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#### AN ENVIRONMENTAL AND ENERGY LAW PRACTICE

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Admitted in PA and NJ

February 16, 2018

Re:

#### Via DEP eComment Portal

Environmental Quality Board Rachel Carson State Office Building 400 Market Street, 16th Floor Harrisburg, PA 17101-2301



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Monroe County Clean Stream Coalition's Comments on Proposed Rulemaking; Triennial Review of Water Quality Standards, 47 Pa. B. 6609 (Oct. 21, 2017)

To Whom It May Concern:

On behalf of the Monroe County Clean Streams Coalition (the "Coalition"), please accept this letter as comments on the Environmental Quality Board's (the "EQB") proposed amendments to 25 Pa. Code Chapter 93. This proposed rulemaking, entitled "Triennial Review of Water Quality Standards," was published in the Pennsylvania Bulletin on October 21, 2017. Comments on this proposed rulemaking were originally due on December 29, 2017, but the EQB extended the comment deadline until February 16, 2018.

#### I. <u>SUMMARY</u>

The Coalition's comments address two primary issues. First, the Coalition requests that the EQB add provisions to Chapter 93 to provide additional notice of the Department's stream classification activities to affected landowners and municipalities with a meaningful opportunity for participation. An open and transparent stream classification process is critical to ensuring that decisions by the Department to classify streams are based on current, sound science with adequate opportunities for potentially affected landowners to participate to protect their rights. The absence of such meaningful participation has resulted in improper classification of streams based upon incorrect and artificially limited datasets, with the deleterious effects of depressing economic development and impairing the productive and beneficial use of properties. The Coalition is committed to working with the Department to ensure that the Department has sufficient information, consistent with its procedures and guidance, on which to base its stream classification decisions.

Second, the Coalition provides comments on the Department's proposed revisions to the definition of "outstanding National, State, regional or local resource water" and the Department's proposed definition of "conservation easements." While the Coalition is generally in favor of the proposed definition of "conservation easements," the Coalition presents proposed modifications to the definition of "outstanding National, State, regional or local resource water."

#### II. MONROE COUNTY CLEAN STREAMS COALITION

The Monroe County Clean Streams Coalition is a group of businesses and landowners in Monroe County that aims to ensure that watersheds in Monroe County are properly safeguarded and that economic development is fostered. The Coalition's mission includes highlighting the importance and necessity of relying on sound science and data collection when the Department classifies streams in the Commonwealth. The Coalition also advocates for transparency with respect to the Department's stream classification process, which includes providing notice to all affected landowners and allowing for meaningful opportunities for the public to offer input throughout the stream classification process, before a classification determination is made by the Department. The Coalition desires to work with all landowners, municipalities, and other interested groups to ensure that Monroe County's streams are properly classified and protected by the Department.

#### III. <u>REGULATORY FRAMEWORK</u>

The Department's antidegradation regulations protect two types of instream uses: "existing uses" and "designated uses." Existing uses are defined as "[t]hose uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards." 25 Pa. Code § 93.1. Designated uses are those listed in the Department's regulations, and are defined as "[t]hose uses specified in [25 Pa. Code] §§ 93.4(a) and 93.9a—93.9z for each water body or segment whether or not they are being attained." 25 Pa. Code § 93.1. The Department's regulations require that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 25 Pa. Code § 93.4a(b). Because the Department is required to protect both existing uses and designated uses, if the existing use and the designated use are not the same, the Department is required to protect the more restrictive of the two.

The most restrictive types of instream uses are High Quality ("HQ") and Exceptional Value ("EV"). While the water quality of both HQ and EV waters must be protected, an important exception applies to HQ waters. For point source discharges to HQ waters, the Department may allow some degradation of water quality if it finds that such a result is necessary to accommodate

<sup>&</sup>lt;sup>1</sup> For more information on how to participate in the Coalition's efforts, please contact monroecountycleanstreams@gmail.com or visit the "Monroe County Clean Stream Coalition" Facebook page.

important economic or social development in the area in which the waters are located ("SEJ Exception"). 25 Pa. Code § 93.4c(b)(1)(iii). The SEJ Exception is not available for EV waters. Thus, properly classifying streams is essential because an EV classification will preclude even environmentally sound and productive uses of affected properties, stifling commercial growth and depressing the creation of new jobs, particularly in areas of the Commonwealth where they may be most needed. Classifying a stream as EV also has the effect of classifying all wetlands in the floodplain of the stream as EV, and those EV wetlands then also receive special protection pursuant to the Department's regulations. For example, ford crossings, utility line stream crossings, minor and temporary road stream crossings, and new docks and boat ramps in EV streams must all obtain individual state permits, whereas in HQ streams only a general state permit is required. Again, the ramifications of improper stream classifications are significant, which is the central driver behind the Coalition's insistence on the use of good science and transparency.

#### IV. <u>COMMENTS</u>

## A. <u>Chapter 93 Should Contain Provisions to Ensure that Adequate Notice of Stream Classification Activities is Provided to Affected Landowners.</u>

The Department's regulations describe a process that the Department must follow to classify the existing use of a stream. Initially, the Department's regulations require that "[e]xisting use protection shall be provided when the Department's evaluation of information (including data gathered at the Department's own initiative, data contained in a petition to change a designated use submitted to the EQB under § 93.4d(a) (relating to processing of petitions, evaluations and assessments to change a designated use), or data considered in the context of a Department permit or approval action) indicates that a surface water attains or has attained an existing use." 25 Pa. Code § 93.4c(a)(1)(i). The Department is then required to "inform persons who apply for a Department permit or approval which could impact a surface water, during the permit or approval application or review process, of the results of the evaluation of information undertaken." 25 Pa. Code § 93.4c(a)(1)(ii). The Department's regulations allow interested persons to provide the Department with additional information during the permit or approval application or review process regarding existing use protection for the surface water. 25 Pa. Code § 93.4c(a)(1)(iii). The Department's regulations state that the Department will "make a final determination of existing use protection for the surface water as part of the final permit or approval action." 25 Pa. Code  $\S 93.4c(a)(1)(iv)$ .

Nothing in the current scheme leading to an existing use determination requires that notice be given to affected landowners or businesses. Currently, the Department does not provide written notice of its stream classification activities to affected parties at any point before, during, or even after evaluating the water quality conditions of a stream. Indeed, it has been the Coalition's experience that the Department refuses to provide the basis of its existing use decisions to members

of the public, claiming that the listing memoranda are exempt from the Right-to-Know Law as "internal, predecisional deliberations."<sup>2</sup>

The Coalition requests that the EQB add provisions to Chapter 93 that require the Department to provide notice of its stream classification activities to affected parties as explained in more detail below.<sup>3</sup> An open and transparent stream classification process is critical to ensuring that the Department properly classifies streams based on current, sound science and that landowners' rights are protected. Given the Coalition's understanding of the stream classification process, it appears that the Department will sample and evaluate a surface water, formally adopt an existing use by memorandum and add the classification of the surface water to its Existing Use List if water quality conditions demonstrate that the existing use exceeds the designated use, then pursue a rulemaking to change the designated use of the surface water, at times years after the change in existing use.<sup>4</sup> The Department's Existing Use List is "used by the Department and

The Board received a comment requesting that all property owners affected by a potential stream redesignation be directly notified of the petition and assessment.

While the Department acknowledges that notifying the public of stream redesignation rulemaking activities is important, it would be onerous and costly to require the Department to directly notify all property owners, as suggested by the commentator. Therefore, the Board is not including direct property owner notification requirements in this final-form rulemaking.

<sup>&</sup>lt;sup>2</sup> For example, in response to a request by counsel for the Coalition submitted under the Pennsylvania Right-to-Know Law requesting the Department's public records related to the reclassification of Swiftwater Creek, the Department refused to provide its existing use memorandum, which is the document that explains the Department's reasoning for adding Swiftwater Creek to the Existing Use List, claiming that the memorandum fell under the exception to the Right-to-Know Law for "internal, predecisional deliberations."

When the Department was developing its Water Quality Antidegradation Implementation Guidance (2003), the Department was asked to provide notice of stream classification decisions to affected landowners, but the Department refused. See DEP's Comment and Response Document to its Water Quality Antidegradation Implementation Guidance 7-8 (2003), at <a href="http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47705/391-0300-002%20CRD.pdf">http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47705/391-0300-002%20CRD.pdf</a>. Again, in 2013, when the EQB was conducting its prior triennial review of Water Quality Standards at 25 Pa. Code Chapter 93, the EQB and the Department were asked to provide notice of stream classification decisions to affected landowners, but the EQB and the Department refused, claiming "it would be onerous and costly to require the Department to directly notify all property owners." See 43 Pa.B. 4080 (July 20, 2013), at <a href="https://www.pabulletin.com/secure/data/vol43/43-29/1327.html">https://www.pabulletin.com/secure/data/vol43/43-29/1327.html</a>. The Board stated as follows:

<sup>&</sup>lt;sup>4</sup> See DEP, Existing Use Classification,

http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Existing%20Use/EU%20table%20list.pdf (last updated Oct. 23, 2017); see also DEP's Regulatory Analysis Form, Sobers Run, et al. (received Oct. 12, 2017), at <a href="http://www.irrc.state.pa.us/docs/3150/AGENCY/3150FF.pdf">http://www.irrc.state.pa.us/docs/3150/AGENCY/3150FF.pdf</a> ("The EV protection afforded to waters identified in this rulemaking has been in place, representing the existing uses of these waters, since the date of evaluation for each of the candidate streams. For the existing use dates of all of the candidate streams, refer to the Date of Evaluation column in the Statewide Existing Use Classifications Table found at:

county conservation district staff with responsibility to protect surface water quality in reviewing requests for permits and approvals" despite the fact that there has been no public involvement in, or published notice of, any existing use change. The Department and county conservation districts do not revisit or reevaluate the Department's existing use decisions when reviewing requests for permits or approvals, but simply accept them as having been properly decided. If a landowner or other affected party is not given notice of the Department's consideration of a change in existing use, or of these decisions at the time they are made (and added to the Department's Existing Use List), the landowner is unable to evaluate contemporaneously those decisions, which could preclude a future challenge because the stream conditions that existed on the day the Department sampled the stream, which formed the basis of the Department's decision, cannot be recreated later. Moreover, the mere reclassification of existing use places a cloud over an affected property, depressing its value and stifling its future development.

Recently, members of the Coalition have become aware of a number of streams that the Department has reclassified as EV without providing any notice to landowners, including landowners who have made their interests known to the Department, and without following their own regulations and guidance. Each time that Coalition members have had their streams sampled in an effort to evaluate the Department's conclusions, the Coalition members' results have directly refuted the data relied upon by the Department. This underscores the need for timely notice of the Department's sampling efforts to allow interested parties to participate in the process.

For example, in 2007, consultants employed by Pocono Manor Investors, L.P., which owns and manages Pocono Manor Resort & Spa, requested the Department's sample results for a segment of Swiftwater Creek, which runs along its property. The Department responded that the results would not be made available until the Department issued its stream redesignation report. The Department's draft report, however, was not issued until 2015, seven years after the sampling was completed. Pocono Manor was not directly notified of the availability of the Department's report, despite Pocono Manor's consultant's continuous requests, and thus was stymied in its efforts to meaningfully participate in the reclassification process given that, by then, the Department was already in the final stages of changing the designated use of Swiftwater Creek to EV. Pocono Manor subsequently hired an independent consultant to resample the stream, and the consultant found that the stream did not meet the criteria to be classified as EV.

In addition to the absence of timely notice and an opportunity to participate in the process, the Coalition has found that the Department's stream evaluations are not always performed in

http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Existing%20Use/EU%20table%20list.pdf).

<sup>&</sup>lt;sup>5</sup> See DEP, Water Quality Antidegradation Implementation Guidance 7-8 (2003), at <a href="http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47704/391-0300-002.pdf">http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47704/391-0300-002.pdf</a>.

accordance with the Department's own sampling protocols. The Department's Antidegradation Guidance states that sample stations should be placed at the following areas:

- mouth of the main stem or endpoint of the stream segment under study
- mouth of major tributaries (in addition, chemical grab samples but not macroinvertebrates are collected in the minor tributaries to verify that the mouth of the major tributary is a representative sampling location for all upstream conditions)
- along the main stem every 2-3 stream miles, or at closer intervals if there is a noticeable change in stream flow, instream habitat, or riparian land use/land cover
- bracketing population centers, reservoirs, nonpoint sources, point sources, land use changes, etc.

See Antidegradation Guidance at 29.

In the case of Swiftwater Creek, the Coalition found that the sample stations that the Department relied upon for its existing use and designated use determinations were not representative of the segments of Swiftwater Creek targeted for reclassification. The Department classified approximately 7.69 miles of Swiftwater Creek as EV, relying on data from only two stations over this stretch, equating to a rate of one station for every 3.845 miles. The Antidegradation Guidance requires samples to be collected from least three stations along such a stretch. Furthermore, because there were noticeable changes in stream flow, instream habitat, or riparian land use/land cover along the stretches of Swiftwater Creek that the Department sought to reclassify as EV (e.g., an 18-hole golf course, a dam and drainage pipe, an outfall from Pocono Manor's sewage treatment plant, and an outfall from the drainage of Interstate 380), the Department's Antidegradation Guidance required even more than three sample stations. The Department was aware that there are multiple permits, authorizations, and other significant features along Swiftwater Creek, but the Department did not choose sample locations to bracket these features. Instead, the Department relied on only one sample station throughout this entire stretch. As discussed above, when an independent consultant resampled the stream, the consultant found that the stream did not meet the criteria to be classified as EV. Pocono Manor, a member of the Coalition, submitted three sets of comments on the EQB's final rulemaking on the redesignation of Swiftwater Creek. Those comments are attached hereto as Exhibits A, B, and C.

Similarly, in the case of Tunkhannock Creek, the Department compiled an insufficient amount of data to support a reclassification of the Tunkhannock Creek basin to EV. The Department failed to comply with its Antidegradation Guidance, and further sampling by an

independent consultant refuted the Department's existing use determination. Comments submitted on the Department's draft Stream Redesignation Evaluation Report for Tunkhannock Creek are attached hereto as Exhibit D.

