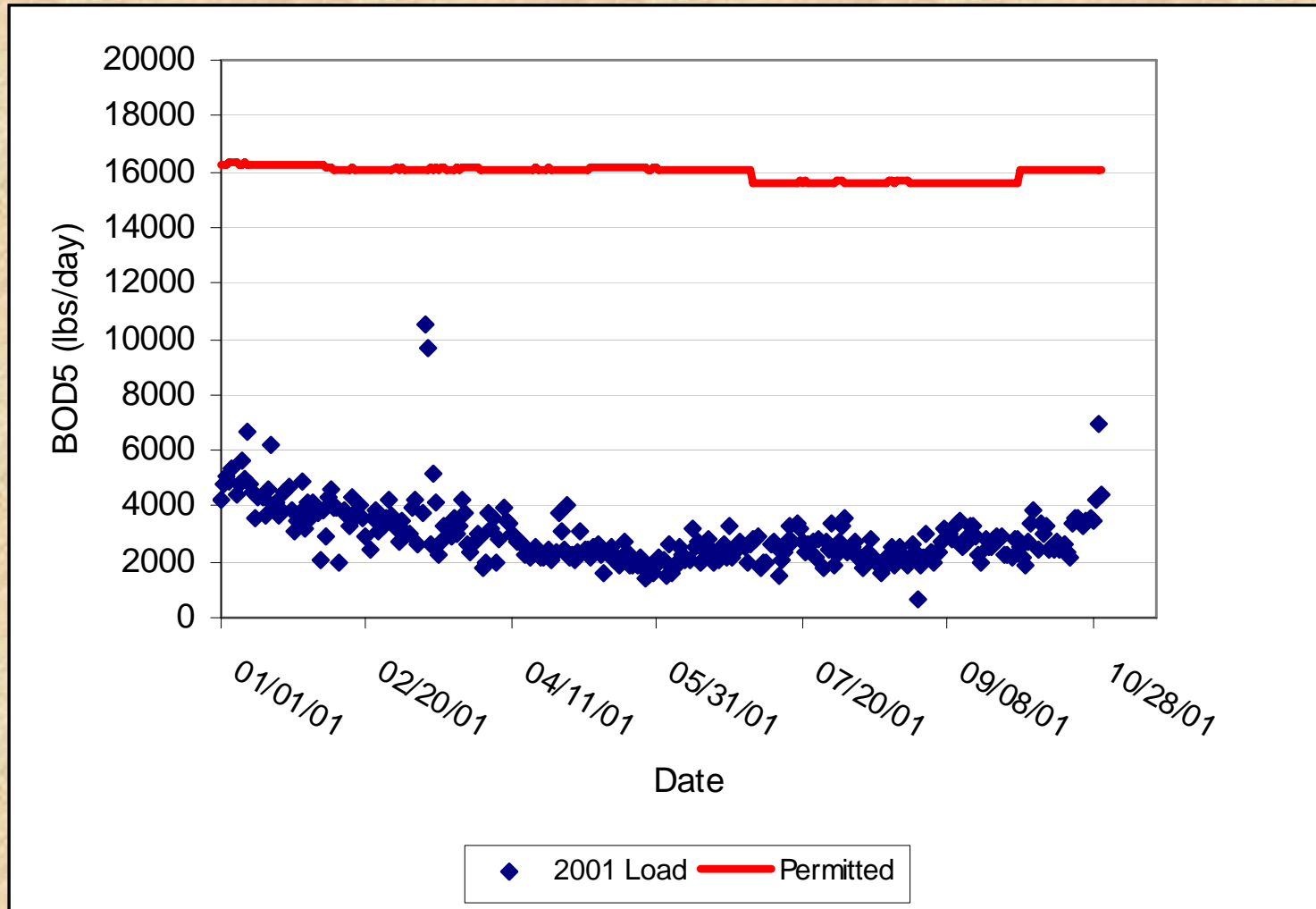


# Spokane River and Lake Spokane (Long Lake) Pollutant Loading Assessment for Protecting Dissolved Oxygen



**Robert Cusimano**  
Washington State  
Department of Ecology  
Olympia, WA. 98504-7710  
[bcus461@ecy.wa.gov](mailto:bcus461@ecy.wa.gov)

