

Water Quality in the Gallatin Valley



Who, What and Why?

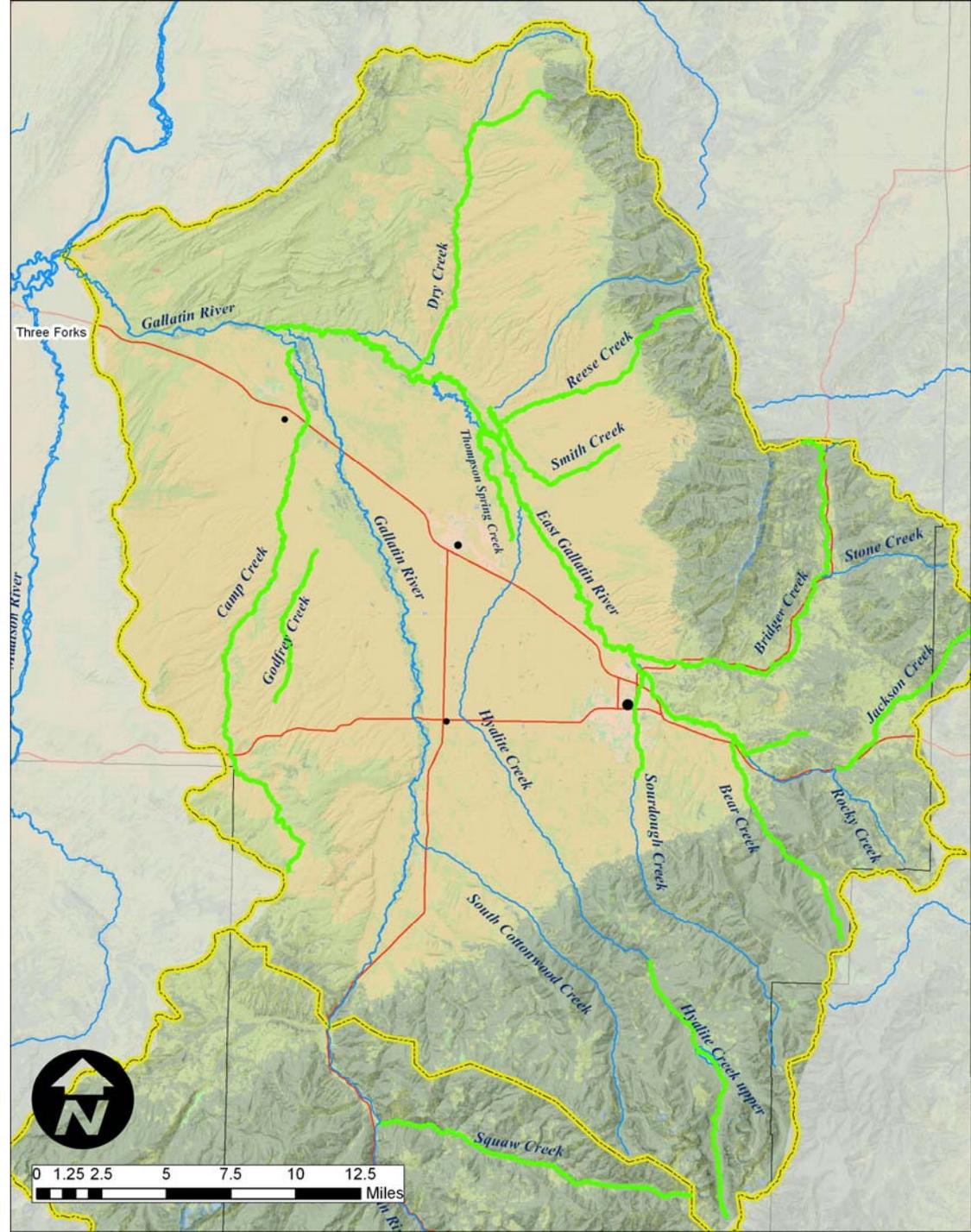
- Water Quality sampling and assessment in the Gallatin Watershed
- Evaluation of Water Quality Standards
- Identification of sources and conditions contributing to WQ problems
- Total Maximum Daily Load (TMDL) Development (water quality management)

Water Quality Pollutants & Targets

- E. Coli bacteria
126 CF/100ml
- Nutrients (Phosphorus, Nitrogen)
TN ~ 0.320 mg/l
TP ~ 0.048 mg/l
- Sediment (suspended & bedload)
Based on reference conditions/impact to use