The Department's stream classification process needs a fresh look and refinements to provide opportunities for meaningful input at all critical stages. The Coalition requests that the EQB and the Department consider adding the following requirements to Chapter 93 to ensure that landowners receive proper notice of, and sufficient opportunities to participate in, the Department's stream classification activities:

- When a third party submits a petition to the Department to reclassify a stream, the third
  party should provide a copy of its petition to all affected riparian landowners and all
  municipalities in the watershed. In addition, the Department should allow for input from
  the public on the petition itself.
- When the Department initiates a stream evaluation on its own, the Department should notify all affected riparian landowners and all municipalities in the watershed.
- In the course of conducting a stream evaluation, the Department should provide notice to all affected riparian landowners and municipalities in the watershed of (1) its plan and schedule for conducting the stream evaluation and (2) the results of the sampling.
- The Department should provide notice and make readily available a copy of a draft existing use memorandum to all affected riparian landowners and municipalities in the watershed and provide interested parties with 30 days to comment on it.
- If the Department determines that the existing use of a stream is more stringent than the
  designated use and adds the stream to the Existing Use List, the Department should provide
  timely notice of this action to all affected riparian landowners and municipalities in the
  watershed.
- When the Department publishes a draft Stream Redesignation Evaluation Report and
  provides for public comment, in addition to providing notice of the report to the
  petitioner(s) and municipalities, the Department should provide notice and make the report
  readily available to all affected riparian landowners in the watershed.
- When the Department submits a proposed rulemaking to the EQB to redesignate a stream, in addition to providing notice of the proposed rulemaking to petitioner(s), the Department should provide notice of the proposed rulemaking to all affected riparian landowners and municipalities in the watershed.

The items listed above are merely examples of ways the process followed by the Department to assess and classify a stream could provide adequate protections to the rights of the riparian landowners, especially given the significant ramifications a change in stream classification will have. The Coalition is open to other approaches that would make the stream classification process more transparent and scientifically sound, and would welcome the opportunity to engage with the Department to further these goals.

## B. The EQB's Proposed Definition of "Conservation Easement" is Reasonable, but the Coalition Objects to the Proposed Revisions to the Definition of "Outstanding Federal, State, Regional or Local Resource Water."

The proposed rulemaking seeks comments on whether the definition of "outstanding National, State, regional or local resource water" in 25 Pa. Code § 93.1 should be amended in the next water quality standards review to clarify how conservation easements can be considered in stream evaluations. The proposed rulemaking also seeks comment on a suggested definition of "conservation easements" to describe which types of easements may be considered in stream evaluations. Based on the comments received during this review, the EQB has stated that the Department may recommend that the Board clarify the use of conservation easements in the water quality program in a future proposed rulemaking.

Under the Department's existing regulations, a stream may be classified as EV if it **both** (a) meets the requirements to be classified as HQ and (b) is an "outstanding National, State, regional or local resource water." 25 Pa. Code § 93.4b(b)(1). The EQB has acknowledged in the past that the Department's definition of "outstanding National, State, regional or local resource water" "is broader than the Federal term 'outstanding National resource water' in 40 CFR 131.12(a)(3)." In other words, the Commonwealth's additional protection of "outstanding State, regional or local resource waters" is not required by the federal Clean Water Act, but rather is a more stringent standard that the EQB has chosen to adopt.

The term "outstanding National, State, regional or local resource water" is defined as a "surface water for which a National or State government agency has adopted water quality protective measures in a resource management plan, or regional or local governments have adopted coordinated water quality protective measures along a watershed corridor." 25 Pa. Code § 93.1. The term "coordinated water quality protective measures" is further defined as follows:

(i) Legally binding sound land use water quality protective measures coupled with an interest in real estate which expressly provide long-term water quality protection of a watershed corridor.

<sup>&</sup>lt;sup>6</sup> See 29 Pa.B. 3720 (July 17, 1999), at http://www.pabulletin.com/secure/data/vol29/29-29/1123.html.

- (ii) Sound land use water quality protective measures include: surface or groundwater source protection zones, enhanced stormwater management measures, wetland protection zones or other measures which provide extraordinary water quality protection.
  - (iii) Real estate interests include:
    - (A) Fee interests.
    - (B) Conservation easements.
    - (C) Government owned riparian parks or natural areas.
    - (D) Other interests in land which enhance water quality in a watershed corridor area.

#### 25 Pa. Code § 93.1 (emphasis added).

The Department has proposed the following suggested revisions to the definition of "outstanding National, State, regional or local resource water" and the following new definition of "conservation easements":

Outstanding National, State, regional or local resource water—A surface water for which a National or State government agency has adopted water quality protective measures in a resource management plan, or regional or local governments have adopted coordinated water quality protective measures along a watershed corridor. The term includes a surface water protected by one or more conservation easements situated along a watershed corridor, in a manner that provides protection to significant reaches of the corridor.

Conservation easements—Easements held in perpetuity, where a governmental unit with taxation powers, a national government agency, or a state government agency is the holder, long-term steward, or responsible beneficiary related to repair and perpetual maintenance of the easement. Such easements must be recorded, provide for the maintenance and enhancement of water quality through water quality protective measures and cannot be revised, rescinded, or amended by any party.

The Coalition is supportive of the proposed definition of "conservation easements." First, requiring that such an easement be "held in perpetuity" and that it "cannot be revised, rescinded, or amended by any party" aligns with the antidegradation principle that once a stream is classified with an existing use of EV, its EV classification will likewise exist in perpetuity and cannot be revised, rescinded, or amended. Second, the Coalition supports limiting conservation easements to those "where a governmental unit with taxation powers, a national government agency, or a

state government agency is the holder, long-term steward, or responsible beneficiary related to repair and perpetual maintenance of the easement." An EV classification severely restricts the use of property, and it is important that conservation easements used to classify a stream as EV involve governmental bodies that represent and are accountable to the general public.

The Coalition, however, does not support the Department's suggested changes to the definition of "outstanding National, State, regional or local resource water." The Department's existing regulations require that a conservation easement must be in place for the entire stretch of the stream that is sought to be classified as EV. The Department's suggested amendment, however, would allow a conservation easement to support an EV classification if the conservation easement merely meets a subjective standard that it "provides protection to significant reaches of the corridor." The Coalition firmly believes that a conservation easement must provide protection to the *entire* surface water for which the conservation easement is being used to support an EV classification. The Coalition proposes the following changes to the Department's suggested amended definition:

Outstanding National, State, regional or local resource water—A surface water for which a National or State government agency has adopted water quality protective measures in a resource management plan, or regional or local governments have adopted coordinated water quality protective measures along a watershed corridor. The term includes a surface water protected by one or more conservation easements situated along the surface watera watershed corridor, in a manner that provides significant water quality protection to significant reaches of the entire surface water-corridor.

#### V. <u>CONCLUSION</u>

The Monroe County Clean Streams Coalition respectfully requests that the EQB add provisions to Chapter 93, as outlined herein, to provide additional notice of the Department's stream classification activities to affected landowners and municipalities. In addition, while the Coalition is generally in favor of the suggested new definition of "conservation easements," the Coalition respectfully requests that the EQB consider the Coalition's proposed modifications to the Department's suggested revisions to the definition of "outstanding National, State, regional or local resource water," provided herein.

The Coalition would like to thank the Environmental Quality Board and the Department for this opportunity to comment on the Triennial Review of Water Quality Standards proposed rulemaking. Please do not hesitate to contact me to discuss this matter further.

Respectfully submitted,

Jenathan E. Rinde For MANKO, GOLD, KATCHER & FOX, LLP

**Enclosures** 

cc: Coalition Members

# Exhibit A





November 3, 2017

Via Electronic Mail and First-Class Mail
Chairman George D. Bedwick
Pennsylvania Independent Regulatory Review Commission
333 Market St, 14th Floor
Harrisburg, PA 17101
irrc@irrc.state.pa.us

Re:

Environmental Quality Board Regulation #7-535 (IRRC #3150)

Stream Redesignation - Swiftwater Creek

Dear Chairman Bedwick:

Pocono Manor Investors, LP ("Pocono Manor") submits the following comments on the Environmental Quality Board's ("EQB") Regulation #7-535 (IRRC #3150), which would reclassify the Designated Use of Swiftwater Creek to Exceptional Value ("EV"). The technical basis for Regulation #7-535 is a Stream Redesignation Evaluation Report (the "Report"), dated February 2016, prepared by the Pennsylvania Department of Environmental Protection ("PADEP" or the "Department"). Based on (1) PADEP's failure to keep us apprised of its evaluation of Swiftwater Creek despite our repeated requests, and (2) our belief that the findings in the Report are not supported by sound science or consistent with PADEP's regulations and guidance, we request that the Independent Regulatory Review Commission ("IRRC") defer action on Regulation #7-535 to allow time for Pocono Manor to thoroughly review PADEP's underlying data and develop additional factual information regarding the proper classification of Swiftwater Creek to present to PADEP, the EQB, and IRRC, as appropriate.

#### I. <u>BACKGROUND</u>

#### A. Pocono Manor Investors, LP

Pocono Manor owns and manages Pocono Manor Resort & Spa located at One Manor Drive, Pocono Manor, PA 18349. The Pocono Manor Resort encompasses approximately 3,000 acres and is situated almost entirely within the upper reaches of the Swiftwater Creek basin. It currently includes a hotel, conference facilities, an 18-hole golf course, and residences along with a number of other recreational amenities. The Pocono Manor Resort has been in continuous operation since 1902 and is currently listed on the National Register of Historic Places (ID 97000287). Recently, the Kalahari Resort and Conference Center was constructed on a portion of the Pocono Manor Resort property.

The proposed redesignation of the Swiftwater Creek basin to EV would dramatically alter the regulatory regime applicable to future activities and projects at Pocono Manor and would impose considerable financial hardships on Pocono Manor. The financial hardships would take the form of increased costs in engineering, construction, and operation associated with any significant onsite redevelopment. For these reasons, it is imperative that PADEP's analysis is thorough, complete, and in full compliance with the stream reclassification criteria in the applicable regulations.

#### B. <u>History of Designation of Swiftwater Creek</u>

The Swiftwater Creek basin is currently designated High Quality – Cold Water Fishes, Migratory Fishes ("HQ-CWF, MF"). This designation appears to have been made, not on the basis of scientific study or analysis, but simply by a declaration by the Department decades ago, On July 2, 2007, the Brodhead Creek Watershed Association submitted a petition to the EQB requesting that the designated use of the Swiftwater Creek basin, from its source to State Route 611, be reclassified to EV (the "Petition"). The EQB accepted the Petition for further study on October 16, 2007. The Petition represents that Pocono Manor would benefit from the reclassification of Swiftwater Creek, an assertion that is both unsubstantiated and false. Moreover, this assertion appears to have been carried forward and relied upon by PADEP in its Regulatory Analysis Form, which concludes that Pocono Manor would not suffer any specific financial harm as a result of the reclassification of Swiftwater Creek. The statements in the Petition and by PADEP regarding potential benefits were refuted by Pocono Manor early in this process.

PADEP conducted aquatic life use and stream survey work in the Swiftwater Creek basin on May 1, 2008. Nearly eight years later, PADEP issued a report, dated February 2016, recommending that the Swiftwater Creek basin, from its source to UNT 04960, be designated as EV, MF. PADEP did not provide a copy of the Report to Pocono Manor despite our expressed interest in this matter and repeated attempts to obtain this information from PADEP.

#### C. Legal Framework

PADEP's antidegradation regulations are intended to protect the designated uses of surface waters, which are those uses identified in PADEP's regulations for each water body or segment regardless of whether they are being attained. 25 Pa. Code § 93.1. The most restrictive types of uses are High Quality ("HQ") and Exceptional Value ("EV"). Facilities discharging to HQ waters may rely upon a social or economic analysis to define applicable discharge requirements, considerations that are not available to facilities discharging to EV waters. 25 Pa. Code § 93.4c(b)(1)(iii). Classifying a stream as EV also has the effect of classifying all wetlands in the floodplain of the stream as EV, and those EV wetlands then are also subject to increased special protection. Projects such as ford crossings, utility line stream crossings, minor and temporary road stream crossings, and new docks and boat ramps in EV streams must all obtain individual state permits, whereas general state permits may be obtained for HQ waters.

<sup>&</sup>lt;sup>1</sup> Saa Swiftwater Creek, Water Quality Standards Review, Stream Redesignation Evaluation Report (Feb. 2016), attached to Regulatory Analysis Form at pp. 65-76.

Furthermore, PADEP's regulations prohibit the permitting of non-water dependent projects in EV wetlands. Thus, the consequences of an EV reclassification are significant.

Surface waters may qualify as HQ if they meet either certain chemical or certain biological standards. To qualify *chemically* as HQ, the surface water must have at least 1 year of data that exceeds levels necessary to support the propagation of fish, shellfish and wildlife and recreation in and on the water by exceeding the water quality criteria in 25 Pa. Code § 93.7, Table 3 or otherwise authorized by 25 Pa. Code § 93.8a(b), at least 99% of the time for twelve separate parameters, such as temperature and pH.<sup>2</sup> 25 Pa. Code § 93.4b(a)(1). To qualify biologically as HQ, the surface water must either: (a) achieve an integrated benthic macroinvertebrate score of at least 83% based on Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish, Platkin, et al., (EPA/444/4-89-001), as updated and amended, by comparing the surface water to a reference stream or watershed; or (b) have been designated a Class A wild trout stream by the Fish and Boat Commission following public notice and comment. 25 Pa. Code § 93.4b(a)(2).

A surface water may qualify as EV if it either: (a) is a "surface water of exceptional ecological significance," or (b) meets the requirements of an HQ surface water and at least one of the following:

- (i) The water is located in a National wildlife refuge or a State game propagation and protection area.
- (ii) The water is located in a designated State park natural area or State forest natural area, National natural landmark, Federal or State wild river, Federal wilderness area or National recreational area.
- (iii) The water is an outstanding National, State, regional or local resource water.
- (iv) The water is a surface water of exceptional recreational significance.
- (v) The water achieves a score of at least 92% (or its equivalent) using the methods and procedures described in subsection (a)(2)(i)(A) or (B).
- (vi) The water is designated as a "wilderness trout stream" by the Fish and Boat Commission following public notice and comment.

25 Pa. Code § 93.4b(b) (emphasis added).

<sup>&</sup>lt;sup>2</sup> The full list of parameters includes: dissolved oxygen, aluminum, iron, dissolved nickel, dissolved copper, dissolved cadmium, temperature, pH, dissolved arsenic, ammonia nitrogen, dissolved lead, and dissolved zinc. 25 Pa. Code § 93.4b(a)(1).

#### **II.** LACK OF SUFFICIENT NOTICE

Pocono Manor submitted timely objections to the Petition by letter to PADEP dated October 4, 2007. The Petition was scheduled for consideration by the EQB on October 16, 2007. We were informed prior to the EQB meeting that only the Petitioners would be able to speak at the meeting. Nevertheless, because of our interest in this matter, I attended the EQB meeting on behalf of Pocono Manor. I, however, was not afforded an opportunity to offer any comments at that meeting despite the fact that the Petitioners described conversations they had with me. In addition, there was no mention made at the meeting that our written objections to the Petition had been sent to the EQB.

By letter dated January 14, 2008, we requested that PADEP provide timely advance notice before any proposed entry on the Pocono Manor Resort property so that we could arrange to have our environmental consultants present during any such visit. In May 2008, Pocono Manor and its consultant, EcolSciences, Inc., accompanied PADEP during its field sampling. After observing PADEP's sampling during the morning of May 1, 2008, the group broke for lunch and agreed to meet at a specific time after lunch at the proposed reference station along Devil's Hole Creek to observe the remaining sampling activities which was to serve as the baseline for Swiftwater Creek. Pocono Manor and EcolSciences arrived at the identified reference station location at the agreed-upon time only to find that PADEP had already completed its sampling at that location. When EcolSciences requested PADEP's sampling results, they were informed that the results would not be made available until PADEP issued its report. PADEP's draft report was not issued until seven years later in 2015, and neither Pocono Manor nor EcolSciences was directly notified of its availability, despite Pocono Manor's consultant's continuous requests for PADEP's reports and data.

