

# *Overview of TMDL and Antidegradation Issues*



**WV Acid Mine  
Drainage Symposium**

**April 15, 2003**

# Where are we?/How are we doing?

## TMDLs

- Total Maximum Daily Load program
  - Full assumption of program from EPA
  - First round of tmdls by state underway
  - Completion of EPA tmdls from Consent Decree
  - Funding



# Where are we/How are we doing?

## Antidegradation

- Antideg review being conducted for all new and expanded permit applications
- Guidance document developed
- Tier 2.5 streams still under review

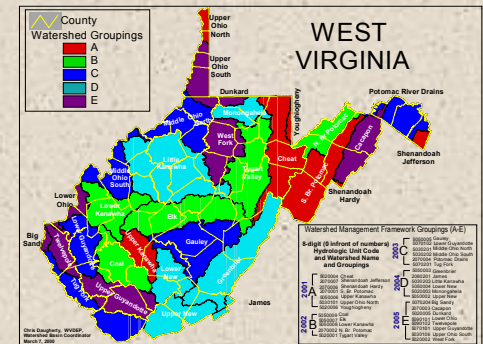
# TMDL Program

- Incorporating the statewide Watershed Management Framework Process
- Multi-agency initiative started in 1997 to focus state/federal agency resources on environmental priorities at watershed scale

