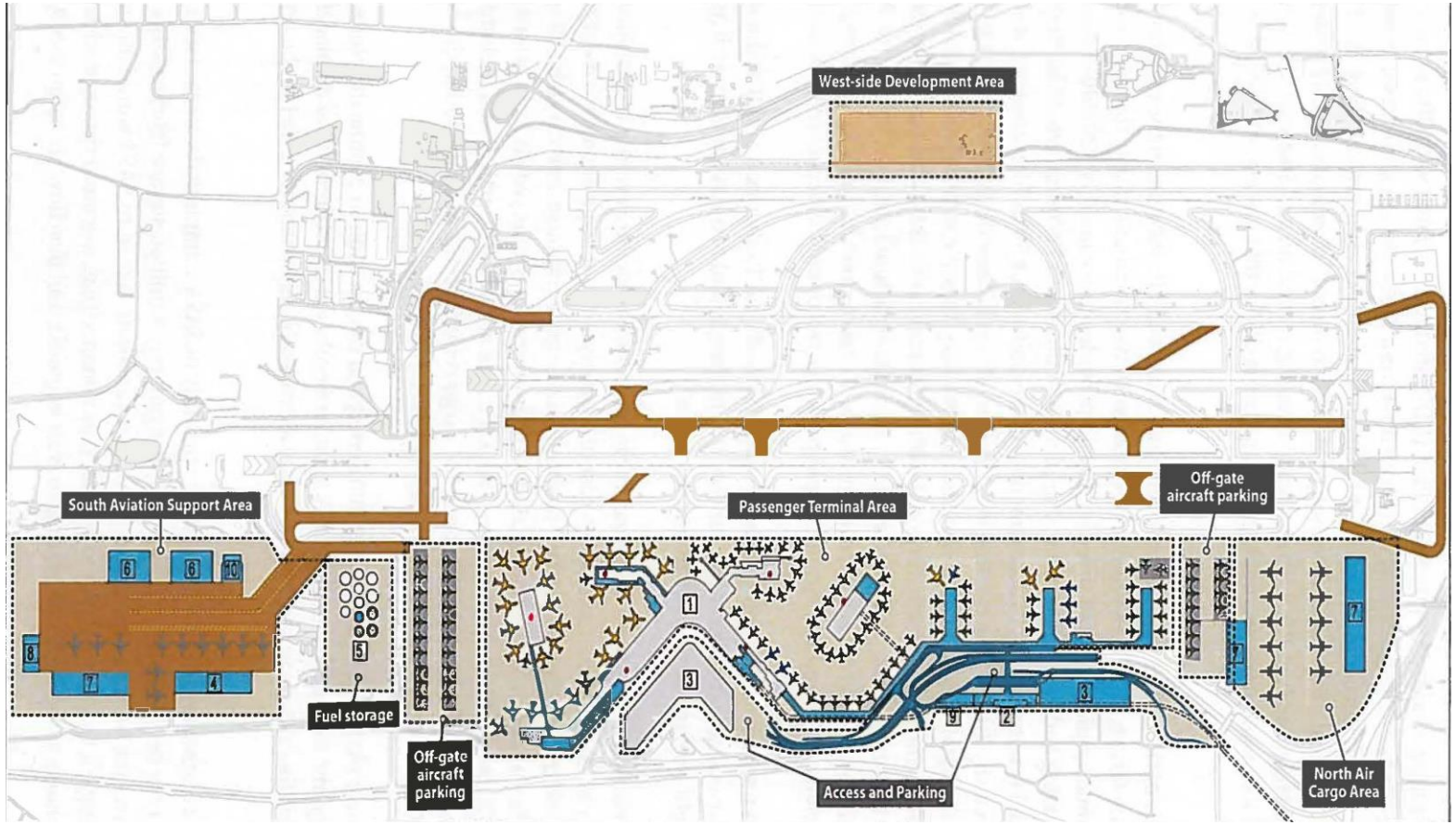
- Bioretention and infiltration (2010 – 2015)
  - Extended compost amended runway filter strips
  - 10 new and retrofitted bioretention swales

Port of Seattle

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



Port of Seattle

New Initiatives and Opportunities

Planning and tools for implementing LID

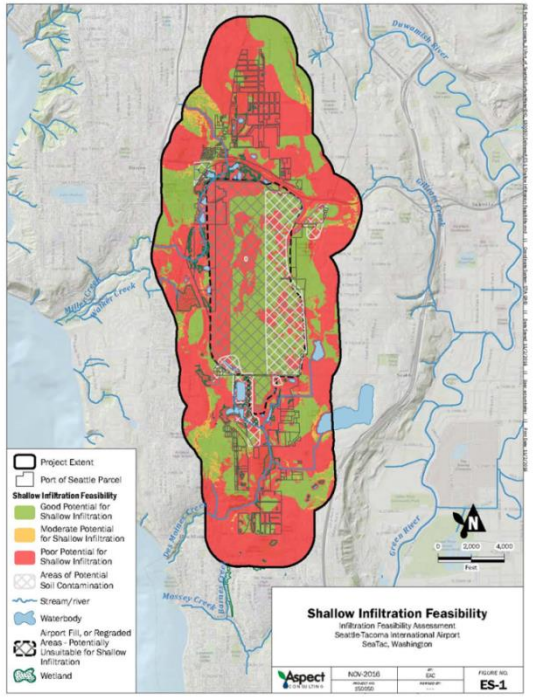
- Guidelines compatible with FAA regulation
- Airport-wide mapping for shallow and deep infiltration

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



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Puget Sound Cities: Ready to take the Mayor's Challenge?

