



Jesse Barham

City of Olympia, Environmental Services

Protecting and Restoring Urban Wetlands for Community Benefits



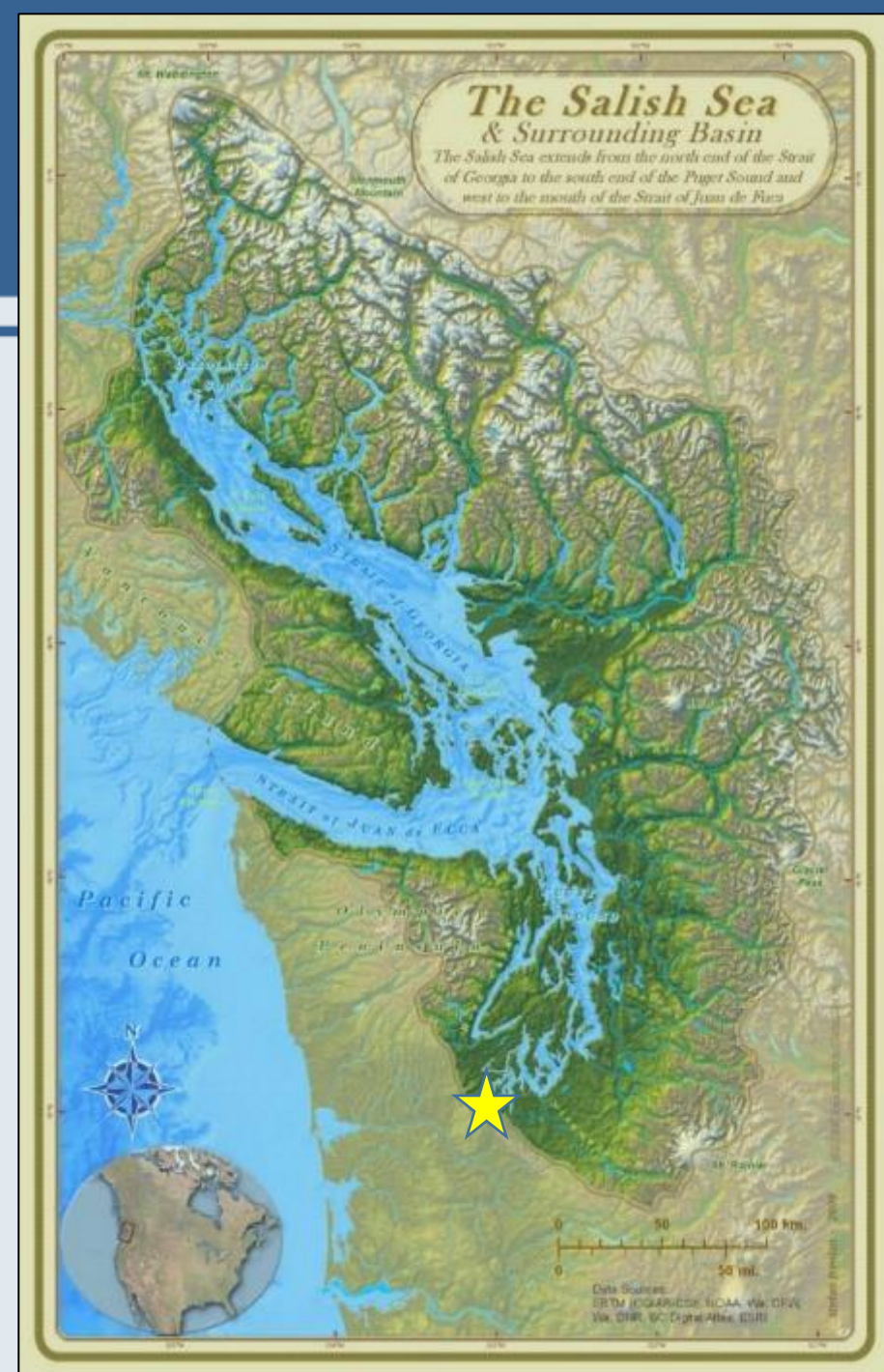
Urban Wetlands in Olympia

March 25, 2021

Landscape Context

Olympia, Washington

- Southern tip of Puget Sound/Salish Sea
- Formerly glaciated landscape/soils
- Washington's Capital City in Thurston County
- ~50,000+ population
- 0 - 380 feet in elevation
- 20 square miles (~90% land., ~10% water)
- ~680 ac of NWI mapped wetlands
- 8 small streams
- Mouth of Deschutes River (currently Capitol Lake)



