

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

EQT Production Company,	:	
Petitioner	:	
	:	
v.	:	No. 844 C.D. 2017
	:	Argued: May 9, 2018
Department of Environmental	:	
Protection,	:	
Respondent	:	

**BEFORE: HONORABLE MARY HANNAH LEAVITT, President Judge
HONORABLE RENÉE COHN JUBELIRER, Judge
HONORABLE ROBERT SIMPSON, Judge
HONORABLE P. KEVIN BROBSON, Judge
HONORABLE PATRICIA A. McCULLOUGH, Judge
HONORABLE ANNE E. COVEY, Judge
HONORABLE CHRISTINE FIZZANO CANNON, Judge**

**OPINION
BY JUDGE BROBSON**

FILED: September 10, 2018

By Adjudication and Order (Adjudication) issued May 26, 2017, the Commonwealth of Pennsylvania Environmental Hearing Board (Board) assessed Petitioner EQT Production Company (EQT) a civil penalty of \$1,137,295.76 for violations of The Clean Streams Law¹ and a related regulation. The violations stemmed from the release of wastewater² through the damaged liner of an impoundment, also known as the “S Pit,” in Tioga County, Pennsylvania, which EQT used as part of fracking operations for an unconventional gas well site known

¹ Act of June 22, 1937, P.L. 1987, *as amended*, 35 P.S. §§ 691.1-.1001.

² Throughout the record, the parties use interchangeable terms to refer to the actual liquid that leaked from the liner—*e.g.*, brine, impaired water, produced fluid, flowback, etc.

as “Pad S.” The wastewater infiltrated the ground beneath the impoundment and ultimately polluted groundwater, seeps and springs, and a stream in the vicinity. None of this is in dispute.

On appeal, EQT challenges the amount of the civil penalty.³ The Clean Streams Law provides for a civil penalty of up to \$10,000 per day, per violation:

(a) In addition to proceeding under any other remedy available at law or in equity for a violation of a provision of this act, rule, regulation, order of the department, or a condition of any permit issued pursuant to this act, the department, after hearing, may assess a civil penalty upon a person or municipality for such violation. Such a penalty may be assessed whether or not the violation was wilful. The civil penalty so assessed shall not exceed ten thousand dollars (\$10,000) per day for each violation. In determining the amount of the civil penalty the department shall consider the wilfullness [sic] of the violation, damage or injury to the waters of the Commonwealth or their uses, cost of restoration, and other relevant factors.

Section 605(a) of The Clean Streams Law, 35 P.S. § 691.605(a). For the reasons set forth below, we affirm the Board’s civil penalty assessment.

I. BACKGROUND

DEP filed its complaint for civil penalties against EQT with the Board on October 7, 2014, alleging that EQT violated The Clean Streams Law through the unpermitted release of wastewater from the impoundment. DEP sought a civil penalty in excess of \$4.5 million. Following completion of discovery and the filing

³ Respondent the Pennsylvania Department of Environmental Protection (DEP) also filed a petition for review with this Court (docketed at 852 C.D. 2017), challenging aspects of the Board’s civil penalty calculation and asking the Court to remand the matter to the Board for an upward recalculation of the civil penalty. By Order dated May 7, 2018, acting on a request by DEP to withdraw its petition for review, the Court marked DEP’s appeal closed.

of prehearing motions, the Board held a hearing on the merits of DEP's complaint over a period of ten days from July 25 to August 5, 2016. The resulting Adjudication is lengthy and detailed, with 270 separately-numbered findings of fact, nearly 50 pages of discussion/analysis, and 24 separately-numbered conclusions of law.⁴

