

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re:)
)
)
Penneco Environmental) UIC Appeal No.: _____
Solutions, LLC)
)
Class II-D Injection Well,)
Plum Borough, Allegheny County)
Pennsylvania)
)
Permit No. PAS2D702BALL)
_____)

PETITION FOR REVIEW BY
PROTECT PT AND THREE RIVERS WATERKEEPER

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I. INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), Protect PT (“Protect PT” or “Petitioner”) and Three Rivers Waterkeeper (“3RWK” or “Petitioner”) petitions for review of the Environmental Protection Agency’s (“EPA”) issuance of an Underground Injection Control (“UIC”) Class II-D Permit (Permit No. PAS2D702BALL) (“Permit”)¹ issued to Penneco Environmental Solutions, LLC. (“Penneco”) on September 21, 2023 by EPA Region 3 (the “Region”). The Permit authorizes Penneco to inject twenty-seven million two hundred sixteen thousand (27,216,000) gallons of mixed hazardous and radioactive oil and gas production waste per year into a Class II-D injection well at a site in Plum Borough, Allegheny County, Pennsylvania (“Injection Well”).

Petitioners challenge the Region’s compliance with Article 1, Section 27 of the Pennsylvania Constitution, consideration of environmental justice factors, and compliance with state and federal laws. By filing this Petition, Petitioners seek to avoid irreparable injury to the natural resources and residents of the Commonwealth of Pennsylvania that will occur because of the activities the Region authorized under the Permit.

¹ Attachment (“Att.”) 1.

II. THRESHOLD PROCEDURAL REQUIREMENTS

Protect PT is a nonprofit organization dedicated to ensuring residents' safety, security, and quality of life by engaging in education and advocacy to protect the environmental and legal rights of the people in Westmoreland and Allegheny counties, Pennsylvania. Since starting as a group of neighbors working together to protect their neighborhood from fracking in late 2014, Protect PT has expanded into a community-based organization with staff, volunteers, and members.

Protect PT satisfies the threshold requirements for filing a petition for review under Part 124 because Protect PT filed comments on the draft permit on June 28, 2022.² Protect PT also participated in the public hearing on the draft permit on August 30, 2022³, as well as providing written comments at the hearing⁴.

Three Rivers Waterkeeper (“3RWK”) is a Pittsburgh-based environmental nonprofit that serves Southwestern Pennsylvania with a mission to protect the water quality of the Allegheny, Ohio, and Monongahela Rivers and their watersheds. 3RWK was founded in 2009. 3RWK is both a scientific and legal advocate for the community, working to ensure that our three rivers are protected and that our waters are safe to drink, fish, swim, and enjoy as these waterways are critical to the health, vitality, and economic prosperity of our region and communities. 3RWK is one of

² Att. 2 Protect PT Written June 2022 Comments

³ Att. 3 Protect PT In-Person Hearing Comments

⁴ Att. 4 Protect PT Written August 2022 Comments

the over 300 organizations that make up the global Waterkeeper Alliance, working together to connect local communities to global environmental and advocacy resources. 3RWK satisfies the threshold requirements for filing a petition for review under Part 124 because 3RWK filed comments on the draft permit on July 12, 2022.⁵

Issues set forth in this Petition were raised either by Petitioners or by another commenter during the public comment period and are therefore preserved for review. Further citations to the Region's Responses to Comments⁶ ("RTC") and explanations as to why the Region's response was clearly erroneous or otherwise warrants review are set forth in the Argument section, *infra*, for each issue.⁷ Finally, this Petition was timely filed by the October 26, 2023 deadline.

The issues presented for review have implications that extend far beyond this Injection Well. Important to Petitioners is the question of whether the Halliburton Loophole violates the Pennsylvania Constitution's Environmental Rights Amendment and the EPA's Environmental Justice Policy.⁸ In addition, Petitioners' interpretation of the regulation that prohibits unconventional oil and gas waste in

⁵ Att. 5 3RWK Written July 2022 Comments

⁶ Att. 6 The Region's Responses to Comments ("RTC")

⁷ See 40 C.F.R. § 124.19(a)(4)(ii).

⁸ See *infra*.

Class II injection wells and their view that the holding of *Maui*⁹ requires CWA permitting for Class II injection wells will affect EPA’s future permitting under Part 124.

III. PROCEDURAL BACKGROUND¹⁰

On July 23, 2021, Penneco submitted a UIC permit application to EPA, Region 3, for the issuance of the Permit (“Permit Application”).¹¹ The Permit Application was officially deemed complete on August 5, 2021. On May 26, 2022, the EPA Region 3 issued a public notice requesting comments and offering the opportunity for a public hearing for the proposed issuance of the Permit to Penneco. EPA received numerous requests to hold a hearing, and on June 28, 2022, EPA held a virtual public hearing. Sixty-one (61) people attended the public hearing, during which EPA received oral comments from twenty-three (23) people.

After several requests for an extension of the public comment period and questions about the virtual format of the May hearing, on July 28, 2022, EPA announced that it would hold a second public hearing as an in-person hearing. The in-person hearing took place on August 30, 2022, at the Plum Borough Community Center where there were approximately fifty-five (55) people in attendance. At this

⁹ *County of Maui v. Hawaii Wildlife Fund*, 140 S. Ct. 1462 (2020).

¹⁰ Att. 7 Administrative Record Index, Att. 8 Statement of Basis, Att. 9 Application

¹¹ Att. 9.

hearing, EPA received oral comments from nineteen (19) people. EPA also extended the period for submitting public comments until September 7, 2022.

The issuance of the Permit to Penneco was announced by Region 3 on September 21, 2023, together with notification that the filing deadline for petitions to be filed with the Board was set for October 26, 2023.

IV. STANDARD OF REVIEW

In any appeal from a permit decision issued under part 124, the petitioner bears the burden of demonstrating that review is warranted. “[A] petition for review must identify the contested permit condition or other specific challenge to the permit decision and clearly set forth, with legal and factual support, petitioner’s contentions for why the permit decision should be reviewed.”¹²

Under 40 C.F.R. § 124.19, the Board has discretion to grant or deny review of a permit decision.¹³ The Board ordinarily denies a petition for review of a permit decision (and thus does not remand it) unless the petitioner demonstrates that the permit decision is based on a clearly erroneous finding of fact or conclusion of law or involves a matter of policy or exercise of discretion that warrants review.¹⁴ To meet this standard, it is not enough for a petitioner to simply repeat comments

¹² 40 C.F.R. §124.19(a)(4)(i); *In re Jordan Dev. Co., L.L.C.*, 18 E.A.D. 1, 4 (EAB 2019).

¹³ *In re Avenal Power Ctr., L.L.C.*, 15 E.A.D. 384, 394 (EAB 2011); *In re Archer Daniels Midland Co.*, 17 E.A.D. 380, 382-83 (EAB 2017).

¹⁴ 40 C.F.R. § 124.19(a)(4)(i)(A)-(B); *see, e.g., In re La Paloma Energy Ctr., LLC*, 16 E.A.D. 267, 269 (EAB 2014).

previously submitted on the draft permit. A petitioner must demonstrate why the permit issuer's response to those objections is clearly erroneous or otherwise warrants review.¹⁵

The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied on when reaching its conclusion.¹⁶ A petitioner must demonstrate why the permit issuer's response to those objections (the permit issuer's basis for its decision) is clearly erroneous or otherwise warrants review.¹⁷ The Region has substantial discretion in how it structures its response to comments. And it is generally sufficient for a response to comments to "succinctly address[] the essence of each issue raised," so long as the response "address[es] the issues raised in a meaningful fashion" and is "clear and thorough enough to adequately encompass the issues raised by the commenter."¹⁸

In reviewing an exercise of discretion by the permit issuer, the Board applies an abuse of discretion standard.¹⁹ The Board will uphold a permit issuer's reasonable exercise of discretion if that decision is cogently explained and supported in the

¹⁵ 40 C.F.R. § 124.19(a)(4)(ii); *City of Lowell*, 18 E.A.D. at 131; see *In re City of Taunton*, 17 E.A.D. 105, 111, 180, 182-83, 189 (EAB 2016) *aff'd*, 895 F.3d 120 (1st Cir. 2018), *cert. denied*, 139 S.Ct. 1240 (2019).

¹⁶ *E.g.*, *In re Shell Offshore, Inc.*, 13 E.A.D. 357, 391 (EAB 2007).

¹⁷ See *Beeland Grp.*, 14 E.A.D. at 196; 40 C.F.R. § 124.17(a).

¹⁸ *In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 585 (EAB 2004).

¹⁹ See *In re City of Palmdale*, 15 E.A.D. 700, 704 (EAB 2012).

record. *See Ash Grove Cement*, 7 E.A.D. at 397 (“[A]cts of discretion must be adequately explained and justified.”).

