

# Building Successful State, Regional, and Tribal Water Monitoring Councils

NATIONAL WATER MONITORING CONFERENCE

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# The Upper Monongahela River

- Dunkard Creek (West 40 miles in WV & PA)
- Crooked Run (West 5 miles)
- Cheat River & Lake (Blackwater & Dry Fork)
- Robinson Run (Crafts Run)
- Scotts Run and Dents Run
- Deckers Creek at Morgantown
- West Fork River and Buffalo Creek
- Tygart Valley River and Lake

# Dunkard Creek of the Monongahela River

TDS Strategy Group (Northcentral WV)

Upper Monongahela River Association

Dunkard Creek Watershed Association

Monongahela Chapter – WV Sierra Club

Fort Martin Community Association

Cheat Lake Environment & Recreation Assn.

WV Highlands Conservancy

# Monitoring, Sampling & Analysis

- 1995 – USGS gauges & monitors – Monongahela River at Elizabeth & Pt. Marion, PA; Dunkard Creek, PA; and West Fork River at Enterprise, WV
- 1998 – Local volunteer groups & individuals
- 2001 – Continuous monitor—data logger
- WV DEP periodic sampling and monitoring
- 2009-RAIN monitoring network – pH, ele. cond.  
Some 12 stations on lower Mononghela River

USGS 394533079581501 DUNKARD CREEK AT SHANNOPIN, PA

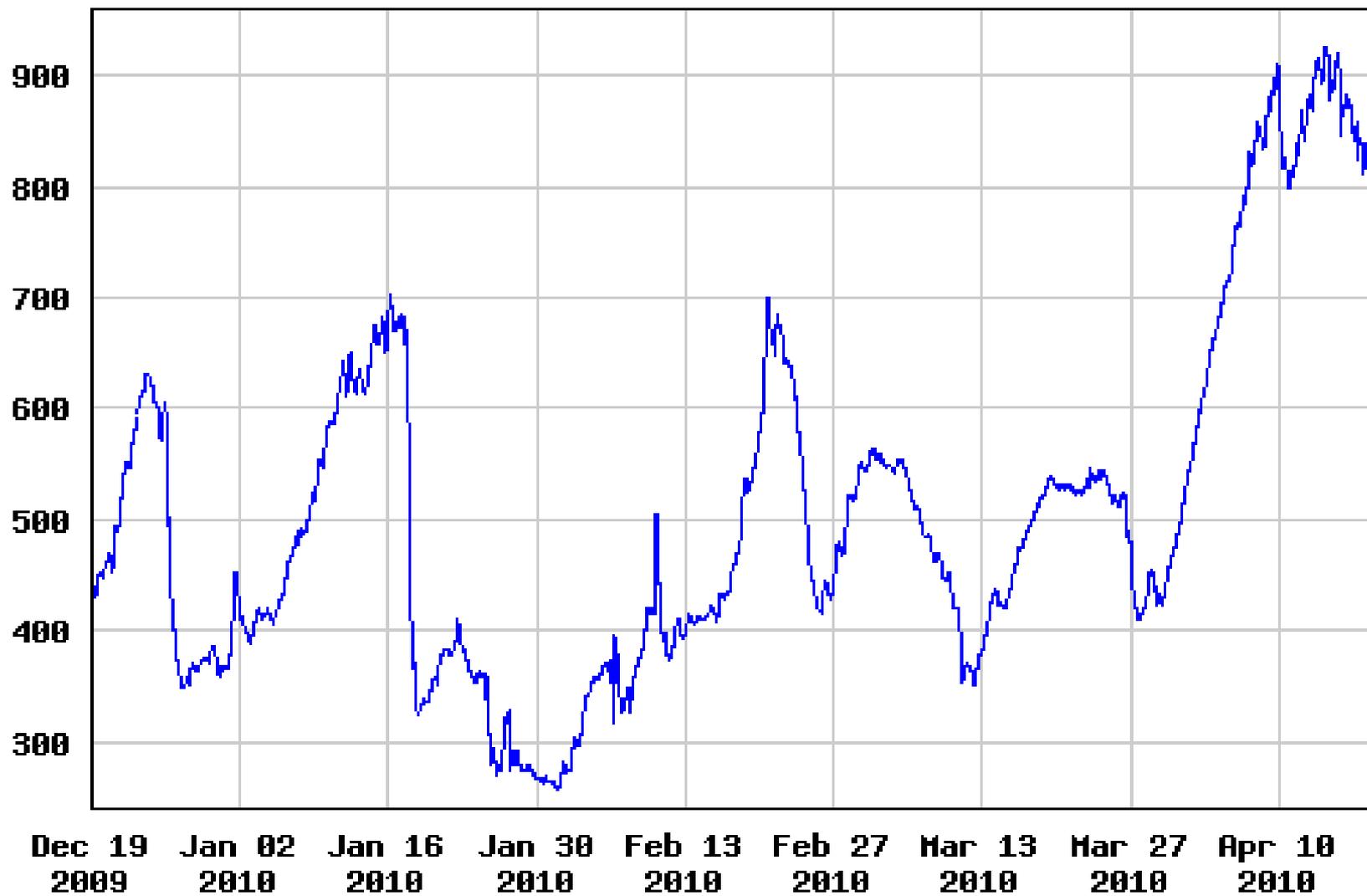


---- Provisional Data Subject to Revision ----

Graph courtesy of the U.S. Geological Survey

# USGS 03061000 WEST FORK RIVER AT ENTERPRISE, WV

Specific conductance, water,  
unfiltered, microsiemens per centimeter  
at 25 degrees Celsius

