



U.S. Dept of Transportation

***Columnaris* Outbreak in Smallmouth Bass – Environmental Conditions**

Pennsylvania Department of Environmental Protection



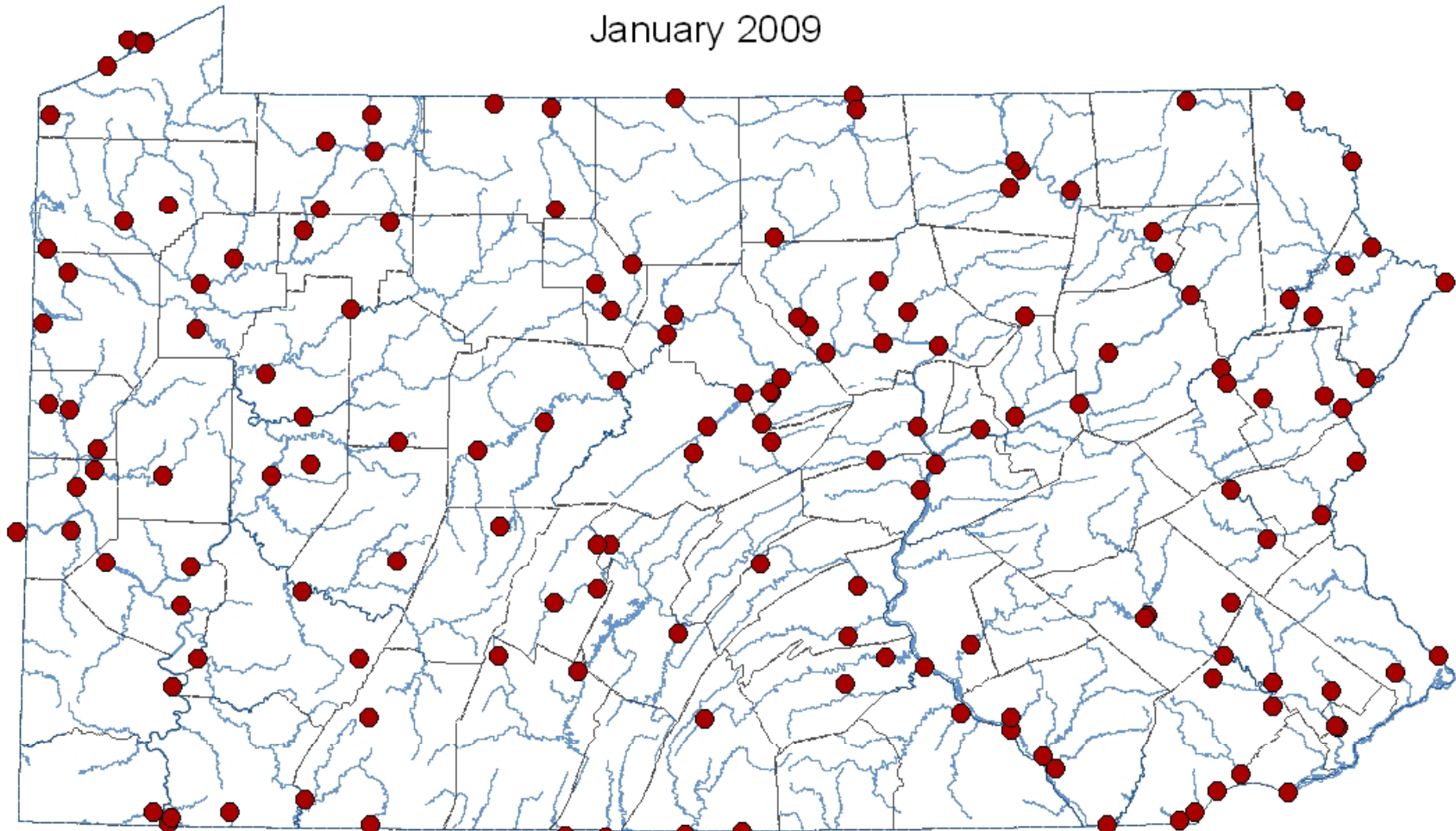
UT FISH, WILDLIFE & PARKS

Division of Water Quality Standards

- Develop Water Quality Criteria
- Conduct Monitoring & Assessment of Surface Waters

