

1. Why are we doing this?

The subject water withdrawal will be used to support upcoming well development operations at the PER B50 Well Pad on Amsler Ridge Road in Economy Borough.

2. How will the project area be impacted?

During the approximately 10 weeks of operations, you can expect to see a trailer mounted water pump set in secondary containment and the intake section, which is a series of hoses moving water from the stream through floating intake structures, will pull water from just below the surface. The intake area and associated work space is about ¼ acre. The intake equipment will be fenced in and parking will be provided for personnel. All equipment will be removed when not in use and the project area restored. The discharge section will be a temporary 12" diameter plastic waterline placed on the ground surface except for under road crossings.

Future use of the intake location, while not currently planned within the 5-year authorization of the Water Management Plan, will be similar in nature: approximately 10 weeks of operations followed by months or years of inactivity.

See page 72 of 250 in the Big Sewickley Creek Water Management Plan Application or JP01.pdf for a detailed site plan.

3. How is the trucking terminal project connected to the Big Sewickley Creek surface water intake and is there another surface water intake associated with the trucking terminal?

The trucking terminal and temporary above-ground waterline that PennEnergy is seeking permits for on Big Sewickley Creek Rd. will be used as a satellite trucking station to off-load freshwater and transport via pipeline to the B50 well pad for well development. This trucking terminal and waterline will serve to supplement the Big Sewickley Creek withdrawal and, if needed, as a contingency measure should the creek withdrawal be reduced or unavailable due to pass-by requirements. There is no surface water withdrawal associated with the trucking terminal project.

The trucking terminal and waterline are temporary and will be removed and the area restored once this round of well development is complete.

4. Why not take water from PennEnergy's existing Ohio River Intake or other location?

Consistent with PennEnergy Resources' Core Values and the industry's best practices, we endeavor to source water close in proximity to the well pads receiving the water. Thereby facilitating water delivery via temporary water lines and minimizing truck traffic that would otherwise be necessary to transport water from the existing Ohio River Intake or another approved location. A detailed alternatives analysis is provided in the Joint Permit Application and shows the project as designed will avoid and significantly minimize cumulative impacts to the watershed as compared to alternatives.

See pages 184 through 195 of 333 in the B50 Temporary Above-Ground Waterline Individual Permit Application for a detailed alternatives analysis.

5. Will the withdrawal render stream flow inadequate to support aquatic life or otherwise interfere with other uses of the stream?

No. As detailed in the current Water Management Plan, PennEnergy will only be able to withdraw water from the Creek when state regulated minimum pass-by flows allow. As shown in the revised Application, PER has revised the pass-by flow plan to be consistent with the recommended instream base flow regimens outlined in "Instream Flow Regimens for Fish, Wildlife, Recreation and Related Environmental Resources;" by Donald Leroy Tennant; also known as The Tennant Method, which determines the appropriate protective instream flows during withdrawals.

Like the previously proposed pass-by flow plan that referenced Pass-by Flow and Conservation Release Guidelines of the Susquehanna River Basin Commission, the Tennant Method guidelines help establish minimum pass-by flow rates which must be maintained during operations, ensuring the protection of fish, other species, and other uses of the stream. If the flow of the creek nears the minimum pass-by flow rate, the rate of withdrawal will be reduced or fully cease until water levels increase and pass-by rate is sustained.

For context, the requested maximum withdrawal rate from Big Sewickley Creek (1.5MMgal/day) represents about 10.6% of the weighted average daily flow (ADF), or 2.3 cubic feet per second (CFS), and the full amount can only be withdrawn when the creek levels are higher than 40.6% ADF October through March, 60.6% ADF April through September, and the minimum pass-by flow of 30% and 50% ADF can be sustained.

Regardless of the pass-by flow rates, pumping is to be curtailed or stopped during periods of drought. PennEnergy will monitor drought status updates and reduce the intake volume accordingly should drought conditions develop during these operations as outlined below and on page 19 of 200 of the Big Sewickley Creek Water Management Plan.

