TMDL Development Updates/Status

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December 18, 2009

TMDL Update (12/09)

- **2007 TMDLs Approved: (28 Total)**
  - Ruby: 28 TMDLs

TMDL Update (12/09)

- **2008 TMDLs Approved (94 Total)**
  - St. Regis: 8 TMDLs
  - Yaak: 3 TMDLs
  - Middle Blackfoot – Nevada: 83 TMDLs

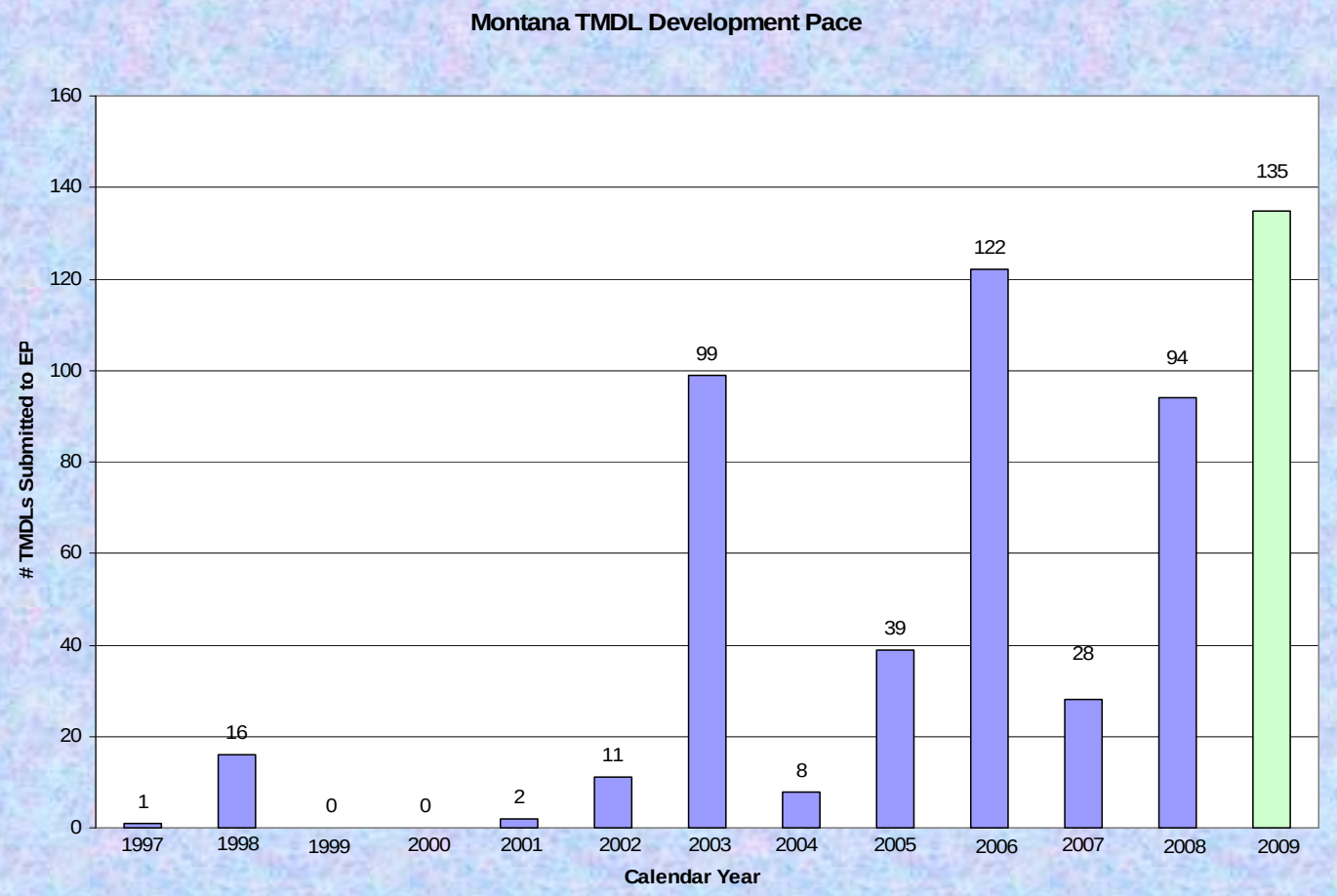
TMDL Update (12/09)

