

Water Resources Advisory Committee Discusses Alternatives Analysis Guidelines, Water Quality Criteria for Copper, and Draft 303(d) Report

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On September 21, 2023, the Water Resources Advisory Committee (WRAC) for the Pennsylvania Department of Environmental Protection (PADEP) held a meeting to discuss several recent water law updates including chapter 105 alternatives analysis guidance (relating to dam safety and waterway management), aquatic life water quality criteria for copper, and Pennsylvania's draft integrated water quality report for 2024.

Alternative Analysis

Final edits to the Chapter 105 alternatives analysis technical guidance are nearing completion and PADEP is prepared to publish the final document in the fourth quarter of 2023. The development of this guidance began in 2018 and resulted in an initial proposed draft opened for public comment on September 4, 2021. The final technical guidance document is based on the 93 comments received from six commentators for the 2021 proposal, all of which are addressed in PADEP's "[Guidance for Developing a Chapter 105 Alternatives Analysis—Comment and Response Document](#)" (Aug. 5, 2023).

The guidance seeks to clarify the appropriate level of analysis required when evaluating alternatives for projects that trigger the need for an Individual Water Obstruction and Encroachment Permit under chapter 105 of PADEP's regulations (25 Pa. Code ch. 105). Chapter 105 regulations require applicants encroaching on waters of the commonwealth to avoid and minimize impacts to those water resources. The permit application must include "[a] detailed analysis of alternatives to the proposed action, including alternative locations, routings or designs to avoid or minimize adverse environmental impacts." 25 Pa. Code § 105.13(e)(1)(viii). Until now, detailed guidance has not been provided by PADEP. PADEP intends for this guidance to remove inconsistencies with staff review and result in permit efficiencies.

Notable changes from the 2021 to the 2023 technical guidance include a new section to clarify how costs may or may not factor into an alternatives demonstration in certain scenarios and clearer guidance on eminent domain. In addition, the name change from "Chapter 105 Alternatives Analysis Technical Guidance Document" (2021) to "Guidance for Developing a Chapter 105 Alternatives Analysis" (2023) conveys that analysis of alternatives is a developmental process that should be documented from the initial design phase through the final proposed project.

Aquatic Life Criteria for Copper

A pre-draft proposed rulemaking regarding Pennsylvania's aquatic life criteria for copper was discussed at the WRAC meeting. This proposed rulemaking would update the aquatic life water quality criteria for copper by replacing the current hardness-based water quality criteria with the Biotic Ligand Model (BLM). BLM is a metal bioavailability model that utilizes receiving water body characteristics to develop site-specific water quality criteria, using the best available science. It is presently used for the development of site-specific criteria for copper in freshwater systems following the U.S. Environmental Protection Agency's (EPA) "[Aquatic Life Ambient Freshwater Quality Criteria - Copper](#)" (2007 Revision). In 2007, the EPA replaced its 1984 hardness-based recommendation for copper in light of new data on copper's toxicity to aquatic life. The current Pennsylvania hardness-based water quality criteria are based on the EPA's 1984 guidance.

Draft Integrated Water Quality Report for 2024

An update on Pennsylvania's Draft Integrated Water Quality Report for 2024 was presented at the WRAC meeting. Under sections 305(b) and 303(d) of the Clean Water Act (CWA), PADEP is required to submit a report to the EPA every two years that assesses the quality of surface waters in Pennsylvania and identifies streams and other bodies of water with "impaired" water quality. The reports include narrative descriptions of control and restoration programs managed by the PADEP, trends in water quality parameters, and the status of Pennsylvania surface waters.

Several notable updates are included in the Draft Integrated Water Quality Report for 2024, including an environmental justice/climate change section that covers nearly four million Pennsylvania residents living in environmental justice communities. In addition, major portions of the West Branch Susquehanna River and the Susquehanna River have been reassessed for aquatic life use. Approximately 3,200 miles of streams have been assessed for recreation, many of which were not previously assessed for recreation, and approximately 47 stream miles and 727 lake acres have been restored for at least one protected water use since 2022.

A 45-day public comment period opened on September 23, 2023, and ended on November 7, 2023. The final 2024 Integrated Water Quality Report for Pennsylvania is expected to be submitted to the EPA for approval by February 2024, meeting the federal mandate of final submission by April 1, 2024.

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