



# Storm and Surface Water Plan Update and Habitat in Olympia

Olympia Planning Commission

November 20, 2017

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Public Works, Water Resources

Environmental Services



# Olympia's Environmental Goals



**Westside Heronry Restoration January 2015**

# Example: Comp Plan Goals

## **Natural Environment**

**GN1 - Natural resources and processes are conserved and protected by Olympia's planning, regulatory, and management activities.**

**GN2 - Land is preserved and sustainably managed.**

*PN2.4 - Preserve and restore native plants by including restoration efforts and volunteer partnerships in all city land management.*

*PN2.6 - Conserve and restore wildlife habitat in both existing corridors and high-priority separate sites*

**GN6 - Healthy aquatic habitat is protected and restored.**

*PN6.1 - Restore and manage vegetation next to streams, with an emphasis on native vegetation, to greatly improve or provide new fish and wildlife habitat.*

*PN6.7 - Partner with other regional agencies and community groups to restore aquatic habitat through coordinated planning, funding, and implementation.*

# 2017 Storm & Surface Water Plan Update



# 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.



# Aquatic Habitat Objectives

## **Goal 3 - Objectives**

**3A** Protect intact aquatic habitat from degradation.

**3B** Enhance aquatic habitat that is already impaired.

**3C** Restore degraded aquatic habitat to increase ecosystem function.

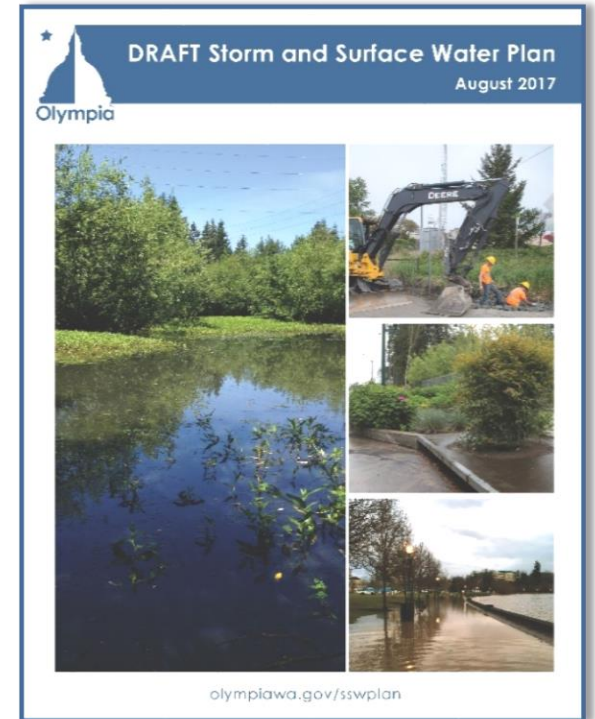
**3D** Participate in and give technical support to City and regional environmental planning efforts and implementation projects.

**3E** Increase community awareness of aquatic habitat function and benefits through outreach, education, and volunteer activities.

# 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





# How Do We Address Responsibilities?

## Habitat Management Programs:

1. Education and Outreach
2. Stewardship Planning
3. Restoration and Enhancement
4. Aquatic Habitat Monitoring
5. Noxious Weed Coordination
6. Collaboration with Partners

