WETLANDS AND WATER QUALITY STANDARDS

How they interact

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OCLWA

April 8th, 2015

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Water Quality Standards Overview

- Water Quality Standards protect the quality of Oklahoma's waterbodies
- OWRB responsible for promulgating standards
- Periodically revise & update standards

What are Water Quality Standards?

- WQS are rules with the force and effect of law adopted by states in accordance with the Clean Water Act and state statutes

- § 303(a) of the CWA grants states (or federally recognized tribes) the authority to set water quality standards for surface waters

How do WQS work?

- WQS have three basic components:
  - Beneficial uses
  - Criteria to protect beneficial uses
  - Anti-degradation policies

  &

- Implementation

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BENEFICIAL USES

Beneficial Uses

- Beneficial uses are the activities we want a waterbody to be used for
  - Goals for the waterbody
  - Whether or not they are being attained
- Water bodies can have many assigned beneficial uses

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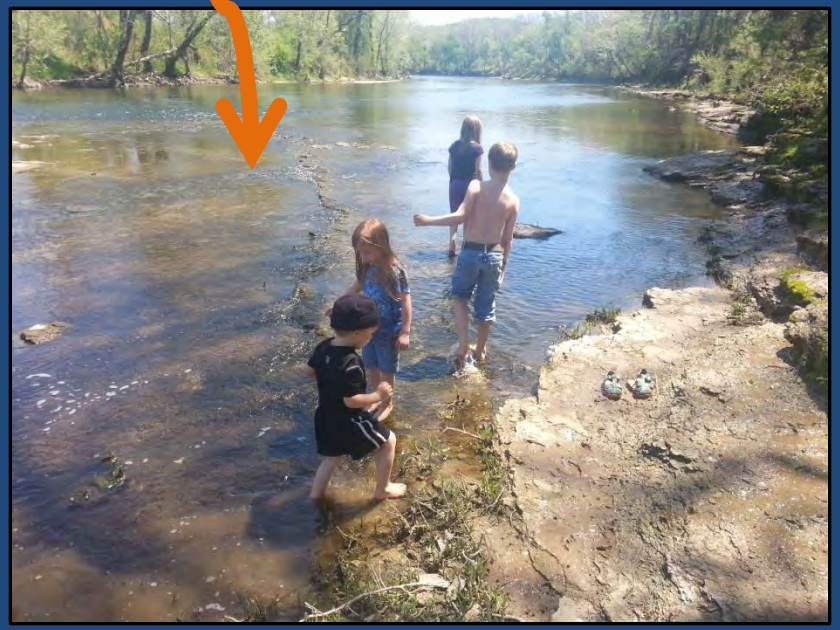
Beneficial Uses

The Real Thing

Recreation



The Descriptor

- *Primary Body Contact Recreation* – involves direct body contact with water where a possibility of ingestion exists.

Types of Beneficial Uses

- Fish and Wildlife Propagation
  - Warm Water Aquatic Community*
  - Cool Water Aquatic Community
  - Habitat Limited Aquatic Community
  - Trout Fishery

- Recreation
  - Primary Body Contact Recreation*
  - Secondary Body Contact Recreation

Types of Beneficial Uses

- Agriculture*
- Aesthetics *
- Public and Private Water Supply
- Navigation
- Emergency Water Supply

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Beneficial Use Assignments

- Appendix A of Chapter 45 of the Oklahoma WQS (OAC 785:45) has a list of waterbodies in Oklahoma and their beneficial use assignments

- If a lake, stream or wetland is not listed in Appendix A, it has default beneficial uses assigned

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	Nav	Aes	Limitations	Remarks
Arkansas River from mouth of Canadian River to the mouth of the Verdigris River including Webbers Falls Reservoir	120400010260, 120400010010, 120400010070, 121500010005	EWS	WWAC	•	PBCR	•	•		
Dirty Creek	120400020010	PPWS	WWAC	•	PBCR		•		
Tributary of Dirty Creek at SW 1/4, Sec. 31, T12N, R21E, IM	120400020015_00		HLAC	•	SBCR		•		
South Fork of Dirty Creek	120400020030		WWAC	•	PBCR		•		
East Pourum Creek at 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 (Howland Creek)	120400020120_00	EWS	HLAC	•	SBCR		•		
Warner (Connors) Lake	120400020140	PPWS	WWAC	•	PBCR		•		
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 Lake upstream to Barren Fork confluence	121700020300_00, 121700020020, 121700020220	PPWS	CWAC	•	PBCR		•	HQW	NLW
Cato Creek	121700020090	PPWS	WWAC	•	PBCR		•		
Terrapin Creek	121700020130	PPWS	WWAC	•	PBCR		•		
Caney Creek	121700040010,	PPWS	CWAC	•	PBCR		•		
Negro Jake (Hollow) Creek	121700040020		CWAC		PBCR		•		
Park Hill Branch	121700020270		WWAC	•	PBCR		•		

