

PennEnergy Resources, LLC
Water Management Amendment Application: Big Sewickley Creek
B50 Temporary Aboveground Waterline Joint Permit Application
E0407222-001; APS # 1058722

COMMENT RESPONSE DOCUMENT

On March 10, 2022, the Pennsylvania Department of Environmental Protection (“DEP” or “Department”) received a Water Management Plan Amendment Application. On March 16, 2022, a Chapter 105 State Water Obstruction and Encroachment Permit Application (DEP File No. E0407222-001) was received (“Joint Permit Application or JPA”). The JPA was submitted for the installation of a temporary intake structure on Big Sewickley Creek and the temporary waterline from the intake structure to the PER B50 Well Pad, for a withdrawal on Big Sewickley Creek and the B50 Temporary Aboveground Waterline proposed by PennEnergy Resources, LLC (“PER”). The withdrawal is the subject of the Water Management Plan Amendment Application (“Water Management Plan” or “WMP”).

Each application included Act 14 notifications that were sent to Beaver County and Economy Borough on March 08, 2023.

On June 18, 2022, DEP published notice in the Pennsylvania Bulletin (52 Pa.B 3443) regarding the receipt of an application for the Chapter 105 State Water Obstruction and Encroachment Permit (JPA). The thirty (30) day comment period remained open until July 18, 2022.

This comment response document contains the public comments submitted to DEP by 183 commenters since the receipt of both applications, including the thirty (30) day Bulletin comment period for the JPA. Despite the public comment period ending on July 18, 2022, the Department considered comments submitted up until November 15, 2023 due to the significant public interest in the proposed activities. The Department also considered comments that were focused on the WMP as part of its review, despite there being no statutorily defined comment period for the WMP.

The following pages contain a summary and/or consolidation of the submitted comments and DEP’s responses. (Comments are listed with the identifying Commenter ID number at the end of the comment. Where multiple commenters expressed common concerns, the shared concerns are set forth in a general comment and all pertinent Commenter ID numbers are listed after the comment.)

Public Comments:

1. Alternate underground or aerial waterline routes, that avoid Big Sewickley Creek should be considered.
 - a. B15 Impoundment to B50 Well Pad (i.e. ETC B50 Pipeline ROW)
 - b. Ohio River intake to B50 Well Pad

Commenter ID: 1, 4, 5, 6, 8, 10, 61

Response: Alternate routes were addressed in the Joint Permit Application in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii).

The Department reviewed the alternate routes, and the proposed route. The proposed route minimizes environmental impacts to the greatest extent possible. The alternative routes were longer in length and resulted in additional resource crossings, including North Fork Big Sewickley Creek. The proposed route is only 0.9 miles in length and will temporarily impact two streams (Big Sewickley Creek and Cooney Hollow) and one floodway (Unnamed Tributary to Cooney Hollow). The Department addresses other aspects of the alternatives analysis in responses to relevant comments throughout this document.

2. PE should truck water from existing sources and eliminate the need for the withdrawal on Big Sewickley Creek.

Commenter ID: 1, 5, 6, 7, 8, 70

Response: Alternate water sources were addressed in the Joint Permit Application (JPA) in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii).

The Department reviewed trucking as an alternative source for the proposed project and ensured that it was addressed within the JPA.

Though the Department acknowledges that PER indicated trucking will be utilized to supplement the development of the B50 well pad, the Department agrees that the proposed route and withdrawal will maximize public safety by reducing overall truck traffic within Economy Borough and reduce the overall duration of well development on the B50 well pad, as opposed to PER utilizing trucking for all of its water needs for well development in this situation.

3. PE should refrain from utilizing trucks to haul water. The roads that the trucks will utilize to haul the water in the area will have a reduced lifespan due to the weight and damage caused by the trucks and equipment used in the process.

Commenter ID: 63, 66

Response: Trucking water to well pads/impoundments is a standard industry practice. The Department's Bureau of Oil and Gas does not regulate the use of these vehicles on state, township or private roads. Nevertheless, the Department did consider the potential nuisance and safety implications of an increase in truck traffic, should only trucking be utilized, as part of its review of the alternatives analysis in the JPA.

4. Existing and or alternate water sources should be utilized to develop the B50 well pad.
 - a. Ohio River
 - b. West View Water Authority
 - c. Cranberry Township Water Authority
 - d. B15 Impoundment
 - e. Fritsch Farms Impoundment

Commenter ID: 1, 4, 5, 6, 8, 9, 10, 11, 12, 30, 35, 56, 61, 64, 66, 73

Response: Alternate water sources were addressed in the Joint Permit Application (JPA) in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii).

The proposed waterline route, and associated intake, is considered the least impactful of the potential options/alternatives for obtaining and utilizing water for development. Please refer to the Department's responses to Comments 1 and 2.

5. PennEnergy has documented that Big Sewickley Creek cannot reliably supply enough water for their fracking operations. Previous fracking operations have been conducted without using water from Big Sewickley Creek at the B15 and B46 well pads in Economy Borough—we contend that the same could be done for the B50 well pad.

Commenter ID: 1, 4, 5, 6, 9, 10, 30

Response: Through its JPA and the deficiency and revision process, PER demonstrated in the WMP that water will be available for withdrawal during certain times of the year, including times when there are passby flows of 30% of the Average Daily Flow (ADF) from October - March and 50% ADF from April – September. If PER wishes to utilize Big Sewickley Creek for water, it will have to abide by the passby flows approved in the WMP.

Alternate water sources, including the use of the B15 Impoundment, which was utilized for the other well pads identified in the comment, were addressed in the Joint Permit Application (JPA) in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii).

The alternatives analysis outlines that the associated waterline required to connect the B15 Impoundment to the B50 Well Pad would result in more environmental impacts than the proposed temporary aboveground waterline. The impoundment located at the B15 Well Pad has no freshwater source and is sourced entirely by existing PER water sources via trucking. Water is then transported to other pads (such as the B46 well pad) via trucking and or use of temporary aboveground waterlines. As stated in the response to Comment 2, the proposed temporary waterline and withdrawal will minimize environmental incursion via resource crossings and maximize public safety by reducing overall truck traffic within Economy Borough and reduce the overall duration of well development on the B50 well pad, when compared with the other potential options/alternatives.

6. The withdrawal will impact stocked trout and the recreational opportunities of Big Sewickley Creek.

Commenter ID: 1, 2, 3, 5, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 28, 29, 30, 31, 33, 45, 58, 59, 61, 62, 65, 66, 70, 71, 72, 180, 181, 182

Response:

The Department consulted with the Pennsylvania Fish and Boat Commission (“PFBC”) regarding trout stocking and recreational opportunities of Big Sewickley Creek. PFBC responded in a response document on September 08, 2023, stating:

“Trout are stocked in Big Sewickley Creek (BSC) beginning in late February. The stocked trout season opens on April 1. Most stocked trout angling is concluded by June 1. Furthermore, natural reproduction of trout has not been detected in Big Sewickley Creek. The combination of flow requirements outlined in SIR# 56633 and a proposed maximum withdrawal rate of 2.32 cfs mean that a high proportion (>90%, based on average monthly flow data from the USGS gauge 03086100) of available water will remain in BSC between February and May even if the maximum proposed withdrawal is taking place. If approved, PennEnergy Resources (PER) must adhere to strict monitoring and reporting requirements to ensure that no more than 1.5 million gallons of water are withdrawn per day (MGD). The proposed intake manifold would be temporary in nature and is required to be removed from BSC when not in use. If the permit is approved,

placement of the intake and its associated infrastructure would be coordinated with PFBC staff to ensure that access to the stream is not prevented.”

Given this response and the requirements in the WMP (such as passby flows), the Department has determined that the uses of Big Sewickley Creek will be maintained.