PADEP's Report acknowledges that "[t]he majority of the petitioned area is within the privately owned The Inn at Pocono Manor property." See Report at 1. However, since 2008, PADEP failed to provide Pocono Manor with any actual notice of its actions related to the potential reclassification of Swiftwater Creek. On the other hand, the Report indicates that PADEP provided actual written notice of the availability of a draft version of the Report to the Monroe County Planning Commission and Tobyhanna, Pocono, and Paradise Townships. Once the Report was finalized, PADEP made it available to the Petitioner, the municipalities, the County Planning Commissions, the County Conservation Districts and other State Agencies on September 4, 2015 with a public comment period ending 45 days later. Again, PADEP did not notify Pocono Manor when the Report was completed, nor did PADEP provide the Report to Pocono Manor, despite repeated requests to be notified when the Report was completed.

If PADEP had provided us with the sampling results or a draft of the Report, we could have reviewed the findings, supplemented the data or conducted our own studies to determine if the reclassification criteria in Swiftwater Creek were met before the Report was finalized and

presented for approval. Instead, we are left rushing to catch up with the last 5-10 years of PADEP's actions. Nevertheless, in less than two weeks, we have already taken the following steps to properly examine stream conditions: (1) retained a consultant, (2) reviewed the Report and developed some preliminary comments that are summarized in this letter, (3) submitted a Right-to-Know Law request to PADEP seeking all public records associated with the reclassification of Swiftwater Creek, and (4) met with various stakeholders in the region who have an interest in Regulation #7-535. We are committed to participating in the process to fully respond to the Petition in accordance with applicable regulatory requirements and are requesting the opportunity to do so now.

## III. PADEP'S STREAM STUDY DID NOT COMPORT WITH GOOD SCIENCE OR PADEP'S POLICY

In light of the inadequate notice provided by PADEP, Pocono Manor would like time for its consultant to fully evaluate the Report and conduct further fact-finding. We are aware that other proposed stream redesignations in the region are currently being reviewed for lack of compliance with PADEP's regulations and guidance on grounds similar to those raised in this letter. Although we have had very limited time to review the Report, Pocono Manor has concluded that PADEP's data set is incomplete and lacks a credible scientific basis for the proposed reclassification of Swiftwater Creek, as set forth below.

#### A. PADEP Did Not Sample An Adequate Number of Stations

The stations that PADEP relied upon for its proposed redesignation to EV – Stations 1SC and 2IR – are not representative of the segment of Swiftwater Creek proposed to be reclassified. On the basis of PADEP's guidance, Stations 1SC and 2IR are inadequate to serve as the basis for the redesignation of such expansive stretches of the stream. PADEP's Water Quality Antidegradation Implementation Guidance (2003) states that stations should be placed "along the mainstem every 2-3 miles, or at closer intervals if there is a noticeable change in stream flow, instream habitat, or riparian land use/land cover." PADEP has proposed to redesignate approximately 7.69 miles of Switwater Creek as EV, relying on data from only two stations over this stretch, equating to a rate of one station for every 3.845 miles. PADEP's guidance requires samples to be collected from least three stations along this stretch. Furthermore, because there are noticeable changes in the riparian land use along the stretches of Swiftwater Creek that PADEP seeks to reclassify as EV (an 18-hole golf course and a dam and drainage pipe located just downstream of PADEP's Station 1SC), PADEP's guidance would require more than three sample stations.

PADEP's guidance also requires stations to be placed in a way that "bracket[s] population centers, reservoirs, nonpoint sources, point sources, land use changes, etc." PADEP acknowledged in the Report that there are multiple permits and authorizations along Swiftwater Creek, but the station locations it selected are not bracketed to account for these features.

November 3, 2017 Page 6

Additionally, PADEP only identified one permitted water withdrawal, but Pocono Manor actually has four permitted surface water withdrawals. Again, none of PADEP's sample stations are bracketed to account for these features. In addition, four NPDES permits have been issued for this portion of the basin since PADEP conducted its testing in 2008, but the Report fails to account for all of these NPDES permits. The stations are not bracketed to account for the 18-hole golf course or the historical dam and drainage pipe located downstream of Station 1SC. Instead, PADEP applied Section 1SC's score throughout this entire stretch, through the dam and drainage pipe to a location near Station 3SC, which had produced a very low benthic macroinvertebrate score of 45%, far below the 92% required to qualify as an EV stream.

#### B. PADEP's Reference Station

Approximately seven months after PADEP sampled Swiftwater Creek and the reference station Devil's Hole Creek on May 1, 2008, PADEP informed Pocono Manor and Ecolsciences that PADEP had decided to use a different reference station located along Dimmick Meadow Brook. Neither Pocono Manor nor Ecolsciences was ever provided the results of sampling at Devil's Hole Creek or an explanation for the change in location. PADEP has not provided data to support its decision not to use Devil's Hole Creek, located only 4 miles from Swiftwater Creek, and to instead use Dimmick Meadow Brook, located 30-40 miles from Swiftwater Creek.

## C. PADEP's Sampling Stations And Report, As Well As The Petition, Do Not Account For The Permitted Dam Along Swiftwater Creek

Pocono Manor holds a permit for a dam located on its property along Swiftwater Creek (Permit No. D45-086). This dam is located just downstream of PADEP's sample station 1SC, as indicated in Figure 1 of the Report. By holding water behind the dam, the dam raises the temperature of Swiftwater Creek above and below the dam and acts as a barrier to the migration of aquatic life. In fact, Manor Sports (and its predecessor), which has operated a shooting and fishing concession on the Pocono Manor Resort property for years, has continually had to stock fish upstream of the dam because the stream does not support a natural habitat. This suggests that the existing dam may have an effect on the biota in Swiftwater Creek, which is unaccounted for in the Report.

#### IV. <u>CONCLUSION</u>

For the reasons set forth above, Pocono Manor requests that IRRC defer action on Environmental Quality Board Regulation #7-535 (IRRC #3150) to allow Pocono Manor an opportunity over the next six months to thoroughly review the Report and related data, and to conduct its own studies should that be necessary to properly assess water quality in Swiftwater Creek to determine if it meets the criteria for reclassification to EV waters.

November 3, 2017 Page 7

We look forward to the opportunity to appear at the upcoming public hearing scheduled for November 16, 2017 to elaborate on the information set forth in this letter as part of our testimony in opposition to Environmental Quality Board Regulation #7-535 (IRRC #3150).

Thank you for your consideration of this information.

Respectfully submitted,

James M. Cahill, PLS, PP

In cea

Managing Partner

Pocono Manor Investors, LP

cc: Patrick McDonnell, PADEP Secretary

The Honorable Senator Gene Yaw, Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Senator John Yudichak, Minority Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Representative John Maher, Chair, PA House of Representatives Environment Resource and Energy Committee

The Honorable Representative Mike Carroll, Minority Chair, PA House of

Representatives Environment Resource and Energy Committee

Annie Lamberton, Supervisor, Tobyhanna Township

George Ewald, Supervisor, Tunkhannock Township

William Pipolo, Jr., Supervisor, Barrett Township

Steve Pine, Director of Development, Kalahari Resort and Conference Center

David W. Moyer, President, Papillon & Moyer

Karl M. Weiler, Chairman, Weiler Corp.

Nick Igdalsky, CEO, Pocono Raceway

## Exhibit B

## MANKO | GOLD | KATCHER | FOX LLP

#### AN ENVIRONMENTAL AND ENERGY LAW PRACTICE

Jonathan E. Rinde 484-430-2325 jrinde@mankogold.com

Admitted in PA and NJ

November 9, 2017

Via Electronic Mail
Chairman George D. Bedwick
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\*Portner responsible – Bruce S. Katcher \*\*Portner responsible – Brenda H. Gotanda

Re:

Environmental Quality Board Regulation #7-535 (IRRC #3150)

Stream Redesignation - Swiftwater Creek

Dear Chairman Bedwick:

My firm has been retained by Pocono Manor Investors, LP ("Pocono Manor") to serve as counsel in this matter. On November 3, 2017, Pocono Manor submitted comments on Environmental Quality Board ("EQB") Regulation #7-535 (IRRC #3150), which would reclassify the Designated Use of Swiftwater Creek to Exceptional Value ("EV"). In its letter, Pocono Manor requested that the Independent Regulatory Review Commission ("IRRC") defer action on Regulation #7-535. Pocono Manor has since been advised by IRRC staff that IRRC can only approve or disapprove the regulation.

For the reasons set forth in its letter, we request that IRRC disapprove the regulation, which would require the EQB to take one of three actions: (1) adopt the Regulation #7-535 and issue a report responding to IRRC's disapproval order, (2) revise or modify Regulation #7-535 to respond to IRRC's objections, or (3) withdraw Regulation #7-535. See 71 P.S. § 745.7. IRRC's disapproval would have the effect of deferring final action on Regulation #7-535. During that time, Pocono Manor could more thoroughly review PADEP's underlying data and develop additional factual information regarding the proper classification of Swiftwater Creek, which Pocono Manor could then present to PADEP, the EQB, and IRRC, as appropriate. We believe that a disapproval and deferral is appropriate in this matter given the lack of actual notice PADEP provided to Pocono Manor.

We would like to further note that Regulation #7-535 is not in the public interest in accordance with Section 5.2 of the Regulatory Review Act, 71 P.S. § 745.5b. As Pocono Manor explained in its November 3, 2017 comments, Regulation #7-535 is not consistent with PADEP's and the EQB's statutory authority and is not supported by acceptable data. 71 P.S. §§ 745.5b(a), (b)(7). PADEP failed to conduct the necessary sampling in compliance with its

Chairman George D. Bedwick November 9, 2017 Page 2

regulations and guidance. As Pocono Manor explained in its letter, PADEP did not sample an adequate number of sample stations in accordance with its regulatory protocol, and its sampling stations did not account for the dam and impoundment along Swiftwater Creek.

Furthermore, Regulation #7-535 is not in the public interest because it will result in unreasonable economic and fiscal impacts, including costs to Pocono Manor and to the Commonwealth and its political subdivisions through lost revenue; adverse effects on the prices of Pocono Manor's services, productivity, and competition; costs to prepare required reports, forms, and other paperwork; and costs of consulting services which Pocono Manor will be expected to incur. 71 P.S. § 745.5b(b)(1).

Given the deficiencies identified by Pocono Manor, by copy of this letter we are requesting that the Pennsylvania Senate Environmental Resources and Energy Committee and the House of Representatives Environment Resource and Energy Committee submit comments to IRRC to similarly disapprove Regulation #7-535.

Pocono Manor intends to appear at the November 16, 2017 public meeting to testify in opposition to Environmental Quality Board Regulation #7-535 (IRRC #3150). Thank you for your consideration of these comments.

Jonathan E. Rinde

For MANKO, GOLD, KATCHER & FOX, LLP

cc: Patrick McDonnell, PADEP Secretary

The Honorable Senator Gene Yaw, Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Senator John Yudichak, Minority Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Representative John Maher, Chair, PA House of Representatives Environment Resource and Energy Committee

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George Ewald, Supervisor, Tunkhannock Township William Pipolo Jr., Supervisor, Barrett Township

Steve Pine, Director of Development, Kalahari Resort and Conference Center

David W. Moyer, President, Papillon & Moyer

Karl M. Weiler, Chairman, Weiler Corp.

Nick Igdalsky, CEO, Pocono Raceway

# Exhibit C

## MANKO | GOLD | KATCHER | FOX LLP

#### AN ENVIRONMENTAL AND ENERGY LAW PRACTICE

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Admitted in PA and NJ

November 13, 2017

Via Electronic Mail
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PHILADELPHIA, PA
WILLIAMSPORT, PA
by appointment only

\*Partner responsible – Bruce S. Katcher \*\*Partner responsible – Brenda H. Gotando

Re:

Environmental Quality Board Regulation #7-535 (IRRC #3150)

Stream Redesignation - Swiftwater Creek

#### Dear Chairman Bedwick:

Pocono Manor Investors, LP ("Pocono Manor"), through its counsel, submits the following additional comments on Environmental Quality Board ("EQB") Regulation #7-535 (IRRC #3150), which would reclassify the Designated Use of Swiftwater Creek to Exceptional Value ("EV"). This is Pocono Manor's third set of comments submitted to the Independent Regulatory Review Commission ("IRRC") on Regulation #7-535. Pocono Manor previously submitted comments on Regulation #7-535 to IRRC on November 3, 2017 and November 9, 2017, wherein Pocono Manor identified, among other issues, serious technical and legal deficiencies with the Pennsylvania Department of Environmental Protection's ("PADEP") Stream Redesignation Evaluation Report (the "Report"), which the EQB has relied upon as its underlying basis for Regulation #7-535.

In our prior comments, we identified that PADEP failed to sample an adequate number of sample stations in accordance with its regulations and its Water Quality Antidegradation Implementation Guidance ("Guidance"), and PADEP's sampling stations did not account for various features along Swiftwater Creek in accordance with its Guidance, including a golf course and a dam and impoundment. Recently, Pocono Manor retained a consultant, Normandeau. Associations, Inc. ("Normandeau"), to review PADEP's Report and to conduct further sampling, in accordance with PADEP's approved sampling procedures, along Swiftwater Creek and its tributary, Indian Run, to determine the proper classification of Swiftwater Creek. The results of Normandeau's sampling efforts are enclosed. In the areas of the stream where PADEP had sampled two stations, Normandeau sampled seven stations. The biological scores at the recently sampled stations ranged from 50 to 82.5. This result is significant, because none of the stations qualified for an Exceptional Value ("EV") classification, which requires a score of at least 92 under PADEP's regulations at 25 Pa. Code § 93.4b. In fact, none of the stations even qualified

Chairman George D. Bedwick November 13, 2017 Page 2

for a High Quality ("HQ") classification, which requires a score of at least 83 under PADEP's regulations at 25 Pa. Code § 93.4b.

Normandeau's findings confirm that PADEP's Report is technically and legally deficient. As a result, Regulation #7-535 is not in the public interest in accordance with Section 5.2 of the Regulatory Review Act, 71 P.S. § 745.5b, because it is not consistent with PADEP's and the EQB's statutory authority and is not supported by acceptable data. 71 P.S. §§ 745.5b(a), (b)(7). We therefore request that IRRC disapprove Regulation #7-535.

Given the additional deficiencies identified by Pocono Manor and Normandeau, by copy of this letter we are again requesting that the Pennsylvania Senate Environmental Resources and Energy Committee and the House of Representatives Environment Resource and Energy Committee submit comments to IRRC to similarly disapprove Regulation #7-535.

