



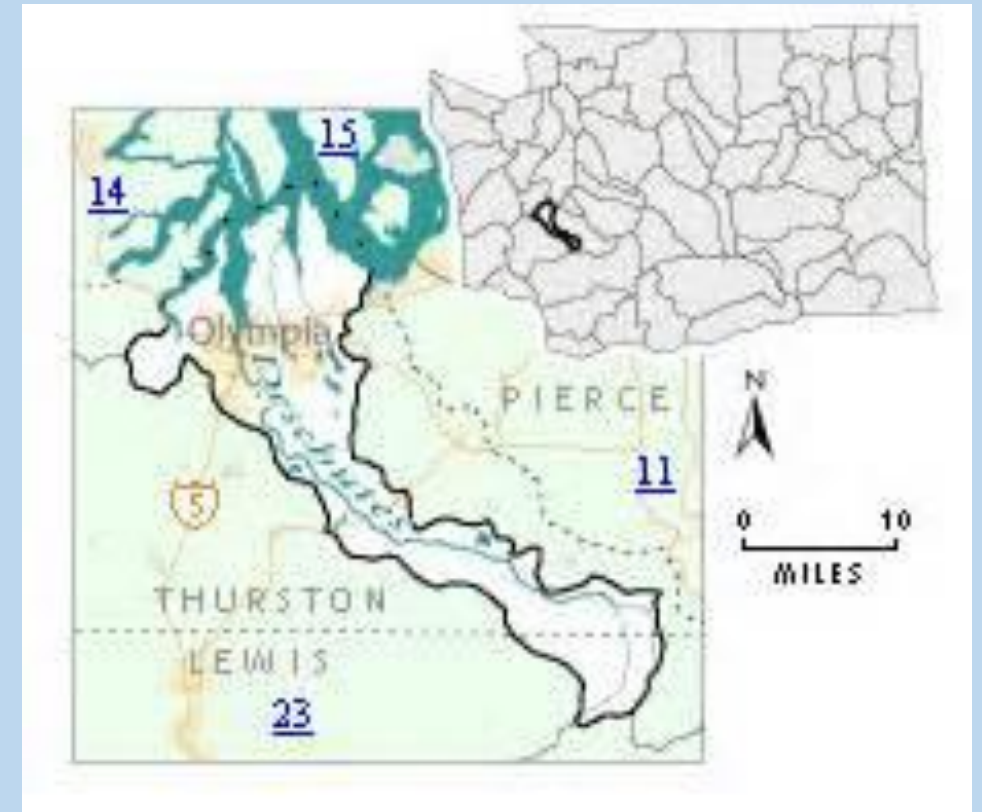
# Deschutes Watershed Land Use Analysis

## Project Overview

Workgroup Meeting #1  
December 11, 2015

# Grant project overview

- **Grant Funding:** EPA's National Estuary Program Watershed Protection and Restoration Grant - through Ecology and Commerce
- **Who:** Thurston County and Thurston Regional Planning Council
  - Cities of Olympia, Rainier, and Tumwater
  - Squaxin Island Tribe
- **Where:** Deschutes River watershed in TC
- **When:** June 15, 2014 – Dec 31, 2016





# Project overview

- **Why are we doing this project?**
  - Deschutes River is a regionally important water body
  - Variety of land uses and wildlife habitat
  - Suffering from ongoing water quality concerns
  - Future growth pressure likely to increase problems
  - Address and plan for future land use now, before projected growth increases issues



# Project overview

- **What is the project?**

- Proactive watershed planning to develop and implement changes to land use and development regulations in the Deschutes River watershed

- **What is the project goal?**

- Reduce impacts to water quality and quantity from existing and future development
- By developing land use to direct growth away from areas with properly functioning ecological processes and lesson the impact on areas that do develop