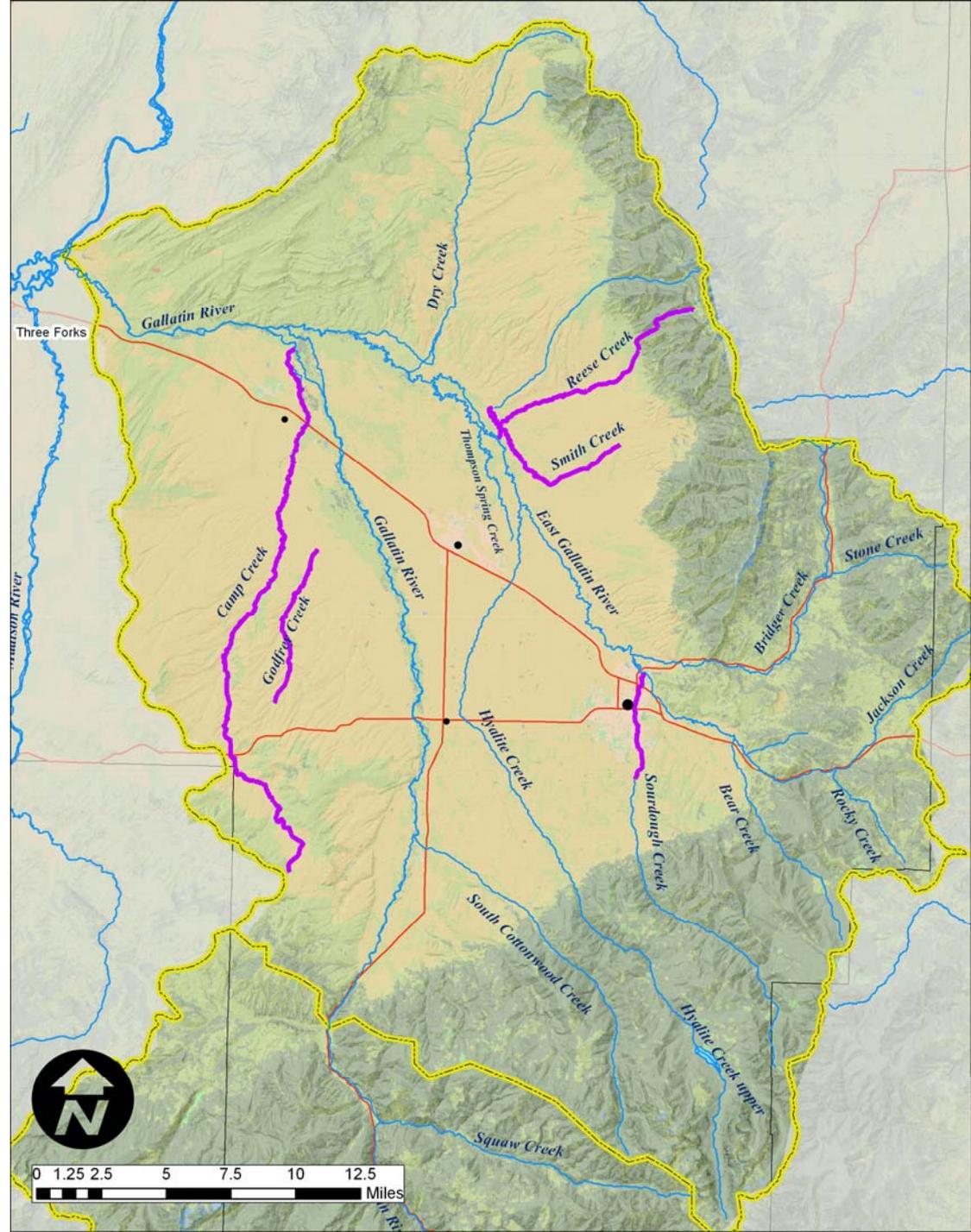
Nutrient Concerns

Camp Creek
Godfrey Creek
Dry Creek
Reese Creek
Smith Creek
Thompson Spring Creek
Bridger Creek
Jackson Creek
Bear Creek
Bozeman Creek
Hyalite Creek
East Gallatin River



