



# Water Quality Trends

Waccamaw River Volunteer Monitoring

Annual Volunteer Luncheon

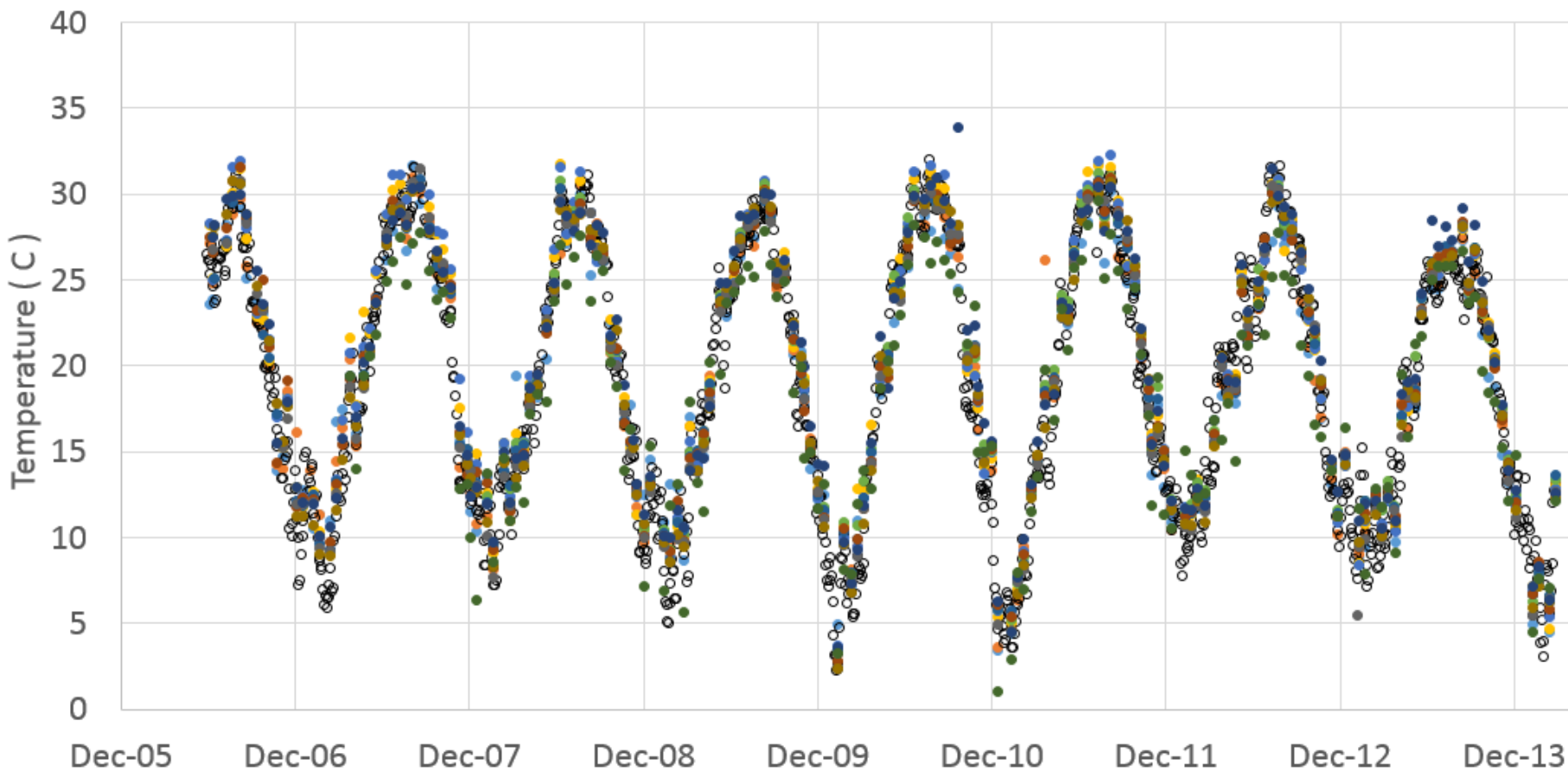
March 20, 2014



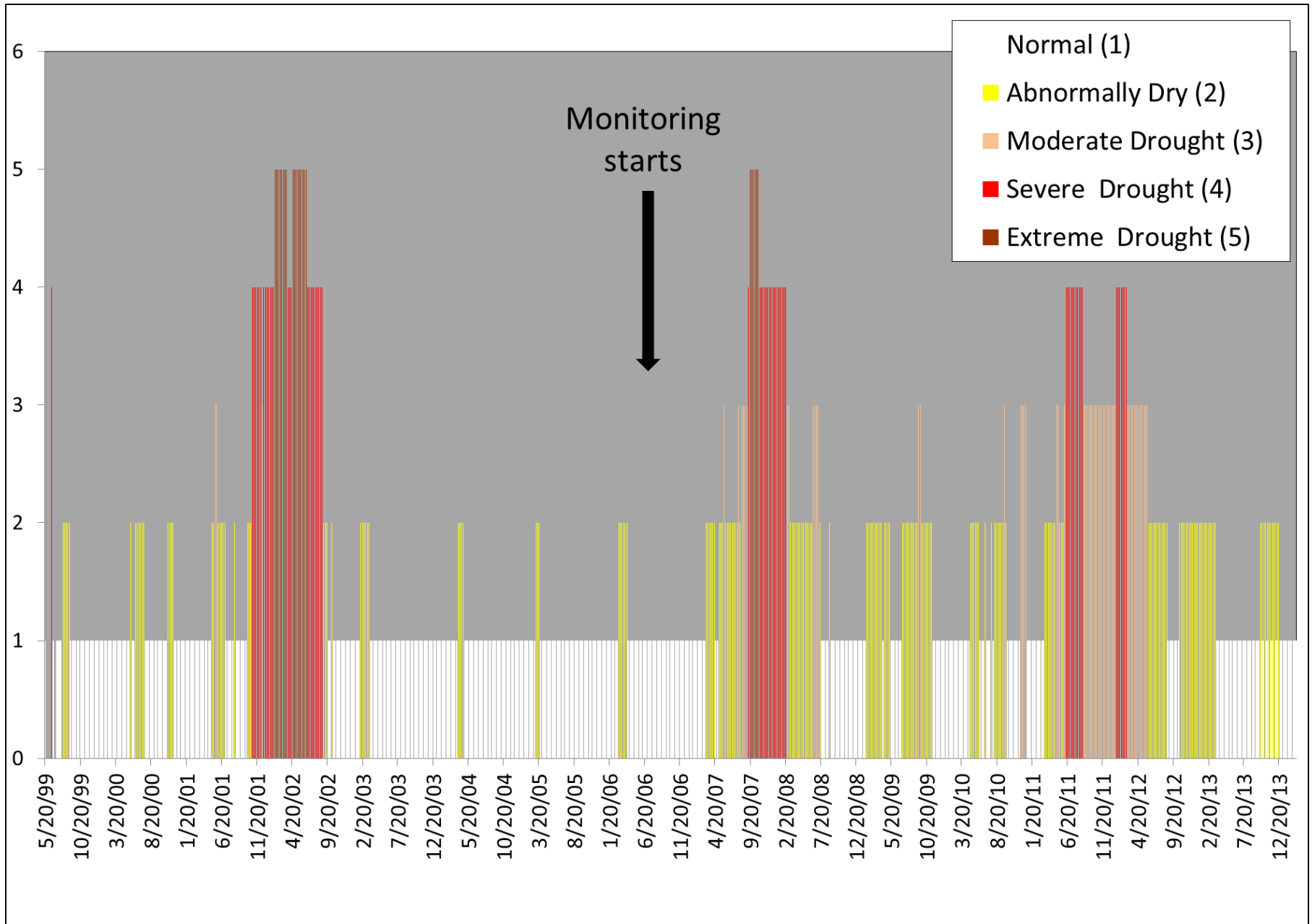
# Topics

- Was it unusually cold this winter?
- No more drought
  - Effect of the Pee Dee Flood
- What's going on at Hagley?
- (Bucksport)

- Hwy 9
- Pitch Lndg
- Wachesaw
- Reaves Ferry
- Peachtree Lndg
- Hagley
- Murrells Landing
- Enterprise Lndg
- Sampit
- Conway
- Bucksport
- Sterritt Swamp

