



Storm & Surface Water Plan Update

Land Use and Environment Committee

November 16, 2017



Storm and Surface Water Plan Update

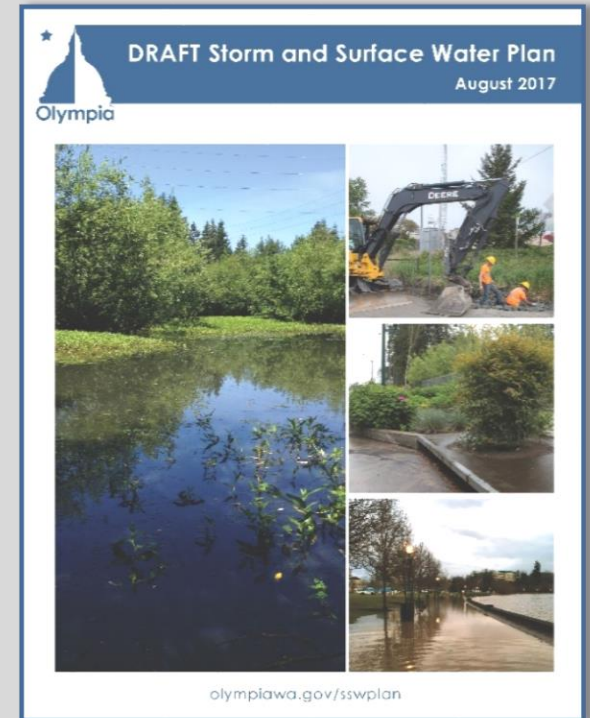
Agenda

- **The What:**
 - Our mission & responsibilities
- **The Why:**
 - Regulatory environment
 - Flooding challenges
 - Water quality challenges
 - Aquatic habitat challenges
- **January 2018....The How:**
 - Current core services
 - Recommended enhancements
 - Financial Plan

Storm and Surface Water Plan Update

Formatted to Tell Our Story

- The **“What”** Chapters:
 - Chapter 1 – Introduction
 - Chapter 2 – Context and Trends
 - Chapter 3 – Surface Water Management
 - Chapter 4 – Built and Natural Infrastructure
- The **“Why”** Chapters
 - Chapter 5 – Legal and Policy Framework
 - Chapter 6 – Flooding
 - Chapter 7 – Water Quality
 - Chapter 8 – Aquatic Habitat
- The **“How”** Chapters
 - Chapter 9 – Core Services
 - Chapter 10 – Strategies
 - Chapter 11 – Capital Improvement Program
 - Chapter 12 – Financial Program



What is the Utility Responsible To Do?

Responsibilities:

- Flooding
- Water Quality
- Aquatic Habitat



What is the Utility Responsible To Do?

Storm and Surface Water Plan Goals

- Goal 1:** Reduce the frequency and severity of flooding so hazards are eliminated.
- Goal 2:** Improve surface water quality.
- Goal 3:** Protect, enhance, and restore aquatic habitat functions provided by wetlands, streams, lakes, marine shorelines, and riparian areas.
- Goal 4:** Ensure reliable functioning of the built and natural stormwater infrastructure.
- Goal 5:** Manage Utility finances responsibly and recover costs equitably.



What is the Utility Responsible To Do?

Storm and Surface Water Infrastructure

Built Facilities

- 160 miles underground pipe
- 7,400 storm drains
- 1,400 manholes
- 167 flow control structures
- 129 treatment facilities
- 20 miles combined sewer/storm pipe