- **2009 TMDLs Approved (133 Total)**
  - o Prospect Sediment: 3 TMDLs
  - o Shields: 4 TMDLs
  - o Boulder – Big Timber: 15 TMDLs
  - o Upper & N. Fk Big Hole: 24 TMDLs
  - o Middle & Lower Big Hole: 69 TMDLs
  - o Upper Jefferson Tribs: 6 TMDLs
  - o Lower Blackfoot: 12 TMDLs (EPA approval expected by 12/31/09)

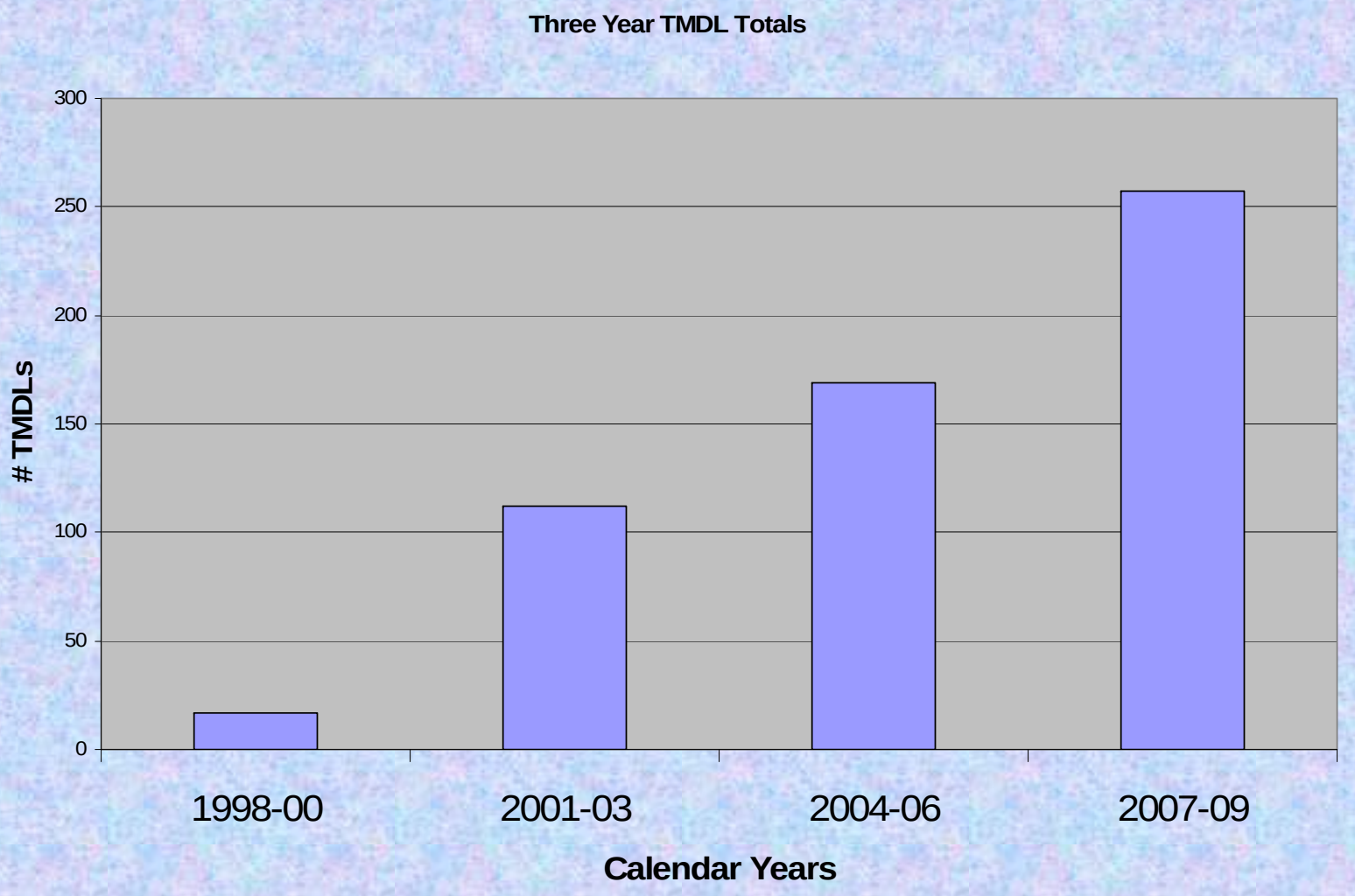
TMDL Update (12/09)