Pennsylvania's Water Quality Network

January 2009



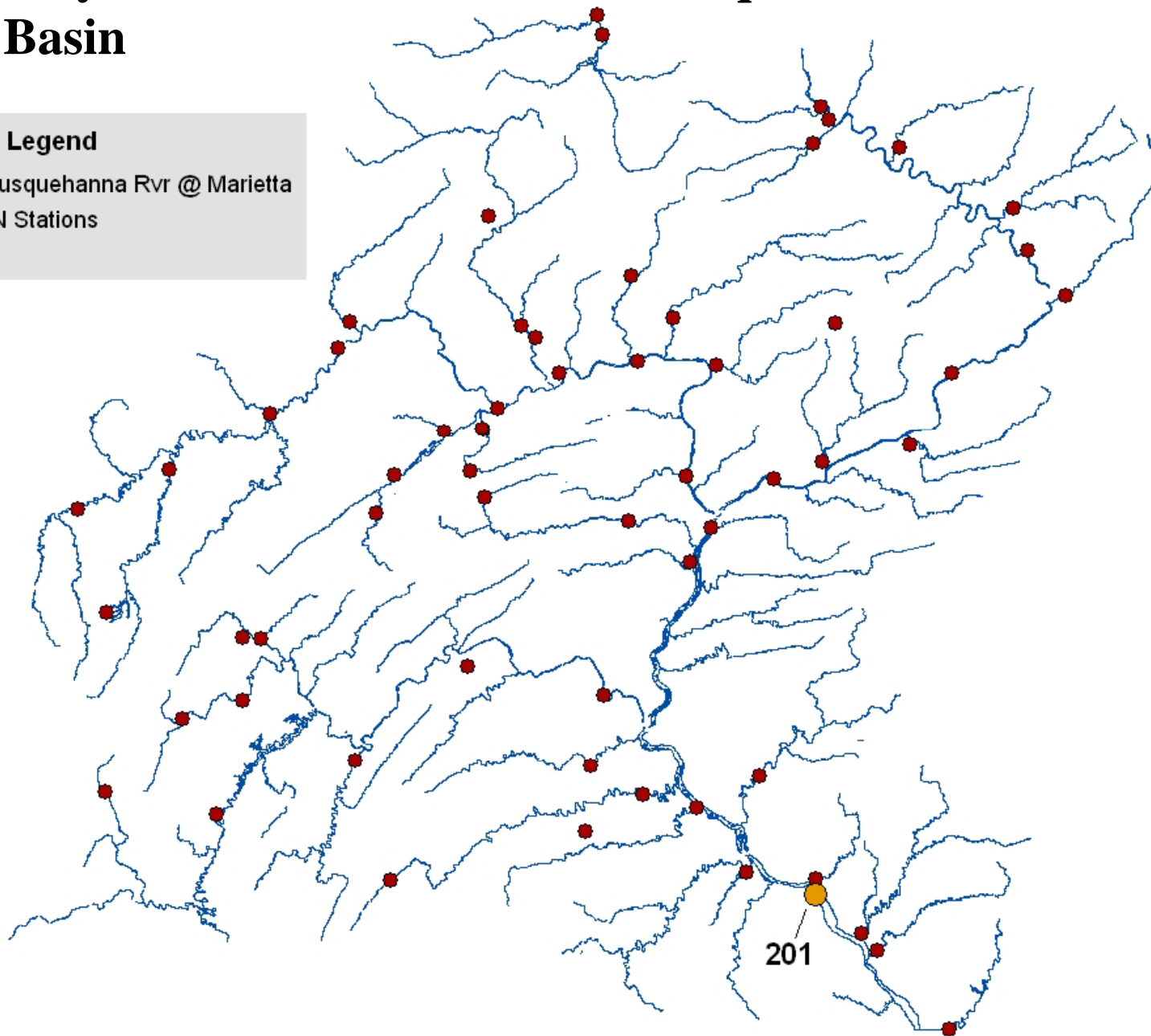
Legend

- ACTIVE WQN Stations
- Major Rivers
- County Borders

Water Quality Network Stations in the Susquehanna River Drainage Basin

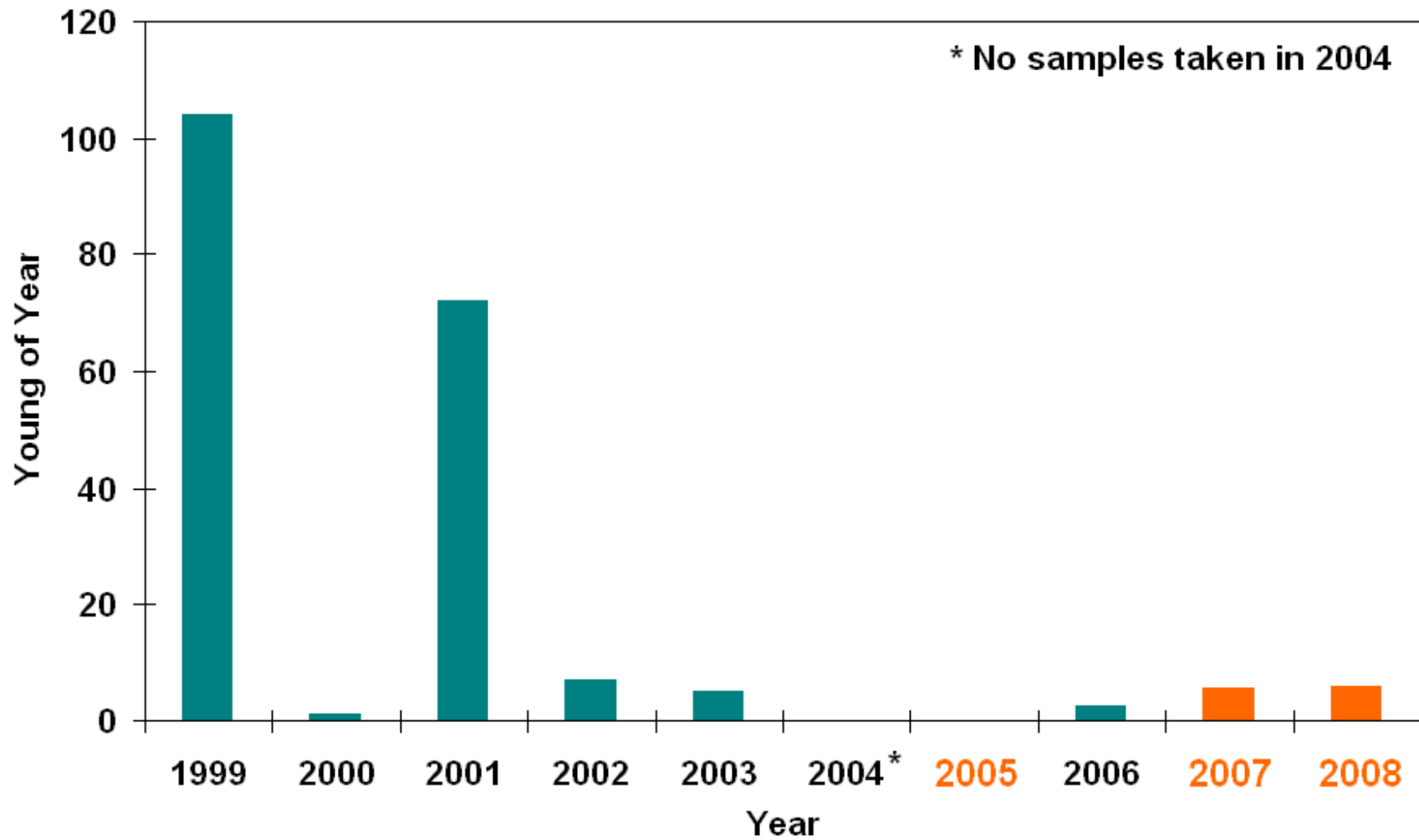
