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Submitted via eComment

Environmental Quality Board
Rachel Caron State Office Building
400 Market Street
16th Floor
P.O. Box 8477
Harrisburg, PA 17105-8477

Re: Comments on Proposed Rulemaking: Water Quality Standard for Manganese and Implementation – 25 Pa Code Chapters 93 and 96

Dear Environmental Quality Board:

On behalf of Center for Coalfield Justice (“CCJ”) and its more than 3,000 members and supporters, please accept these comments on the proposed amendments to Chapters 93 and 96 relating to manganese.¹ CCJ is a 501(c)(3) non-profit organization founded in 1994. The organization’s mission is to improve policy and regulations for the oversight of fossil fuel extraction and use; to educate, empower, and organize coalfield residents; and protect public and environmental health. As such, and on behalf of our members, we are very interested in matters that impact the health of waters of the Commonwealth, particularly those located in southwestern Pennsylvania, and the health of those who live, work, and recreate in the communities we serve.

The proposed amendments would delete the existing manganese water quality standards criterion from Table 3 in § 93.7, relating to specific water quality criteria. It would then add a revised manganese water quality standards criterion to Table 5 in § 93.8c relating to human health and aquatic life criteria for toxic substances. Additionally, the amendments seek comment on two possible points of compliance for the proposed manganese water quality standard. The first alternative would change the point of compliance for manganese to the point of all existing or planned surface potable water supply withdrawals. The second alternative maintains the current point of compliance for manganese in all surface waters – the point of discharge.

¹ 50 Pa. B. 3734 (July 25, 2020).

CCJ believes that changing the manganese criterion from 1.0 mg/l to 0.3 mg/l is necessary to adequately protect Pennsylvania residents' health and the aquatic life in the Commonwealth's waters. The point of compliance for this revised manganese water quality standard must remain at the point of discharge and not the point at which water is taken from the stream.

I. CCJ supports the addition of manganese to the list of toxic substances relating to human health and aquatic life criteria.

CCJ appreciates the time and attention that the Department put into reviewing and updating the criterion for manganese to ensure adequate criteria for manganese exist to protect all of Pennsylvania's waters and the people that use them. CCJ agrees that a new numeric human health criterion for manganese of 0.3 mg/L in Table 5 in 25 Pa. Code § 93.8 (Water Quality Criteria for Toxic Substances) is necessary. Current scientific knowledge and recommendations make clear that the existing 1 mg/L criterion in Table 3 § 93.7 (relating to specific water quality criteria) standard is not protective enough.

Coal mining activity has and continues to be a significant contributor of manganese to waters of the Commonwealth. However, discharges containing manganese are not limited to the coal sector. Landfills, wastewater treatment plants, and power plants also discharge manganese into our waters. Hundreds of non-mining individual NPDES permits contain a monitor and report condition for manganese and many of those permits contain actual numeric effluent limits for manganese.

While manganese is an essential micronutrient for plants and animals, only small quantities of manganese are necessary to achieve adequate health. Exposure to levels of manganese beyond those necessary to maintain health may lead to a variety of adverse health effects. For example, it can lead to irreversible neurological problems, brain damage, and development issues with children. Studies have also shown that manganese's impact on aquatic life, such as fish, include impaired gill functions and hormonal and metabolic interference.

According to the more than sixty (60) human health studies reviewed by the Department and the U.S. Environmental Protection Agency ("EPA"), the toxic effects of manganese are many, and most of them are neurological in nature and irreversible.² The EPA has set the SMCL for water system intake at 0.05 mg/L.³ The EPA has issued a manganese Health Advisory Level of 0.3 mg/L, and the World Health Organization has set a manganese health guideline level of 0.4

² 50 Pa. B. 3734 (July 25, 2020). *See also* U.S. EPA- Office of Water, Health and Ecological Criteria Division- Drinking Water Health Advisory for Manganese, 2004, https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_magnese_dwreport_0.pdf.

³ U.S. EPA- Office of Water, Health and Ecological Criteria Division- Drinking Water Health Advisory for Manganese, 2004, https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_magnese_dwreport_0.pdf.

mg/L.⁴ These numbers further show that the current 1 mg/L is outdated and insufficient to protect public health and the environment.

The information and health study analyses performed by the Department is the first comprehensive review conducted in decades. Current public health knowledge and recommendations support changing the manganese criterion in Table 3 § 93.7 (relating to specific water quality criteria) and replacing it with the proposed 0.3 mg/L in Table 5 § 93.8. If a pollutant is toxic to human health or aquatic life, the Clean Streams Law and Pennsylvania Safe Drinking Water Act require development of appropriate water quality criteria. *See* 35 P.S. §§ 721.1–721.17; 35 P.S. § 691.4(1); 25 Pa. Code § 93.8a (the waters of this Commonwealth may not contain toxic substances attributable to point or nonpoint source waste discharges in concentrations or amounts that are inimical to the water uses to be protected.). Section 303(c) of the Federal Clean Water Act and 40 CFR Part 131 (relating to water quality standards) requires the Department to develop water quality standards that consist of designated uses, water quality criteria to protect those uses and antidegradation requirements. 33 U.S.C. § 1313(c). Those standards must “protect the public health or welfare and enhance the quality of water” and protect water uses including aquatic life, recreational and agricultural uses. *Id.*; *See* also 33 U.S.C. § 1251(a)(3) (discharges of toxic pollutants in toxic amounts is prohibited). The new proposed 0.3 mg/L toxic health standard is based on sound science to protect human health, aquatic life and recreational uses, and agricultural water supply uses.