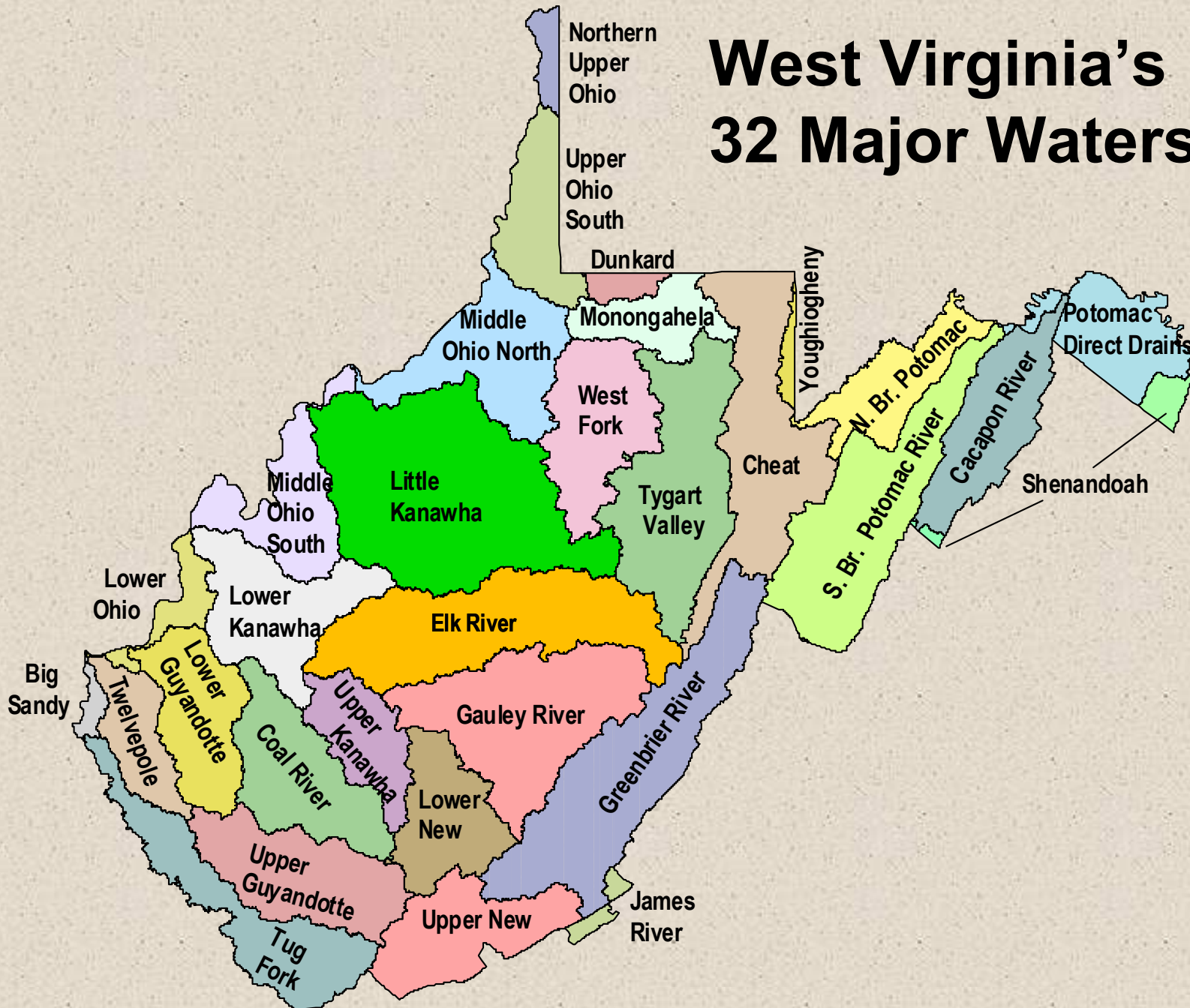


# Watershed Management Framework

- 32 watersheds (8-digit HUC)
- 5 Hydrologic Groups (A – E)
- Watershed Assessment, NPDES Permit reissuance synchronized
- WV Nonpoint Source Program integration
- WVDEP TMDL development synchronized



# West Virginia's 32 Major Watersheds





# TMDL/WMF Synchronization

- Pre-TMDL monitoring occurs concurrently with WMF assessment year
- TMDL completion just ahead of WMF implementation year
- WVDEP program started January 2001
- Two batches underway
  - HGA (2004 TMDLs)
  - HGB (2005 TMDLs)

# **2004 WVDEP TMDLs**

- **Hydrologic Group A**
- **Impaired waters in Upper Kanawha and Upper Ohio North watersheds**
- **Pre-TMDL monitoring completed**
- **TMDL development contract awarded 11/02**