Legend

- WQN 201 - Susquehanna Rvr @ Marietta
- ACTIVE WQN Stations
- Major Rivers

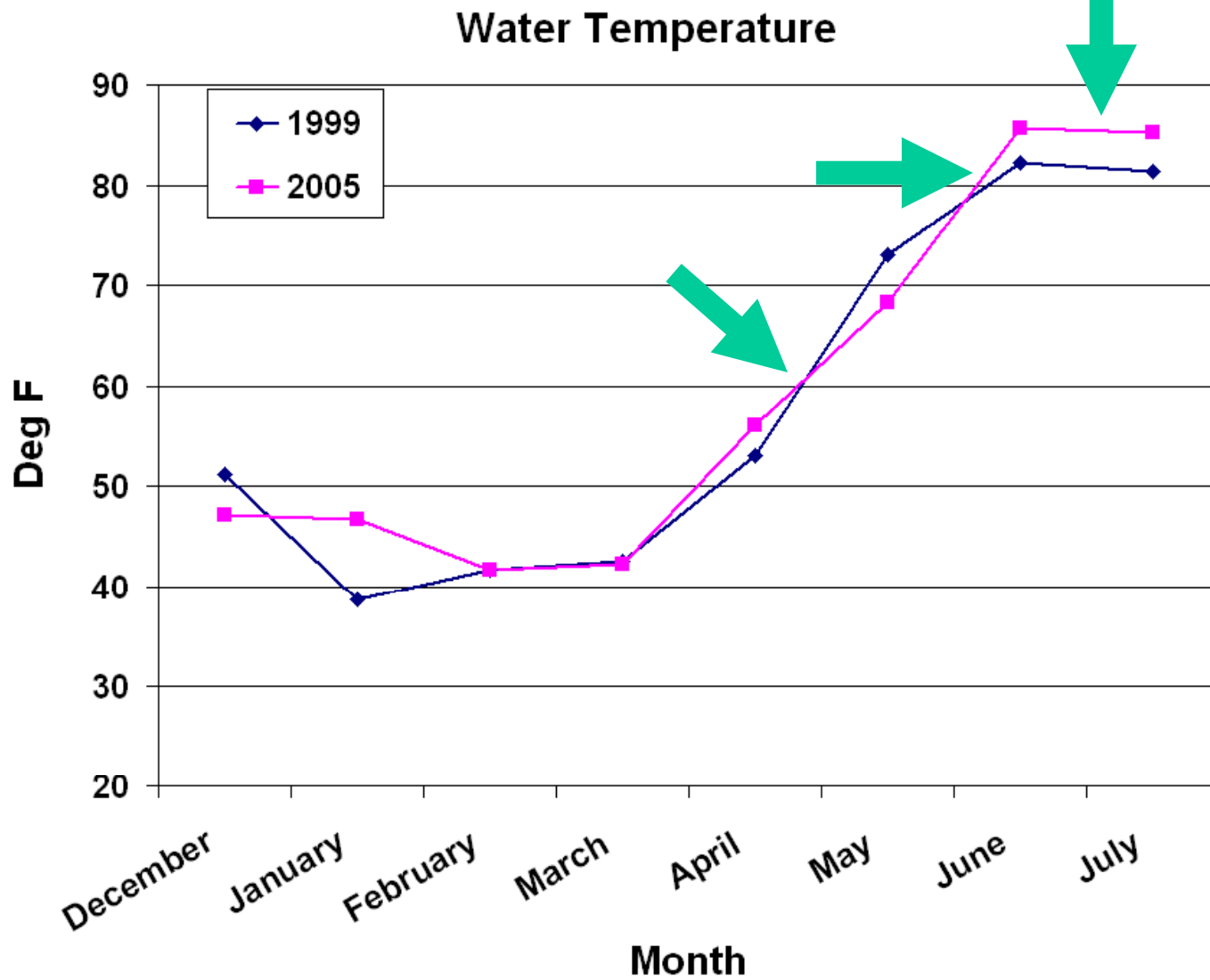


201

Young of Year Totals for Susquehanna River York Haven Dam to Rt. 462

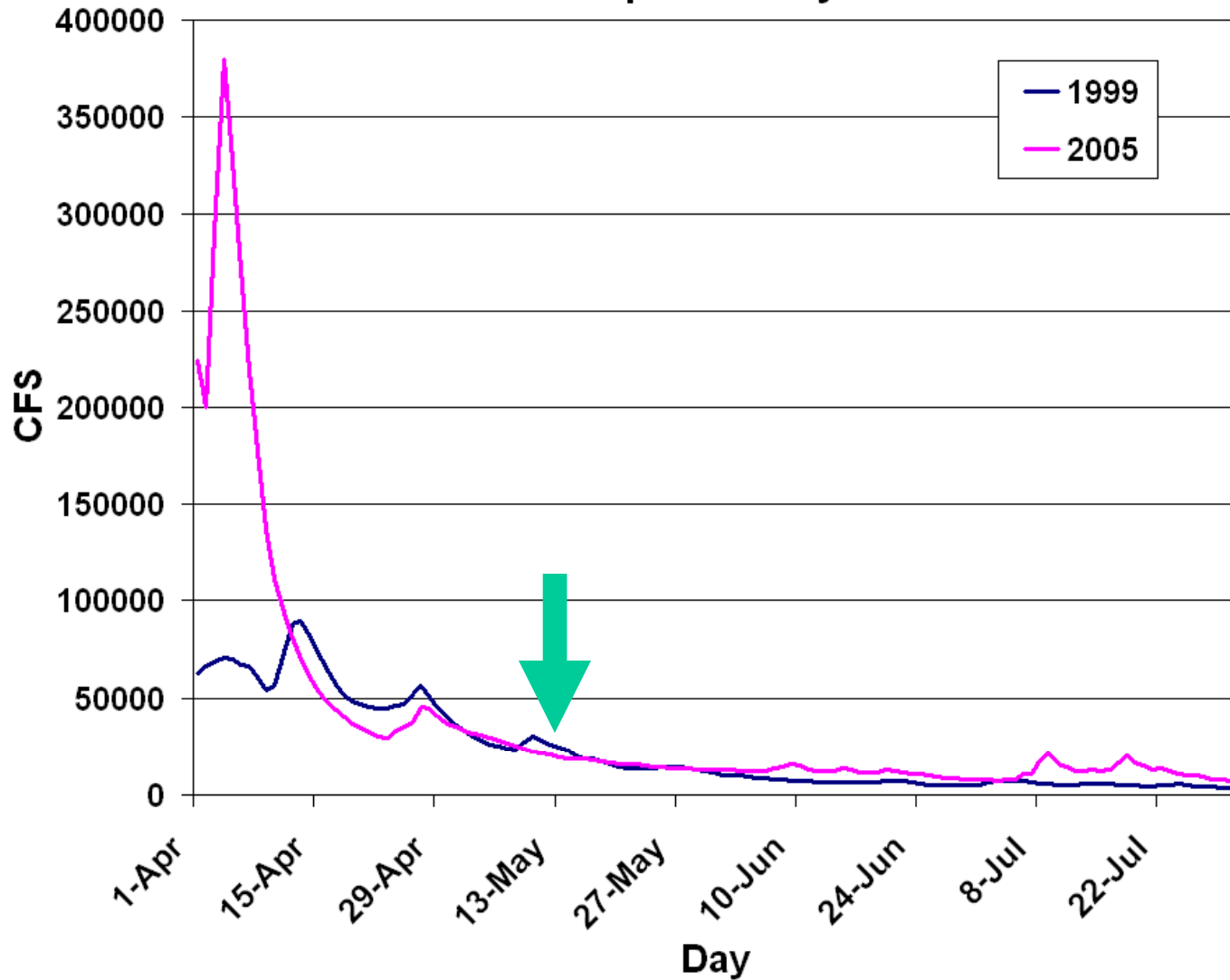


WQN 201 - Marietta