V. ARGUMENT

A. The Issuance of the Permit Violated the Safe Drinking Water Act

As an initial matter, the Safe Drinking Water Act (“SDWA”) limits Class II wells to “fluids” from *conventional* oil or natural gas production.²⁰ The Permit does not identify the “fluids” Penneco will be authorized to dispose of in the Injection Well.²¹ Upon information and belief, the Injection Well is intended for and will be accepting “fluids” from *unconventional gas production*, which is not permitted under the plain language of the SDWA.

In the United States, *more than two billion gallons of water and fracking fluids are injected into the earth each day* under high pressure for the purpose of enabling oil and gas extraction via fracking or, after the fracking is finished, to flush the extracted wastewater down any of the more than 187,000 disposal wells across the country that accept oil and gas waste.²² *All two billion daily gallons of fluid are toxic*, and the wells that

²⁰ 42 U.S.C. §300f et seq. (1974)

²¹ Att. 1.

²² Att. 10 Horwitt, D. Gottlieb, B. and Allison, October 2023, Fracking with “Forever Chemicals” in Pennsylvania Oil and Gas Companies Used PFAS in Pennsylvania Wells; Extent of Use Obscured by 160 Million Pounds of Trade Secret Chemicals; Rural Areas at Risk. Physicians for Social Responsibility.

ferry it pass through the nation’s groundwater aquifers on their way to the deep geological strata below, where the injection of fracking waste demonstrably raises the risk of earthquakes.²³

Here, the fluids that can be injected into Class II injection wells are those fluids that are “brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.”²⁴ The SDWA defines “fluid” as “any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.”²⁵

There are differences between conventional wells and unconventional (“fracked”) wells.²⁶ The former are located in highly permeable formations where oil and gas flow out easily, while the latter involves fracking in “unconventional” low-permeability formations.²⁷ One of the elements that conventional and unconventional oil and gas development have in common is the use and generation of mixed hazardous and radioactive waste, the true nature of which has never been

²³ *Id.*

²⁴ 40 C.F.R. § 144.6(b)(1).

²⁵ 40 C.F.R. § 144.3.

²⁶ Att. 24, Mall, A. and Alemayehu, B., July 2021, A Hot Fracking Mess: How Weak Regulation of Oil And Gas Production Leads to Radioactive Waste in Our Water, Air, and Communities, Natural Resources Defense Council.

²⁷ *Id.*

disclosed to the public. For example, oil and gas producers in Pennsylvania used 160 million pounds of chemicals that are not required by state or federal law to be publicly identified in more than 5,000 unconventional gas wells between 2012 and 2022.²⁸

Scientists, residents, and educators have been forced to raise their own funds and engage in studies in order to demonstrate the true nature of this waste, and the grave health effects resulting therefrom. In 2022, three Pennsylvania scientists and professors published a book detailing the advent and impacts of fracking, including waste.²⁹ The scientists studied and reported on, among other things, water management and contamination, earthquakes, radioactivity, isotope geochemistry, microbiology, and climate change. The evidence that is presented by these and other scientists documenting the detrimental impact of the waste from oil and gas operations in Pennsylvania, by Pennsylvania scientists has largely been ignored by the EPA, otherwise, Petitioners argue the Permit would not have been issued.

A May 2022 study found that conventional operators spread 3,259,405 gallons untreated “fluids” or wastewater on Pennsylvania roads from 2018 through 2021.³⁰

²⁸ Att. 10, *see also* 58 Pa. C.S. 3222.1 (Hydraulic fracturing chemical disclosure requirements).

²⁹ Stolz, J.F., Griffin, W.M., and Bain, D.J. (eds) 2022. *Environmental Impacts from the Development of Unconventional Oil and Gas Reserves*. Cambridge University Press, Cambridge UK

³⁰ <http://www.paenvironmentdigest.com/newsletter/default.asp?NewsletterArticleID=54043&SubjectID=220>

The wastewater running off the roadways after spreading contains concentrations of barium, strontium, lithium, iron, manganese that exceed human-health based criteria and levels of radioactive radium that exceed industrial discharge standards.³¹ Other studies have shown that conventional wastewater contains harmful contaminants like lead, radioactive radium, bromine, barium, radioactive strontium, chromium, cadmium, arsenic, copper, benzene, diesel-range organics and gasoline-range organics.³²

With respect to unconventional operations, fracking fluid consists of millions of gallons of fresh water to which is added a sequence of chemicals that include biocides, lubricants, gelling agents, anti-scaling, and anti-corrosion agents.³³ Of the more than 1,000 chemicals that are confirmed ingredients, including those described above used in conventional operations, an estimated 100 are known endocrine disruptors, acting as reproductive and developmental toxicants, and at least 48 are potentially carcinogenic.³⁴ Adding to this mix are heavy metals, radioactive elements, brine, and volatile organic compounds (VOCs), which occur naturally in deep geological formations and which can be carried up from the fracking zone with

³¹ Att. 11 T. L. Tasker, W. D. Burgos, P. Piotrowski, L. Castillo-Meza, T. A. Blewett, K. B. Ganow, A. Stallworth, P. L. M. Delompré, G. G. Goss, L. B. Fowler, J. P. Vanden Heuvel, F. Dorman, and N. R. Warner *Environmental Science & Technology* 2018 52 (12), 7081-7091, DOI: 10.1021/acs.est.8b00716.

³² *Id.*

³³ Att. 10 at 36.

³⁴ *Id.* at 139.

the flowback fluid. A 2020 study identified 1,198 chemicals in oil and gas wastewater, of which 86 percent lack toxicity data sufficient to complete a risk assessment. Between 2012-2022, highly toxic polyfluoroalkyl substances (PFAS or so-called “forever chemicals”) were used as ingredients in fracking fluid in more than 9,000 oil and gas wells in multiple states, including Pennsylvania.

In a two-part audit of records, the GAO found that the EPA is failing to protect U.S. drinking water sources from fracking-related activities such as waste disposal via injection wells.³⁵ And yet, both short-term and long-term monitoring is lax, and record-keeping varies widely from state to state.³⁶ The EPA neither mandates nor recommends a fixed list of chemicals for monitoring on the grounds that “injection fluids can vary widely in composition and contain different naturally occurring chemicals and fluids used in oil and gas production depending on the source of the injection fluid.”³⁷ Disposal of oil and gas waste via injection wells is, in fact, subject to regulation under the Safe Drinking Water Act, but, in practice, no one knows exactly what the waste contains, and regulations are deficient.³⁸

The bottom line is that regardless of which technique is used, “fluids” from both conventional and unconventional operations are hazardous to human health

³⁵ *Id.* at 193.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

and pollute the environment. The fact is that the Region is likely unaware of the true nature of the “fluids” that will be disposed of in the Injection Well, nor has the Region presented any information regarding the chemical compatibility of the resulting mixture. Therefore, the Region cannot credibly state that the design and integrity of the Injection Well is sufficient. Regardless, the disposal of “fluids” from *unconventional* oil and gas operations is prohibited under the SDWA.

The RTC does not address the fact that the SDWA only provides for disposal of “fluids” from conventional oil and gas production.³⁹ Rather, the Region’s responses indicate that the Region fully understood that the “fluids” authorized to be disposed of are from “fracking” and “hydraulic fracturing”; this violates the SDWA.⁴⁰ In summary, the Region committed an error of law when it issued the Permit in violation of the SDWA by not limiting “fluids” to those produced from conventional oil and gas development and the Region’s responses, or lack thereof, are not sufficient to explain this conflict with the SDWA. Because the Permit violates the SDWA, the Board should overturn the issuance of the Permit.

³⁹ Att. 6.

⁴⁰ Att. 6 at 3, 16, 21, 37, 39.

B. The Issuance of the Permit Violated the Environmental Rights Amendment of the Pennsylvania Constitution

Article I, Section 27 of the Pennsylvania Constitution states⁴¹:

“§ 27. Natural resources and the public estate.

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”

Pennsylvania voters approved the Environmental Rights Amendment for placement in the Bill of Rights, which are reserved by the people for the people to be protected from illegitimate government interference in 1971.⁴² The Environmental Rights Amendment received unanimous approval by the state legislature; every legislator, regardless of party affiliation, voted for it.⁴³

The legislative history indicates that the placement of the amendment in the Bill of Rights was intentional and recognizes that the Environmental Rights Amendment is a restraint on government action and overreach, and not a grant of new authority or new rights.⁴⁴ The right to pure water and clean air and a healthy environment are legally recognized and protected on par with other fundamental

⁴¹ PA Const. Article 1, Section 27

⁴² Att. 12 Dernbach, J. and Sonnenberg, E., July 2014, “A Legislative History of Article 1, Section 27 of the Constitution of the Commonwealth of Pennsylvania, Showing Source Documents,” Widener Law.

⁴³ *Id.*

⁴⁴ *Id.*

rights like the right to free speech, due process rights, freedom of religion, and property rights.⁴⁵ Environmental rights are not of lesser legal importance than property rights and the Environmental Rights Amendment is intended to ensure proper and equitable balancing of environmental rights in the eyes of legislators and the courts.⁴⁶

The right to a clean environment is a basic human right that should be given the highest priority, recognition, and protection. The Environmental Rights Amendment is critically important to Pennsylvania residents, particularly since the United States Constitution⁴⁷ is less protective and fails to provide residents with a mechanism to enforce their and their children's fundamental rights to a clean environment. The Environmental Rights Amendment addresses the special conditions and contexts of Pennsylvania that warrant greater protections, namely because of the irreparable toll the extractive industry has taken on Pennsylvania's environment, climate, and people who live there and the gross long-standing failures of the PA DEP to regulate and protect.