II. The Clean Streams Law, Safe Drinking Water Act, Federal Clean Water Act, and Article I, Section 27 of the Pennsylvania Constitution mandate that the point of compliance be the point of discharge.

The fundamental goal and purpose of the Clean Streams Law and the Department’s water protection regulations is to protect and maintain stream uses. Moreover, the Department and the Environmental Quality Board have independent constitutional obligations to conserve and maintain the public natural resources of the Commonwealth. *See Pa. Env’tl. Def. Found. v. Commonwealth*, 161 A.3d 911, 931 (Pa. 2017) (“PDEF”). Compliance with the statutes and regulations does not automatically mean that the Department (or the EQB) has met its obligation under Article 1, Section 27. *See Center for Coalfield Justice v. DEP*, 2017 EHB at 860; *Friends of Lackawanna v. DEP*, 2017 EHB at 1161 (recognizing that the Pennsylvania Supreme Court and the Board had expressly rejected the argument that the constitutional duties under the Environmental Rights Amendment were coextensive with statutory and regulatory compliance.). The private trust principals underlying the Department’s obligation pursuant to Section 27 require that the Department and the EQB act as a trustee, rather than a proprietor, and must measure its successes by the benefits it provides for all citizens in their use of public natural resources. Here, the EQB and the Department cannot elevate the interest of the coal and

⁴ WHO, 2004 (PDF), Manganese in Drinking-water, Background document for development of WHO Guidelines for drinking-water Quality, World Health Organization, 2004.

other industries above the interests of beneficiaries.⁵

Maintaining the existing point of compliance (at the discharge point) will protect all water uses including municipal, industrial and agricultural water supplies, and recreational and aquatic life uses in all surface waters. This is consistent with the Department's and the EQB's statutory obligations under the Clean Streams Law, Safe Drinking Water Act and the Federal Clean Water Act, and the obligations imposed by Article I, Section 27.

If, on the other hand, the point of compliance was moved to any downstream public water supply intake, the manganese criterion would not apply and therefore, not protect other water uses between the discharge location and the downstream water supply intake. It would allow for the unregulated discharge of manganese in waters of the Commonwealth after the point of discharge until it reaches a public water supply intake. Shifting the point of compliance to downstream public water supply intakes jeopardizes thousands of miles of streams and the aquatic life and recreational uses they support.⁶ It ignores the fundamental mandate of the Clean Streams Law and the Federal Clean Water Act to protect and maintain uses, and flies in the face of the Department's obligations under Section 27 to prevent degradation of public natural resources. Furthermore, it would shift the treatment costs onto public water suppliers (which are ultimately borne by the ratepayers) and other downstream users.⁷ The prevention and reduction of pollution in our waterways is the responsibility of the generator of that pollution, not downstream users or the public. Coalfield residents are not interested in picking up the industry's tab for the cost of wastewater treatment.⁸

⁵ By their presence in Article I, the rights protected by Section 27 are on par with the other fundamental rights in Article I. *PEDF*, 161 A.3d at 911 (the people of Pennsylvania voted to make their environmental rights "commensurate with their most sacred political and individual rights.") Because the people intended that Section 27 place their rights to a healthy environment on the same footing as economic development and their property rights, economic development cannot be sufficient justification for the Department and the EQB to trample on the inherent rights protected by Section 27. There is no question that people were aware of the benefits that economic development could bring and they were concerned that the burdens of such development would continue to be imposed on the people through degradation of health and their local environment.

⁶ The Fish and Boat Commission found that manganese is a heavy metal that acts as a metabolic poison to aquatic life. 50 Pa. B. 3734 (July 25, 2020).

⁷ See The Pennsylvania Local Government Conference, Letter addressed to the Members of the Pennsylvania General Assembly, Aug. 21, 2017 (The Commonwealth has over 2,200 community drinking water systems, many serving less than 3,500 consumers. These water suppliers have made it clear that moving the point of compliance to downstream water supply intakes would increase the cost of their operations significantly.).

⁸ The PA Coal Alliance complains that the proposed rulemaking will increase treatment costs for industry and in the same breath requests that the EQB apply the current manganese water quality criterion of 1mg/L at the downstream public water supply intake and force Pennsylvania residents and downstream users to assume the cost of treatment, the public health risks, and the adverse impact on aquatic life and recreational uses of the Commonwealth's waters. A municipal water authority treatment plant operating at one million gallons per day would face an additional estimated \$20,000 per year increase in chemical

Thank you for your consideration.

Respectfully,

/S/

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usage to meet manganese compliance levels. To put that into perspective the Pittsburgh Water and Sewer Authority averages 70 million gallons of water a day, which equates to an increase of \$1.4 million in operating costs. 50 Pa. B. 3734 (July 25, 2020). It was also reported in the Board's rulemaking that the City of Lancaster's Department of Public Works and Pennsylvania American Water would incur capital costs upwards of tens of millions of dollars to comply with such a proposal. *Id.* Downstream agriculture, irrigation, food and beverage production, and textile manufacturing industries would also be forced to assume monitoring and treatment costs. *Id.*