

2005-2006 Phillippi Creek Bacteria Study



Sarasota County Water Resources

Phillippi Creek Basin

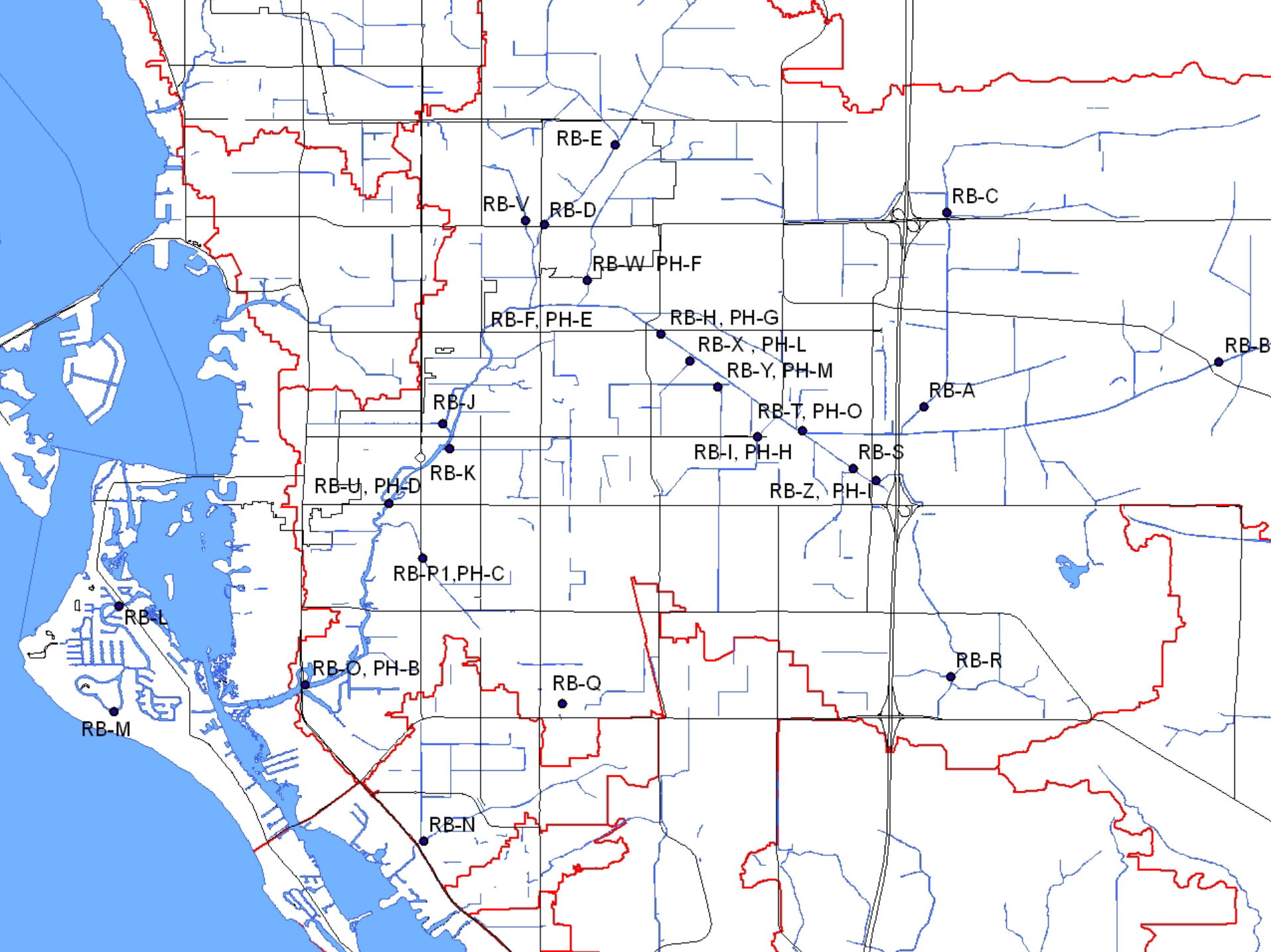
- One of four major floodplains in Sarasota County
- The third largest sub-basin in Sarasota County
- Lies within Roberts Bay Watershed
- Drainage area covers 57 square miles
- Forty-seven miles of open channels
- Urbanized. Primary land use: residential (48.73%), commercial/industrial (7.18%), agriculture (12.54%).
- Largest contributor of fresh water, nutrients, and metals to Roberts Bay (Matheny Creek only other tributary)
- Sewage treatment primarily septic tanks along Main A Canal
- 15,416 septic systems in basin prior to PCSSRP