Pocono Manor intends to appear at the November 16, 2017 public meeting to testify in opposition to Environmental Quality Board Regulation #7-535 (IRRC #3150). Thank you for your consideration of these comments.

Respectating subpartied

Jonathan E. Rinde For MANKO, GOLD, KATCHER & FOX, LLP

Enclosure

cc: Patrick McDonnell, PADEP Secretary

The Honorable Senator Gene Yaw, Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Senator John Yudichak, Minority Chair, PA Senate Environmental Resources and Energy Committee

The Honorable Representative John Maher, Chair, PA House of Representatives Environment Resource and Energy Committee

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David W. Moyer, President, Papillon & Moyer

Karl M. Weiler, Chairman, Weiler Corp.

Nick Igdalsky, CEO, Pocono Raceway



## Macroinvertebrate Survey in Swiftwater Creek and Indian Run, Monroe County, PA

**Presented To:** 

Pocono Manor Investors, LP (through their counsel Manko, Gold, Katcher & Fox, LLP)

Submitted On:

13 November 2017

Submitted By:

Normandeau Associates, Inc.

Normandeau Project No. 24111.000

www.normandeau.com

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#### INTRODUCTION

Normandeau Associates, Inc. (Normandeau) was contracted by Pocono Manor Investors, LP, through their counsel Manko, Gold, Katcher & Fox, LLP, to conduct a macroinvertebrate survey in Swiftwater Creek and Indian Run in Monroe County, Pennsylvania. Indian Run is a tributary to Swiftwater Creek. The objective was to perform an investigation in accordance with the regulations and guidance of the Pennsylvania Department of Environmental Protection (PADEP) to determine the correct classifications of these waterbodies. This effort is described in this report.

#### SAMPLE STATIONS

Normandeau reviewed PADEP's Water Quality Antidegradation Implementation Guidance (2003) to determine the proper number and locations of sample stations. Benthic macroinvertebrate samples were collected at five stations in Swiftwater Creek – Stations NSC-1 through NSC-5 as shown in Figure 1. Benthic macroinvertebrate samples also were collected at two stations in Indian Run – NIR-1 and NIR-2 as shown in Figure 1. In addition, water quality measurements were made at a sixth station (NSC-PChem6) in Swiftwater Creek and at stations (NIR-PChem1 and NIR-PChem2) in two unnamed tributaries to Indian Run as shown in Figure 1. Latitude and longitude for these stations and a reference station (see below) are as follows:

Station ID	<u>Latitude</u>	<u>Longitude</u>
NSC-1	41.101006	-75.345885
NSC-2	41.098722	-75.352300
NSC-3	41.095656	-75.355694
NSC-4	41.096084	-75.365967
NSC-5	41.095737	-75.380235
NIR-1	41.102124	-75.346081
NIR-2	41.10329	-75.368893
NDMB	41.349203	-74.836151
NSC-PCHem6	41.095692	-75.395808
NIR-PChem1	41.104773	-75.355328
NIR-PChem2	41.102462	-75.367364

On 1-2 May 2008, PADEP sampled benthic macroinvertebrates at two stations in Swiftwater Creek and at one station in Indian Run as part of a stream redesignation effort reported in PADEP (2016).

One of the two PADEP sample stations in Swiftwater Creek (1SC) was located at Normandeau Station NSC-4. PADEP's station in Indian Run (2IR) was located at Normandeau's Station NIR-2.

Dimmick Meadow Brook, a PADEP reference stream, which was part of PADEP's 2008 sampling effort (PADEP 2016), was also sampled in Normandeau's present effort. PADEP established Station DMB 50 meters upstream of Schocopee Road in northern Pike County at Latitude 41°20′57.81″N and -74°50′9.42″W. Normandeau's Station NDMB was established at the same location. This location is shown on Figure 2.

#### METHODOLOGY

The benthic macroinvertebrate samples were collected on 6-7 November 2017, during the optimal months for such sampling (mid-October through April), according to PADEP's Water Quality Antidegradation Implementation Guidance (2003). In addition, the samples were collected within 24 hours during a period of normal streamflow as recommended by PADEP's Guidance.

The macroinvertebrate samples were collected at the eight stations using a D-frame dipnet with a 500µ mesh net attached. The samples were collected using the methodology identified in PADEP's regulations at 25 Pa. Code § 93.4b(a)(2)(i)(A), referred to as *Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish*, Plafkin, et al., (EPA/444/4-89-001), which was the same sampling collection method PADEP used in 2008 (PADEP 2016). In addition, water temperature, dissolved oxygen, pH, and specific conductance were measured using a field instrument at the eight stations and at Stations NSC-PChem6, NIR-PChem1 and NIR-PCHem2. Lastly, instream habitat was assessed at the eight macroinvertebrate stations using PADEP methodology.

The macroinvertebrate samples were preserved in the field and transported to Normandeau's Biological Laboratory where they were processed following the same methodology PADEP described in their 2016 Report. In short, a 200-specimen subsample was sorted from each sample. These macroinvertebrate subsamples were identified to genus in most cases using a dissection microscope.

The resultant macroinvertebrate data were used to compute five metrics required in PADEP's Rapid Bioassessment Protocol methodology. The metrics for each Swiftwater Creek and Indian Run station (the candidate stations) were compared to the metrics computed for the reference station in order to determine percent of reference. These percent of reference values then were used to score the metrics for each candidate station (1 to 8, where 8 is the best). The scores for the metrics at each station were summed and divided by 40 (the perfect score awarded to the reference station) to compute percent of reference. As set forth in PADEP's regulations, a percent of reference of at least 83% qualifies a waterbody as High Quality (HQ), and a percent of reference of at least 92% qualifies a waterbody as Exceptional Value (EV). 25 Pa. Code § 93.4b.

#### RESULTS AND DISCUSSION

The water quality measurements are shown in Table 1. Water temperature was near 8°C, the water was well oxygenated (8.82 to 11.17 mg/l), specific conductance was low (109 to 294 µsiemens/cm), and pH was acidic at all of the Swiftwater Creek and Indian Run stations. Water temperature was

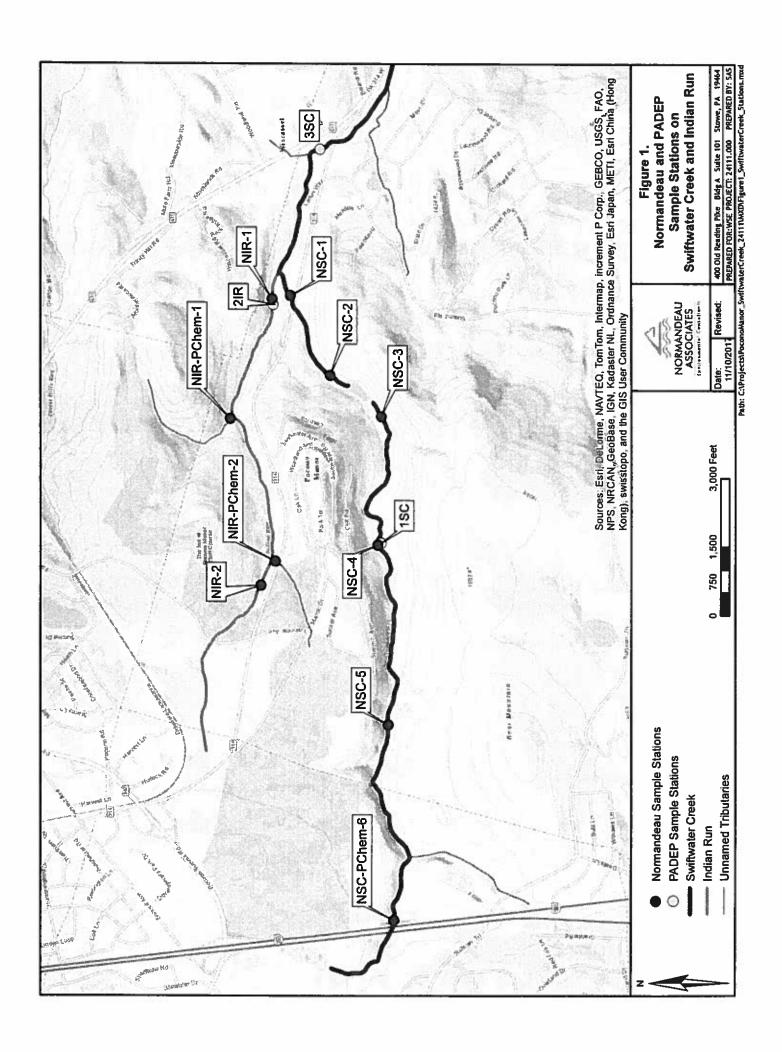
somewhat higher (11.4°C) and specific conductance was lower (31 μsiemens/cm) at the Dimmick Meadow Brook station (NDMB), compared to the other stations.

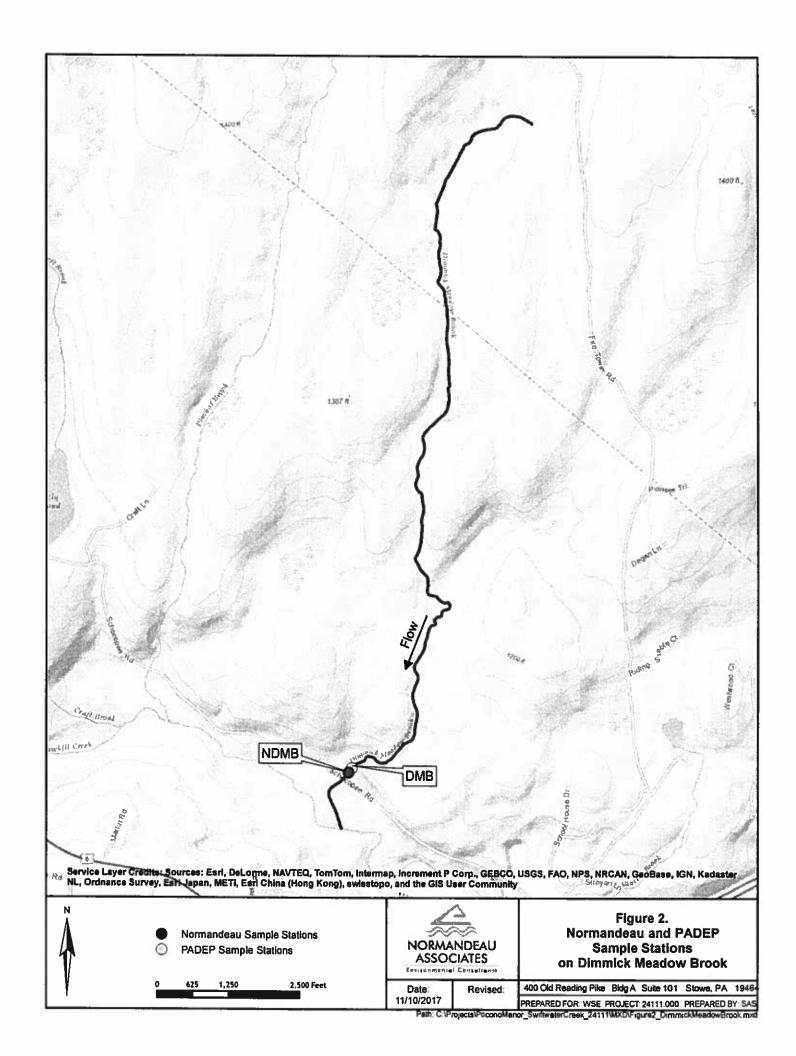
Habitat assessment results are shown in Table 2. The scores for all stations were similar (208 to 226), and resulted in an Optimum rating for each station.

The results of the benthic macroinvertebrate sample laboratory analysis are shown in Table 3. In general, each sample contained a mix of aquatic insect taxa, including the mayflies, stoneflies, and caddisflies that generally are considered intolerant of water pollution and other stressors. The results of the metrics data analysis are shown in Table 4. The percent of reference scores ranged from 50 to 82.5. As a result, none of the stations qualified for an HQ classification (83) or an EV classification (92) in accordance with PADEP's regulations at 25 Pa. Code § 93.4b.

#### REFERENCES

- PADEP. 2003. Water Quality Antidegradation Implementation Guidance. Document No. 391-0300-002. Effective Date: 29 November 2003.
- PADEP. 2016. Swiftwater Creek, Monroe County. Water Quality Standards Review, Stream Redesignation Evaluation Report. Segment: Basin, Source to Unnamed Tributary (UNT) 04960, Stream Code: 04954, Drainage List: C.







Water quality measurements made in Swiftwater Creek, Indian Run, two tributaries to Indian Run, and Dimmick Meadow Brook on 6-7 November 2017. Table 1.

			Temperature	Dissolved		Specific Conductance
Station	Date	Time	(°C)	Oxygen (mg/l)	ЬН	(µsiemens/cm)
Swiftwater Creek						
NSC-1	11/7/2017	8:00 AM	7.80	11.15	6.10	136
NSC-2	11/7/2017	9:35 AM	7.75	11.17	6.46	131
NSC-3	11/7/2017	10:20 AM	7.56	10.87	6.64	134
NSC-4	11/7/2017	11:00 AM	7.53	10.98	6.67	153
NSC-5	11/7/2017	12:00 PM	7.93	10.73	6.61	168
NSC-PChem-6	11/7/2017	12:40 PM	7.12	10.68	9.90	215
inalan Kun						
NIR-1	11/7/2017	8:30 AM	8.24	9.87	6.50	242
NIR-2	11/7/2017	2:00 PM	7.59	11.05	6.45	294
Unnamed Tributaries to Indian Run	to Indian Run					
NIR-Pchem-1	11/7/2017	3:10 PM	8.89	9.06	69.9	109
NIR-Pchem-2	11/7/2017	2:40 PM	7.89	8.82	6.17	243
Dimmick Meadow Brook	ook					
NDMB	11/6/2017	4:20 PM	11.4	8.99	N/A	31
				;		



Table 2. Habitat assessment scoring in Swiftwater Creek, Indian Run, and Dimmick Meadow Brook on 6-7 November 2017.

								Dimmick Meadow Brook
		Swiftwa	<b>Swiftwater Creek Stations</b>	tations		Indian Run Stations	1 Stations	Station
Parameter	NSC-1	NSC-2	NSC-3	NSC-4	NSC-5	NIR-1	NIR-2	NDMB
1. Instream Cover (Fish)	19	19	19	19	19	19	19	19
2. Epifaunal Substrate	15	15	17	15	16	15	15	10
3. Embeddedness	19	19	19	19	19	19	19	19
4. Velocity/Depth Regimes	19	19	17	19	19	13	19	19
5. Channel Alteration	70	19	19	19	19	20	19	20
6. Sediment Deposition	19	19	13	19	19	17	15	19
7. Frequency of Riffles	19	19	19	19	19	19	18	19
8. Channel Flow Status	20	16	16	19	19	16	18	19
9. Condition of Banks	19	19	18	19	19	14	12	20
10. Bank Vegetative Protection	16	18	18	18	18	16	16	19
11. Grazing or Other Disruptive Pressure	20	20	20	20	20	70	20	19
12. Riparian Vegetative Zone Width	15	18	19	18	20	20	18	20
Total Score	220	220	220	223	226	214	208	222
Rating <sup>1</sup>	ОРТ	ОРТ	OPT	ОРТ	ОРТ	ОРТ	ОРТ	OPT

 $^{1}$  OPT = Optimal ( $\geq$  192); SUB = Suboptimal (132-192)



Macroinvertebrate data collected in Swiftwater Creek, Indian Run, and Dimmick Meadow Brook on 6-7 November 2017. Table 3.