# Point Source BOD Loading



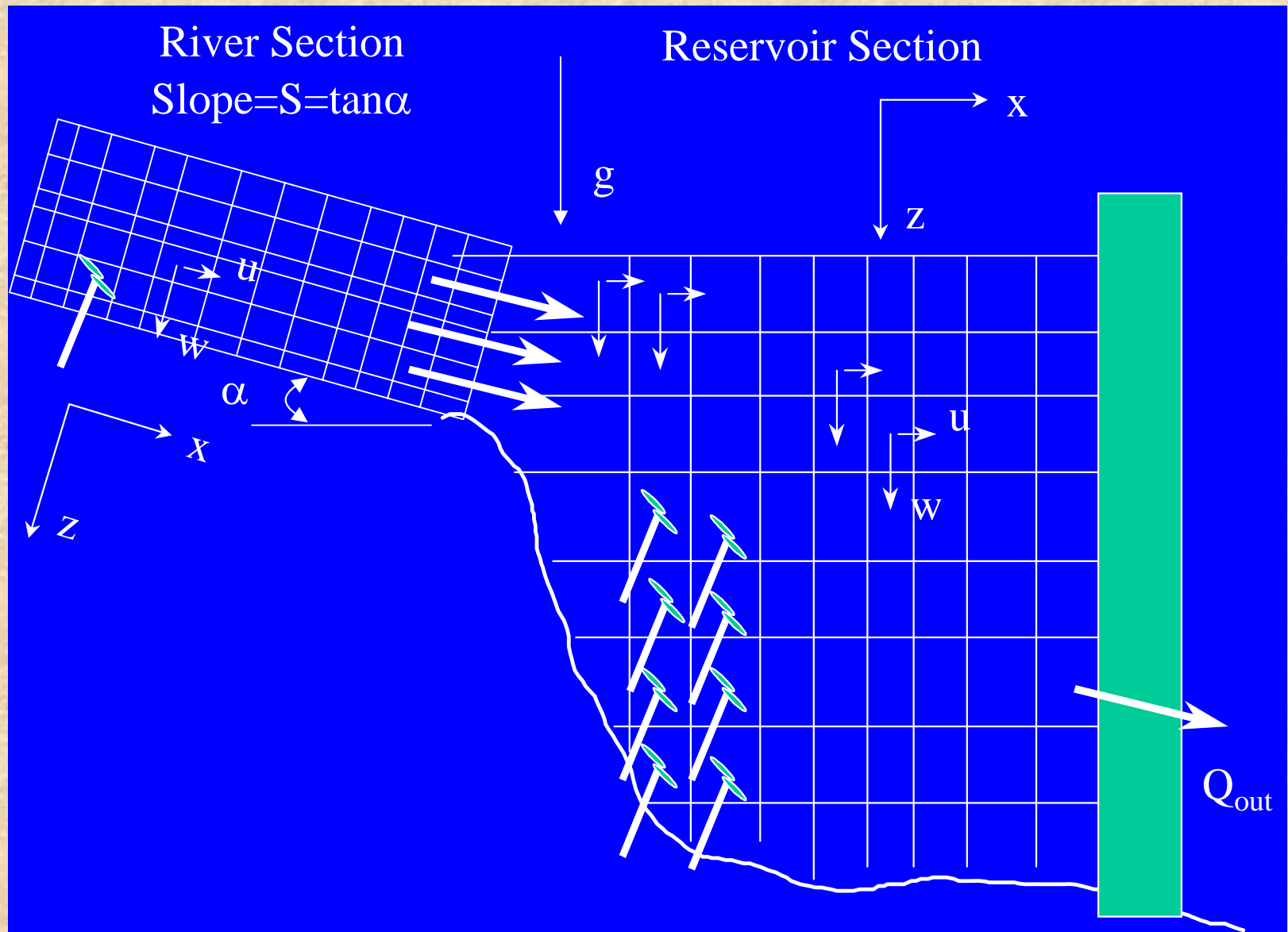
# 1992 Total Phosphorus TMDL

- Existing June-October TP TMDL = **571 lbs/day**
  - Spokane River @ Nine Mile Dam + Little Spokane
  - >50% of loading identified to be from and allocated to point sources.