Phillippi Creek Basin

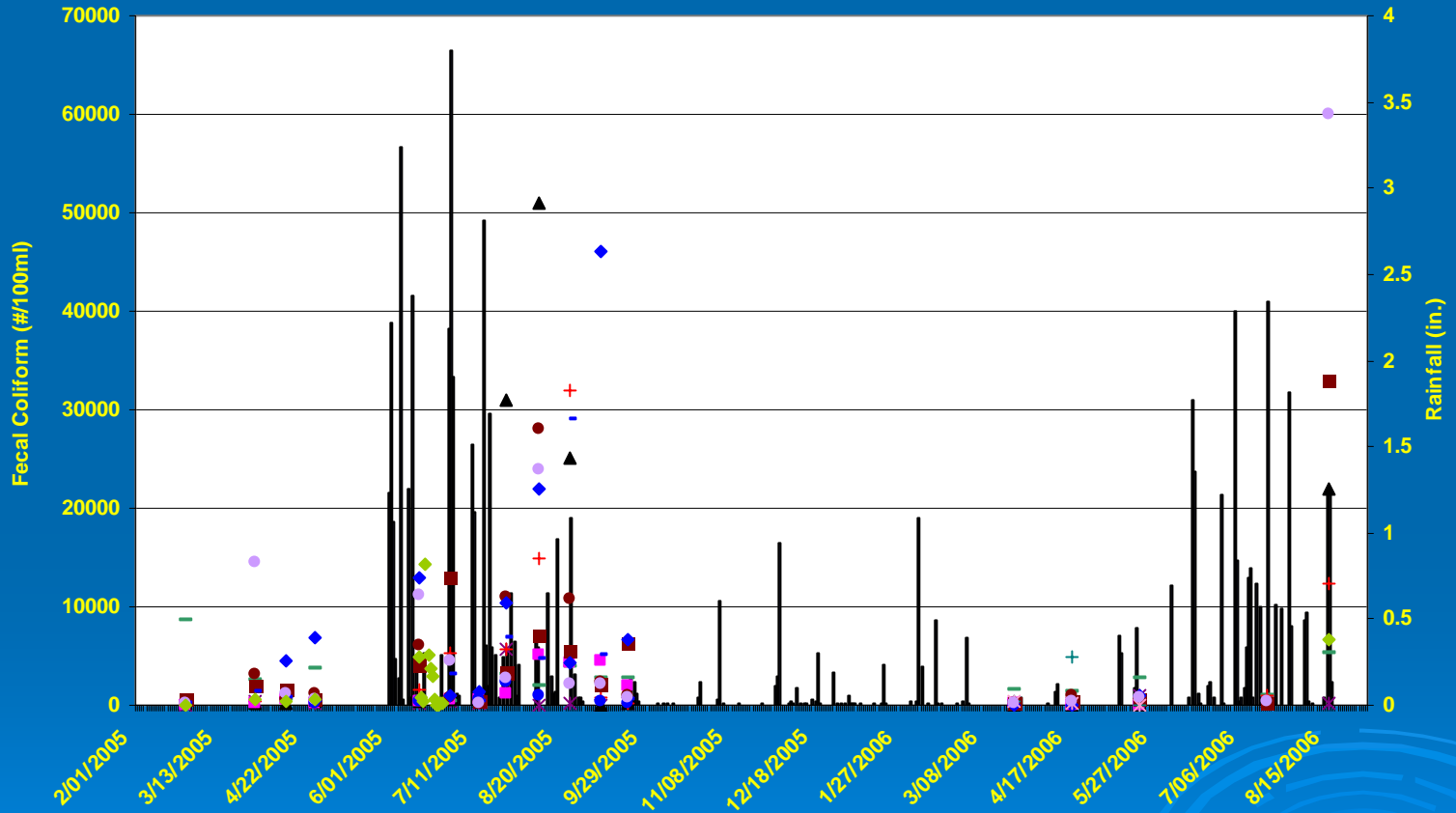
- South Gate AWWTP discharge to Phillippi Creek
- 1.36 mgd facility
- Provides approximately 250,000 gallons/day reuse to Forest Lakes Golf Course
- Discharges approximately 1.1 mgd to Phillippi Creek
- Permitted to discharge 1.36 mgd to Phillippi Creek as wet weather alternative
- Facility will be taken offline by 11/1/2007
- Result in load reduction: 9.23-13.79 lbs. TN and 1.38-2.07 lbs. TP