	Tolerance		NSC-1	2	NSC-2	Swiftwate	Swiftwater Creek Stations NSC-3		NSC-4	2	NSC-5
Taxon	Value <sup>2</sup>	No.	Percent	No.	Percent	No.	Percent	Š.	Percent	No.	Percent
Branchiobdellida	9							+	0.5		
Coleoptera (beetles)									*********		
Ectopria	S								*************		
Oulimnius	S	w	2.9	14	7.2	9	3.2	1	0.5	н	0.5
Promoresia	7	'n	5.9			6	4.9	4	1.8	7	1.0
Psephenus	4										
Decapoda (crayfish)			<b>*</b>						*******		
Cambarus	9						••••		••••••		
Diptera (true flies)									-		
Antocha	e	7	1.2	ო	1.5	7	1.1	m	1.4	9	3.0
Atherix	2							-	0.5		
Bezzia	9	+	9.0	1	0.5				•	F	0.5
Chelifera	9					m	1.6		•••••	1	0.5
Chironomidae	9	87	50.3	41	21.0	103	55.7	104	47.9	124	62.9
Dicranota	e			H	0.5						
Нехатота	2	1	9.0			1	0.5				
Prosimulium	7	-	9.0						********	н	0.5
Simulium	9			H	0.5				*******		
Ephemeroptera (mayflies)									******		
Baetis	9	m	1.7	27	13.8	m)	1.6		****	9	3.0
Diphetor	9			4	2.1	9	3.2	7	3.2		
Epeorus	0			11	5.6	'n	2.7	27	12.4	4	2.0
Ephemerella	1	15	8.7	œ	4.1	9	3.2	00	3.7	9	3.0
Eurylophella	4								********	Ħ	0.5
Leucrocuta	П								**********		
Maccaffertium	m			7	1.0	-	0.5	2	2.3		
Paraleptophlebia	1			7	1.0	9	3.2	7	3.2	7	0.5
Plauditus	4							m	1.4		
Stenacron	4							1	0.5		
Hydracarina	7			-	0.5			7	6.0	7	1.0
Mollusca					w a						
Physa/Physella	00	-	9.0						*******		
Pisidium	80	7	1.2	1	0.5			1	0.5	₹	2.0
			•		•		•		•		



Continued.

Table 3.

Percent 100.0 0.5 0.5 1.0 4.1 1.0 0.5 4.1 1.0 1.5 NSC-5 Š 197 N 00 4 ന ഗ Percent 100.0 0.5 4.1 0.5 0.5 3.2 0.5 0.5 0.5 1.4 NSC-4 Š. 217 2 6 ന ന 2 5 Swiftwater Creek Stations Percent 100.0 0.5 1.1 3.8 0.5 1.1 0.5 1.6 0.5 1.6 11 2.7 2.2 NSC-3 ġ 185 7 7 7 m 'n Percent 100.0 12.8 0.5 0.5 1.0 2.6 2.1 1.0 0.5 2.6 0.5 7.7 0.5 1.5 NSC-2 Š 195 15 25 Percent 100.0 4.6 4.0 1.2 1.2 0.6 9.0 0.6 4.6 6.9 9.0 9.0 NSC-1 Š 173 00 12 1 1 8 7  $\rightarrow$ Tolerance Value<sup>2</sup> 201 6 Trichoptera (caddisfiles) Cheumatopsyche Plecoptera (stoneflies) Tricladida (flat worms) Odonata (dragonflies) Oligochaeta (worms) **Amphinemura** Brachycentrus Polycentropus Taeniopteryx Dolophilodes **Nyctiophylax** Lepidostoma Hydropsyche Rhyacophila Glossosoma Parapsyche Paracapnia Pteronarcys Diplectrona Acroneuria Microsema Tallaperia Neophylax Malirekus Agapetus Agnetina Apatania Isoperla Sweltsa Lanthus Boyeria Leuctra Nematoda Taxon Total



Table 3. Continued.

					0,	Swiftwate	Swiftwater Creek Stations	Su			
	Tolerance	NS	NSC-1	NS	NSC-2	NS	NSC-3	z	NSC-4	Z	NSC-5
Taxon	Value <sup>2</sup>	No.	No. Percent No. Percent	No.	Percent	No.	No. Percent	No.	Percent	No.	Percent
Im.											
Metrics									•		
Taxa Richness		7		m	4	1.4	25		31		25
Modified EPT Index		Ŧ		~	1	_	[]		19		12
Modified Hilsenhoff Index	findex	ίĊÌ	•	m	9	4	5,		3.8	7	61
Percent Dominant Taxon	axon	50.3	er.	77	21.0	ĸ	55.7	4	47.9	9	62.9
Percent Modified Mayflies	layfiles	œ,	7	11	8.1	O)		17	23.5	•	1.1

<sup>1</sup> 200-specimen subsample

<sup>2</sup> Modified Hilsenhoff Index tolerance values (PADEP)

<sup>3</sup> Source: PADEP's Water Quality Antidegradation Implementation Guidance (29 November 2003)



Table 3. Continued.

Tolerance   NIR-1   NIR-2     Value <sup>2</sup>   No. Percent   No. Percent     Sa				Indian Ru	Indian Run Stations		Dimmick M	Dimmick Meadow Brook
Value   No. Percent   No. Pe		Tolerance		IR-1		VIR-2	Referenc	Reference Station
	Taxon	Value <sup>2</sup>	No.	Percent	No.	Percent	No.	Percent
Uniform   S	Branchiobdelilda	9	_					
tig 5 5 2 0.8 6 2.9  resig 2 2 2 0.8 6 2.9  resig 2 2 2 0.8 6 2.9  rayfish) 6 6 3 1.3 7 3.3  ray files) 3 7 3.0 13 6.2  ray files) 3 1.3 7 3.3  ray files) 6 3 1.3 7 3.3  ray files) 6 103 43.5 98 46.7  ontidae 6 103 43.5 98 46.7  ontidae 6 103 43.5 98 46.7  ord ord 3 103 43.5 98 46.7  ord ord 3 1 1 0.4 2 1.0  resid mayfiles) 6 5 2.1 10 4.8  or 6 8 3.4 7 3.3  resello 1 1 12 5.1 13 6.2  ord ord 1 1 0.4 5.9 7 3.3  resello 1 1 0.4 5.9 7 3.3  resello 1 1 0.4 5.9  resello 1 1 0.4 5.9  resello 1 1 0.4 13 5.5  ron 4 13 5.5  ron 8 8 1.3 2 1.0  Physella 8	Coleoptera (beetles)							
nius         5         2         0.8         6         2.9           resia         2         0.8         6         2.9           renus         4         2         3.0         13         6.2           raus         6         3         1.3         7         3.3           raus         6         4         1.7         1         0.5           ra         6         4         1.7         1         0.5           omidae         6         103         43.5         98         46.7           ord         8         3.4         2         1.0           or         6         8         3.4         2         1.0           or         6         8         3.4         2         1.0           or         6         8         3.4         2         1.0           cuta         1         1         1	Ectopria	5					T	0.4
rresia 2 rayfish) strayfish) strayfish) strayfish) strain strain strayfish) strayfish) strayfish) strayfish) strayfish) strayfish) strayfish stray	Oulimnius	5	7	9.0	9	2.9		
enus 4  rayfish)  stiles)  sti	Promoresia	7		<del></del>			7	6.0
rayfish) sellies) sellies) ho a sellies) ho a d b d b d b d b d b d b d b d b d b d b	Psephenus	4					4	1.7
a files) bar a	Decapoda (crayfish)							
ra comidae 6 3 1.3 7 3.0 13 6.2 8.2 8.3 8.4 9.5 9.8 9.6 9.5 9.8 9.6 9.5 9.6 9.5 9.8 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	Cambarus	9					1	0.4
va         3         7         3.0         13         6.2           x         2         3         1.3         7         3.3           ra         6         3         1.3         7         3.3           ra         6         4         1.7         1         0.5           omidum         2         103         43.5         98         46.7           ond         3         103         43.5         98         46.7           ond         2         1         0.4         2         1.0           unlium         2         1         0.4         2         1.0           vor         6         5         2.1         1         4.8           or         6         8         3.4         2         1.0           serella         1         12         5.1         1         3.3           phelia         4         1         1         1         4           cuta         4         13         5.5         7         3.3           ton         4         1         3         1.3         2         1.0           Physelia         8	Diptera (true flies)	-						
ra 6 3 1.3 7 3.3 ra 6 6 4 1.7 1 0.5 omidae 6 103 43.5 98 46.7 ota 3 omidae 2 1 0.4 2 1.0 ulium 2 1 0.4 2 1.0 or era (mayflies) 6 5 2.1 10 4.8 s o 14 5.9 7 3.3 serella 1 12 5.1 13 6.2 phella 4 13 5.5 tus 4 13 5.5 ron 7 3 1.3 2 1.0	Antocha	m	7	3.0	13	6.2	7	6.0
raa 6 3 1.3 7 3.3  raa 6 4 1.7 1 0.5  omidae 6 103 43.5 98 46.7  ota 3  oma 2 1 0.4 2 1.0  utilum 2  umm 6 5 2.1 10 4.8  era (mayflies) 6 5 2.1 10 4.8  or 6 8 3.4 7 3.3  serella 1 12 5.9 7 3.3  the filter a 4 13 5.5  ron 4 3 1.3 5.5  Physella 8	Atherix	2		*********		•		
rea         6         4         1.7         1         0.5           omidae         6         103         43.5         98         46.7           opto         3         1         0.4         2         1.0           ord         6         5         2.1         10         4.8           era (mayflies)         6         5         2.1         10         4.8           or         6         8         3.4         7         3.3           serella         1         12         5.1         13         6.2           ohella         4         12         5.1         13         6.2           phella         4         13         5.5         7         3.3           tus         4         13         5.5         7         3.3           ron         4         13         5.5         7         3.3           Physella         8         1.3         2         1.0	Bezzia	9	m	1.3	7	3.3		
ounidace 6 103 43.5 98 46.7 ota 3 ona 2 ota 2 1 0.4 2 1.0  ulium 2  unium 6 era (mayflies) 6 5 2.1 10 4.8  or 6 8 3.4  ss o 14 5.9 7 3.3  phello 4 0 14 5.9 7 3.3  ptophlebia 1 1 0.4  tus  tus  Physella 8	Chelifera	9	4	1.7	-	0.5	1	0.4
ota 3 1 0.4 2 1.0  ulium 2 1 0.4 2 1.0  um 6 5 2.1 10 4.8  era (mayflies) 6 5 2.1 10 4.8  or 6 8 3.4 7 3.3  or 14 5.9 7 3.3  phello 4 5.9 7 3.3  ffertium 3 11 0.4  tus 4 13 5.5  Thysella 8	Chironomidae	9	103	43.5	86	46.7	89	28.9
oma         2         1         0.4         2         1.0           uulium         2         1.0         4.8         1.0           era (mayflies)         6         5         2.1         10         4.8           or         6         8         3.4         10         4.8           or         6         8         3.4         7         3.3           serella         1         12         5.1         13         6.2           phella         4         12         5.1         13         6.2           cuta         1         0.4         1         6.2           ptophlebia         1         1         0.4         1           tus         4         13         5.5         7         3           Physella         8         3         1.3         2         1.0	Dicranota	m		*********		***************************************		
um 6 era (mayflies) 6 6 7 8 8 3.4 8 3.4 8 3.4 11 12 5.1 10 4.8 8 3.4 12 5.3 13 6.2 9 14 5.9 7 3.3 9 14 5.9 7 3.3 13 6.2 14 5.9 7 3.3 13 6.2 14 10 4 12 10 4 13 10 10 10 10 10 10 10 10 10 10 10 10 10	Hexatoma	2		0.4	7	1.0		
um     6     5     2.1     10     4.8       or     6     8     3.4     10     4.8       is     0     14     5.9     7     3.3       in     0     14     5.1     13     6.2       in     0     1     0.4     1       in     4     13     5.5       in     0     3     1.3     2     1.0       in     0     3     1.3     2     1.0       in     0     0     1     0     1     0       in     0     0     0     0     0     0     0       in     0     0     0     0     0     0     0     0     0       in     0	Prosimulium	2				••••••		
era (mayflies)     6     5     2.1     10     4.8       or     6     8     3.4     7     3.3       is     0     14     5.9     7     3.3       ierella     1     12     5.1     13     6.2       ahello     4     1     0.4       ptophlebla     1     1     0.4       tus     4     13     5.5       ron     7     3     1.3     2     1.0       Physella     8	Simulium	9				*******		
or         6         5         2.1         10         4.8           is         0         14         5.9         7         3.3           inerella         1         12         5.1         13         6.2           abella         4         1         5.9         7         3.3           ptophlebia         1         1         0.4         1           tus         4         13         5.5         1.0           physella         8         1.3         2         1.0	Ephemeroptera (mayflies)			•				
or         6         8         3.4         7         3.3           is         0         14         5.9         7         3.3           in         1         12         5.1         13         6.2           phella         4         1         1         0.4           ins         4         13         5.5         2           ron         7         3         1.3         2         1.0           Physelia         8         3.4         3         1.3         2         1.0	Baetis	9	2	2.1	10	4.8	1	0.4
serella 1 12 5.1 13 6.2  phella 4 12 5.1 13 6.2  cuta 1 10.4  ptophlebia 1 1 0.4  tus 4 13 5.5  ron 4 3 1.3 2 1.0  Physella 8	Diphetor	9	<b>co</b>	3.4			7	3.0
physella 1 12 5.1 13 6.2 and a cuta 1 12 5.1 13 6.2 and a cuta 1 1 0.4 and a cuta 1 0.4 and a	Epeorus	0	14	5,9	7	3.3	38	16.2
tertium 3  Iffertium 3  ptophlebia 1 1 0.4  tus 4 13 5.5  ron 4 3 1.3 2 1.0  Physella 8	Ephemerella	-	12	5.1	13	6.2	12	5.1
tus 1 0.4   1 0.4   13 5.5   1.0   Physella 8   8   1.3   2 1.0   1   1   1   1   1   1   1   1   1	Eurylophella	4				*****		
tus 4 13 5.5  tus 4 13 5.5  ron 4 3 1.3 2 1.0  Physella 8	Leucrocuta	1		******			14	6.0
tus 4 13 5.5 cm 7 3 1.3 2 1.0 Physella 8	Maccaffertium	m		*****			н	0.4
tus 4 13 5.5 ron 4 7 3 1.3 2 1.0 Physelia 8	Paraleptophlebia	1	1	0.4			12	5.1
ron 4 3 1.3 2 1.0 Physella 8	Plauditus	4	13	5,5		•••••	1	0.4
7 3 1.3 2 1.0 Physella 8	Stenacron	4				•		
so/Physella 8	Hydracarina	7	m	1.3	2	1.0		
ysella 8	Mollusca							
	Physa/Physella	00		*********		••••	н	0.4
	Pisidium	00		••••				



Table 3. Continued.

