



TMDLs



Antidegradation

SMD Task Force Symposium

April 19, 2005

TMDLs/Antidegradation

TMDL is a pollution budget that prescribes reduction of pollutants that *restore* an impaired stream

Antidegradation is a process to protect and *maintain* existing water uses and to *maintain* high quality waters at their existing high quality

Water Quality Standards

- Designated uses
- Criteria to protect uses
- Antidegradation policy
- Narrative Statements



TMDL (Load Capacity)

- Waste Load Allocation (Point Source)
- Load Allocation (Non Point Source)
- Margin of Safety

Stream Selection Considerations

- 303(d) waters; other potentially impaired waters
- Budget
- EPA consent decree
- Efficiency - focus geographically and address all impairments

EPA Consent Decree

- Lawsuit between OVEC & WVHC Vs EPA filed in 1995.
- Consent Decree dated July 1997.
- Complete 466 mine drainage TMDL by September 2006.

WVDEP TMDLs (2004 – 2008)

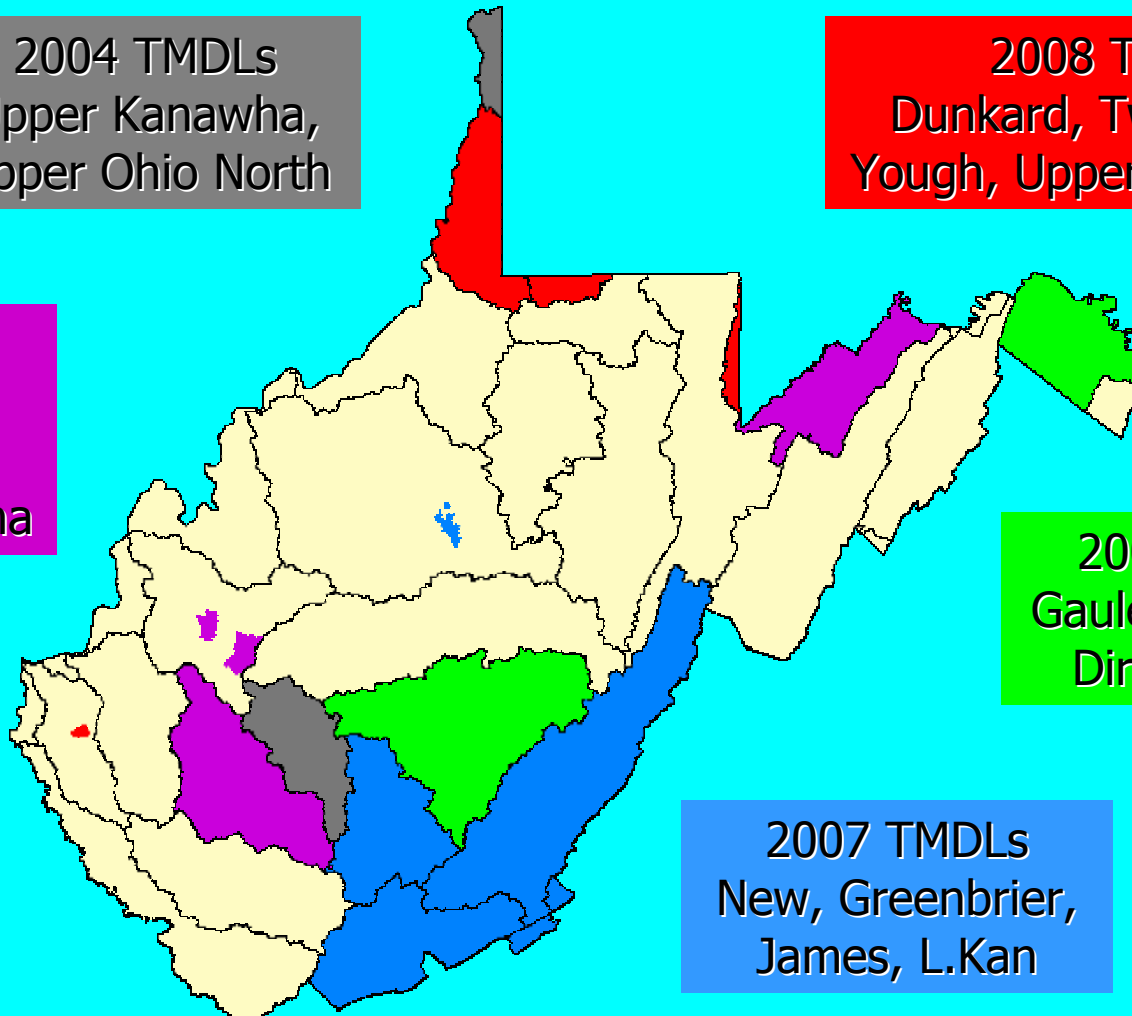
2004 TMDLs
Upper Kanawha,
Upper Ohio North

2008 TMDLs
Dunkard, Twelvepole,
Yough, Upper Ohio South

2005 TMDLs
Coal, NB
Potomac,
Lower Kanawha

2006 TMDLs
Gauley, Potomac
Direct Drains

2007 TMDLs
New, Greenbrier,
James, L.Kan



Reduced Pollutant Sources

- Metals/pH
 - **Abandoned mine lands**
 - **Revoked mining permits
(bond forfeiture sites)**
 - Sediment sources of metals
 - Active mining permits



Reduced Pollutant Sources

- Sediment
 - Nonpoint Sources
 - Roads
 - Timbering
 - Oil & Gas
 - AML
 - Barren land
 - Active mining permits

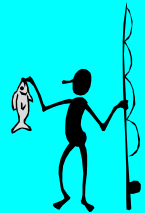


ANTI-DEG IMPLEMENTATION

- New or expanded.
- Parameter of concern (Se).
- Baseline Water Quality (BWQ).
- Tier protection.
- Significant degradation - Less degrading alternatives.
- Social economic importance – Public Notice.