# **2004 WVDEP TMDLs**

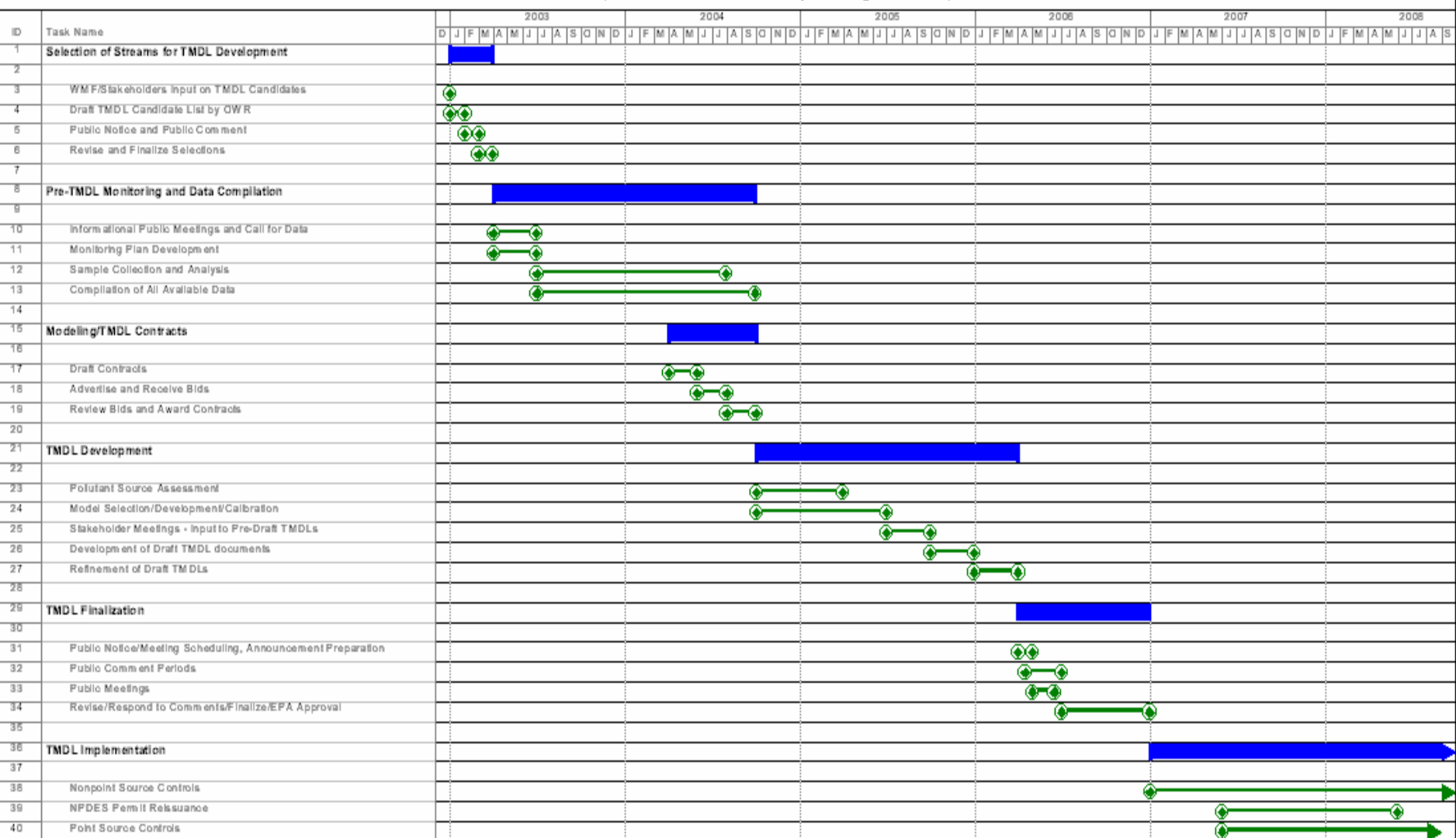
- **Pollutant source assessment activities underway**
- **Requested instream monitoring data in electronic format from active mining operations**
- **TMDLs to be finalized 12/31/04**

# **2005 WVDEP TMDLs**

- **Hydrologic Group B**
- **Impaired waters in Coal River, North Branch Potomac, and Lower Kanawha watersheds**
- **TMDLs to be finalized 12/31/05**
- **Pre-TMDL monitoring began 7/1/02 and will continue thru 6/30/03**



## TMDL Development Activities - Hydrologic Group C



# **2006 WVDEP TMDLs**

- **Impaired waters in Hydrologic Group C**
- **TMDLs to be finalized 12/31/06**
- **Just started stream selection process; PN 2/1/03**
- **AMD in Gauley watershed**
- **Pre-TMDL sampling 7/1/03 – 6/30/04**



# **EPA TMDLs**

- **Upper and Lower Guyandotte**
- **Consent Decree modification**
- **TMDLs to be finalized March 2004**
- **Mainstem Al, Fe, and FC impairments**
- **Mine drainage impaired tributaries from the 1998 303(d) list**