The Pennsylvania Supreme Court held that “[Article I, Section 27] establishes the public trust doctrine with these natural resources (the corpus of the trust) and designates ‘the Commonwealth’ as trustee and the people as the named

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ U.S. Const.

beneficiaries.”⁴⁸ A legal challenge pursuant to the Environmental Rights Amendment may proceed upon alternate theories that either the government has infringed upon citizens' rights or the government has failed in its trustee obligations, or upon both theories, given that the two paradigms, while serving different purposes in the amendatory scheme, are also related and overlap to a significant degree.⁴⁹

For the public trust clause of the Environmental Rights Amendment, this duty grows out of the fiduciary duties of prudence, loyalty, and impartiality, and the Region’s inability to act contrary to the rights enumerated implies a corollary responsibility intended to ensure that these rights are protected and the responsibility to consider impacts on those rights and values **prior to making a decision**.⁵⁰ One example of how the Region violated the Environmental Rights Amendment is highlighted above, specifically the Region’s failure to identify all of the “fluids” that would be disposed of in the Injection Well. Without this information, the Region cannot consider the impacts the Injection Well will have when it fails and releases mixed hazardous and radioactive waste into the environment.

⁴⁸ *Robinson Township*, 83 A.3d at 956; see also *Pa. Env’t Def. Found. V. Commonwealth*, 161 A.3d 911, 931–32 (Pa. 2017) (“The third clause of Section 27 establishes a public trust, pursuant to which the natural resources are the corpus of the trust, the Commonwealth is the trustee, and the people are the named beneficiaries.”) (footnote omitted).

⁴⁹ *Robinson Twp.* at 950-951; Accord 1970 Pa. Legislative Journal—House 2269, 2272 (April 14, 1970) (Section 27 “can be viewed almost as two separate bills—albeit there is considerable interaction between them, and the legal doctrines invoked by each should tend mutually to support and reinforce the other because of their inclusion in a single amendment.”).

⁵⁰ *Robinson Twp.*, 83 A.3d at 952. (emphasis added).

The Pennsylvania Supreme Court in *Robinson Township* indicated that the values protected by the first clause of Section 27 are to be interpreted broadly:

[T]he constitutional provision directs the “preservation” of broadly defined values of the environment, a construct that necessarily emphasizes the importance of each value separately, but also implicates a *holistic* analytical approach to ensure both the protection from harm or damage and to *ensure the maintenance and perpetuation of an environment of quality* for the benefit of future generations.⁵¹ (emphasis added)

Next, the Board should look to the body of precedent from the Pennsylvania Environmental Hearing Board (“EHB”) when evaluating the Region’s compliance with the Environmental Rights Amendment. The EHB’s approach to reviewing whether the PA DEP’s decision to issue a permit comports with Article I, Section 27, is as follows:

We first must determine whether the Department has considered the environmental effects of its action and whether the Department correctly determined that its action will not result in the unreasonable degradation, diminution, depletion or deterioration of the environment. Next, we must determine whether the Department has satisfied its trustee duties by acting with prudence, loyalty and impartiality with respect to the beneficiaries of the natural resources impacted by the Department decision.⁵²

The Region failed to consider the environmental effects of its action by permitting Penneco to dispose of unconventional “fluids” in the Injection Well; it is

⁵¹ *Robinson Twp.*, 83 A.3d at 951 (emphasis added).

⁵² PA. CONST. art I, § 27; *Del. Riverkeeper Network v. DEP*, 2018 EHB 447, 493. See also *Ctr. for Coalfield Justice v. DEP*, 2017 EHB 799, 855-62; *Friends of Lackawanna v. DEP*, 2017 EHB 1123, 1160-62.

unlikely that the EPA is aware of the impact conventional “fluids” have on injection wells designed as a Class II well, much less what the impacts on such design unconventional fluids would have. Notably, the SDWA regulates hazardous and radioactive wastes differently with respect to well design.⁵³ Simply stated, if an industry other than the oil and gas industry were to generate such “fluids”, these fluids would be prohibited in the Injection Well, and would require either a Class I or Class IV injection well, both of which provide for different and heightened engineering standards to protect human health and the environment; not providing the residents in the vicinity of the Injection Well with the same level of protection also violates the EPA’s EJ Policy.⁵⁴

The Environmental Rights Amendment mandates that the Region satisfy the fiduciary duties of prudence, loyalty, and impartiality before issuing permits in Pennsylvania. The fiduciary duty of prudence means that the Region is bound in the management of all the matters of the trust to act in good faith and employ such vigilance, sagacity, diligence and prudence as in general prudent [persons] of discretion and intelligence in like matters employ in their own affairs.⁵⁵

⁵³ 40 C.F.R. § 144.6(a) and 40 C.F.R. § 144.6(d).

⁵⁴ *See infra*.

⁵⁵ *New Hanover, et al. v. DEP, et al.* 2020 EHB 124, 189-195; *see also* Att. 12; *See also* Att. 13, Dernbach, J., 2020, The Role of Trust Law Principles in Defining Public Trust Duties for Natural Resources, University of Michigan Journal of Law Reform, Vol. 54:1

A prudent person would endeavor to gain a full understanding of the composition and nature of mixed hazardous and radioactive waste prior to allowing such waste to be disposed of on, under, or near where they live, work, and recreate in order to, among other things, protect their health. The Region failed to undertake such an analysis, nor does the Permit address the true nature and composition of the “fluids,” nor are there any regulatory limitations on discharge.

Permitting a potential source of groundwater pollution and migration without a full understanding of the consequences of that migration and how to deal with those consequences is not prudent environmental management.⁵⁶ It also exhibits partiality to one party, Penneco, at the as of yet unknown expense of other interested parties, including but not limited to innocent taxpayers who may be required to fund the eventual and unavoidable cleanup.⁵⁷

The fiduciary duty of loyalty requires that the Region administer the trust solely in the interest of the beneficiaries, which is all the people, including future generations; this means that the Region cannot prioritize the goals or needs of a single industry or actor above the interests of the people to a clean and healthy environment.⁵⁸ The Region did not meaningfully consider the interest of beneficiaries who will live in close proximity to the Injection Well, and the Region

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

clearly did not consider the interests of beneficiaries living downstream. Even more glaring is the fact that the Region did not acknowledge or consider the impacts the activities authorized under the Permit will have on future generations.

The fiduciary duty of impartiality mandating that the trustee treat all beneficiaries equitably; this means that government actions and decisions cannot target or sacrifice a single community with repeated environmental harm to better protect the interests of another community.⁵⁹ This has powerful environmental justice implications in that now all individuals and communities -- regardless of ethnicity, income or address -- have the same rights and must be treated equitably.⁶⁰

The Region failed to identify and consider the cumulative impacts and overwhelming evidence of the existing and ongoing pollution that the residents of Plum Borough and Allegheny County are already burdened with. The Region's failure in this regard is particularly egregious because the Region itself was in the best position to include this information in its review prior to issuing the Permit. Environmental statutes, such as the federal Clean Water Act and Clean Air Act, are generally written so as to promote cooperative federalism (i.e., federal, state and local

⁵⁹ Att. 14, Jacob Elkin, Environmental Justice and Pennsylvania's Environmental Rights Amendment: Applying the Duty of Impartiality to Discriminatory Siting, (2021). Available at: https://digitalcommons.law.buffalo.edu/reshaping_ej_law_and_social_policy/4

⁶⁰ *Id.*

governments all share in the responsibility of addressing common problems, issues and/or concerns).⁶¹

Moreover, Penneco already currently owns and operates an injection well on the site, the Sedat 3A well. EPA issued a UIC final permit for the Sedat 3A well on March 7, 2018. Penneco currently uses the Sedat 4A well as a gas production well. If Penneco receives all necessary State and Federal approvals, Penneco will convert the Sedat 4A well to the Injection Well. The wastewater Penneco will inject into the Sedat 4A well will come from production wells owned by Penneco as well as from other oil and gas productions wells in the area. The Injection Well would be located just 800 feet from the Sedat 3A injection well.⁶²

Currently, there is a new PA DEP EJ policy being considered drafted with comments being accepted by the public.⁶³ This community has already received an unfair burden of environmental harm from Sedat 3A; to permit a second injection well by an industry that has shown that does not protect communities from harm would be an outright continuation of adding more environmental harm to those already disproportionately impacted and exasperating environmental injustices.⁶⁴

⁶¹ *Id.*

⁶² RTC at 2.

⁶³ <https://www.dep.pa.gov/PublicParticipation/OfficeofEnvironmentalJustice/Pages/Policy-Revision.aspx>

⁶⁴ Att. 5.

