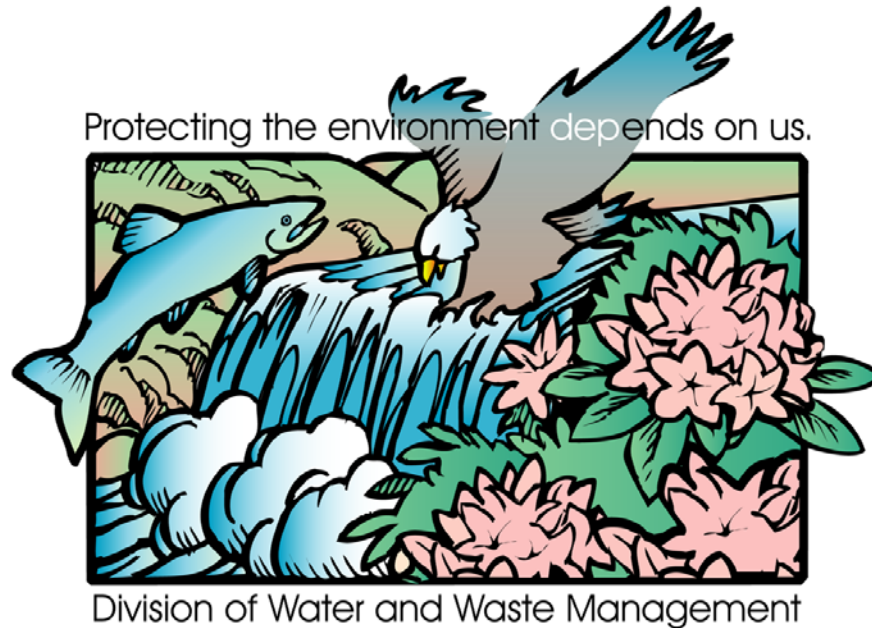
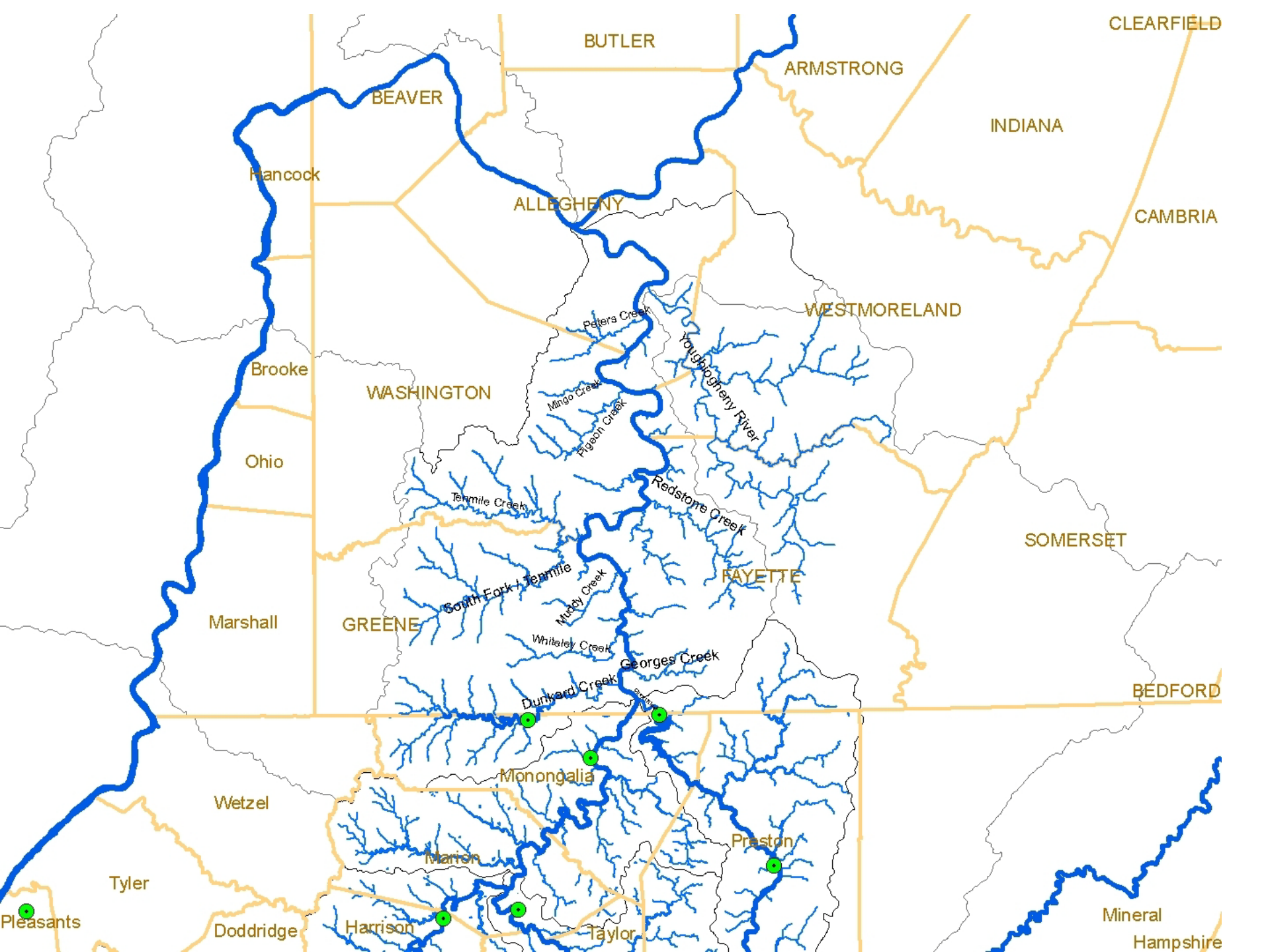