Regulatory/Policy Context

Federal Clean Water Act

Sections 401 (WA Dept of Ecology)/404 (USACE)

NPDES Phase 2 - MS4 Permit

WA Growth Management Act

City Comprehensive Plan Critical Areas Ordinance

Shoreline Management Act

Olympia Shoreline Master Program

WA Water Pollution Control Act



Policy Context continued....

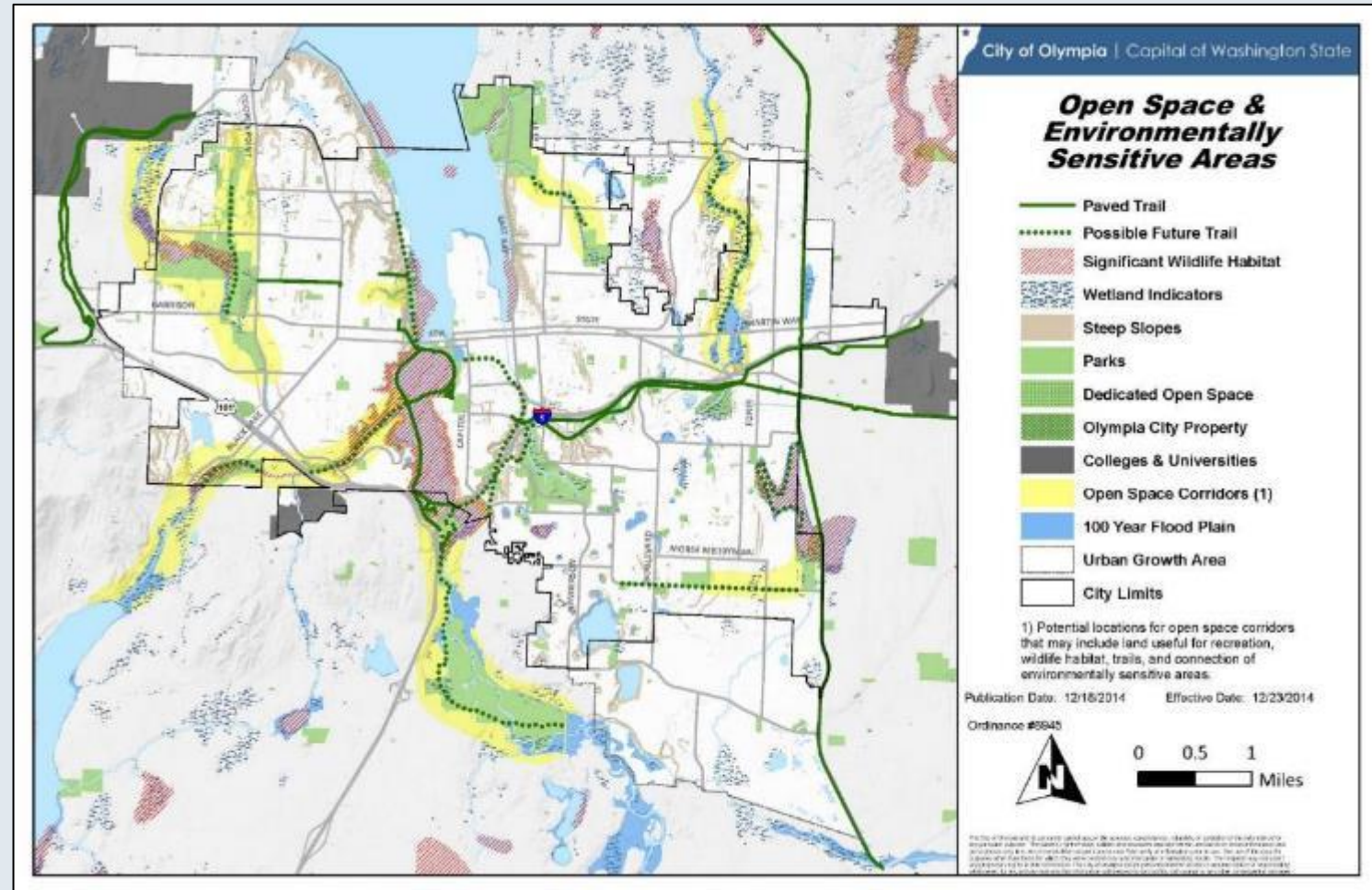
Comprehensive Plan Goals

Natural Environment

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

GN4 - The waters and natural processes of Budd Inlet and other marine waters are protected from degrading impacts and significantly improved through upland and shoreline preservation and restoration.

GN6 - Healthy aquatic habitat is protected and restored.



Critical Areas Ordinance (CAO) and Shoreline Master Program (SMP)

CAO (2016 update) – Protects streams and riparian areas, wetlands, important habitats and species, landslide hazards, and wellhead protection areas.

SMP (updated in 2015) – Protect biology, ecology and water quality; provide public access; and prioritize water dependent uses.



Storm and Surface Water Plan

2018 Update

- “Goal 3 Protect, enhance, and restore aquatic habitat functions provided by wetlands, streams, lakes, marine shorelines, and riparian areas.”
- 16 specific strategies to achieve this goal.
- Community surveys show congoing support for aquatic habitat work by utility.



