

March 9, 2023

Ms. Samantha Lutz
Aquatic Biologist, District Oil and Gas Operations
Pennsylvania Department of Environmental Protection
Southwest Regional Office
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Dear Ms. Lutz:

Subject: Response to Technical Deficiency Comments
Joint Permit Application
DEP File No. E0407222-001; APS # 1058722
B50 Temporary Aboveground Waterline
Economy Borough, Beaver County, Pennsylvania
CEC Project 317-457

Civil & Environmental Consultants, Inc. (CEC), on behalf of PennEnergy Resources, LLC (PennEnergy), has prepared the following responses to comments on the Joint Permit Application (JPA) for the proposed B50 Temporary Aboveground Waterline Project located in Economy Borough, Beaver County, Pennsylvania. The comments were provided in a letter from the Pennsylvania Department of Environmental Protection (PADEP) dated January 10, 2023. In addition to the requested revisions, the proposed withdrawal location has been moved approximately 77 feet downstream.

Revised information and documents have been included in the revised permit package as indicated in the responses below.

To expedite review, PADEP's comments are provided in bold type followed by PennEnergy's response.

- 1) Module S1.A. states that the surface intake will be removed from the stream and floodway during inactive periods. The current condition of the stream bank of Big Sewickley Creek at the proposed withdrawal location is highly eroded. Explain how the stream bank will be protected during the installation and removal of the intake and/or outline the necessary measures that may be necessary to protect the stream bank including the identification of any necessary permits. The installation and removal of the intake should not cause an increase in sediment and or turbidity within Big Sewickley Creek. 25 Pa. Code §105.2; §105.14 (b) & (c); §105.46; §102.4**

RESPONSE: To protect the stream bank and surrounding area at Big Sewickley Creek during operations of the withdrawal, the installation, maintenance, and removal of the intakes will be done by hand. Once in place, the intakes will be anchored to a temporary t-post to minimize free movement and keep the intakes centered at the deepest pool.

Equipment above the stream will be kept at least 4 feet back from the top of bank. Modules S1 and S3 have been updated in the revised permit package.

- 2) **The narratives within Module S2.C, Module S3.D.2, and Module S3.D.3 outline that the proposed water withdrawal will be temporary in nature and will consist of a floating, screened, surface intake system, which will pull water from just below the surface, avoiding disturbance to the stream bottom. This is important, as any increase in sediment and turbidity within the watershed is a threat to aquatic life. 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 36 inches, which is reflective of the max pool depth of 36 inches listed within the Stream Survey Data Collection Form ("Data Collection Form") for Big Sewickley Creek (Stream 3). 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); §102.11(a)**

- a. **Provide the surveyed ground (stream bed bottom) elevation of Big Sewickley Creek at the proposed withdrawal location.**

RESPONSE: As noted above, the withdrawal location has been moved to a deeper pool of Big Sewickley Creek. The location was surveyed and Drawing JP01 was updated accordingly. The updated drawing is included in the revised permit package.

- 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.**

RESPONSE: The stream data form for Big Sewickley Creek was updated to include conditions at the new withdrawal location. The data form reports information for the entire stream reach that was reviewed as well as at the withdrawal location. As such, the wetted depth for the reach is listed as a range of 1 to 4 feet. The withdrawal is noted as having a maximum pool depth of 4 feet with substrate of cobble and gravel. The updated data form has been included in the revised permit package.

As discussed during the phone call with the PADEP on January 24, 2023, the PADEP stated that normal pool depth should be equal to the average daily flow (ADF) elevation. The normal pool depth has been calculated using the ADF elevation and added to Drawing JP01. The updated drawing is included in the revised permit package.

- c. In addition to the normal pool level, 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.**

RESPONSE: The water elevations associated with the required flow rates have been added to the cross-sections on Drawing JP01 as requested. The updated drawing is included in the revised permit package.

- d. Show the actual dimensions of the dolphin intake(s) that will be utilized during withdrawals.**

RESPONSE: The dolphin intakes have been shown at actual size on Drawing JP01. The updated drawing is included in the revised permit package.

- 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.**

RESPONSE: PennEnergy contacted the Pennsylvania Fish and Boat Commission (PFBC) on March 1, 2023, to discuss the proposed withdrawal, specifically the depths of the intake structures and the potential for streambed disturbance. Drawing JP01 was provided to the PFBC for review and approval on March 6, 2023. Mr. Jordan Allison of the PFBC responded in an email on March 9, 2023, and stated that even at the 30% passby flow (stream elevation of 787.50 feet), the proposed withdrawal should not impact the streambed because the withdrawal has been designed according to the PFBC's recommendations. At the 30% passby flow, the distance from the intake to the stream bottom will be between 1.7 feet and 1.4 feet. A copy of the email is included in the revised permit package.

