



February 16, 2018

Environmental Quality Board
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Dear Environmental Quality Board:

These written comments submitted by Delaware Riverkeeper Network (DRN) supplement the testimony (attached) submitted to Pennsylvania Dept. of Environmental Protection (PADEP) at its additional triennial review hearing held on January 30th in the Delaware River Basin and the request for extension submitted by DRN to extend the public comment beyond the original December 31, 2017 deadline.

Established in 1988 upon the appointment of the Delaware Riverkeeper, the Delaware Riverkeeper Network (DRN) is a nonprofit 501(c)(3) membership organization. DRN's professional staff and volunteers work throughout the entire Delaware River Watershed. We also work throughout the four states that comprise the Watershed -- including Pennsylvania, New Jersey, Delaware and New York -- and at the federal level on the issues, actions, regulations, legislation, policies, programs and decisions that impact the health of our Delaware River Watershed waterways and our ability to protect and restore them for the benefit of all. Thank you for your time in considering these additional comments for this triennial review and the next triennial review in order to establish and work towards the goals of the Clean Water Act to adequately protect waterbodies in the Commonwealth.

Conservation Easements A narrow look at only government held easements being proposed as part of outstanding waters is not in practice with what has been done in the past for some past upgrade petitions nor is it protective or in keeping with anti-degradation rules. Land trusts are often the very entities that support or directly petition for stream upgrades. By DEP proposing to undermine these strict deed restricted agreements that are privately held would be a disservice and as a result penalize or prevent some watersheds with strong water quality protective measures and land conservation from being appropriately redesignated to Exceptional Value (EV). PALTA, Schuylkill Township EAC, Pennfuture, and private citizens have weighed in with similar concerns during this comment period calling for private easements being a part of this upgrade process. DRN believes strongly whatever language is decided on (through continued coordination with the vast conservation groups and entities speaking out during this process) adheres to anti-degradation standards and includes at minimum: 1) an expansion of the use, application, and incorporation of private conservation

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easements (as well as the proposed government held easements) and lands as a justification for designating an Outstanding National, state, regional or local resource water to EV. 2) we believe the proposed language that includes “significant reaches of the corridor” is ambiguous and not necessary. With the science of protected land, even smaller sections of protected lands and riparian corridors provides some protection to water quality – DEP should not be looking to minimize these protections with this ambiguous language. 3) DRN highlights that basic watershed science and the literature support that natural land preserved (even when not directly adjacent to a stream corridor) reduces stormwater, purifies and filters water, and provides other water quality benefits so it is not in keeping with anti-degradation for DEP to only “count” easements along or adjacent to water corridors as protective. For example, if a watershed is 60% natural lands (forest, meadows, wetlands, etc.) and preserved it is much more likely to have diverse and healthy waters as compared to a watershed that has say 60% paved impervious surfaces – private easements help make this preservation possible. Stroud Water Research Center, USGS, and others have documented why these protections of watershed lands are critical – these eased lands do not have to be “adjacent to the stream” to make a positive impact to water quality and overall watershed health– albeit the importance of riparian buffers is critical - it is not the only private easement that should be considered by DEP when determining outstanding waters. The science on headwater stream preservation is also critical to consider as well. <https://stroudcenter.org/wp-content/uploads/2016/12/ProtectingHeadwaters.pdf> and <https://adoptastream.georgia.gov/sites/adoptastream.georgia.gov/files/Where%20Rivers%20are%20Born%20The%20Scientific%20Imperative%20for%20Defending%20Small%20Streams%20and%20Wetlands.PDF>. 4) The Department’s tentative proposal provides that conservation easements must not be amendable. DRN believes that amendments are important to strengthening conservation protections over time and to improving administrative practices as better understandings are developed, and thus need to be permitted. 5) DRN understands that land trusts nationwide have standard practices that are protective in nature <http://s3.amazonaws.com/landtrustalliance.org/LandTrustStandardsandPractices.pdf> and these trusts such as PALTA and LTA provide great benefits and resources for their member organizations. According to the LTA report, the nation’s more than 1,300 nonprofit land trusts have conserved 56 million acres of wildlife habitat, farms, ranches, forests, watersheds, recreation areas and other open spaces as of 2015. The *Model Grant of Conservation Easement and Declaration of Covenants*, 7th edition (http://conservationtools.org/library_items/323), published by the Pennsylvania Land Trust Association, illustrates the strong connections drawn between purpose and covenants. The first objective identified in the model is: To maintain and improve the quality of water resources, both surface and groundwater, within, around, and downstream of the Property (§1.04(a)(1)). However, not all PA conservancies will choose to belong to these umbrella organizations. Some conservancies may follow PALTA/LTA guidance, but some conservancies may go their own way and still write strong easements that are environmentally protective and protective of water quality. DRN believes any private environmental conservation easement if land is preserved should qualify watersheds for outstanding waters rather than further muddying the waters with more strict provisions of what qualifies as a private conservation easement. As indicated above we want more inclusion for private and public conservation easements not less when it comes to ways to qualify streams for EV protection.