Bacteriological Study

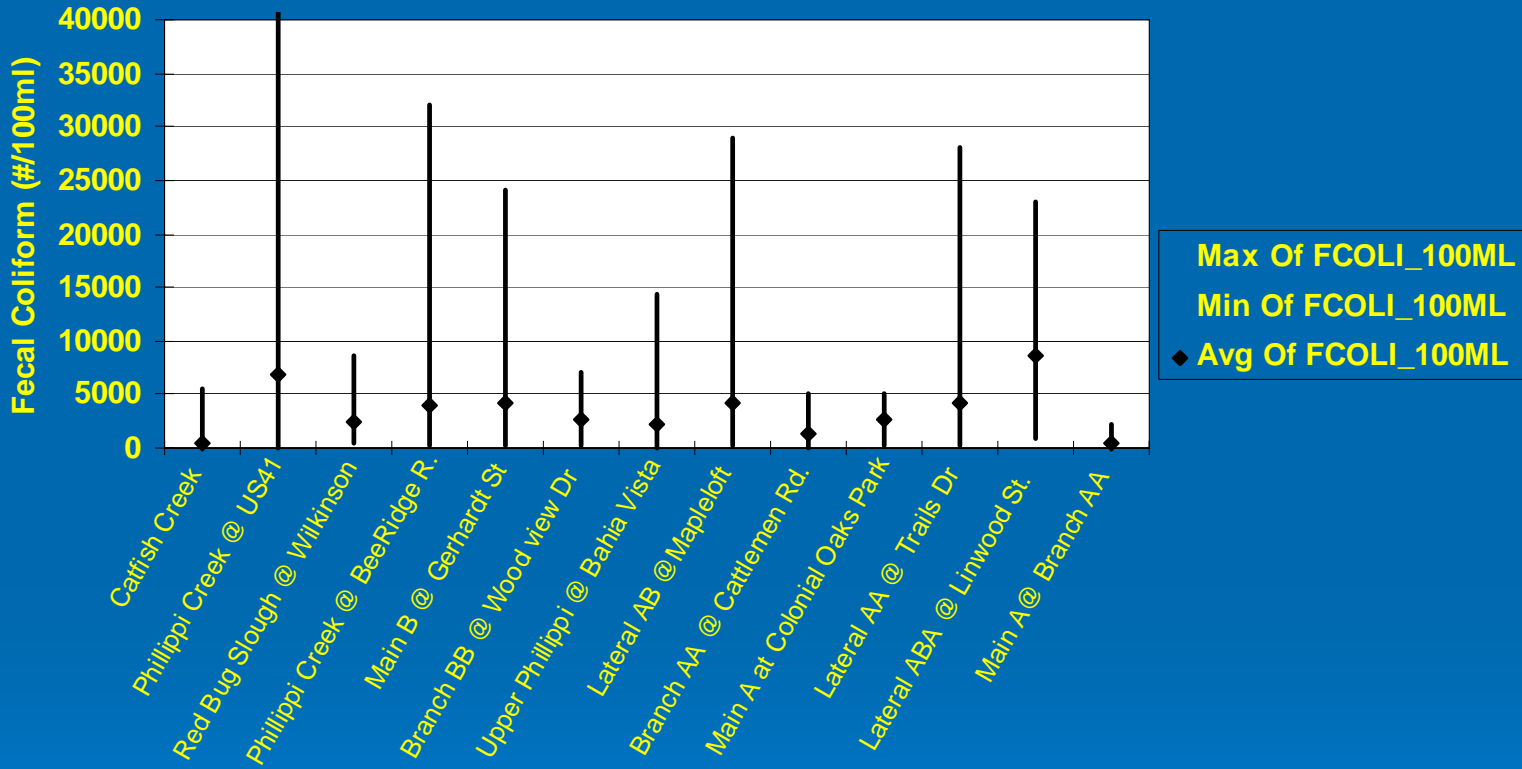
- No current water quality data
- Listed as impaired for coliforms in Group 3 Basins (Sarasota Bay); total >2400; fecal >400.
- TMDL in 2008
- Verify TMDL
- Support PCSSRP
- More current data to help prioritize PCSSRP areas for central sewer
- Provide background data
- Look for potential hot spots
- Added nutrients in 2006 for Roberts Bay Study
- Nutrient data relative to Roberts Bay Nutrient TMDL



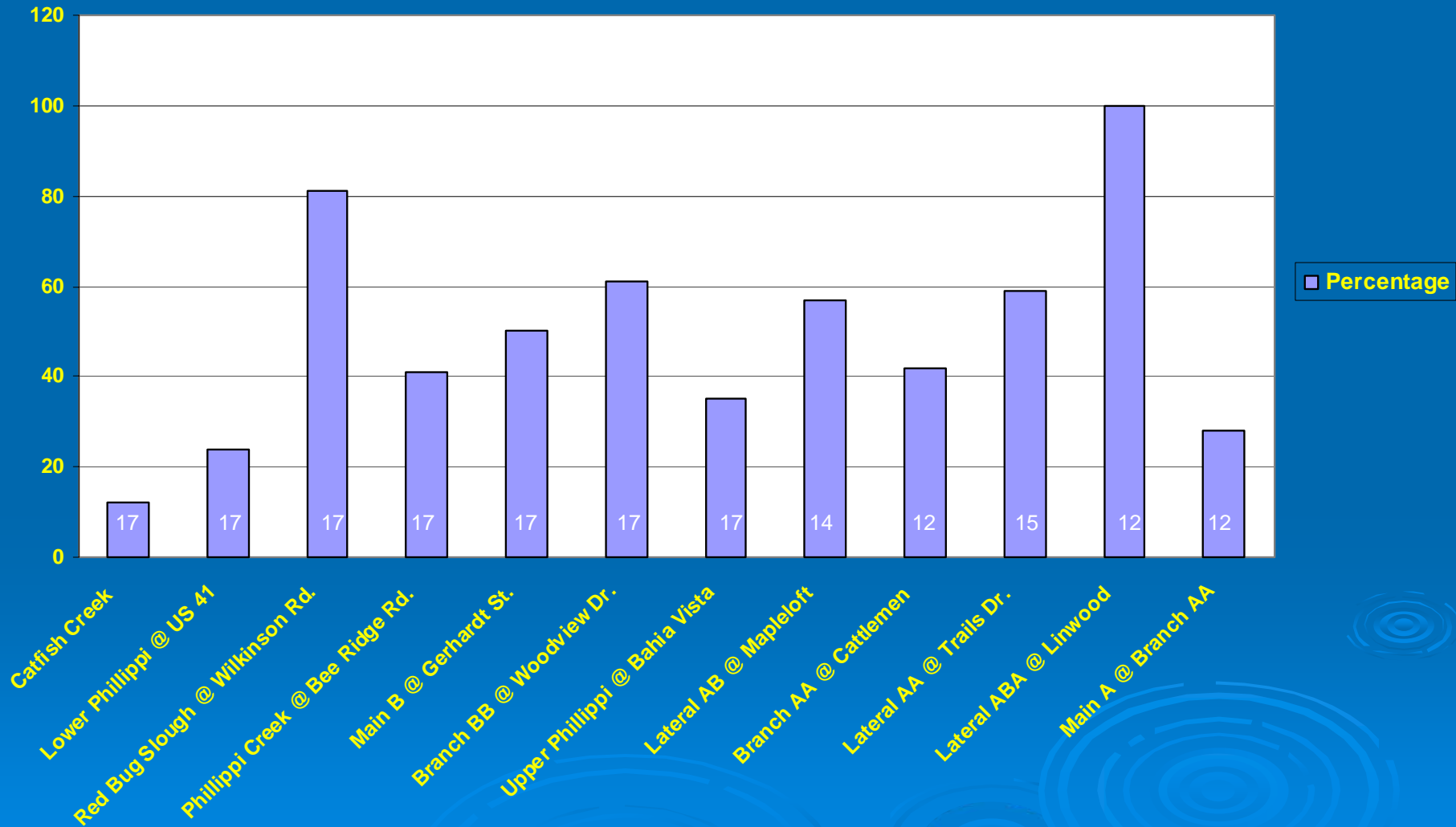
Phillippi Creek Bacteria - Fecal and Rainfall



