

# Otter Creek Watershed TMDL Project

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Stakeholder Meeting  
June 6, 2013



# Meeting Purpose

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Meet with watershed & technical advisory group members and watershed landowners to provide basic Otter Creek TMDL project information

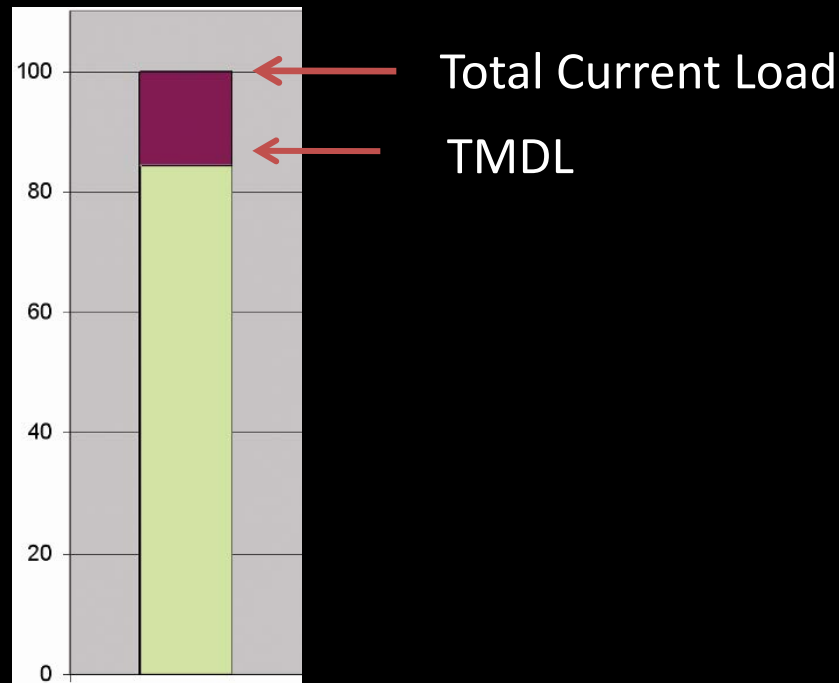
# Presentation Outline

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- Introduction (Dean Yashan)
- Iron TMDL Development (Kristy Fortman)
- Sediment TMDL Development (Kristy Fortman)
- Salinity TMDL Development (Erik Makus)
- Next Steps & Project Schedule (Christina Staten)

# What is a TMDL?

**T**otal **M**aximum **D**aily **L**oad is the amount of a pollutant that a stream can receive from all sources and still meet water quality standards



# Water Quality Standards

- Numeric or Narrative (Descriptive)
- Protect Designated Uses Such as Agriculture & Aquatic Life
- Designated Uses are Based on Classification



Agriculture:  
Irrigation



Agriculture: Livestock  
Water Supply



Aquatic Life:  
Warmwater Fish

# Water Use Classification



6 Different ecosystems and stream types are suitable for different uses and classified in different categories

# Why a TMDL is Written

- DEQ uses monitoring data to assess water quality & compare to applicable water quality standards
- If the data show a water quality problem, the waterbody is put on a list of impaired waters
- The federal Clean Water Act and Montana State Law require a TMDL for each waterbody-pollutant cause of impairment