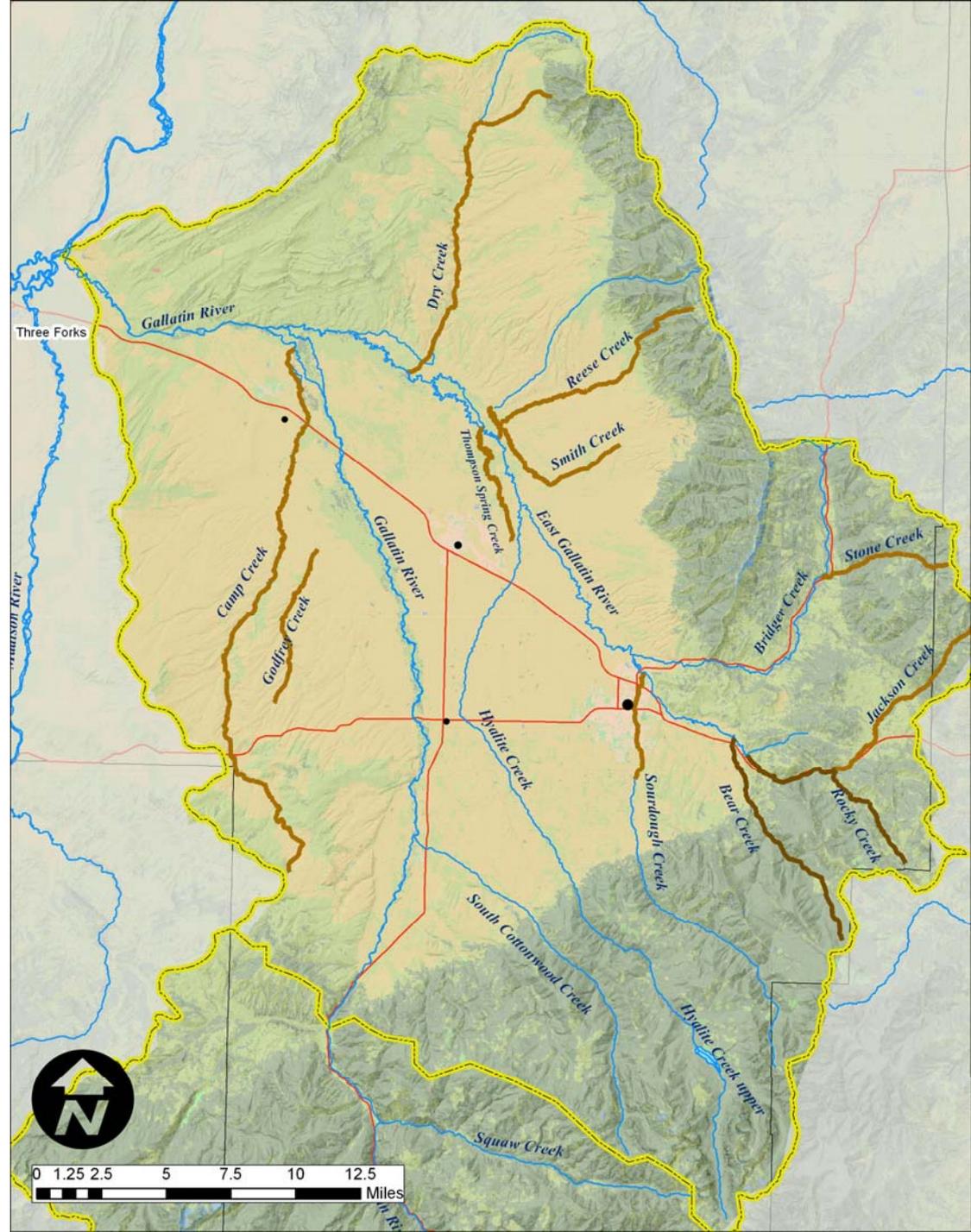
E.Coli Concerns

Camp Creek
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Smith Creek
Bozeman Creek