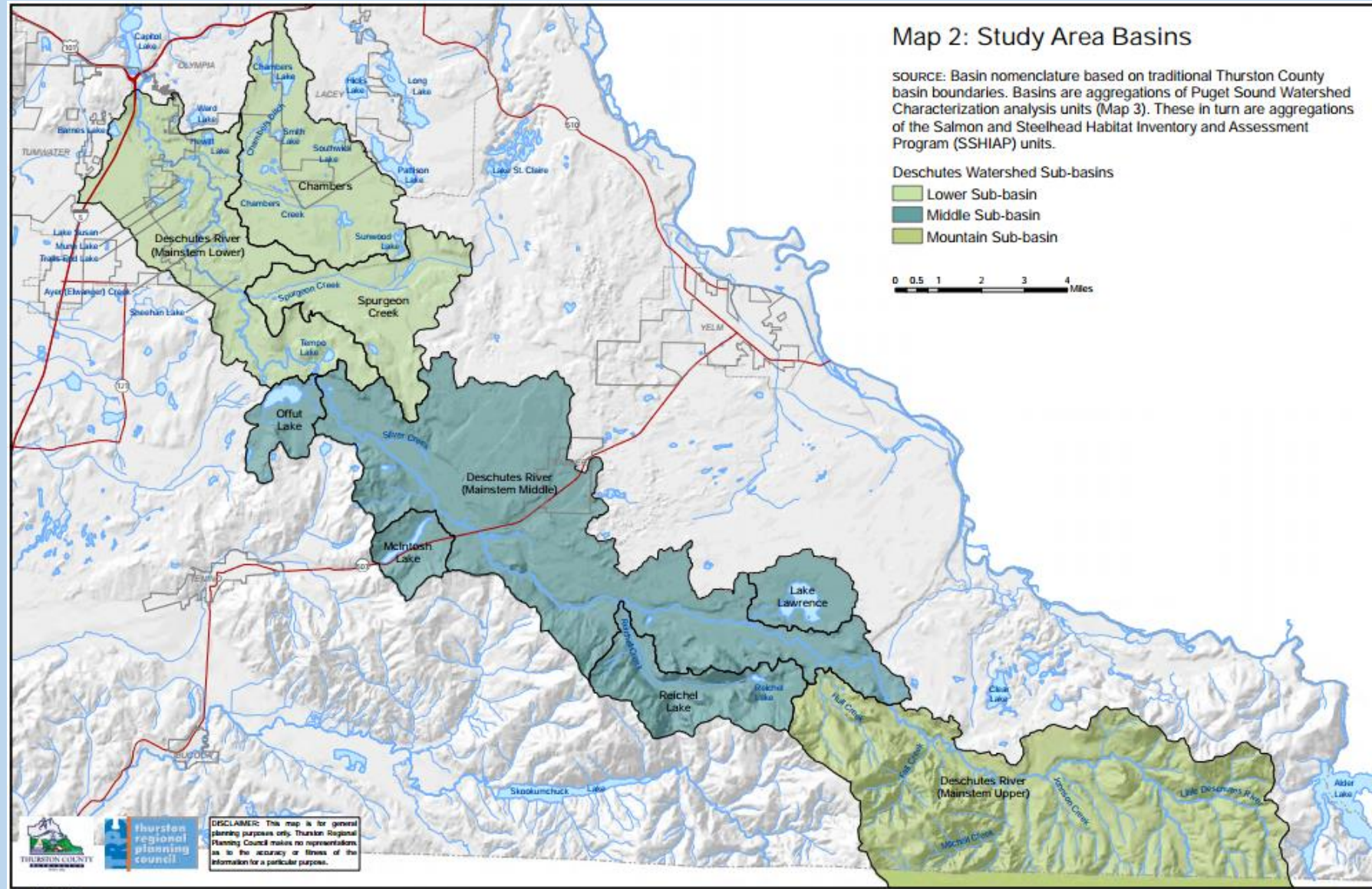




# Project Study Area

For this study, the Deschutes River watershed has been broken into three sub-basins – lower, middle, and upper.