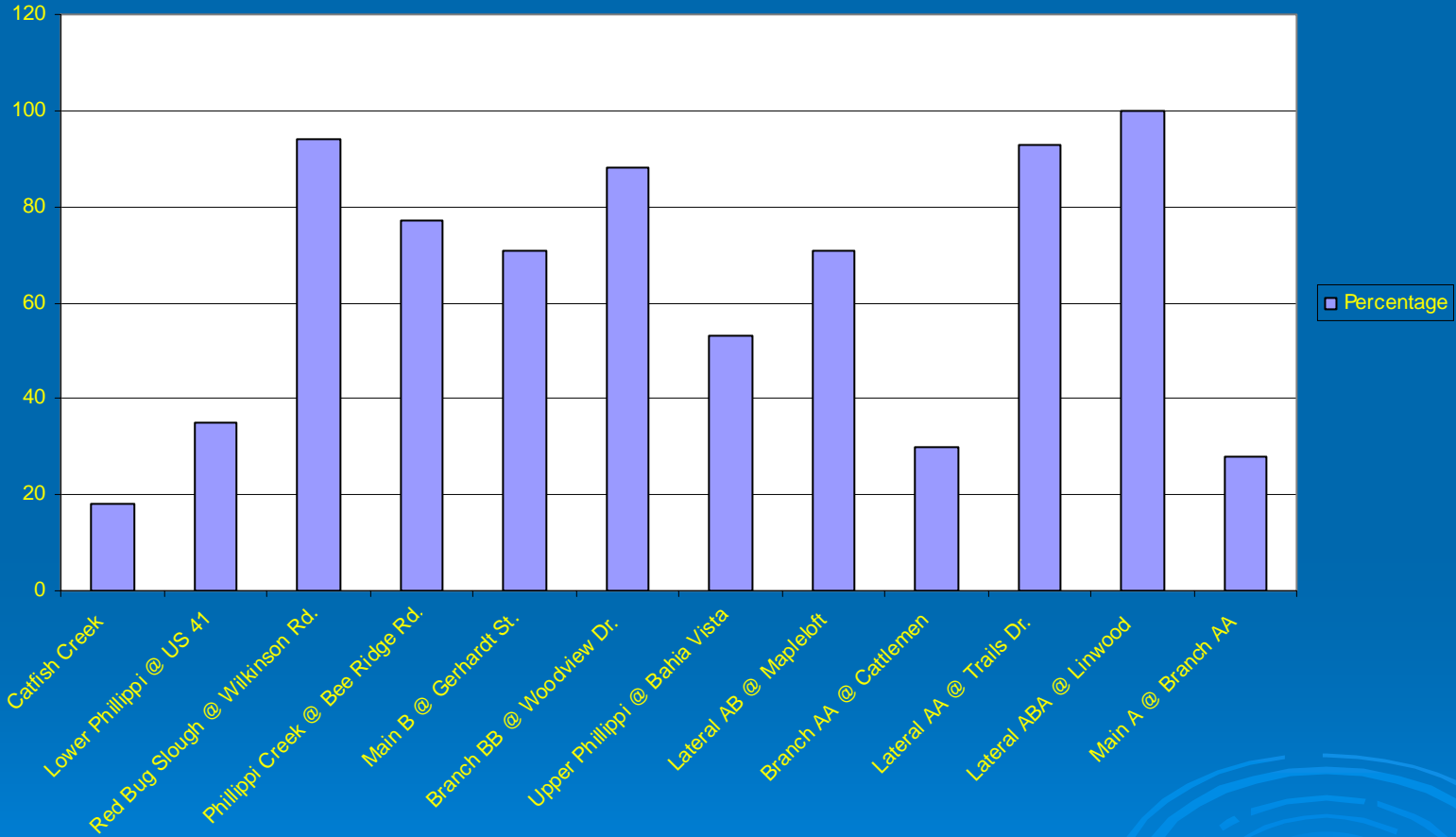
Phillippi Creek Bacteria - Fecal Min./Max./Mean