- **2009 TMDLs Submitted (187 Total)**
  - o Includes Upper Clark Fork Tributaries: 76 TMDLs (public review ends 12-18-09; EPA submittal expected by 12/31/09)

TMDL Approval Pace



Three Year Running Total TMDLs Approved



TMDL Update (12/09)

- **Anticipated EPA Approvals 2010 (219 total)**
  - Upper Clark Fork 76 TMDLs
  - Tobacco: 6 TMDLs
  - Lower Clark Fork Tribs: 5 TMDLs
  - Upper Gallatin: 9 TMDLs
  - Redwater: 18 TMDLs
  - Landusky (metals): 63 TMDLs
  - Missouri – Cascade & Belt (metals): 42 TMDLs

Pollutant Type Impairment Percentages: 303(d) List (1844 Total) vs. Recent Completions

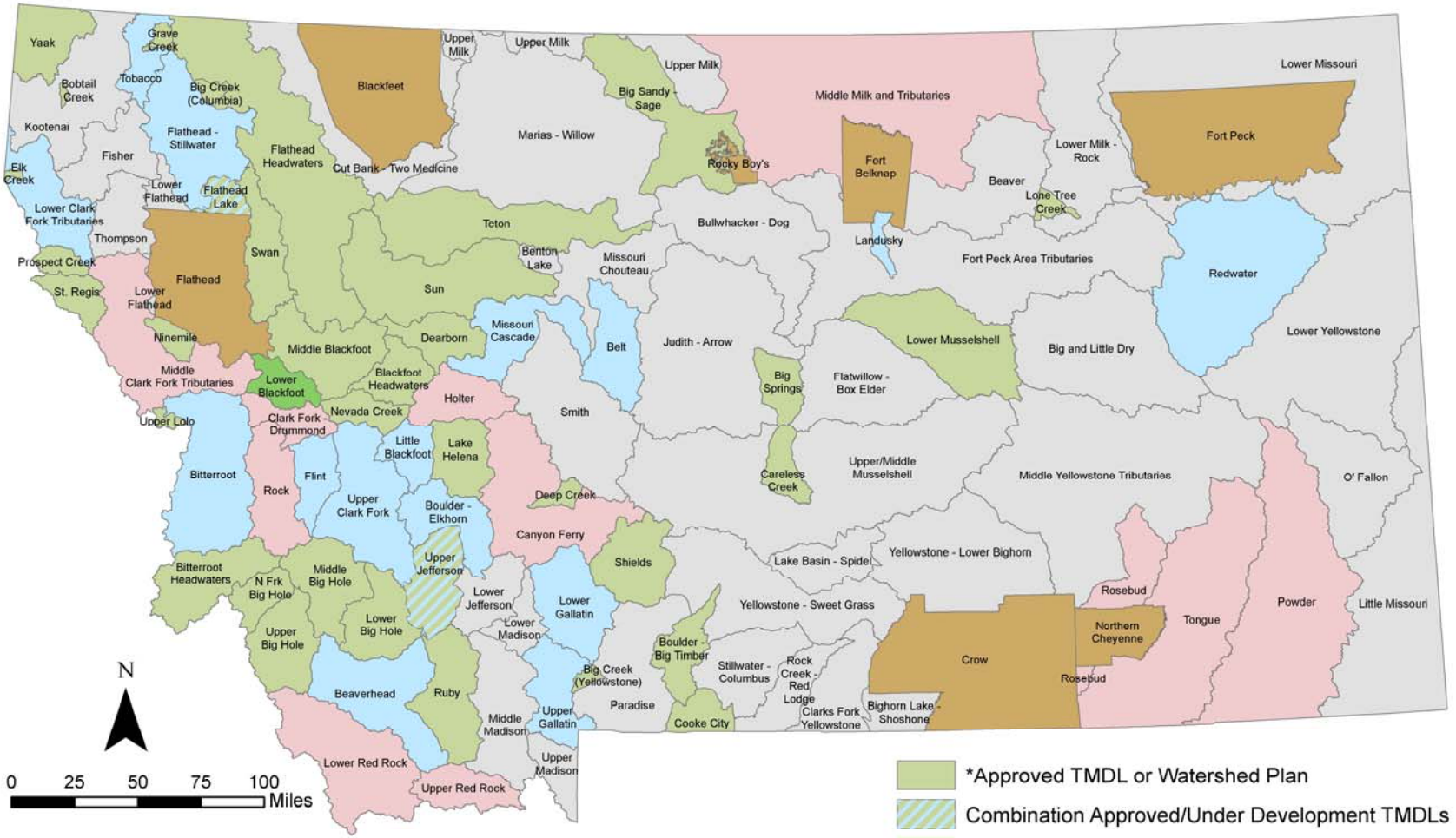
- Sediment: 19% (Recent Completions = 47%)
- Nutrient: 28% (Recent Completions = 12%)
- Metals: 42% (Recent Completions = 38%)
- Temperature: 4% (Recent Completions = 3%)
- Salinity: 3% (No Recent TMDLs)
- Pathogen: 1% (No Recent TMDLs)
- PCBs, Pesticides, etc: 3% (No Recent TMDLs)