7. These projects will impact Blue Heron populations and the known rookery.

Commenter ID: 1, 2, 5, 10, 11, 13, 15, 16, 17, 18, 20, 24, 25, 27, 28, 31, 38, 45, 48, 53, 54, 56, 58, 68, 72, 73, 180, 182

Response: A Pennsylvania Natural Diversity Inventory (“PNDI”) search must be conducted prior to submitting a water management plan. The PNDI database includes plant and animal species classified as threatened or endangered, special concern species, and rare and significant ecological features. Protection of The Blue Heron falls under the jurisdiction of the Pennsylvania Game Commission. The PNDI receipt for this project documented, “No known impacts” and “No further review required” from this agency.

8. A number of commentators expressed concerns regarding the protection of the PA Threatened species: Southern Redbelly Dace.

Commenter ID: 1, 2, 4, 5, 6, 8, 9, 13, 14, 15, 16, 17, 19, 20, 21, 22,23, 24, 25, 27, 30, 31, 38, 48, 58, 68, 70, 72, 73, 181

Response: The DEP consulted with the PFBC regarding the Southern Redbelly Dace. PFBC’s final recommendations are documented in the WMP and JPA within SIR# 56633 letter. The DEP determined that the conditions established in the approved WMP and JPA are protective of aquatic life, including the Southern Redbelly Dace.

9. A full study of the Big Sewickley Creek (“BSC”) watershed should be conducted, to detect presence/absence of the PA threatened fish species, Southern Redbelly Dace (“SRBD”), and the overall impact study associated for the proposed withdrawal.

Commenter ID: 1, 2, 4, 5, 6, 8, 9, 10, 11, 24, 30

Response: The DEP consulted with PFBC regarding the presence/absence of the Southern Redbelly Dace within the BSC watershed. Surveys were completed by PFBC and the following statement was provided to DEP on September 8, 2023, documenting that SRBD were not detected at or downstream of the proposed withdrawal site, and therefore DEP determined that SRBD would not be impacted

downstream of the proposed withdrawal site, and that the passby flows would protect potential SRBD in the BSC watershed.

“In response to PER’s project submission, PFBC biologists completed surveys at 23, 100m long sites within the BSC watershed (May 17-19th and September 27th, 2022, and May 5th, 2023). Surveys can be broken up into four main areas: upper BSC and small tributaries (4 sites), Lower BSC and tributaries (8 sites), NFBSC and tributaries (5 sites), and East Branch Big Sewickley Creek (EBBSC) and tributaries (6 sites). Sites were sampled using a backpack electrofishing unit (Smith-Root LR20B). Efficiency of electrofishing relied on the relationship between measured water conductivity ($\mu\text{s}/\text{cm}$) and electrical current (A) and was based off a standard curve developed specifically for the equipment used. A total of 433.28 minutes (≈ 7.5 hours) of electrofishing effort resulted in the collection of 27 species (table 1). SRBD were detected at 4 sites (2 on EBBSC, 2 on NFBSC). Critically, SRBD were not detected at or downstream of the proposed withdrawal site.

To protect listed species, the PFBC does not make public specific locational data. Should specific information be desired, a right to know request can be submitted for review.

(<https://www.openrecords.pa.gov/Documents/RTKL/RTKRequestForm.pdf>).

Table 1: Fish species collected in Big Sewickley Creek Watershed
2022/23

Common Name	Species
Brown Bullhead	<i>Ameiurus nebulosus</i>
Central Stoneroller	<i>Campostoma anomalum</i>
White Sucker	<i>Catostomus commersonii</i>
Southern Redbelly Dace	<i>Chrosomus erythrogaster</i>
Redside Dace	<i>Clinostomus elongatus</i>
Mottled Sculpin	<i>Cottus bairdii</i>
Spotfin Shiner	<i>Cyprinella spiloptera</i>
Silverjaw Minnow	<i>Ericymba buccata</i>
Greenside Darter	<i>Etheostoma blennioides</i>
Rainbow Darter	<i>Etheostoma caeruleum</i>
Fantail Darter	<i>Etheostoma flabellare</i>
Johnny Darter	<i>Etheostoma nigrum</i>
Northern Hogsucker	<i>Hypentelium nigricans</i>
Green Sunfish	<i>Lepomis cyanellus</i>
Pumpkinseed	<i>Lepomis gibbosus</i>
Bluegill	<i>Lepomis macrochirus</i>
Smallmouth Bass	<i>Micropterus dolomieu</i>
Spotted Bass	<i>Micropterus punctulatus</i>
Spottail Shiner	<i>Notropis hudsonius</i>
Silver Shiner	<i>Notropis photogenis</i>
Rainbow Trout (stocked)	<i>Oncorhynchus mykiss</i>
Logperch	<i>Percina caprodes</i>
Bluntnose Minnow	<i>Pimephales notatus</i>
Longnose Dace	<i>Rhinichthys cataractae</i>
Western Blacknose Dace	<i>Rhinichthys obtusus</i>
Brown Trout	<i>Salmo trutta</i>
Creek Chub	<i>Semotilus atromaculatus</i> „

10. The 0.5 feet/sec and screen of 3/16” guides requests from PFBC is not enough to guard against direct take of larval Southern Redbelly Dace (SRBD). Why isn't an instream restriction prohibiting any withdrawals during the SRBD spawning season, between May 1-July 31, being required?

Commenter ID: 2, 10

Response: The Department has determined that the approved floating intake design will eliminate concerns of entrainment and impingement. DEP consulted with the PFBC and concurs with their recommendations on the protection of the Southern Redbelly Dace. All correspondences with the PFBC and their final recommendation are documented in the WMP and JPA. PFBC provided the following statement within a response document on September 08, 2023.:

“Larval behavior or SRBD has not been studied; however, behavior of similar *Chrosomus* spp. suggests that larvae seek refuge in root wads, undercut banks, and other debris. We believe that it is unlikely that larval SRDB would be pelagic until they were strong enough to actively avoid intake structures. Burst swimming speed (the highest short-term swim speed for avoidance) for adult minnow species rarely drops below 2 ft/sec, making impingement or entrainment from an intake with a maximum through screen velocity of 0.5 ft/sec unlikely. The proposed intake is not being sited near large portions of undercut bank and will maintain separation from the streambed to minimize conflicts with larval SRBD; furthermore, the nearest know occurrences of SRDB are 1.2 and 2.95 river miles away in NFBSC and EBBSC, respectively.

11. The start of SRBD spawning coincides with the tail end of spring high-flows, when water is readily available and continues into the portion of the year subject to a 50% passby per SIR#56633. We feel that a 1.5 MGD withdrawal in May would do little to affect SRBD spawning and that a 50% passby in June and July is sufficiently restrictive to protect SRBD through the spawning period. Furthermore, use of passby flows provides year-round protection for the entire fish community and dissuades or prevents the operator from withdrawing during periods of low flow.” Has any appropriate agency actually gone to the proposed water withdrawal site at Cooney Hollow in Economy Borough, Beaver County, to assess the presence and number of the threatened species Southern Redbelly Dace (including the presence of eggs during spawning season)? Did the PA Fish and Boat Commission or the DEP conduct any in-person investigations? If so, can these investigations be posted on the website?

Commenter ID: 5, 7

Response: The DEP consulted with the PFBC and concurs with their recommendations on the protection of the Southern Redbelly Dace. All correspondence with the PFBC and their final recommendation are documented in the WMP and JPA.

Please refer to the response to Comment #9. PFBC also provided the following statement in a response document on September 8, 2023:

“Presence of eggs was not determined but would likely be difficult due to short incubation periods and extremely small egg size. Furthermore, methods to detect eggs within the preferred riffle and shallow water habitats may cause high levels of mortality. PFBC surveys were carried out during the early portions of the spawning season. Gravid females and males in spawning colors were easily identified at most sites where SRBD were detected.”