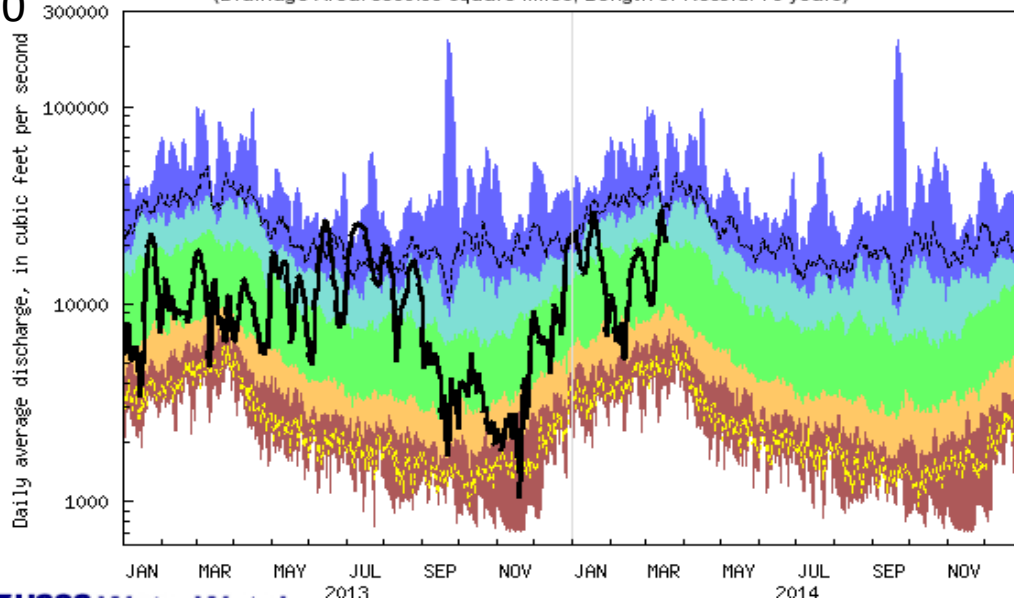


# Drought Status of Horry County since 1999



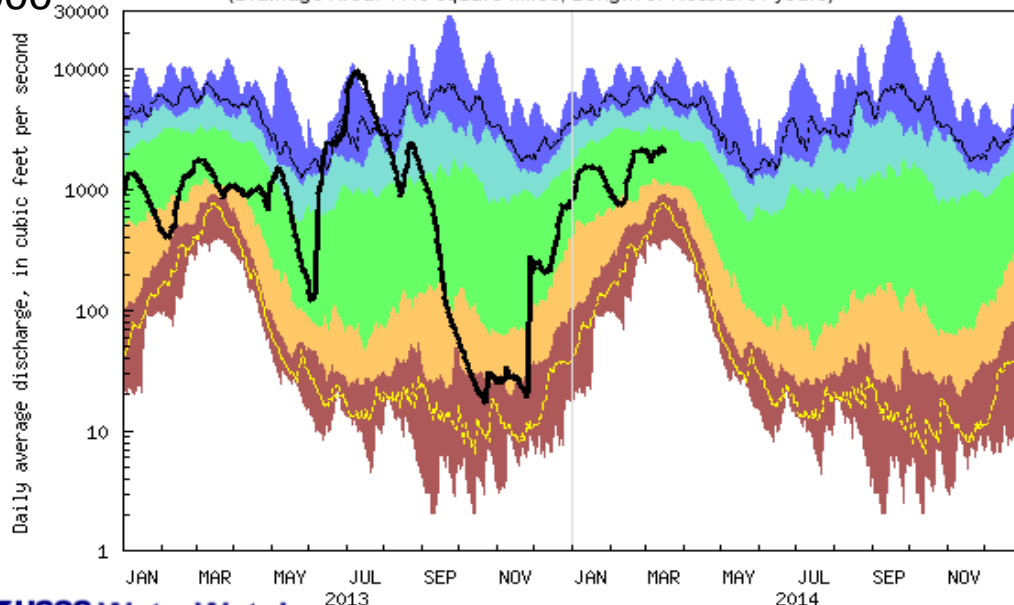
USGS 02131000 PEE DEE RIVER AT PEEDEE, SC  
(Drainage Area: 8830.00 square miles, Length of Record: 73 years)

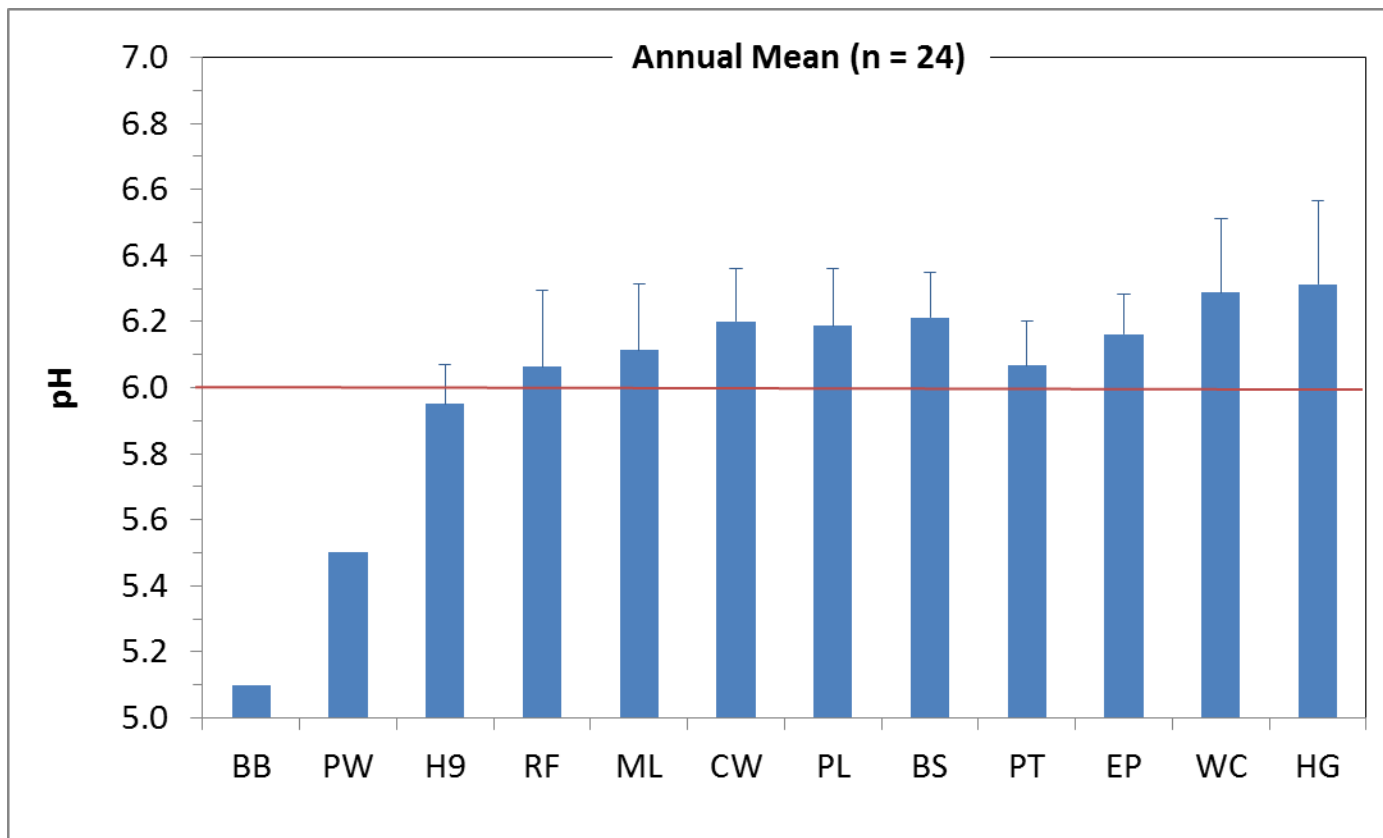
300,000

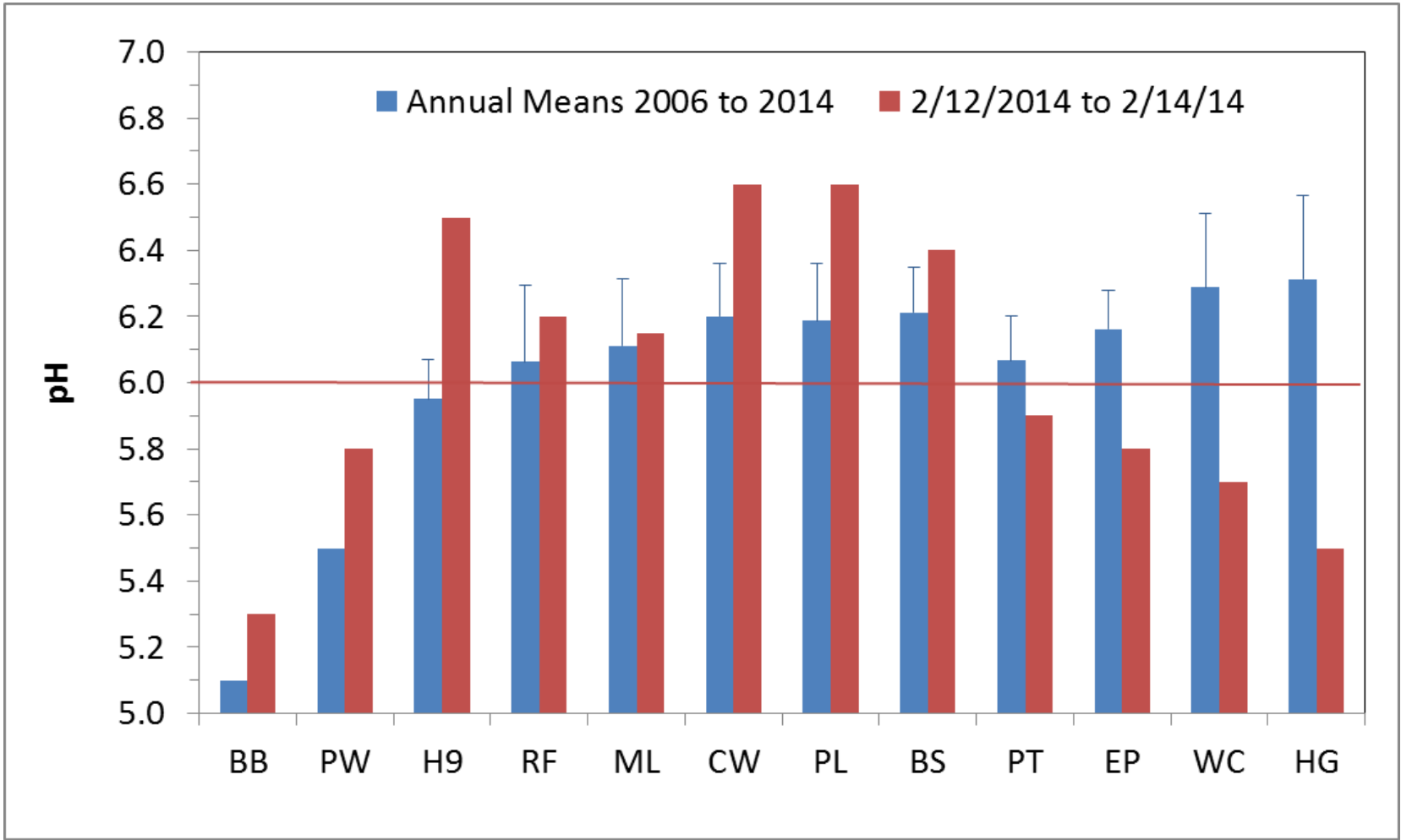


30,000

USGS 02110500 WACCAMAW RIVER NEAR LONGS, SC  
(Drainage Area: 1110 square miles, Length of Record: 61 years)