The study area for this project does not include Capitol Lake or Percival Creek





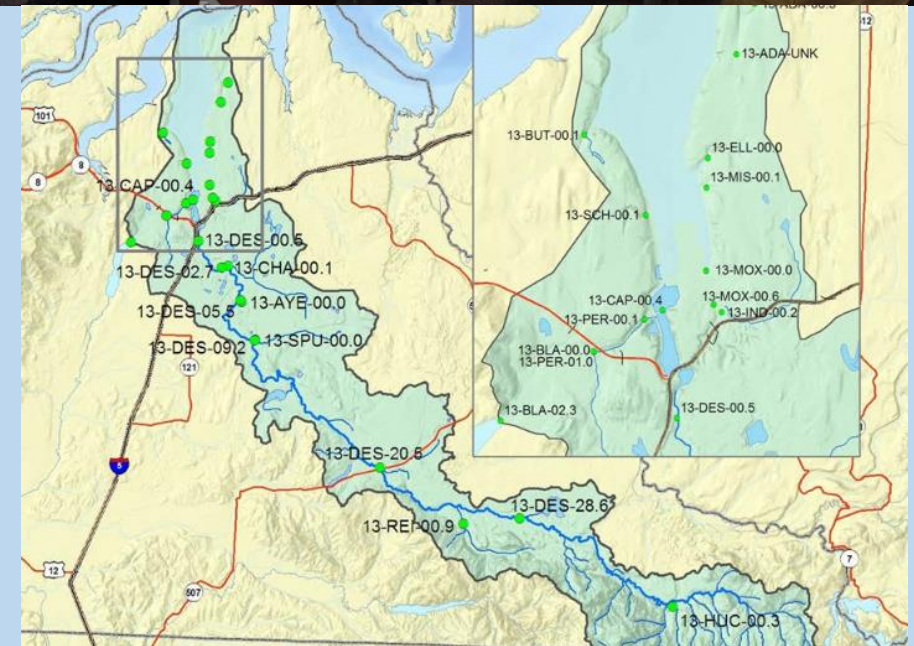
# Project Methods

## 1. Data gathering and assessment

- Assemble and synthesize data for study area to inform development of different land use management options

## 2. Coordination and outreach

- Workgroup: partners, jurisdictions, agencies and organizations, stakeholders, technical experts, residents of the watershed



# Project Methods

## **3. Develop and analyze alternative future land use scenarios**

- Up to four land use scenarios
- Model future land use scenarios to estimate impact

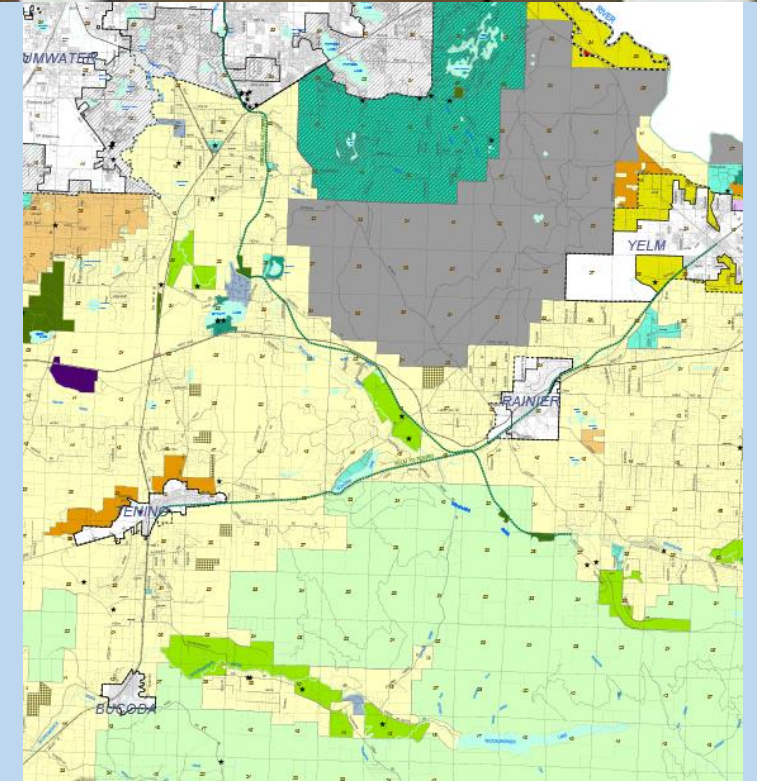
## **4. Scientific and Technical Review**