Multiple site visits by DEP personnel were made to the withdrawal location during the review of the WMP and JPA to ensure site conditions matched permit plans. This included, but was not limited to, pool depth, stream flow, presence of wetlands and stream bank conditions.

12. PennEnergy Resources, LLC (“PER”) should not self-monitor. Who will determine when, and if, PE will abide by their WMP requirements? How will the Department verify actual flow rates and the prevention of withdrawals during low flows? Will the stream flow monitoring be publicly available?

Commenter ID: 1, 10, 13, 14, 15, 16, 17, 19, 20, 21, 23, 33, 60, 69

Response: Monitoring and reporting requirements are established in 25 Pa. Code § 78a.69(e)(3) and Act 220. PER must file a 25 Pa. Code, Chapter 110 Water Resources Planning Water Source Registration within 30 days of initiating a water withdrawal or use.

Under the approved WMP the Department has addressed the conditions under which the withdrawal can occur, including low flow conditions. Incorporated into the WMP is a monitoring protocol under which, PER will be obligated to monitor, cease withdrawals, and report data to the Department. These reports are submitted to the Department for review. These protocols were developed to address impacts to aquatic life.

13. The DEP requires monthly reporting of stream flow and withdrawal amounts, but after-the-fact reporting will not protect aquatic resources. Even short periods of exposure and desiccation of wetted stream bed could have short, long-term, and/or permanent impacts on aquatic life.

Commenter ID: 5, 10

Response: Monitoring and reporting requirements are established in 25 Pa. Code § 78a.69(e)(3) and Act 220. PER must file a 25 Pa. Code, Chapter 110 Water Resources Planning Water Source Registration within 30 days of initiating a water withdrawal or use.

Under the approved WMP, the Department has addressed the conditions under which the withdrawal can occur, including low flow conditions. Incorporated into the WMP is a monitoring protocol under which PE will be obligated to monitor, cease withdrawals, and report data to the Department. These reports are submitted to the Department for review. These protocols were developed to address impacts to aquatic life.

14. A number of commentators expressed concerns regarding the effect the withdrawal will have on the local groundwater aquifer and recharge of Big

Sewickley Creek. And the affects it may have on private drinking wells and the Southern Redbelly Dace.

Commenter ID: 2, 5, 7, 9, 10, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 33, 66, 67, 69

Response:

A Department hydrogeologist was consulted during the review of these applications. As to the comment related to the affect that the withdrawal will have on the local groundwater aquifer and the recharge of Big Sewickley Creek, it should be noted that Big Sewickley Creek is a gaining stream, a stream that generally gains water from the ground. The stream channel of a gaining stream is usually below the level of the ground water table and groundwater seeps into the stream through the streambanks. Therefore, the Department determined that the proposed surface water withdrawal would not impact groundwater quantity and groundwater recharge of Big Sewickley Creek.

15. The conditions of the withdrawal from the stream focused on the protection of aquatic life and establishment of a passby flow to protect the aquatic life in Big Sewickley Creek. The impacts of the proposed withdrawal on the local aquifer, the recharge of Big Sewickley Creek, and private drinking water wells has not been quantified. As to these impacts, the proposed water withdrawal may have some impact on stream bank storage of groundwater and some enhanced groundwater flow into Big Sewickley Creek. However, under the conditions of the Water Management Plan, a pass by flow of 30% and/or 50% of the average daily flow will be maintained in the stream. Thirty percent of the average daily flow is 6.5 cubic feet per second (cfs); fifty percent of the average daily flow is 10.8 cfs; whereas Q7-10 (the actual or estimated lowest 7 consecutive-day average that occurs once in 10 years for a stream with unregulated flow and is used as a design stream flow) for Big Sewickley Creek is 0.256 cfs. Therefore, the stream will be maintained above a low flow condition during withdrawals and no adverse effect on the localized groundwater is anticipated. Assimilative capacity: The withdrawal will reduce the capacity of Big Sewickley Creek to assimilate existing pollution loads, which will increase the risk of noncompliance with CWA water quality standards.

Commenter ID: 2, 4, 5, 6, 7, 8, 9, 10, 70

Response: Assimilative capacity of the stream is addressed in the Withdrawal Impacts (Attachment 1), Section D., of the WMP.

16. An assimilative capacity model should be required to quantify and predict impacts of flow reductions on water quality throughout the entire reach of Big Sewickley Creek downstream of the water withdrawal point.

Commenter ID: 5

Response: Assimilative capacity of the stream is addressed in the Withdrawal Impacts (Attachment 1), Section D., of the approved WMP.

17. A number of commentators questioned how drought conditions were not going to be exacerbated during withdrawals.
- a. Who determines the drought status within the watershed?
 - b. Over what duration is it necessarily a drought before withdrawal reduction is implemented?
 - c. The application includes percentage reductions based I tiered drought determinations. Who established the 5%, 10% and full stop reductions as being suitable for a stream?

Commenter ID: 3, 24, 25, 27, 38, 48, 59, 60, 68, 72

Response: The Commonwealth Drought Coordinator (“Coordinator”) manages drought related activities and monitors drought conditions statewide. Drought watch and warning declarations are determined by the Coordinator and other DEP staff, with support of the Drought Task Force. Drought emergency declarations follow a similar process and are given final approval by the Governor. DEP makes drought watch, warning, or emergency declaration recommendations based on four numeric indicators: stream flow, groundwater level, precipitation, and soil moisture.

The established passby rates outlined within the WMP will prevent withdrawals during drought conditions.

18. A number of commentators are concerned how the withdrawal, and associated waterline construction, will would harm the wildlife that inhabit the creek and surrounding watershed.

Commenter ID: 3, 5, 7, 24, 25, 27, 30, 31, 38, 48, 68, 70, 72, 73, 181

Response: The impacts of the withdrawal and associated waterline construction are temporary in nature and all adverse impacts have been minimized in accordance with 25 Pa. Code § 78a.69, § 105, and § 102. The impacts to both terrestrial and aquatic wildlife habitats were addressed and reviewed within PennEnergy Resources, LLC Joint Permit Application (E0407222-001), Water Management Plan (Big Sewickley Creek), and associated Erosion and Sediment Control Permit (ESCGP-3: ESG070422005-00). No long-term impacts to habitat attributes are anticipated.

19. The proposed water withdrawal will severely diminish the water quality and quantity of Big Sewickley Creek in a manner and degree that conflicts with:
- a. Pennsylvania Clean Streams Law

Commenter ID: 5

Response: The Department's review in consultation with the PFBC indicates that PER has demonstrated its JPA, and therefore the WMP, is compliant with the Department's statutes and regulations, including the Clean Streams Law.

- b. Article I, Section 27 of the Pennsylvania Constitution

Commenter ID: 5, 30, 31, 32, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 54, 70

Response: The Department's extensive review fulfilled its duties under Article I, Section 27. The Department reviewed the application for over a year and issued six deficiency letters which PER answered. The Department also took in and reviewed a significant number of comments, many of which were geared toward the WMP, given the public interest in the JPA and WMP. While there is no regulatory requirement for a comment period specific to the WMP, and the JPA comment period ended on July 18, 2022, the Department considered comments it received through November 15, 2023.

There were also a significant number of comments that were made to an earlier application from 2021 that was similar to the 2022 application to which the comments in this document were made. Specifically, the Department received comments to a 2021 PER WMP and General Permit application that included North Fork as a water source in addition to Big Sewickley Creek. The Department denied that permit application and so those comments are not specifically incorporated in this document, though they were reviewed and considered by the Department prior to the denial of the 2021 application.