Monongahela River TDS Concerns



Patrick Campbell, WVDEP-DWWM

December 3rd, 2009



What is TDS?

- **Total Dissolved Solids (milligrams per liter) (mg/l)**
 - Amount of dissolved matter in water
 - Ocean water 35,000 mg/l
 - Fresh water normally less than 100 – 200 mg/l
 - Rain less than 10 mg/l
- **PA WQ Standard to protect drinking water use = 500 mg/l (monthly average @ POI)**
- **WV currently has no TDS standard**
- **Conventional Treatment not effective**



What's the Concern?

- Widely known effects on drinking water and industrial users in fall 2008
- River exceeded PA's criteria
- Much public and government focus since then



WV Determination of Mon Significant TDS Sources

- **Active and Abandoned Mine Drainage**
- **Power Plant Discharges**
- **POTW's**
- **Industrial Discharges**
- **No untreated Marcellus Discharges**

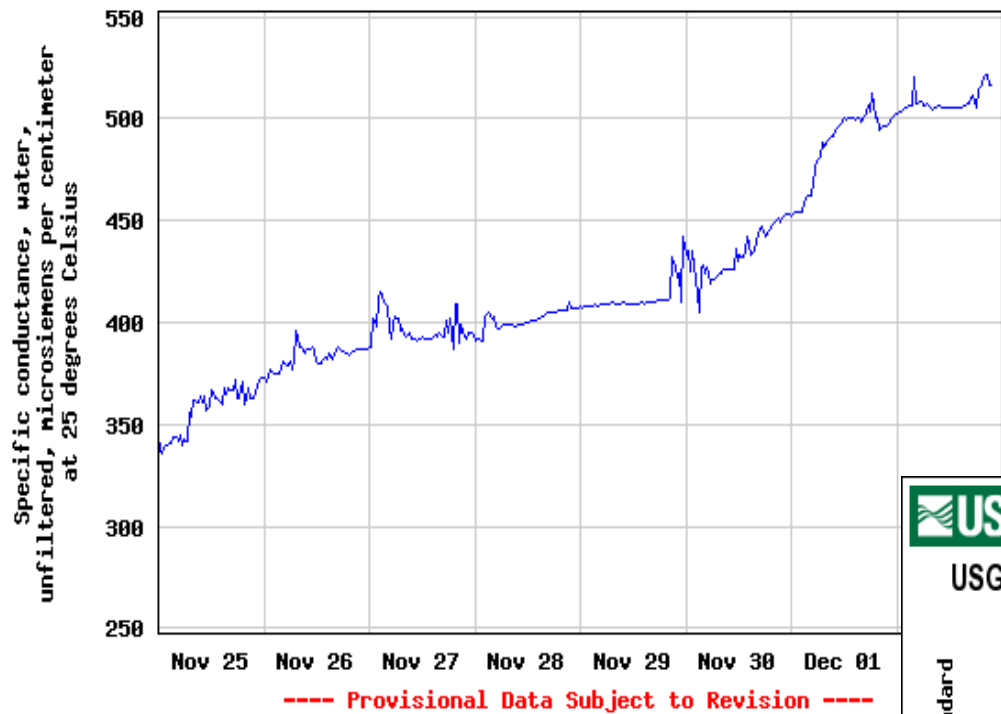


Current & Future Directions

- Existing facilities given monitoring requirements@ reissuance
- New facilities will be given effluent limitations
- Increased ambient and continuous monitoring underway
- Extensive monitoring for select tributaries underway
- TDS criteria debate beginning

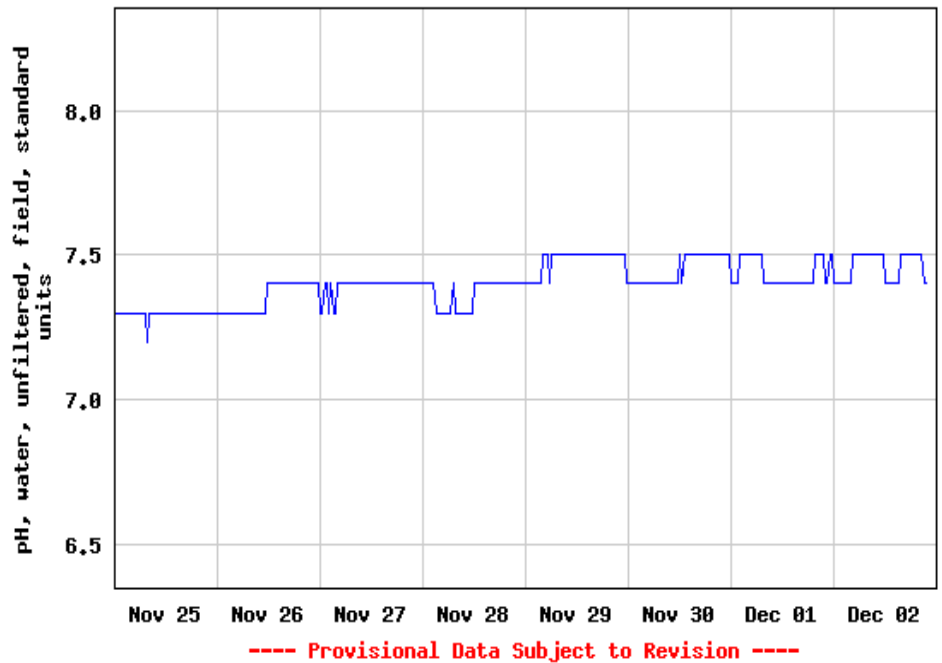


USGS 394337079544201 MONONGAHELA RIVER AT POINT MARION, PA



November/December 2009

USGS 394337079544201 MONONGAHELA RIVER AT POINT MARION, PA



Thanks for your interest!



Mon River – Total Dissolved Solids (mg/l)

Courtesy PADEP