# Types of Pollutant Concerns in Eastern Montana

**METALS**



**NUTRIENTS**



**SEDIMENT**



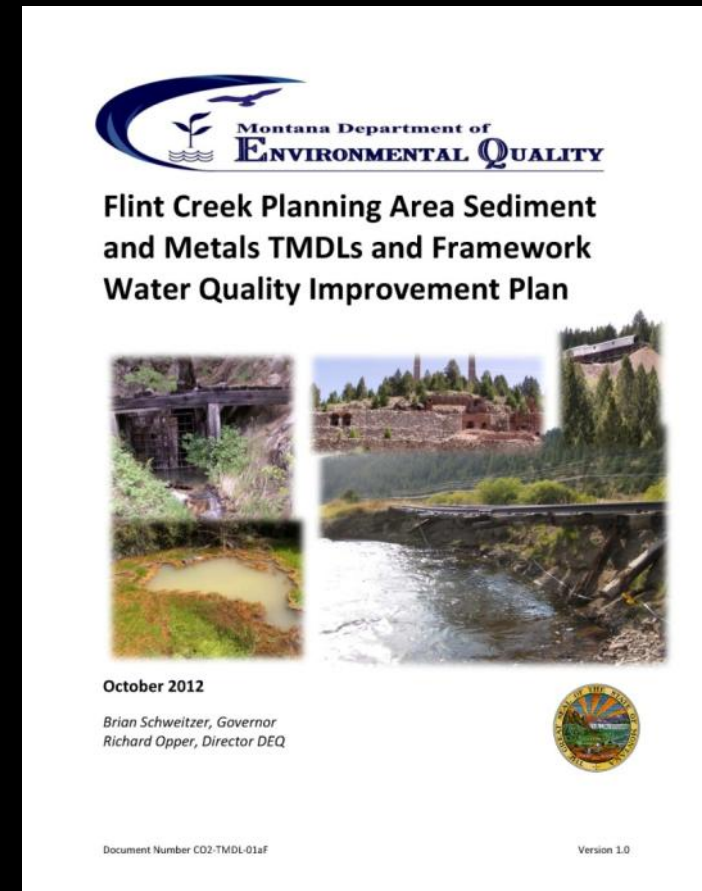