# Project Methods

## 5. Integrate results into land use plans

- Inform the County Comp Plan 2016 update
- Propose changes to zoning and development codes
- Implement proposed changes through public process





# Role of the Workgroup

- Consider and evaluate different land use management options
- Direction on possible future scenarios
- Input on modeled scenarios
- Provide a suite of recommended land use policies/preferred scenarios



# Current Conditions

- Land Cover:
  - Upper watershed mostly forest
  - Middle watershed mix of forest, pasture and grasslands
  - Lower watershed low-medium intensity development
- Land Uses:
  - Upper watershed mostly timber with some residential and agriculture
  - Middle watershed mostly agriculture, rural residential, and timber
  - Lower watershed mostly urban
- Population centers rely on groundwater sources for drinking water





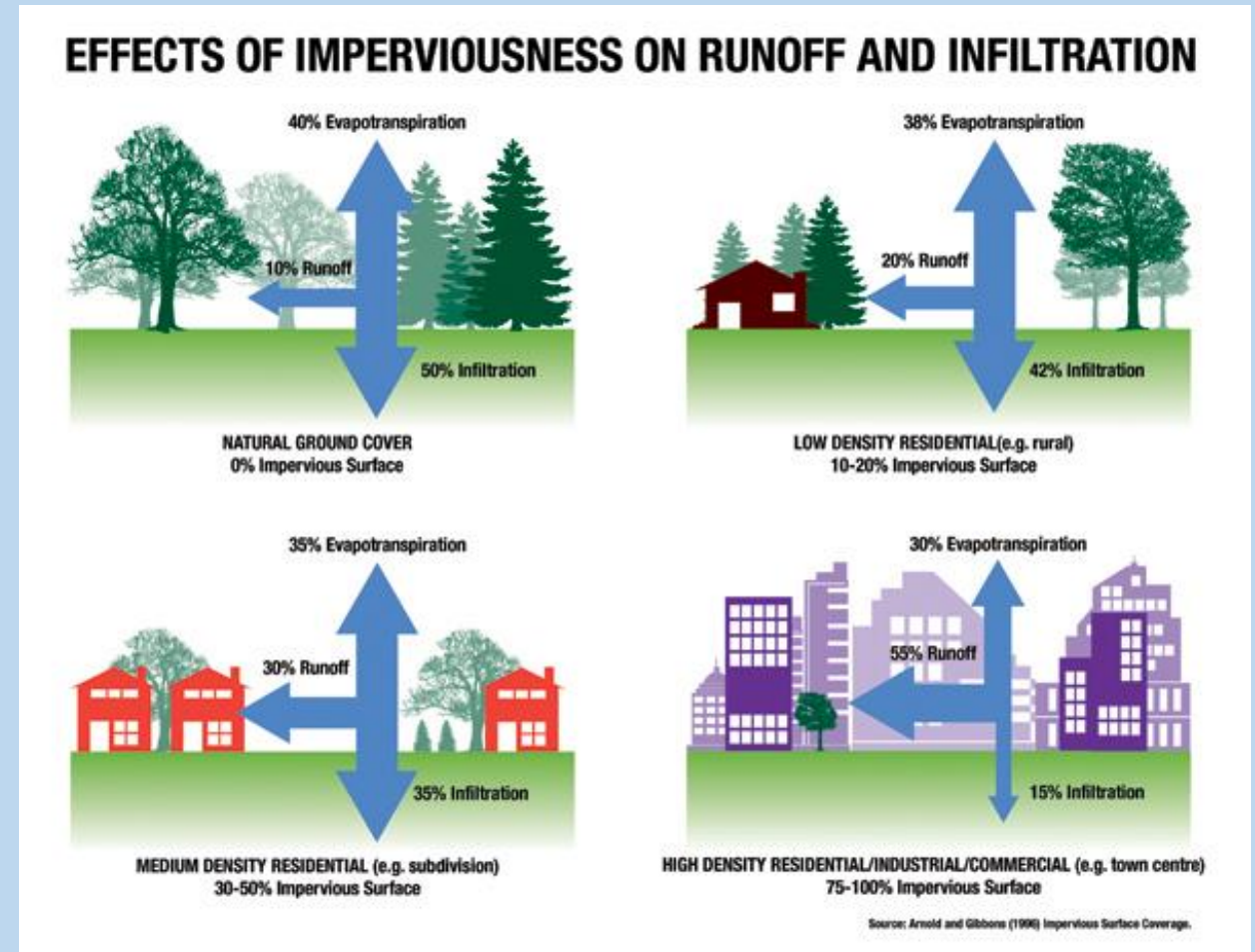
# Current Conditions

- Main water quality issues:
  - Temperature
