



# Storm & Surface Water Plan Update

Land Use and Environment Committee

January 18, 2018



# Storm and Surface Water Plan Update

## Agenda

- Public Involvement Process
- **The What and Why**
- **The How**
- Next Steps...
- Discussion / Questions

# Public Involvement Process

Storm & Surface Water Plan		2016												2017												2018									
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR						
Public Outreach																																			
Project Webpage					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
Online Survey					●																														
Social Media Video					●																														
Planning Projects - E-Newsletter								●															●												
Utility Bill Insert							●																			●									
Public Meetings																																			
Utility Advisory Commission				■		■												■				■		■		■									
Habitat Focus Group							■																												
Community Open House								■																											
Land Use and Environment Committee				■																				■		■									
Planning Commission (Briefing)																								■											
Plan Writing Process																																			
Develop Draft Plan				■																															
Internal Review and Revisions											■																								
Editor Review																	■																		
Develop Appendix Chapters																					■														
Public Review of Draft Plan																								■											
Proposed Plan Adoption Process																																			
Land Use and Environment Committee (briefing)																										★	←								
City Council Study Session																											★								
Public Hearing																												★							
Council Approval																													★						

# Storm and Surface Water Plan Update

## Formatted to Tell Our Story

### The “**What**” Chapters:

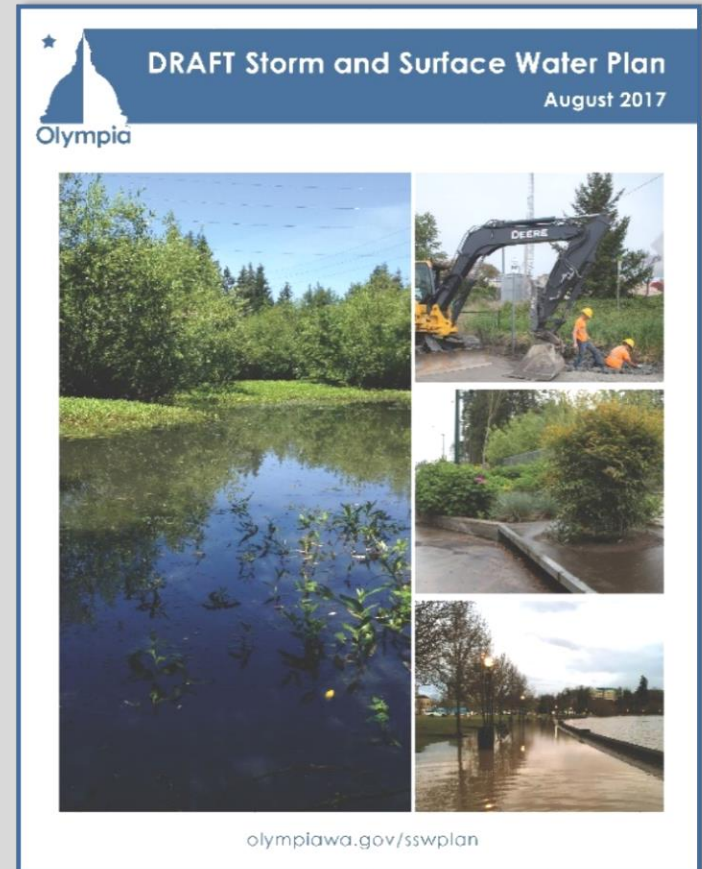
- Chapter 1 – Introduction
- Chapter 2 – Context and Trends
- Chapter 3 – Surface Water Management
- Chapter 4 – Built and Natural Infrastructure

### The “**Why**” Chapters

- Chapter 5 – Legal and Policy Framework
- Chapter 6 – Flooding
- Chapter 7 – Water Quality
- Chapter 8 – Aquatic Habitat