- 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.**

RESPONSE: Cross-sections through each dolphin intake have been added to Drawing JP01 as requested, and the requested elevations are shown on each. The updated drawing is included in the revised permit package.

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.

RESPONSE: The proposed withdrawal location has been moved downstream to a deeper pool area. Low pool depths will coincide with low flow events. Water will not be withdrawn unless the minimum passby flow levels are present.

- 3) Module S1.B.1. and Module S3.F.1 within the JPA application states that the B50 well pad does not have a meaningful freshwater storage facility and therefore a withdrawal rate of 1.5 MGD at Big Sewickley Creek is needed to fully develop the B50 well pad. Within the November 4, 2022 JPA response, PennEnergy (PE) states that a trucking terminal with freshwater storage will be constructed a mile from the B50 well pad as a supplemental and contingency measure for well development on the B50 Well pad. PennEnergy proposes to utilize existing WMP sources and proposes to truck water to the facility.**

Section S3.F.3.4 of the alternative analysis fails to fully address the trucking terminal aspect now associated with the development of the B50 well pad.

As this proposed trucking terminal with freshwater storage may impact the volume of water proposed for withdrawal from Big Sewickley Creek, Penn Energy should revisit and revise its alternative analysis accordingly. In doing so, Penn Energy should consider the following 25 Pa. Code §105.13 (e)(I)(viii); §105.14 (a)

- a. PennEnergy proposes to utilize existing WMP Sources. These sources should be identified;**

RESPONSE: Water trucked to the terminal will come primarily from PennEnergy's Fritsch Farm Well Development Impoundment, which is sourced from PennEnergy's existing Ohio River Intake in Freedom, Pennsylvania. PennEnergy's other existing WMP sources have been identified in Section S3.F.3.4 of the alternatives analysis, as requested.

- b. The proposed storage capacity at the trucking facility should be identified to demonstrate that the trucking facility will be able to fully support the well development of the B50 well pad (either as a supplemental source or contingency source) if an adequate volume of water is not available at Big Sewickley Creek.; and**

RESPONSE: The trucking terminal will only be able to provide up to 1 million gallons of water per day but will average much less over the course of development. The alternatives analysis has been updated and is provided in the revised permit package.

- c. PennEnergy should provide an adequate justification of the total allocation necessary from Big Sewickley Creek. Please be sure that any revisions to the alternative analysis addresses whether the allocation from Big Sewickley Creek can be reduced with the operation of the trucking facility, as supplemental sources are proposed to be used.**

RESPONSE: The alternatives analysis has been updated as requested and is provided in the revised permit package.

- 4) The ESCGP-3 Permit drawings depict the waterline as a 12-inch above-ground waterline. Update all drawings to show where the high-density polyethylene (HDPE) and plastic lay flat sections of waterline will be installed. 25 Pa. Code §105.13 (e)(1) (i)**

RESPONSE: The ESCGP drawings have been updated as requested and are included in the revised permit package.

- 5) Because project plans have changed for the B50 Temporary Aboveground Waterline since the August 23, 2021, and August 05, 2022, letter from the PA Fish & Boat Commission (PFBC), please reinitiate consultation with PFBC and provide an updated PNDI clearance letter. Please ensure that correspondence from the PFBC addresses the recent PNDI Search ID #748039 (Date of Review: 10/10/2022), which was included in the ESCGP-3 application package. §105.14(b), 102.6(a)(2)**

RESPONSE: As requested, PennEnergy contacted the PFBC on December 29, 2022, about the proposed project changes and the recent PNDI Search ID #748039. The PFBC responded in an email dated January 3, 2023, that the PFBC has no additional comments or concerns based on the changes that have been made since August 23, 2021. Further, the PFBC stated that PNDI # 748039 did not generate a conflict with any PFBC protected species and has limited in-stream work. The PFBC concluded that as long as the associated water withdrawal is operated according to their recommendations outlined in SIR #56633, the PFBC does not have any concerns with the B50 TAWL project. A copy of the email is included in the revised permit package. In addition, since the water withdrawal location was moved downstream, the limit of disturbance (LOD) had to be adjusted. An updated PNDI receipt including the adjusted LOD is also included in the revised permit package. Since the PNDI receipt was updated, PennEnergy contacted the PFBC again on March 1, 2023, to discuss the updates to the project. The PFBC responded

in an email on March 9, 2023, stating that the PFBC has no additional concerns. A copy of this email has also been included in the revised permit package. PennEnergy will operate the withdrawal according to the PFBC's recommendations outlined in SIR #56633.