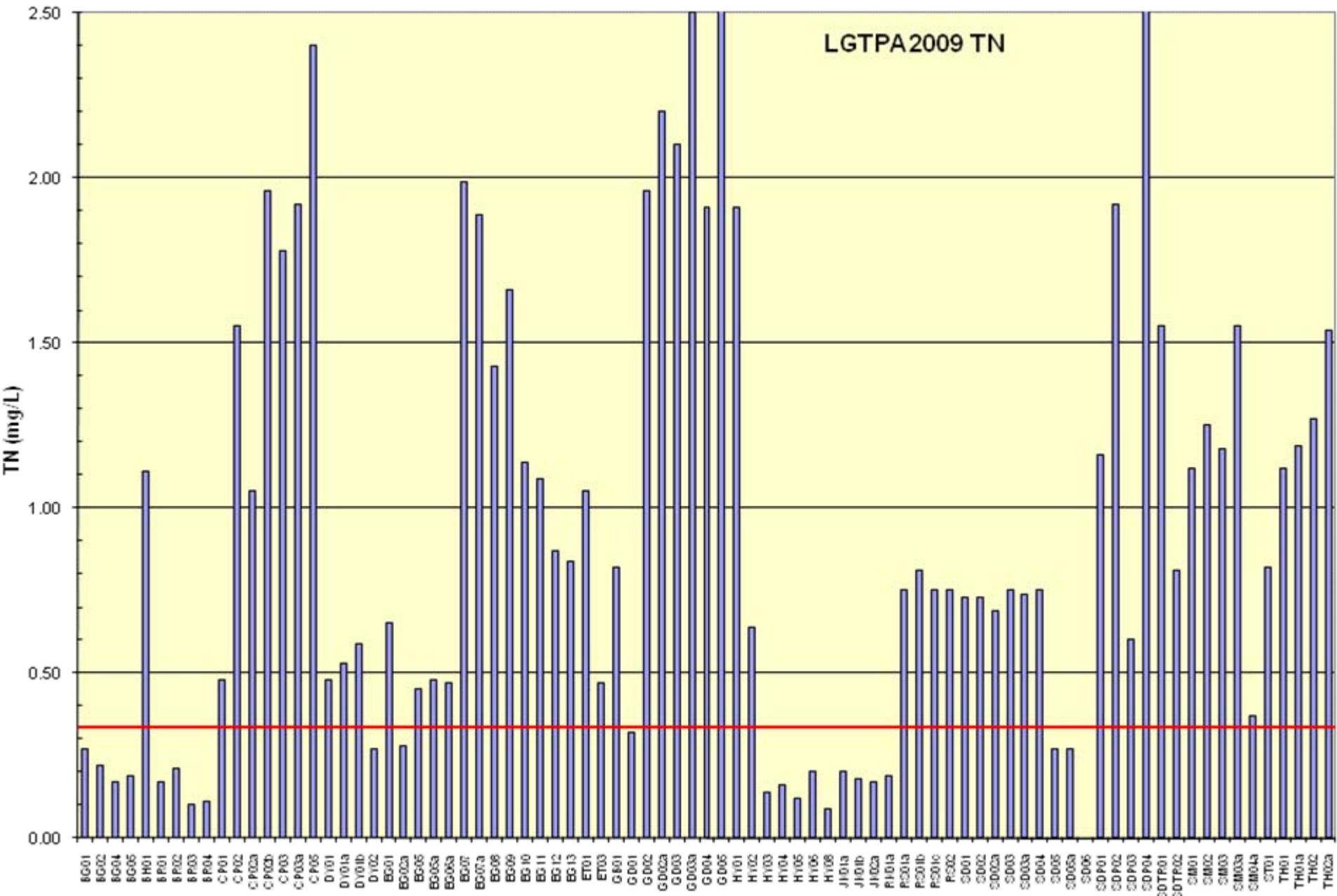


Sediment Concerns

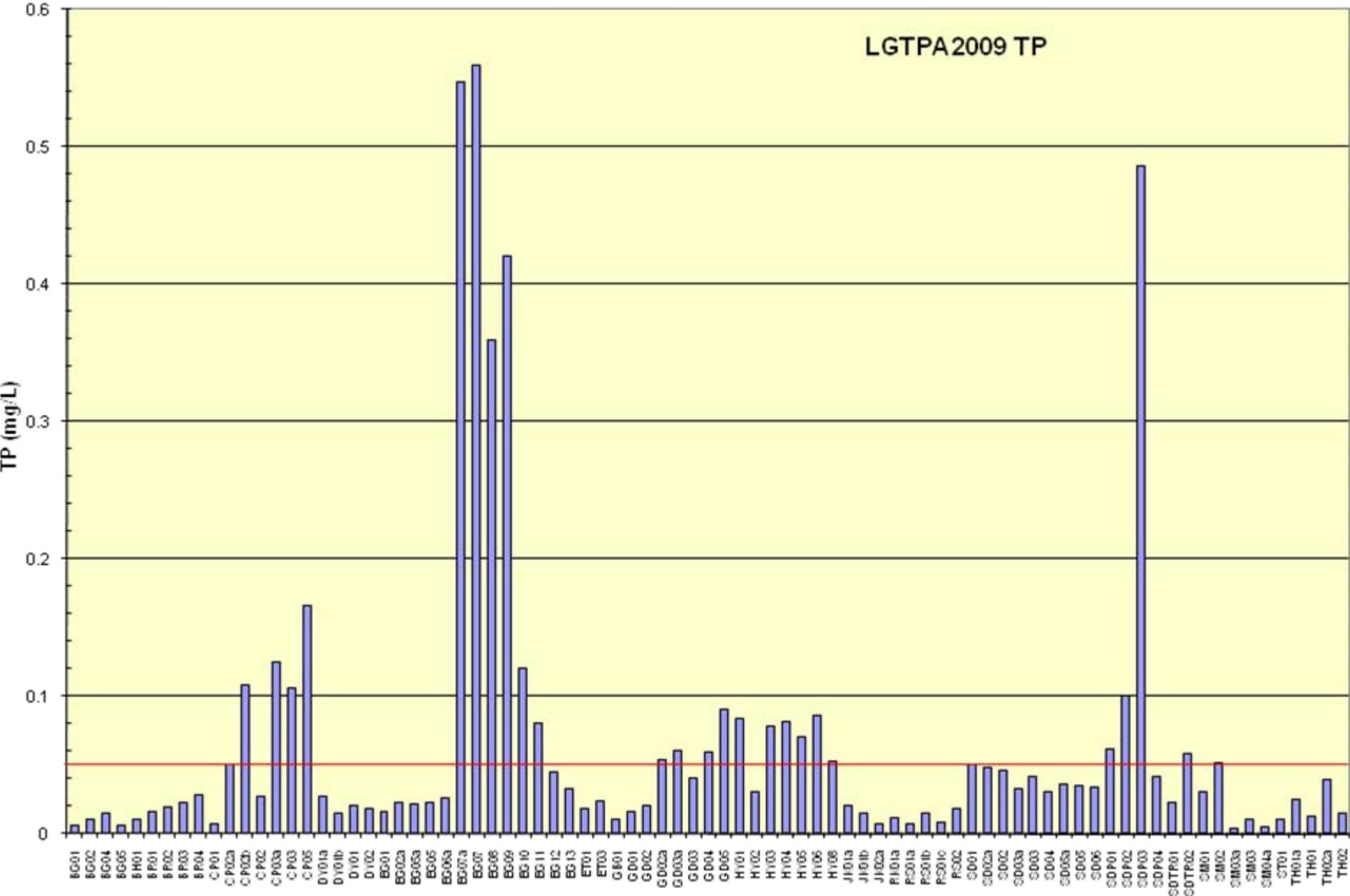
Camp Creek
Godfrey Creek
Dry Creek
Reese Creek
Smith Creek
Thompson Spring Creek
Stone Creek
Jackson Creek
Rocky Creek
Bear Creek
Bozeman Creek