Since the older Sedat 3A Injection Well was proposed in 2016, residents have spoken out about the risks that injection wells pose both to the underground aquifers and to the streams and creeks that flow through the borough.⁶⁵ Their concerns were unfortunately vindicated: the 3A Injection Well has already failed and violated environmental regulations, leading to persistent, ongoing water quality problems.⁶⁶

Residents living near the Sedat 3A well have said that since the injection well began to operate, their well and spring water became discolored and cloudy, or took on strange tastes or odors.⁶⁷ At the same time, residents' attempts at challenging the permitting and construction of the Sedat 3A and now the Injection Well have been ignored.⁶⁸ When the Sedat 3A well was initially proposed, "at least 200 people opposed permit approval" at the July 2017 public hearing.⁶⁹ The Borough updated its zoning ordinance to restrict oil and gas disposal wells to areas zoned for industrial use, but that too was ignored.⁷⁰

When opponents of the injection well asked Governor Wolf to step in and protect the Borough, the governor's response was to say that he lacked the authority to revoke the permit.⁷¹ In effect, the permitting process used for the Sedat 3A

⁶⁵ *Id.* Att. 15, Notices of Violations issued to Penneco from PA DEP.

⁶⁶ *Id.* See also Att. 2, Att. 3, and Att. 4.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

Injection Well violated Plum residents' right to clean air and pure water as guaranteed by the Pennsylvania Constitution while also denying the state and local governments the ability to protect their residents.⁷² Despite the widespread, vocal opposition to oil and gas waste disposal in Plum Borough, the Sedat 3A well was permitted. This undemocratic process must not repeat with the Injection Well.

This industry has shown it is not capable of staying within environmental regulations, and the proposed activities would add too much environmental harm to the community based on already known pollution sources.⁷³ Furthermore, there is currently no proven method of injecting mixed radioactive and toxic waste into the ground that does not contaminate water sources.⁷⁴ The Region must protect communities from taking the full burden of industrial waste, and the issuance of the Permit violates such obligation.

The Region has offered no meaningful demonstration of collaboration with other federal, state, or local programs to ensure that, among other things, the issuance of the Permit complied with the Environmental Rights Amendment, including with respect to cumulative and disproportionate impacts.⁷⁵

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ Other than a species check.

Pennsylvania is one of the most polluted states in the country. The Commonwealth of Pennsylvania, Department of Environmental Protection (“PA DEP”) has consistently failed to uphold the Environmental Rights Amendment, resulting in widespread pollution of Pennsylvania’s environment.⁷⁶ While much of Pennsylvania’s environmental regulation is left to the PA DEP, in July 2023, the Office of the Inspector General found that the EPA has not updated its pollution-reduction strategy or led the Chesapeake Bay jurisdictions, including Pennsylvania, in updating the 2025 goals and pollutant-reduction deadlines.⁷⁷ EPA “did not fully embrace its leadership role” in the 2025 Chesapeake Bay cleanup effort, contributing to its failure.⁷⁸

Pennsylvania ranks 6th in the nation for worst tap water.⁷⁹ Pennsylvania is responsible for 1% of global emissions, which is more than some countries.⁸⁰ The

⁷⁶ Att. 16, Pennsylvania’s 43rd Statewide Investigating Grand Jury Report on the Unconventional Oil and Gas Industry (2020) (Filed in the Courts of Common Pleas of Allegheny and Washington Counties)(*see* discussion of PA DEP’s widespread failures to protect and regulate); Att. 17, Pennsylvania Auditor General, Special Performance Audit of the PA DEP, 2014, (“DEP’s performance in monitoring potential impacts to water quality from shale gas development, 2009-2012).

⁷⁷ Att. 18, Office of Inspector General, July 2023, The EPA Should Update Its Strategy, Goals, Deadlines, and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts.

⁷⁸ *Id.*

⁷⁹ <https://www.jdpower.com/business/resources/as-Americans-focus-on-water-these-states-boast-the-best>

⁸⁰ <https://www.penncapital-star.com/energy-environment/report-pennsylvania-ranked-fourth-nationally-in-greenhouse-gas-emissions-in-2020/>

southwestern region of the state where the Injection Well is located, accounts for nearly half of the Commonwealth's pollution.⁸¹

The Federal Clean Water Act ("CWA") requires Pennsylvania to report the overall condition of Pennsylvania's aquatic resources and to list impaired waters requiring total maximum daily loads to the EPA once every two years. The most recent integrated water report from Pennsylvania was published in 2022 ("PA Water Quality Report"), and the Region had the benefit of this report prior to issuing the Permit.⁸²

The Water Quality Report reveals that 1/3 of Pennsylvania streams are too polluted for aquatic life, recreation, fish consumption, or to supply drinking water, which was a nine percent (9%) increase from the 2020 report.⁸³ More than 60-percent of lakes in Pennsylvania were also found to be polluted; the report assessed 109,819 lake acres and found 68,634 of these lake acres impaired for any use.

Allegheny County and Plum Borough where the Injection Well will be located, are among the most impacted areas in the state. 67% of streams in Allegheny County are impaired and Allegheny County is 9th out of Pennsylvania's 67 counties

⁸¹ <https://publicinterestnetwork.org/wp-content/uploads/2023/05/PAE-FG-Dirty-Dozen-May23.pdf>

⁸² <https://storymaps.arcgis.com/stories/b9746eec807f48d99decd3a583eede12>

⁸³ *Id.*

for the most miles of polluted streams.⁸⁴ The Allegheny River is impaired for potable water supply, fish consumption, aquatic life, and recreational impaired.⁸⁵

Section 303(d) of the CWA requires states to set prioritization ranking for restoring impaired waters. The PA DEP attempts to meet this requirement by creating a list of watersheds that are identified as restoration priorities.⁸⁶ Plum Borough is in the Plum Creek Watershed, which is impaired and on the priority list for restoration.⁸⁷ Beaver Run, which also feeds Beaver Run Reservoir, a public water source, is also on the 303(d) list. The EJ Screen (defined below) that the Region references in the administrative record should have identified that the 1/4 mile radius around the Injection Well includes impaired waters and does not meet the National Ambient Air Quality Standard.⁸⁸

There is no proof that this method proposed will not violate Pennsylvanians' right to clean air and pure water, but it is a fact that the "fluids" to be disposed of in the Injection Well contain toxic and carcinogenic additives and components that cause long-term health issues and can lead to death.

The Region has also failed to demonstrate that there is a compelling state interest that supports the Permit. Petitioners note that it is not enough under the

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*, see also Att. 19, PA DEP 2022 Restoration Priorities.

⁸⁸ Att. 20 – Petitioners' EJ Screen

Environmental Rights Amendment for a permittee to demonstrate full compliance with statutory and regulatory requirements. The EHB explained the fallacy with the notion, advocated here by the Region, that the Environmental Rights Amendment standard is coextensive with compliance with the statutes and the regulations governing clean water.

“The Supreme Court in *PEDF* clearly rejected such an approach when it rejected the *Payne* [v. *Kassab*, 312 A.2d 86 (Pa. Cmwlth. 1978)] test.” *Id.*, slip op. at 62. Thus, in theory, an operation may be compliant with all specific regulatory requirements and yet not be permissible due to the unreasonable degradation it will cause. This is admittedly a rather vague standard, but as the Department has correctly pointed out, it is not that different from the standard that this Board has employed for decades, *Solebury School v. DEP*, 2014 EHB 482, 519; *Coolspring Twp. v. DER*, 1983 EHB 151, 178, and it is not unlike the judgment that must be brought to bear regarding other constitutional provisions, see, e.g., *Commonwealth v. Henderson*, 47 A.3d 797 (Pa. 2012) (discussing tension between privacy and law enforcement in the context of search and seizure under Article I, Section 8 of the Pennsylvania Constitution); *Norton v. Glenn*, 860 A.2d 48 (Pa. 2004) (analyzing the balance in a defamation action between freedom of expression in the First Amendment to the United States Constitution and Article I, Section 7 of the Pennsylvania Constitution and a citizen’s right to reputation under Article I, Section 1 of the Pennsylvania Constitution).”

While the Region claims it has no authority to deny or condition a UIC permit where the permittee has demonstrated full compliance with the statutory and regulatory requirements in states without a similar constitutional provision, in Pennsylvania the Region is obligated to first satisfy the Pennsylvania Constitution

prior to an analysis of purported statutory and regulatory compliance, and it failed to do so here.⁸⁹

There is no demonstration that the Region has taken the necessary steps to avoid and minimize the environmental impacts as much as possible, including the effects of certain “accidental” discharges. The Region could not do that here because it failed to obtain all necessary information prior to making a decision, including but not limited to, the true nature of the “fluids,” cumulative impacts, and effects on future generations.

The Region’s issuance of the Permit favors industry’s short-term financial gain over the health and livelihood of future generations, and that is precisely how Pennsylvania’s natural resources have been degraded over time by the collective actions and failures of the EPA and the PA DEP. It is also why Pennsylvania has self-executing environmental rights amendment - to prevent future harm to Pennsylvania’s already fragile and degraded environment. The fundamental, constitutional, and human rights of Petitioners’ members and all Pennsylvanians, including generations yet to come, supersede the commercial interests of Penneco.