Natural Environment

- Swales
- Streams
- Rivers
- Lakes
- Wetlands



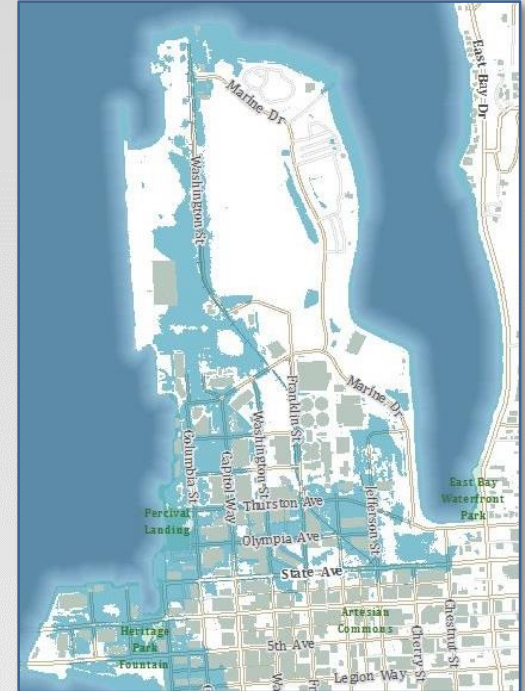
Why Do We Do What We Do?

Municipal Stormwater Permit Requirements

- Keep an updated Stormwater Management Program Plan.
- Maintain an education and outreach program for source control.
- Maintain an inventory and mapping of the stormwater infrastructure.
- Implement an Illicit Discharge Detection and Elimination (IDDE) program.
- Maintain a spill hotline.
- Implement and enforce the Drainage Design and Erosion Control Manual.
- Inspect and enforce erosion and sediment control.
- Annually inspect and maintain all city-owned stormwater facilities.
- Annually inspect and enforce maintenance of private stormwater facilities.
- Inspect (and clean) all city-owned catch basins on a 2-year cycle.
- Comply with the TMDL-specific requirements.
- Contribute to the Regional Stormwater Monitoring Program.
- Report to Ecology to document compliance with permit requirements.

General Challenges

- **Equitable and Predictable Rates and Fees**
 - Challenging in a complex regulatory environment.
- **Legacy Development**
 - Infrastructure was developed before stringent regulations.
 - Retrofits required, but more challenging than new construction.
- **Reliance on Choices by Individuals**
 - How the community maintains cars and lawns, increases impervious surfaces and removes backyard trees impacts our work.
- **Land Development Pressure**
 - Increased density creates increased impervious surfaces.
- **Climate Change and Sea Level Rise**
 - More frequent and intense winter precipitation.
 - Increasing investment in infrastructure required.



Flooding Challenges

Asset Management

- To increase understanding of infrastructure and its condition requires staff resources

Low Impact Development (LID)

- Increase in number of facilities with LID regulations
- Increase in inspections and maintenance as a result



Water Quality Challenges

Increasing Permit Requirements

- NPDES Municipal Stormwater Permit requirements changing.
- Requirements could result in less staff time available for other work.

Reliance on the Public for Nonpoint Pollution Prevention

- Nonpoint pollution has no clear single source.
- Challenging to educate people and change behaviors.



Aquatic Habitat Challenges

Multiple Public/Private Ownership

- The Utility must rely on voluntary programs to encourage stewardship on private properties.

Habitat Fragmentation

- Improving habitat on large tracts of land requires strategies that work across the landscape.

Legacy Impacts of Urban Development

- Maintaining functional habitat in an urban environment requires creativity and flexibility.



Tonight's Take Away

- **Formatted to Tell Our Story**
 - Not just to Meet a Regulatory Requirement
 - Project Team Passionate About Implementation
- **Collaborative Development Process**
 - Planning, Engineering and Operations
 - In-house Writing Results in Ownership
 - Project Team Considered Complete Responsibilities
- **Be Back in January**
 - Our Current Core Services
 - Recommended Enhancements
 - Financial Plan



Next Steps

- **Draft Plan Released for Public Review and Comment**
 - Mid-November 2017
 - Through mid-December 2017
- **Utilities Advisory Committee**
 - January 4, 2018 – Review of Public Comment and Final Recommendation
- **Land Use and Environment Committee**
 - January 18, 2018 – Review of Plan Recommendations and Public Comment
 - Recommended Action
- **Public Hearing**
 - February 2018



Questions and Discussion



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