In calculating the penalty, the Board noted that Section 605(a) of The Clean Streams Law requires that it consider the willfulness of the "violation, damage or injury to the waters of the Commonwealth or their uses, cost of restoration, and other relevant factors." (Adjudication at 70.) Included among other relevant factors that the Board has considered are the cost savings that the violator reaped by engaging in the unlawful activity, the size of the facility in question, the volume of the discharge, deterrence, and the costs incurred by DEP. (*Id.*) The Board then noted several factors relative to the pollution from the impoundment. First, the Board noted that the "release did not adversely affect any public or private drinking water supplies." (*Id.* at 70-71.) Moreover, the Board observed that the record was inadequate to support a finding that the "release had an actual adverse effect on aquatic life." (*Id.* at 71.) The Board also noted that while the "release caused some adverse impacts to vegetation" in the vicinity of the site, it did not factor that damage into its calculation. (*Id.* at 72.) It also did not consider any damage to soil. (*Id.*) The Board also refused to assess any penalties for other violations at the Pad S site, focusing its inquiry solely on the damage caused by the failure of the liner in the impoundment. (*Id.*)

Turning first to the issue of cost savings, the Board noted that, subject to the statutory maximum amount, a civil penalty should be no less than the amount

⁴ We note that the Board's decision was not unanimous. Judge Steven C. Beckman authored a minority opinion, concurring in part and dissenting in part.

of cost savings that the violator enjoyed by engaging in the unlawful activity. Noting limited evidence in the record on the question, however, the Board ultimately concluded that the amount of the penalty that it was imposing “is likely in excess of EQT’s cost savings.” (*Id.* at 73.) The Board then held that DEP was entitled to recoup its documented costs of \$112,295.76, which the Board would include in EQT’s civil penalty. (*Id.*)

The Board then considered the extent of damage to the waters of the Commonwealth, one of the criteria expressly set forth in Section 605(a) of The Clean Streams Law. It again noted its finding that the release from the impoundment did not harm public or private water supplies. It also noted as a mitigating factor that the constituents of the wastewater (*e.g.*, barium, lithium, strontium, chloride) occur naturally in the waters of the Commonwealth, though not at the levels released from the impoundment. Nonetheless, the Board noted that the high concentrations “have for the most part declined over time.” (*Id.* at 73.) The Board also noted that the release from the impoundment caused limited contamination to Rock Run, a Class A Wild Trout and High Quality stream located within approximately 1,500 feet of the impoundment. (*Id.* at 73 and Findings of Fact (FF) ## 11, 12.) The Board, however, continued:

[C]leanup was still ongoing at the time of our hearing four years after the leak was discovered, which shows that harm caused by multiple contaminants was persistent and prolonged. EQT degraded a High Quality, Class A Wild Trout stream, as well as a tributary, the underground water, and the spring and seeps in the watershed that feed the stream. *No* unpermitted degradation of such a valuable natural resource is tolerable. The release extended a considerable distance, creating a known contamination plume on the order of 2,000 feet across. [DEP] witnesses testified that it caused the largest aerial extent of contamination in the history of the program and affected

Exceptional Value wetlands. Thirty-five million gallons of contaminated water were collected at the time of the hearing. [DEP's] characterization of the damage as severe is supported by the record.

(*Id.* at 73-74 (emphasis in original).)

The Board noted further that the damage to the waters of the Commonwealth were largely caused by releases from the impoundment that occurred prior to the end of June 2012, which corresponds to the period of time by which EQT had drained the impoundment and patched the holes in the liner: “We have reduced the amount of the daily penalty in part to reflect the fact that new releases after that time would have continued to shrink such that, by September 27, [2012,] they would have been quite limited.” (*Id.* at 74.) According to the Board’s findings of fact, September 27, 2012, is the date by which EQT had fully removed the damaged liner from the impoundment, excavated contaminated soil, and installed a temporary liner. (*Id.* FF ## 216-21.)

The Board then considered the willfulness of the violations, citing to its precedent for the following standard:

“An intentional or deliberate violation of the law constitutes the highest degree of willfulness and is characterized by a conscious choice on the part of the violator to engage in certain conduct with knowledge that a violation will result. Recklessness is demonstrated by a conscious disregard of the fact that one’s conduct may result in a violation of the law. Negligent conduct is conduct which results in a violation which reasonably could have been foreseen and prevented through the exercise of reasonable care.”