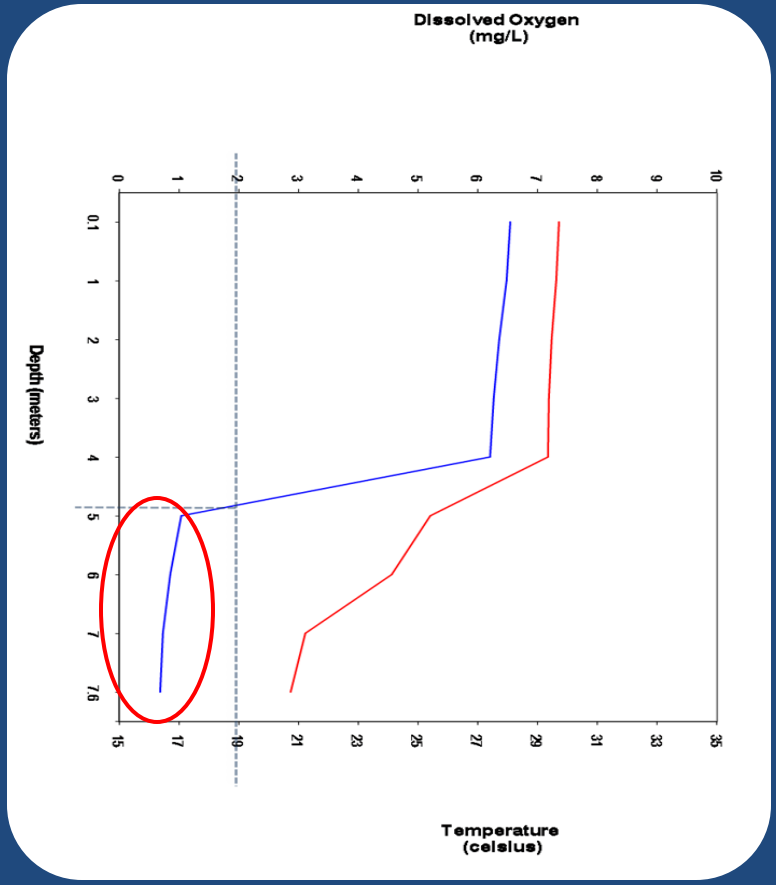
CRITERIA

Criteria - To Protect Beneficial Uses

- Limit on a particular pollutant or on the condition of a waterbody
- Intended to protect and support a beneficial use
- Numeric Criteria: Specify a precise measurable level of some parameter
- Narrative Criteria: Provide a qualitative benchmark to assess water quality

Criteria - Numeric

- Specific numeric values
  - Values not to be exceeded address both short-term and long-term effects: example toxics
  - Values must be exceeded: example DO



Criteria - Narrative

- Statement prohibiting action or condition – *free from*
- Positive statement about expected condition – *natural status*
- Can address physical and biological aspects of water quality
- Need to be interpreted or translated

ANTIDEGRADATION

Antidegradation Policy

- Concept based on the spirit, intent and goals of Clean Water Act

  to restore and maintain the chemical, physical, and biological integrity of the Nation's waters

Antidegradation Policy

- **Summary**
  - Antidegradation provides a decision-making process for determining how and how much to protect high quality waters, and a framework for protecting existing uses and outstanding resource waters

WETLANDS & WATER QUALITY STANDARDS

What about Wetlands?

- Where do wetlands fit in Oklahoma's water quality standards?

WQ Standards for Wetlands

- Wetlands are a water of the state, but not specifically addressed in standards
- Wetlands protected with default beneficial uses
  - Warm Water Aquatic Community
  - Primary Body Contact Recreation
  - Aesthetics
  - Irrigation Agriculture

- Components of the default beneficial uses and criteria often not suitable for wetland waterbodies

Statutes and Administrative Rules Affecting Water Quality Standards

§27A-1-1-201. Definitions

"Waters of the state" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, storm sewers and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof, and shall include under all circumstances the waters of the United States which are contained within the boundaries of, flow through or border upon this state or any portion thereof;

Default Water Quality Standards

- What exactly do we mean by the term “default standards”??

