

# ANTI-DEGRADATION IMPLEMENTATION

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# SHORT HISTORY & LEGAL BOUNDARIES

- CWA ? – Not directly in the Clean Water Act
- 40 CFR 131.12
- Guidance? – Very little guidance from EPA.
  - Some in the WQS Handbook - Q&As on Antideg.
  - Some region specific guidance

# SHORT HISTORY & LEGAL BOUNDARIES

## 40 CFR 131.12 Anti-degradation

*“a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following: “*

1) ...protection of existing uses... (Tier I)

2) “Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless ..... allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.” (Tier II)

3) ...waters of exceptional recreational or ecological significance (Tier III)

# Tier I Implementation

## 131.12(a)(1)

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

- Generally consistently understood
  - Assign uses and develop criteria to protect them
  - Maintain and protect these through WQBELs in the NPDES Program, NPS (319) Programs, etc.

# Tier II Implementation

Two basic approaches to Tier II implementation

- Pollutant by Pollutant Approach:
  - apply Tier II to all waters
  - assume “*better than that necessary*” for all waters
  - perform ad hoc data review for each activity for each water
  - less work up front, much more review time at the back
  - requires significant amounts of data to properly implement
  - diminishes the importance of beneficial uses?

For example:

Don't all waters at certain times and locations have WQ that exceeds the F&W use (i.e., 5.0 mg/L)? So even with a floor of 5 mg/L – it is rarely used in WQ management.

# Tier II Implementation

- Waterbody by Waterbody Approach:

If all waters are special then nothing is special – so OK specifically lists HQWs in the WQS and mean it!

- all waters at times support conditions “*better than that necessary*” to support the use.
- need to determine existing conditions up front, set the bar through WQS rulemaking
- apply Tier II protection only to those waters deemed deserving of HQW protection
- more work up front, less review at the back

# Tier II Implementation

- Oklahoma's Waterbody by Waterbody Implementation Approach:
  - all point sources that discharge to HQWs are subject to maintaining and/or increasing water quality and loads are frozen (i.e., no new point source discharges, no increased loads from existing point sources).
  - Can still do a site-specific study to discharge but must maintain or improve water quality
  - the rules state that BMPs should be implemented

# Tier II Implementation Philosophy

- Why Oklahoma believes the Waterbody by Waterbody approach works best:
  - we would rather have some waters be special and mean it than to have everything special and it be administratively unworkable
  - we believe that the protection of uses through criteria is the backbone of water quality management
  - The HQW designation applies only to the listed water and not the watershed. New discharges or increased loads upstream must maintain WQ & Tier II quality of HQW downstream

# Tier III Implementation

- assigned for reasons other than water quality (ESA, parks and recreation areas, Wild and Scenic Rivers, etc);
- policy, not science!
- can we determine compliance with policy? How?

Implementation “no new point sources, no increased loads from existing point sources”

# Tier III Implementation

- About 7% of state waters (ORWs)
- Very limited options other than avoidance
- BMPs to control NPS shall be implemented within the watershed
- Functionally caps point and nonpoint sources and limits growth
- Implemented in the entire watershed!