The Department consulted with the Pennsylvania Fish and Boat Commission ("PFBC") who conducted surveys for the Pennsylvania Natural Diversity Index ("PNDI") and to verify the presence, or in this case, lack thereof, of species of concern that would be directly impacted by the proposed activities. The Department reviewed and agreed with PFBC that conservative passby flows were warranted to ensure protection of species and preservation of uses of Big Sewickley Creek. The passby flows are incorporated into the WMP. The Department also consulted with Department geologists who concluded that the proposed activities did not present concerns to groundwater availability in the watershed.

The Department carefully reviewed the applications and the alternatives analysis therein to ensure that the proposed activities include requirements, controls or limitations that were the most protective of the environment and

human health and safety. Given that other alternatives would involve an increase in truck traffic during development and/or more extensive aquatic resource crossings, the Department agreed that the proposed activities were the least impactful to the environment and human health and safety. While PER has other operations in the area, utilizing those resources for development of B50 would lead to greater impacts due to the location and availability of those other operational resources.

The Department conducted a compliance evaluation for the applicant which found that PennEnergy has no outstanding violations. The Department also reviewed its EJ Screen tool and found that this area is not an Environmental Justice area. The Department has documented its review and findings through a Record of Decision for the WMP, a Record of Decision for the JPA, and this Comment and Response Document.

Commenters, particularly those that made comments to the ultimately denied 2021 application indicated concerns regarding the for-profit nature of the applicant and its proposed activities, as well as a potential diminution of Big Sewickley Creek. The Department determined that the passby flows established as part of the WMP, and the Department's review of the intake structure, demonstrate that the uses of Big Sewickley Creek as a cold water fishes and trout-stock fishery, and habitat in the watershed for the Southern Red-Belly Dace will be protected and maintained during and after the proposed activities.

Finally, the Department's review of the WMP and JPA for the proposed activities do not address other potential environmental impacts from activities at a well-site itself. However, those potential impacts would be reviewed and addressed in other permits and/or by other statutes and regulations – such as a permit to drill and operate, or an erosion and sedimentation permit for construction of a well pad.

The JPA and WMP also include conditions that: prevent disturbance of preexisting rooted woody structures at the withdrawal location, minimize streambank disturbance, require the entire temporary intake system to be removed from the stream and floodway when not in use, prevent work from being done in the stream channel between February 15 and June 1 without prior written approval from PFBC, among other conditions.

c. Doctrine of Riparian Usufructuary Water Rights

Commenter ID: 5, 10, 65

Response: Riparian rights were addressed under Module S3.D of the JPA's Environmental Assessment Form. The applicant stated:

“Through the use of E&S BMPs and implementation of a passby flow, no impacts to upstream or downstream properties or riparian rights are anticipated. Stream access on adjacent properties will not be affected.”

The Department has no reason to disagree with the applicant’s statement and notes that riparian rights are a matter of common law and property rights, and the Department does not determine nor confer property rights.

20. There is inadequate consideration of the richness and uniqueness of the Big Sewickley Creek Watershed and the goals of the Rivers Conservation and Stewardship Plan (RCSP) to support species of greatest conservation need. The watershed contains critical habitat for regionally rare plant and animal species of conservation concern, including the PA threatened southern redbelly dace and a heron rookery. The watershed is also an “important breeding and migratory stop over for a large number of (bird) species found in North America” (RCSP). Considering that this watershed is a unique watershed, with critical habitats, everyone should be working to protect its water quality and the diversity of life dependent on the creek.

Commenter ID: 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 30, 31, 33, 182

Response: A PNDI search must be conducted prior to submitting the Joint Permit Application and the Water Management Plan. The PNDI database includes plant and animal species classified as threatened or endangered, special concern species, and rare and significant ecological features. The only known potential impact outlined within these applications was for the Southern Redbelly Dace.

The DEP consulted with the PFBC and concurs with their recommendations on the protection of the Southern Redbelly Dace (please refer to Comment # 8, 9, 10, and Comment 11). All correspondence with the PFBC and their final recommendation are documented in the WMP and JPA.

21. Pumping close to the bottom of the stream will disturb and degrade instream habitat; increase turbidity (re-suspend sediment) and degrade water quality; negatively impact pollution-intolerant species like the Southern redbelly dace; and increase entrainment of fish, macroinvertebrates, and other aquatic life since intake velocities would increase as stream depth decreased. The applications do not provide sufficient proof that the proposed withdrawal pool is large enough and deep enough to support seven Dolphin Floating Suction Strainers without disturbing instream and riparian habitat or the downed trees that are rooted in the stream bank.

Commenter ID: 5, 10

Response: The applications include a surveyed cross-section (Drawing JP01) of Big Sewickley Creek at the withdrawal point. The cross-section depicts that the pool depth is of sufficient depth to adequately suspend the intake structures. The DEP verified the pool depth at the withdrawal location to be consistent with the provided cross-section. The intakes were designed to eliminate concerns of entrainment and instream disturbance.

PER states within the JPA and WMP application that all preexisting rooted woody structures located along the banks of the withdrawal location will not be disturbed. This will be enforced as part of the approved JPA to ensure the stability of the bank is protected during operations.

22. There is no discussion in the applications regarding immersion of the floating array and its associated hoses or how they will be deployed in or removed from the stream. How will PE maintain the proper separation with immersion of the intake structures?

Commenter ID: 4, 5, 6

Response: The entire intake structure, including associated hoses, will be installed by hand. The separation distance requirements outlined within the both the JPA and WMP are based on the Megator Dolphin strainers manufacturer specifications.

23. Approximately 2 acres of woodlands will be cleared for the proposed project, and the intake site and staging area will also be grubbed, stumps removed, topsoil stripped, and recontoured. Clearing could cause long-term habitat loss, forest fragmentation, wildlife disturbances, and invasion of exotic plant species. The proposed restoration plan will not lead to the repair, rehabilitation, or restoration of riparian woodlands within one year, as required by the PA Function-Based Aquatic Resource Compensation Protocol, nor the restoration of upland woodlands. These impacts to woodland areas should be avoided.

Commenter ID: 5, 7

Response: All tree clearing will be minimized to the greatest extent possible and be conducted in accordance with PennEnergy Resources, LLC ESCGP-3 (ESG070422005-00; Auth ID:1419608). All trees 6 inches diameter at breast height- (dbh) or larger removed from riparian areas will be replaced at a 1:1 ratio.

24. A commenter raised concerns that the reduction in water from Big Sewickley Creek will cause impact to wetland habitats along the stream.

Commenter ID: 59

Response: All wetlands on site were identified and delineated in accordance with the Department’s Wetland Delineation Policy in 25 Pa. Code § 105.451. No wetlands were identified at or directly downstream of the withdrawal site. Therefore, no wetland impacts are anticipated.

25. Why is any percentage of habitat loss of the Southern Redbelly Dace considered acceptable if the species is already classified as threatened in PA?

Commenter ID: 5, 7

Response: Please refer to the responses to Comment #: 8, 9, 10 and Comment 11. The requirements of the percentage of habitat loss were established by PFBC. The percent habitat loss associated with the withdrawal were deemed protective of aquatic life, including the Southern Redbelly Dace, as outlined in the PFBC’s August 5, 2022 SIR letter (#56633).

On September 8, 2023 PFBC provided the following additional statement in a response document regarding habitat loss:

“Based on materials provided by PER in their permit application we believe that recommendations outlined in SIR#56633 would prevent significant impacts to SRBD habitat. Any change to wetted width of BSC as a result of the proposed withdrawal would be minimal and would likely fall within the scope of natural variation to the hydrograph. If approved, PER would have to adhere to strict monitoring requirements to ensure that the stream is not overdrawn. These requirements include the direct measurement of stream discharge at set intervals based on total discharge and status of the hydrograph (rising, falling, or stable). Monitoring intervals for this project far exceed the standard requirements for water withdrawals in the Commonwealth.”

