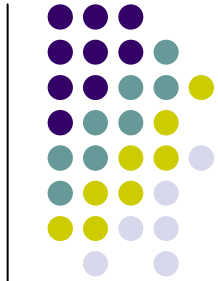
How are water quality standards used in Oregon?

An overview

DEQ Programs applying water quality standards

1) National Pollutant Discharge Elimination System (NPDES)
2) Nonpoint source management
3) Listing of impaired waterbodies
4) Total Maximum Daily Loads (TMDL)
5) 401 water quality certifications
6) Cleanup activities

NPDES permitting



- Domestic wastewater treatment - *(individual permits)*
  - 63 major facilities (>1 million gallons per day)
  - 183 minor facilities (< 1 million gallons per day)

- Industrial Facilities - *(individual permits)*
  - Mining, sawmills, woodtreating, pulp and paper, smelting, etc...
  - 30 major facilities
  - 165 minor facilities

- Stormwater - *(individual and general permits)*
  - Industrial (mining, textile, lumber, metal, electronic, transportation)
  - Construction (over 1 acre of disturbance)
  - Municipal (MS4s) (Phase 1 and 2 communities)

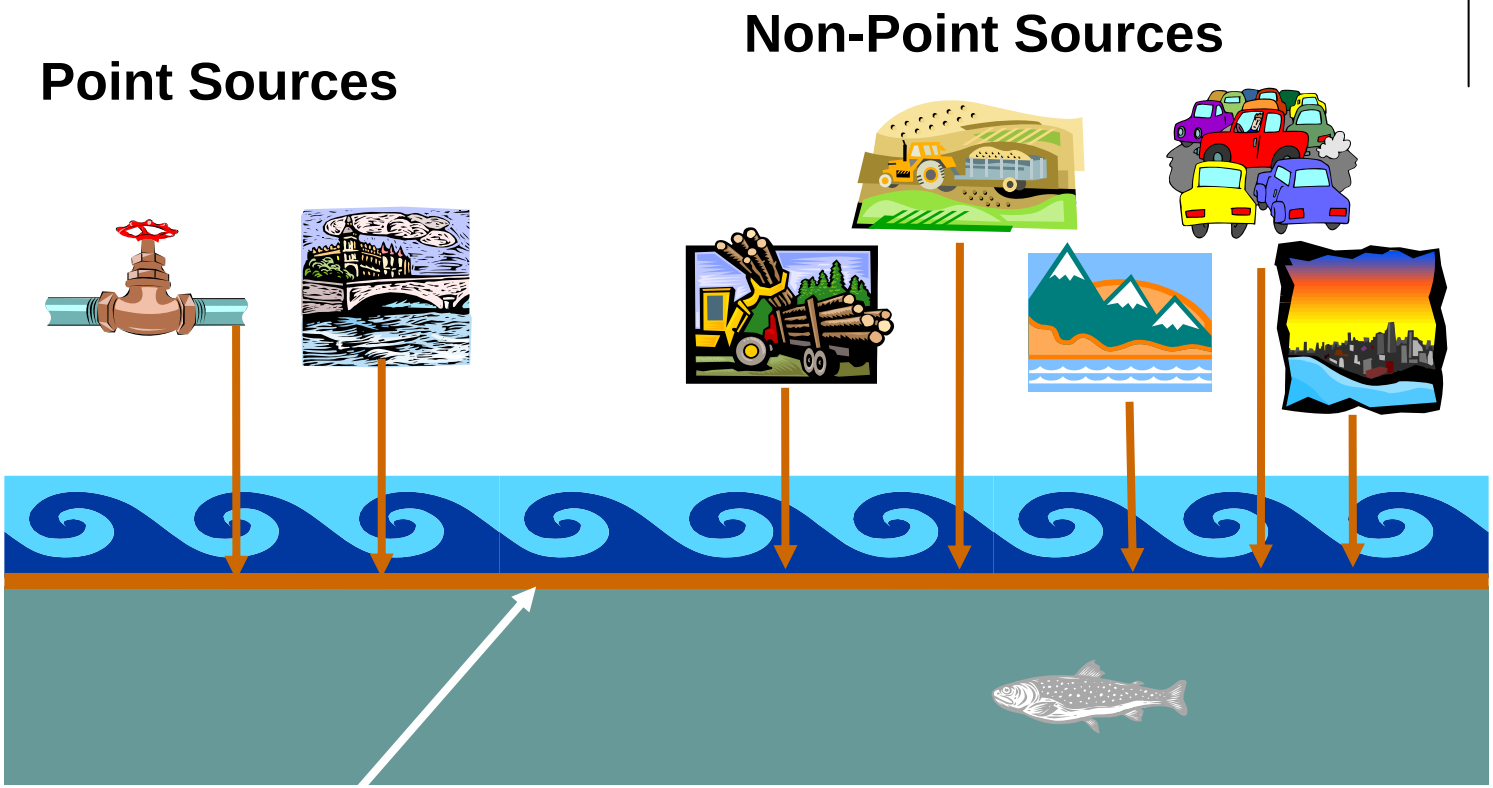
Nonpoint Source Pollution Management

- Agriculture
  - Senate Bill 1010 (Agricultural Water Quality Management Plans)
- Forestry
  - Oregon Forest Practices Act (FPA)
- Urban environments
  - Managed through our stormwater permitting program
  - City and county ordinances