Ammonia Criteria – DRN supports DEP’s proposal to adopt the Environmental Protection Agency’s (EPA) 2013 Aquatic life ambient water quality criteria for ammonia (EPA 822-R-13-001). This criterion is especially important in Pennsylvania where sensitive mussel species are present or where plans are underway to restore mussel populations to their historic ranges. However, according to EPA comments (dated Dec 20, 2017) some technical revisions may need to be reviewed and made for this ammonia criteria to be more protective. DRN would also note that it is unclear why the pH and temperature language pertaining to effluent limitations was removed from the proposed language.

Toxics It is encouraging to see DEP is proposing to add 11 new toxics to its list (93.8c and Table 5 Water Quality Criteria for Toxic Substances) including: trichloroethane, 1,2 Dichloropropane, 1,2,4,5-Tetrachlorobenzene, 2,4,5-Trichlorophenol, 3-Methyl-4-Chlorophenol, Methoxychlor, Chlorophenoxy herbicide (2,4-D), Chlorophenoxy herbicide (2,4,5-TP), Dinitrophenols, Hexachlorocyclohexane (HCH), and Pentachlorobenzene). Delaware Riverkeeper Network is concerned that DEP is not proposing to adopt PFA standards (Perfluoroalkyl and Polyfluoroalkyl substances) to protect drinking water even though these toxins have been found in many drinking water supplies in parts of the Delaware River Basin and Delaware Riverkeeper Network has actually helped uncover these findings the past few years. New Jersey is currently advancing a science panel’s recommendation to adopt a standard of 14 parts per trillion – the most protective standard in the nation. PADEP adopting the same protective standard this triennial review or the next review would greatly protect the Delaware River Watershed, while also ensuring that Pennsylvania communities are given the higher level of protection warranted by the science. DRN notes that there appears to be missing toxics from those being proposed. EPA states in its comment that the state will need to provide explanations where new or revised criteria are not adopted for parameters where EPA has published new or updated CWA Section 304(a) criteria recommendations since May 30, 2000 and consistent with EPA’s 2015 Updated Ambient Water Quality Criteria for the Protection of Human Health.

EPA updated its national recommended water quality criteria for human health for 94 chemical pollutants to reflect the latest scientific information and EPA policies, including updated fish consumption rate, body weight, drinking water intake, health toxicity values, bioaccumulation factors, and relative source contributions. These lists needs to be compared and cross checked to ensure that all EPA toxic standards adopted in 2015 are reflected in PA. DRN also notes that it would appear that human health and not aquatic life toxic standards are being proposed – as an organization with concerns for aquatic life impacts, we would suggest that stream life is also considered where appropriate and protective standards set. In general, where DEP is proposing more stringent protections than EPA, DEP supports such protective measures to better fulfill the spirit of the CWA.

Fish propagation and dissolved oxygen standards for the estuary do not reflect the current existing uses of the Delaware River – DRN requests that this triennial review the main stem Delaware River receives long overdue fish propagation use and stringent and elevated dissolved oxygen standards. Currently, fish propagation is not a designated use in sections of the Delaware River estuary and the state is required to review the reasons behind rejection of those uses since clearly its own studies and those of DRBC indicate that propagation of fish species is clearly occurring in Zones 3,4, and 5. The DRBC found that for all nine fish species evaluated and studied, including the federally endangered Atlantic Sturgeon (*Acipenser oxyrinchus*) as well as the related state and federally listed as endangered shortnose sturgeon (*Acipenser brevirostrum*) in addition to American Shad, Striped Bass, White Perch, Bay Anchovy, Atlantic Silverside, Alewife, Blueback Herring, and