**SALINITY**





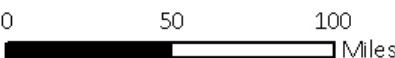
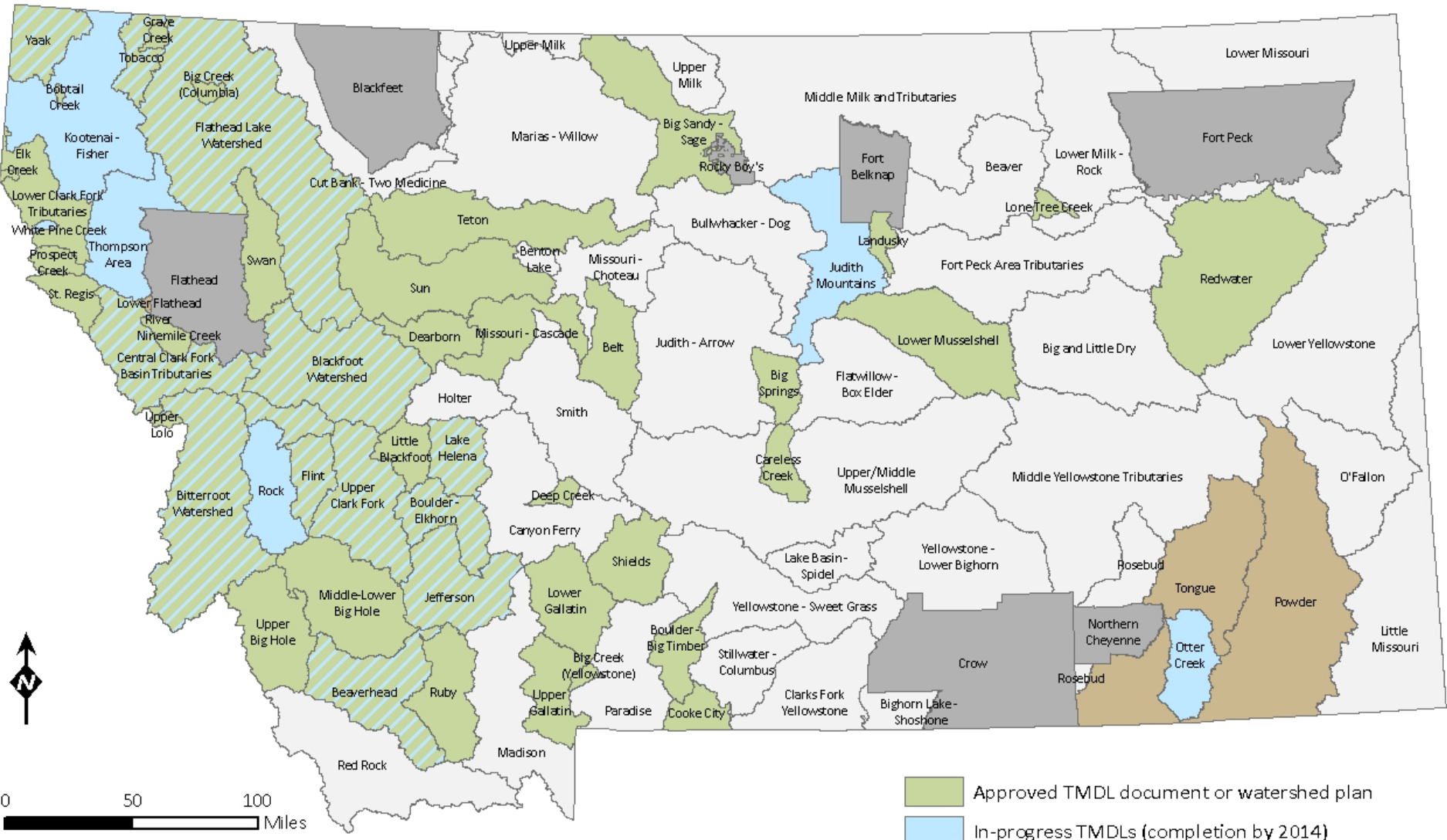
# Montana TMDL Program History