			Indian Rui	Indian Run Stations		Dimmick M	Dimmick Meadow Brook
	Tolerance		NIR-1	Z	NIR-2	Referenc	Reference Station
Тахоп	Value <sup>2</sup>	No.	Percent	No.	Percent	No.	Percent
Nematoda	Ø	1	0.4	1	0.5		
Odonata (dragonflies)							
Boyeria	2					<b>+</b> 1	0.4
Lanthus	ı,				0.5	-	0.4
Oligochaeta (worms)	10	13	5.5	7	1.0		
Plecoptera (stoneflies)			*********				
Acroneuria	0				•	2	6.0
Agnetina	2						
Amphinemura	m						
Isaperla	7	00	3.8	15	7.1	1	4.0
Leuctra	0	m	1.3	7	1.0	9	2.6
Malirekus	7	-	0.4		•		
Paracapnia	Ħ		***************************************		••••••	4	1.7
Pteronarcys	0		•	7	1.0		
Sweltsa	0	ø	2.5	m	1.4	m	1.3
Taenioptenyx	7	7	8.0				
Tallaperla	0	-	0.4				
Trichoptera (caddisflies)			**************************************				
Agopetus	0						
Apatania	т	9	2.5	ın	2.4		
Brachycentrus	П		***************************************		***************************************		
Cheumatopsyche	9		•	m	1.4	m	1.3
Diplectrona	0		******			27	11.5
Dolophilodes	0			7	1.0		
Glossosoma	0				*******		
Hydropsyche	'n	m	1.3	Ω.	2.4	Ħ	0.4
Lepidostoma	+		••••	<b>H</b>	0.5	10	4.3
Microsema	7		•••••				
Neophylax	m	7	9.0		•		
Nyctiophylax	'n		*********		*******		
Parapsyche	0				***********		
Polycentropus	9			-	0.5		
Rhyacophila	1	14	5,9	œ	3.8	10	4.3
Tricladida (flat worms)	6		•				
	-		•		•		
Total	_	237	100.0	210	100.0	235	100.0



Table 3. Continued.

			Indian Run Stations	Stations		Dimmick M	Dimmick Meadow Brook
	Tolerance		NIR-1	~	NIR-2	Referenc	Reference Station
Taxon	Value <sup>2</sup>	No.	Percent	Š.	Percent	No.	Percent
Metrics <sup>3</sup>							
Taxa Richness			25		24		28
Modified EPT Index			13		10		14
Modified Hilsenhoff Index	if Index		4.5		4.4	7	2.6
Percent Dominant Taxon	Taxon		43.5	•	46.7	77	28.9
Percent Modified Mayflies	Aayflies		16.9		9.5	m	33.2
			•		•		

<sup>1</sup> 200-specimen subsample

<sup>2</sup> Modified Hilsenhoff Index tolerance values (PADEP)

<sup>3</sup> Source: PADEP's Water Quality Antidegradation Implementation Guidance (29 November 2003)



Table 4. Metric Scoring: seven candidate stations in Swiftwater Creek and Indian Run versus one reference station in Dimmick Meadow Brook (macroinvertebrate samples collected 6-7 November 2017).

Metric	Candidate Station	Reference Station	Comparison	Candidate Station Score
a. Candidate Station: NSC-1 versus NDMB		•		
Taxa Richness	26	28	92.9	8
Modified EPT Index	11	14	78.6	7
Modified Hilsenhoff Index	5.0	2.6	2.4	0
Percent Dominant Taxon	50.3	28.9	21.4	1
Percent Modified Mayflies	8.7	33.2	24.5	4
Total Score				20
Percent of Reference				50.0
Qualification as an EV Stream				No
o. Candidate Station: NSC-2 versus NDMB				
Taxa Richness	34	28	121.4	8
Modified EPT Index	21	14	150.0	8
Modified Hilsenhoff Index	3.6	2.6	1.0	4
Percent Dominant Taxon	21.0	28.9	-7.9	8
Percent Modified Mayflies	11.8	33.2	21.4	5
Total Score				33
Percent of Reference				82.5
Qualification as an EV Stream				No
:. Candidate Station: NSC-3 versus NDMB				
Taxa Richness	25	28	89.3	8
Modified EPT Index	13	14	92.9	8
Modified Hilsenhoff Index	4.5	2.6	1.9	0
Percent Dominant Taxon	55.7	28.9	26.8	Ō
Percent Modified Mayflies	9.7	33.2	23.5	5
Total Score				21
Percent of Reference				52.5
Qualification as an EV Stream				No



Table 4. Continued

Metric	Candidate Station	Reference Station	Comparison	Candidate Station Score
l. Candidate Station: NSC-4 versus NDMB				-
Taxa Richness	31	28	110.7	8
Modified EPT Index	19	14	135.7	8
Modified Hilsenhoff Index	3.8	2.6	1.2	2
Percent Dominant Taxon	47.9	28.9	19.0	2
Percent Modified Mayflies	23.5	33.2	9.7	8
Total Score				28
Percent of Reference				70.0
Qualification as an EV Stream				No
. Candidate Station: NSC-5 versus NDMB				
Taxa Richness	25	28	89.3	8
Modified EPT Index	12	14	85.7	8
Modified Hilsenhoff Index	4.9	2.6	2.3	0
Percent Dominant Taxon	62.9	28.9	34.0	0
Percent Modified Mayflies	6.1	33.2	27.1	4
Total Score				20
Percent of Reference				50.0
Qualification as an EV Stream				No
Candidate Station: NIR-1 versus NDMB				
Taxa Richness	25	28	89.3	8
Modified EPT Index	13	14	92.9	8
Modified Hilsenhoff Index	4.5	2.6	1.9	0
Percent Dominant Taxon	43.5	28.9	14.6	5
Percent Modified Mayflies	16.9	33.2	16.3	6
Total Score				27
Percent of Reference				67.5
Qualification as an EV Stream				No



Table 4. Continued

Metric	Candidate Station	Reference Station	Comparison	Candidate Station Score
g. Candidate Station: NIR-2 versus NDMB				
Taxa Richness	24	28	85.7	8
Modified EPT Index	10	14	71.4	5
Modified Hilsenhoff Index	4.4	2.6	1.8	0
Percent Dominant Taxon	46.7	28.9	17.8	3
Percent Modified Mayflies	9.5	33.2	23.7	5
Total Score				21
Percent of Reference				52.5
Qualification as an EV Stream				No

# Exhibit D

## MANKO | GOLD | KATCHER | FOX LLP

#### AN ENVIRONMENTAL AND ENERGY LAW PRACTICE

Jonathan E. Rinde 484-430-2325 jrinde@mankogold.com

Admitted in PA and NJ

July 31, 2017

**401 CITY AVENUE, SUITE 901** BALA CYNWYD, PA 19004 TEL: 484-430-5700 FAX: 484-430-5711 WWW.MANKOGOLD.CDM

> PHILADELPHIA, PA \*CHERRY HILL, NJ WILLIAMSPORT, PA by appointment only

\*Partner responsible -- Bruce S. Katcher

Via Overnight Mail and Electronic Mail Mark Brickner Water Quality Division Bureau of Clean Water Pennsylvania Department of Environmental Protection 11<sup>th</sup> Floor Rachel Carson State Office Building P.O. Box 8774 Harrisburg, PA 17105-8774 mbrickner@pa.gov

Re:

Comments on Pennsylvania Department of Environmental Protection's Draft Stream Redesignation Evaluation Report for Tunkhannock Creek

Dear Mr. Brickner:

Tunkhannock Township, Tobyhanna Township, Pocono Raceway, and Blue Ridge Real Estate Company, Inc. (the "Commenters"), through their undersigned counsel, submit the following comments on the Pennsylvania Department of Environmental Protection's ("PADEP" or the "Department") draft Stream Redesignation Evaluation Report for the Tunkhannock Creek basin (the "Report"),

The findings in the Report are not supported by good science or by PADEP's antidegradation regulations. PADEP compiled an insufficient amount of data to support a redesignation of the Tunkhannock Creek basin to Exceptional Value ("EV"). PADEP's own biological data also argues against a designation of EV for much of the watershed, which biological data is supported by additional data compiled by the Commenters' third-party consultant, Normandeau Associates, who provided a more comprehensive data set, which demonstrates that portions of the basin do not meet the necessary biological score to support a redesignation to EV. PADEP's data also fails to account for certain third-party activities that are artificially enhancing the quality of the stream. Furthermore, PADEP has inappropriately applied a number of EV qualifiers to segments of the stream that do not meet the requisite High Quality ("HO") biological score. Finally, PADEP has mischaracterized the Bethlehem Authority as a local government and has misapplied the "outstanding local resource water" qualifier to various properties that are not even owned by the Bethlehem Authority.

In addition to the lack of scientific support of the Report, a redesignation of the Tunkhannock Creek basin to EV will place considerable financial hardships on the Commenters. The financial hardships will take the form of increased costs in engineering, construction, and operation costs. The municipalities will also feel these impacts through gradual downward pressure on tax growth.

Given the significant consequences of redesignating the Tunkhannock Creek basin as EV and the lack of scientific support to do so, the Commenters request that PADEP do not reclassify the Tunkhannock Creek basin as EV and instead reclassify the water as CWF. In addition, we understand that PADEP currently considers the existing use of the Tunkhannock Creek basin as EV and accordingly evaluates permit applications against that standard. For the same reasons set forth herein, we request that PADEP rescind its existing use classification.

#### I. BACKGROUND

#### A. Commenters

Over 90% of the Tunkhannock Creek basin is located in Tunkhannock Township, and a portion of the northern part of the basin is located in Tobyhanna Township. Currently, 72% of Tunkhannock Township is open space, which is the highest percentage of any municipality in the Commonwealth. For the majority of that open space, approximately 15,000 acres, Tunkhannock Township receives a mere \$6,950 annually in lieu of taxes. Tunkhannock Township relies on the remaining 28% of its geographic area as its tax base. PADEP's proposed reclassification would create a significant financial hardship on residents of these townships in a variety of ways, such as increased taxes, failing on-lot septic systems, and diminished opportunities for future development. Businesses holding real estate in these townships will also bear higher operating costs. All of these factors will greatly diminish the potential for future tax growth for the municipalities.

Pocono Raceway is the largest taxpayer and employer in Tunkhannock Township. It is a family-owned business and generates millions of dollars a year in revenue and hundreds of thousands of dollars a year in state tax revenue. In 2010, Pocono Raceway self-funded a 25-acre solar farm, consisting entirely of U.S.-manufactured solar panels. Pocono Raceway has also set a goal of 75% waste diversion by 2018.

Blue Ridge Real Estate Company, Inc. is one of the largest landowners in the Tunkhannock Creek basin and owns a majority of the land along the lower stretches of Tunkhannock Creek. PADEP's proposed redesignation threatens to impose significant burdens on the potential development of hundreds of acres of Blue Ridge Real Estate Company, Inc.'s land.

<sup>&</sup>lt;sup>1</sup> Pocono Raceway recently released its 2017 Sustainability Report. See http://cdn.poconoraceway.com/wp-content/uploads/2011/03/GIN\_PoconoSustainabilityReport\_v11.pdf.

#### B. <u>History of Tunkhannock Creek Designations</u>

The Tunkhannock Creek basin is currently designated High Quality – Cold Water Fishes, Migratory Fishes ("HQ-CWF, MF"). 25 Pa. Code § 93.9d. On February 26, 1972, the entire Tunkhannock Creek basin was designated as Cold Water Fishes ("CWF") and as a Conservation Area. 2 Pa. B. 341. On March 4, 1978, most of the conservation areas statewide, including the Tunkhannock Creek basin, were converted to High Quality – Cold Water Fishes ("HQ-CWF") without any further study or investigation. 9 Pa. B. 3051. On May 16, 2009, the basin-wide Migratory Fishes (MF) designation was added to the Atlantic slope basin, including the Tunkhannock Creek basin. 39 Pa. B. 2523. The Tunkhannock Creek basin has been designated HQ since 1978.

On March 2, 2005, the Environmental Quality Board ("EQB") received and accepted a petition filed by the Tobyhanna Creek/Tunkhannock Creek Watershed Association and the Tunkhanna Fishing Association, which requested that PADEP initiate a study of the Tunkhannock Creek basin to determine whether a redesignation to EV is appropriate. In response, PADEP conducted field surveys in April 2012 and subsequently issued the Report, dated 2016. See Report, attached hereto as Exhibit A. The Commenters received copies of the report in early 2017. PADEP is accepting comments on the Report through August 1, 2017.

#### C. Legal Framework

PADEP's antidegradation regulations protect two types of instream uses – existing uses and designated uses. Existing uses are those uses actually attained in the water body on or after November 28, 1975. 25 Pa. Code § 93.1. Designated uses are those uses identified in PADEP's regulations for each water body or segment regardless of whether they are being attained. 25 Pa. Code § 93.1. PADEP is required to protect both existing uses and designated uses, so if the existing use and the designated use are not the same, PADEP is required to protect the more restrictive of the two in its permitting decision. The most restrictive types of uses are High Quality ("HQ") and Exceptional Value ("EV").

While the water quality of both HQ and EV waters must be protected, an important exception applies to HQ waters. For point source discharges to HQ waters, PADEP may allow a reduction of water quality if it finds that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. 25 Pa. Code § 93.4c(b)(1)(iii). This significant exception, however, is not available for EV waters. Classifying a stream as EV also has the effect of classifying all wetlands in the floodplain of the stream as EV, and those EV wetlands then also receive special protection. Ford crossings, utility line stream crossings, minor and temporary road stream crossings, and new docks and boat ramps in EV streams must all obtain individual state permits, whereas in HQ streams only a general state permit would be required.

Surface waters may qualify as HQ if they meet either certain chemical or certain biological standards. To qualify *chemically* as HQ, the surface water must have at least 1 year of data that exceeds levels necessary to support the propagation of fish, shellfish and wildlife and recreation in and on the water by exceeding the water quality criteria in 25 Pa. Code § 93.7, Table 3 or otherwise authorized by 25 Pa. Code § 93.8a(b), at least 99% of the time for twelve separate parameters, such as temperature and pH.<sup>2</sup> 25 Pa. Code § 93.4b(a)(1). To qualify biologically as HQ, the surface water must either: (a) achieve an integrated benthic macroinvertebrate score of at least 83% based on Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish, Plafkin, et al., (EPA/444/4-89-001), as updated and amended, by comparing the surface water to a reference stream or watershed; or (b) have been designated a Class A wild trout stream by the Fish and Boat Commission following public notice and comment. 25 Pa. Code § 93.4b(a)(2).