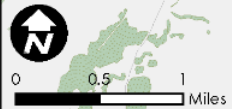
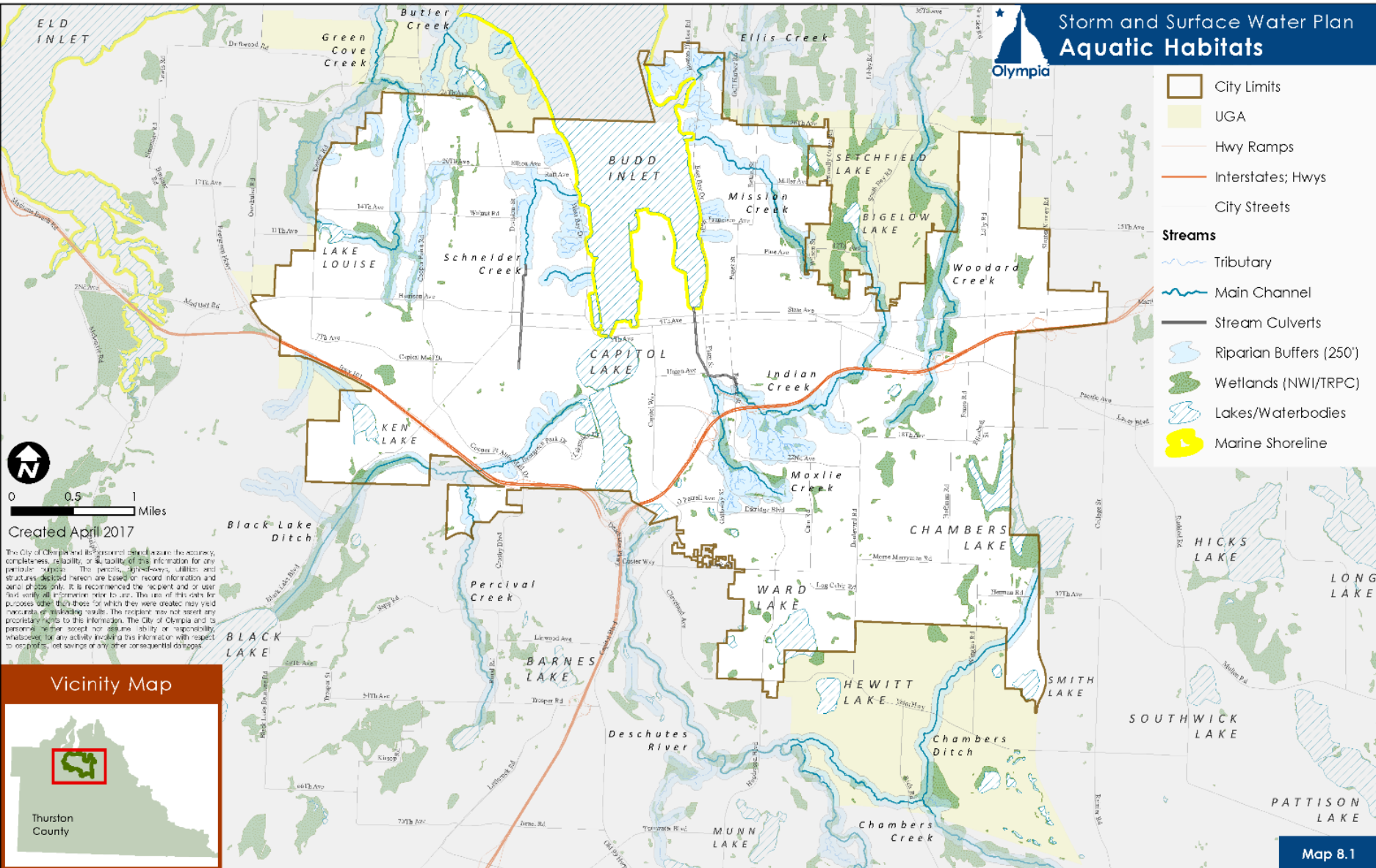


# Aquatic Habitat in Olympia

## Storm and Surface Water Plan Aquatic Habitats



- City Limits
- UGA
- Hwy Ramps
- Interstates; Hwys
- City Streets
- Streams**
  - Tributary
  - Main Channel
  - Stream Culverts
  - Riparian Buffers (250')
  - Wetlands (NWI/TRPC)
  - Lakes/Waterbodies
  - Marine Shoreline