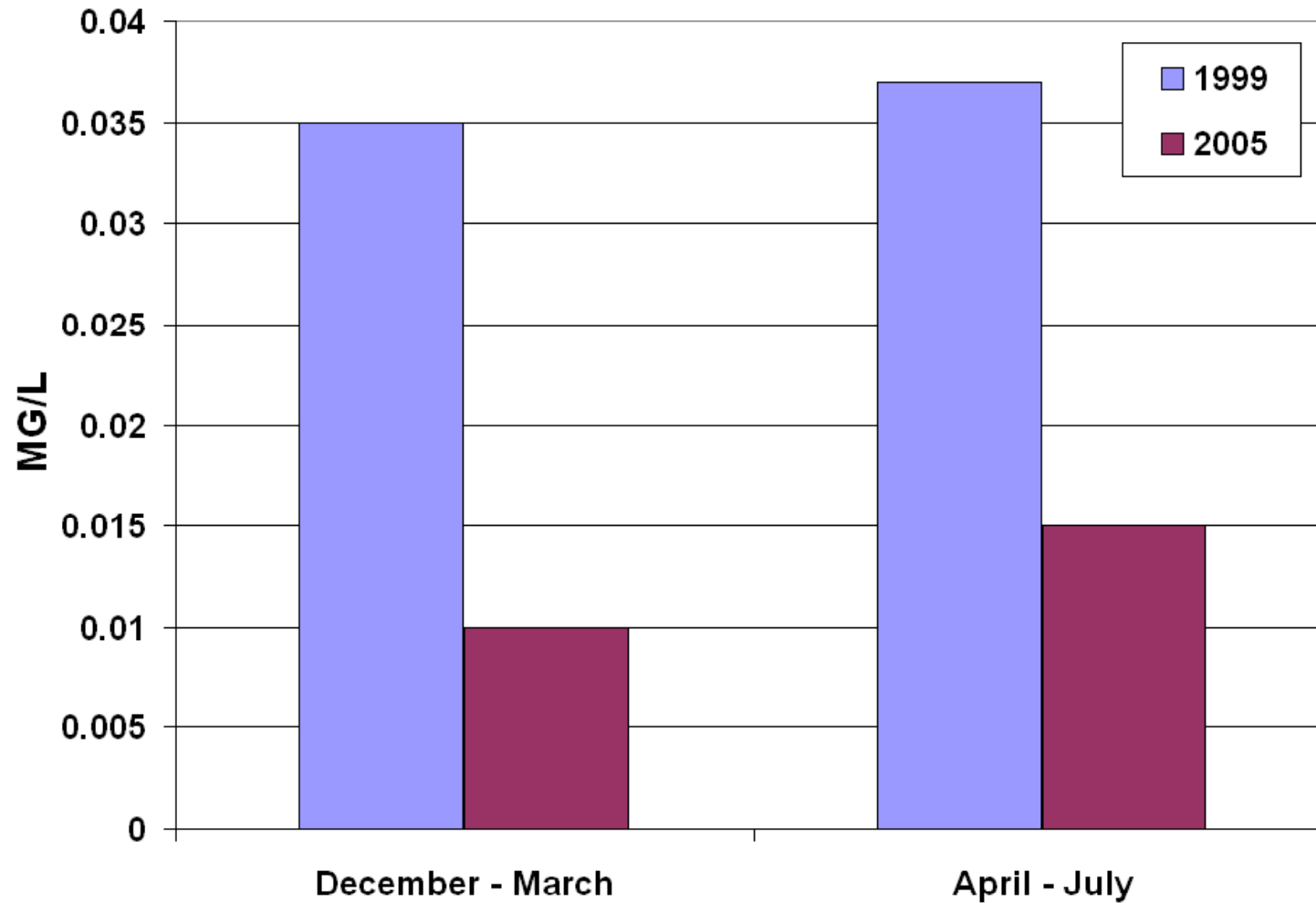
WQN 201 - Marietta

Flow: April 1 - July 31

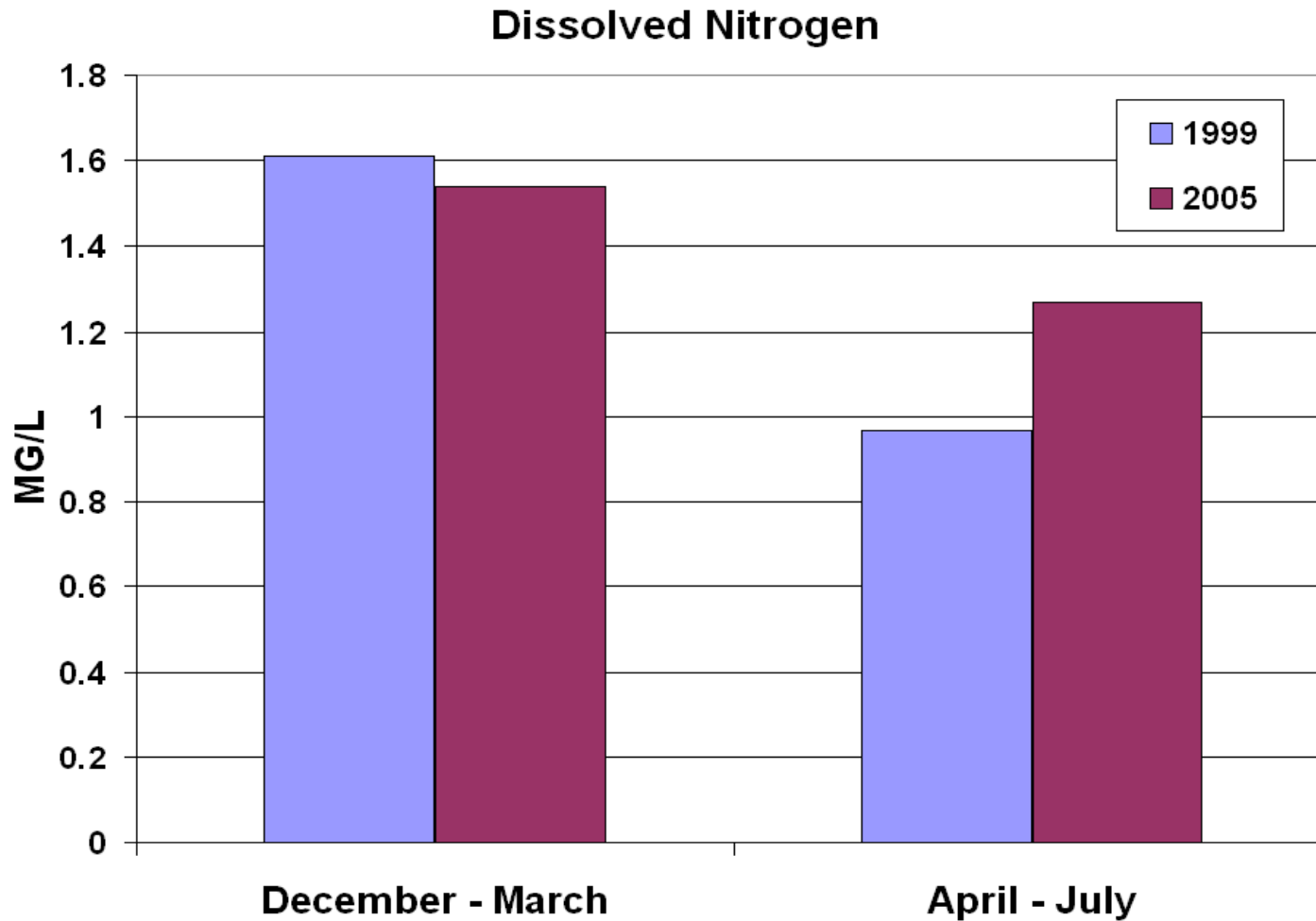


WQN 201 - Marietta

Dissolved Phosphorus



WQN 201 - Marietta



Conclusions

- No apparent water quality differences that could explain *Columnaris* outbreaks
- In light of data limitations, more sampling was warranted
- Next speaker will cover that effort in detail

Future Plans - DEP

- Review & revise, if justified, the dissolved oxygen criterion
- Continue to support, with manpower & funding, additional studies targeting this issue
- Regional office staff will be deploying continuous reading probes to record dissolved oxygen & temperature at select locations
- Continue to work with US EPA & Pittsburgh regional DEP office on the development of a large river survey protocol for universal use in assessing the overall health of large riverine systems
- Continue the current effort to develop nutrient criteria for flowing waters in Pennsylvania
- Continue to develop & implement TMDLs to reduce waste loads

