



Debra A. McCarty, Water Commissioner

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RE: Comments on the Advance Notice of Proposed Rulemaking - Water Quality Standard for Manganese

To Whom it May Concern:

The Philadelphia Water Department (PWD) Watershed Protection Program appreciates the opportunity to provide advanced stakeholder feedback on proposed revisions to Pa. Code Ch. 93 and Pa. Code Ch. 96 ambient manganese regulations. PWD recognizes and respects the PaDEP for extending the early comment period to solicit additional feedback from Pennsylvania public water suppliers.

PWD is an innovative drinking water, wastewater, and stormwater management utility. Philadelphia's three water treatment plants provide drinking water to approximately 1.6 million residents of Philadelphia, comprising 12% of the population of the Commonwealth.<sup>i</sup> Additionally, Philadelphia's three water pollution control plants provide wastewater and stormwater services to 2.2 million in Philadelphia and surrounding suburban communities.

The revisions noted in the Advance Notice of Proposed Rulemaking published in the PA Bulletin January 27, 2018, propose relocating the point of compliance for ambient manganese to the nearest downstream public water supply intake. Excess manganese could have implications for aquatic toxicology, drinking water aesthetics and public health. This change will make stream segments and aquatic ecosystems between the point of discharge and downstream water supply vulnerable to water quality changes and potential impairment from higher manganese loadings. Additionally, moving the point of compliance for all Pennsylvania manganese dischargers to the downstream water supplier will shift the burden of manganese removal onto public water suppliers that may or may not be equipped to remove such a contaminant to ensure public health. The proposed revision makes the manganese standard for dischargers less stringent and leaves surface water users and aquatic ecosystems susceptible to increased manganese concentrations.

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<sup>i</sup> US Census Bureau. *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017* [data table]. Retrieved from <http://www.census.gov/data/datasets/2017/demo/popest/counties-total.html>

As the farthest downstream drinking water supplier in the Schuylkill and Delaware River Watersheds, PWD has invested significant resources into regional coordination and management of more than 10,000 square miles of upstream watershed area to protect the integrity of Philadelphia's water supply. In 1999 the PWD Source Water Protection Program was established to carry out the Source Water Assessments mandated by the 1996 Amendments to the Safe Drinking Water Act. This comprehensive evaluation of Philadelphia's source watersheds identified and prioritized existing and potential sources of water quality impairment through a risk assessment framework.

The 2002 Schuylkill River Source Water Assessment identified abandoned mine drainage in Schuylkill County as the largest continuous source of metals, such as manganese, impacting the water quality in the Schuylkill River.<sup>ii</sup> Based on an analysis of metal loadings from 11 priority abandoned mine drainage sites and average annual mean flow, abandoned mines account for the majority of iron and manganese concentrations observed at the Schuylkill River in Philadelphia. In 2004, the Schuylkill Action Network ("SAN") was formed to address the priority sources of impairment in the watershed through a coordinated regional approach. Since the inception of the SAN in 2004, a total of \$14.3 million was invested by the SAN and its partners to support abandoned mine drainage treatment systems.<sup>iii</sup> As a result of these remediation efforts, an estimated load reduction of 6 tons of manganese is removed from the Schuylkill River annually. Relaxing the manganese requirement for Pennsylvania dischargers would slowly reverse the progress achieved over 15 years with a network of more than 150 partner organizations in the Schuylkill River Watershed.

Manganese is a persistent contaminant that can be carried long distances. As the farthest downstream water supplier in the Schuylkill River Watershed, this could have a measurable impact on the manganese concentration at Philadelphia's drinking water intakes. The current secondary maximum contaminant level (SMCL) to protect against aesthetic issues in drinking water is 0.05 mg/L. However, research has shown that this level requires reevaluation as customer complaints due to visual effects of manganese are observed at concentrations less than or equal to 0.02 mg/L MnO<sub>2</sub>.<sup>iv</sup> Therefore even without exceeding the SMCL, an increase in manganese levels may weaken consumer confidence in public water supplies.

The proposed ambient manganese revision appears to be a step backwards for source water protection and watershed management principles in the Schuylkill River Watershed. Not only does the rulemaking lessen the environmental responsibility of the discharger, but fundamentally counters the environmental and public health protection measures that have been promulgated and enforced by the USEPA and PaDEP through past Safe Drinking Water Act and Clean Water Act regulations. Enacting such a regulation engenders serious environmental, public health, and economic concerns that should be adequately addressed with sound scientific data prior to the formal proposal of such a regulatory change.

Sincerely,



Kelly Anderson, Watershed Protection Manager

cc: Members of the SAN Executive Steering Committee from PaDEP, USEPA III, Partnership for the Delaware Estuary, and Schuylkill River Greenway Association

<sup>ii</sup> PWD (2002). Schuylkill River Source Water Assessment. Retrieved from [http://www.phillywatersheds.org/doc/Schuylkill\\_SWA.pdf](http://www.phillywatersheds.org/doc/Schuylkill_SWA.pdf)

<sup>iii</sup> PDE (2018). *Celebrating 15 Years of Protecting Schuylkill Waters*. Available at <http://www.schuylkillwaters.org/>

<sup>iv</sup> Dietrich, A.M. and G.A. Burlingame. (2015). Critical Review and Rethinking of USEPA Secondary Standards for Maintaining Organoleptic Quality of Drinking Water. *Environ Sci & Tech*. 49(2) 708-720.