2012 TMDL Completion Goal:

540 More TMDLs Submitted To and Approved By EPA

- About 180 per year
- Currently have about 747 in progress or early stages of additional assessment

Montana TMDL Development Status (11-3-09)



* TMDL's are specific to a water body - pollutant combination. Some planning areas with completed TMDL's may still require TMDL development for additional water body - pollutant combinations.

**Not under state jurisdiction

In addition to the TPA's shown on this map, large rivers and their associated reservoir systems represent separate TMDL development projects. These include the Clark Fork River, the Upper Missouri River, the Lower Missouri River, and the Yellowstone River. Some TMDL development support work is underway in the Yellowstone River, and nutrient TMDL's have been completed for the Clark Fork River. A second phase of nutrient TMDL development will be necessary for the Clark Fork River.

Recent TMDL Programmatic Activities

- Integration of Monitoring Staff and Resources into TMDL Support
- Project Managers with Pollutant Focus
- EPA Region 8 Acknowledgement Regarding 2009 Federal Fiscal Year TMDL Pace
- EPA Region 8 State's Presentation on TMDL Process Improvements

TMDL Process Improvements (Foundational Elements Concept)

- Program Planning (through 2012) Linked to Watershed Approach & Workload Planning
- Project Management Approach (QA Element)
- Sampling Procedures, Templates, Plans (QA Elements)
- Contract Management
- TMDL Outline, Wording Templates
- Stakeholder Outreach
- Consistent Source Assessment Methods (models, etc)
- Tracking & Database Improvements

TMDL Challenge

- Water Quality Restoration vs. Bean Counting
  - Shelf Art & Paper TMDLs **Not** the Ultimate Goal
  - **Goal: Attain & Maintain Water Quality Standards & Fully Support Uses**

QUESTIONS ?