  - Bacteria
  - Fine sediment
  - Dissolved Oxygen and pH
- The Deschutes water clean-up plan identified urbanization as a key contributor of water pollution
- Recommended potential management activities



# Current Conditions

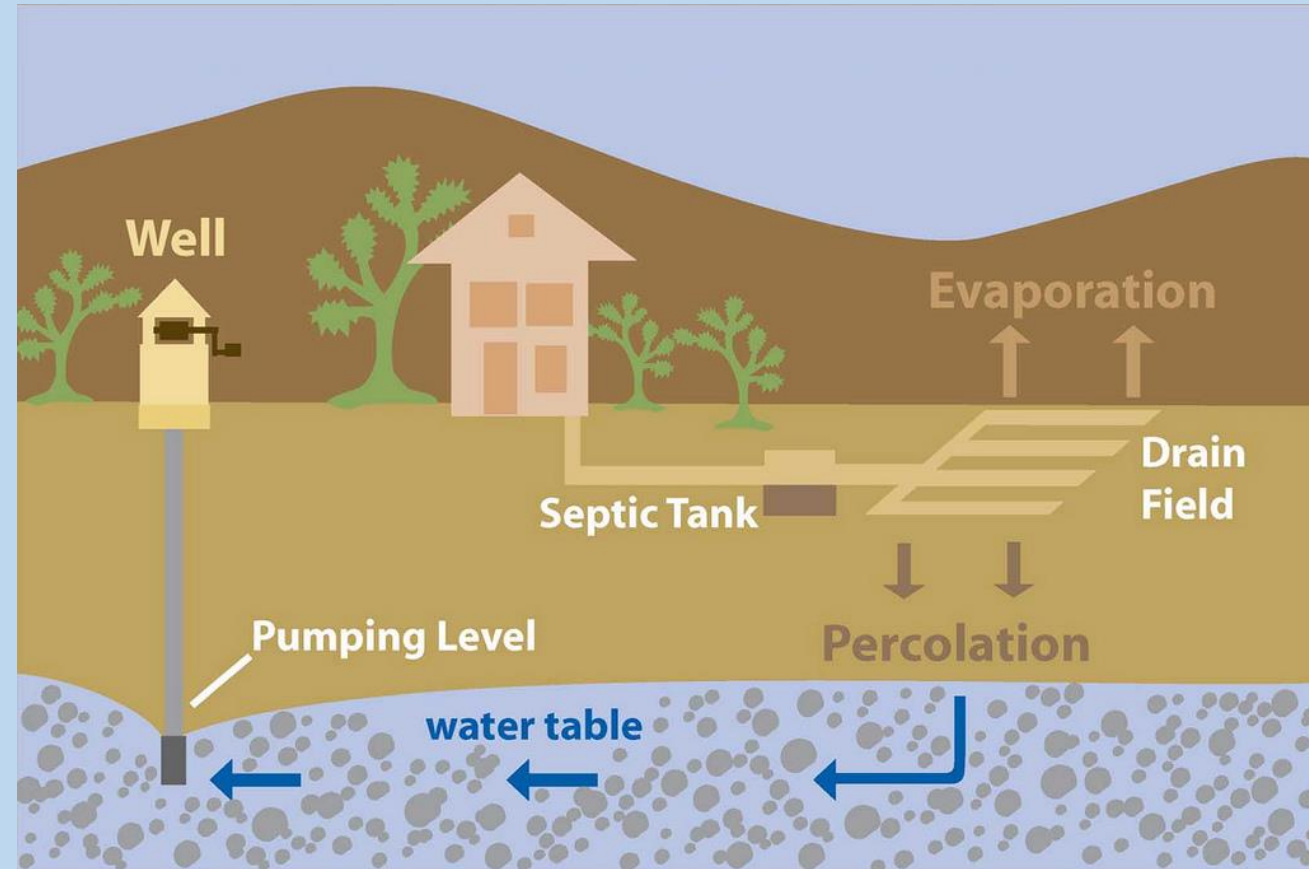
- Projected residential development will increase pollution loads
  - ↑ Impervious area
  - ↑ Polluted stormwater runoff
  - ↑ Demand for groundwater
  - ↑ Total number of units on septic
  - ↓ Reduce forest cover