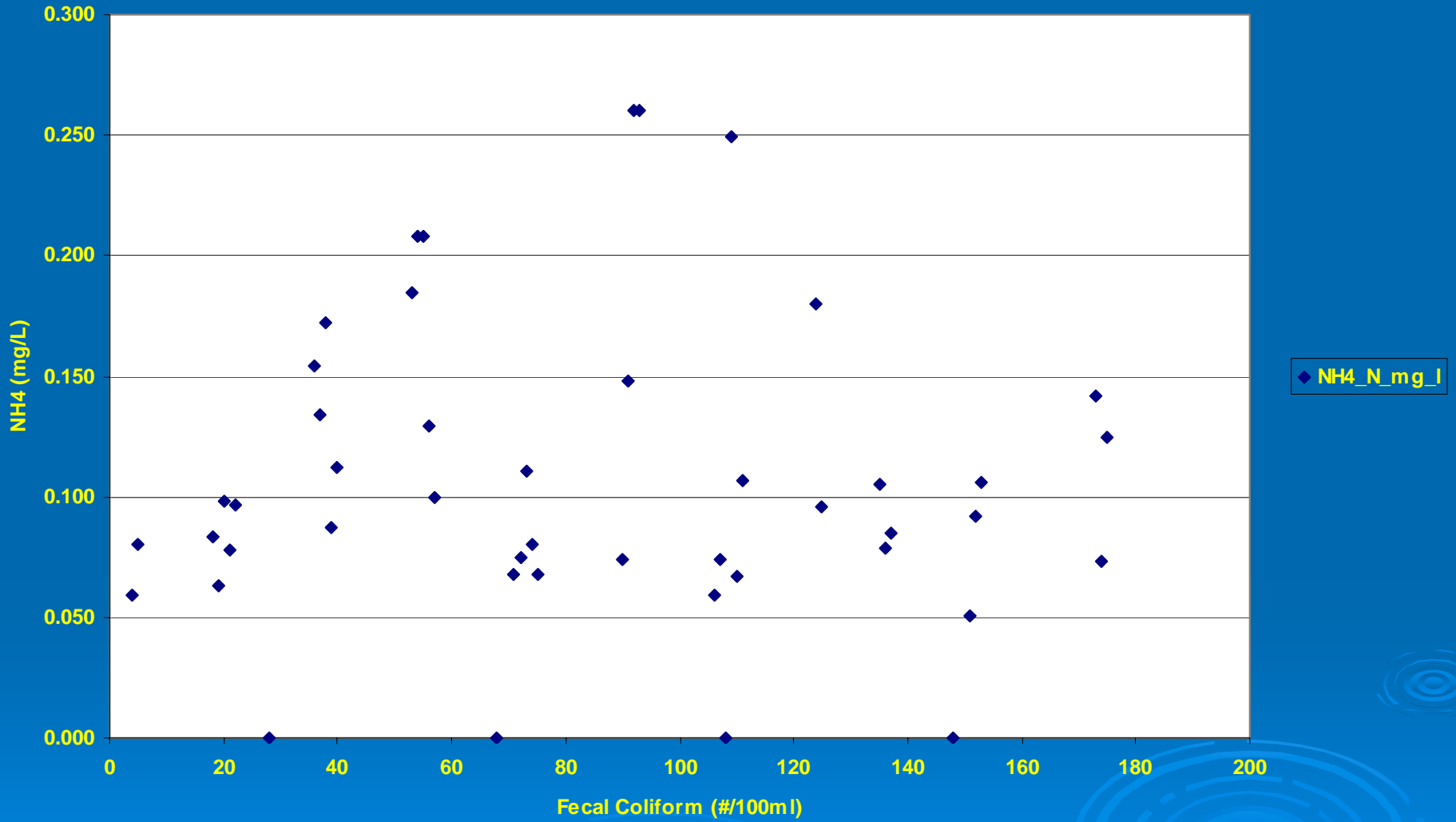
Phillippi Creek Bacteria - Percentage of samples over 800 col/100mL