Created April 2017

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# Budd Inlet Shoreline



Mission Creek Estuary – Priest Point Park

# Streams in Olympia



Percival Creek

# Lakes



Lake Louise, Grass Lake Nature Park - Winter

# Wetlands



Lake Louise - Summer

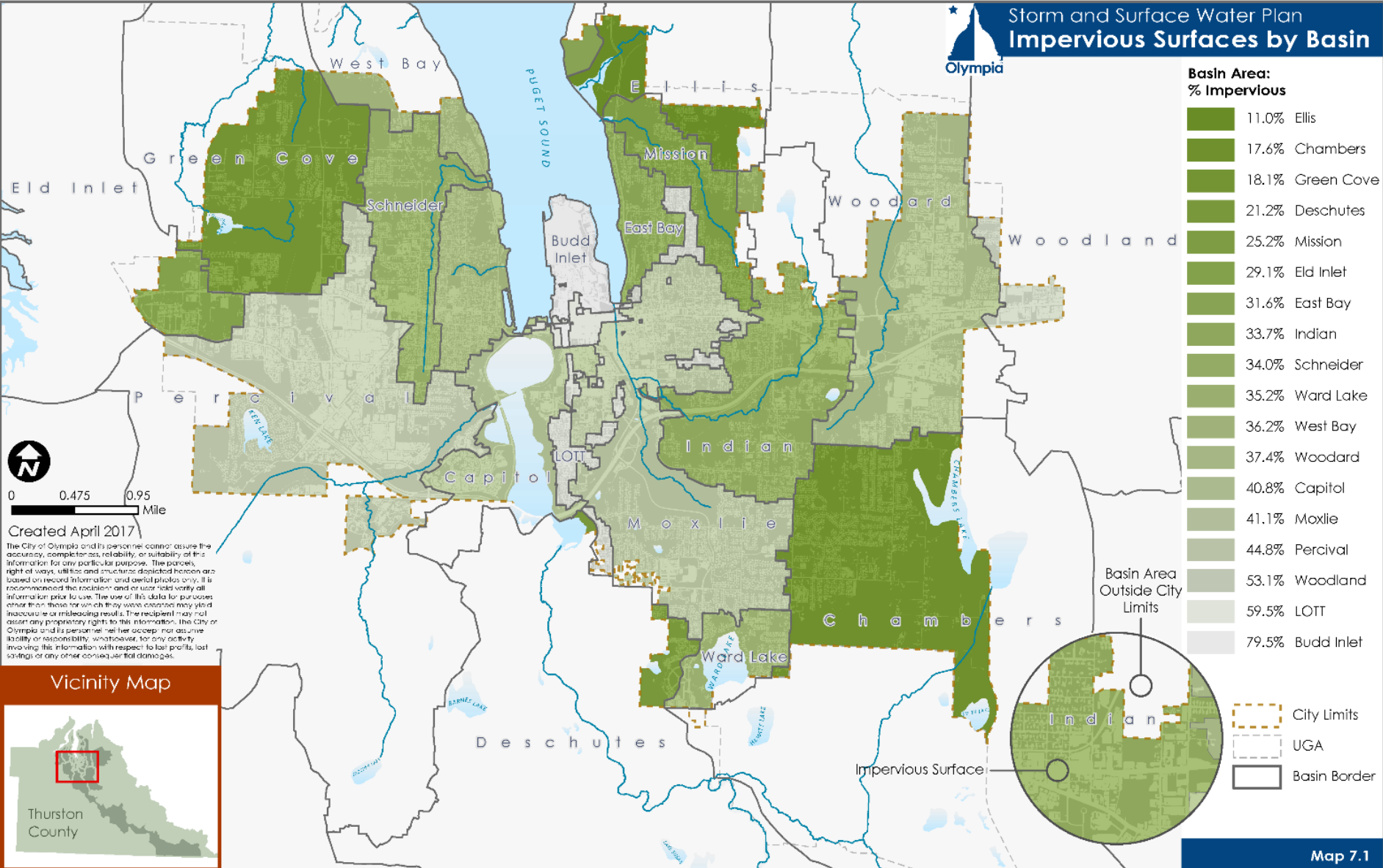
# Upland and Riparian Forests



# Impervious Surfaces



## Storm and Surface Water Plan Impervious Surfaces by Basin



Created April 2017