Habitat Planning

1994 – City of Olympia Wildlife Habitat Study – Baseline Study

1999 – Aquatic Habitat Evaluation and Management Report

2003 – Storm and Surface Water Plan

2010 – GIS Basin Analysis

2013 – Habitat and Stewardship Strategy

Identified remaining “habitat” areas across Olympia

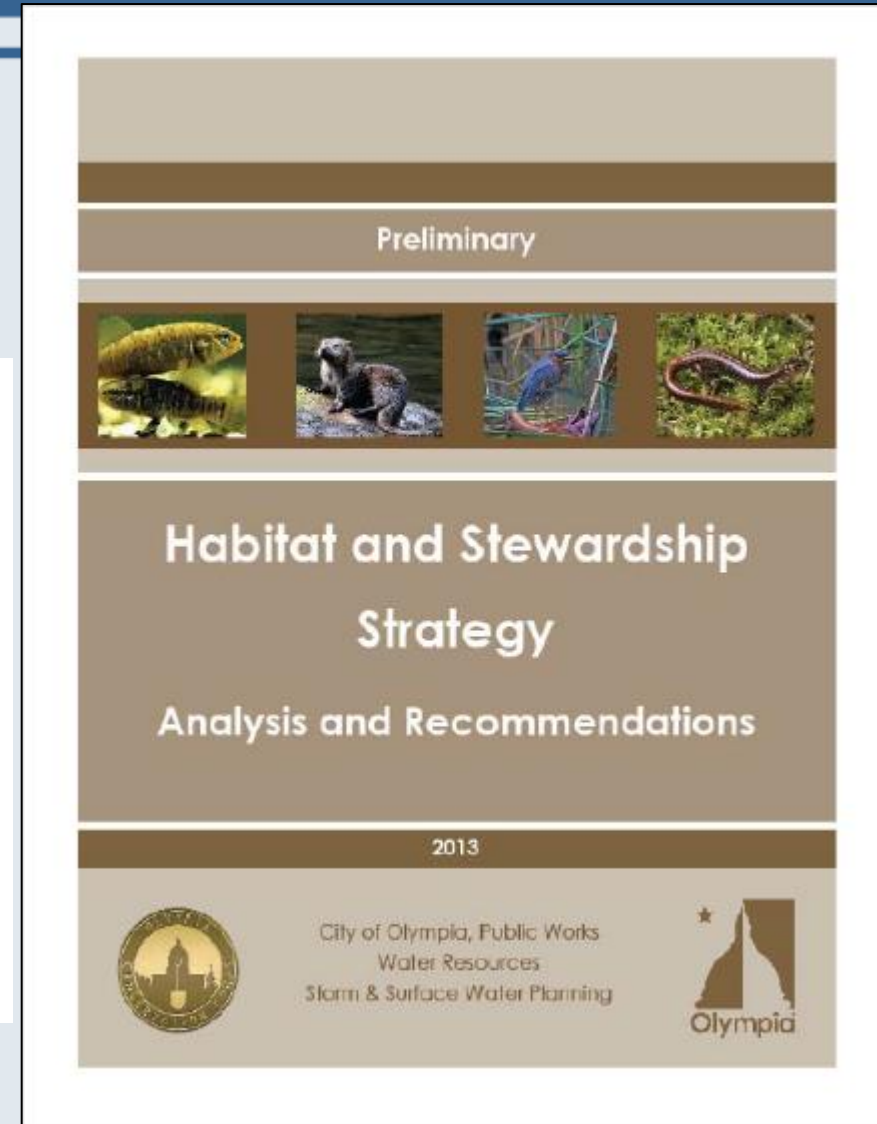
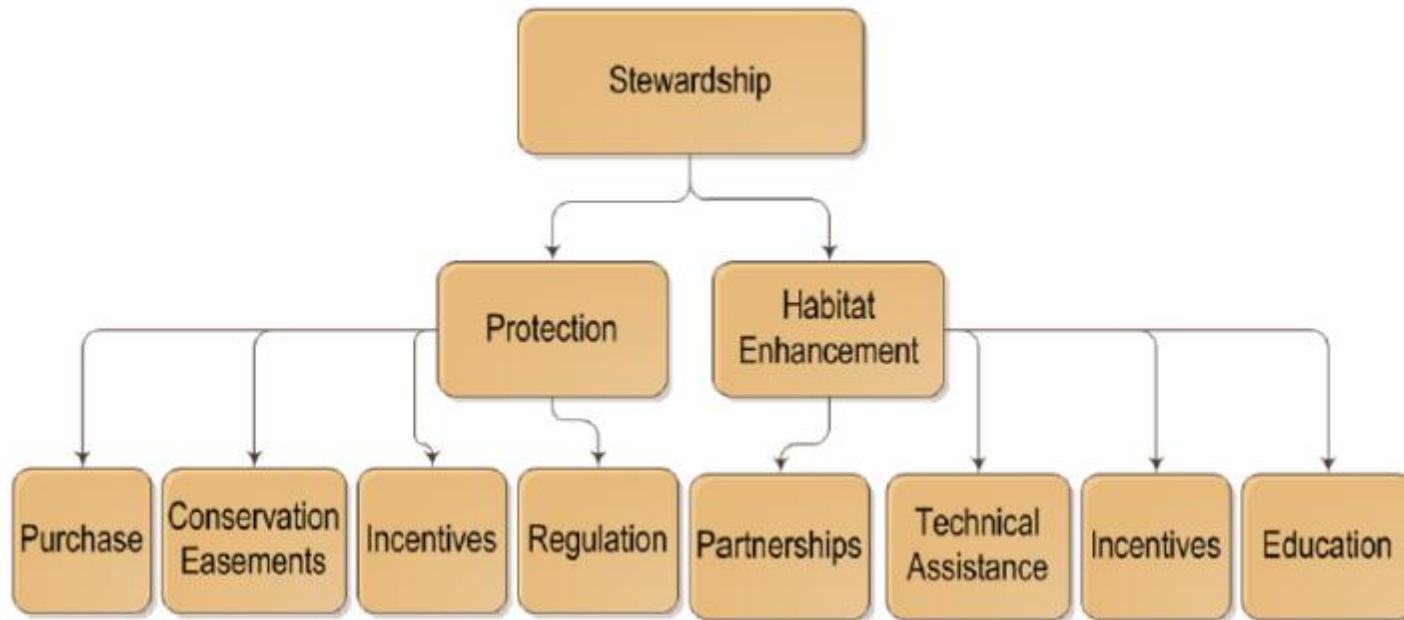
2018 - Storm and Surface Water Plan update

Integrated aquatic habitat work more fully into Utility



Past Planning

2013 Habitat and Stewardship Strategy



Funding and Partnerships

SSW Utility Habitat Resources

- 1 Environmental Habitat Planner
- 1 Senior Habitat Biologist - Stream Team Outreach
- 1 Habitat Specialist
- 6 seasonal vegetation crew
- Potential for capital projects