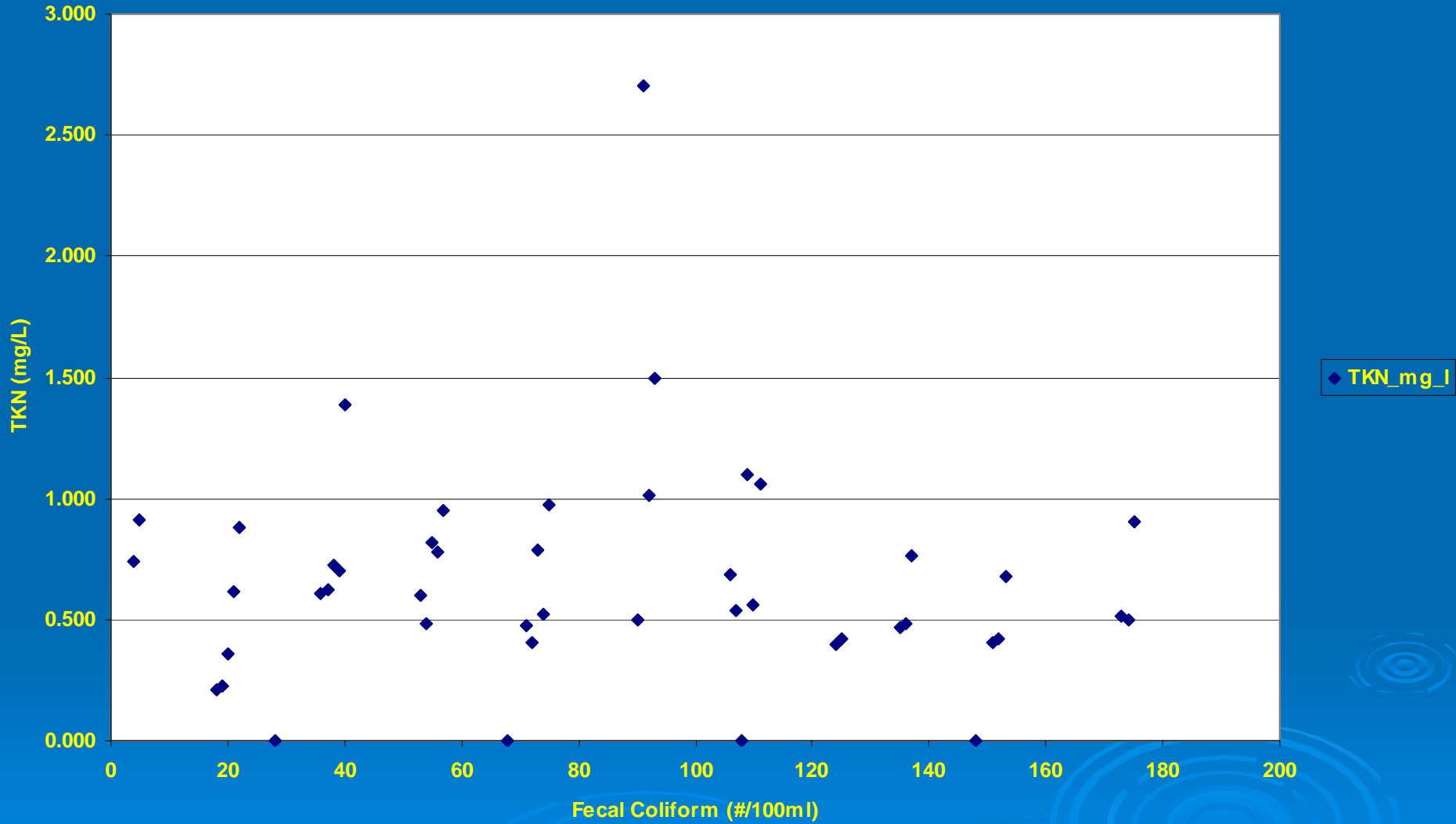
Phillippi Creek Bacteria - Percentage of Samples over 400 col/100ml



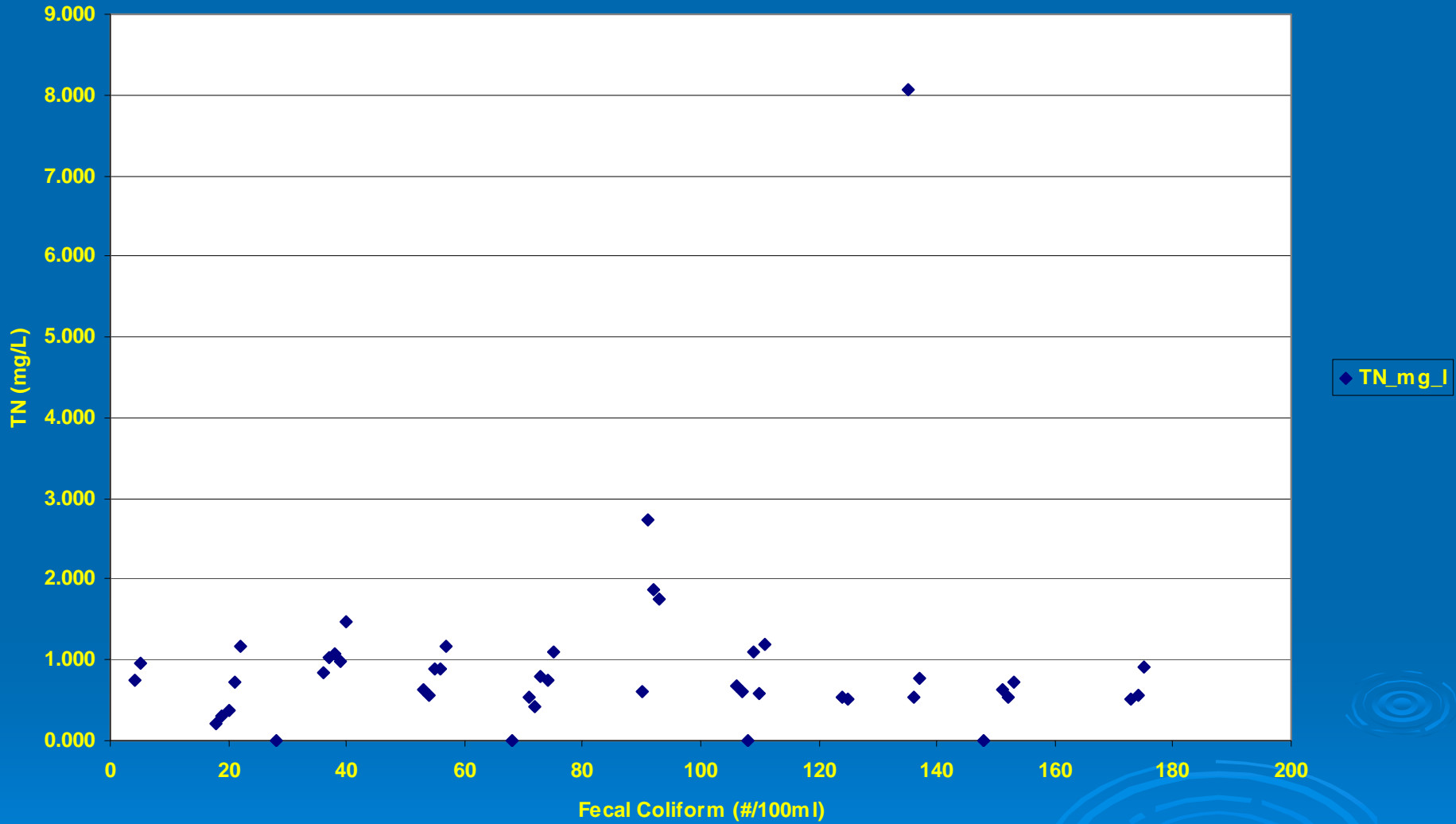
Phillippi Creek Bacteria - Fecal vs Ammonia