- 6) **Please revise the figures (i.e. Site Location Map, Resource Identification Map, Rapid Assessment Protocol Map, Site Plan, etc.) as necessary to reflect the changes in the Project Area. 105.13(e)(1), 105.13(g), 102.11(a)**

RESPONSE: The figures were updated with the expanded LOD. The updated figures are included in the revised permit package.

- 7) **Because the B50 Temporary Aboveground Waterline was amended to include additional ground-disturbing activity, please reinitiate consultation with PHMC as indicated in the letter dated February 3, 2022. §105.14(b)(5)**

RESPONSE: As requested, the Pennsylvania Historical and Museum Commission (PHMC) was contacted about the proposed additional ground-disturbing activity. The PHMC provided an updated clearance letter on February 7, 2023. The updated clearance letter is included in the revised permit package.

- 8) **In the Channel Flow Calculations and the Riprap Channel Design Data worksheet of the E&S Plan narrative, please reevaluate the flow depth above stone and the calculated shear stress for both sections of Channel 1. Please note that the method referenced on page 133 of the E&S Manual only considers void space in the bottom of riprap channels, and ignores side slopes of the channel. Please verify that the appropriate design method is used and ensure that the proposed protective channel linings will be adequate, and revise the application as necessary. 105.13(g), §102.4(b)(S)(viii), §102.11(a)**

RESPONSE: Channel 1 has been redesigned using a 1-foot bottom width. Void space was only considered in the bottom of the channel and the side slopes ignored. The calculations for Channel 1 and Riprap Apron 1 have been revised and are included in the Erosion and Sediment Control (E&S) Narrative and E&S Calculations, and Drawings 3, 7, and ES02 have been revised accordingly. The updated E&S Plan is included in the revised permit package.

- 9) **It appears that the area of "Existing Unpaved Roadway" in the vicinity of Big Sewickley Creek has different boundaries than previous sets of plan drawings. Please verify that the boundaries of "Existing Unpaved Roadway" provided on the current plan drawings are accurate, and provide an explanation for any changes to the "Existing Unpaved Roadway" boundaries compared to previously submitted plan drawings. 105.13(e)(1), 105.13(g), §102.11(a), §102.4(b)(5)(ix), §102.8(f)(9)**

RESPONSE: As previously stated, the limits of impervious areas shown on the plans were based on publicly available aerial imagery. In response to the Correction Notice dated December 23, 2022, a survey was performed by CEC on January 13, 2023, to verify the extents of impervious surfaces. The E&S drawings have been updated in accordance with the survey and are included in the revised permit package.

10) On Sheet 3 of the plan drawings, please evaluate the need for a rock filter before the outlet of Channel 1. 105.13(g), 102.11(a), §102.4(b)(5)(ix)

RESPONSE: A rock filter has been added prior to the outlet of the referenced channel. The rock filter detail has been added as Detail 17 on Sheet ES04 and a description has been added to the E&S Narrative. The updated documents are included in the revised permit package.

11) Please clearly identify any areas of tree removal within 100 feet of perennial or intermittent streams. Please clearly identify any measures for minimizing impacts to wooded areas within 100 feet of perennial or intermittent streams. If it is demonstrated that there are impacts to riparian forest buffers that are not practical to avoid for the proposed project, please evaluate the feasibility of restoration plantings of native tree species and/or shrubs in the impacted riparian forest buffers and revise the plan drawings to reflect restoration plantings to the extent practical. §105.1, §102.8(b)(1), (5), and (8); §102.8(f)(9)

RESPONSE: Three trees are proposed to be removed for the installation of the rock construction entrances on either side of Cooney Hollow Road. These trees have been called out on Sheet 3 of the E&S Plan. Outside of this area and the areas immediately adjacent to the temporary waterline between approximate Stations 2+00 and 4+00, clearing of trees greater than 6 inches diameter at breast height (dbh) within 100 feet of perennial or intermittent streams is not anticipated. Where clearing of trees greater than 6 inches dbh is necessary within 100 feet of perennial or intermittent streams (i.e., between approximate Stations 2+00 and 4+00), it will be limited to the extent possible. A note has been added to the plans between approximate Stations 2+00 and 4+00 indicating that tree clearing shall be limited to the extent possible within this area and all trees 6 inches dbh or larger shall be replaced at a 1:1 ratio. A detail for tree planting has been added as Detail 18 on Sheet ES04. The updated documents are included in the revised permit package.