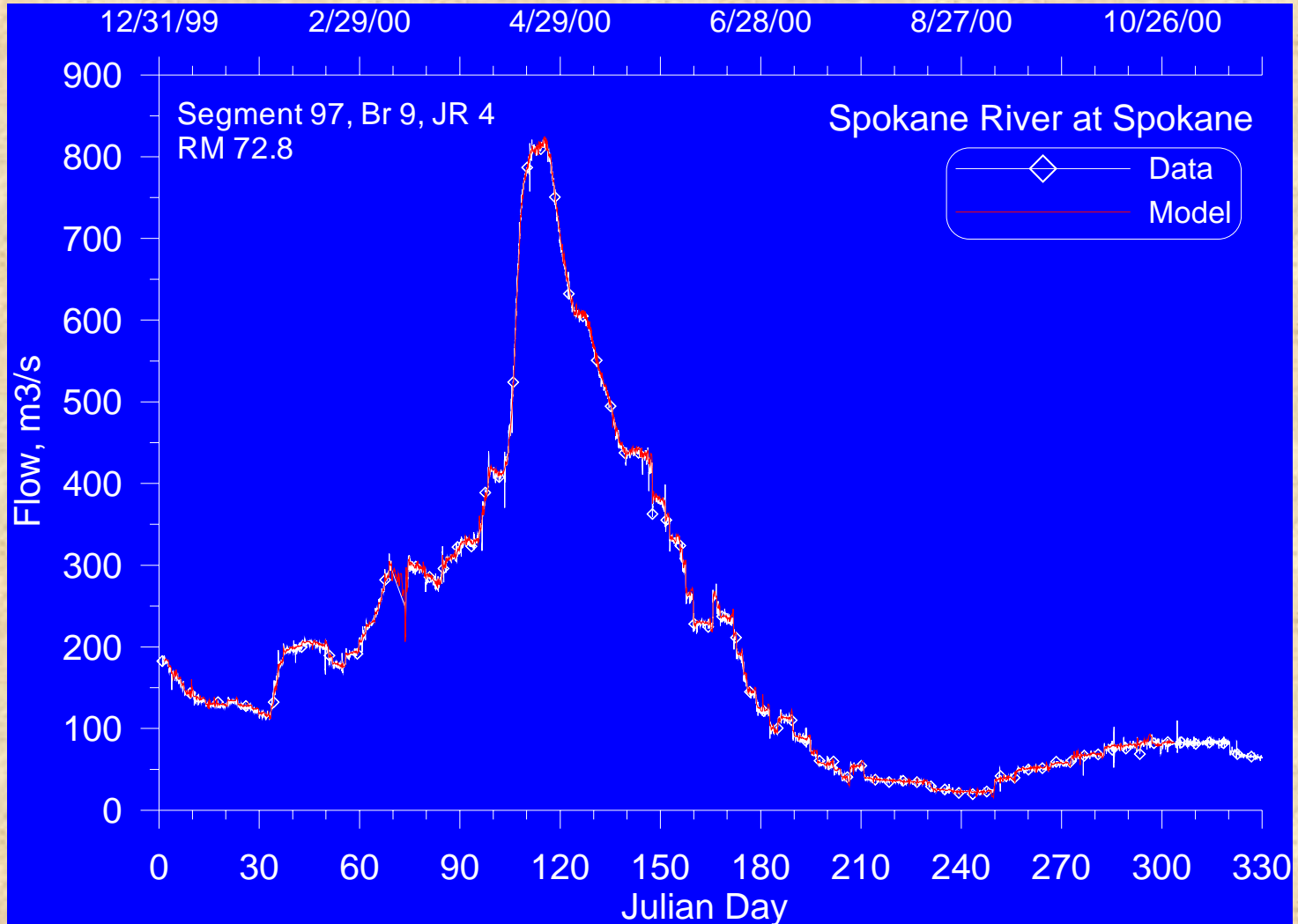
# Dissolved Oxygen

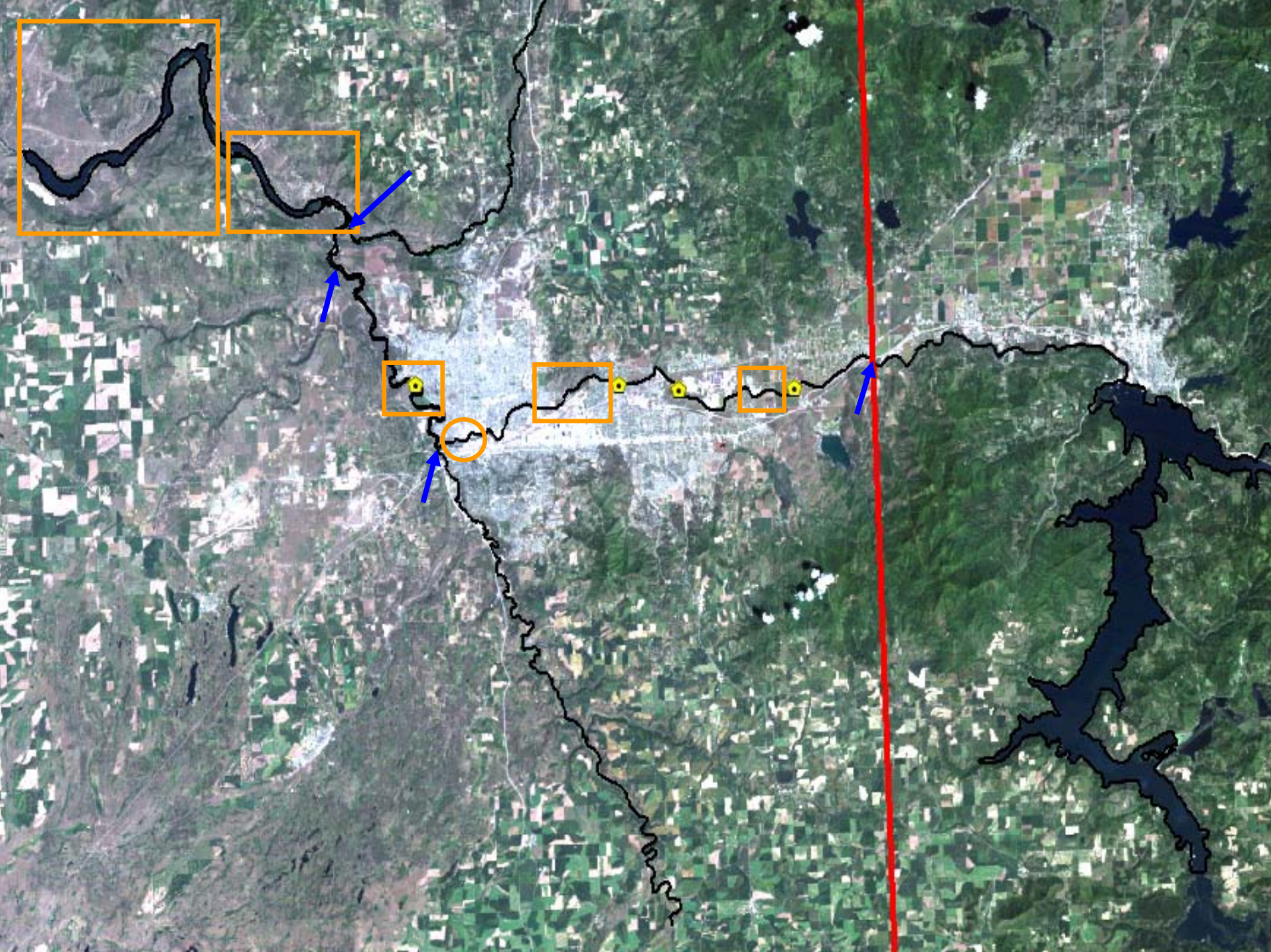
- Fish and other aquatic life depend on dissolved oxygen in the water
- Biological processes such as decomposition of organic matter use oxygen
- Critical Period June-October for low oxygen, but April and May are also important
- CBOD, Phosphorus, and Ammonia are the pollutants of concern

# CE-QUAL-W2 Version 3



# Flow Prediction





# Phosphorus Loading

(lbs/day)

Spokane River @ Nine Mile Dam + Little Spokane

	<b>Existing TMDL</b>	<b>2001 Conditions</b>	<b>Proposed TMDL</b>	<b>% Reduction</b>
<b>June-October</b>	571	329	138	76; 58
<b>April-May</b>	NA	831	525	37

[Interim WA Point Source TP Limits = Additional 26.6 lbs/day]