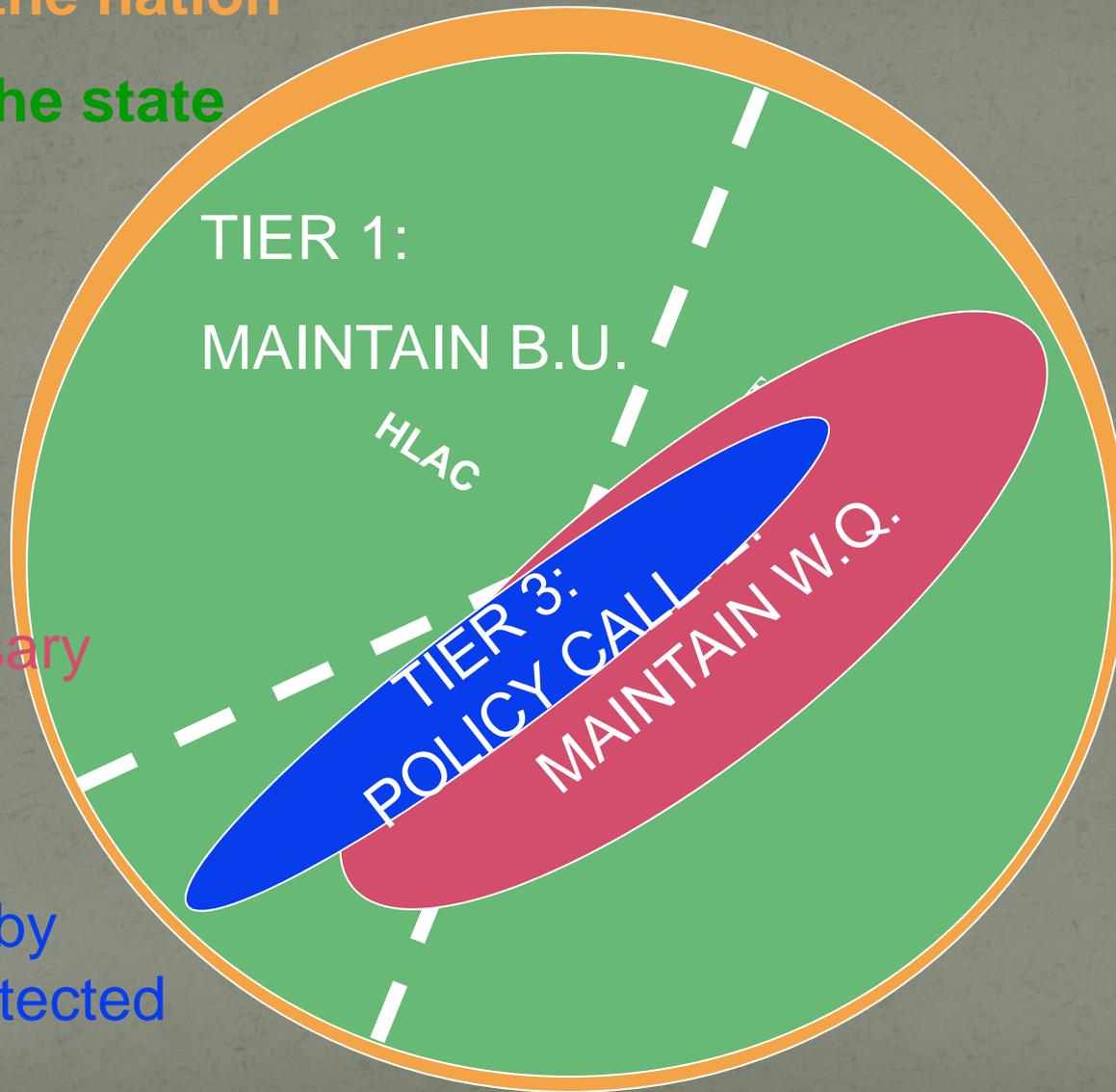
# Tier III Implementation

What we identify as special, we really mean,  
and aggressively protect

- Oklahoma took the state of Arkansas to the U.S. Supreme Court . . . . . and it was upheld that downstream uses and antideg must be considered by upstream states
- Oklahoma is taking the poultry industry to court for over application of litter adversely impacting water quality in OK Tier III Scenic River (Illinois)

Waters of the nation

Waters of the state



Better than  
that necessary  
to support  
B.U.

Assigned by  
policy, protected  
by policy

## APPENDIX A.1

Designated Beneficial Uses of Surface Waters  
Water Quality Management Basin 1, Middle Arkansas River