# Current Conditions

- Under current zoning, nearly 2,240 additional acres of impervious surfaces and more than 13,300 new homes could be added
- Many of these likely in rural areas with septic systems
  - Houses on septic release ~8x more nitrogen than a home on sewer system



# Current Conditions

- Puget Sound Watershed Characterization
  - Tool to identify important areas to protect and restore
  - Priority management recommendations

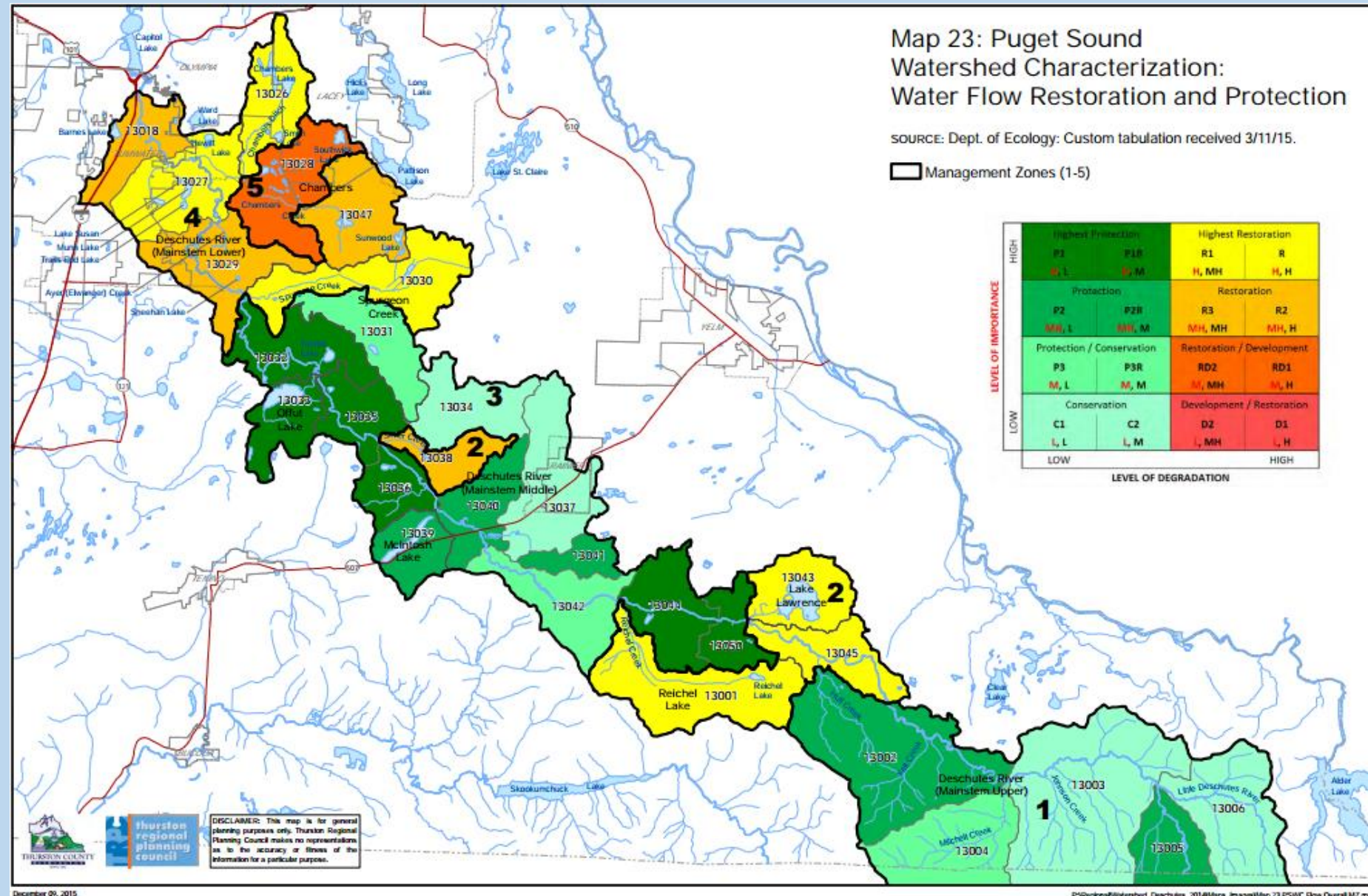
LEVEL OF IMPORTANCE

HIGH	Highest Protection P1 H, L	Highest Protection P1R H, M	Highest Restoration R1 H, MH	Highest Restoration R H, H
	Protection P2 MH, L	Protection P2R MH, M	Restoration R3 MH, MH	Restoration R2 MH, H
	Protection/ Conservation P3 M, L	Protection/ Conservation P3R M, M	Restoration/ Development RD2 M, MH	Restoration/ Development RD1 M, H
	Conservation C1 L, L	Conservation C2 L, M	Development/ Restoration D2 L, MH	Development/ Restoration D1 L, H
	LOW	LOW		
LEVEL OF DEGRADATION				



