United States Environmental Protection Agency

Office of Water
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Fact Sheet: Final Aquatic Life Water Quality Criterion for Cadmium in Oregon

Summary

EPA has finalized a rule that establishes an acute cadmium aquatic life criterion for freshwaters under Oregon's jurisdiction. EPA has established this criterion to protect aquatic life from adverse effects of exposure to harmful levels of cadmium.

Background

Clean Water Act (CWA) section 101(a)(2) establishes the national goal that water quality should provide for the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water. To protect aquatic communities from the harmful effects of pollutants in surface waters, states must establish aquatic life criteria for their waters that are designated for such uses. EPA periodically publishes criteria recommendations under CWA section 304(a) for states to consider using to meet these CWA section 101(a)(2) goals.

On January 31, 2013, EPA determined that Oregon's 2004 acute freshwater cadmium criterion did not meet CWA requirements to protect aquatic life in the state, and disapproved the criterion. Oregon did not adopt a revised acute cadmium criterion; therefore, to protect freshwater aquatic life in Oregon from the adverse effects of cadmium, EPA has finalized the criterion in this rule using the best available science on cadmium toxicity.

How EPA Derived the Final Acute Cadmium Aquatic Life Criterion

In 2016, EPA published revised CWA section 304(a) recommended criteria for cadmium, based on the latest science on cadmium toxicity. Ambient water hardness (determined by the presence of calcium and magnesium ions) affects the toxicity of cadmium, such that organisms show more sensitivity to cadmium in water with lower hardness. EPA's freshwater CWA section 304(a) recommended cadmium criteria are equations to calculate protective cadmium criteria based on the relevant water body's hardness. EPA's April 2016 proposed rule, as well as EPA's final rule, used the updated CWA section 304(a) recommended acute cadmium criterion equation to protect freshwater aquatic life in Oregon. EPA also promulgated protective default hardness values in the final rule, for Oregon to use in the acute cadmium criterion equation when sufficient representative data to determine the water body's hardness are not available.

How EPA's Final Rule Relates to Oregon's Rulemaking Efforts

EPA's April 2016 proposed rule also included freshwater aquatic life copper criteria to remedy EPA's January 2013 disapproval of Oregon's 2004 copper criteria. However, Oregon engaged in its own rulemaking process to develop copper criteria that protect freshwater aquatic life, and submitted revised freshwater acute and chronic copper criteria to EPA for review on November 14, 2016. In parallel with this final rule, EPA has approved the freshwater copper aquatic life criteria submitted by Oregon and these criteria are effective for CWA purposes. Therefore, EPA did not finalize copper criteria in the federal rule. Similarly, If Oregon adopts and submits a new or revised acute cadmium criterion that EPA

finds meet CWA requirements, and EPA approves such criteria, EPA would expeditiously undertake a rulemaking to withdraw the federal acute cadmium criterion such that Oregon's criterion would be solely effective for CWA purposes.

Where can I find more information?

Contact Erica Fleisig at (202) 566-1057, fleisig.erica@epa.gov or Rochelle Labiosa at (206) 553-1172, labiosa.rochelle@epa.gov. To access the final rule, visit EPA's Water Quality Standards website at: http://www.epa.gov/wqs-tech/water-quality-standards-regulations-oregon.