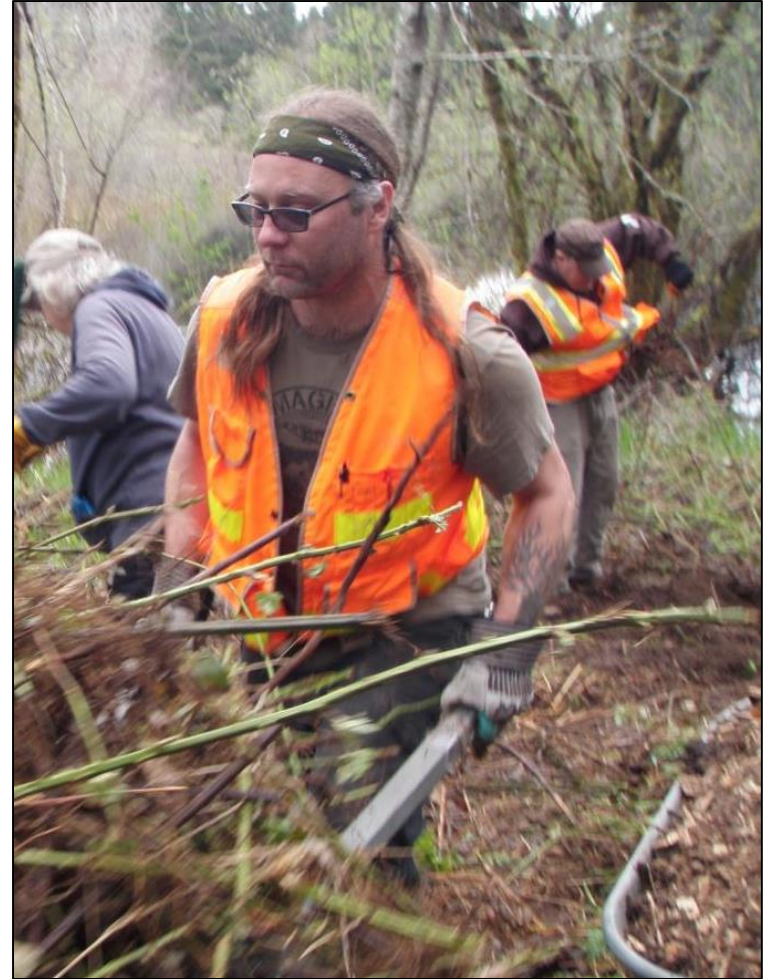
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# Two Year Pilot Program

## **Goal:**

Partner with the community to protect, steward, and restore aquatic, riparian, and associated terrestrial habitats within Olympia's watersheds.

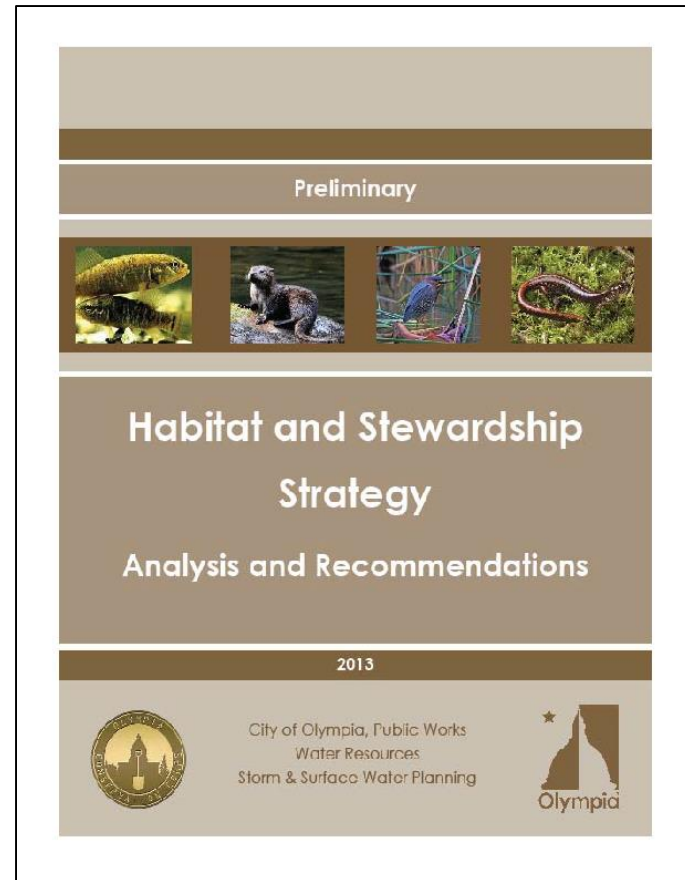
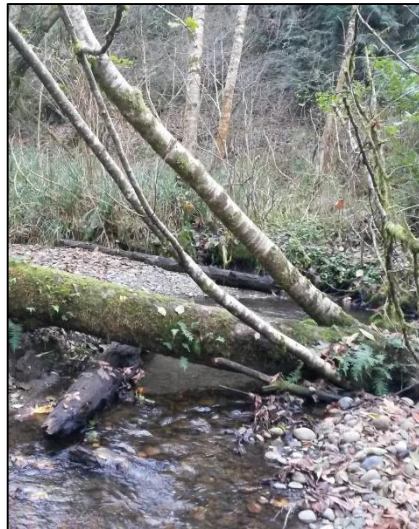


