

Proposed Site-Specific Criteria for the City of Idabel Discharge to Mud Creek

FACT SHEET

WQS Stakeholder Meeting #2

October 10, 2017

- Oklahoma’s Water Quality Standards include copper criteria to protect aquatic life from copper toxicity.
- Copper toxicity is dependent on water chemistry, particularly hardness; as hardness decreases copper toxicity increases. Oklahoma’s copper criteria (OAC 785:45, Appendix G) is hardness based in order to account for ambient water hardness on copper toxicity.
- A water effects ratio (WER) is an site-specific criteria development option which accounts for the difference between the toxicity of a metal in the site water and the toxicity of a metal in lab water.
- City of Idabel pursued a WER to modify permit limits for copper using OWRB’s, “Guidance for Developing Site Specific Criteria for Metals” (2003) and EPA’s “Streamlined Water-Effect Ratio Procedure for Discharges of Copper” (2001).
- Workplan was approved by OWRB staff in 2015, study conducted in 2016, and final report approved by OWRB staff in 2017.
- OWRB staff intends to include this site-specific criteria as part of the 2018 rulemaking, including a formal public participation process.
- Modified criteria will only be effective for CWA programs upon EPA approval.

Proposed Site-Specific Copper Criteria

	Current Criteria (@ 32 mg/L hardness)*		WER Adjusted Criteria	
Parameter	Acute (µg/L)	Chronic (µg/L)	Acute (µg/L)	Chronic (µg/L)
Copper	6.56	4.83	54.28	39.97

*Calculated using the statewide hardness dependent criteria equations in OAC 785:45, Appendix G

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