### The “**How**” Chapters

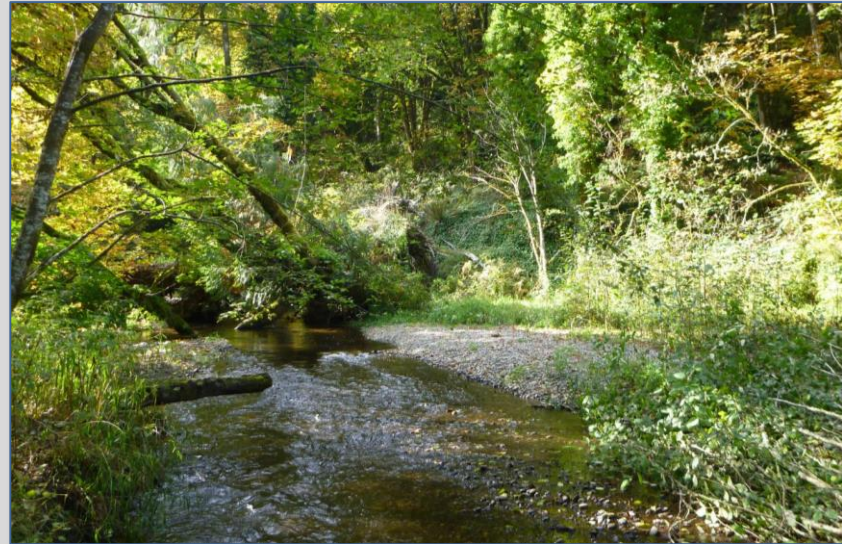
- Chapter 9 – Core Services
- Chapter 10 – Strategies
- Chapter 11 – Capital Improvement Program
- Chapter 12 – Financial Program





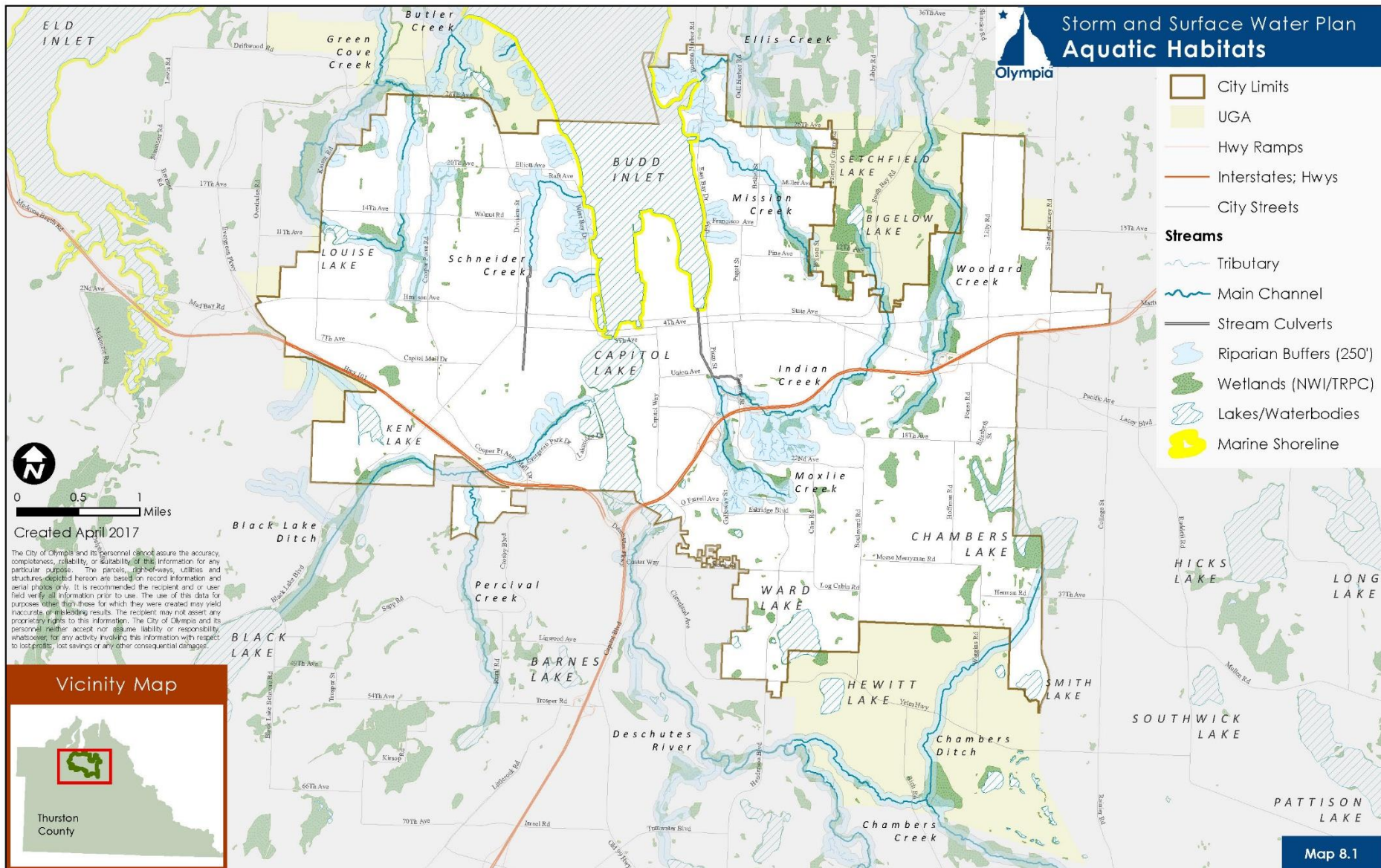
# What are the Utility's Responsibilities?