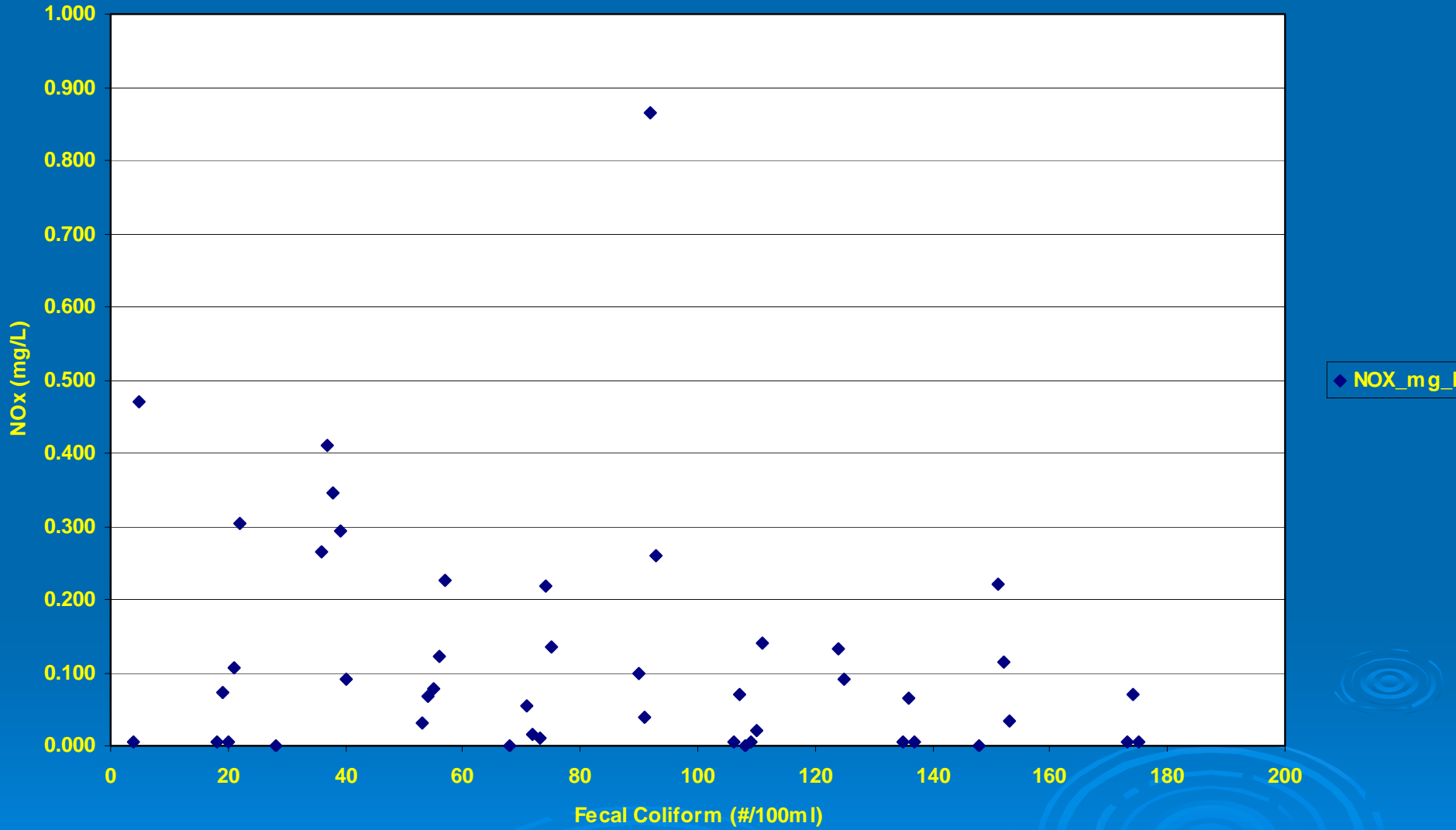
Phillippi Creek Bacteria - Fecal vs Total Kjeldahl Nitrogen



