



**Spokane River and Lake Spokane
Dissolved Oxygen
Total Maximum Daily Load
Water Quality Improvement Plan**

Let's start from the very beginning: What is a TMDL?

- It's a Water Quality Improvement Plan

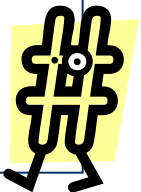
- It's a Process



- It's a Document



- It's an Amount of a Pollutant

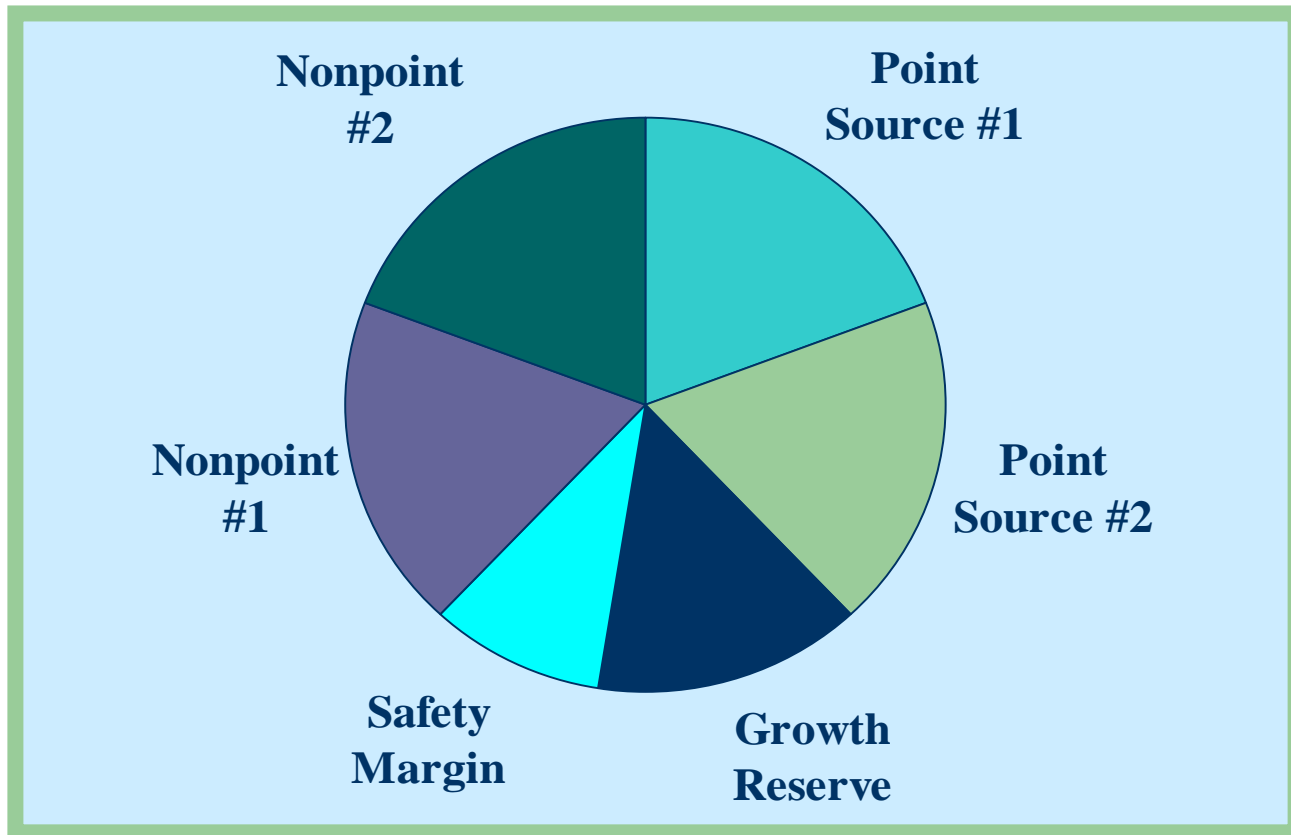


TMDL =

TMDL = Total Maximum Daily Load

“the amount of a pollutant that a waterbody can receive and still meet water quality standards”


The TMDL pie contains the maximum amount of pollutant divided into allocations for each source



Why do TMDLs?

- 1) To protect water quality**
- 2) It's the law**


The Law

 The Clean Water Act (CWA) requires states to set water quality standards for surface waters to protect public and environmental health.


 These standards protect water for beneficial uses such as:

- Drinking Water
- Recreation
- Fishing
- Aquatic Habitat
- Irrigation
- Livestock

The Clean Water Act

 Streams and lakes with water that does not allow for these beneficial uses are placed on a list of impaired waterbodies

➤ The 303(d) list

 Waterbodies on the 303(d) list must have a TMDL developed for them to correct the impairment

Ecology works with

- Tribes
- Watershed Planning Units
- Local governments
- Conservation districts
- Local interest groups
- Individual citizens
- Businesses
- Landowners

To develop plans to reduce the pollution.



Spokane River Dissolved Oxygen TMDL

- Problem
- History
- Goals





PROBLEM:

**Excessive Plant
Growth in the Upper
Reservoir**

A close-up photograph showing a wooden-handled rake with metal tines being used to rake a thick, green and brownish algae bloom from a body of water. The rake is positioned diagonally across the frame, with the tines submerged in the algae. The water surface is covered in a dense, textured layer of algae, with some areas appearing more green and others more brownish. The background shows dark, rippling water.

PROBLEM:

Frequent Algae
Blooms

Contributing to low levels of dissolved oxygen in the lower lake during April through October



History of the Project

- Phosphorus Management Plan (1989)
- Dissolved Oxygen TMDL Study Plan (1998)
- Technical Report (Lake Spokane Pollutant Loading Assessment, Cusimano 2004)
- Draft DO TMDL (2004)

History of the Project

- UAA Petition (2004)
- TMDL Collaboration (2005-2007)
- Foundational Concepts and Agreement in Principle (2007)
- Draft DO TMDL (2007)

Primary Goal of the Project

To Meet Washington
State's Water Quality
Standard For
Dissolved Oxygen