Atlantic Menhaden successfully reproduce in these zones. In March 2013, the Delaware Riverkeeper Network submitted a petition to DRBC (attached) http://www.delawariverkeeper.org/sites/default/files/Documents/DO_Petition_03-05-2013.pdf for dissolved oxygen (DO) criteria to be elevated to meet the existing use of the main stem Delaware River as DO levels far exceed the current standards. The science documented the past two decades show these improvements to fish as well as dissolved oxygen. There is documented and demonstrated propagation. Therefore, a designated use for propagation is fully appropriate and supported and new standards should be set to support propagation this triennial review. It is not appropriate to qualify the propagation level achieved such that a lower designated use will be applied to the estuary in such a fashion as to continue to depress the level of water quality standards and goals that are applied for the various zones of the estuary. EPA's regulations implementing the Clean Water Act provide that "where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained." 40C.F.R. 131.10(h)(2)(ii). The PA Fish and Boat Commission comments dated Feb 15, 2017 from testimony provided to the DRBC on April 6, 2017 also reflect science and fish population data to urge the DEP/Board to make these important changes now to reflect the current existing uses. In their comments dated Dec 20, 2017, EPA also encourages the Board to protect these existing uses and the endangered species, like the federally listed Atlantic sturgeon that live in these areas of the tidal Delaware River.

Chloride aquatic life use standard are absent once again from this triennial review – DRN believes the DEP needs to adopt chloride standards this triennial review to protect aquatic life. The existing PWS criterion at point of intake of 250 mg/l maximum is not protective to the sensitive macroinvertebrates and endangered species that reside in Pennsylvania. A criterion for chloride to begin protecting Pennsylvania streams from brine wastewater from gas drilling and road salt applications would be a critical step by the state that is overdue and needed now for this triennial review; and the science conducted by the state and academic institutions supports establishment of this chloride criterion at this critical time in history. The USFWS notes the same sentiment in its comments to DEP (dated 2/15/18) – FWS states there is a "need to insist on a chronic criterion for chloride to protect and prevent take of federally endangered and threatened mussels". The USFWS goes on to note that even with there being some interactions with hardness, it is prudent that DEP implements a chloride criterion in this triennial review, regardless of the need for future modifications, to afford protection of aquatic resources. The USFWS points out EPA in 2011 developed ecoregion standards for chronic exposure (eco-region 70). USFWS also provides science from Patnode et al. 2015 that warrants a chronic criterion of either 78 ug/l chloride or 247 uS/cm to prevent take of federally endangered and threatened mussels at relevant NPDES discharges.

Nutrient standards are absent from this triennial review - Pennsylvania's streams continue to suffer from nutrient pollution, both Nitrogen and Phosphorus, and the failure of PADEP to more rapidly adopt numeric nutrient criteria for aquatic life use exacerbates the damage that these streams suffer, and just extends the time that these streams will be part of the long list of "impaired" waters of the Commonwealth. In July 2000, the EPA provided technical guidance for states to develop regional nutrient criteria to begin mitigating this important need yet PA continues to kick this can down the road over 17 years later. It is encouraging to see this round DEP is proposing an ammonia standard. DRN would highlight review and consideration of EPA's recommendations outlined in their Dec. letter for ammonia pertaining to 30 day averages.

DRN believes **PADEP cannot remove water contact/swimming from the Del River from RM 108.4 to 81.8** which includes a section of the tidal river from about Riverton wharf (108.4) downstream to Raccoon Island/Chester/Bridgeport Ferry (81.4). In this stretch there are multiple instances where DRN has participated in and documented water contact and conducted paddling and kayaking with members on this stretch of the River. For example, on the PA side of the River in this stretch, Spruce Harbor Park and the Darby Creek and John Heinz National Wildlife water trail provide maps to encourage kayakers and paddlers to explore these urban areas of the watershed. Harbor Park in Philly provides livery services including kayak rentals and paddle boats. Petty's Island – a 500 acre island in Pennsauken Township NJ, with community support and advocacy by Delaware Riverkeeper Network and other conservation partners dating back to 2004, is now being permanently protected as a wild nature preserve and access point for urban populations when resistance developed in 2004 to stop a golf course and hotel development agreement between Cherokee developers and Citgo who owns the island (<https://philly.curbed.com/2018/1/9/16739672/petty-island-new-jersey-history-park>). There is a Tidal Delaware River Water Trail in this portion of the tidal Delaware River <http://www.tidaltrail.org/> which is bringing large population centers closer to the Delaware River – this water trail was funded by the Dept. and DCNR and other partners. The Tidal Delaware Water Trail is 56 miles of accessible river opportunities from Trenton, New Jersey to Marcus Hook, Pennsylvania and is one of 25 designated Pennsylvania Water Trails and a hub of environmental features, historic resources, and recreational activities for Pennsylvania and New Jersey. The Dept sites combined sewer overflows (CSOs) as a reason to undermine these water opportunities that exist but as EPA also notes, EPA's CSO policy was issued in 1994 and incorporated into the CWA in 2000 and long term control plans are now in development or in place for the CSOs in this portion of the Delaware River. DEP and DRBC should be listing water contact/swimming as a use in this triennial review because it is clearly occurring in this stretch of the River. EPA's regulations implementing the Clean Water Act provide that "where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained." 40C.F.R. 131.10(h)(2)(ii)).