26. Commenters do not believe that use of the Tennant Method will provide the “most protective” passby flow rate. The Tennant Method is a prescriptive method for seasonal flow recommendations (Oct-March and April-Sept) that was developed in 1976 using mid-western streams. It uses a hydrological index (average daily flow) to determine a minimum environmental discharge that is assumed to be vital to aquatic ecosystems (Table 1, Tennant 1976). While more protective than SRB’s Policy # 2003-01, they believe that its use would still not be protective enough. It would not address flow requirements for all four seasons or specific stream characteristics such as drainage area, geomorphology, climate (or climate change), pollution / discharges/ water quality, water temperature, and aquatic life needs. The Water Management Plan must assure protection of instream flow year-round, not just flow during low flow periods [25 PA Code. §

78a.69 (b)]. The PFBC recommended the Tennant Method because it was “deemed to be protective of instream habitat minimizing decreases in wetted width”. This method would protect habitat of the Southern Redbelly Dace (SRD) during summer low flow periods but would not protect habitats for all aquatic species during all seasons, year-round.

- a. It was strongly recommended that PennEnergy Resources be required conduct a low flow study, which is one of the required conditions for the Water Management Plan application [25 PA Code. § 78a.69 (c)]
- b. PA DEP should require that PennEnergy Resources use TNC’s 2013 regional ecosystem flow (e-flow) recommendations for small headwater streams located in the Upper Ohio River Basin (DePhilip, M. and T. Moberg. 2013).

Commenter ID: 5, 7

Response:

- a) After evaluating multiple methods during the review of the WMP, the Tennant Method based passby flow rates were determined to be the most protective of both instream and low flows by both the DEP and the PFBC. Using the Tennant Method, a recommended passby flow of 20% of the ADF was derived. Under the approved WMP, the DEP is following the recommendations outlined in PFBC Species Impact Review (SIR# 56633) and implementing a more conservative application of the Tennant method by setting passby flows of 30% of the ADF from October - March and 50% ADF from April – September.
- b) The use of TNC’s 2013 regional ecosystem flow (e-flow) recommendations for small headwater streams located in the Upper Ohio River Basin has not been adopted by the Department as an acceptable method of computing passby flow rates. It was also determined that TNC’s recommendations were less protective than the established passby rates during low flows.

PFBC provided the following statement in a response document on September 8, 2023 justifying the use of the Tennant Method within their SIR#56633 letter:

“PFBC has requested that PER explore several commonly used methods for low-flow protection. The applicant initially proposed a passby flow of 20% which is the standard used by DEP when considering WMPs and is based on the Susquehanna River Basin Commission’s (SRBC) Policy 2003-1. Because the Ohio River basin does not have a commission, SRBC recommendations are generally adopted for water withdrawals. Based on the presence of SRBD in the watershed, we requested that PER increase the passby flow to 25% in accordance with Policy 2003-1’s

recommendations for High Quality (HQ) or Exceptional Value (EV) watersheds. This is based on Publication 191a which aims to prevent excessive habitat loss (<5% in HQ or EV streams). Publication 191a was developed by SRBC, DEP, and PFBC to replace the Tennant method when prescribing passby flows because the Tennant Method “may unnecessarily reduce the yield that can be obtained from water supply sources, while providing more than adequate protection to aquatic resources”. Publication 191a is broadly applicable to Pennsylvania Streams and includes data from streams within the Unglaciated Pittsburgh Low Plateau physiographic province; however, 191a does not make recommendations for Beaver, Allegheny, Washington, or Greene counties based on the lack of reproducing trout populations and the generally low yield of streams in this area. Because 191a does not specifically apply to Beaver and Allegheny Counties and because the Tennant Method is often considered “overly protective”, we requested that PER amend their application based on the Tennant Method.

Based on our review of PER’s submitted applications, the Tennant Method will provide the smallest window for withdrawals. When applying the passby flow recommendations of the Tennant Method to historical monthly flow averages collected at the USGS Big Sewickley Creek stream gauge, water withdrawals would be prohibited from June - November during an average water year. This not only protects the most vulnerable portion of the SRBD spawning period but ensures that the stream will not be overdrawn during the driest months of the year. SRBD are likely the most sensitive aquatic species within the BSC watershed. We believe that by providing strict passby flow requirements that are protective of this threatened species, less sensitive species will be afforded equal or greater protection.

Based on historic data, PER’s proposed withdrawal would account for less than 10% of BSC flow between December and May; furthermore, in its proposed WMP, PER states that “This intake will be used for development of wells in the direct vicinity and will be used for a period of one to three months, followed by several months or years of inactivity.” We believe that a watershed specific study would be inappropriate based on the temporary nature of this withdrawal, the finite life of a WMP approval, and (in relative terms) the small volume of water requested. Moreover, no precedent for a full-scale impact study of a watershed based on a temporary withdrawal exists.”

27. A specific analysis to determine the average daily flow rates of Big Sewickley Creek should be required before any permits for withdrawals are even considered.

Commenter ID: 10

Response: The average daily flow of Big Sewickley Creek utilized with the Water Management Plan was derived from Streamstats. The WMP instructions state that "Whenever an intake is located on an ungauged stream, the applicant must use an acceptable method for computing stream flow. Such as, selecting a reference USGS gauging station and proportioning the yield based on drainage area, or utilization of information provided by StreamStats." A specific flow analysis was not required as Streamstats is an acceptable method.

28. Commenters raised concerns that staff gages are not technically accurate and will not allow PER to accurately monitor flow and continually maintain passby flows to protect aquatic life.

Commenter ID: 5, 10

Response: As outlined in the WMP, PER will not be utilizing staff gages to correlate stream flows and/or to monitor passby flow rates. Real-time measurements will be conducted by PER and/or its consultant prior and during all withdrawals to ensure passby rates are maintained in accordance with 25 Pa. Code § 78a.69a.

29. Discharge data collected at the USGS gage (03086100) near the mouth of Big Sewickley Creek between 1967 and 1978 clearly demonstrate that the proposed withdrawal would not be sustainable, even with implementation of PennEnergy's plan to maintain a minimum passby flow. The proposed passby rates will provide enough flow to support aquatic ecosystem functions (spawning, feeding, growth, seed distribution, maintaining water temperature & quality, etc.).

Commenter ID: 5, 65, 68

Response: The passby rates were determined to be adequate in accordance with 25 Pa. Code § 78a.69a after the Department's review and consultation with PFBC to ensure that the uses of the stream are maintained.

30. PennEnergy should be required to collect real-time, continuously recorded and publicly available flow data from Big Sewickley Creek at a location upstream of their withdrawal point, throughout the withdrawal period. PA DEP should require Penn Energy to contract with the United States Geological Survey (USGS), an independent third party, to monitor Big Sewickley Creek flow real-time and continuously, at their gage 03086100 (Big Sewickley Creek near Ambridge, PA, 40°36'27", -80°09'49" NAD27, DA 15.6 sq mi).

Commenter ID: 5, 7, 60

Response: As outlined in the WMP, PER will be collecting real-time stream flow measurements to monitor instream flows and required passby flow requirements in accordance with the requirements of 25 Pa. Code § 78a.69(a). The USGS gage 03086100 is no longer active and was not considered as a method to monitor passby flow requirements.