Petitioners are not naïve and recognize that the Environmental Rights Amendment does not foreclose industrial development. “[R]ather, as with the rights affirmed by the first clause of Section 27, the duties to conserve and maintain are

⁸⁹ *Envotech*, 6 E.A.D. at 280.

tempered by legitimate development tending to improve upon the lot of Pennsylvania's citizenry, with the evident goal of promoting sustainable development."⁹⁰ Neither Penneco nor the Region demonstrated that the issuance of the Permit promotes development that will improve the lives of Pennsylvania residents, in fact the reverse is true, nor did either demonstrate that the issuance of the Permit promotes sustainable development.

The Region violated the Environmental Rights Amendment when it issued the Permit, and its response to the Comments on this point is clearly erroneous and warrants a review of the Permit:

COMMENT 20: Issuing an Underground Injection Control (UIC) Permit for the #4A well would violate Article I, Section 27 of the Pennsylvania Constitution.

RESPONSE: EPA disagrees with the allegation that this permit issuance would violate the Pennsylvania Constitution's guarantee of access to "clean air, pure water, and to the preservation of the natural scenic, historic and esthetic values of the environment." UIC requirements and final permit conditions, as explained in the responses to comments 2 and 3, and elsewhere in this document, are designed to ensure non-endangerment of USDWs and to ensure that wastewater disposal operations can proceed in a manner that protects drinking water for local residents.

⁹⁰ *Robinson Township*, 83 A.3d at 958.

The Region’s response to the comments related to the Environmental Rights Amendment is perfunctory and deficient on its face.⁹¹ First, the Region has no discretion in whether to apply the Environmental Rights Amendment; it must. The Region’s response, when broken down, only concerns itself with the “non-endangerment of USDWs” and “drinking water for local residents” and the Region claims that “UIC requirements and final permit conditions” satisfy such concerns; there is no mention of any consideration of any other effects the Injection Well will have on human health and the environment, including the air pollution that will result. Clean air is guaranteed by the Environmental Rights Amendment and the Region erred when it did not review other impacts, including the air impacts associated with the Injection Well.

The Region’s response then directs the reader to refer to the Region’s responses to comments 2 and 3, and “elsewhere in this document” to support its position that its action did not violate the Environmental Rights Amendment. This too is improper; the Region’s discretion to choose how it presents its response to a comment is not unlimited. As the Board observed in *Dominion Energy*, “[i]f cross-referencing ambiguities were to render a response to comments document incoherent, then there might be an issue.”⁹² And in *Dominion Energy*, while the Board

⁹¹ RTC at 36.

⁹² *Dominion Energy*, at 530.

concluded that the Region’s “approach [was] discernable” for the most part, *id.*, the Board did remand the permit as to one comment because the Board could not find a response to that comment that the Region stated was “discussed in greater detail elsewhere.”⁹³

The Region’s response to Comment 2 pertains to regulations and the physical features and geography of the site; however, the response clearly does not point to any actions taken by the Region in accordance with its obligations as a trustee under the Environmental Rights Amendment.⁹⁴ Specifically, it is clear that the use of a Class II injection well for hazardous and radioactive waste is unreasonable and clearly not protective of the environment. While the Region spends quite a bit of time on the ZEI and AOR in this matter, using ¼ mile is insufficient. The AOR for a Class I Well that contains hazardous waste is 2 miles and requires a “no-migration petition demonstrating that fluids will remain in the injection zone for as long as they are hazardous (modeling conducted to show either the waste will remain in the injection zone for 10,000 years or it will be rendered non-hazardous before migration)”.⁹⁵ In addition, these Class I injection wells are required to have a waste analysis plan and an analysis of geochemical compatibility. Petitioners make the same comment with respect to Class IV injection wells, which take radioactive waste;

⁹³ *Id.* at 589.

⁹⁴ RTC at 4-13.

⁹⁵ 40 C.F.R. § 144.6(a) and 40 C.F.R. § 144.6(d). *See also* Att. 2, Att. 3, and Att. 4.

the requirements for a Class IV injection well are more stringent than a Class II injection well.⁹⁶ Petitioners and the residents of Pennsylvania should not be afforded less environmental protection simply because the subject hazardous and radioactive waste is generated by the oil and gas industry.

The Region's response to Comment 3 is deficient because it merely recites recordkeeping requirements, but the issue is that, like for a Class I injection well, Penneco should be required to test the "fluids" that will be disposed of for radioactivity and chemicals known to be used in oil and gas operations and the chemical compatibility thereof; anything less is a violation of the Environmental Rights Amendment.

As for the Region's direction for the reader to look "elsewhere" in the Response Document, Petitioners have identified numerous admissions by the Region that demonstrates that there were no meaningful attempts by the Region to comply with the Environmental Rights Amendment, and no evidence of an analysis of its obligations of prudence, loyalty, and impartiality.⁹⁷ These admissions, as described below and in which the Region fails to articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied on when reaching its conclusion support the Board's reversal of the Permit.

⁹⁶ *Id.*

⁹⁷ *See supra.*

Comment 4 and EPA's response thereto is a case study as to why the Permit should have never been issued.⁹⁸ The Region refers to the past issues with the Sedat 3A and the PA DEP's responses thereto. On the one hand, the Region tells us that the EPA will effectively regulate the Injection Well, and on the other hand states that the PA DEP will ensure protection of the environment and human health. The EPA and the PA DEP have each already failed to ensure that the Sedat 3A does not cause pollution, and it is unreasonable of the Region to not give these issues any weight when it reviewed whether Penneco could be trusted with the Permit.

Comment 5: The Region attempts to reassure the public that, notwithstanding it and the PA DEP's decades of failing to protect Pennsylvania's environment and residents, that the EPA is capable of "taking action to protect the public."⁹⁹ The fact that Pennsylvania ranks 6th in the nation for worst tap water and is responsible for 1% of global emissions, which is more than some countries, undercuts the EPA's reassurances.¹⁰⁰ In addition, the Environmental Rights Amendment requires that the Region be proactive, not reactive.

In its response to Comment 18, the Region, not thinking of generations yet to come, stated: "As a result of the containment of the wastewater by the upper and

⁹⁸ RTC at 17-18.

⁹⁹ RTC at 18-19.

¹⁰⁰ *See supra*.

lower confining zones, most likely it will be many years, if ever, before the wastewater would reach surface waters.”¹⁰¹ The Region does not define “many years” and this clearly dismisses any consideration of future generations, all of whom are entitled to protection.

Comment 22: The Region responded to “other” comments regarding the issuance of the Permit by stating that “Therefore, these concerns are outside of the scope of the UIC Program.”¹⁰² The Region did not sufficiently identify the “other” comments, and therefore the Region’s responses are not responsive.¹⁰³

Comment 23: With respect to the submission by the community of news articles, studies, and reports, the Region responded¹⁰⁴:

- “Such critiques fall outside of the issues the UIC rules set out for consideration by EPA when it issues a permit.”
- “Some published materials described issues that, while they may apply to the #4A well permit, fall outside of those matters the UIC rules set out for consideration by EPA when it issues a UIC permit. Therefore, EPA need not respond to them.”
- “EPA responds that it understands that there are risks inherent in disposing of the wastewater by underground injection. The Agency has made the judgement that the risks and problems associated with other potential means for disposing of the wastewater makes underground injection the preferable option.”

¹⁰¹ RTC at 35.

¹⁰² RTC at 38.

¹⁰³ *See Robinson.*

¹⁰⁴ RTC at 39.

The Region did not properly identify the comments to which it was referring, or the supporting documents it summarily dismissed, and therefore failed to respond to such comments to demonstrate compliance with the Environmental Rights Amendment. Nor did the Region provide any support for its “judgement that the risks and problems associated with other potential means for disposing of the wastewater makes underground injection the preferable option.”

The Region’s response to Comment 12 regarding Penneco’s violations at the Sedat 3A by issuing another permit is an example of the state of pollution in Pennsylvania, which allows companies that violate environmental laws to keep operating.¹⁰⁵ This violates the Environmental Rights Amendment – first, it lacks prudence. Next, the Permit was issued at the expense of the environment and the health of the residents, violating the Region’s obligation of loyalty. Finally, the issuance of the Permit shows extreme partiality to Penneco.

The Region’s response to Comment 7 is materially deficient deserves further detail for the Board. The comment includes “There are similar serious concerns with gaps in information regarding the long-term effects of injection wells.” In response, the Region changed the subject and stated, “Public and privately owned wastewater treatment facilities are unable to adequately remove many constituents found in brine that result from the hydraulic fracturing for oil and gas production”

¹⁰⁵ RTC at 23-28.

and “The UIC permitting program is designed to provide an alternative through which injection activities may occur in a regulated and environmentally protective manner which ensures that best management practices are identified and employed.”¹⁰⁶

If the Region intended to propose that the Injection Well as a benefit over these other facilities, then it needed to provide studies and other information to validate such claim. At any rate, the Region’s response did not respond at all to the valid concerns about the long-term effects of an injection well; this violates the Environmental Rights Amendment. The Region is required to obtain information regarding the environmental and resulting health effects prior to issuing permits in Pennsylvania.