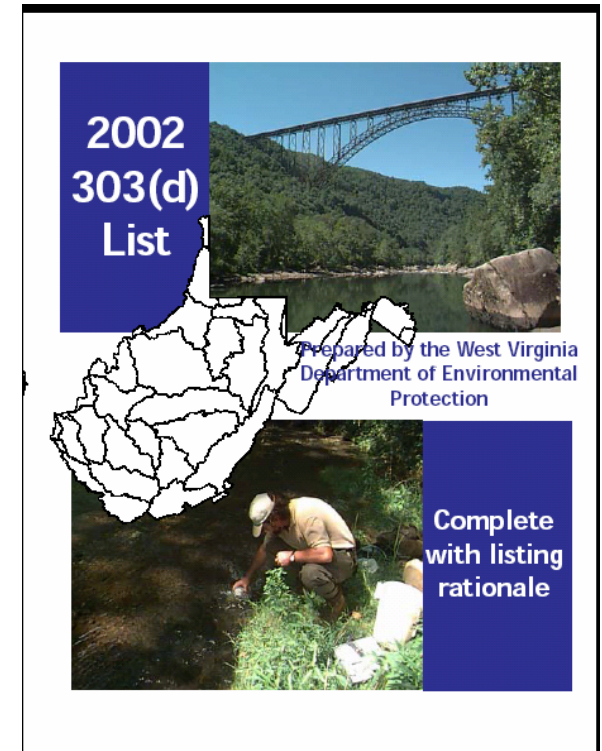
# **2002 WV 303(d) List**

- **Provisional Draft to TMDL Stakeholders and EPA (6/19/02)**
- **Response to comments (7/30/02)**
- **Draft to Public Notice (8/1/02)**
- **Responsiveness Summary and Final Draft to EPA and commenters (10/9/02)**
- **List available on DEP website**
- **Awaiting EPA approval.....**



# 2002 WV 303(d) List - Format

- **Watershed Based**
- **Narrative Information, 303(d) Table, Status Tables**
- **Status Tables -**
  - **Delisted**
  - **TMDLs Developed**
  - **TMDLs Developed (Improvement Realized)**
- **Responsiveness Summary**



# **2002 WV 303(d) List**

- **Approximately 655 streams listed**
- **Approximately 4300 stream miles**
- **Biological Impairment is most common listing (approx 480 listings)**
- **Approximately 160 remaining mine drainage impaired waters**



# ***Antidegradation***

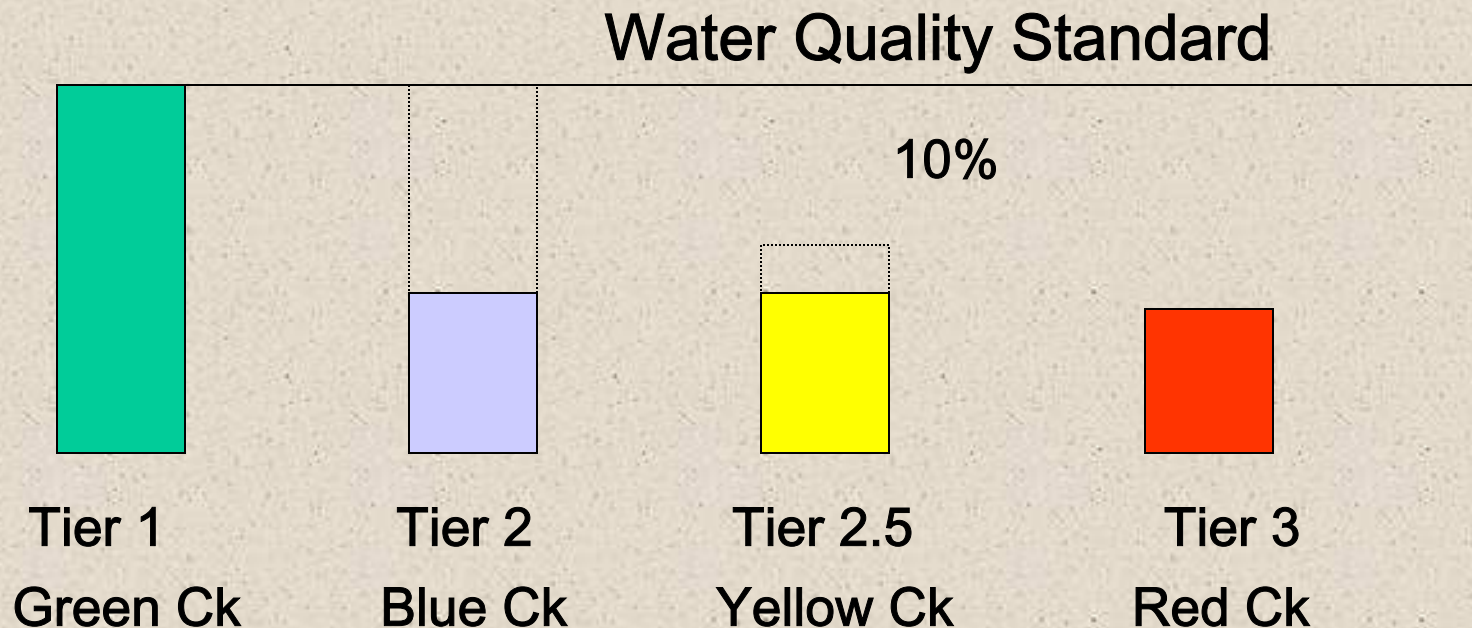
- A process to protect and maintain existing uses and to maintain high quality waters at their existing high quality
- Clean Water Act requires antidegradation component in state water quality standards
- Provisions have been included in WV Standards since early 1980's

