### **Potential Salmon-Safe Certification**

City Council Study Session April 8, 2019





# 2018-2020 Priority Recommendations

- Achieve citywide Salmon Safe certification (2018);
- Explore expanding green building regulations to commercial zoning (2018);
- Encourage retrofits of existing buildings to use water and energy more efficiently, and to fuel-switch from heating oil and natural gas to electric heat pump or other less carbonintensive technologies (2019); and
- Implement recommendations from the District Energy Feasibility Study (2020).

### Salmon-Safe Developer Accreditation

## PRINCIPLES

for developing ecologically functional urban sites





Seattle Art Museum Olympic Sculpture Park Salmen-Safe Certified 2010

### CONNECT TO WATERSHED CONTEXT

Every project and property is part of something bigger, Know your watershed, Many watersheds have specific restoration or recovery plans defineing strategies that can benefit important species. Incorporate these strategies into your development planning decisions.



Nike World Campus Salmon-Safe Re-Certified 2012

### DESIGN FOR THE LAND

Consider each part of the project. including buildings, open space, parking, stormwater retention features, as contributing components of the greater hydrology and ecology. Structure and buildings can also positively contribute to natural system performance.



### INTEGRATE HABITATS

Restore degraded habitat based on pre-development native species and ecosystems as well as future need for climate change adaptations. Habitat diversity can make project sites more resilient and adaptable. A site can support larger natural systems through corridor linkages.



PCC Natural Markets Edmonds Salmon-Safe certified 2011

### PRIORITIZE WATER CONSERVATION

Install rainwater harvest systems to balance water budgets. Limit water demand by selecting native and non-native vegetation adapted to site conditions and



### START WITH SITE ECOLOGY

Approach landscape ecological systems as site infrastructure and incorporate them early in the design process. Habitat can be retained, reestablished, or both, as part of site development. Design your site to avoid impacting wetlands, streams, riparian areas, and wildlife habitat.



### CARE FOR LAND OVER TIME

Encourage consistent post-development land management practices by embedding riparian restoration, irrigation management, and integrated pest management practices into site management guidelines, policies, or project legal documents.



### PROTECT HABITAT AND WATER QUALITY DURING CONSTRUCTION

Implement construction site pollutant control and runoff protection measures that achieve zero sediment discharge. Protect and salvage healthy native soils. vegetation, and habitat structures



### MANAGE WATER AT THE SOURCE

Disperse and infiltrate stormwater on site through Low Impact Development (LID) approaches to reduce pollution and downstream impacts. Design site to reduc stormwater runoff by minimizing impervious rooftop areas and reduced roadway widths and pervious road system



### CLEAN WATER FOR SALMON

Manage projects with an ongoing commitment to low input landscaping. habitat restoration that filters contaminants, and low-impact (LID) designs in future development phases.



Home Salmon-Sale certified 2011

### DESIGN LEARNING LANDSCAPES

Development presents opportunities for interpretive signage and/or demonstration projects highlighting features that contribute to an ecologically functional urban landscape.

### **Expanded DGIP**

- Tier 1- Living Building or Community Challenge;
- Tier 2- Emerald Star or Petal Certification; or
- Tier 3- LEED Platinum, 5-Star, Zero Energy and Salmon Safe, or PHIUS+ Source Zero and Salmon Safe; or
- Tier 4- PHIUS+ or 4-Star.



### Salmon-Safe Assessment Process

- Pre-assessment meeting and preparation support
- Comprehensive site assessment
- Report of team findings and recommendations
- Certification upon acceptance of recommendations
- Publicity and/or recognition campaign
- Annual review of project activity



# Salmon-Safe Assessment Process in Shoreline

### Science Team:

Consisting of Environmental Scientist, Stormwater
 Management Expert, Aquatic Ecologist and Salmon
 Biologist, and Urban Integrated Pest Management Director

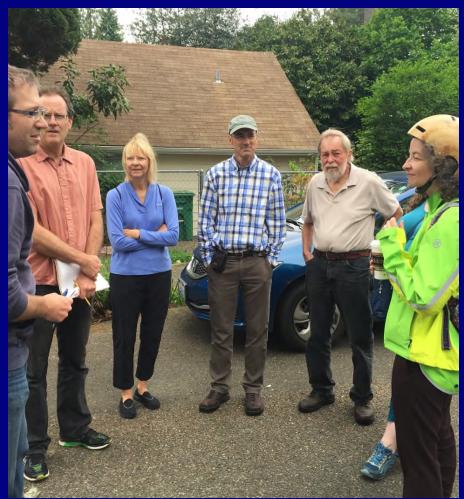
 Reviewed City documents, toured City facilities, interviewed staff, and developed Gap Analysis and Conditions for

Certification.









### **Gap Analysis**

### Identified Areas of Alignment

- Natural resource-related policies and activities
- Basin Planning
- Pesticide-free Parks and PROS Plan
- Climate Action Plan and Environmental Sustainability Strategy
- Low Impact Development Manual
- Green Stormwater Infrastructure Program



### **Gap Analysis**

Identified Opportunities for Improvement

- Develop comprehensive approach to reduce watershed impacts over time
- Increase frequency of water quality monitoring efforts
- Conduct riparian habitat condition and fish surveys
- Connect stormwater management policies to specific goals related to watershed impact



### **Certification Process**

- Two (2) Pre-Conditions
- Twelve (12) Conditions
- Council would authorize City Manager to commit to fulfilling conditions
  - Consent Item on April 22 or Action Item on May 6
  - Salmon-Safe will recognize Shoreline as the *FIRST CERTIFIED CITY IN WASHINGTON*

### Questions

- Does Council have concerns with any of the conditions?
- Would Council like to discuss this again before authorizing?
- Should Condition 5 be to Assess Water Conservation Efforts or Develop Water Conservation Plan?

