

UPDATE

2010 Total Maximum Daily Loads with Ecoregional Nutrient Targets

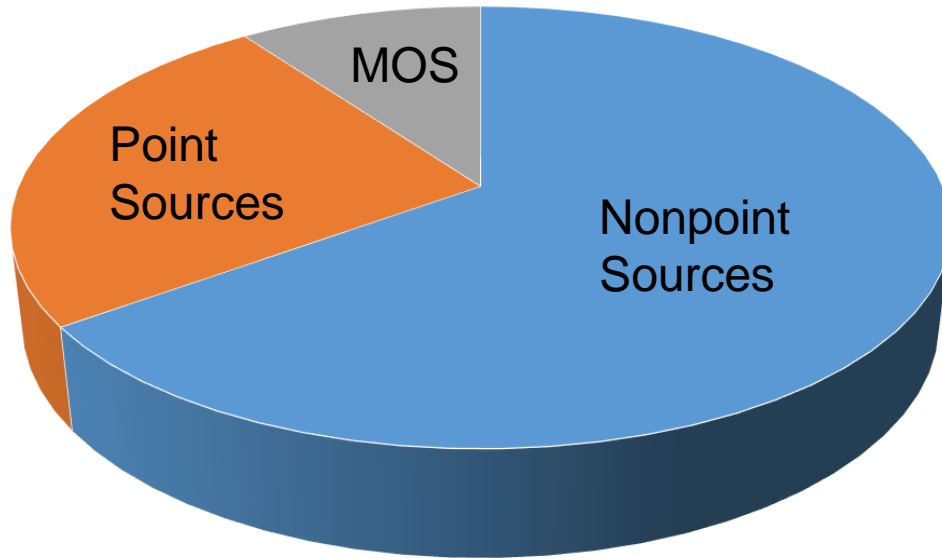
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Water Protection Forum

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Quick Reminder... What is a TMDL?



**The TMDL is the Pie.
The allocations are pieces
of the Pie.**

- **Tool to inform watershed planning**
 - The math and the path
 - **Pollution diet**
 - Watershed-Based Management Plans
 - Missouri State Operating Permits
- } Workout Plan

Background: 2010 Nutrient TMDLs

- 1998 and 2002 303(d) listings for low dissolved oxygen, nutrients, or unknown pollutants
- 2001 Consent Decree, *America Canoe Association, et al. v. EPA*
- EPA recommended ecoregional nutrient criteria used as TMDL targets

Results: 2010 Nutrient TMDLs

Total Nitrogen targets as low as 0.289 mg/L

Total Phosphorus targets as low as 0.007 mg/L

Technological Limits of Nutrient Removal*

Pollutant	Biological Nutrient Removal (mg/L)	Enhanced Nutrient Removal (mg/L)	Limit of Technology (mg/L)
Total Phosphorus	0.5 to 3.0	0.2 to 0.5	0.1
Total Nitrogen	6 to 10	4 to 6	3

* monthly averages

Revised TMDLs

What did we look at?

- Original cause of impairment
- Available data
- Goal of the TMDL
- QUAL2K model review
- Total suspended solids targets
- Option for nutrient trading

Where are we at?

Big Bottom Creek – Ready for submittal

Bear Creek – Public notice ended November 12

Stinson Creek – Public notice until December 2

Spring Creek – Available Soon!

Piper Creek/Town Branch - Available late November

Mound Branch – Next in queue

Marmaton River – Next in queue

} End of Year Goal



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QUESTIONS?

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