A study performed in 2019 took a holistic view of the costs and benefits to Pennsylvania communities in areas where oil and gas operations exist.¹⁰⁷ The results support Petitioners’ argument that they have demonstrated the issuance of the Permit would result in harms much greater than any purported benefits, and the EPA had access to the same data prior to issuing the Permit. Because the Permit

¹⁰⁶ *Id.* at 32.

¹⁰⁷ Att. 21, Delaware Riverkeeper Network, *The Economic Costs of Fracking in Pennsylvania*, May 2019

violates the Environmental Rights Amendment, the Board should overturn the issuance of the Permit.

C. The Halliburton Loophole’s Exemption of Oil and Gas Production Fluids from the SDWA Violates the Environmental Rights Amendment

In 1987, the EPA issued a report that revealed the health risks of unregulated radioactive oil and gas waste.¹⁰⁸ In that report, the EPA revealed that radioactive materials, such as cancer-causing radium, had been found in wastewater from the oil and gas industry. *Id.* Its analysis detected radium-226 in wastewater at levels up to 395 picocuries per liter (pCi/l) and radium-228 at levels up to 570 pCi/l. The EPA’s maximum contaminant level standard for combined radium-226 and radium-228 in drinking water is only 5 picocuries/liter. The half-life of radium 226 is 1,600 years – the “fluids” that will be disposed of in the Injection Well will be radioactive for well over one thousand years after it is disposed, resulting in an ongoing risk to the environment and human health.

On October 20, 2023, the EPA finalized a rule that improves reporting on per- and polyfluoroalkyl substances (PFAS) to the Toxics Release Inventory (TRI) by eliminating an exemption that allowed facilities to avoid reporting information on PFAS when those chemicals were used in small concentrations, stating “People

¹⁰⁸ Att. 22, December, 1987, Report to Congress, Management of Wastes from Exploration, Development, and Production of Crude Oil, Natural Gas, and Geothermal Energy.

deserve to know if they're being exposed to PFAS through the air they breathe, the water they drink, or while they're on the job.”¹⁰⁹ Petitioners agree, and this standard should apply to all chemicals and radiation that results from oil and gas operations; people deserve to know what they are being exposed to with no exceptions.

An April 2023 study revealed that 28 SDWA-regulated chemicals are reported in FracFocus, and 62–73% of all disclosures (depending on year) report at least one SDWA-regulated chemical.¹¹⁰ Of these, 19,700 disclosures report using SDWA-regulated chemicals in masses that exceed their reportable quantities as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).¹¹¹

However, like other laws, rules and regulations that protect human health and the environment, this new rule does not apply to the oil and gas industry; the 2005 Energy Policy Act and its “Halliburton Loophole” exempts oil and gas activity from regulation under the Safe Drinking Water Act (SDWA), and the results have been detrimental to Pennsylvania’s environment and the health of residents.¹¹²

¹⁰⁹ <https://www.epa.gov/newsreleases/epa-finalizes-rule-require-enhanced-pfas-reporting-toxics-release-inventory>

¹¹⁰ Att. 10.

¹¹¹ *Id.*

¹¹² Att. 22, Underhill, V., Fiuza, A., Allison, G., Poudrier, G., Sinkoff, S.L., Vera, L., Wylie, S., April 2023, Outcomes of the Halliburton Loophole: Chemicals regulated by the Safe Drinking Water Act in US fracking disclosures, 2014–2021

The EPA previously approved the use of PFAS in oil and gas operations, and Pennsylvania allows operators to keep the use of PFAS and other hazardous chemicals a secret.¹¹³ The fact is that neither Petitioners nor the public have any idea of what Penneco will be injecting into the Injection Well, and Petitioners doubt that the EPA and PA DEP know what will be injected.¹¹⁴ Describing mixed hazardous and radioactive waste merely as “fluid” or “brine” is deceptive as the terms infer benign materials. The main isotope of radium found in “brine,” radium-226, has a half-life of 1,600 years.

Here, allowing Penneco and its employees and contractors to move, store, and dispose of waste with no knowledge of toxins, carcinogens, and level of radioactivity is just reckless and not in conformance with EPA’s duty to protect the environment and the health of persons, and also violates the Environmental Rights Amendment. There are also no provisions that would afford first responders, like firefighters, of the hazards present at the Injection Well site in the event of an emergency, placing their lives and health at risk, demonstrating the stark reality of the partiality to industry.

The Halliburton Loophole would allow Penneco to dispose of “fluids” containing chemicals linked to negative health effects including cancer, kidney and

¹¹³ Att. 10.

¹¹⁴ Att. 24.

liver disease, fertility impairment and reduced sperm counts without being subject to regulation under the act; this violates Pennsylvania's Environmental Rights Amendment.

The Region's responses summarized above also apply to this section, and Petitioners incorporate them herein. The Region's failure to identify, address, and consider the impact that unregulated hazardous and radioactive substances will have on Pennsylvania's environment and residents is exactly why Pennsylvania has the Environmental Rights Amendment – either regulations are not protective enough or there are no protective regulations at all. Here, the Region may claim that it followed applicable law, and even if it were true, the Region still violated the Environmental Rights Amendment by failing to abide by its trustee obligations of prudence, loyalty, and impartiality as described herein. It is reckless policy to permit and authorize acts that will cause certain harm to the environment and human health on an unwitting populace, and this violates the Environmental Rights Amendment, and the issuance of the Permit should be overturned.

D. The Activities under the Permit Require Additional Permits under the CWA, and will Endanger Private and Public Waterways and a Navigable Waterway in Violation of the Clean Water Act

In particular, the risk posed to both ground and surface water quality raises concerns under both the CWA and the SDWA.¹¹⁵ Broadly, the CWA requires the acquisition of a valid NPDES permit to discharge pollutants from a point source into the surface waters of the United States. The United States Supreme Court held in the 2020 case *County of Maui v. Hawai'i Wildlife Fund* that the CWA “requires a permit when there is a direct discharge from a point source into navigable waters or when there is a functional equivalent of a direct discharge.”¹¹⁶ In *Maui*, a wastewater reclamation facility in Hawaii pumped wastewater underground, where it flowed through the groundwater out into the ocean.¹¹⁷ Even though the flow of that wastewater was disrupted by the need to travel underground, the Court held that this was still in effect a discharge of waste from a point source into coastal waters.¹¹⁸

The CWA’s effluent limitations still applied when point source pollution (e.g., wastewater from an injection well) traveled in a nonpoint source manner (e.g., through groundwater) into navigable waters. The fact that contaminants must flow underground before reaching navigable surface waters should not exempt the Sedat

¹¹⁵ See Att. 5.

¹¹⁶ See *supra*.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

4A Injection Well from the CWA's requirements for other point sources, moreover, the Environmental Rights Amendment demands that this be taken into account when determining the effects of the Region's issuance of the Permit.

The antidegradation policy established by the CWA requires that "the level of water quality necessary to protect [the stream's] existing uses shall be maintained and protected."¹¹⁹ The same antidegradation policy also requires that sufficient water quality must be maintained "to support the protection and propagation of fish, shellfish, and wildlife and recreation on and in the water." Even if the Pennsylvania were to decide that the economic or social interests are weighty enough to justify allowing lower water quality (it has), Pennsylvania must still "assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources..."

Plum Creek and its tributaries are classified for recreational use and as a warm water fishery, yet the watershed is already impaired.¹²⁰ Plum Creek itself is a tributary of the Allegheny River, which is also impaired, is supposed to support recreation and warm water fish, while also being widely used for navigation and as a source of drinking water.¹²¹ The Allegheny River, one of the three rivers that make up the Port of Pittsburgh, is a navigable water entitled to protection, used to carry

¹¹⁹ *See* Att. 5.

¹²⁰ *See supra*.

¹²¹ *See supra*.

raw materials, bulk and manufactured goods for many industries in the region.

¹²² The Port of Pittsburgh is the 2nd busiest inland port and the 22nd busiest port of any kind in the nation. Accordingly, the issuance of the Permit violated the CWA.

Although the risks to Plum residents' surface water are most immediate, contamination from the Injection Well most likely would negatively impact waters outside of the Borough's limits. The EPA and DEP must not issue permits that carry the risk of destroying these existing uses.

Not only does the Injection Well pose a serious risk to Plum Borough's surface waters, but it also risks contaminating drinking water. The SDWA requires that [n]o owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons.

Any drinking water contamination whatsoever would violate the SDWA, and Penneco has not shown that they can build a well in such a way that it would not contaminate the drinking water. Indeed, the history of leaks from the Sedat 3A

¹²²<https://www.lrp.usace.army.mil/missions/navigation/#:~:text=Eight%20locks%20and%20dams%20on,to%20above%20East%20Brady%2C%20Pennsylvania.>

Injection Well serve as a case study for why the proposed Injection Well creates a direct threat to the underground sources of drinking water that the SDWA is meant to protect.