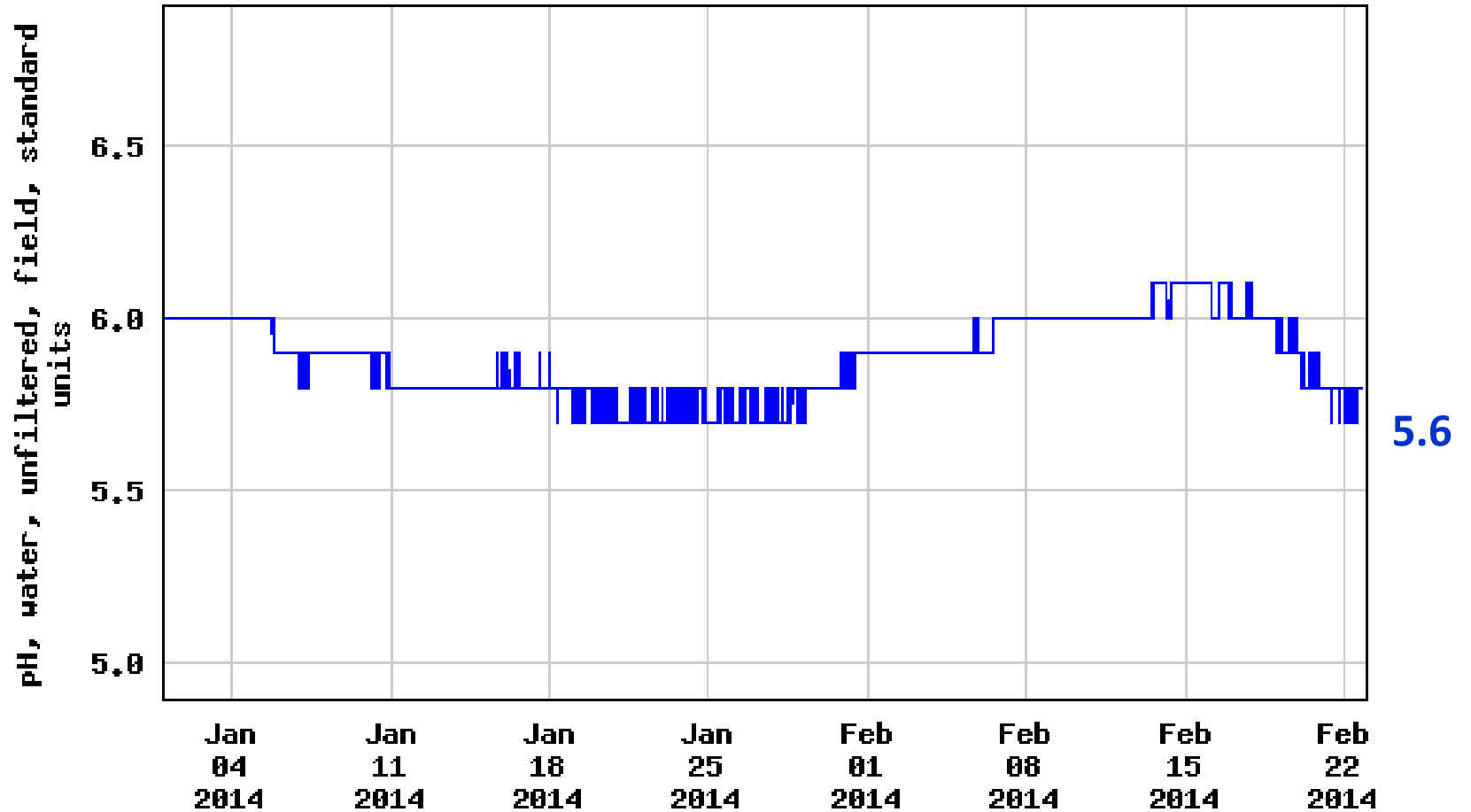






5.5

USGS 02135000 LITTLE PEE DEE R., AT GALIVANTS FERRY, SC

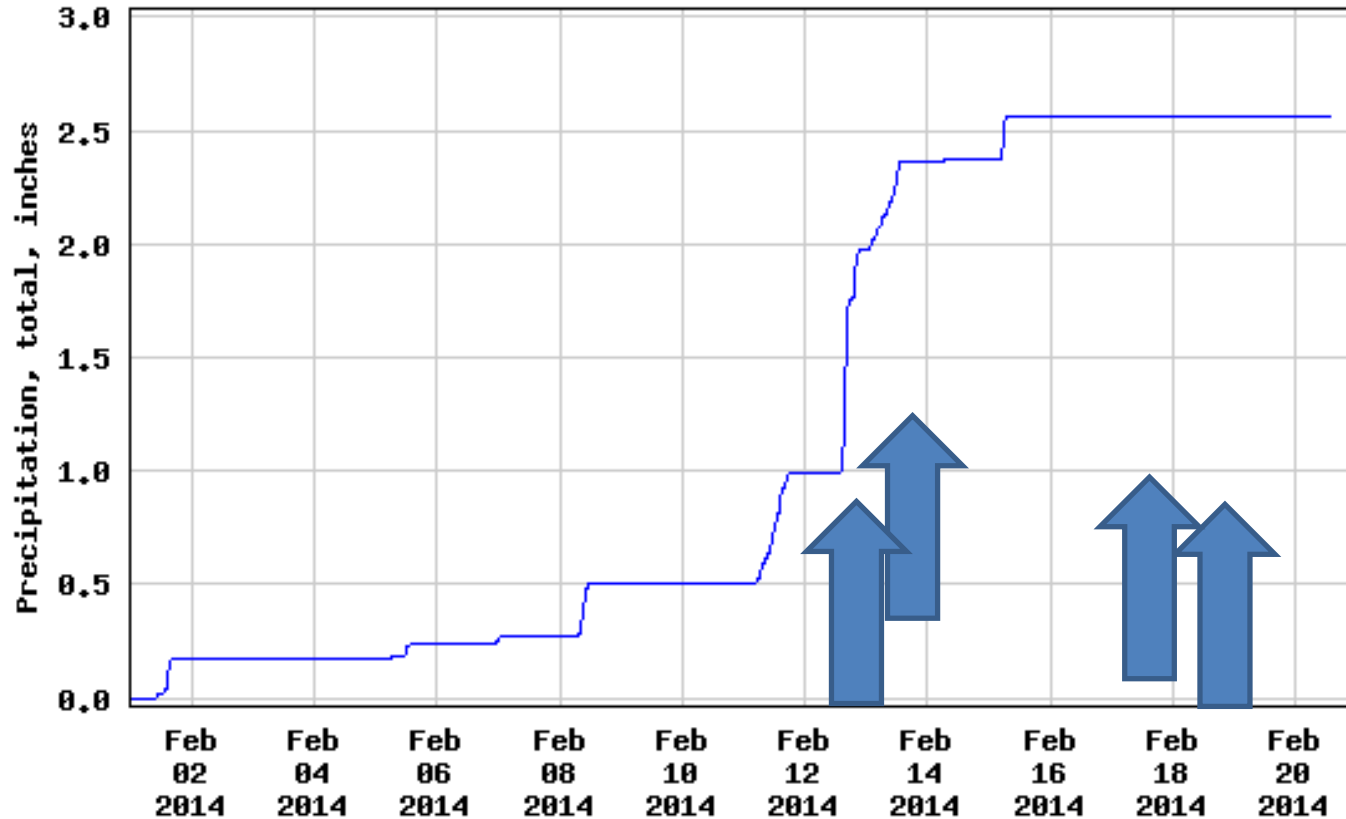


---- Provisional Data Subject to Revision ----



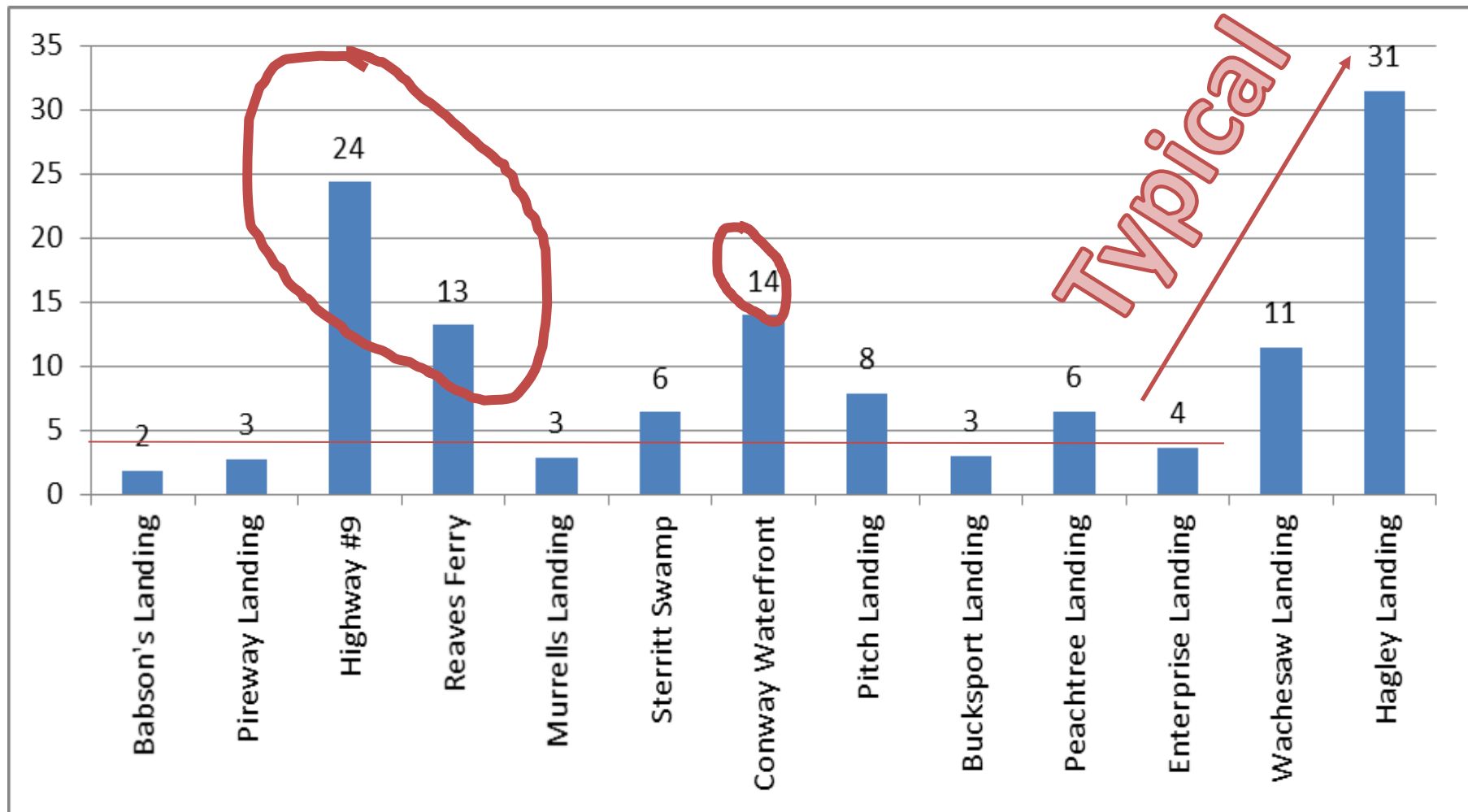