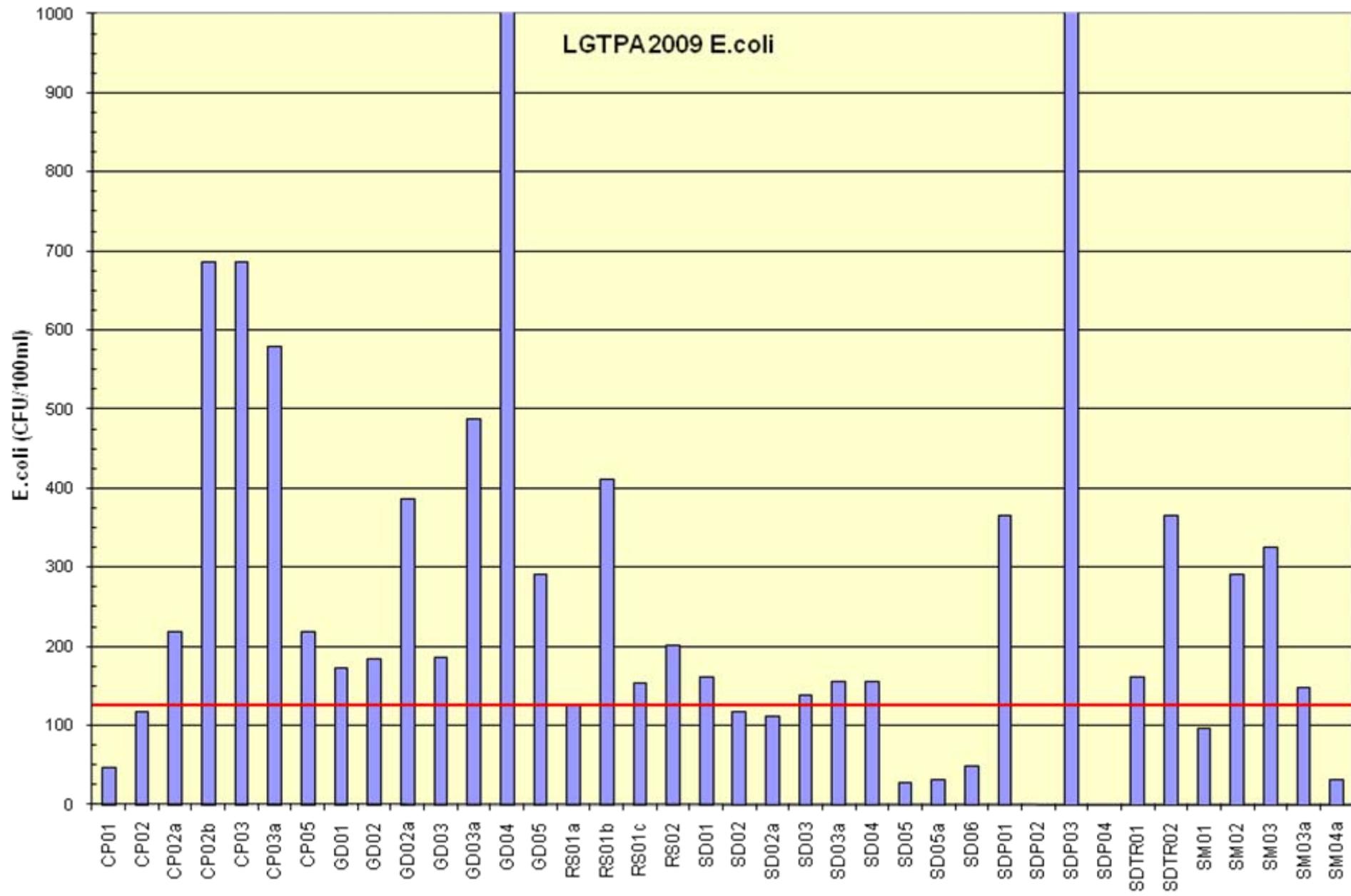


LGTPA2009 TN



LGTPA2009 TP





Some Findings....

Hyalite Creek

Ammonia/Nitrate export from Reservoir mouth creating algal problems.

Source = reservoir dynamics(?)

Sourdough Creek

E.coli a human health risk. High nitrogen.

Source(s) = urban/residential stormwater, recreational use, other urban sources...