# ***Antidegradation Implementation Rule***

- Product of a two-year development process, adopted by the 2001 Legislature
- Being implemented by the Department of Environmental Protection
- Includes detailed implementation requirements not previously contained in standards
- 60 CSR 5; 46 CSR 1



# ***Antidegradation Implementation***



# ***Tier 2 Protection***

- High Quality Waters
- High quality waters are to be maintained at their existing high quality unless limited degradation is necessary to accommodate important economic or social development and there are no less-degrading alternatives available
- Represents vast majority of state streams; default assumption
- Pollutant-by-pollutant application with existing quality established by a baseline water quality assessment



## ***Tier 2.5 Protection***

- Waters of Special Concern
- De facto water quality criteria for parameter of concern established at baseline water quality plus 10% of available assimilative capacity
- Water quality cannot exceed the de facto water quality criteria
- Includes provisions for short term changes to water quality
- Streams to which this protection applies will be identified in regulations

## ***Tier 2.5 Protection***

- Presumptive list of 444 streams included in 60 CSR 5
- Detailed objection process
- Presumptive list represents about 2,000 miles of streams (6% of WV stream miles)
- Nomination process



## ***Tier 2.5 Protection***

- Presumptive Tier 2.5 list was compiled by the Department of Environmental Protection, in cooperation with the Division of Natural Resources
- Naturally reproducing trout streams
- DEP-determined reference streams
- Streams with high biological scores located on public lands

# ***Tier 3 Protection***

- Outstanding National Resource Waters
- Waters shall be maintained, protected and improved.
- No permanent lowering of existing water quality allowed
- Includes provisions for short term changes to water quality



# ***DEP Guidance Development***

- Many aspects of the rule require guidance
- “Sounding Board” input in development process
- Baseline water quality, assessing impacts of proposed discharges, evaluating pollution control alternatives, evaluating social/economic importance



# **Antidegradation Guidance Document**

- Overview (Chapter 1)**
- Tiered Protection Levels (Chapter 2)**
- Review Process (Chapter 3)**
- Review of Specific Activities (Chapter 4)**
- Baseline Water Quality (Chapter 5)**

# **Antidegradation Guidance Document**

- Assessing Degradation (Chapter 6)**
- Alternative Evaluation (Chapter 7)**
- Social and Economic Importance (Chapter 8)**
- Public Participation and IGC (Chapter 9)**
- Short Term /Limited Effect (Appendix A)**



# **Antidegradation Guidance Document**

- Available on WVDEP website and in hard copy format



# ***Tier 2.5 Objection Process***

- Rule provides opportunity for landowner objection
- DEP advertised presumptive list and held series of meetings Spring 2002
- Over 4000 written objections

## ***Tier 2.5 Objection Process***

- DEP must respond to all objections
- Objections have been entered into database
- Plan is to generate form letters (3-4 flavors); certified mail
- Resource problems; money & staff



# ***Tier 2.5 Objection Process***

- DEP response will describe listed segment and provide justification for listing
- Objectors get another 30 days to supplement objection
- DEP considers objections and makes decisions
- Another PN and comment period
- Emergency Rule, maybe; final rule by 2004 Legislature



***Questions??***