Waterbody Name and Sequence	Waterbody ID Numbers	Water Supply	F&W Prop	Ag	Rec	Aes	Limitations	Remarks
Arkansas River from mouth of Canadian River to the mouth of the Verdigris River including Webbers Falls Reservoir	121400010260, 121400010060, 121400010010, 121400010070	EWS	WWAC	•	PBCR	•		
Dirty Creek	120400020010	PPWS	WWAC	•	PBCR	•		
Tributary of Dirty Creek at SW 1/4, Sec. 31, T12N, R21E, IM	120400		HLAC	•	SBCR	•		
South Fork of Dirty Creek	120400020030		WWAC	•	PBCR	•		
East Pournum Creek at SW NE SE SE, Sec. 2, T10N, R19E, IM	120400020060		HLAC	•	SBCR	•		
Georges Fork	120400020110	EWS	WWAC	•	PBCR	•		
Tributary of Georges Fork at SE 1/4, Sec. 35, T12N, R19E, IM	120400	EWS	HLAC	•	SBCR	•		
Tributary of Dirty Creek at SE 1/4, Sec. 1, T12N, R18E, IM	120400020250		WWAC	•	PBCR	•		
Lower Illinois River from headwater of Robert S. Kerr Reservoir to Tenkiller Dam	121700010010	PPWS	Trout	•	PBCR	•	HQW	
Upper Illinois River from Tenkiller Dam, including Tenkiller Reservoir upstream to Barren Fork confluence	121700020010, 121700020210, 121700020300, 121700020020, 121700020220	PPWS	CWAC	•	PBCR	•	HQW	NLW
Caney Creek	121700040010, 121700020230	PPWS	CWAC	•	PBCR	•		
Negro Jake Creek	121700040020		CWAC		PBCR	•		
Park Hill Branch	121700020270		WWAC	•	PBCR	•		
Barren Fork from mouth upstream to Hwy. 59	121700020310, 121700050010, 121700050170_00	PPWS	CWAC	•	PBCR	•	ORW	Scenic River
North Mining Camp (Hollow) Creek	121700050040		CWAC		PBCR	•		

# High Quality Water?



With a point source



With a point source into an HWQ



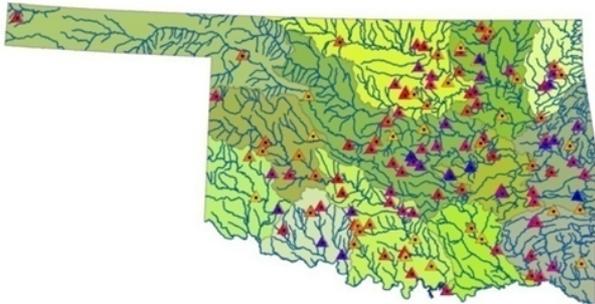
# With a Wildlife Management Area



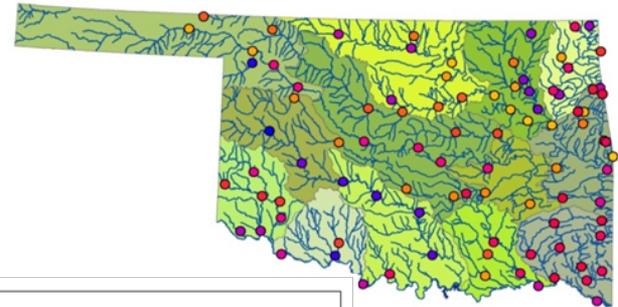
# Now, specific to some of your questions

## 1) How do you determine baseline water quality?

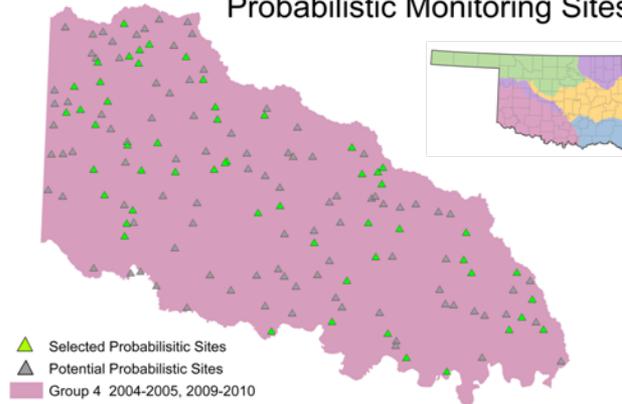
Beneficial Use Monitoring Program (BUMP)  
Sample Lakes



Beneficial Use Monitoring Program (BUMP)  
Stream Sample Sites



2009 Basin Group 4  
Probabilistic Monitoring Sites



Now, specific to some of your questions

2) What constitutes significant degradation (de minimus)?

Long term impairment

De minimus is irrelevant

3) What triggers a review?

Tier II or III – look in WQS and see if the discharge or NPS practice is in a Tier II or III water.

Now, specific to some of your questions

4) How do you decide what tier of antideg applies to a waterbody?

Through WQS revision. All Tier I & Tier II is through rulemaking petition. Tier III and Scenic Rivers designation is by the legislature

5) How do you analyze social and economic development that justifies lowering water quality?