31. PER now proposes to abandon the use of staff gages and instead rely on direct measurement of stream discharge and pool depth prior to and during water withdrawal from Big Sewickley Creek. We believe that this proposed method of passby monitoring is highly problematic for multiple reasons:
- a. The new plan is even less protective of the Big Sewickley Creek watershed and ecosystems than PER's previous plan.
 - b. The frequency of the proposed flow monitoring is inadequate. Aquatic resources could be impacted during the weeks, days, or hours that pass between confirmatory measurements.
 - c. While direct flow monitoring proposed during periods when the stream is accessible follows United States Geological Survey (USGS) protocol, visual flow monitoring—proposed when flows are higher—does not. Visual data are not reproducible or defensible.
 - d. The new plan does not meet PA Fish and Boat Commission (or PA DEP requirements), such as assurance that flow data are accurate, assurance of continual compliance with the required bypass flows, use of USGS flow monitoring criteria, and collection of hourly flow data upstream and downstream of the withdrawal site to verify reported withdrawal amounts.
 - e. PER will not be able to guarantee or prove that required bypass flows are being maintained and that aquatic resources are continually protected.

Commenter ID: 5

Response: The Department considers real-time flow monitoring by conducting cross-sectional velocity measurements as an acceptable method to monitor compliance with any applicable passby flow conditions. All velocity data and calculations will be required to be maintained and available upon request to ensure compliance with the WMP requirements.

The use of real-time flow monitoring and the frequency of confirmatory measurements was justified within the WMP and deemed acceptable by both the Department and the PFBC to monitor instream flows and maintain passby flow rates to preserve the uses of the stream. 25 Pa. Code § 78a.69(a)

32. There are multiple projects that have been permitted by DEP or are currently under DEP review that will impact Big Sewickley Creek and its North Fork.

These adverse impacts to the watershed must be considered in their entirety and not just within the narrow scope of one particular project. These cumulative adverse impacts will compound the potential damage to Big Sewickley Creek, the North Fork, the watershed, and associated wetlands. PA DEP needs to consider the adverse impacts of ALL of the PennEnergy's projects when considering yet another application to withdraw millions of gallons of water from Big Sewickley Creek. How many environmental insults can the Big Sewickley Creek watershed and its vulnerable ecosystem withstand before irreparable harm occurs?

Commenter ID: 4, 5, 6, 9, 10

Response: Alternate routes and potential impacts of the alternatives, were addressed in the Joint Permit Application (JPA) in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii).

To reduce impacts and disturbance to the Big Sewickley Creek watershed, the use of ETC's B50 Pipeline ROW was considered, but was determined to be infeasible. The alternative analysis documents that conflicting schedules, between PER and ETC, would extend construction and restoration, resulting in longer duration of impacts within 21 resources. The waterline would also not have a surface water source, and solely utilize the B15 Impoundment which would increase truck traffic within the surrounding area.

The project will initially add to the overall impacts to the watershed, but the impacts are temporary in nature and will be restored to existing conditions upon completion. When compared to the alternatives, the proposed project possesses a route that minimizes the number of resource crossings, and total impact, to the greatest extent possible.

33. The WMP does not address the number of stormwater discharge points along Big Sewickley Creek. It is well known that stormwater runoff picks up and carries numerous pollutants into waterways, including sediment, chemicals, pesticides, and bacteria. These stormwater pollutants will further degrade the assimilative capacity of the creek. The Water Management Plan must assure prevention of "adverse impacts to water quality" and "water quality in the watershed considered as a whole" [25 PA Code. § 78a.69 (b)].

Commenter ID: 5, 7

Response: Stormwater contributions are not required to be submitted as part of the WMP review. 25 Pa. Code § 78a.69

Assimilative capacity of the stream is addressed in the Withdrawal Impacts (Attachment 1), Section D., of the approved WMP.

34. Big Sewickley Creek will be exposed to the toxic chemicals used for fracking, and when it eventually returns to the surface it will likely include additional contaminants like salts, heavy metals, and possibly, radioactivity. It is very unlikely this fracking wastewater will be reclaimed as potable water. It remains unclear how this wastewater will be used, stored, treated, or disposed of. What long term studies are available from other operations to determine when returned that it is 100% safe for the stream ecology?

Commenter ID: 4, 5, 6, 8, 22, 25, 29, 30, 35, 38, 47, 48, 52, 71, 181

Response: Wastewater will not be returned to Big Sewickley Creek. In accordance with 25 Pa. Code § 78a.69(b)(6) Attachment K of the WMP a reuse plan for all water utilized during fracking operations is included.

35. How will fuel spills and leaks that could further degrade water quality in Big Sewickley Creek be prevented?

Commenter ID: 4, 5, 6, 29

Response: The JPA includes all details and locations of all pumps, secondary containment, water lines, additional on-site structures, protective measures, erosion and sediment control BMPs, that will be utilized during the implementation of the intake structures and the associated waterline. All secondary containment will be constructed in accordance with 25 Pa. Code § 78a.64a.

36. The applications fail to address how PennEnergy will address noise pollution. The applications should include information regarding the types of pumps they are planning to use, specifically, the size, model, operation timing, decibel level of each, and whether they are gasoline or diesel.

Commenter ID: 10, 66

Response:

It is unclear what specifically is meant by “noise pollution,” however, the pump specifications outlined in the WMP state that the pump unit reduces noise levels to less than 70dBA at 30’.

37. According to the Allegheny Land Trust there are eight municipal parks, two Sportsman Associations, and several protected conservation areas with the Big Sewickley Creek watershed. In recognition of how much this water system is appreciated by the residents, many of the communities within the watershed have adopted resolutions supporting the Rivers Conservation and Stewardship Plan for

Big Sewickley Creek Watershed. These include Bell Acres, Cranberry, Franklin Park, Harmony, Leetsdale, and Marshall, as well as the Allegheny Land Trust. Shouldn't the wishes of these communities be recognized?

Commenter ID: 4, 5, 6, 9

Response: The Department appreciates the concerns that were presented within all of the public comments that were received and has created this document to respond to those concerns.

38. The Act 14 Municipal Notification letter sent to Economy Borough by Moody on behalf of PER did not include any of the other connected municipalities that would also be impacted by the proposed water withdrawal plan. It is unconscionable that this was allowed to suffice as proper notification by PER and their consultants. This unique situation should require notifications to all the affected communities –particularly those who were involved in this important watershed plan. A decision of this magnitude should never be made by just one landowner, one company or one community. An entire region will be impacted, and all affected communities deserve full disclosure of the proposed water withdrawal plan.

Commenter ID: 10, 11

Response: Act 14 notification letters, and proof of receipt, are only required to be sent to the county and municipality that the project location resides in. 25 Pa. Code § 78a.69

39. At a July 1, 2019 community meeting, at various Economy Borough Council meetings, and in a written document answering resident questions about the B50 well pad, PennEnergy representatives stated that the B50 well pad would include an above-ground storage tank. According to PennEnergy: “The well site will include a dedicated area for a temporary, Above-Ground Storage Tank (“AST”) to store water utilized in the well development process” (see page 6-7 of attached document). At the July 1 community meeting, a PennEnergy representative noted that the AST would hold 1.7 million gallons and that it would be open and directly vent to the atmosphere. PennEnergy could follow through with their publicly announced plan to place an AST at the B50 well pad. This could negate the need for a proposed truck terminal with an above-ground storage tank. The B50 well pad AST along with the well development impoundment at the B15 well pad could provide adequate water for fracking operations.

Commenter ID: 5, 7

Response: The use of an AST on the well pad does not alleviate the need for a water source given the quantity described in the JPA. Alternate sources were

addressed in the JPA in accordance with the requirements of 25 Pa. Code § 105.13(e)(1)(viii). Please refer to the responses to Comment #: 1, 2, 3, 4 and Comment #5.

40. PennEnergy stated, within the May 1, 2023 JPA application, that up to 2.5 million gallons of water per day may be needed during well development. This range of water volumes up to 2.5 mgd was not mentioned in previous versions of the joint permit application.

Commenter ID: 5, 7

Response: The 2.5 million gallons of water per day was added to the May 1, 2023 JPA application in response to the Department’s January 10, 2023 deficiency notice. The notice requested that the alternative analysis be updated to further justify that a total allocation of 1.5 MGD was necessary from Big Sewickley Creek, as supplemental sources, including the trucking facility, were being proposed to be used.