Antidegradation Protection Levels

Four levels (Tiers) of stream protection

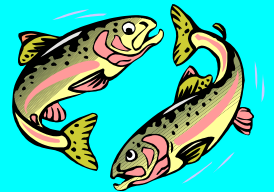


Tier 1 (existing uses)

Tier 2 (high quality waters)

Tier 2.5 (waters of special concern)

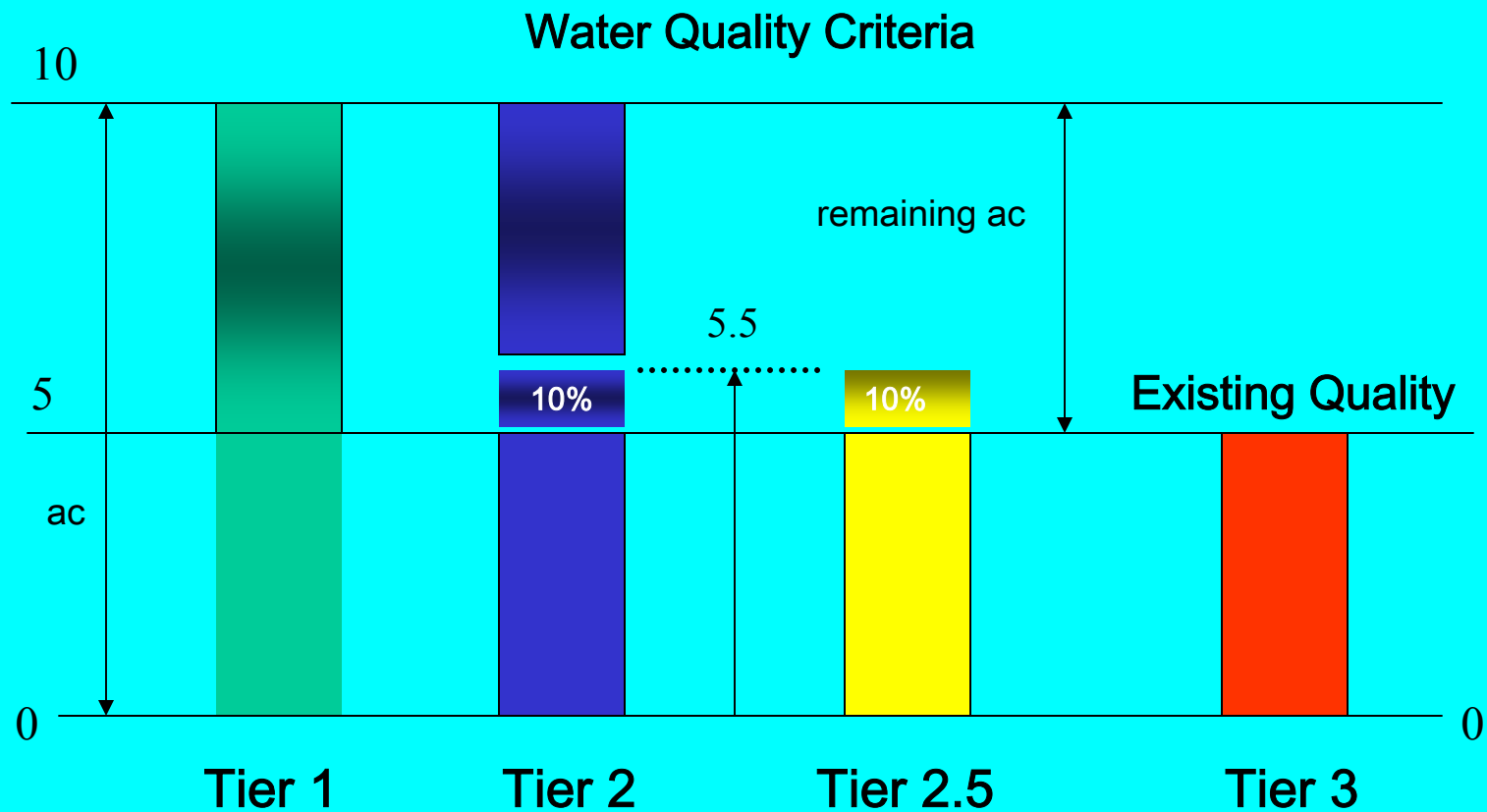
Tier 3 (outstanding national resource waters)



Criteria End-of Pipe Limits

	<u>Mth. Avg.</u>	<u>Daily Max.</u>
• Iron	1.42 mg/l	2.46 mg/l
• Manganese	1.0 mg/l	1.73 mg/l
• Aluminum	0.0825 mg/l	0.1429 mg/l
• Selenium	4.7 ug/l	8.2 ug/l

Summary of Protection Levels



Anti-deg Vs. TMDL

New & Expanded

- Does the Stream have a completed TMDL?
- Is the stream on the latest 303(d) List?
- Collect BWQ?

Reissuance

- Is there a completed TMDL?
- Review Wasteload Allocation Tables.
- Is the stream on the latest 303(d) List?