# Rainfall: 2/12/2014 to 2/14/14

USGS 02110701 CRABTREE SWAMP AT CONWAY, SC

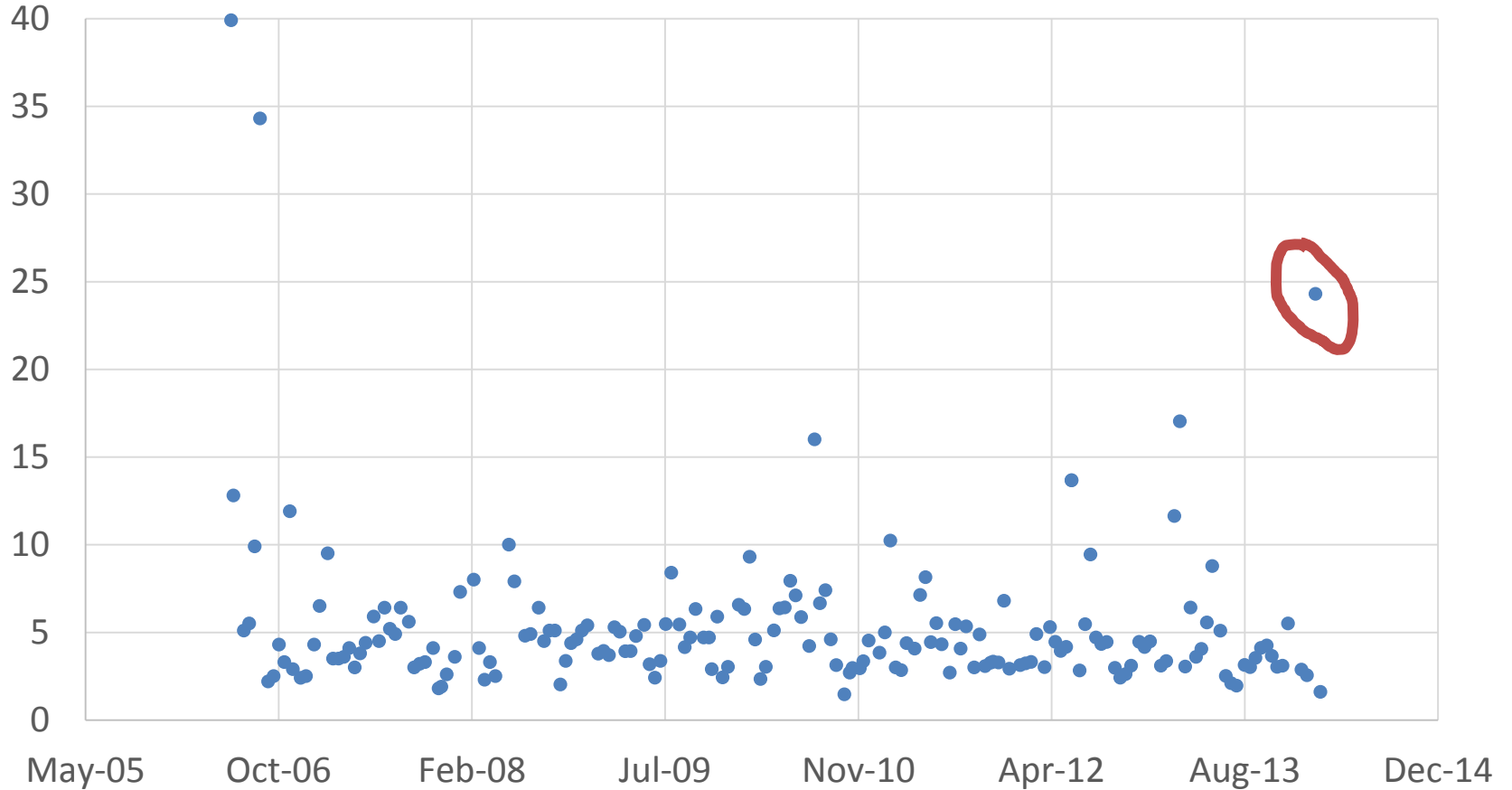


----- Provisional Data Subject to Revision -----

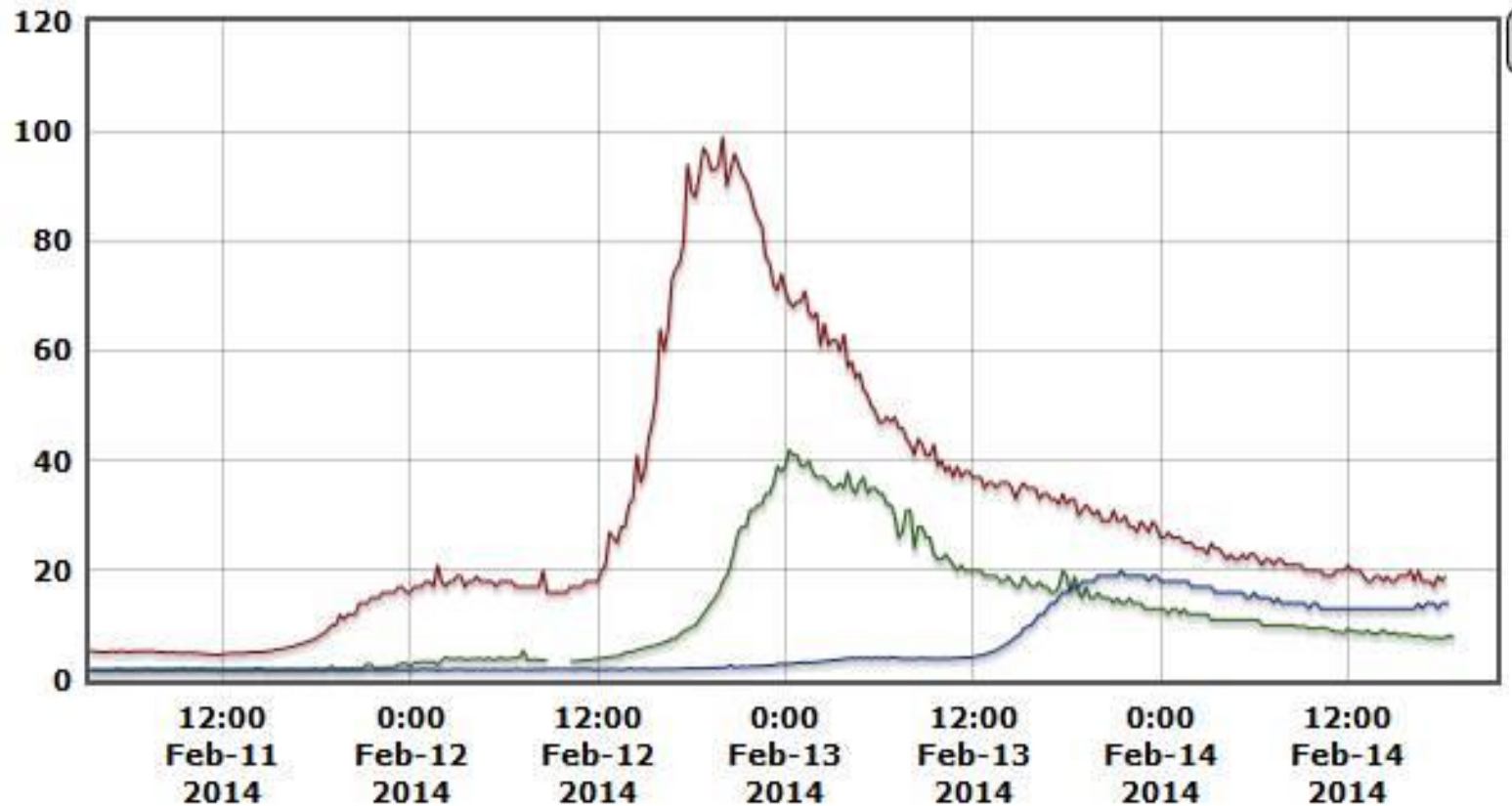
Turbidity: 2/12/14 to 2/14/14



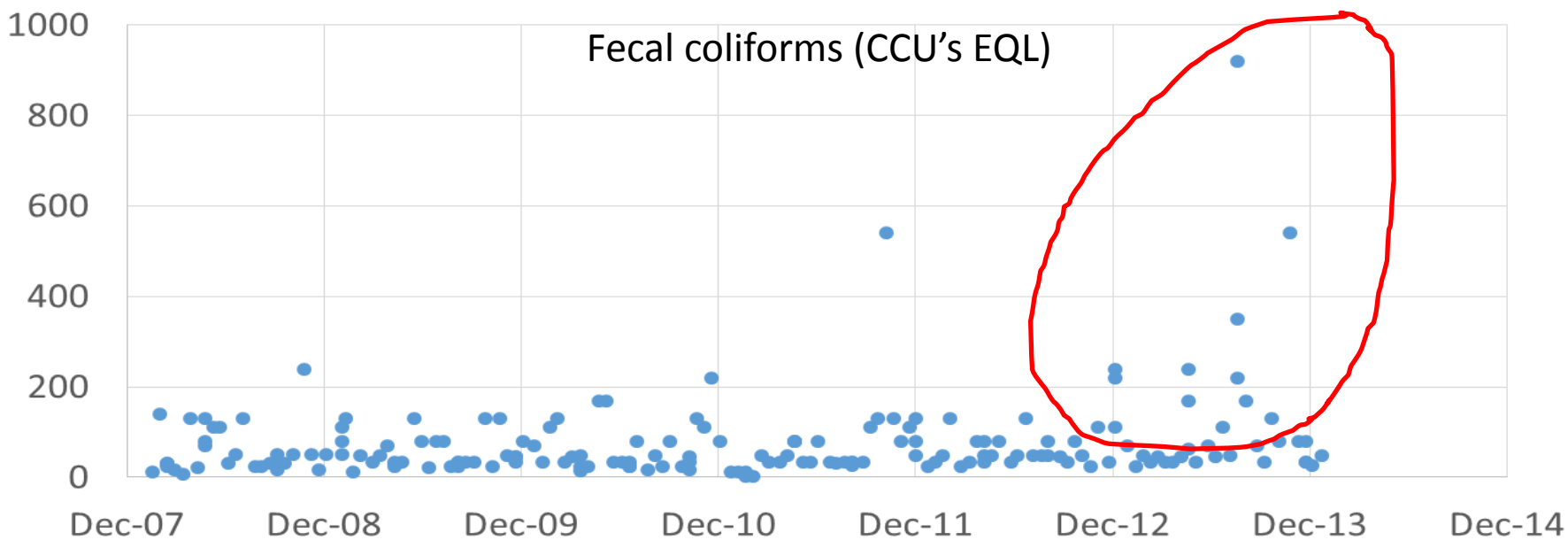
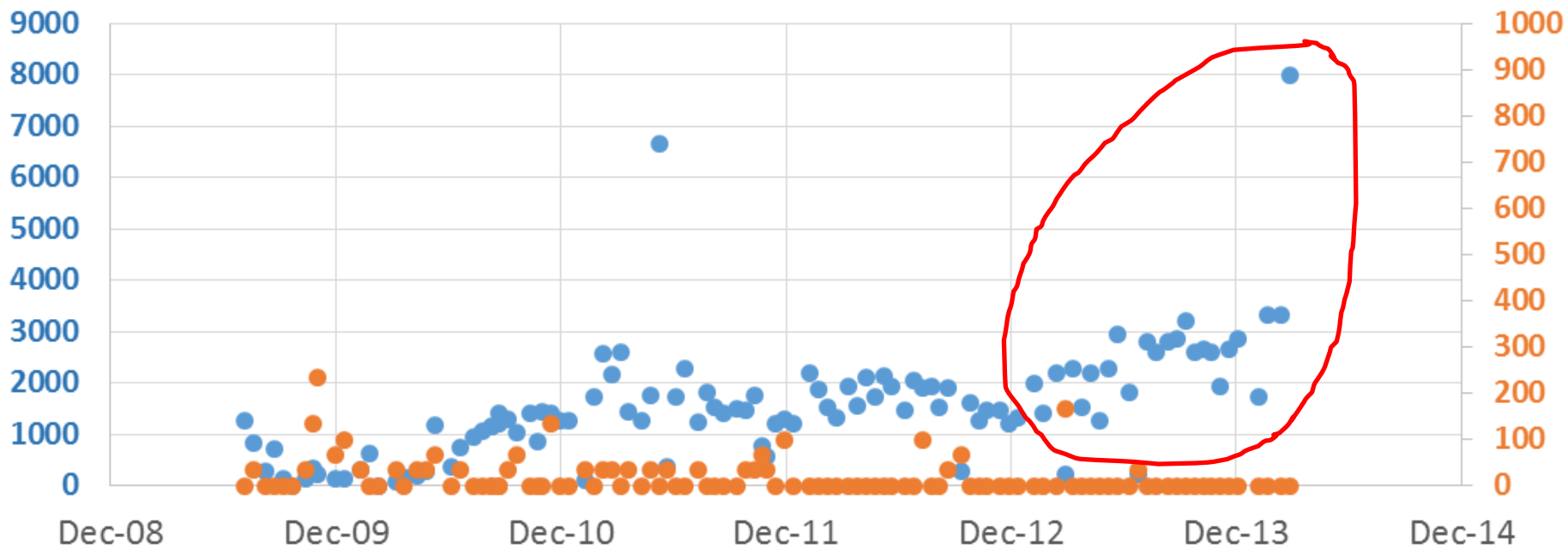
# Highway 9 Turbidity: 2006 to 2014



Note a big slug of turbid water is moving out of Buck Creek and downstream as a result of the ice melt and rain on 2/12. Red is Buck Creek, green is Hwy 9 and Blue is Reaves Ferry. Looks like the volunteers caught part of the slug.