EPA TMDL Guidance & Recent Considerations

EPA TMDL Guidance & Recent Considerations

1. EPA Region 8 TMDL Approval Form
2. Daily Load Requirement
3. Waste Load Allocations for Abandoned Mines
4. Storm Water Waste Load Allocations
5. Watershed Approach Guidance
6. Reasonable Assurance

EPA Approval Form

- Provides Organized Review Framework and Organized Summary of EPA Expectations
- Improved EPA Feedback Format
- Good Stakeholder Communication Tool Regarding TMDL Requirements
- Good Guidance for Staff

Daily Loading

- Now required for all TMDLs
- EPA Guidance Document for Daily Loading

EPA Daily Load Guidance

For a variety of reasons, EPA recognizes that it might continue to be appropriate and necessary to identify non-daily allocations in TMDL development despite the need to also identify daily loads. For parameters such as sediment, for which narrative water quality criteria often apply, attainment of WQS cannot always be judged on a daily basis. Assessment of cumulative loading impacts is necessary to understand how to achieve WQS and to estimate the allowable loading capacity; therefore identifying long-term allocations for such situations is appropriate and informative from a management perspective. For TMDLs in which it is determined that a non-daily allocation is more meaningful in understanding the pollutant/waterbody dynamics, EPA recommends that practitioners identify and include such an allocation, as well as a daily load expression with the final TMDL submission.

Daily Loading: DEQ Approaches

- Sediment
  - Primary: Yearly Loading
  - Secondary: Standardized Approaches of Daily Loads in Appendix (based on hydrograph/sediment relationships);
- Metals
  - Primary: Daily (chronic); Per Second (acute)
  - Secondary: NA

Abandoned Mines & Waste Load Allocations (WLA)

- Linked to 1993 EPA memo regarding abandoned mines and point sources
- If it looks like or behaves like a point source then cover via WLA (vs. load allocation)
- EPA has been flexible so far regarding use of composite WLAs where information is lacking
- This does require additional TMDL development work for DEQ

Storm Water WLA Guidance

- Some watersheds have numerous industrial and construction sites requiring a permit under NPDES
- These require WLA development
- EPA guidance:
  - Must have numeric WLA
  - Can aggregate the sites into one WLA
  - Permit does not have to incorporate the numeric WLA; can instead use a BMP approach.

Storm Water WLAs Guidance & DEQ TMDLs

DEQ Approach Per EPA:

If it is determined that a BMP approach ….. is appropriate to meet the storm water component of the TMDL, EPA recommends that the TMDL reflect this.

EPA Watershed Approach Guidance

- EPA recently prepared guidance regarding a recommended watershed approach to TMDLs, implementation, etc.
- Consistent with DEQ approaches and watershed group concepts within Montana

Reasonable Assurance (RA)

What is Required?

Potential Tiered RA Approach

1. Demonstrate that the load allocations are technically achievable

   - This seems consistent with existing EPA approval requirements for all TMDLs with load allocations and consistent with how Montana develops TMDLs

Potential Tiered RA Approach

2. Demonstrate that there is a plan in place to meet the load allocations. Describe what you will do should the plan fail.

- When would this apply????

Legal Considerations for RA

- Recent court case citing reasonable assurance concept (for a new permitted point source).
  – Carlota copper (Pinto Creek)

  "*the EPA must locate point sources and establish compliance schedules to meet the water quality standard before issuing a permit. If there are not adequate point sources to do so, then a permit cannot be issued unless the state or Carlota agrees to establish a schedule to limit pollution from a nonpoint source or sources sufficient to achieve water quality standards.*"

Legal Considerations for RA

40 CFR 122.4

No permit may be issued (i) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standard. The owner or operator of a new source or new discharger …. must demonstrate …that:

(1) There are sufficient remaining pollutant load allocations to allow for the discharge; and

(2) The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.

Potential RA Requirement for Existing Point Sources

40 CFR 132.2

(i) *Total maximum daily load (TMDL).*

- *The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. ……* ***If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.***

QUESTIONS ?