The JPA Alternative Analysis was updated on May 1, 2023 stating:

“The water source, or sources, must be able to provide volumes from 1.5 million gallons per day up to 2.5 million gallons per day during well development. Sources with availability less than 1.5 million gallons per day are evaluated on a case-by-case basis. Because the B50 Well Pad does not have a freshwater storage facility, only volumes close to 1.5 million gallons per day can support the efficient development of these wells.”

41. Please advise what measures the PADEP has taken to study the impacts that these intended water withdrawals by PennEnergy will have on Big Sewickley Creek.

Commenter ID: 65

Response: The Department has reviewed the WMP, and established passby flow rates, to ensure it is in compliance with 25 Pa. Code § 78a.69. The Department has also coordinated with PFBC ensuring that all impacts associated with aquatic life were minimized to the greatest extent possible. It is unclear from the comment what “study” is being sought.

42. Water Management Plan source request should have been made before approval was given to allow creation of the B50 fracking site.

Commenter ID: 61

Response: As per 25 Pa. Code § 78a.69 a Water Management Plan is needed in order for any person to withdraw or use water from water sources within this Commonwealth to assist in drilling or the hydraulic fracture stimulation of any natural gas well. A water management request does not need to be submitted prior to the development of a well site. The water management plan solely regulates the withdrawal from the water source.

43. An individual permit is required to fully evaluate the potential adverse effects (direct, secondary and cumulative) of the proposed project on the physical, chemical and biological characteristics of Big Sewickley Creek both upstream and downstream of the project site.

Commenter ID: 183

Response: The subject permit E0407222-001 is an individual Joint Permit Application (“JPA”) for a Chapter 105 State Water Obstruction and Encroachment Permit. The potential adverse effects of the proposed intake structure were fully evaluated during the review of the JPA. The proposed intake structure design meets the standards established by PFBC. This design standard ensures that there is not impact to aquatic organisms. The proposed intake structure will not impact the chemical characteristics of Big Sewickley Creek. Finally, the selected dolphin strainers float on the water surface of the creek and the strainers will be anchored to minimize movement of the strainers within the creek.

44. The DEP should deny 401 certification for the proposed permit.

Commenter ID: 183

Response: During the review of the State Water Obstruction and Encroachment Permit Application (JPA), and the environmental assessment component, it was determined that the proposed project, qualifies for federal authorization, PASPGP-6, under the provisions of Section 404 of the Clean Water Act and /or Section 10 of the River and Harbor Act of 1899. By attaching PASPGP to the JPA, the project will also include 401 State Water Quality Certification (SWQC). This project qualifies for coverage under the PASPGP-6. PASPGP-6 has been promulgated by the USACOE and includes 401 Certification for projects that qualify for coverage under PASPGP-6. As this project qualifies for coverage under the terms and conditions of PASPGP-6, a site specific 401 Certification is not required for this project. See comment response number 45.

45. The proposed project does/ cannot comply PA DEP's water quality standards.

Commenter ID: 183

Response: The Department's review indicates that the withdrawal will not cause a violation of water quality standards. The water uses and the level of water quality necessary to protect those uses will be maintained and protected with the issuance of the erosion and sediment control permit (ESG070422005-00), the individual Joint Permit Application for a Chapter 105 State Water Obstruction and Encroachment Permit and the Water Management Plan.

46. As proposed the permit appears to violate US EPA's 404(b)(1) guidelines water quality anti-degradation regulations.

Commenter ID: 183

Response: US EPA's 404(b)(1) is not applicable to this permit. It is noted that the reference to 404(b)(1) is a reference to the federal Clean Water Act. As a component of the State Water Obstruction and Encroachment Permit, an environmental assessment was reviewed to evaluate all proposed potential environmental impacts to resources. By implementing the requirements outlined within the JPA, the erosion and sediment control permit, and the project will maintain existing instream water uses and the level of water quality in the receiving streams.

47. PER proposes to abandon the use of staff gages and instead rely on direct measurement of stream discharge and pool depth prior to and during water withdrawal from Big Sewickley Creek. PER does not plan to calibrate the staff gages (revise the stage/flow relationship curves), and as a result, some of the comments included in the PA DEP's previous deficiency notices now have not been addressed. Of particular concern is the fact that depths and pool elevations at the withdrawal location included in the WMP were determined using these questionable calibration curves.

Without an accurate stage/flow relationship curve, all stream surface elevations and depths used in the WMP drawings are questionable. Without accurate current flow data, it cannot be demonstrated that passby flows are being maintained nor that they are protective of instream habitat.

Commenter ID: 2, 4, 5, 7, 10

Response: The ground (stream bed bottom) elevations of Big Sewickley Creek at the withdrawal location were surveyed and included on Drawing JP01 of the JPA. The stream surface elevations for normal pool (average daily flow), 30% ADF

passby rate, and 50% ADF passby rate, were not derived from the abandoned staff gage rating curve. These stream surface elevations were derived and calculated from StreamStats and then depicted on the surveyed cross-section. Real-time readings of stream discharge and pool depth will be taken prior and during all active withdrawals to ensure compliance with the JPA and WMP requirements.

48. PER will not be able to assure continual compliance when measuring flow every 4 hours; daily; weekly; or less frequently during winter, at night, or when stream flow is too high for an individual to safely enter the water.

Commenter ID: 2, 4, 5, 7, 10

Response: The WMP outlines the minimum passby rate required for a full withdrawal to occur (October to March: 8.8 cfs; April to September: 13.1 cfs). Direct stream discharge readings will be collected prior to a withdrawal to ensure the minimum passby rate is available. Stream discharge will then be collected during active withdrawals as outlined in the Table 1 of the WMP's Water Source and Use Monitoring Plan to ensure passby flow rates are maintained. In addition to discharge monitoring, the WMP's Operation Plan states that a 12" Magflux 7200 Electromagnetic Flow Meter) will be utilized for rate measurement to ensure the maximum rate of 1041 GPM, and the total daily limit of 1.5 MGD, is not exceeded.

49. We strongly recommend that PER be required to monitor hourly flow, both upstream and downstream of their proposed withdrawal location, throughout the duration of all withdrawals. They cannot ensure constant compliance with passby flow requirements without collecting sufficient and accurate data.

Commenter ID: 2, 4, 5, 7, 10

Response: As stated in the response to Comment 47, a flow meter will be utilized to ensure maximum rate compliance is maintained. The discharge rate of Big Sewickley Creek will be calculated prior to a withdrawal to ensure that a minimum passby rates are present for a full withdrawal to occur. Passby rates will then continue to be monitored at set intervals, as outlined in the WMP.

50. A commentator expressed support for the proposed withdrawal on Big Sewickley Creek.

Commenter ID: 74

Response: The Department thanks the commentators for the comment.

51. A number of commentators do not support the proposed withdrawal on Big Sewickley Creek and requested that DEP deny the Water Management Plan and associated Joint Permit Application.

Commenter ID: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182

Response: The Department thanks the commentators for the comments.