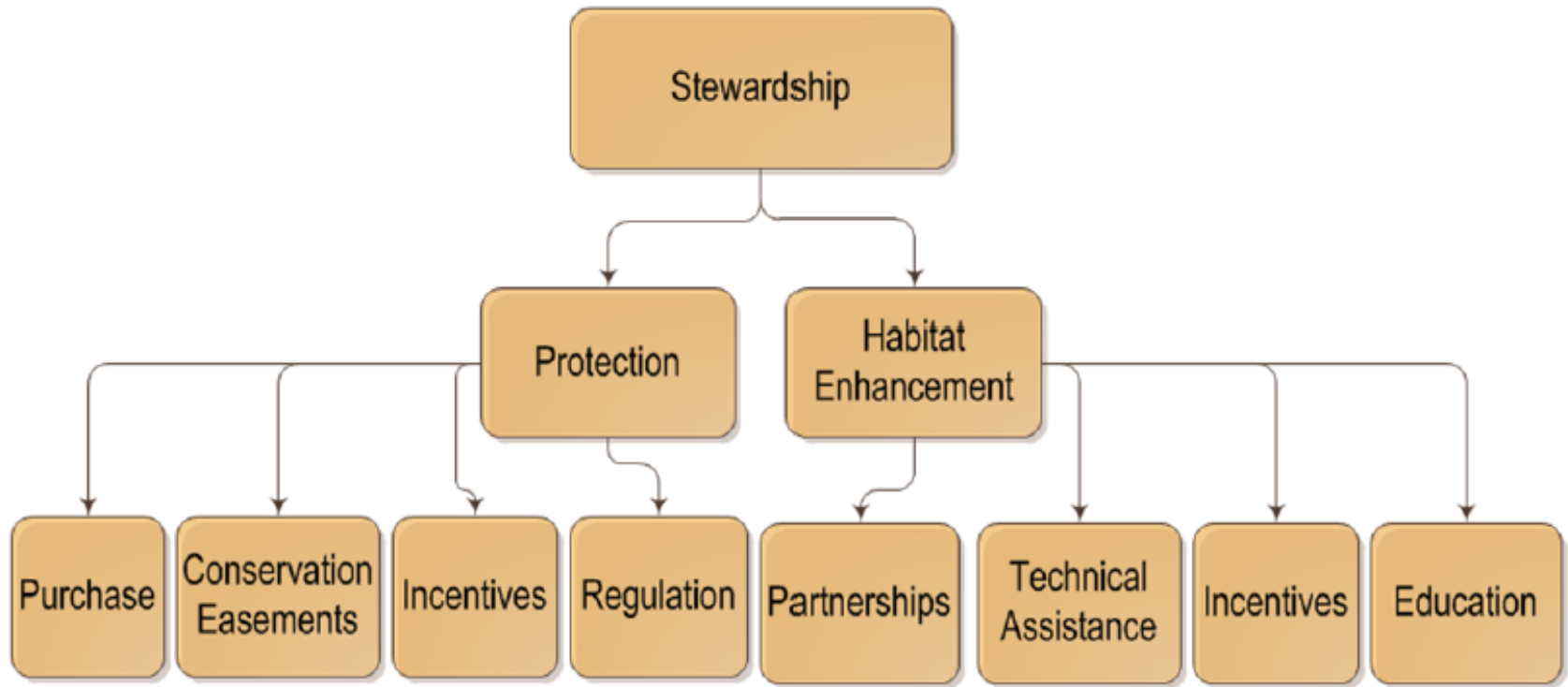
# Aquatic Habitat Stewardship

## Storm and Surface Water Utility

Habitat and Stewardship Strategy  
(2013)

Habitat Project Pilot - Public Works,  
Water Resources  
(2014-17)