Partners

- Charter between Departments defining roles
- Olympia Parks Arts and Recreation
 - Parks Dept Stewardship Program
 - Parks Planning
- Local schools (K-12 and Colleges)
- Community Groups and Neighborhoods



Scope and Strategies

Focus on Aquatic Habitats (streams, shorelines, wetlands and buffers)

Public Works Properties

Park's Properties

Private Properties (*HOAs, residential*)

Technical Support

Education and Outreach via Stream Team and

Partnership events

(e.g. Arbor Day, MLK Day of Service)

Mission Creek Park

360 acre Mission Creek watershed

37-acre park w/15 acres of headwater wetland

2015

Assessment with recommendations for a multi-year partnership to implement w/Parks and SSW

2015-2018

Crew - site prep and invasive species control.

Volunteers installing willow and woody plantings

2018

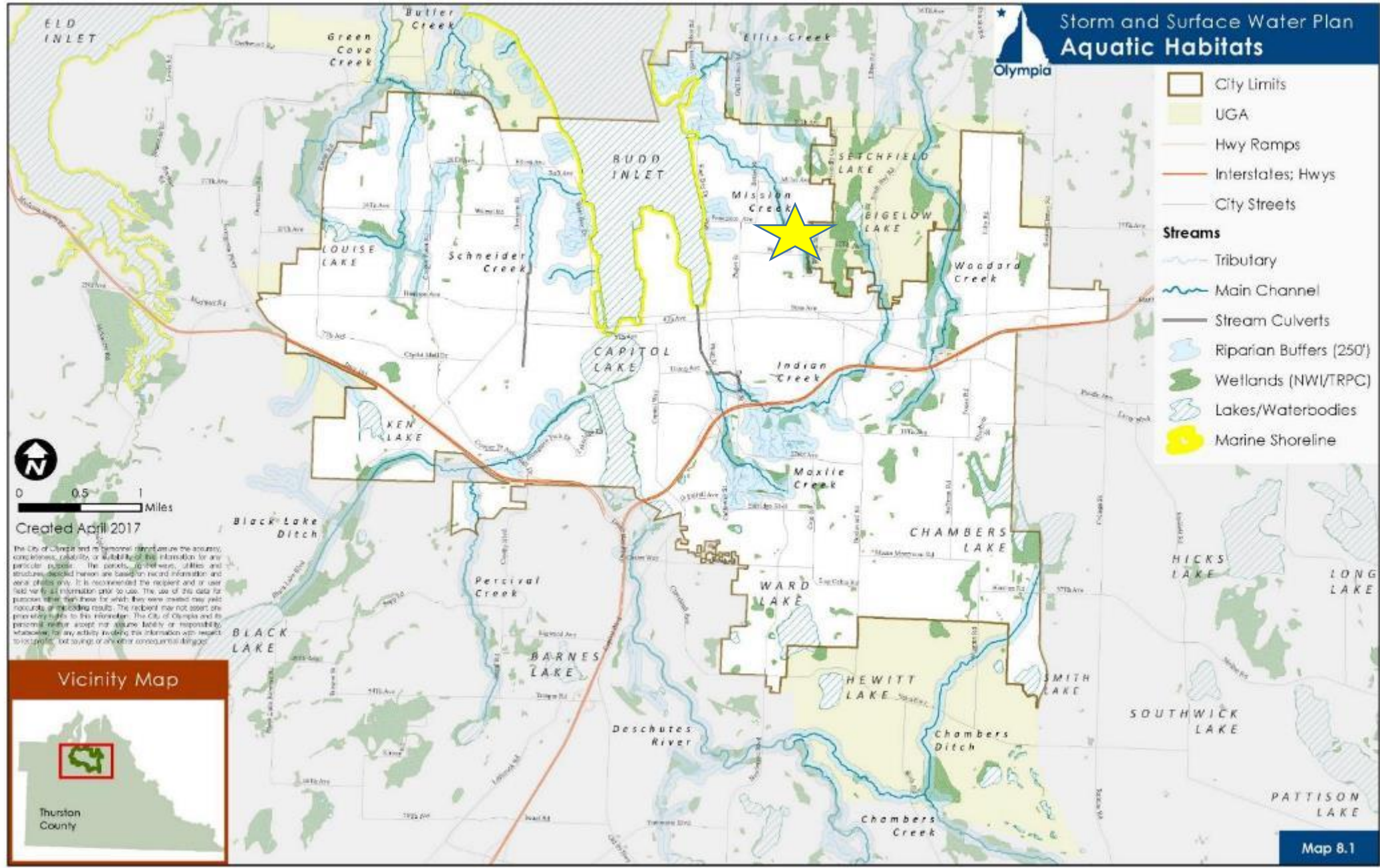
Summary Report of work to date



Storm and Surface Water Plan Aquatic Habitats

Olympia

-  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



0 0.5 1 Miles

Created April 2017

The City of Olympia and its personnel do not warrant the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The contents, opinions, advice, and structures depicted herein are based on recent information and aerial photos only. It is recommended the recipient and/or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept nor assume liability or responsibility whatsoever for any activity involving this information with respect to its profits, lost savings, or any other consequential damages.



Map 8.1



Map 1: Mission Creek Nature Park

Vegetation Management Units & Sample Plot Locations



0 0.0425 0.085 1 inch = 328 feet
Miles

Map printed 7/16/2015
For more information, please contact:
Name, Title
Email
(360) Phone.

This map is intended for 8.5x11" landscape printing.

The City of Olympia and its personnel cannot assure the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The parcels, right-of-ways, utilities and structures depicted herein are based on record information and aerial photos only. It is recommended the recipient and/or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept or assume liability or responsibility, whatsoever, for any activity involving this information with respect to lost profits, lost savings or any other consequential damages.