Camp/Godfrey Creeks

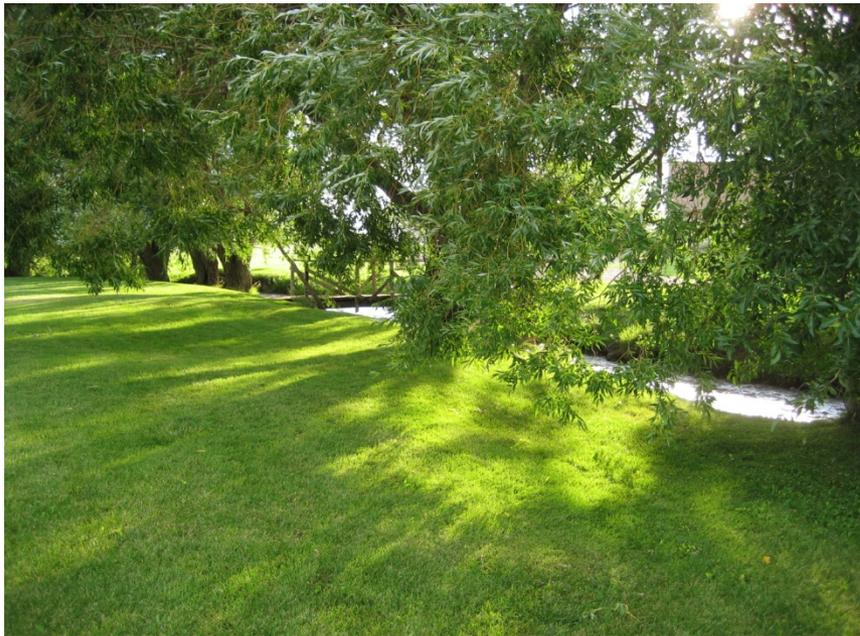
Nitrate/phosphorus/e.coli all very high

Source = agricultural/livestock management

East Gallatin River

Nitrogen/phosphorus very high

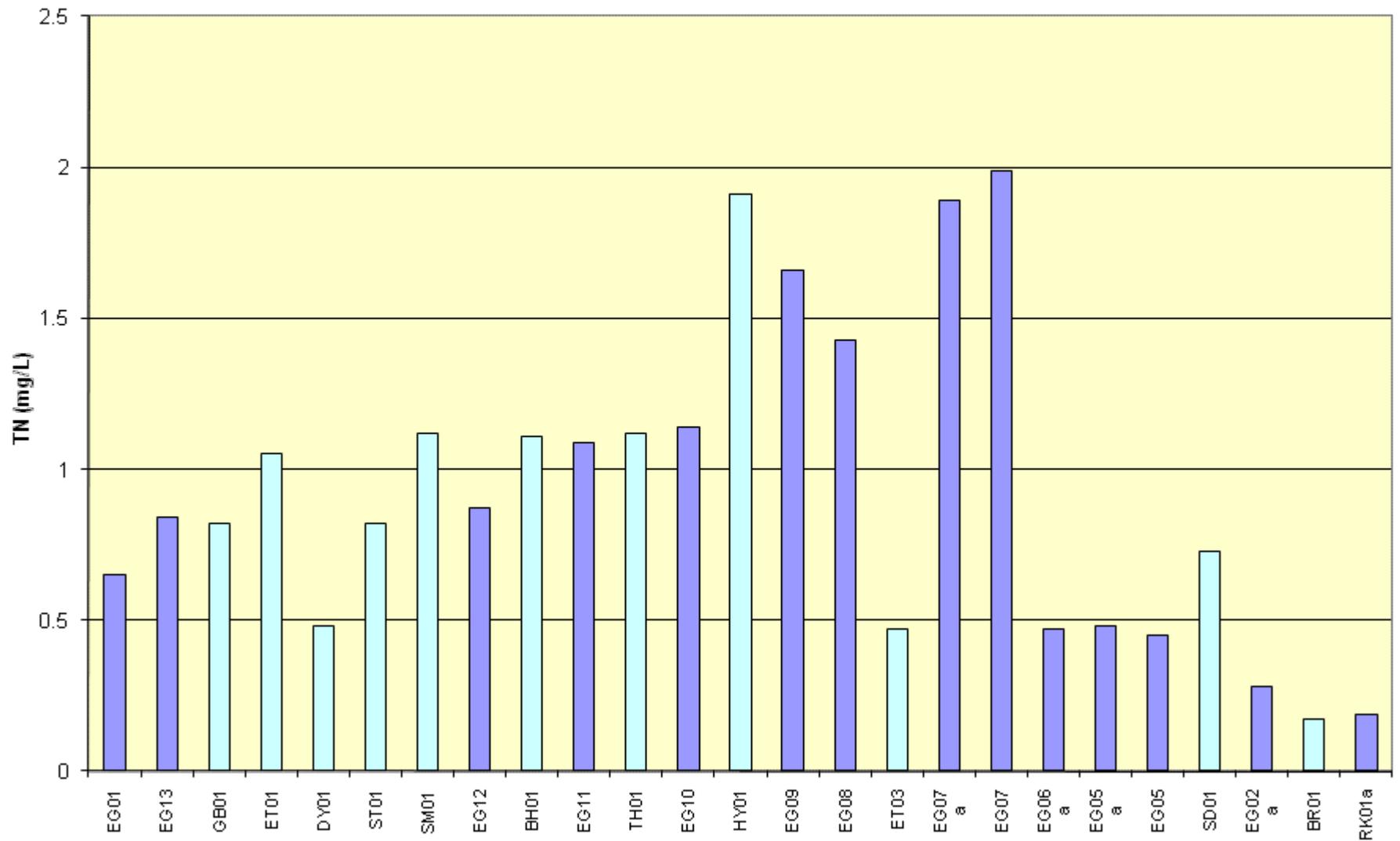
Source = WWTP, agricultural sources





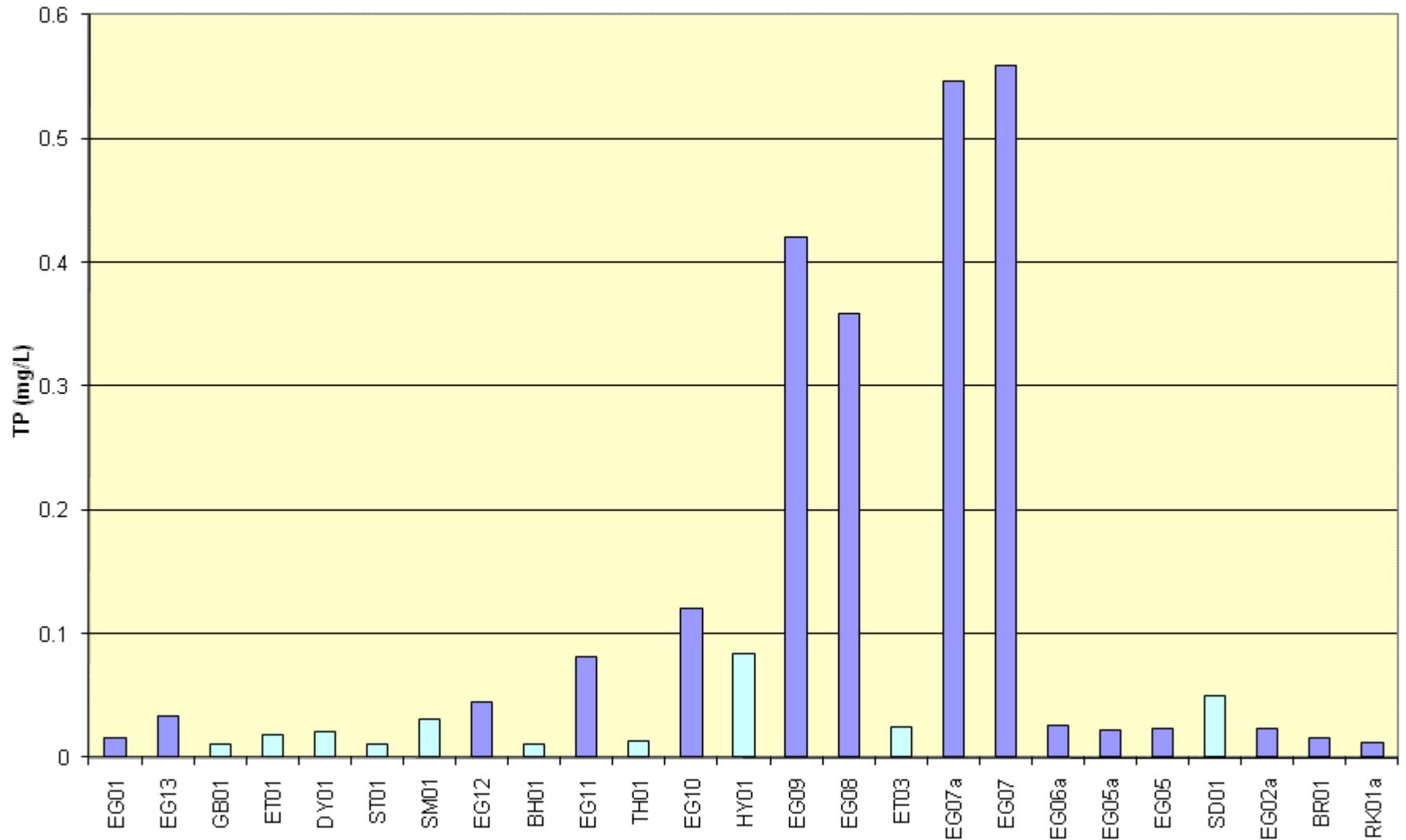
East Gallatin Water Quality

East Gallatin TN



East Gallatin Water Quality

EgalTP



Solutions....

- Work with local groups & agencies to identify problem spots and move toward remedies
- Permit-related allocations/reductions in pollutant loading
- Outreach and education to landowners and land managers
- Continued assessment and evaluation of reduction strategies

Pete Schade 444-6771

Lisa Kusnierz 444-3658

Montana Department of Environmental Quality