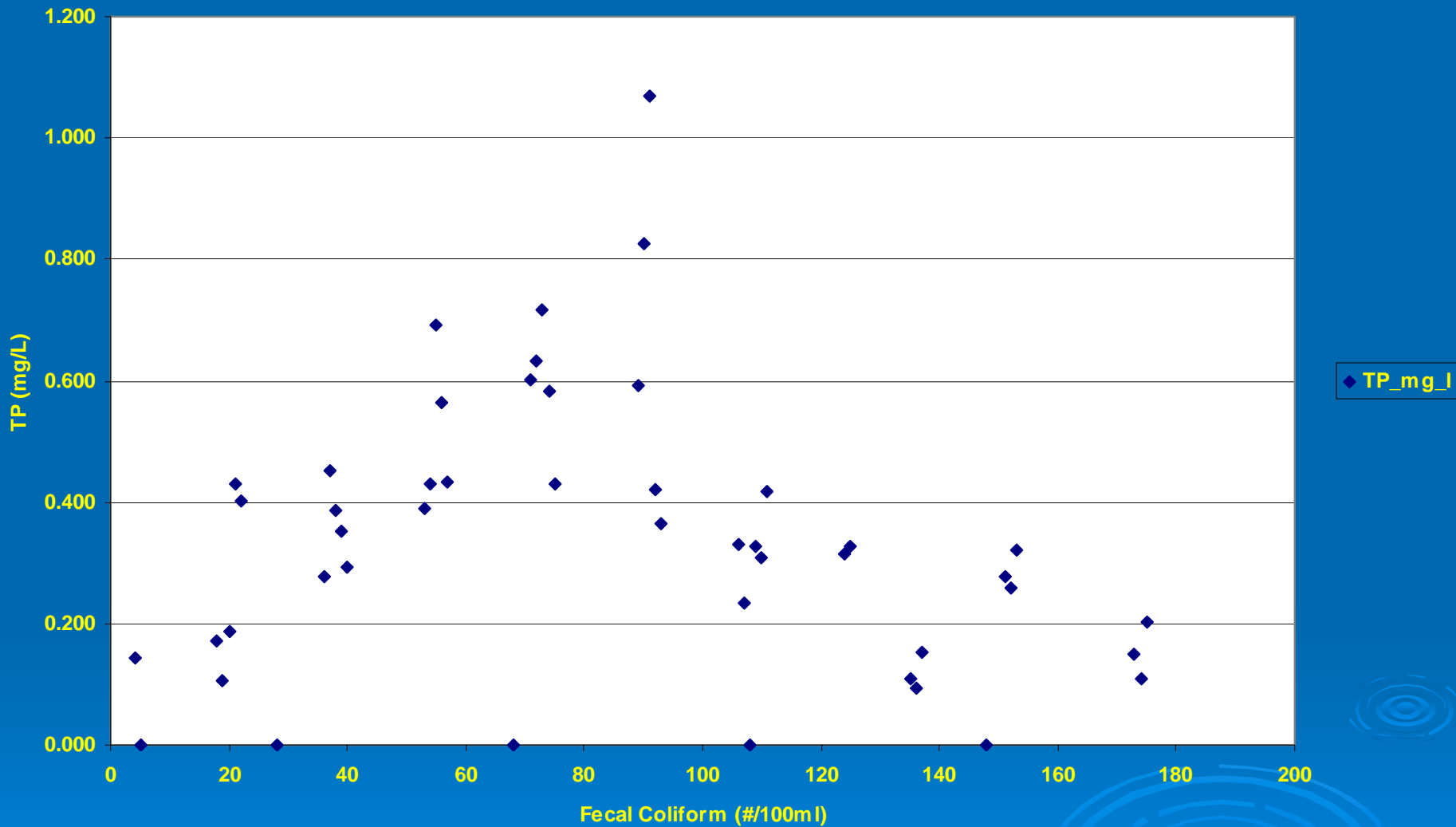
Phillippi Creek Bacteria - Fecal vs Total Nitrogen



Phillippi Creek - Fecal vs Nitrite + Nitrate



Phillippi Creek Bacteria - Fecal vs Total Phosphorus



Phillippi Creek Bacteria Study

Where Do We Go From Here?

- Continue monthly monitoring
- Focus on areas with highest bacteria and nutrient loads
- Continue to support PCSSRP
- Partner with FDEP and Mote to work with Optical Brighteners
- Contribute to development of BMAP
- Design and implement projects proposed in BMAP
- Design monitoring program to measure success of BMAP projects

THANK YOU!