Listing impaired waters

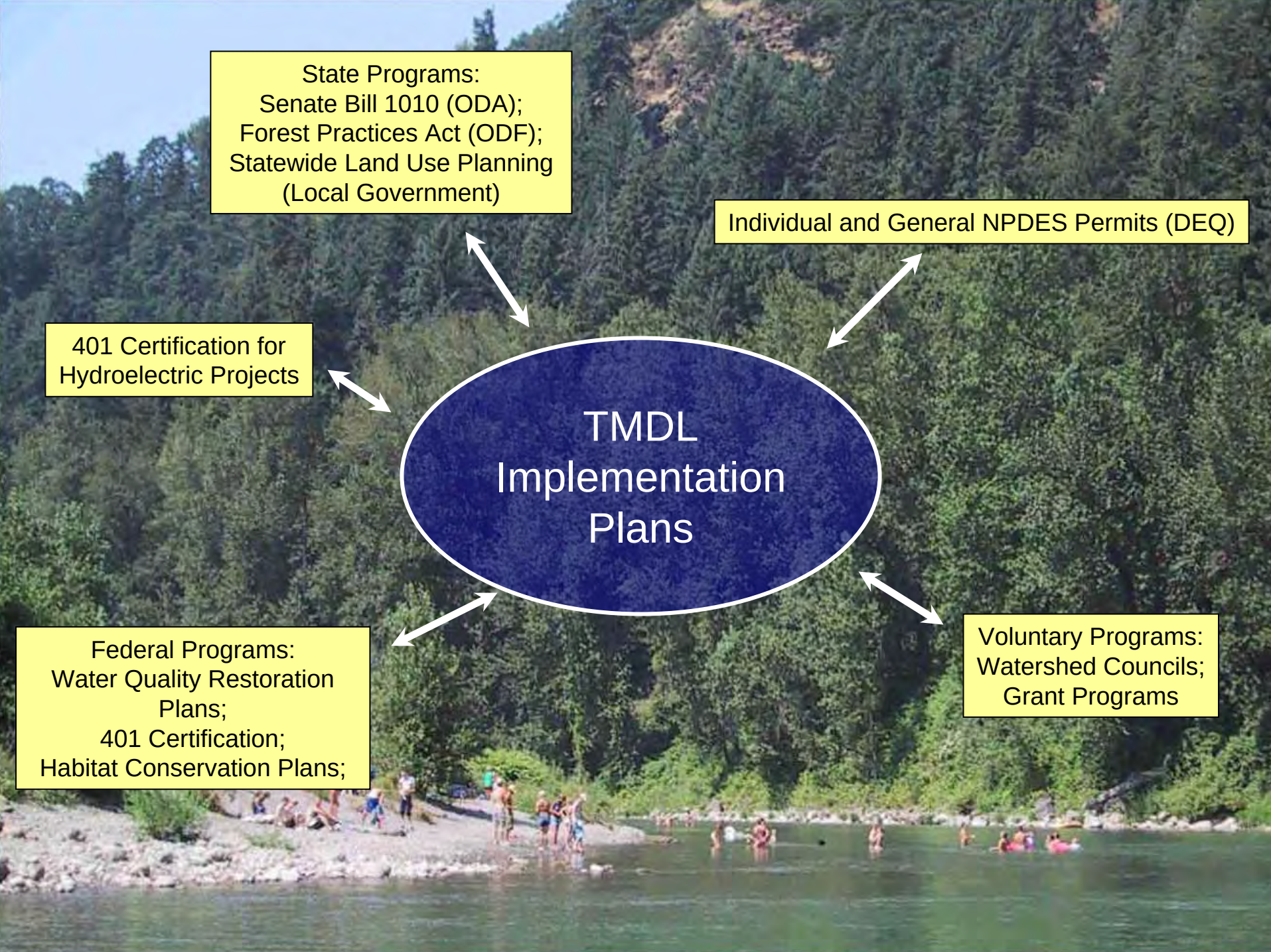
- Every 2 years, DEQ reviews the available data for Oregon waters to determine if water quality standards are attained
  - If the data shows that toxic standards are not met, the waterbody is included on a list of impaired waters (303d list)
  - DEQ then must develop a TMDL for the waterbody, which is essentially a “plan of action” for bringing the waterbody back into compliance with water quality standards

Total Maximum Daily Loads



$$TMDL = WLA + La_{np} + La_{bs} + MOS + RC$$

Waste Load Allocation (Point Source)	Load Allocation Non-point Source	Background Source	Margin of Safety	Reserve Capacity


State Programs:
Senate Bill 1010 (ODA);
Forest Practices Act (ODF);
Statewide Land Use Planning
(Local Government)
Individual and General NPDES Permits (DEQ)
401 Certification for
Hydroelectric Projects
TMDL
Implementation
Plans
Federal Programs:
Water Quality Restoration
Plans;
401 Certification;
Habitat Conservation Plans;
Voluntary Programs:
Watershed Councils;
Grant Programs

Water quality certifications

(section 401 of Clean Water Act)

- A state water quality certification is needed for any federally permitted activity that may result in a discharge to waters of the United States.
  - DEQ evaluates whether the activity meets water quality standards and approves, denies, or conditions the state certification.

- Types of projects that require a 401 certification include:
  - dredging, filling of wetlands for development, decommissioning of dams, hydroelectric projects, transportation projects and stream and wetland restoration projects.

Cleanup Activities

- DEQ's Environmental Cleanup program protects human health and the environment by identifying, investigating, and remediating sites contaminated with hazardous substances.

- Cleanup sites that may have an effect on water quality through stormwater, groundwater flow, overland flow, or bank sediments.

- The program has the ability to use Applicable or Relevant and Appropriate Requirements (ARARs) for the cleanup of hazardous materials
  - Water quality standards are ARARs, or rather, values that DEQ can use to set site specific cleanup levels for surface water

Summary

- Water quality standards are used in numerous DEQ programs

- A revision to the fish consumption rate will change Oregon's human health water quality criteria, which are a part of Oregon's water quality standards

- All programs will reflect any new criteria, but some programs may see more of a sudden change than others