- Flooding
- Water Quality
- Aquatic Habitat





# Olympia's Aquatic Resources



# Challenges

## Flooding

- Climate Change and Sea Level Rise
- Low Impact Development (LID)

## Water Quality

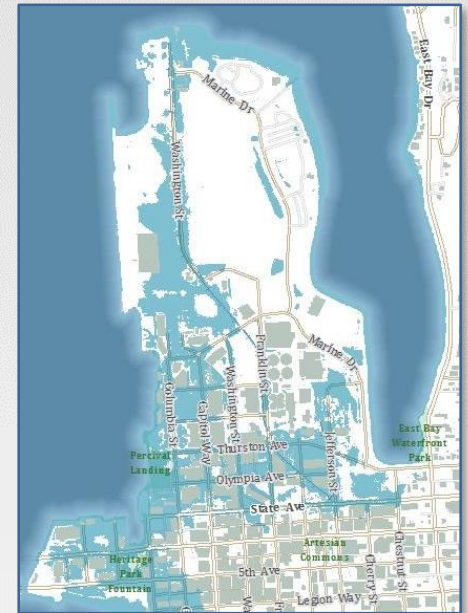
- Increasing Regulatory Requirements
  - Municipal NPDES Permit
  - Deschutes TMDL
- Nonpoint Pollution Prevention

## Aquatic Habitat

- Multiple Public/Private Ownership
- Habitat Fragmentation
- Legacy Impacts of Urban Development