Table of Commentators and Affiliation

Commenter ID	Name	Affiliation
1	Tracy Sutton	Private Citizen
2	Dr. Brady Porter	Duquesne University
3	Robert Matzie, State Representative	State Representative
4	Julie DiCenzo; C	Community Advocates for Economy – CAFÉ; Communities First Sewickley Valley
5	Rosie Reilly	Communities First Sewickley Valley
6	Gail Murray	Communities First Sewickley Valley
7	Communities First Sewickley Valley	Organization
8	Buffalo Creek Watershed Association	Organization
9	Dr. John F. Stolz	Duquesne University
10	Katrina Stanley	Big Sewickley Creek Watershed Association (BSCWA)
11	Roy Kraynyk	Private Citizen
12	Diane Abell	Private Citizen
13	John Delaney	Private Citizen
14	Bob Donnan	Private Citizen
15	Sharon Beddard Hess	Private Citizen

16	Kristen Beddard Heimann	Private Citizen
17	Donna M. Panazzi	Private Citizen
18	Pamela Oriszko	Private Citizen
19	Tina Tessaro	Private Citizen
20	Joie DeWolf	Private Citizen
21	Vicki Austin	Private Citizen
22	Cathy Lacenere	Private Citizen
23	Lynn Ballantine	Private Citizen
24	Rosa Blanarik	Private Citizen
25	Jay Herring	Private Citizen
26	Marilyn Mauro	Private Citizen
27	Stephanie Ulmer	Private Citizen
28	Dr. Jennifer Boyle	Private Citizen
29	Margaret Adams	Private Citizen
30	Carol Hoover	Private Citizen
31	Martin Karl	Private Citizen
32	Christina DiGiulio	Private Citizen
33	Katherine Peterson	Private Citizen
34	Laura J. Ellis	Private Citizen
35	Trevor Mays	Private Citizen
36	Bella Hopkins	Private Citizen
37	Anabel Hopkins	Private Citizen
38	Judy Semple	Private Citizen
39	Garret Wassermann	Private Citizen
40	Caroline DiPerna	Private Citizen
41	C T Keith	Private Citizen
42	Betsy Berenson	Private Citizen
43	Ashley Gehlke	Private Citizen
44	Doris (Dee) Strouse	Private Citizen
45	Cynthia Miller	Private Citizen
46	Robin Strouse	Private Citizen
47	Kathleen A. Shepard	Private Citizen
48	Mike Andrews	Private Citizen
49	Lisa Faulkner	Private Citizen
50	Laura Kirton	Private Citizen
51	Julie Tremaine	Private Citizen
52	Emily De Ferrari	Private Citizen
53	Tim Kelly	Private Citizen
54	Susan Kaminski	Private Citizen
55	Jackie Stranko	Private Citizen
56	Trevor Mays	Private Citizen
58	Patty Jones	Private Citizen

59	Ray McCoy	Private Citizen
60	John Moragne	Private Citizen
61	Pete Meier	Private Citizen
62	Pat Miller	Private Citizen
63	Uday Palled	Private Citizen
64	Kari Pohl	Private Citizen
65	Kai Baumann	Private Citizen
66	Susan Kalinyak	Private Citizen
67	Kriss Lally	Private Citizen
68	Michelle Carpenter	Private Citizen
69	Darlene Dech	Private Citizen
70	Don Fiedler	Private Citizen
71	Beth Schongar	Private Citizen
72	Tom Horvat	Private Citizen
73	Ronald Schaar	Private Citizen
74	David Callahan	Marcellus Shale Coalition
75	Robert Price	Private Citizen
76	Geraldine L DeSena	Private Citizen
77	Raymond Tasillo	Private Citizen
78	Annie Gensheimer	Private Citizen
79	John Orndorff Jr	Private Citizen
80	Shelley Davies Wygant	Private Citizen
81	Isabelle Riley	Private Citizen
82	Sheila M	Private Citizen
83	Jennifer Kuban	Private Citizen
84	Christine Yarosz	Private Citizen
85	Thomas A. Muchow	Private Citizen
86	Kian Hopkins	Private Citizen
87	Nicholas M. Lieb	Private Citizen
88	Michelle M. Roberts	Private Citizen
89	Hayley Oliver-Smith	Private Citizen
90	Natalie Leslie	Private Citizen
91	Deena Butcher	Private Citizen
92	Alice Nadin	Private Citizen
93	Kimberly Stopchick	Private Citizen
94	Tim Resciniti	Private Citizen
95	Jenifer Watkins	Private Citizen
96	Eleanor Valenzi	Private Citizen
97	Marjorie Carlson	Private Citizen
98	Bob Brecht	Private Citizen
99	Scott Smith	Private Citizen
100	James Patsy	Private Citizen
101	Miriam Rader	Private Citizen

102	Carol Regueiro	Private Citizen
103	Martha Smith	Private Citizen
104	Joan Foran	Private Citizen
105	Aimee Kollinger	Private Citizen
106	Patricia D. Schauble	Private Citizen
107	Judi Chester	Private Citizen
108	Martha Murdock	Private Citizen
109	Pat Skonieczny	Private Citizen
110	Denise Brown	Private Citizen
111	Linda McKenzie	Private Citizen
112	John Sipes	Private Citizen
113	Denise Feierabend	Private Citizen
114	Bobbi Mandrier	Private Citizen
115	Andrea Lurier	Private Citizen
116	Phyllis Soracco	Private Citizen
117	Jeanne Fitzgerald	Private Citizen
118	Karen Caughie	Private Citizen
119	Jessica Stintzi	Private Citizen
120	Lynn Dermott	Private Citizen
121	Tyler Tournay	Private Citizen
122	Jeffrey Campbell	Private Citizen
123	Margaret Law	Private Citizen
124	Debra Sovich	Private Citizen
125	Jaime luhowiak	Private Citizen
126	Sharon Yakich	Private Citizen
127	Kathy Batty	Private Citizen
128	Sharon Rose	Private Citizen
129	Margie Lease	Private Citizen
130	Suzanne Friday	Private Citizen
131	Suzanne Friday	Private Citizen
132	Adam M. Yesenosky	Private Citizen
133	Rachel Loudermilk	Private Citizen
134	Thomas Dicken	Private Citizen
135	Jiang Li, Yuchen Huang	Private Citizen
136	Stephen M. Downing	Private Citizen
137	Suzanne Watters	Private Citizen
138	Jen Niven	Private Citizen
139	Andy Hoge	Private Citizen
140	Rosalyn Becker	Private Citizen
141	Kelly Williams	Private Citizen
142	Cody Dalton	Private Citizen
143	Martin Jones	Private Citizen
144	Eranda Perera	Private Citizen

145	Zoey Murawski	Private Citizen
146	Virginia Matiko	Private Citizen
147	Charles Horton	Private Citizen
148	Anne Berenbrok	Private Citizen
149	Peter Friday	Private Citizen
150	Lisa C. Lieb	Private Citizen
151	Jim Birkenheier	Private Citizen
152	Renée S. Suhr	Private Citizen
153	Weihua Guo	Private Citizen
154	Ann Labounsky	Private Citizen
155	Phoebe Horton	Private Citizen
156	Margaret Somerville	Private Citizen
157	Pamela Gaynor	Private Citizen
158	Kate Flickinger	Private Citizen
159	David Saint-Jacques	Private Citizen
160	Lisa Young	Private Citizen
161	John C. Leonard	Private Citizen
162	<i>Patrick J. Pagano</i>	Private Citizen
163	Bill Shaner	Private Citizen
164	Gene Trusky	Private Citizen
165	Rachel Micija	Private Citizen
166	Alice Ronk	Private Citizen
167	Kristi Yager	Private Citizen
168	Tori Barrett	Private Citizen
169	Barbara Starr	Private Citizen
170	Nicole Floro	Private Citizen
171	Bill Dobson	Private Citizen
172	Darnell Stewart	Private Citizen
173	Nancy Driesch	Private Citizen
174	Pamela Mayo	Private Citizen
175	William Henry	Private Citizen
176	Laura Mastrococco	Private Citizen
177	Terri Leone	Private Citizen
178	Skyler M Brimmeier	Private Citizen
179	John Carpenter	Private Citizen
180	Borough of Ambridge	
181	Dr. Constance Ruzich	Private Citizen
182	Mark Rengers	Private Citizen
183	Norma L. Kline	Private Citizen