Bacteria – to assist with consistency and data comparison throughout the year, DRN recommends the Board adopt E.coli standards consistently throughout the year. EPA and Pennfuture raise other considerations for these criteria that should be considered to protect public health. There should be ample time before mid-April to adopt E.coli standards for this triennial review that are protective of public health.

Stream listings It would appear that the Dept. is **proposing to downgrade** Goose Creek in the Delaware River Basin from TSF (trout stock fishery) to WWF (warmwater fishery). More information and analysis is warranted to the public on how this decision is justified. DRN has documented fisher people on the lower area of Goose Creek within community park boundaries fishing on multiple occasion as part of our several years of monitoring related to phosphorus and a TMDL being challenged by a sewage treatment plant operator. When a downgrade is being considered, a use attainability analysis is required under the CWA. The Dept. must also prove that at no time in the future would trout be able to be stocked/the use restored even with restoration and the likely enforcement of a strong TMDL standard for phosphorus. A similar potential downgrade appears to be proposed for a tributary (00322) of Beaver Creek which flows into the East Branch Brandywine River. As above, an existing use determination is needed before any of these downgrades are codified. EPA states concerns with these and many other downgrades as well in their Dec 20, 2017 letter on the triennial review that need to be explained – they list additional potential downgrades in Drainage lists L, M, O (Trout Run is EV and DEP is proposing HQ-CWF, MF), and Drainage List R. DRN believes that justification is necessary for all deletions or changes at a minimum and if a downgrade is

indeed being proposed a use attainability analyses for each would be required rather than a current change this triennial review. A **use attainability analysis (UAA)** is a structured scientific assessment of the factors affecting the attainment of uses specified in Section 101(a)(2) of the Clean Water Act (the so called "fishable/swimmable" uses). The factors to be considered in such an analysis include the physical, chemical, biological, and economic use removal criteria described in EPA's water quality standards regulation (40 CFR 131.10(g)(1)-(6)).

A UAA must be conducted for any water body when a state or authorized tribe designates uses that do not include the uses specified in section 101(a)(2) of the Act or when designating sub-categories of these uses that require less stringent criteria than previously applicable. States and authorized tribes must hold public hearings for the purpose of reviewing the applicable water quality standards at least once every 3 years and when revising water quality standards. States and authorized tribes must also re-examine waters that do not include the uses specified in section 101(a)(2) of the Act to determine if new information has become available. If new information indicates that the uses specified in CWA section 101(a)(2) are attainable, then the state must revise its WQS accordingly to designate such uses. The EPA lists only 6 factors for UAA and the bar is set very high to remove a use.

93.9c Drainage List C. Mill Creek is listed as Basin Northampton CWF, MF.

Delaware River tributaries – it is unclear for Drainage List D if the bolded changes for some Monroe/Carbon County streams are reflected accurately. We believe some of these streams may have an existing use of EV and that regulatory change is now warranted at this time for this triennial review. The current listings in other words, in the regulations at Chapter 93 <https://www.pacode.com/secure/data/025/chapter93/s93.9d.html> do not reflect what may be found on the existing use tables. Some Monroe County streams listed in bold as HQ-CWF, MF in the proposed triennial review document are already that designation in the above link (examples include: UNT to Tobyhanna Creek, Jim Smith Run, Pole Bridge Run, Singer Run, East Branch Dresser Run, Pollys Run, Hummler Run, Kistler Run, Wagner Run, Upper Tunkhannock Creek, Wolfs Spring Run, Deep Run, Davey Run, Red Run, Tunkhannock Creek, and Shingle Mill Run). This list of streams are bolded as HQ-CWF, MF in the triennial review proposed text but also are reflected as HQ-CWF, MF in the regulations at the link above. A thorough review and explanation of this list is needed before adoption especially in light of efforts in some counties to undermine solid science for special protection streams (see prior DRN testimony).

Please feel free to reach out to me at 215-369-1188 or at keepermaya@delawareriverkeeper.org or to DRN's Director of Monitoring, Faith Zerbe at 215-369-1188 ext. 110 or faith@delawareriverkeeper.org. Thank you for your time and consideration of our comments.

Sincerely,



Maya K. van Rossum
the Delaware Riverkeeper