Specifically, the Sedat 3A Injection Well failed within months of its construction.¹²³ Residents complained of contaminated wells and springs, and Penneco responded by providing bottled water to some residents after the initial complaints. Beyond Plum, communities across the United States have raised alarms regarding the safety of injection wells for over a decade. More recently, in addition to the failures of the Sedat 3A well, reports of fracking wastewater contaminating surface waters in Ohio and West Virginia further support residents' concerns about the safety of injection wells. With the history of well failures in this region, residents might expect that this will in fact affect surface waters. Allegheny County is defined by its rivers, and contamination from another faulty injection well has the potential to spread far. This is particularly true given how infrequent integrity tests for Class II Injection Wells really are: with tests only every five years, leaks might continue for years before action is taken.

Permitting a potential source of groundwater pollution and migration without a full understanding of the consequences of that migration and how to deal with those consequences is not prudent environmental management, and the resulting

¹²³ *See supra.*

permit endangers water sources and supplies in violation of the CWA and SWDA. The Region's response to Comment 18 is too limited a reading of *Maui* for the reasons set forth herein, and the Injection Well is also subject to CWA permitting requirements.¹²⁴

E. The Issuance of the Permit Violates the Clean Streams Law

In addition to violating federal laws, the Injection Well violates the Pennsylvania Clean Streams Law. Unlike the CWA, the Clean Streams Law explicitly includes “underground water” as a part of the “waters of the Commonwealth” to be protected under the law. Additionally, the Clean Streams Law contains specific provisions relating to pollution resulting from underground wastewater disposal. The DEP is obligated to “consider the disposal of wastes . . . into the underground as potential pollution[.]” In particular, three types of underground discharges are prohibited:

- (i) Discharge of inadequately treated wastes, except coal fines, into the underground workings of active or abandoned mines.
- (ii) Discharge of wastes into abandoned wells.
- (iii) Disposal of wastes into underground horizons unless the disposal is for an abatement of pollution and the applicant can show by the log of the strata penetrated and by the stratigraphic structure of the region that it is improbable that the disposal would be prejudicial to the public interest and is acceptable to the Department.

¹²⁴ RTC at 34-35.

Southwest Pennsylvania has a centuries-long history of coal mining. Plum Borough itself is situated on land marked forever by mining and drilling operations. The preponderance of abandoned mines in the area increases the risk that leaking wastewater could flow into mines or abandoned wells, functionally behaving as a discharge violating 25 Pa. Code § 91.51(b)(1)-(2). The channels created by these mines and wells only increase the permeability of the geologic features meant to trap the wastewater underground, and thereby increase the risk of contamination. Furthermore, Petitioners believe that the Sedat 4A Injection Well would also violate 25 Pa. Code § 91.51(b)(3), because placing Plum Borough's streams and drinking water at risk of contamination by toxic and radioactive fracking brine would indeed be prejudicial to the public interest.

The Region did address the Clean Streams Law specifically in Comment 21. The Region's stated: "EPA responds that UIC Permits issued by EPA are not subject to the requirements of the Clean Streams Law (Law). Compliance with a State statute such as the Law is not set out in 40 C.F.R. § 146.24 as a consideration for EPA when issuing a Class II permit." First, the Clean Streams Law is more protective than federal regulations and must be complied with; moreover, the additional protection in the Clean Streams Law is separately provided for in the Environmental Rights Amendment as a constitutional right. The Region's further response that even if the Clean Streams Law did apply, there would not be any conflict, however, the

Region made this response without providing technical support for such a claim. The remainder of the response points the readers to other Pennsylvania statutes that the Region advocates for compliance. The EPA cannot choose which laws to follow, nor can it choose which rights it thinks is worthy of constitutional protection. This type of selective regulation conflicts with and violates the Environmental Rights Amendment and the issuance of the Permit should be overturned.

F. The Permit Should have been Denied for Environmental Justice Reasons

The EPA defines “Environmental Justice” as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.¹²⁵ “Fair treatment” means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. “Meaningful involvement” means people have an opportunity to participate in decisions about activities that may affect their environment and/or health, the public's contribution can influence the regulatory agency's decision, community concerns will be considered in the decision-making process, and decision makers will seek out and facilitate the involvement of those potentially affected.¹²⁶

¹²⁵ <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>

¹²⁶ *Id.*

The EPA violated Pennsylvanians’ constitutional right to clean air and pure water under the Environmental Rights Amendment when it issued this permit. The Environmental Rights Amendment is critically important to Pennsylvanians, particularly because the United States Constitution is far less protective, providing no guarantee of clean air and pure water. The EPA also violated its own Environmental Justice Policy by using the Halliburton Loophole to provide Protect PT, Plum residents, and Pennsylvania’s environment with fewer environmental protections just because this project involves oil and gas operations. In order for the EPA’s EJ Policy to have any meaning, the SDWA should apply in this matter, and in all permit appeals under §124 in order to guarantee the fair treatment of people, regardless of geography.

Using the EPA’s EJ Screen, the following percentiles relate to the site of the Injection Well and surrounding communities as compared to the rest of the state:

- Cancer – 80-95%¹²⁷
- Air Toxics Cancer Risk – 90-95%¹²⁸
- Particulate Matter 2.5 – 80-95%¹²⁹
- Toxic Releases to Air – 80-90%¹³⁰

In August 2023, a study was released that found Pennsylvania children living near unconventional oil and gas (UOG) developments at birth were two to three times

¹²⁷ Att. 25, EJ Screen - Cancer

¹²⁸ Att. 26, EJ Screen – Air Toxics Cancer Risk

¹²⁹ Att. 27, EJ Screen – Particulate Matter 2.5

¹³⁰ Att. 28, EJ Screen – Toxic Releases to Air

more likely to be diagnosed with leukemia between the ages of 2 and 7 than those who did not live near this oil and gas activity, after accounting for other factors that could influence cancer risk.¹³¹

Also in August of 2023, a team of researchers at the University of Pittsburgh found children living near shale gas activities in Southwest Pennsylvania had a higher risk of developing lymphoma. The researchers found “a strong link” between the production phase of shale gas development and “severe exacerbations, emergency department visits and hospitalizations for asthma.”¹³²

This is information that the EPA had in its possession at the time it issued the Permit. The Region claims that it performed an EJ Screen but “that further evaluation of the site for Environmental Justice issues was not necessary.”¹³³ It is not clear what standards the Region used to evaluate whether the “site,” where people have above-average cancer rates, was entitled to an “evaluation” for “further” Environmental Justice issues. This violates the EJ Policy and the Environmental Rights Amendment.

¹³¹ Att. 30, Clark, C., et al., 2022, Unconventional Oil and Gas Development Exposure and Risk of Childhood Acute Lymphoblastic Leukemia: A Case–Control Study in Pennsylvania, 2009–2017, *Environmental Health Perspectives* 130:8 CID: 087001 <https://doi.org/10.1289/EHP11092>

¹³² Results of University of Pittsburgh School of Public Health scientists’ studies exploring health impacts of human exposure to environmental risk factors, including unconventional natural gas development activities, in an eight-county region in Southwest Pennsylvania., Att. 31- 2023 Cancer Study; Att. 32 – Asthma Study.

¹³³ RTC at 19.

Ordinary residents like the members of Protect PT, together with scientists at 3RWK, have had to fill the gaps left by the EPA and PA DEP. Two studies published just after the issuance of the Permit in October 2023 consolidate historical testing and other information that the Region had access to prior to the issuance of the Permit. The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking is a referenced compilation of evidence outlining the risks and harms of fracking, including waste, which was prepared by the Concerned Health Professionals of New York.¹³⁴ The other is the report referenced above with respect to the industry’s use of unknown hazardous chemicals, which outlines the risks associated with PFAS pollution from Pennsylvania’s oil and gas wells, including from the disposal of millions of tons of liquid and solid waste associated with the wells.¹³⁵

The Region acknowledged that EPA’s authority applies in all cases, “regardless of the composition of the community surrounding the proposed injection site.” (40 C.F.R. § 144.52(b)(1) may also provide EPA with broader authority to consider factors specific to communities with environmental justice concerns (e.g., disproportionate reliance on groundwater, cumulative health impacts from multiple sources of toxicity) in assessing whether additional permit conditions are necessary

¹³⁴ Att. 29, The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking, October 2023, Concerned Health Professionals of New York

¹³⁵ Att. 10.

to prevent injection that may “adversely impact the health of persons” within the meaning of “endangerment.”) The Region’s responses were not sufficient to illustrate the process by which the Region *chose* to not consider factors that Petitioners and other commenters strenuously raised and that require remedial attention from the EPA, not the issuance of a new source of pollution. This violates the EJ Policy and the Environmental Rights Amendment and the issuance of the Permit should be overturned.