- More than 1,000 Approved TMDLs (1998 – present)
- Close to 50 TMDL Documents Completed as of June 2013



<http://deq.mt.gov/wqinfo/TMDL/finalReports.mcp>

# Montana TMDL Project Areas & 2014 TMDL Completion Schedule

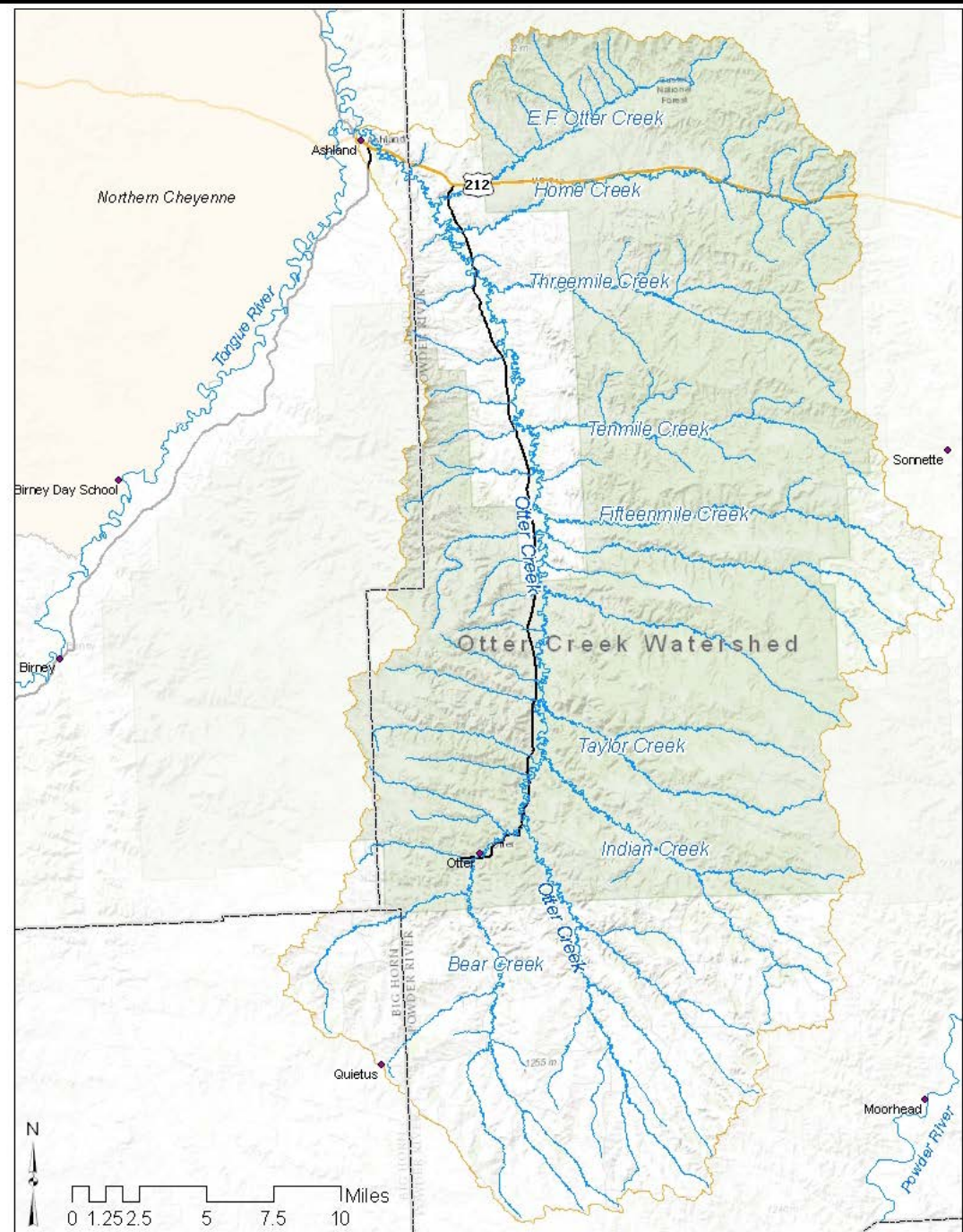


- Approved TMDL document or watershed plan
- In-progress TMDLs (completion by 2014)
- Combination approved & in-progress TMDLs
- Additional TMDL priority areas (completion after 2014)
- Not included in 2014 schedule
- Tribal (not under state jurisdiction)

TMDLs are specific to a waterbody segment - pollutant combination. Some planning areas with completed TMDLs may still require TMDL development for additional waterbody - pollutant combinations. Contact the DEQ at 406-444-5317 or refer to the final TMDL documents at <http://deq.mt.gov/wqinfo/TMDL/finalReports.mcpj> for additional details.

In addition to the watersheds shown on this map, some large rivers and their associated reservoir systems represent separate TMDL project areas. These include the Clark Fork River, the Missouri River, and the Yellowstone River. Pre-TMDL development support work is underway in the Yellowstone River and Missouri River, while the Clark Fork River has a combination of approved and in-progress TMDLs.

# Otter Creek Watershed



# Otter Creek Impairment Causes

- Iron
- Sediment
- Salinity
- Alteration of Streamside Vegetation (not a pollutant)



# Otter Creek TMDL Development Steps

1. Further characterize water quality
2. Identify and quantify pollutant sources
  - Can include future sources



# Otter Creek TMDL Development Steps

3. Define the TMDL and source load allocations
  - Address permitted surface water point sources, non-point sources (originating from a diffuse area), and natural background



Point Source



Non-Point Source



Natural Source

# Applying Otter Creek TMDLs For Water Quality Protection

- Does not create or impose new regulations
  - Can help implement existing regulations, mainly for point source surface water discharges
- Voluntary for the majority of non-point sources activities, including agriculture
  - Application of water quality improvement practices is a landowner's decision

# Otter Creek TMDL Project

- Ultimate goal of the TMDLs is to protect water quality in the Otter Creek / Tongue River watersheds
- Priority area based on existing and proposed energy development (coalbed methane, coal)