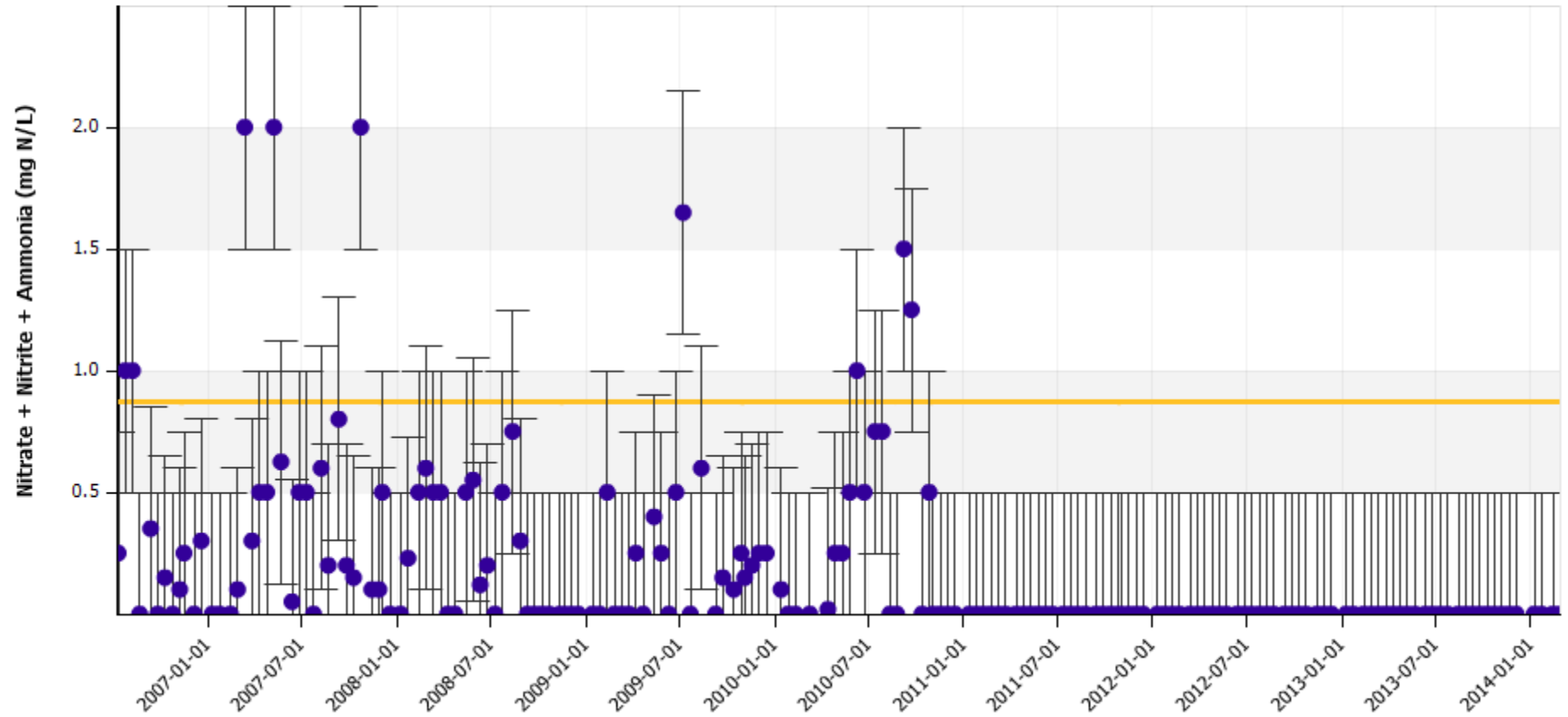
● Total Coliforms ● E. coli

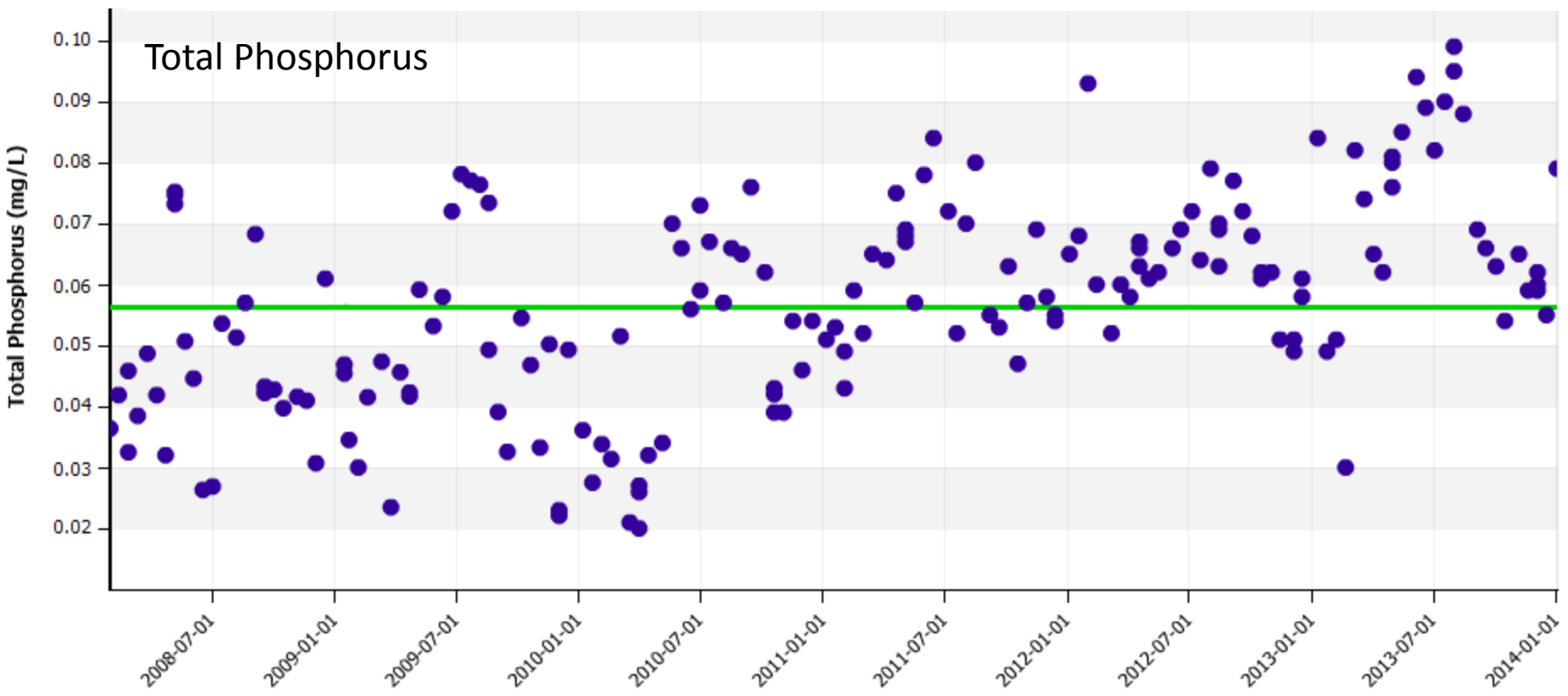
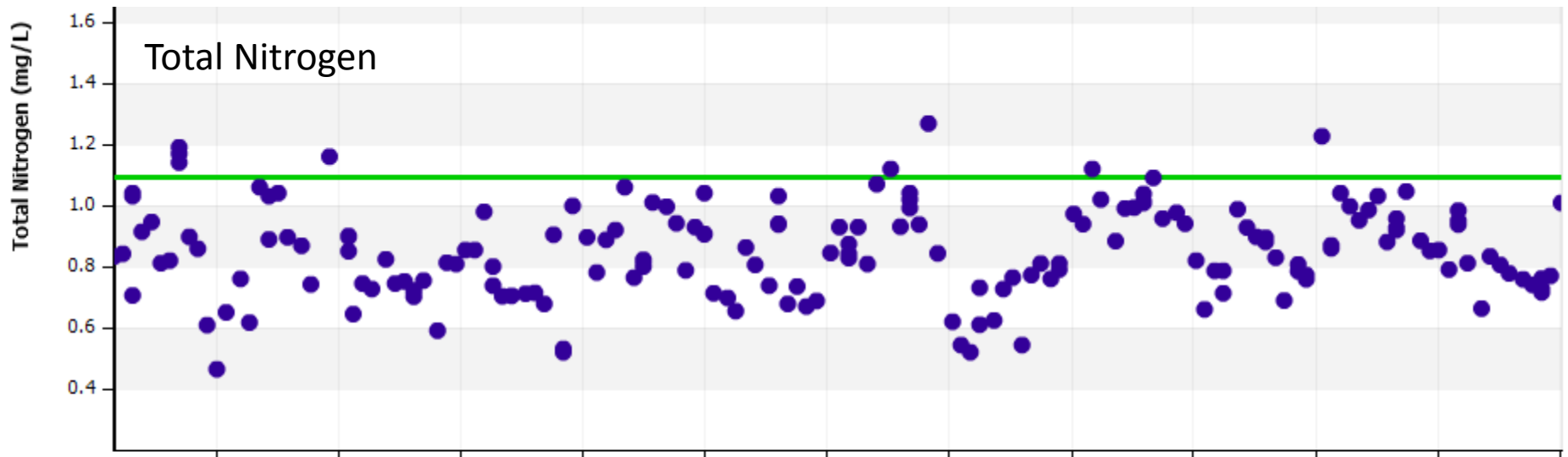


## Hagley Plantation

Nitrate + Nitrite + Ammonia (mg N/L) values collected between June 01, 2006 and February 26, 2014

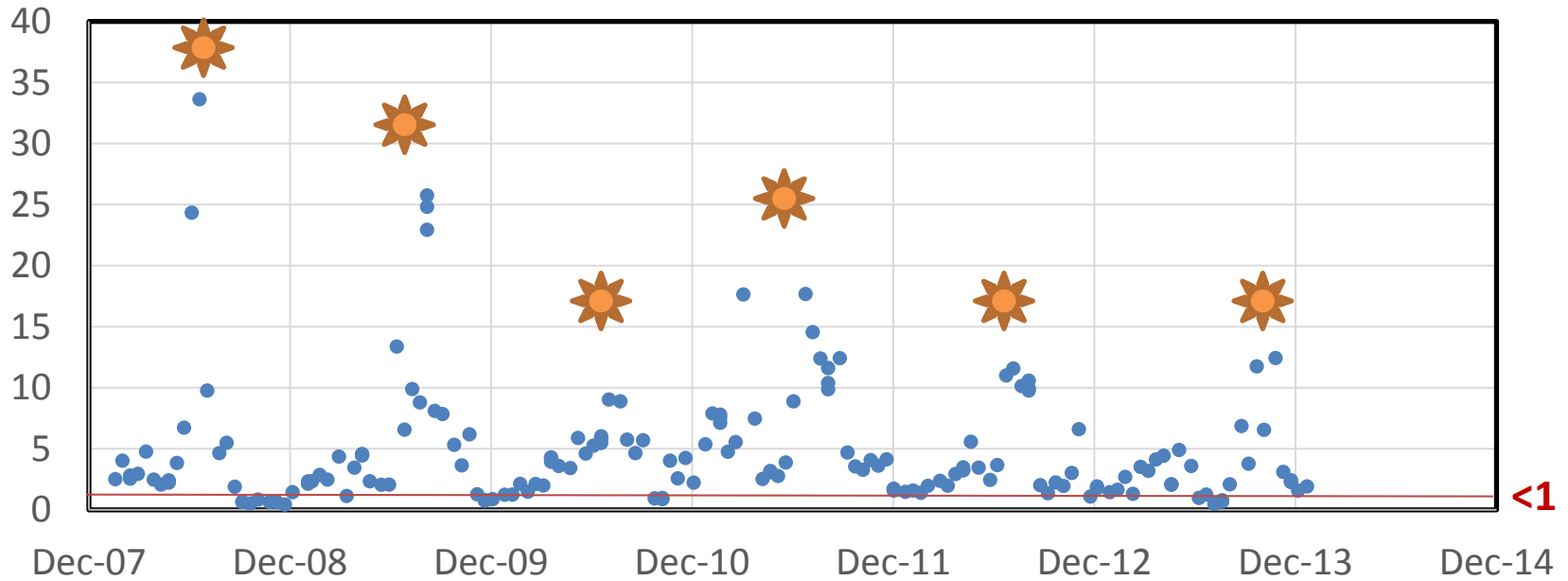
chart by amCharts.com





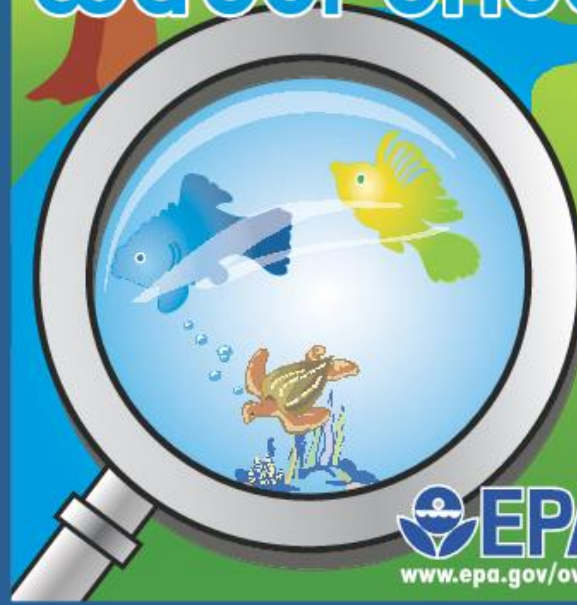
# Chlorophyll ( $\mu\text{g/L}$ )