A surface water may qualify as EV if it either: (a) is a "surface water of exceptional ecological significance," or (b) meets the requirements of an HQ surface water and at least one of the following:

- (i) The water is located in a National wildlife refuge or a State game propagation and protection area.
- (ii) The water is located in a designated State park natural area or State forest natural area, National natural landmark, Federal or State wild river, Federal wilderness area or National recreational area.
- (iii) The water is an outstanding National, State, regional or local resource water.
- (iv) The water is a surface water of exceptional recreational significance.
- (v) The water achieves a score of at least 92% (or its equivalent) using the methods and procedures described in subsection (a)(2)(i)(A) or (B).
- (vi) The water is designated as a "wilderness trout stream" by the Fish and Boat Commission following public notice and comment.

25 Pa. Code § 93.4b(b) (emphasis added).

<sup>&</sup>lt;sup>2</sup> The full list of parameters includes: dissolved oxygen, aluminum, iron, dissolved nickel, dissolved copper, dissolved cadmium, temperature, pH, dissolved arsenic, ammonia nitrogen, dissolved lead, and dissolved zinc. 25 Pa. Code § 93.4b(a)(1).

### II. PADEP LACKS SCIENTIFIC AND LEGAL SUPPORT FOR THE EV OUALIFIERS IT CITED TO SUPPORT PROPOSED REDESIGNATION

PADEP's Report recommends the following redesignations to EV, MF, for the reasons stated:

- Tunkhannock Creek mainstem from UNT 04393 to mouth exceeds an integrated benthic macroinvertebrate score of 92% under 25 Pa. Code § 93.4b(b)(1)(v); and
- Tunkhannock Creek basin, from the source to and including UNT 04393, UNT 04392 and UNT 04391 qualifies as a surface water of exceptional ecological significance under 25 Pa. Code § 93.4b(b)(2);
- UNT 04388 from the source to State Game Land 129 border qualifies as an outstanding State resource water under 25 Pa. Code § 93.4b(b)(1)(iii).

The Report also finds that the following qualify as EV, for the reasons stated:<sup>3</sup>

- Tunkhannock Creek basin from the source to UNT 04398 exceeds and integrated benthic macroinvertebrate score of 92% under 25 Pa. Code § 93.4b(b)(1)(v); and
- Tunkhannock Creck basin from the source to UNT 04391 qualifies as an outstanding local resource water under 25 Pa. Code § 93.4b(b)(1)(iii).

For the reasons explained below, these recommendations and findings are not supported by sound science or by PADEP's antidegradation regulations.

## A. The Tunkhannock Creek Mainstem from UNT 04393 to Mouth Are Not Biologically Qualified Waters.

PADEP is recommending that the Tunkhannock Creek mainstem from UNT 04393 to the mouth be redesignated EV, MF because its exceeds an integrated benthic macroinvertebrate score of 92% under 25 Pa. Code § 93.4b(b)(1)(v). Most, if not all, of this segment of the stream, however, does not qualify as EV because significant stretches do not even meet an integrated benthic macroinvertebrate score of 83% required for HQ waters, let alone above the integrated benthic macroinvertebrate score of 92% required for EV waters, and because this stretch is being artificially enhanced by presumably unpermitted third-party activities.

<sup>&</sup>lt;sup>3</sup> It is unclear from the Report whether PADEP is relying upon these findings in support of its proposed redesignation. The Pennsylvania Fish and Boat Commission, in its April 13, 2017 comments on the Report, stated that PADEP's recommended change of designated use included only the first three changes identified, not also these two findings. In any event, neither the recommendations nor the findings adequately support the proposed redesignation.

The locations of PADEP's sampling stations do not accurately reflect the quality of the Tunkhannock Creek mainstem from UNT 04393 to the mouth. This 7.2-mile stretch of the mainstem is bounded by stations 2TC (58%) and 6TC (100%), with only station 4TC (93%) between them.

First, the mainstem near the UNT 04393 confluence did not meet the 92% threshold for EV. Stations 2TC and 3UNT are located just upstream of the UNT 04393 confluence, and according to PADEP's own data, they achieved integrated benthic macroinvertebrate scores of 58% and 20%, respectively. These scores do not even meet with 83% threshold for HQ, let alone the 92% threshold for EV.

Second, station 4TC is inadequate to serve as a marker for such an expansive stretch of the stream. PADEP's Water Quality Antidegradation Implementation Guidance (2003) states that stations should be placed "along the mainstern every 2-3 miles, or at closer intervals if there is a noticeable change in stream flow, instream habitat, or riparian land use/land cover." Id. at 29. The distance between stations 2TC and 6TC is 7.4 miles, and therefore PADEP's Guidance would require at least two sample stations to be located between stations 2TC and 6TC. However, PADEP created only one sample station, station 4TC. At least one additional sample station should have been placed between stations 2TC and 6TC. Furthermore, station 4TC's location does not account for a number of factors that impact this segment of the stream. Station 4TC is located upstream of Route 115 and upstream of a tributary that flows from Pocono Raceway. Station 4TC is also located downstream of a well-known location where the Tunkhanna Fishing Association, one of the parties that submitted the 2005 petition, deposits lime several times a year into the stream to increase pH levels in the stream, thereby artificially increasing the water quality of the stream. Liming is also believed to occur at a point between station 4TC and the tributary that flows from Pocono Raceway. A map depicting the locations of the observed liming is attached hereto as Exhibit B, and photographs of the observed liming are attached hereto as Exhibit C. Station 4TC's score of 93% therefore does not capture any impacts from downstream discharges and, to the contrary, is artificially inflated due to the liming that occurs upstream.

Third, station 5UNT, which is located on UNT 04388, just upstream of UNT 04388's confluence with the mainstem, achieved an integrated benthic macroinvertebrate score of only 78%, which does not even meet with 83% threshold for HQ, let alone the 92% threshold for EV. PADEP should not apply station 6TC's score upstream of the UNT 04388 confluence.

Counsel for the Commenters retained Normandeau Associates ("Normandeau") to conduct third-party macroinvertebrate sampling in June 2017 at various points along Tunkhannock Creek and at the location of reference station 2LBK using PADEP's methodology. Normandeau summarized its findings in a report, attached hereto as Exhibit D. As set forth in the Normandeau report, stations N-1, N-4TC, and N-2 tested by Normandeau in this reach of Tunkhannock Creek scored a 55%, 63%, and 70%, respectively. These results demonstrate that the stretch of the mainstem from the UNT 04393 confluence to at least a point downstream of the

UNT 04388 confluence does not meet an integrated benthic macroinvertebrate score of 92% to qualify the stream as EV, nor does it meet the score of 83% required to qualify the stream as HQ.

Normandeau's station N-2 was located about two miles upstream of station 6TC, where PADEP sampled in April 2012. Whereas Normandeau's station N-2 scored only 70% of comparability to reference, PADEP's station 6TC scored 100% of reference. Therefore, the limit of EV status falls somewhere in the stream segment between the two stations. Just how to determine how far upstream EV status should extend from station 2TC toward station N-2 is not clear. It might be reasoned that a noticeable change in steam physical conditions could be the boundary. But, the reason for the change in EV status-related macroinvertebrate community composition may be more subtle and not easily detected (e.g., change in water quality, decreased groundwater input to the stream channel, etc.). Absent an obvious visual cue, it would seem reasonable to assume that the boundary lies at a location approximately one-half of the distance between the stations.

Stream water temperature may affect the resident benthic macroinvertebrate community by restricting the numbers of pollution and other stressor-intolerant mayfly, stonefly, and caddisfly species that seem to favor shaded habitat in streams in which water temperature reflects the temperature regime of a trout stream (e.g., seldom rising above 21°C, or 70°F, even in July and August). Water temperature in certain segments of Tunkhannock Creek exceed 70°F for the summer months. Data recorded at the Long Pond Road Bridge near the Pocono Raceway by Prosser Laboratories, attached hereto as Exhibit E, indicate measurements of 78.6°F on 15 June 2017, 83.8°F on 22 June 2017, and 71.4°F on 7 July 2017. Measurements made by the consulting firm F. X. Browne on behalf of Tobyhanna Creek/Tunkhannock Creek Watershed Association upstream of Long Pond during the period 2002-2012, attached hereto as Exhibit F, ranged as high as 83°F in June 2012.

The Tunkhannock Creck mainstem from UNT 04393 to the mouth therefore does not qualify as EV, MF because most of it, if not all of it, does not exceed an integrated benthic macroinvertebrate score of 92% under 25 Pa. Code § 93.4b(b)(1)(v) and because this stretch is being artificially enhanced by presumed unpermitted third-party discharges of lime into the waterway.

B. The Tunkhannock Creek Basin from the Source to and Including UNT 04393, UNT 04392, and UNT 04391 Does Not Qualify as a Surface Water of Exceptional Ecological Significance.

PADEP is recommending that the Tunkhannock Creek basin, from the source to and including UNT 04393, UNT 04392 and UNT 04391 be redesignated EV, MF because those waters qualify as "surface waters of exceptional ecological significance" under 25 Pa. Code § 93.4b(b)(2). This finding is flawed because many of these areas do not constitute thermal springs or exceptional value wetlands and because stream conditions do not reflect those of a surface water of exceptional ecological significance.

A surface water of exceptional ecological significance is defined by PADEP as follows:

Surface water of exceptional ecological significance—A surface water which is important, unique or sensitive ecologically, but whose water quality as measured by traditional parameters (for example, chemical, physical or biological) may not be particularly high, or whose character cannot be adequately described by these parameters. These waters include:

- (i) Thermal springs.
- (ii) Wetlands which are exceptional value wetlands under § 105.17(1) (relating to wetlands).

25 Pa. Code § 93.1.

The only types of surface waters that may qualify as surface waters of exceptional ecological significance under the applicable regulations are thermal springs and exceptional value wetlands. 25 Pa. Code § 105.17(1). Elsewhere in its definitions, PADEP explicitly used qualifying language, such as the phrases "may include" and "includes, but is not limited to" to note that there were more examples than those mentioned. If PADEP intended the definition of surface water of exceptional ecological significance to contain a non-exclusive list, it would have used the phrases, "These waters may include," or "These waters include, but are not limited to." Instead, PADEP simply used the phrase, "These waters include," thereby providing an exclusive list. The Tunkhannock Creek mainstem from the confluence of UNT 04393 to the confluence of UNT 04391, as well as UNT 04393 and UNT 04392, do not qualify as surface waters of exceptional ecological significance because they do not include thermal springs nor exceptional value wetlands.

Furthermore, the information cited by PADEP does not support the finding that certain portions of the basin qualify as "surface waters of exceptional ecological significance." PADEP's Water Quality Antidegradation Implementation Guidance provides interpretations of the terms "important," "unique," and "sensitive": "Such aquatic systems may be considered 'important' if they occupy a position or perform a function critical to an ecosystem, 'unique' if they represent the only example or one of a very few examples of a particular type of aquatic

<sup>&</sup>lt;sup>1</sup> For example, "risk management" is defined as "[t]he process of evaluation and selection between alternative regulatory options. Risk management decisions may include consideration of risk assessment, analytical, socioeconomic and political factors." 25 Pa. Code § 93.1 (emphasis added). Another example is "toxic substance," which is defined as "[a] chemical or compound in sufficient quantity or concentration which is, or may become, harmful to human, animal or plant life. The term includes, but is not limited to, priority pollutants and those substances, which are identified in Tables 5 and 6. Additional toxic substances are also described in Chapter 16 Appendix A, Table 1A (relating to site-specific water quality criteria for toxic substances)." 25 Pa. Code § 93.1 (emphasis added).

system in the state, and 'sensitive' because they may be intolerant of chemical, physical, or hydraulic changes imposed by man." *See* PADEP's Water Quality Antidegradation Implementation Guidance, at 38 (2003).

Stream conditions do not reflect those of a surface water of exceptional ecological significance. First, the Report states that these waters are contained within the Fern Ridge Bog but then identifies that the Fern Ridge Bog contains only Acidic Shrub Swamp Natural Communities. See Report, Exhibit A, at 8. The presence of these communities alone is not sufficient to qualify these stretches as important, unique or sensitive ecologically.

Second, PADEP sampled benthic macroinvertebrates in Tunkhannock Creek (station 2TC) a short distance upstream of the confluence of UNT 04393 in April 2012. Station 2TC's score as determined by PADEP was quite low, at only 58% of comparability to reference, compared to the 92% comparability to reference stream score required for EV stream status using PADEP's integrated benthic macroinvertebrate scoring test. See 25 Pa. Code 93.4b(a)(2)(i)(A). PADEP also sampled macroinvertebrates at station 3UNT in UNT 04393 at the same time and this station's score was much lower (20% comparability to reference), confirming that UNT 04393 does not qualify as a surface water of exceptional ecological significance. PADEP's finding at station 2TC is supported by the results of Normandeau's macroinvertebrate sampling effort conducted in June 2017 at station N-1 in this stream segment, located only about one mile downstream of PADEP's station 2TC. See Exhibit D. Station N-1 scored 55% of reference. The scores recorded at these stations intuitively do not reflect a surface water of exceptional ecological significance.

Third, a small, approximately 3-foot high weir is located just upstream of Normandeau's station N-1. This weir is presumed to have been constructed by the U.S. Geological Survey to provide a relatively stable water surface for measurement of stream discharge because a gaging station is located in this impoundment. Impoundments will slow water flow, allowing it to warm in sunlight, thereby altering ecological conditions from that of a free-flowing stream. The presence of an impoundment does not suggest in-stream habitat conditions consistent with a surface water of exceptional ecological significance.

PADEP states in its Report that the Tunkhannock Creek reach extending from the source to and including UNT 04393, UNT 04392, and UNT 04391 should be redesignated EV because the Long Pond Macrosite Preserve (the Preserve) and Fern Ridge Bog, also known as Adams Swamp, are located in the Tunkhannock Creek watershed. PADEP indicates that the Monroe County Natural Heritage Inventory (The Nature Conservancy 1991, updated 1999) identifies these two areas as having "statewide or local ecological significance that is based on the rarity and uniqueness of the area's endemic ecological community types."

Whereas the Preserve encompasses a large part of mainstem Tunkhannock Creek upstream of UNT 04393, the lower part of this reach of Tunkhannock Creek, extending approximately 1.6 miles upstream of the UNT 04393 confluence, is not located within the

Preserve. It is uncertain if the Preserve's rare and unique ecological community types are present along Tunkhannock Creek immediately downstream. Therefore, this reach does not qualify as EV because it does not meet the requirements of a surface water of exceptional ecological significance.