### **Pre-Conditions**

- 1. Ensure Environmental Regulatory Compliance
- 2. Commitment to Adhere to Salmon-Safe Standards for Expansion or Redevelopment



### Apply Salmon-Safe Model Stormwater Guidelines to New, Expanded, or Redeveloped City Facilities

No additional costs are anticipated for larger projects.
 Additional costs for stormwater detention on smaller projects will be determined on a per project basis but are anticipated to increase.



# Incorporate Green Stormwater Infrastructure into Standard Roadway Cross-Section to Identify Preferred LID Techniques in ROW

 Checklists and cross-sections can be developed by existing staff and integrated into the EDM, costs to incorporate GSI into capital projects will vary by project.



# Improve Stormwater Management at the North Maintenance Facility

 Costs for long-term stormwater management will depend on decisions made during project design.



# Improve Inventory of Stormwater Infrastructure

 This task may increase the budget for the update of the SWMP, but a specific dollar amount will be identified during scoping for that project.



# Assess Water Conservation Efforts OR Develop Water Conservation Plan

- A- Staff may need to spend around 120 hours to expand existing conservation and monitoring efforts to Public Works and Facilities and around 40 hours annually to track and report. Costs beyond staff time are not anticipated, although conservation efforts may have an up-front cost, hopefully balanced by long-term savings.
  - B- Potential scopes for plan options submitted ranged from \$100,000-\$300,000.

# Adopt Salmon-Safe Construction Standards

 Public Works (PW) anticipates hiring a consultant to develop a process/checklist and potentially augment the EDM and NPDES requirements for around \$8,000.
 Potential staff time to manage consultant and implement changes is estimated to be around 40 hours. City project costs could increase.



### Improve Water Quality Monitoring Program

 This task may increase the budget for the update of the SWMP, but a specific dollar amount will be identified during scoping for that project. Estimated lab costs for adding metals and analytes to the current sampling regime could be about \$10,500 annually. A 2013 estimate to perform a Biological and Physical Assessment of Streams was \$22,000.



# Assess Snow Removal and Ice Control Plan

 Initial (2020) staff costs to manage consultant to analyze treatment options and potential impacts to salmon and operations are estimated at 0.2 FTE, potential scope for consultant could be \$60,000. Impacts to CMF design and equipment needs may be significant.



# Update the Integrated Pest Management Plan

 Staff time to manage consultant to update IPM for Parks and PW is estimated to be 40 hours, potential scope for consultant could be \$30,000.



# Enhance Biodiversity in Parks when Converting Turf or Landscaped Areas

 Staff time will need to be allocated to prepare a memo identifying potential nature patch opportunities. Costs to incorporate improvements will depend on project elements.



### Complete Substantial Design of Stormwater Management Projects with Habitat Restoration Elements

 Since this work is already programmed, no additional staff effort is needed beyond sharing plans and documenting completion with Salmon-Safe.



### Incorporate Habitat and Fish Use Information into Surface Water Master Plan

 This task may increase the budget for the update of the SWMP, but a specific dollar amount will be identified during scoping for that project.



# Continued Improvement Recommendations

- 1) Apply Salmon-Safe model stormwater guidelines to private developments.
- 2) Develop a priority point system for Salmon-Safe accredited contractors.
- 3) Look for opportunities to incorporate pollinator habitat for the Trail Along the Rail project.



# Continued Improvement Recommendations

- 4) Restore all Hidden-Lake bottom land.
- 5) Expand riparian forest at Brugger's Bog Park.
- 6) Create educational signage.
- 7) Create stewardship staff positions to coordinate volunteers for natural area restoration projects.



### **Certification Benefits**

- Independent validation of environmental performance
- Operational efficiencies, cost savings, risk reduction
- LEED innovation credit
- On-call expert guidance
- Communicate to regulators regarding ESA/CWA
- Position as environmental leader









### **Certification Benefits**

### Potential Funding Sources

- Governor's proposed budget request for recovery of Southern Resident Orcas
- King Conservation District
- WRIA 8
- Waterworks
- Puget Sound Partnership
- Department of Ecology Stormwater Grants
- National Fish and Wildlife Foundation
- Private foundations and tribes

### **Checklist Conditions**

- 1- Apply Salmon-Safe Model Stormwater Guidelines to New, Expanded, and Redeveloped City Facilities
- 2- Incorporate Green Stormwater Infrastructure into Standard Roadway Cross-Sections to Identify Preferred LID Techniques in the ROW
- 6- Adopt Salmon-Safe Construction Standards

### Surface Water Master Plan Conditions

- 4- Improve Inventory of Stormwater Infrastructure
- 7- Improve Water Quality Monitoring Program
- 12- Incorporate Habitat and Fish Use Information into SWMP



### **Existing Design Project Conditions**

- 3- Improve Stormwater Management at the North Maintenance Facility
- 11- Complete Substantial Design of Stormwater Management Projects with Habitat Restoration Elements



### **Project Conditions**

- 5- Assess Water Conservation Efforts (or Develop Water Conservation Plan)
- 8- Assess Snow Removal and Ice Control Plan
- 9- Update the Integrated Pest Management Plan
- 10- Enhance Biodiversity in Parks when Converting Turf or Landscaped Area