 Spring-Summer Bloom

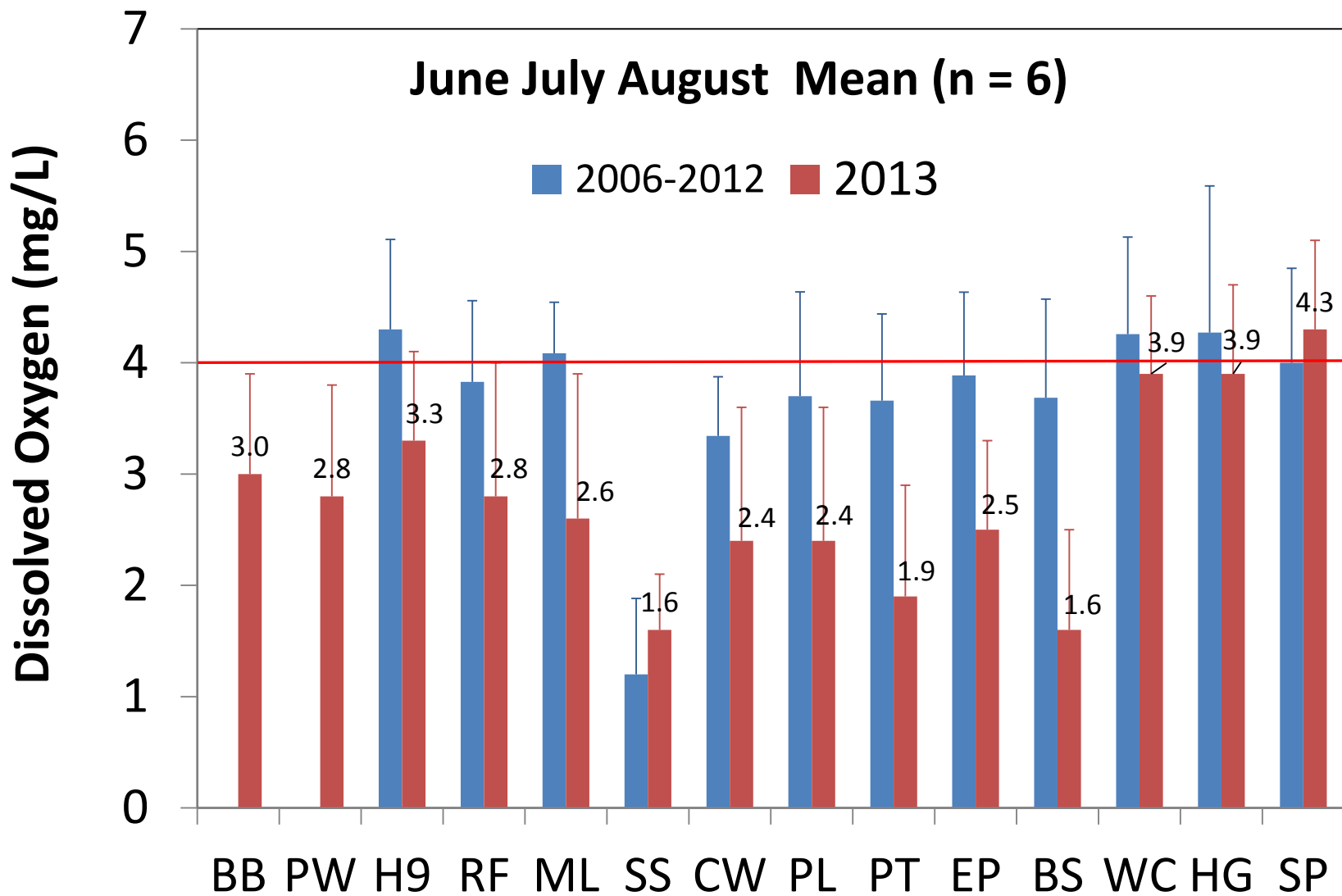




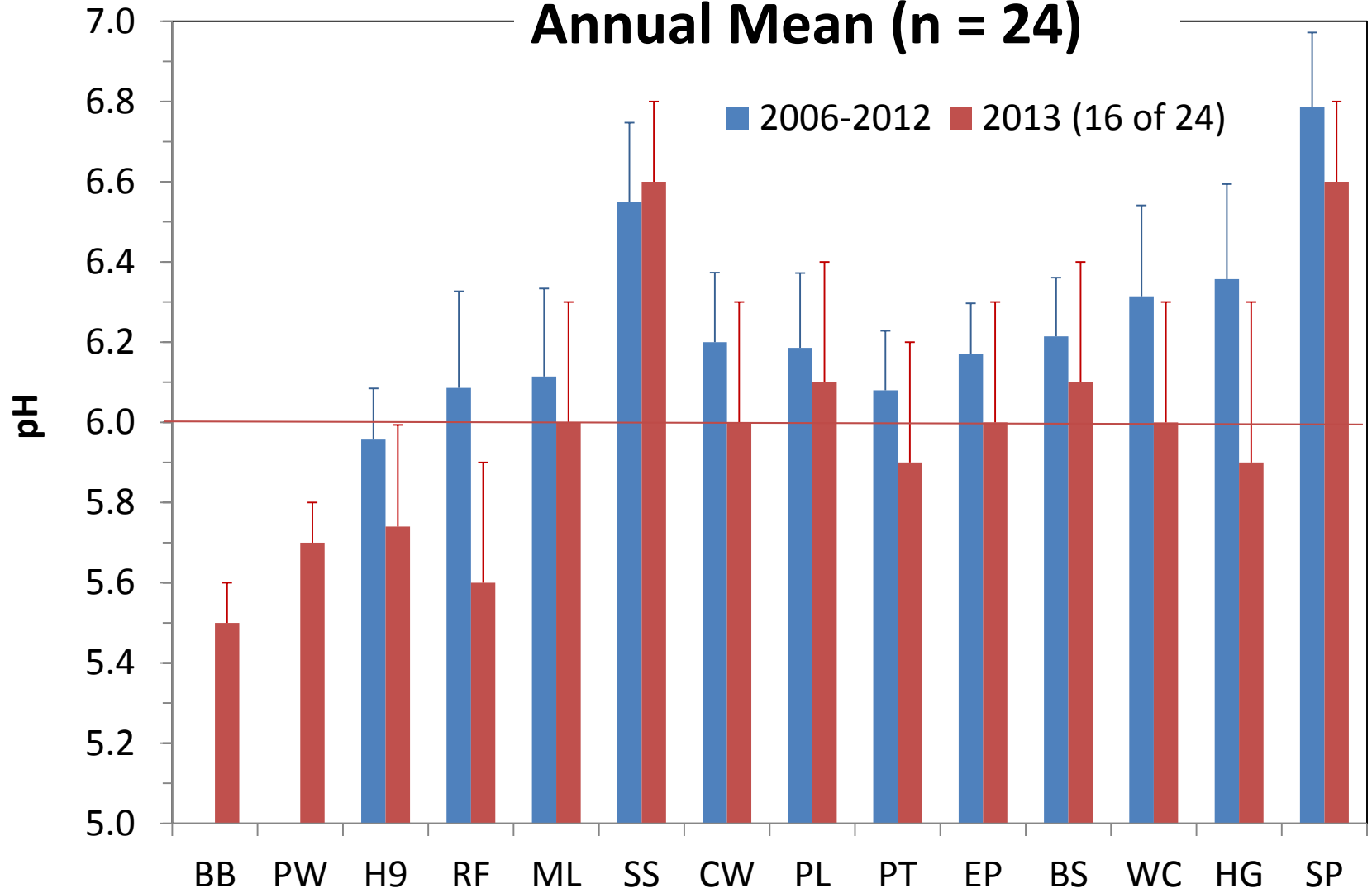
# mōnitōr your watershed



 **EPA**  
[www.epa.gov/owow](http://www.epa.gov/owow)

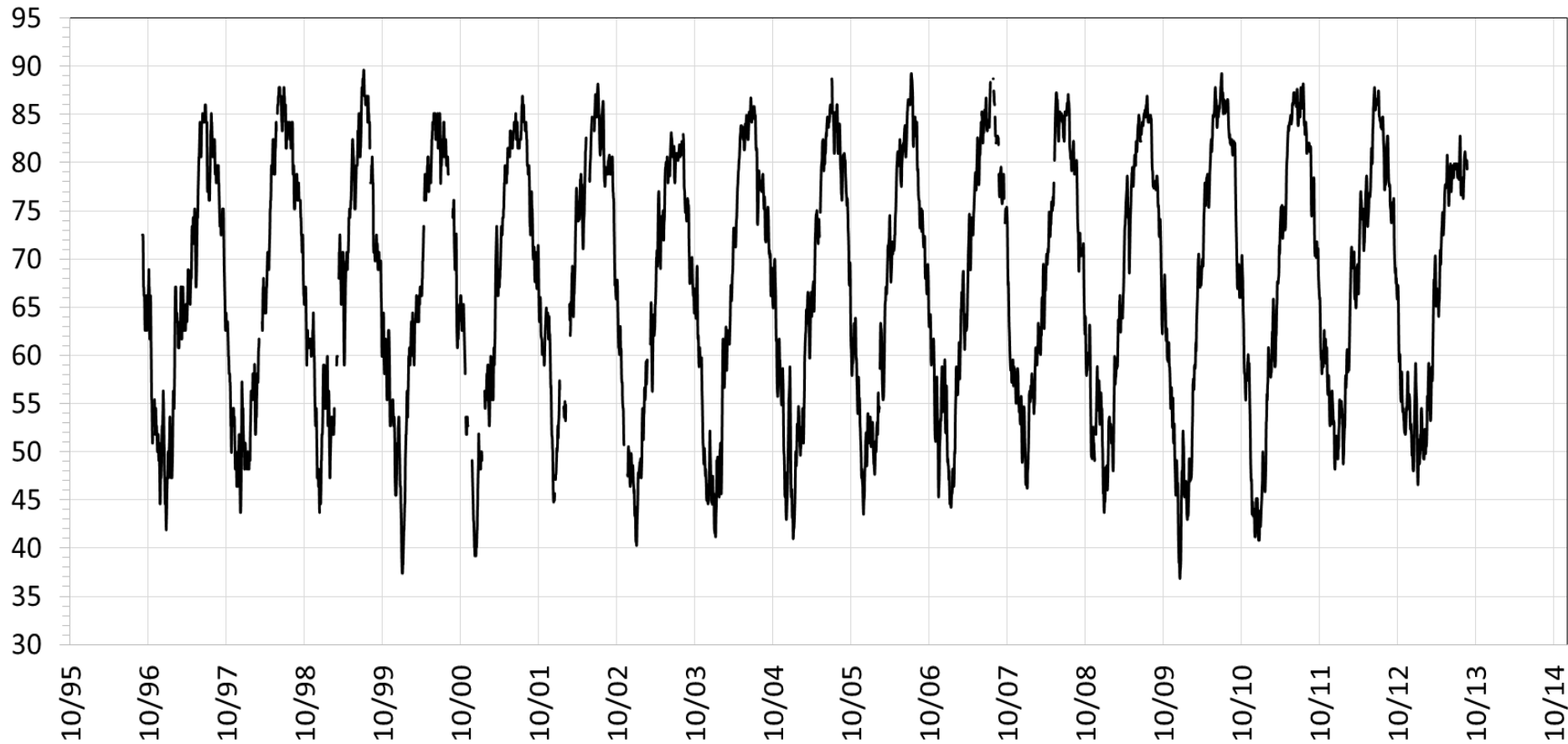


# Annual Mean (n = 24)



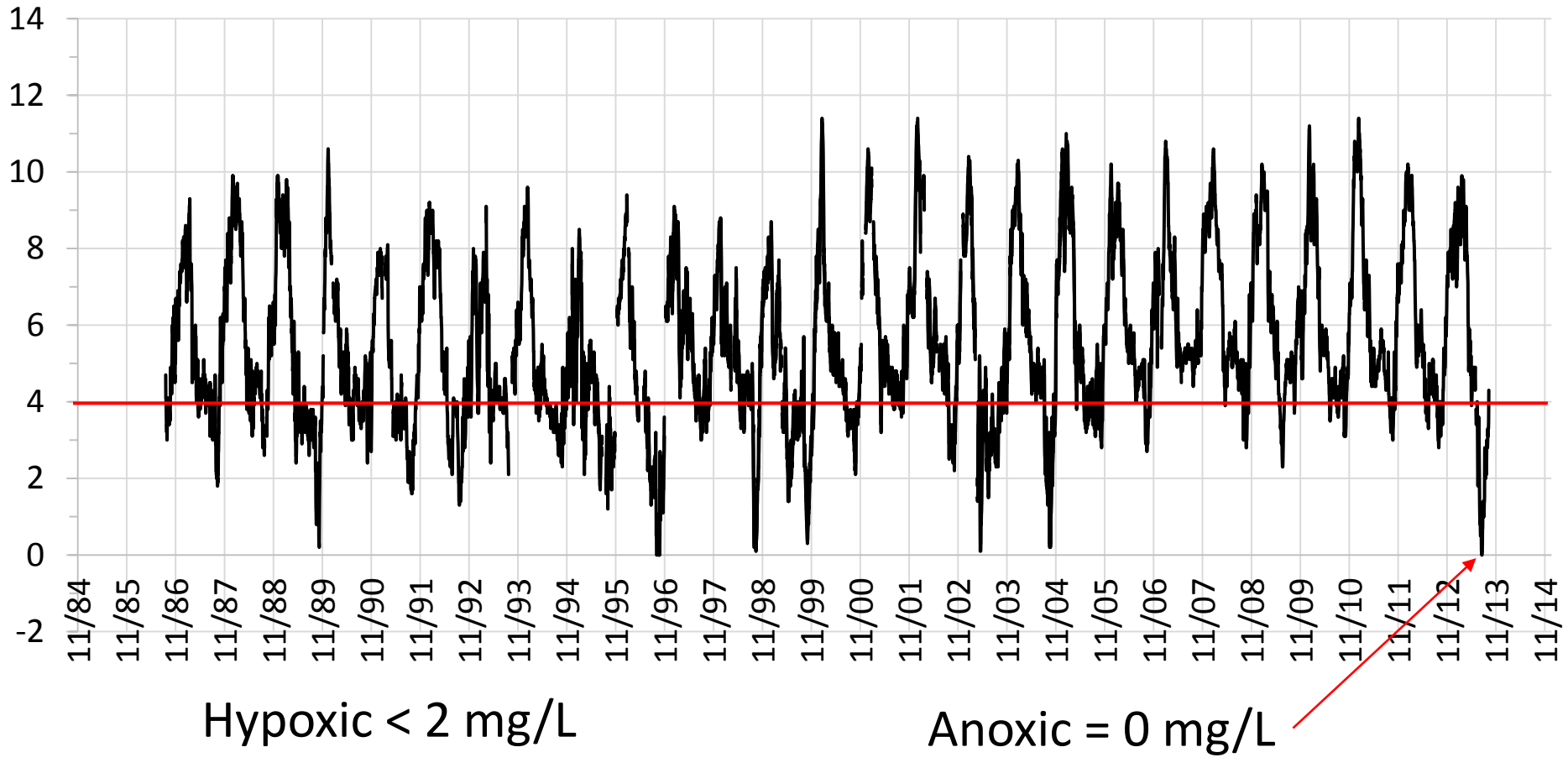
