

January 10, 2023

Mr. Richard Watson
Project Manager
PennEnergy Resources, LLC
600 Cranberry Woods Drive, Suite 250
Cranberry Township, PA 16066

RE: PennEnergy Resources, LLC
Water Management Plan Amendment Application: Big Sewickley Creek

Dear Mr. Watson,

The Department has reviewed PennEnergy's October 12, 2022 Water Management Plan Amendment Application ("WMP Application") response to the Department's August 24, 2022 deficiency comments. The Department has identified the following outstanding deficiencies which should be included/addressed in the resubmittal of this WMP Application.

- 1) The Withdrawal Impact Analysis states that the intake will float on the surface of the stream and will only collect water from the top of the water column. The proposed Megator, 6 inch dolphin strainer manufacturer's specifications list the intake to be 19 inches tall. The current intake cross-section shows the normal pool depth as approximately 48 inches. The max pool depth within the Stream Survey Data Collection Form ("Data Collection Form") for Big Sewickley Creek (Stream 3) was delineated as 36 inches. Within the same Data Collection Form the wetted width is only listed as 4 to 12 inches. The data as presented is inconsistent. Please address the following comments in order to justify that the intake will remain floating and not cause disturbance to the stream bed. 25 Pa. Code §105.13 (e)(1); §105.14 (b) & (c); § 78a.69 (b) (2); § 78a.69 (c) (6)
 - a. Provide the surveyed ground (stream bed bottom) elevation of Big Sewickley Creek at the proposed withdrawal location.
 - b. Provide a justification that the delineated max pool depth is an adequate representative of the normal pool depth of Big Sewickley Creek. The actual normal pool depth should be reflected.
 - c. In addition to the normal pool depth, update Cross-section A-A to show the water elevations associated with the required flow rates (i.e. 8.8 and 13.1 cfs) for the full withdrawal rate to occur.
 - d. Show the actual dimensions of the dolphin intake(s) that will be utilized during withdrawals.
 - e. Document that the water elevations at various flows is of sufficient depth for a withdrawal to occur without stream bed disturbance. Specifically, the location of the

intake structure, normal pool depth at that location, 30 % average daily flow pass by, 50% average daily flow pass by, and the depth of the intake structure should be evaluated so that stream bed disturbance is minimized. It is suggested that the PA Fish and Boat Commission's Recommendations Surface Water Intake Design Criteria to Reduce Aquatic Species Impacts be followed as it relates to habitat selection.

- f. Provide a stream profile through each of the seven (7) intake structure locations clearly depicting that each individual intake structure is suspended at a sufficient depth for a withdrawal to occur and that no streambed impacts will occur.

The PA Fish and Boat Commission (PBFC) also noted the inconsistencies in pool levels on September 27, 2022, when water levels present at the withdrawal location were stated to only be six inches; that the cross-section of Big Sewickley is changing, and that there may be times that the proposed floating intake exceeds the depth of water of Big Sewickley Creek. Please evaluate the notations of the PBFC in your analysis and when updating the Operations Plan intake profile.

- 2) Provide the cross-section velocity and depth data for the ten days of measurements that were collected while calibrating the upstream gage. 25 Pa. Code §105.13 (e); § 78a.69 (e) (2)
- 3) Comment No. 6 of the August 24, 2022 WMP deficiency notice stated that evidence of the downstream staff gage calibrations be submitted. Provide all cross-section velocity and depth data, and discharge and staff data, that has been collected to date for the downstream gage. 25 Pa. Code § 78a.69 (e) (2)

All outstanding deficiencies must be submitted to the Department within sixty (60) calendar days from the date of this letter, on or before March 11, 2023, or Department will consider the WMP Application withdrawn.

Thank you.

Sincerely,



Samantha Lutz

Aquatic Biologist