# Aquatic Habitat Challenges

## Multiple Public/Private Ownership

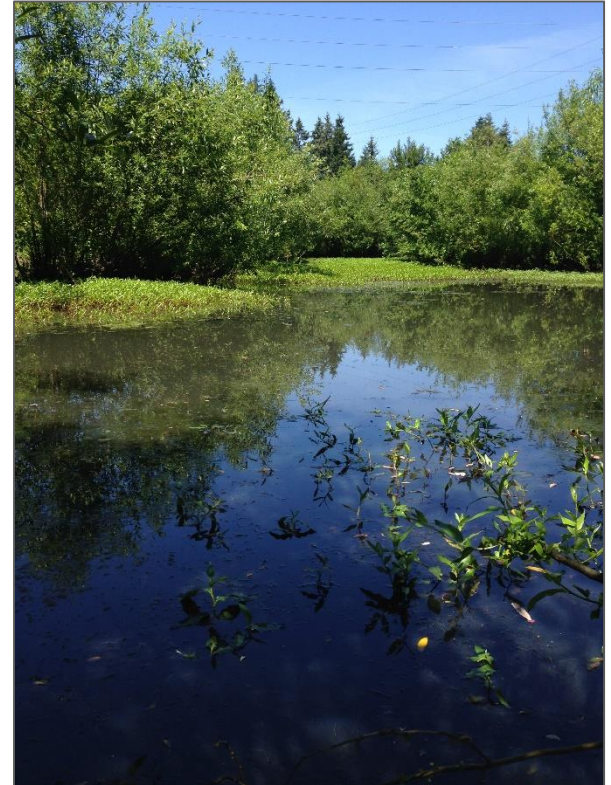
- The Utility must rely on voluntary programs to encourage stewardship on private properties.

## Habitat Fragmentation

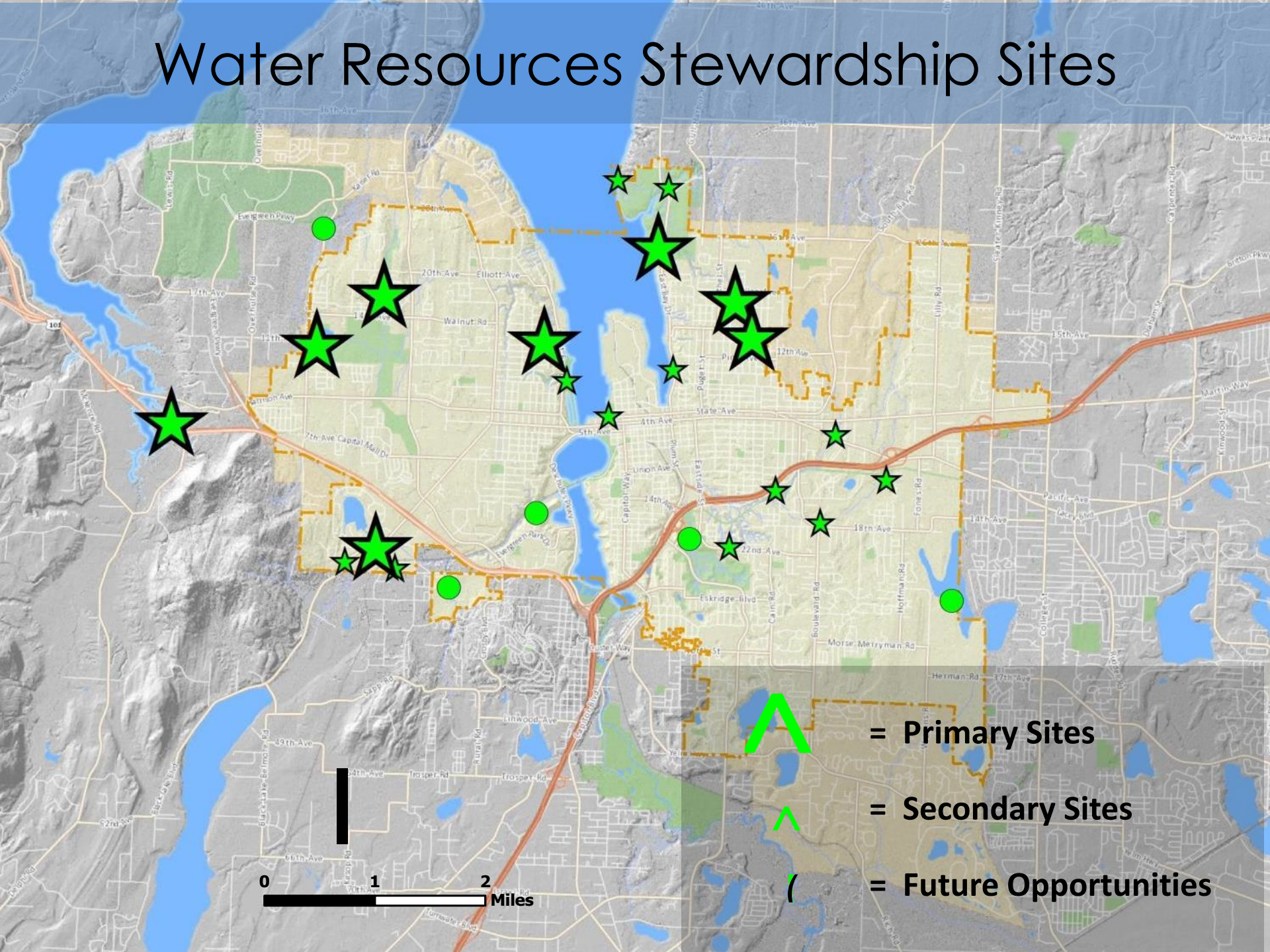
- Improving habitat on large tracts of land requires strategies that work across the landscape.

