# Otter Creek Watershed TMDL Project

Stakeholder Meeting June 6, 2013



### Meeting Purpose

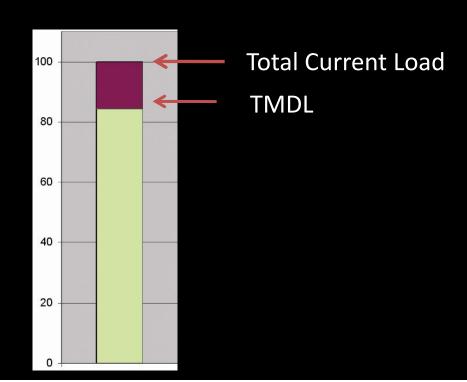
Meet with watershed & technical advisory group members and watershed landowners to provide basic Otter Creek TMDL project information

### Presentation Outline

- 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?

Total Maximum Daily Load 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





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



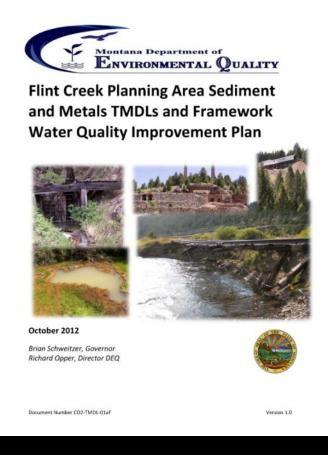






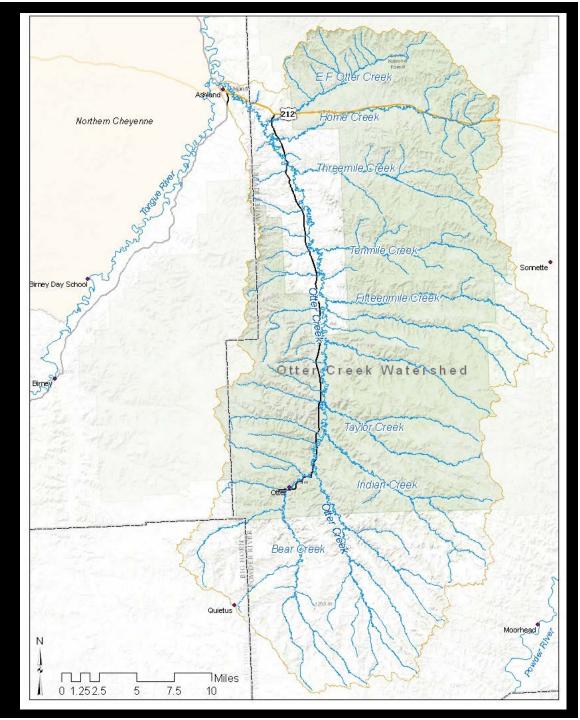
### Montana TMDL Program History

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



### Montana TMDL Project Areas & 2014 TMDL Completion Schedule creek Yaak Upper-Milk Tobacco Lower Missouri Upper Big Creek Milk Blackfeet 'Bøbtail (Columbia) Middle Milk and Tributaries dreek Big Sandy Flathead Lake Marias - Willow Ko otenai -Fort Peck Watershed Fisher Lower Milk Fort Rocky Boy's Beaver -Θηeek Rock Belknap Cut Bank - Two Medicine Lower Clark Fork Lone Tree Greek Tributaries Teton Bullwhacker - Dog White Pine Creek Landusky Thompson Benton Prospect Area Fort Peck Area Tributaries Judith Greek-Choteau Redwater Flathead Mountains \$t. Regis∜ Lower Flathead Missouri - Cascade Ninemile Creek Dearborn Lower Musselshell Lower Yellowstone Judith - Arrow Big and Little Dry Central Clark Fork Blackfoot Basin Tributaries Watershed Big Flatwillow-Springs Box Elder Holter Smith Upper Lolo Little Lake △Blackfoot Helena Careless Upper/Middle O'Fallon /Creek Middle Yellowstone Tributaries Upper Musselshell Rock Deep Creek Bitterroot Boulder-Watershed Elkhorn Canyon Ferry Yellowstone -Lake Basin-Shields Lower Bighorn Rosebul Spidel Tongue Middle-Lower Lower Jefferson Powder Yellowstone - Sweet Grass Big Hole Gallatin Upper Northern Boulder-Big Hole Cheyenne Bjig Timber Otter Missouri Stillwater Crow Creek Columbus (Yellowstone) Rosebud Beaverhead Ruby Upper Clarks Fork Bighorn Lake-¢allatirh.∧ Paradise Yellowstone Cooke City Shoshone Madison Red Rock Approved TMDL document or watershed plan 50 100 **⊐** Miles In-progress TMDLs (completion by 2014). TMDLs are specific to a waterbody segment - pollutant combination. Some planning areas with completed TMDLs may still Combination approved & in-progress TMDLs require TMDL development for additional waterbody - pollutant combinations. Contact the DEQ at 406-444-5317 or refer to Additional TMDL priority areas (completion after 2014) the final TMDL documents at http://deq.mt.gov/wqinfo/TMDL/finalReports.mcpx for additional details. Not included in 2014 schedule 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 Tribal (not under state jurisdiction) develonment 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. Map updated 5/31/2013

# 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)