Dan Kent
Salmon-Safe

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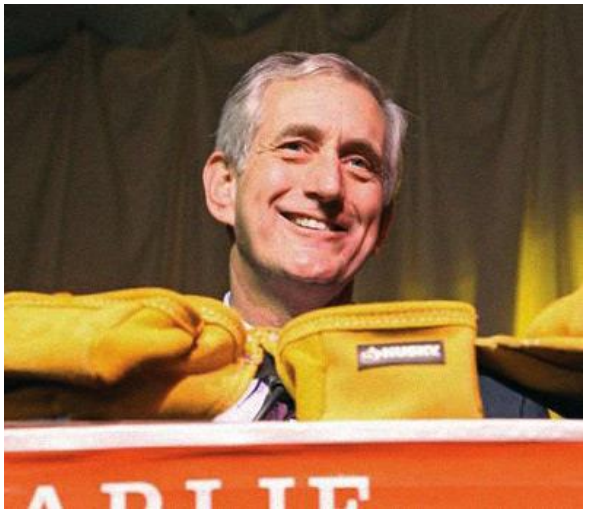
PORTLAND MAYOR'S SALMON-SAFE CHALLENGE



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

4 STEP PDX TRANSITION TO A SALMON-SAFE CITY

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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HEAVY RESCUE
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WSDOT's Stormwater Retrofit Program

Jana Ratcliff
WA State Department of Transportation

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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

Compost amended vegetated filter strip along I-5

Opportunities to Partner

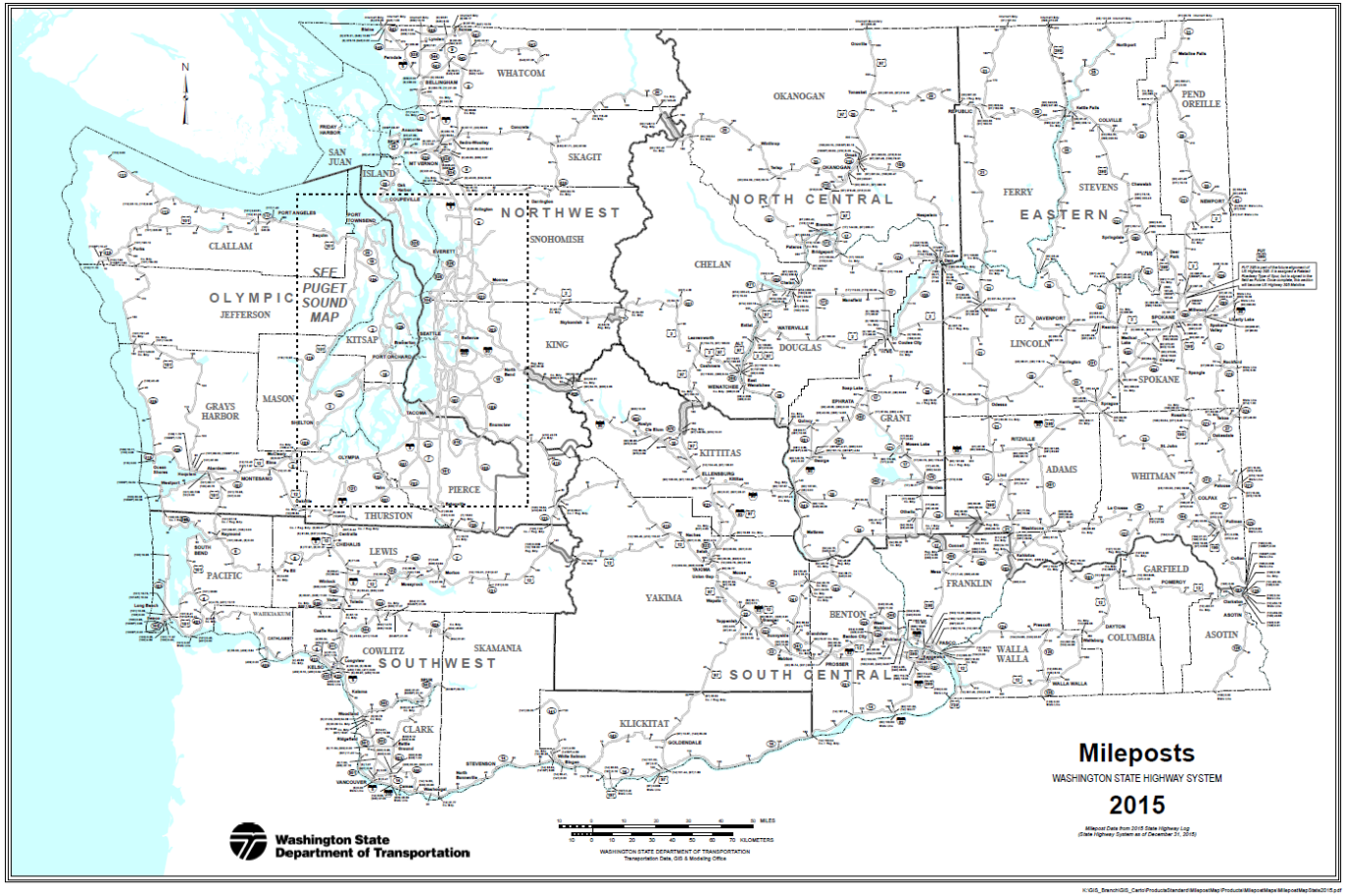
- Determine ownership of the stormwater system to know who to partner with (WSDOT or local jurisdiction)
- WSDOT's focus on Practical Solutions approach
- WSDOT Community Planning Portal:
  http://wsdot.maps.arcgis.com/home/index.html

Example of controlled access highway's (with on/off ramps)

Example of open access highways

Challenges

- Statewide issue – large scale
- Funding



Contact Information:
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