## Legacy Impacts of Urban Development

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



# Water Resources Stewardship Sites



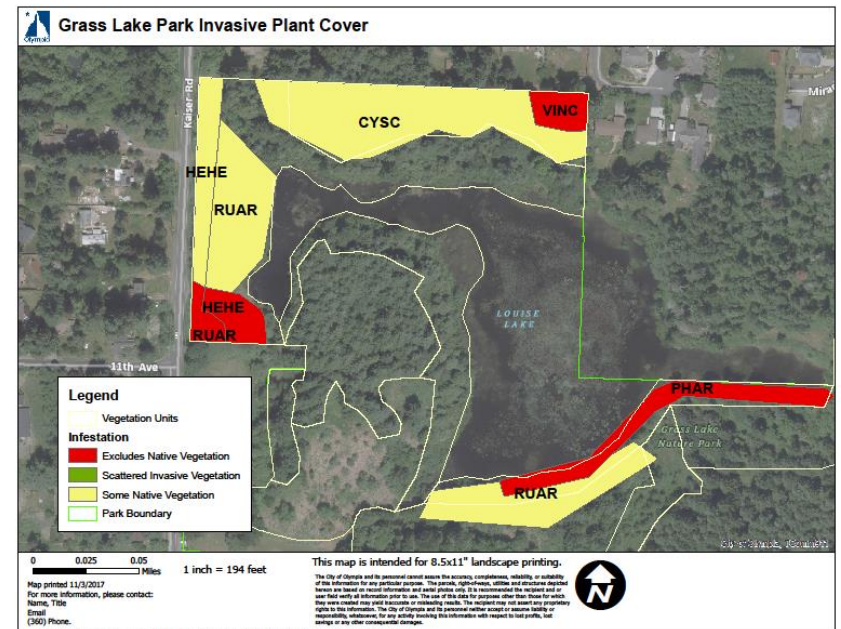
0 1 2 Miles

-  = Primary Sites
-  = Secondary Sites
-  = Future Opportunities

# Habitat Assessment and Planning

## Strategy 3-3

Develop and implement vegetation and habitat management plans for City-owned properties containing aquatic and associated habitat to improve habitat, protect water quality, and support native species.



# Ecological Assessments

- Large Public Properties (or Partners)
- Current vs. “desired future conditions”
- What can we impact?
- Prioritize work
- Management – not research



# Mission Creek Park Example

## Existing

- Mixed forest/meadow
- Low stand density
- Invasive trees in midstory and regenerating
- No snags, low CWD density
- Blackberry and Scot's broom in meadow

## Recommended

- Staged removal of invasive trees
- Underplant with native shrubs/trees
- Snag creation?
- Remove invasive shrubs
- Native pollinator plantings in meadow



# Mission Creek Park Example



Willow plantings  
headwater wetlands



# Stream Team

## Strategy 3-13

Provide outreach and education to the community around aquatic habitat, wildlife and ecosystem function (wetlands, streams, marine shoreline, lakes, buffers and associated wildlife).



# *Stream Team*

OLYMPIA • LACEY • TUMWATER  
THURSTON COUNTY



# Next Steps

## Draft Plan Availability and Public Comment

Mid-November 2017 to  
December 20, 2017

**(Draft plan available at [olympiawa.gov/sswplan](http://olympiawa.gov/sswplan))**

UAC Recommended Action: January  
4, 2018

## Land Use and Environment Committee

November 16, 2017 - Briefing  
January 18, 2017 –  
Recommended Action

## Public Hearing

February 2018





# Questions?

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olympiawa.gov