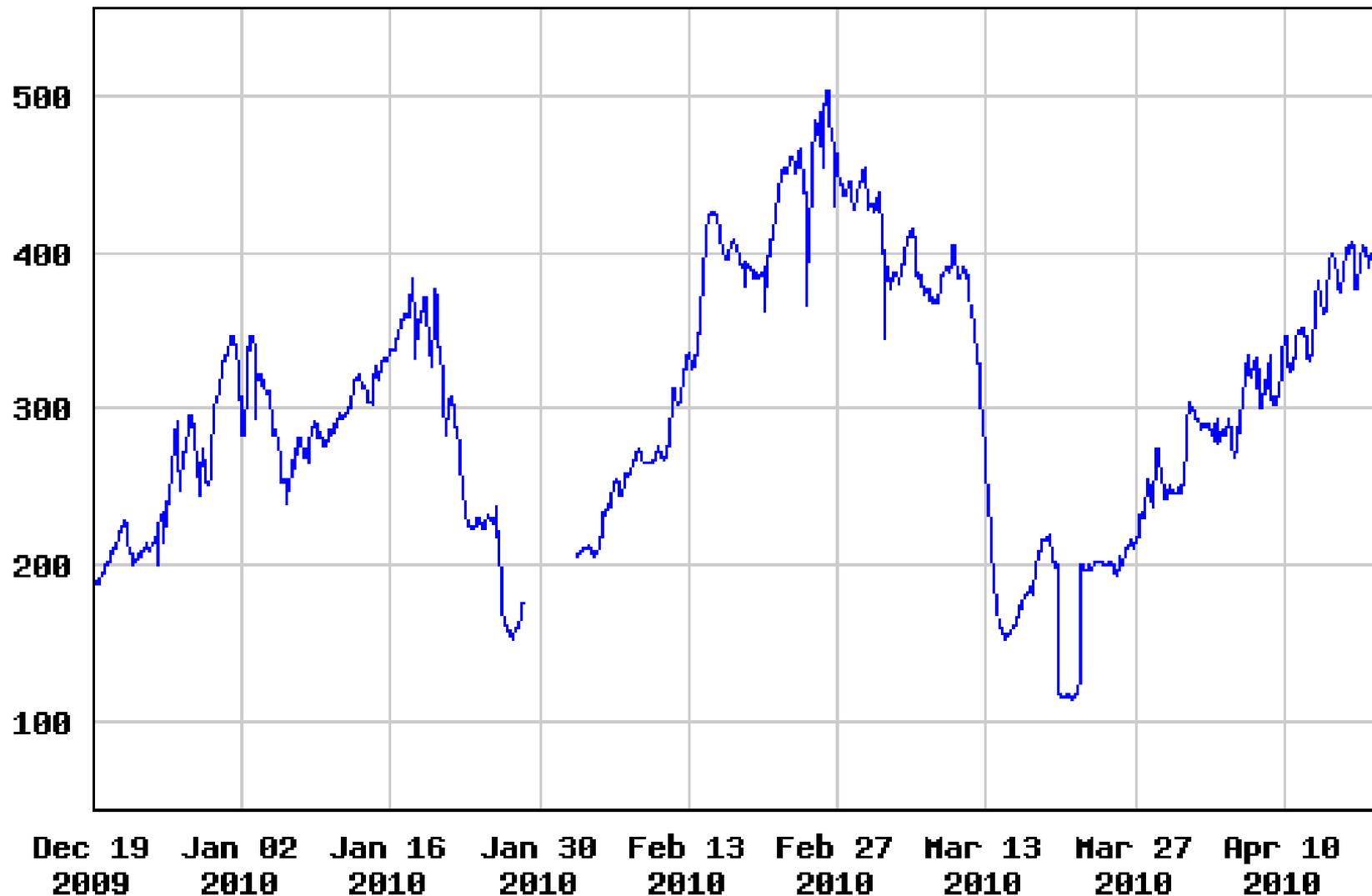


---- Provisional Data Subject to Revision ----

Graph courtesy of the U.S. Geological Survey

# USGS 03075070 Monongahela River at Elizabeth, PA

Specific conductance, water,  
unfiltered, microsiemens per centimeter  
at 25 degrees Celsius



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

Graph courtesy of the U.S. Geological Survey



# The Dunkard Creek Smell Test

Some 22,000 fish were killed in September 2009



# Dead Fish Extended Over 40 Miles

Golden algae also killed 14 species of mussels



# Threats & Issues For WV Streams

- Legacy mining operations – exposed strata and underground mine pools: acidity & metals
- Active mining operations – pyrite oxidation w/ infiltration discharges: Fe & Al sulfates, metals
- Coal-fired power plant wastes – bottom & fly ash, spent FGD limestone: Ca, Fe, Hg, Se, etc.
- Unregulated water withdrawals – gas well fracs and power plant cooling
- Gas well residual waste water – frac water disposal and production water disposal

# Volunteers as Public Citizens

- Legacy problems, current & future issues are looming huge to contaminate our streams.
- Volunteers are at a substantial disadvantage compared with corporate entities— lack of time & money, lack of legal advice, lack of support systems, lack of political influence.
- Governor(s), legislators and agencies are heavily influenced by coal, chemical, oil & gas industries. Existing laws support development.