12) Please reevaluate the match line between Sheet 3 and Sheet 4 of the E&S Plan drawings and ensure that all BMPs (i.e. compost filter sock) are shown and labeled on the plan drawings. 105.13(e)(1), 105.13(g), 102.11(a)

RESPONSE: The plan view viewport on Sheet 3 has been revised so that all segments of Filter Sock Barrier G are shown and labeled and that all portions of the LOD are shown on the plan drawing. The match line between Sheets 3 and 4 was revised accordingly. A label for Filter Sock Barrier G was added to Sheet 4 as a portion of the filter sock shows up on the plan view. Sheets 2 and 7 were revised to be consistent with these changes. The updated documents are included in the revised permit package.

- 13) Sheet 7 of the plan drawings shows a "Gravel Access to Remain" area off of Cooney Hollow Road that is larger than the footprint of the pre-development access road. If an increase in gravel/impervious area is proposed for the B50 Temporary Above-Ground Waterline Project, then please provide stormwater management BMPs and supporting calculations as necessary to demonstrate that post-construction stormwater runoff (rate, volume, and water quality) will be managed consistently with the requirements of 25 PA Code § 102.8 and ESCGP-3, and revise the application package as necessary. 105.13(e)(1), 105.13(g), §102.6(a)(1), §102.8**

RESPONSE: The limits of impervious area previously shown on the E&S plan drawings were based on publicly available aerial imagery. In response to the Correction Notice dated December 23, 2022, a survey was performed by CEC on January 13, 2023, to verify the extents of existing impervious surfaces. The limits of the existing impervious area shown on the E&S plan drawings has been revised in accordance with this survey. The updated drawings are included in the revised permit package.

The existing roadway on the northern side of Cooney Hollow Road was constructed for access to the Kovacevic Well Site. The current conditions of the roadway are poor and ill-defined conveyance facilities along the roadway have resulted in a number of erosional issues. Regrading and realignment of a portion of the roadway is proposed in order to improve the driving surface and overall accessibility of the roadway. Based on the pre- vs. post-development impervious areas, a small portion of the existing gravel will be removed near the entrance and the area restored to meadow in good condition to maintain the same impervious footprint. Additionally, the overall drainage patterns of the roadway are proposed to remain the same from pre- to post-development conditions.

As no changes to the overall drainage patterns are proposed and no increase to the overall amount of impervious surfaces are proposed, this portion of the project qualifies as site restoration. For this reason, this portion of the project meets the requirements of PA Code Title 25, Chapter 102.8 and a post-construction stormwater analysis was not completed for this portion of the project.

- 14) Item 2.e of the Response to Technical Deficiency Comments letter dated November 4, 2022 states "A note has been added to Drawing RC-01 indicating that any sediment deposited on Cooney Hollow Road as a result of the open cut road crossing should be cleaned immediately following completion of the open cut or at**

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the end of each work day if work is not completed in one day.", but the referenced note was not found on Sheet RC01. Please ensure that the plan drawings clearly indicate all measures to limit the deposition of sediment on Cooney Hollow Road, as well as provide for sediment removal from Cooney Hollow Road as necessary. 105.13(g), §102.11(a)

RESPONSE: The referenced note has been added to Sheet RC01. The updated drawing is included in the revised permit package.

In addition, as requested by the PADEP in a February 23, 2023 email, CEC contacted the PFBC's Bureau of Boating to inquire about the need for an Aids to Navigation (ATON) plan for the proposed water withdrawal. Mr. Richard Morder, the Aids to Navigation Manager, told CEC that he discussed the need for an ATON plan with the local Waterways Conservation Officer, and they agreed that no ATON plan would be needed since the stream is not used for boating. Module S3 was updated to include this information.

We trust the above responses sufficiently address your comments. However, should you have questions regarding these responses, please contact Paul Kanouff at (724) 327-5200 or pkanouff@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Sarah V. Parker
Assistant Project Manager



Paul A. Kanouff, PWS
Principal

SVP:PAK/ad:jg

cc: Richard Watson, PennEnergy (PDF)

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