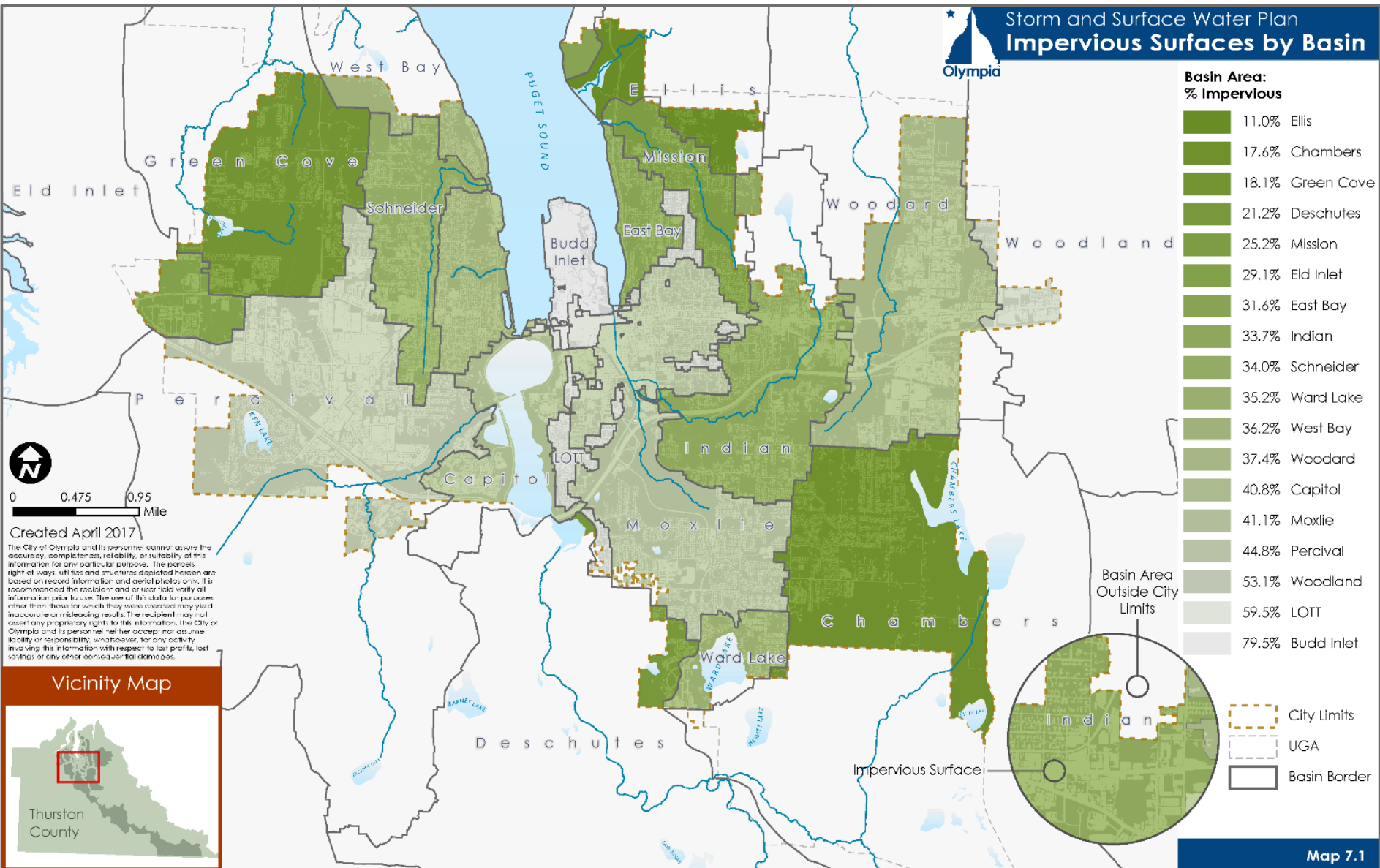
## General

- Equitable and Predictable Rates and Fees
- Land Development Pressure





# Impervious Surfaces





# Built Infrastructure

Infrastructure Type	City Owned or Maintained	Privately Owned
Catch Basins and Inlets (number)	7,444	5,760
Conveyance Pipes (miles)	160	143.8
Ditches and Swales (miles)	21.7	9.2
Flow Control Facilities (number)	167	852
Treatment Facilities (number)	129	523

# How Do We Propose Addressing Our Challenges?

**Continue Core Services** (No reductions recommended)

## **Key Recommended Enhancement Strategies**

- Permanently funding the pilot habitat program started in 2015. (11 strategies)
- Expanding education and outreach efforts. (2 strategies)
- Responding to requirements resulting from the Deschutes Total Maximum Daily Load process. (3 strategies)
- Planning for anticipated sea level rise. (6 strategies)
- Improving the asset management program. (5 strategies)
- Modifying the street sweeping program to have a water quality focus. (3 strategies)
- Developing a rate structure that provides an incentive to retrofit private stormwater systems to provide higher levels of treatment. (1 strategy)

## **Capital Facilities Program**

## **Financial Plan**

# Next Steps

## UAC Recommended Action:

- January 4, 2018

## Land Use and Environment Committee

- January 18, 2018 – Recommended Action

## SEPA Process

- Checklist Completed December 2017
- Environmental Determination Pending

## Public Hearing

- Proposed March 2018





# Questions and Discussion



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# Storm and Surface Water Plan Update

## Appendices

- Comprehensive Plan Goals/Policies
- Basin Characteristics
- Water Quality Data and Analysis
- Implementation Plan – Program Plan Template
- Stormwater Management Plan Financial Analysis
- Public Review
- Bibliography