On a site by site basis through WQS reviews

Now, specific to some of your questions

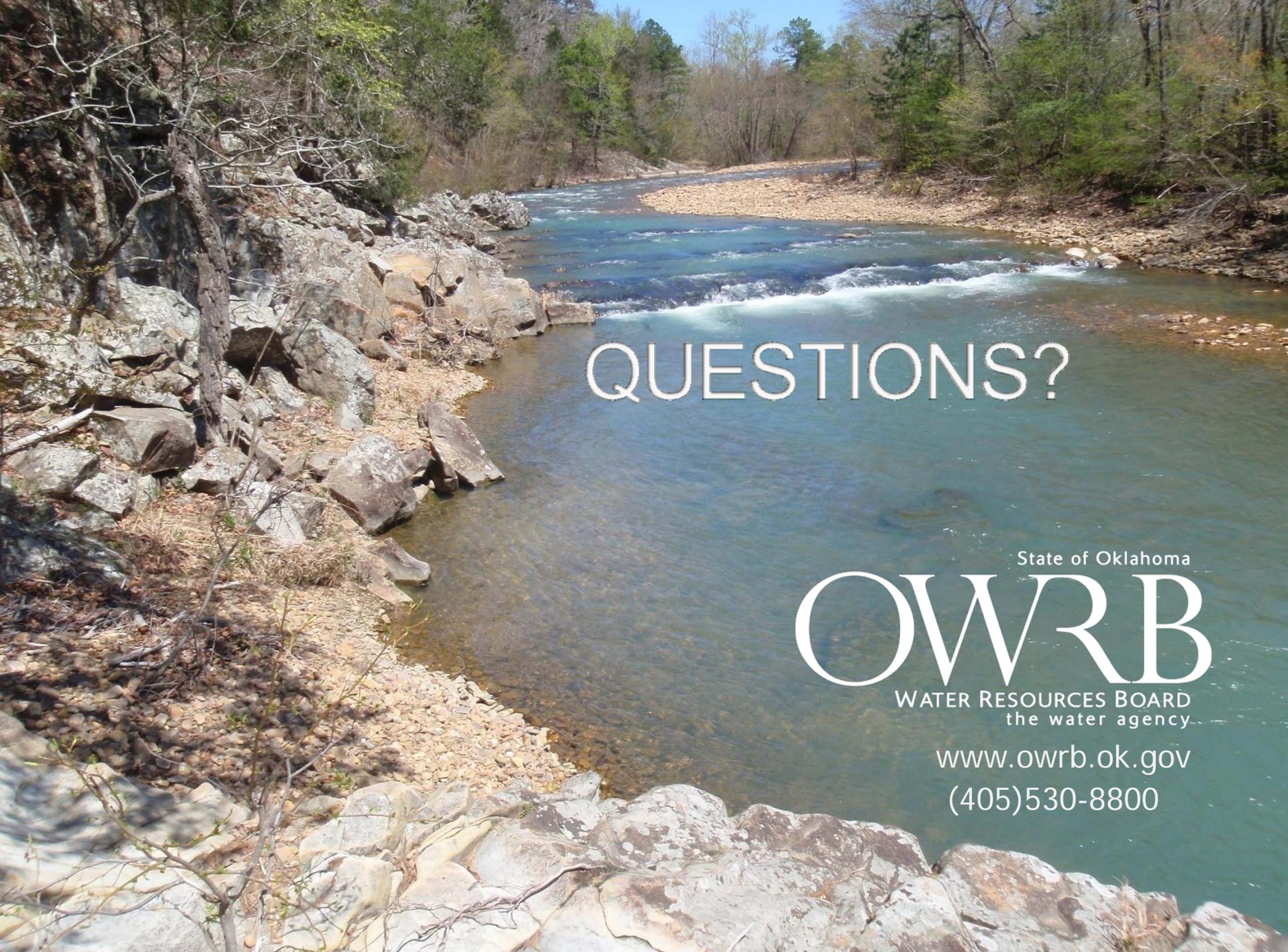
6) Do you have a requirement to analyze alternative methods of pollution prevention, control and treatment?

Yes, this is part of the analysis to maintain and improve water quality site specifically

# Now, specific to some of your questions

7) What is your process for public participation and/or internal review?

- Informal meetings between the state staff and petitioner
- Informal public meetings
- Notice of Rulemaking Intent / Rule Impact Statement
- Formal hearing
- Board approval
- Governor and legislature review and approval
- Attorney General concurrence
- EPA approval



QUESTIONS?

State of Oklahoma

**OWRB**

WATER RESOURCES BOARD  
the water agency

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