Default Water Quality Standards

- Remember: WQS are all 3 components
  - Default Beneficial Uses
  - Criteria associated with those particular uses
  - Antidegradation policy
  - Many waterbodies throughout the state are protected with default Beneficial Uses

Default Beneficial Uses	Criteria
General Criteria (apply to all waters)	Narrative minerals criteria
	Narrative solids (suspended and/or settleable)
	Narrative Taste and Odor
	Narrative Nutrients
Fish and Wildlife Propagation (Warm Water Aquatic Community)	Numeric Dissolved Oxygen Criteria
	Numeric Temperature Criteria
	Numeric pH Criteria
	Narrative Oil and Grease
	Narrative Biological Criteria
	Narrative and Numeric Toxic Criteria (Appendix G)
	Numeric Turbidity Criteria
	Narrative Sediment Criteria
Irrigation Agriculture	Numeric Criteria
Recreation – Primary Body Contact Recreation	Numeric Bacteria Criteria
Aesthetics	Narrative Criteria

Antidegradation Policy applies to **all** waters

WETLAND WQS PROJECT

Development of Wetland Standards

Step 1 - Technical Work

- Establish scientific foundation for standards
  - Wetlands Technical Work Group
  - Kicked off project in 2012

Development of Wetland Standards

Step 1 - Technical Work

- Guiding Principles
  - Standard comprehensively rooted in wetland science
  - Develop meaningful & workable standard for wetland protection
  - Recognize wetlands as unique waterbody type
  - Standard compatible with existing/future assessment methods
  - Provide clarity to regulatory programs

Development of Wetland Standards

Step 2 – Program & Policy Work

- Consider application of draft standard in various water quality programs
  - Input from stakeholders (Fall of 2014)
  - Oklahoma Wetlands Work Group

Proposed Wetland WQS “Package”

- Definition of “wetland”
- New Beneficial Uses to better describe wetland characteristics
- Some modifications to existing Beneficial Uses and criteria to better reflect wetlands
- New narrative criteria
- Continued application of some existing components of WQS that currently apply

Default Beneficial Uses and Criteria – currently apply

Default Beneficial Uses	Criteria
General Criteria (apply to all waters)	Narrative minerals criteria
	Narrative solids (suspended and/or settleable)
	Narrative Taste and Odor
	Narrative Nutrients
Fish and Wildlife Propagation (Warm Water Aquatic Community)	Numeric Dissolved Oxygen Criteria
	Numeric Temperature Criteria
	Numeric pH Criteria
	Narrative Oil and Grease
	Narrative Biological Criteria
	Narrative and Numeric Toxic Criteria (Appendix G)
	Numeric Turbidity Criteria
	Narrative Sediment Criteria
Irrigation Agriculture	Numeric Criteria
Recreation – Primary Body Contact Recreation	Numeric Bacteria Criteria
Aesthetics	Narrative Criteria

Antidegradation Policy applies to **all** waters

Proposed Beneficial Uses and Criteria – to apply to wetland waterbodies

Proposed Wetland Beneficial Uses	Criteria
General Criteria (apply to all waters)	Narrative minerals criteria
	Narrative solids (suspended and/or settleable)
	Narrative Taste and Odor
	Narrative Nutrients
Wetland Habitat and Biota	Narrative Ecological Integrity Criteria Narrative Hydrology Criteria Narrative Floating Debris and Oil Narrative D.O. and pH Criteria Narrative Temperature Narrative and Numeric Toxic Criteria (Appendix G) Narrative Sediment Criteria
Flood Protection and Erosion Control	
Water Quality Enhancement	
Aesthetics	Narrative Aesthetics Criteria – with exclusions for naturally occurring conditions
Recreation (either Primary Body Contact or Secondary Body Contact – dependent upon wetland association with a PBCR waterbody)	
Primary Body Contact Recreation	Numeric Bacteria Criteria
Secondary Body Contact Recreation	Narrative Criteria

Development of Wetland Standards

- Proposed for rulemaking in Fall of 2014
- Feb 17th, 2015 – the agency postponed the wetlands WQS proposal to further work with stakeholders.
- Continued effort involving stakeholder engagement
  - ~~April 23rd, 2015~~
  - ~~1:30 pm~~
  - OWRB - 2nd floor, board room


Questions?
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