COMMENTS ON THE SECOND ADDENDUM TO THE 2015 TREATMENT SUBCOMMITTEE MCL SUPPORT DOCUMENT

"RECOMMENDATION ON PERFLUORINATED COMPOUND TREATMENT OPTIONS FOR DRINKING WATER"

NEW JERSEY DRINKING WATER QUALITY INSTITUTE
TREATMENT SUBCOMMITTEE

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NEW JERSEY DRINKING WATER QUALITY INSTITUTE TREATMENT SUBCOMMITTEE

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DWQI TREATMENT SUBCOMMITTEE

The New Jersey Department of Environmental Protection requested that the DWQI develop recommended maximum contaminant levels (MCL) for three long-chain perfluorinated compounds (PFC):

- Perfluorononanoic acid (PFNA)
- Perfluorooctanoic acid (PFOA)
- Perfluorooctanesulfonic acid (PFOS)

2015 RECOMMENDATION

The Treatment Subcommittee concluded that because all three contaminants shared characteristics, effective treatment technologies were also the same for all three.

Accordingly, in 2015, when the DWQI issued its recommended MCL for PFNA, the Treatment Subcommittee released one document to address treatment for these three compounds, entitled:

Recommendation on Perfluorinated Compound Treatment Options for Drinking Water.

In September 2016 the Treatment Subcommittee issued an *Addendum to Appendix C: Recommendation on Perfluorinated Compound Treatment Options for Drinking Water.*

SECOND ADDENDUM

- At the November 28, 2017 DWQI, the Treatment Subcommittee presented the *draft* "*Second Addendum to Appendix C: Recommendation on Perfluorinated Compound Treatment Options for Drinking Water.*"
- A public comment period was held from December 5, 2017 – February 5, 2018.
- There were three submissions related to the Second Addendum.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Alternative Technologies:

- "PFOA is often marginally removed by GAC alone."
- "Granular activated carbon (GAC) followed by reverse osmosis technology is needed at public water treatment systems to assure removal of all perfluorinated compounds."
- "[T]he report fails to indicate that treatment via anion exchange resin (stand-alone or as a polish to GAC) may also offer significant improvement over stand-alone GAC treatment."

Response:

- In Appendix C, the Treatment Subcommittee recommended "the use of granulated activated carbon (GAC) or an equally efficient technology…subject to the on-site pilot testing performance results." Pilot testing may identify the need to use additional or alternative treatment.
- The Second Addendum does address a name brand anion exchange resin, which is in use with GAC at one treatment facility and claims to remove PFAS to below the recommended MCL.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Treatment of Other PFCs:

- "There are differential removal efficiencies among perfluorinated compounds through GAC systems. "
- "The treatment system must be capable of removing both PFOA and PFOS, as well as providing best treatment technology available to remove other perfluorinated compounds, such as PFBA, that pose some toxicity."

Response: The Treatment Subcommittee recommends that the use of GAC or an equally efficient technology, subject to the on-site pilot testing performance results. Pilot testing may identify the need to use additional or alternative treatment.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Economic Feasibility:

- "When deciding to regulate contaminants, the EPA considers if treatment technologies are affordable to systems and the incremental costs and benefits associated with MCL values."
- The report did not evaluate "the feasibility of water suppliers of all kinds and types across the state implementing carbon or other treatment on their water supplies" or "the economic impact of the recommended level."

Response: As an advisory board, the DWQI has no regulatory authority and does not decide whether a contaminant is regulated. Although the DWQI Treatment Subcommittee endeavors to identify those treatment techniques that are effective and feasible to achieve the recommended MCL, and to recommend the best available technologies, it is the role of the Department to evaluate economic impacts associated with a proposed rule.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Regulation and Enforcement:

- "[T]here is no discussion of regulatory basis for how [treatment] waste may be classified under RCRA."
- "[T]he DWQI should recommend that the State aggressively go after the responsible parties for this contamination and develop a spill fund for the treatment project funding."

Response: DWQI is an advisory board and has no regulatory or enforcement authority. These are considerations that are outside the charge of the DWQI.

COMMENTS ON THE DRAFT ADDENDUM

Comment on Stakeholder Participation:

- "[We] recommendation that the DWQI host stakeholder meetings and provide sufficient notice to all utilities."

Response: The DWQI recommendation process includes public participation and meetings are advertised by email and on the DWQI website. Stakeholder sessions are held by the Department in advance of rulemaking.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Horsham's Removal Capability:

- "We characterize…[Horsham Water and Sewer Authority (HWSA)] well data differently, based on our review of HWSA active well data…"
- "…during limited periods, post-GAC treatment in 4 HSWA contaminated wells 5 did not remove PFOS or PFOA to levels below the reporting limit of 5 ng/L. This appeared to occur just prior to carbon change-out, as shown in the HSWA data. "

Response: The Treatment Subcommittee report excluded any data from wells without full-scale permanent GAC treatment. Any post-treatment detections in the dataset were attributed by HWSA to one specific incident which caused GAC treatment failure.

COMMENTS ON THE DRAFT ADDENDUM

Comments on Oakdale's Removal Capacity:

- "[Oakdale's] limits were only recently put into effect by the Minnesota Department of Health. "
- "[Oakdale's] non-detects are based on the prior RLs (25 ng/L and 35 ng/L), not 5 ng/L. It is yet unknown whether the Oakdale GAC system will remove PFOS or PFOA to ≤ 5 ng/L."

Response: The Treatment Subcommittee confirmed that the Minnesota Department of Health (MDH) implemented the new method in Fall 2017. However, they have recently converted back to their older method of PFOS analysis, while they work to correctly implement the new method. The older method reports values to its MDL (7 ng/L) and flags values between its MDL and RL (25 ng/L) as estimated values. Results show GAC treatment has been removing PFOS to below the recommended level of13 ng/L. **The Treatment Subcommittee report has been modified to reflect this new information.**

CONCLUSIONS

- The Treatment Subcommittee made one amendment to the report based on the submitted comments, as described in the previous slide.
- The Subcommittee concludes that it has been demonstrated that PFOS can be reliably and feasibly removed by carefully designed GAC treatment to below the recommended health-based MCL of 13 ng/L and that GAC or an equally efficient technology should be considered for treatment of PFNA, PFOA and PFOS detected above the DWQI recommended MCL subject to the on-site pilot testing performance results.