Tunkhannock Creek extending downstream from the confluence of UNT 04393 to the confluence of UNT 04392 (a distance of approximately 0.5 mile) should not qualify as EV as a surface water of exceptional ecological significance because of Fern Ridge Bog (the Bog) because the Bog is located west of UNT 04392, 0.1 mile north of Tunkhannock Creek, and likely at higher elevation than Tunkhannock Creek. Due to the Bog's location, it is unlikely that Tunkhannock Creek affects it in any way.

The Tunkhannock Creek basin, from the source to and including UNT 04393, UNT 04392 and UNT 04391 therefore does not qualify as a "surface water of exceptional ecological significance" under 25 Pa. Code § 93.4b(b)(2). PADEP's finding to the contrary is flawed because these areas do not constitute thermal springs or exceptional value wetlands and because stream conditions do not reflect those of a surface water of exceptional ecological significance. Therefore, the Commenters request that PADEP clarify that it is not recommending to redesignate as EV, MF the Tunkhannock Creek mainstem between UNT 04393 and UNT 04391 as a surface water of exceptional ecological significance under 25 Pa. Code § 93.4b(b)(2).

## C. UNT 04388 from its Source to the State Game Land 129 Border Does Not Oualify as Outstanding State Resource Waters.

PADEP is recommending that UNT 04388 from the source to the State Game Land 129 border be redesignated EV, MF because it qualifies as an outstanding State resource waters under 25 Pa. Code § 93.4b(b)(1)(iii). Station 5UNT which is located on UNT 04388, downstream of the stretch of UNT 04388 that PADEP is proposing to redesignate, achieved a 78% integrated benthic macroinvertebrate score, which does not meet the 83% threshold that is a prerequisite to meeting the "outstanding State resource waters" qualifier. Therefore, UNT 04388 from the source to the State Game Land 129 border does not qualify as EV under 25 Pa. Code § 93.4b(b)(1)(iii).

## D. The Tunkhannock Creek Basin from the Source to UNT 04398 Have Not Been Adequately Tested in Accordance with PADEP's Guidance.

PADEP concluded in its Report that the "Tunkhannock Creek basin from the source to UNT 04398" exceeds an integrated benthic macroinvertebrate score of 92% under 25 Pa. Code §

<sup>&</sup>lt;sup>5</sup> As discussed in Section 1.B. above, although this tributary is currently designated HQ based on a series of broad rulemakings, it has never qualified as HQ under 25 Pa. Code § 93.4b. Furthermore, that provision requires that the water "meets the requirements of subsection (a)." It does not say "meets or has met." Therefore, even if the water had qualified as HQ in the past under 25 Pa. Code § 93.4b(a), that water must currently meet the requirements of 25 Pa. Code § 93.4b(a) before PADEP may apply the EV qualifiers listed at 25 Pa. Code §§ 93.4b(b)(1)(i)-(vi).

93.4b(b)(1)(v). This finding is flawed because PADEP failed to include a sufficient number of sample stations in its study.

PADEP's Water Quality Antidegradation Implementation Guidance (2003) states that stations should be placed "along the mainstem every 2-3 miles, or at closer intervals if there is a noticeable change in stream flow, instream habitat, or riparian land use/land cover." *Id.* at 29. The distance between station 1TC and the source is 6.8 miles, and therefore at least one additional sample station should have been placed between station 1TC and the source. Therefore, it is inappropriate for PADEP to apply station 1TC's score all the way to the source.

## E. The Tunkhannock Creek Basin from the Source to UNT 04391 Does Not Qualify as an "Outstanding Local Resource Water."

PADEP concluded in its Report that the Tunkhannock Creek basin from the source to UNT 04391 also qualifies as an outstanding local resource water under 25 Pa. Code § 93.4b(b)(1)(iii). This finding is flawed because PADEP has inappropriately characterized the Bethlehem Authority as a local government and further has misapplied the "outstanding local resource water" qualifier to various properties that are not owned by the Bethlehem Authority.

An "outstanding National, State, regional or local resource water" is defined as a "surface water for which a National or State government agency has adopted water quality protective measures in a resource management plan, or regional or local governments have adopted coordinated water quality protective measures along a watershed corridor." 25 Pa. Code § 93.1 (emphasis added). "Coordinated water quality protective measures" are "[I]egally binding sound land use water quality protective measures coupled with an interest in real estate which expressly provide long-term water quality protection of a watershed corridor." 25 Pa. Code § 93.1. "Sound land use water quality protective measures" include: "surface or groundwater source protection zones, enhanced stormwater management measures, wetland protection zones or other measures which provide extraordinary water quality protection." 25 Pa. Code § 93.1. "Real estate interests" include: fee interests, conservation easements, government owned riparian parks or natural areas, and other interests in land which enhance water quality in a watershed corridor area. 25 Pa. Code § 93.1.

PADEP indicated in its Report that the Bethlehem Authority has entered into a conservation easement with The Nature Conservancy that requires implementation of the Wild Creek & Tunkhannock Creek Forest Management Plan ("FMP") on Bethlehem Authority properties. The FMP requires that the land be managed in accordance with the Forest Stewardship Council ("FSC") US 2010 National Standards. The FSC US 2010 National Standards set Streamside Management Zones in which certain management practices must be followed to protect water quality, fish, and other aquatic resources. PADEP made a finding in the Report that stream segments along which the Bethlehem Authority properties are subject to the FMP constitute "outstanding local resource waters."

First, the Bethlehem Authority is not a "local government" under 25 Pa. Code § 93.1. The Bethlehem Authority is a municipal authority that owns a water system that serves the City of Bethlehem, two boroughs, and seven municipalities. It does not serve Tunkhannock Township or Tobyhanna Township. As part of its water system, the Bethlehem Authority privately owns approximately 40% of the land in Tunkhannock Township. The Bethlehem Authority exploits its privately-owned land for financial gain by harvesting timber and receiving over \$100,000 annually in greenhouse gas emission reduction benefits ("ERBs"). In exchange for these financial gains, the Bethlehem Authority pays a mere \$1,157.92 a year to Tunkhannock Township in lieu of taxes. A municipal authority, particularly one that privately owns land in a different municipality than the one that created it and the one that it serves, and one that exploits that land for private financial gain, is not a "local government" under 25 Pa. Code § 93.1.

PADEP has never found that actions taken by a water authority constitute "coordinated water quality protective measures." In a recent draft Stream Redesignation Evaluation Report for Sobers Run, dated February 2016, PADEP relied on conservation easements to support a finding that certain stretches of the stream were "outstanding National, State, regional or local resource waters," but the owners of the conservation easements were Bushkill Township and Northampton County – actual local or regional governments as required by the regulations. See Exhibit G.

Second, PADEP inappropriately applied the "outstanding local resource water" qualifier to various stretches of Tunkhannock Creek that do not meet the requisite 83% integrated benthic macroinvertebrate score. For a stream to qualify as EV based on the "outstanding local resource water" qualifier, the stream must at least qualify as HQ, meaning that in this case it must have achieved an integrated benthic macroinvertebrate score of at least 83%. See 25 Pa. Code §§ 93.4b(b), 93.4b(a)(2)(i). PADEP's data indicate that station 3UNT scored a 20%, and therefore UNT 04393 does not qualify as EV based on the "outstanding local resource water" qualifier. See Exhibit H. Likewise, PADEP's data indicate that station 2TC scored a 58%, and therefore the Tunkhannock Creek mainstream from at least UNT 04398 to at least UNT 04393 does not qualify as EV based on the "outstanding local resource water" qualifier. See Exhibit H. Furthermore, given that the integrated benthic macroinvertebrate scores for stations 1TC and 4TC lack scientific integrity for the reasons explained in Section II.B above, the remainder of the mainstem that PADEP has marked as "EV-Outstanding Local Resource Waters" in Figure 1 of the Report does not qualify as an "outstanding local resource water."

Third, PADEP inappropriately applied the "outstanding local resource water" qualifier to property not owned by the Bethlehem Authority. In Figure 1 of the Report, PADEP identified various stretches of the stream as "EV-Outstanding Local Resource Waters" that are located on property not even owned by the Bethlehem Authority and which are therefore could not be covered by easements granted by the Bethlehem Authority to The Nature Conservancy. See

Exhibit I. The conservation easement, dated April 14, 2011, is attached hereto as Exhibit J.<sup>6</sup> Exhibit A of the casement contains a map of the Bethlehem Authority parcels that are subject to the casement. These stretches of the stream not located on Bethlehem Authority property do not qualify as "outstanding local resource waters." For example, the stretch of the mainstem downstream of 2TC that is identified as "EV-Outstanding Local Resource Waters" in Figure 1 of the Report does not qualify as an "outstanding local resource water" because the two properties that encompass UNT 04391 and UNT 04392 are not owned by the Bethlehem Authority and are therefore are not covered by the easement granted by the Bethlehem Authority to The Nature Conservancy. The map in Exhibit A of the conservation easement shows that these properties are not subject to the easement. Based on a map created by The Nature Conservancy that Barbara Smith provided to Josh Lookenbill at PADEP, attached as Exhibit K, the property that encompasses UNT 04391 is owned by The Nature Conservancy, and the property that encompasses UNT 04392 is owned by the Wildlands Conservancy. PADEP incorrectly assumed that these properties are owned by the Bethlehem Authority and are subject to the casement that the Bethlehem Authority granted to The Nature Conservancy.

PADEP's finding of an "outstanding local resource water" is flawed because PADEP has inappropriately characterized the Bethlehem Authority as a local government and further has misapplied the "outstanding local resource water" qualifier to various properties that are not owned by the Bethlehem Authority. PADEP therefore lacks the authority to seek a redesignation of the stream based on the "outstanding local resource water" qualifier.

## III. PADEP'S EXISTING USE FINDING IS PREMATURE AND UNSUPPORTED BY SCIENCE AND LAW.

In addition to the findings in the Report, PADEP has already started applying some of the conclusions in its Report to find that the "existing use" of certain portions of the stream is EV. PADEP has issued a memorandum, attached hereto as Exhibit L, in which it stated that the existing use of the Tunkhannock Creek basin from the source to and including UNT 04398 and the Tunkhannock Creek mainstem from UNT 04393 to the mouth is EV, based solely on PADEP's integrated benthic macroinvertebrate scoring. As set forth above, the data that PADEP and Normandeau collected demonstrate that PADEP's existing use classification is based on insufficient science, does not comply with PADEP's antidegradation regulations, and are contrary to the recently collected data. Therefore, the Commenters request that the existing use of Tunkhannock Creek be revised to CWF, which the data supports.

PADEP maintains a list of surface waters that PADEP has classified as having an existing use that is more protective than its designated use. PADEP uses this list when reviewing

<sup>&</sup>lt;sup>6</sup> The conservation easement was not provided in response to a Right-to-Know request, so it appears that PADEP did not review the conservation easement prior to issuing the Report.

<sup>&</sup>lt;sup>7</sup> See PADEP, Existing Use Classification (rev. Apr. 26, 2017), at http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Existing%20Use/EU%20table%20list.pdf.

permits and requests for authorizations, even before PADEP has initiated a change in the designated use through a proposed rulemaking before the EQB. See 25 Pa. Code 93.4c(a)(1). Tunkhannock Creek is on this list. PADEP's "Existing Use Classification" currently states that, based on an evaluation dated December 5, 2016, the existing use of the following segments of Tunkhannock Creek are EV: (1) basin from the source to and including UNT 04398; and (2) mainstem from UNT 04393 to the mouth. According to a PADEP memorandum, dated December 5, 2016, PADEP appears to have based its existing use classification solely on the benthic macroinvertebrate scores for stations 1TC (98%), 4TC (93%), and 6TC (100%). See Exhibit L.

PADEP's "existing use" classification was technically flawed in the same way as its proposed redesignation is technically flawed. First, PADEP based the existing use classification of the basin from the source to and including UNT 04398 as EV on station 1TC's biological score of 98%. For the reasons explained in Section II.D of these comments, however, PADEP failed to include a sufficient number of sample stations in its study. Second, for the reasons explained in Section II.A of these comments, the Tunkhannock Creek mainstem from UNT 04393 to the mouth does not qualify as EV because significant stretches do not meet an integrated benthic macroinvertebrate score of 92% and because this stretch is being artificially enhanced by unpermitted third-party activities. Normandeau's sampling confirms that the middle reach of the mainstem does not meet an integrated benthic macroinvertebrate score of 92%.

The Commenters request that PADEP remove Tunkhannock Creek from the "Existing Use Classification" list. Classifying nearly the entire Tunkhannock Creek with an existing use of EV currently affects all landowners in the basin, most of which have no notice of this existing use classification or of the significant effects that such a classification could have on the use of their property. For example, PennDOT recently received a deficiency letter from the Monroe County Conservation District for PennDOT's Route 115 widening project. See Exhibit M. The letter asks PennDOT to revise an application to account for the Tunkhannock Creek mainstem having an existing use of EV, which for the reasons set forth above is improper.

For these reasons, the Commenters request that PADEP rescind its existing use classification for Tunkhannock Creek listed in PADEP's "Existing Use Classification."

<sup>8</sup> PADEP has not had a surface water redesignated since 2010, but its list of existing uses is 18 pages long and contains approximately 250-300 different streams segments.

<sup>&</sup>lt;sup>9</sup> Also, in the Report PADEP did not recommend a redesignation of the basin from the source to and including UNT 04398 based on 1TC's biological score and instead relied on the "surface waters of exceptional ecological significance" qualifier to support a redesignation. If station 1TC's biological score was not sufficient to support a designated use of EV, then PADEP should not have found that station 1TC's biological score was sufficient to support an existing use of EV.

#### IV. CONCLUSION

For the reasons set forth above, the Commenters request that PADEP withdraw the draft Report. The findings in the draft Report are not supported by sound science or by PADEP's antidegradation regulations. PADEP compiled an insufficient amount of data to support a redesignation of the Tunkhannock Creek basin to EV. This data also fails to account for certain third-party activities that are artificially enhancing the quality of the stream. Additional data compiled by the consultant to counsel for the Commenters support PADEP's own data that large portions of the basin do not meet the necessary biological score to support a designation of HQ, let alone a redesignation to EV. PADEP has also inappropriately applied a number of EV qualifiers to segments of the stream that do not meet the requisite HQ biological score. Finally, PADEP has mischaracterized the Bethlehem Authority as a local government and has misapplied the "outstanding local resource water" qualifier to various properties that are not even owned by the Bethlehem Authority.

For these reasons, the Commenters request that PADEP withdraw the draft Report and conclude that their data supports a finding of Cold Water Fishes as both the existing and designated use for the Tunkhannock Creek basin. We continue to be available to PADEP if further discussion on this topic is necessary.

Respectfully submitted.

Jonathan E. Rinde

For MANKO, GOLD, KATCHER & FOX, LLP

Enclosures

cc Individually the Commenters
Secretary Patrick McDonnell
The Honorable Senator Mario Scavello

## Exhibits A – M of the Tunkhannock Creek comments can be found at the following link:

https://mankogold.sharefile.com/d-sc8d24fb9c974bd9b