G. The Activities under the Permit will Endanger Underground Sources of Drinking Water in Violation of the SDWA

EPA’s UIC jurisdiction under the Safe Drinking Water Act includes determining whether the proposed injection operation will safely protect USDWs from the subsurface emplacement of fluids and a determination that the injection operation, as proposed, will be compliant with all federal UIC regulations.¹³⁶ The EPA has not provided the information regarding the chemical composition of the mixed hazardous and radioactive waste that will be disposed of in the Injection Well; without such information, the EPA cannot represent that the design of a Class II well can maintain the integrity of the Injection Well.¹³⁷

Next, the Region fails to acknowledge that, even if the Injection Well is able to achieve perfect compliance with applicable regulations, accidents happen.

¹³⁶ 40 C.F.R. § 146.24., et seq.

¹³⁷ Att. 2, Att. 3, and Att. 4.

Accidents happen, and to have it happen here would be devastating to an already significantly polluted area. Moreover, the Injection Well places public water supplies at risk.¹³⁸ The area in which the Injection Well is located receives public water from the Municipal Authority of Westmoreland County (“MAWC”). The authority sells water to more than 122,000 customers in Westmoreland, Allegheny, Armstrong, Fayette and Indiana counties. It provides sewer service to nearly 30,000 customers. The MAWC just faced the contamination of its water supply, including with PFAS, that MAWC alleges was caused by various companies.¹³⁹

Paragraph I.A of the permit provides in part that Penneco shall not allow underground injection activity, otherwise authorized by the final permit, to cause or contribute to the movement of fluid containing any contaminant(s) into any USDW, if the presence of the contaminant may cause a violation of any primary drinking water regulation under 40 C.F.R. Part 141 or if it may otherwise adversely affect the health of any persons. The purpose of EPA’s evaluation of the AOR, the requirements in the final permit to ensure the well’s mechanical integrity, and other requirements in the final permit is to prevent the movement of fluid containing such

¹³⁸ *Id.*

¹³⁹ *Municipal Authority of Westmoreland County (MAWC) v. 3M Company et al.*, 2:22-cv-01429-RMG, Master Docket No: 2:18-mn-2873-RMG, (DSC 2022).

contaminants that would cause a violation of Part 141 or otherwise adversely affect the health of any persons.

As noted above, the Region's evaluation, including of the AOR, was insufficient for the Region to issue the Permit. In addition, the Region failed to refer to, or take into account, the prior pollution of the public water supply with hazardous chemicals when evaluating cumulative effects. Accordingly, the issuance of the Permit was contrary to the SDWA and should be overturned.

H. Insufficient Financial Assurances Violates the Environmental Rights Amendment and is also an Abuse of Discretion

Paragraph III.D of the Permit requires Penneco to secure an Irrevocable Letter of Credit in the amount of at least \$13,397.10 as financial assurance, which is woefully insufficient. Petitioner Protect PT is also a party in a matter before the Pennsylvania Commonwealth Court with respect to the legacy of abandoned and unplugged conventional wells in Pennsylvania and make the same arguments for the purposes herein.¹⁴⁰

Currently, under 58 Pa. Cons. Stat. § 3225, bonds for individual conventional oil and gas wells in Pennsylvania are set at \$2,500 per well. Under Section 2 of Act 96, that bond amount may not be changed until 2032. Operators may also use

¹⁴⁰ Att. *Clean Air Council, et al. v. Commonwealth*, 379 MD 2023 (Commw. Ct). The remainder of Section H of this Petition relates and refers back to this complaint.

blanket bonding to satisfy bonding requirements for multiple wells simultaneously. Under 58 Pa. Cons. Stat. § 3225, blanket bond amounts for conventional wells are set at a minimum of \$25,000, not to exceed \$100,000, for all of an operator's wells in the state.

DEP's own assessment of actual well-plugging costs for conventional wells range between \$33,000 and \$800,000. DEP itself estimates the average cost to plug a conventional well is \$33,000, and that "complications such as excess debris can cause the cost to plug these wells to increase up to \$800,000. In its application for federal funding to plug orphan wells available under the Infrastructure Investment and Jobs Act ("IIJA"), DEP estimated that it would have to spend an average of \$68,068 per well plugged using the federal funding. DEP Acting Deputy Director Kurt Klapkowski has stated that to-date DEP has spent an average of \$100,000 per well plugged using the IIJA federal funding.

Dr. Jeremy Weber, Professor of Economics at the University of Pittsburgh, has estimated the cost to plug the average conventional well in Pennsylvania to be \$38,000. That analysis was based on an evaluation of data on how much DEP paid contractors to plug orphan wells from 1989 to 2020.

These estimates are consistent with other assessments of actual plugging costs. In a recent rulemaking to increase bonding amounts for oil and gas wells on federal leases, the U.S. Bureau of Land Management "determined the cost to plug a well

and reclaim the surface ranges from \$35,000 to \$200,000, with an average cost of \$71,000.” 88 Fed. Reg. 47562, 47581 (July 24, 2023).

Abandoned, unplugged conventional oil and gas wells produce air and water pollution harmful to human health, including air emissions of methane and volatile organic compounds (VOCs) such as benzene, toluene, and hexane; and water pollution from discharges of arsenic, barium, and chloride. This pollution degrades, diminishes, and depletes the Commonwealth’s natural resources.

The emission of VOCs into Pennsylvania’s air and water greatly harms the residents of the state. VOCs can combine to form ozone, which can cause respiratory harm. Benzene, one of the most toxic VOCs emitted by oil and gas wells, causes symptoms such as dizziness, headaches, and skin irritation from short-term exposure; and leukemia, reproductive effects, and negative consequences for fetuses from long-term exposure.

Methane, one of the pollutants emitted by unplugged conventional oil and gas wells, is a potent greenhouse gas that contributes to global climate change, including climate change impacts experienced directly in Pennsylvania, including more severe storms, dangerous heat waves, wildfire smoke, and harm to agricultural fields.

Pennsylvania’s air and water are essential parts of the Commonwealth’s public natural resources that Section 27 was intended to protect. Section 27 not only protects Pennsylvania’s public lands but ensures clean air and pure water for all

residents of the Commonwealth to protect their health, no matter where they live. As the Supreme Court has stated, “the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property.”

For all of these reasons, unremediated non-producing oil and gas wells harm Pennsylvania’s public natural resources; degrade its clean air and pure water; and endanger the natural, scenic, historic, and esthetic values of Pennsylvania’s environment.

Adequate bonding ensures the Commonwealth holds in trust for the people the “clean air, pure water,” and “natural scenic, historic and esthetic values of the environment” by requiring that the money needed to make the air pure, the water clean, and to return the scenic and esthetic values of drilled land will be available.

The Region’s response regarding the sufficiency of Penneco’s financial assurances is not based upon accurate figures, nor is the amount of \$13,397.10 sufficient to act as a deterrent. This is both an abuse of discretion and a violation of the Environmental Rights Amendment as it is not sufficiently protective to cover the actual costs nor does it protect future generations who will be subjected to the toxic and radioactive site of the Injection Well for thousands of years to come.

I. Important Policy Implications

Petitioners respectfully request that the Board review the Permit for the reasons herein and because the outcome of this Petition will implicate EPA's future permitting under Part 124. Important to Petitioners is the question of whether the Halliburton Loophole violates the Pennsylvania Constitution's Environmental Rights Amendment and the EPA's Environmental Justice Policy. In addition, Petitioners' interpretation of the regulation that prohibits unconventional oil and gas waste in Class II injection wells and their view that the holding of *Maui* requires CWA permitting for Class II injection wells will affect EPA's future permitting under Part 124.

VI. CONCLUSION AND REQUEST FOR ORAL ARGUMENT

For the foregoing reasons, Petitioners respectfully request that that the Board review and overturn the issuance of the Permit, or in the alternative, remand the contested conditions, decisions, and determinations in the issuance of Underground Injection Control ("UIC") Class II-D Permit (Permit No. PAS2D702BALL). Petitioners also request oral argument before the Board on this Petition because they believe that oral argument will be of assistance to the Board.

VII. STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This petition for review complies with the requirements that petitions for review not exceed 14,000 words. 40 C.F.R. § 124.19(d)(3). This petition for review, excluding attachments, is approximately 12,846 words in length.

Respectfully submitted,

/s/ Lisa Johnson _____

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Attorney for Petitioners

October 26, 2023

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petition for Review in the matter of Commercial Underground Injection Control (UIC) Class II-D Permit No. PAS2D702BALL to Penneco Environmental Solutions, LLC for the Disposal of Oil and Gas Production Fluid in Plum Borough, Allegheny County, Pennsylvania, were served via email in accordance with the Environmental Appeals Board's September 21, 2020 Revised Order Authorizing Electronic Service of Documents in Permit and Enforcement Appeals, on the following persons, this 26th day of October, 2023:

*U.S. Environmental Protection Agency
Regional Administrator EPA Region 3
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4 Penn Center
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Philadelphia, PA 19103-2852
and Adam Ortiz, Regional Administrator
via ortiz.adam@epa.gov*

*U.S. Environmental Protection Agency
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Respectfully submitted,

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