# Appendix: Water Quality White Paper

## Water Quality Data Analyzed

- Department of Ecology
- Thurston County Environmental Health
- City of Olympia

## Surface Water Quality Problems

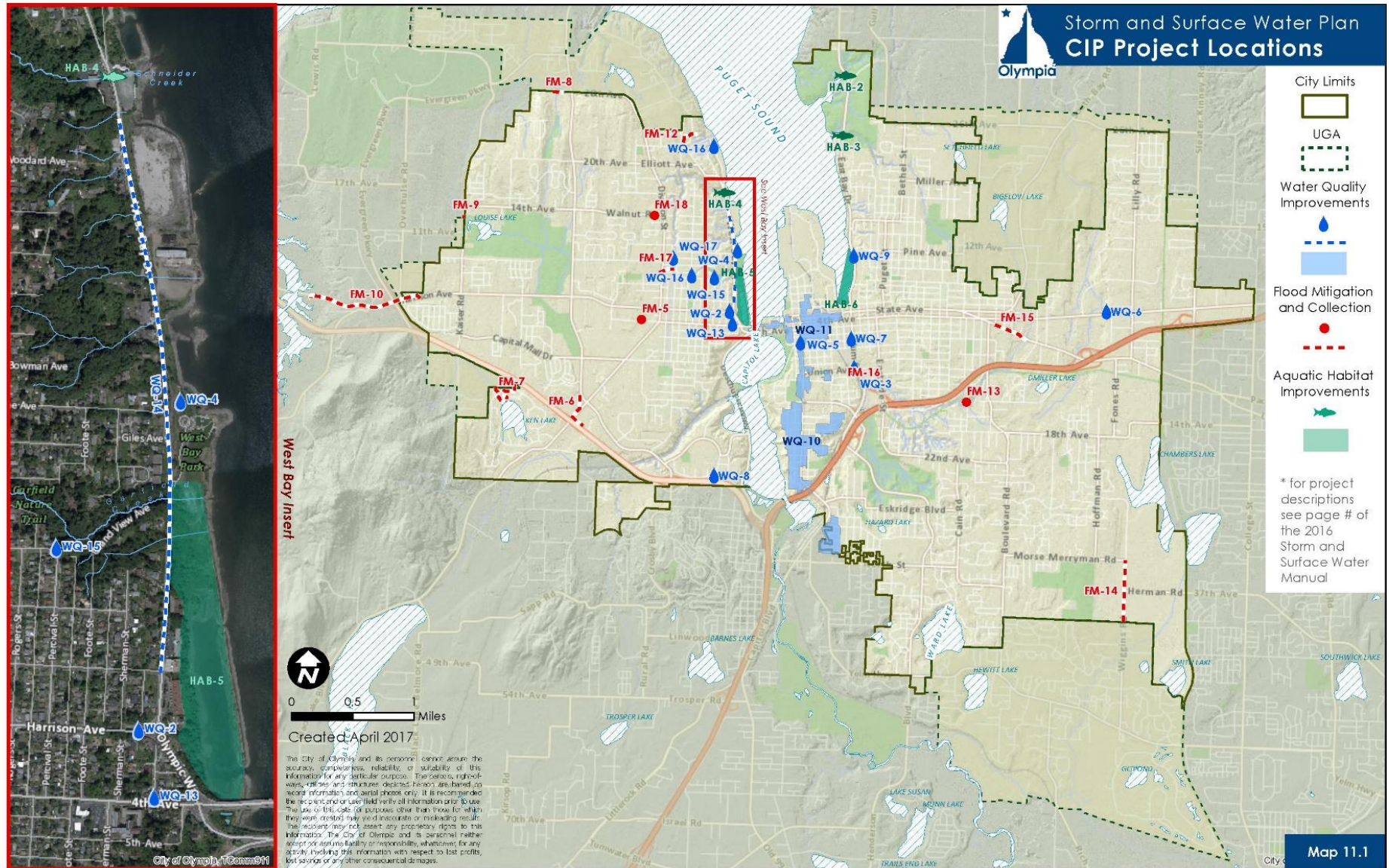
- Runoff from pollution generating impervious surfaces
- Fecal contamination (failing on-site septic systems)
- Excess nutrients/ temperature/ dissolved oxygen

## Recommendation: Basin Specific Implementation Plans





# How Do We Propose Addressing Our Challenges?



# Example Enhancement Strategy Implementation Detail

**STRATEGY 1.7** Develop post-construction inspection and maintenance capabilities for public stormwater facilities. Focus should be on LID implementation, staffing, and training.

**CORE SERVICE(s):** Flood Prevention, Pollution Prevention

New LID regulations and development standards are expected to result in the construction of significant quantities of new LID infrastructure.

In 2016, an Operations and Maintenance (O&M) impact analysis was completed as part of the LID code amendment process. This analysis determined that the SSW Utility would need to expand staffing and equipment within the O&M Division of the SSW Utility in order to meet the operational demands created by new LID facilities.

The impact analysis estimated that an additional 0.5 FTE would be required each year to support LID inspection and maintenance. Much of this work will be performed by seasonal staff, however supervision and year round operational support is also needed.

PROGRAM	COST ASSUMPTION	COST ESTIMATE
Stormwater Facility Maintenance (including vegetation management)	<ul style="list-style-type: none"><li>1.0 FTE – Maintenance II (Starting 2019)</li><li>1.0 FTE – Maintenance II (Starting 2020)</li><li>1.0 FTE – Maintenance I (Starting 2023)</li><li>1.0 FTE – Maintenance I (Starting 2025)</li></ul>	<ul style="list-style-type: none"><li>Med. Pick-Up Truck (Starting 2019, \$7,500 annually)</li><li>Med. Pick-Up Truck (Starting 2020, \$7,500 annually)</li><li>Med. Pick-Up Truck (Starting 2023, \$7,500 annually)</li><li>\$25,000 /yr. increase seasonal labor starting 2026</li></ul>

**Priority Level:** High

**Regulatory Requirement:** Yes (NPDES)