Drought declaration stages and proposed response actions include:

- | | |
|---------------------|------------------------|
| • Normal Conditions | Full pumping operation |
| • Drought Watch | Reduce pumping by 5% |
| • Drought Warning | Reduce pumping by 15% |
| • Drought Emergency | Cease pumping |

When drought conditions are lifted, graduated consumption will resume.

6. Will the withdrawal suck the fish out of the creek or otherwise harm aquatic life in the creek?

No. The withdrawal is designed to protect aquatic wildlife in the stream during operation. The in-stream section of the withdrawal is a group of screened manifolds to draw water from just below the water surface. Screen size and velocity requirements set by the Susquehanna River Basin Commission and the Pennsylvania Fish and Boat Commission (PFBC) are implemented to avoid harm to wildlife in the immediate vicinity of the intake. The intakes are part of an engineered design and regularly inspected during operation. Further, using an intake supported off the

stream bottom mitigates the disturbance of silt, sand, and sediment from the creek bed, where many macroinvertebrates live.

See page 94 of 250 in the Big Sewickley Creek Water Management Plan Application for details on the engineered intake structures.

7. Will the water withdrawal harm or interfere with habitat utilized by any threatened or endangered species?

As part of the water management plan application process, PennEnergy reports the project to the Pennsylvania Natural Diversity Inventory (PNDI) database to determine if any threatened or endangered species will be affected by the proposed operations. The PNDI review revealed the probable presence of the Southern Redbelly Dace fish species. While the species is not threatened or endangered federally, it has a limited presence in Pennsylvania, and is considered locally threatened.

PennEnergy first met with the Pennsylvania Fish and Boat Commission (PFBC) in August of 2021 to review the proposed withdrawal location and received clearance for the project stating the proposed withdrawal as designed will not have significant adverse impacts to the Southern Redbelly Dace population in the Big Sewickley Creek Watershed, provided that PennEnergy meets several conditions. Subsequent consultations for project clearance with PFBC followed in August 2022, December 2022, and March 2023 during PER's Water Management Plan Application revisions. Final PFBC clearance for the project was received on March 9, 2023, stating the most recent revisions alleviate any additional concerns the PFBC has for protection of the Southern Redbelly Dace population. The conditions recommended by the PFBC are as follows:

- Maintain a pass-by flow of 30% ADF (OCT – MAR) and 50% (APR – SEPT).*
- Install local gage stations and model parameters to monitor pass-by flow.*
- Use intake screen size opening no larger than 3/16"*
- Do not exceed a maximum intake velocity of 0.5 ft/sec.*
- Report total daily withdrawal volumes to PFBC monthly.*
- Provide schedule notice to and coordinate installation of equipment with PFBC Waterways Conservation Officer*
- Utilize location with a normal pool depth of 28" or deeper.*
- Remove the intake structures from the stream when not in use.*

See page 89 of 250 in the Big Sewickley Creek Water Management Plan Application for the PNDI and Pennsylvania Fish and Boat Commission responses.

8. How are these withdrawals monitored?

PennEnergy and contracted personnel will monitor localized stream gages hourly during operations and will adjust or cease the withdrawal rate per the engineered parameters in the approved Water Management Plan. PennEnergy is required to log and keep records of volumes and rates to be made available to the Pennsylvania Department of Environmental Protection (DEP) upon request. PennEnergy also reports the water source and volumes used for well development operations monthly to DEP per Act 220.

Since this is a temporary intake, scheduled for 10 weeks of operation, a permanent USGS stream gage monitoring station, or other continuously monitoring device will not serve a superior function.

See page 20 of 250 in the Big Sewickley Creek Water Management Plan Application for a detailed report on the localized stream gage on Big Sewickley Creek.