# Warm winter & cool summer

Bucksport Mean Daily Temp (F)



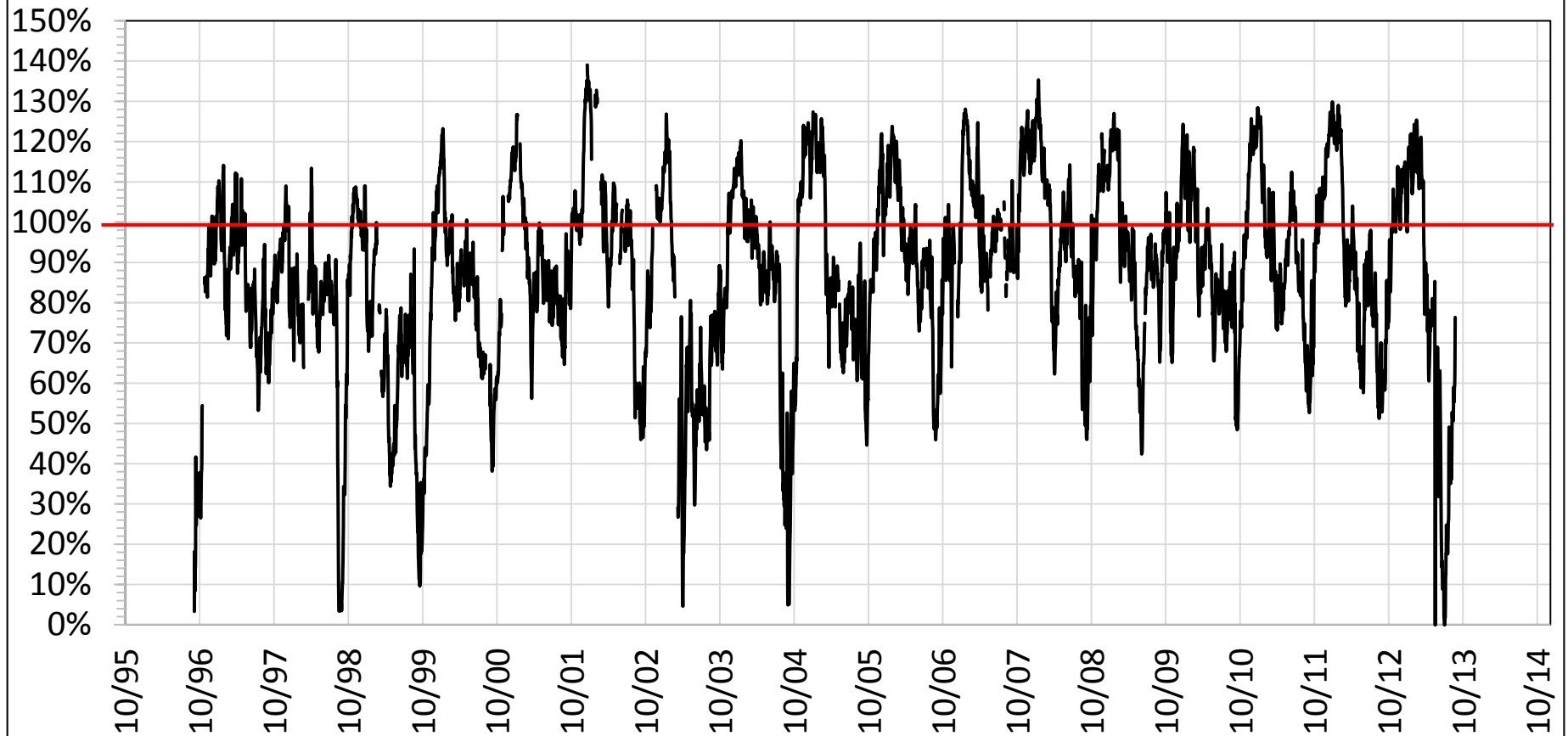
# Dissolved Oxygen got really low!

Bucksport Mean Daily DO (mg/L)



# Oxygen Saturation was even lower due to low temperatures.

Bucksport Mean Daily DO Saturation



Note supersaturation in summer from photosynthesis