RCG to Willows



2018



2021

Wetland Buffer Enhancement



2017-18

Buffer Establishment

1.5 acre Wetland buffer enhancement

1200 woody plants installed in 2018

Competition control trials

Shrub and Forested blocks to preserve view corridors



Existing Buffer Enhancement

Invasive control

(English hawthorn, blackberry and holly)

Underplanting with natives

(e.g. Western red cedar, vine maple)



Work Accomplished

Summary Report (2015-2018)

Conversion of RCG to willow thickets (3.5 acres)

Improve wetland buffer conditions

- Blackberry, holly, hawthorn removals (5+ acres)

- Under-planting native species (e.g. cedar)

- Expand woody buffer - 1.5 acres woody plants

Installed over 6700 native plants and 2.25 lb native seed

5 large events involving 349 volunteers



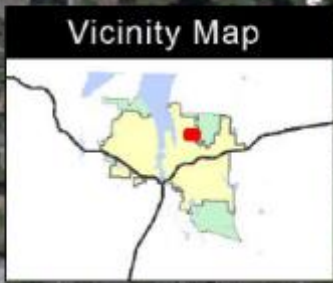


Mission Creek Nature Park Habitat Enhancement Activities

2015 - 2018



	Forest
	Pollinator
	Pond
	Shrub
	Understory
	Wetland
H_TYPE	
	VMU 1: Forest
	VMU 2: NE Meadows & Forest
	VMU 3: Wetlands
	VMU 4: SW Meadows



0 225 450 Feet 1 inch = 167 feet

Map printed 9/7/2018
 For more information, please contact:
 Jesse Barham, Habitat Planner
 jbarham@ci.olympia.wa.us
 (360) 753-8164

This map is intended for 11x17" landscape printing.

The City of Olympia and its personnel cannot assure the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The parcels, right-of-ways, utilities and structures depicted herein are based on record information and aerial photos only. It is recommended the recipient and/or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept or assume liability or responsibility, whatsoever, for any activity involving this information with respect to lost profits, lost savings or any other consequential damages.



Lessons Learned for Urban Areas

Partnerships and Community Support

Adjacent jurisdictions (outreach and watershed planning)

City departments - (Parks, Public Works, Planning)

Community groups - (Neighborhoods, Non-Profits)

Local schools - (K-12, Colleges and Universities)

Private Citizens - (Landowners and Volunteers)

Technical assistance and labor

More gets done when working together!



Thanks!

Jesse Barham jbarham@ci.olympia.wa.us

[Olympiawa.gov/waterplans](https://olympiawa.gov/waterplans)