9. How are limitations on the withdrawals (min pass-by flow, maximum intake velocity, etc. enforced?)

Water Management Plan compliance is enforced by the DEP through routine or follow up inspections. Any enforcement would be congruent with 25 Pa. Code § 78a.69(f)(3), which reads, "The Department may suspend or revoke an approved water source within a WMP for failure to comply with the WMP or for any reasons in section 3211(m) of the act and sections 3252 and 3259 of the act (relating to public nuisances; and unlawful conduct)."

10. How is the water withdrawal plan PennEnergy has proposed in keeping with the Pennsylvania riparian law?

The water management plan is compliant with Pennsylvania's riparian laws. The proposed intake is temporary, located on private property and will not prohibit or impede access to the creek or the use of the waterway.

11. Has there been a flow study of Big Sewickley Creek?

Yes. A study for pass-by flow determination was completed as part of the Water Management Plan Application process. It was determined and agreed to by PA Fish and Boat Commission, DEP, and professional engineers responsible for the project that the data used is likely more conservative than if current flow data was taken from Big Sewickley Creek and the new data would likely result in a lower Average Daily Flow, resulting in lower minimum pass-by rates.

See page 20 and 73 of 250 in the Big Sewickley Creek Water Management Plan Application for the Stream Gage Calibration Report and the USGS Stream Stats on Big Sewickley Creek and Pass-by Flow Determination.

12. Has there been a ground water study completed?

No. Temporary and intermittent surface intakes follow guidelines set by the Susquehanna River Basin Commission and adopted by the PA DEP and PFBC that, provided the guidelines are followed, the withdrawals are assumed to have no significant impacts on groundwater because of maintaining minimum pass-by flows. As such, PA DEP does not require a ground water study to be completed for this type of project. The proposed Big Sewickley Creek withdrawal has even more stringent guidelines found in the Tennant Method, due to the exclusion of Beaver County from the SRBC's guidelines. Therefore, it is assumed the proposed withdrawal will be more protective of groundwater than other similar projects that regularly withdraw surface water in the Commonwealth.

13. Has an environmental impact study been conducted to evaluate the environmental impact of withdrawing the proposed amount from Big Sewickley Creek?

Yes. The impact analysis regarding the proposed withdrawal was completed as part of the Water Management Plan Application and Joint Permit Application process.

See page 138 of 250 in the Big Sewickley Creek Water Management Plan Application for the Big Sewickley Creek – Withdrawal Impact Analysis.

14. How will the project affect the public fishing or other uses of the stream along Big Sewickley Creek?

The proposed withdrawal, public fishing, and other recreational uses of the stream can coexist on this private property. The equipment is temporary and will be removed when not in use. While equipment is present, passage will be maintained around the withdrawal. The private landowner will allow the public to use other available access points to the stream near the withdrawal location. PennEnergy will have all equipment fenced in and personnel present to ensure the safety of the public.

15. What measures are being taken to protect woodlands, wildlife, and habitat impacts?

For the withdrawal area, habitat and wildlife are protected mainly by maintaining the minimum pass-by requirements coupled with the intake velocity and screen size guidelines by the PA Fish and Boat Commission. These safeguards should prevent the impingement and entrainment of aquatic wildlife during the withdrawal.

The temporary above-ground nature of the waterline project allows for installation, operation, removal, and restoration of the project area utilizing existing gas well access roads and clearings through much of the wooded areas avoiding land clearing and stripping of topsoil typically associated with other types of pipeline. While some trees will be cut for the project, it has been designed to minimize tree cutting. Any trees greater than 6" dbh taken within 100' from any stream, will be replaced by planting new trees in the floodway in the project area.

These measures, along with the regulations, industry best practices for surface water intakes, and perimeter erosion and sedimentation prevention controls ensure the project is protective of woodlands, wildlife, and habitat.

Do you have questions or concerns we didn't address?

Please submit questions or comments to info@pennenergyresources.com.