# Recommended Study Focus Areas

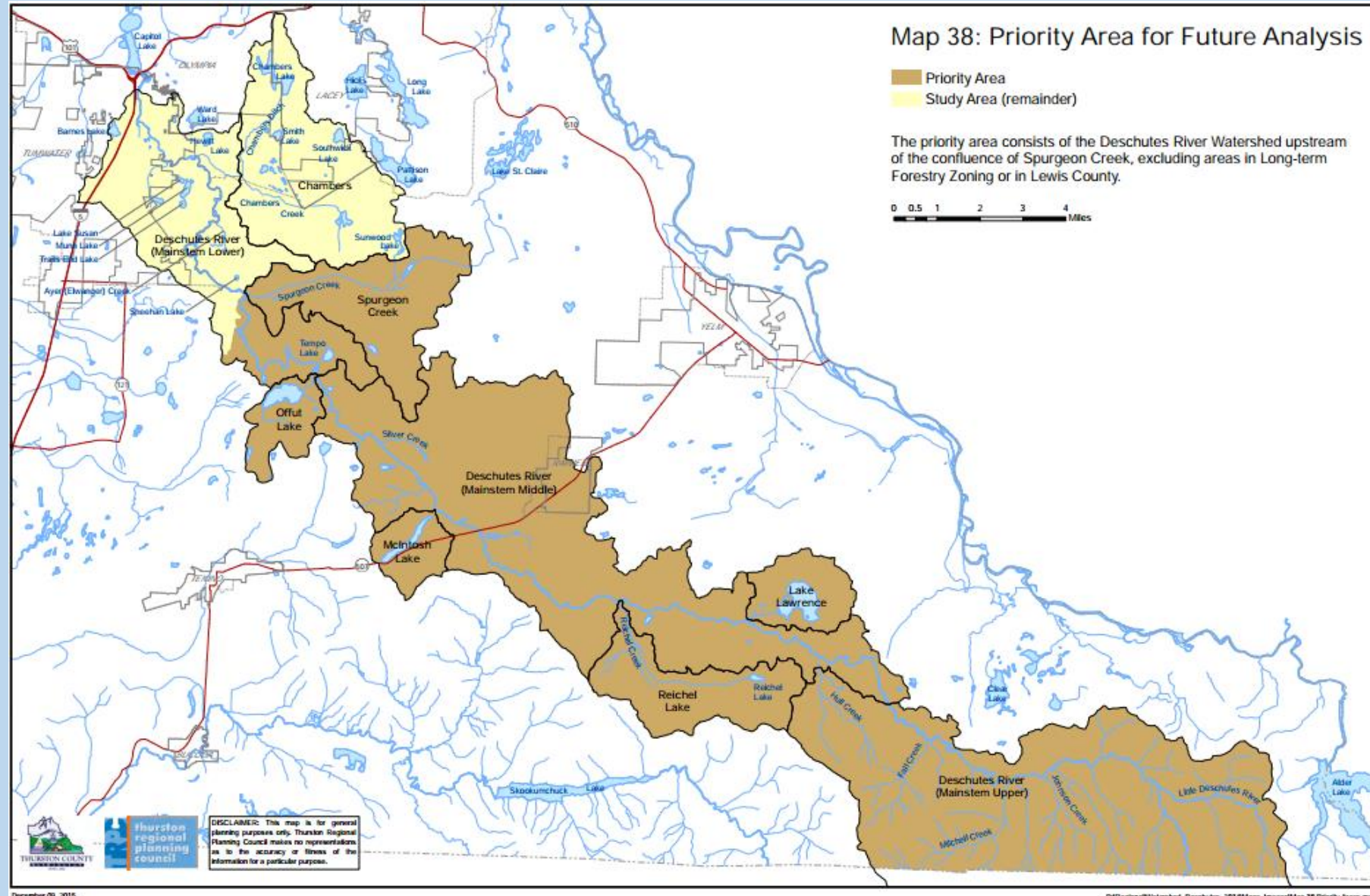
Focus on areas identified for protection or conservation, and restoration that are upstream of an area identified for protection (zones 1, 2, and 3), and Spurgeon Creek





# Priority Area for Future Analysis

The priority area consists of the Deschutes River Watershed upstream of the confluence of Spurgeon Creek, excluding areas in Long-term Forestry Zoning or in Lewis County.



# Summary of Risks from Future Development

- Impervious surfaces
- New septic systems
- Loss of forest cover
- Loss of farms
- New wells





# Project Summary

- **Project Goal:**

- Proactive watershed planning to develop and implement changes to land use and development regulations in the Deschutes River watershed

- **Results:**

- Suit of recommended future scenarios
- Modifying development regulations and zoning
- Implement proposed changes through public process