(*Id.* at 74 (quoting *Dep’t of Env’tl. Prot. v. Weiszer*, 2011 EHB 358).) Although the Board rejected DEP’s claim that EQT acted recklessly by choosing to build the type of impoundment in question, the Board nonetheless held that the choice, which the Board characterized as a “high risk endeavor,” required “an enhanced level of

attention and care throughout the life of the facility, including removal activity if things went wrong, as they almost certainly were bound to do.” (*Id.* at 75.) The Board explained:

The S Pit presented a significantly greater risk to the environment than a typical pit used for temporary waste storage at a conventional well pad. EQT knew that the multimillion-gallon impoundments being used to store impaired water were causing a lot of problems throughout the Commonwealth. EQT’s specific knowledge that the use it put to its impoundment was risky goes beyond the generalized knowledge of an industry as a whole The impoundments almost always leaked. Nevertheless, EQT decided to tempt the fates. It built a pit to hold millions of gallons of impaired water from multiple well pads for long periods of time with only one liner and with no way to tell whether the pit was leaking.

(*Id.* (citation to record omitted).)

Although EQT claimed that it built the impoundment in conformity with all regulatory design criteria, the Board disagreed, noting specifically the failure of EQT to install a proper subbase beneath the liner. (*Id.* at 76.) Looking to the Board’s findings of fact, EQT should have constructed the subbase of the pit with 4 inches of clay-like material on the sidewalls and 4 inches of clay-like material with an additional 2 inches of screening at the bottom. (*Id.* FF #23.) The Board found that the subbase of the S Pit was of irregular thickness, but nonetheless covered the bottom of the pit. (*Id.*) EQT did not screen the material it used in the subbase to eliminate rocks. (*Id.* FF # 28.) The subbase also lacked a low permeability clay layer. (*Id.* FF #29.) Although the Board could not conclude that the “poorly constructed subbase” contributed to the holes in the liner, it also could not rule it out. Nonetheless, the Board noted that its findings at a minimum rebutted

EQT's claim that it complied with applicable regulations when it installed the S Pit. (*Id.* at 76.)

To a lesser extent than the subbase, the Board also faulted EQT's choice of liner. The Board acknowledged that EQT complied with "the minimum specified regulatory criteria regarding thickness and material requirements," but opined that EQT nonetheless failed to choose a liner that complied with more general requirements, accounting for both the intended use and duration of the impoundment. The Board cited specifically to a DEP regulation, which requires that all liners have "sufficient strength and thickness to maintain the integrity of the liner." 25 Pa. Code § 78.56(a)(4)(i). The same provision requires that a liner be "resistant to physical . . . failure during . . . use." *Id.* In the Board's view, meeting minimum regulatory requirements is not an absolute defense to liability, particularly where a reasonable person would have taken additional precautions under the circumstances. (Adjudication at 76.) In this case, while the S Pit may have satisfied minimum design criteria, it failed the broader performance criteria set forth in the regulation. (*Id.* at 77.)

The Board then went on to fault EQT with inadequate supervision of the S Pit, referring specifically to the placement of hoses by EQT and one of its contractors directly on or near the liner of the impoundment:

EQT and its contractors placed hoses directly on or near the liner, which EQT knew was a risky practice that posed a significant threat to the integrity of the impoundment. EQT conducted minimal oversight and supervision at the site, perhaps due in part to the fact that the S Pit was not close to the well pad, and the site as a whole was located at the far reaches of EQT's traditional territory.

(*Id.* at 77 (citation to record omitted).) The Board also criticized EQT's response:

Having constructed an impoundment with no leak detection system whatsoever, EQT needed to be extremely sensitive to any sign of a leak. We view EQT's initial response to the danger signs of such a leak to have been completely unacceptable. Despite the appearance of multiple seeps immediately downgradient of the impoundment and nearby monitoring well sampling results all showing an impact from gas well operations within yards of a pit filled with millions of gallons of impaired water, EQT inexplicably dragged its feet. The uphill impoundment filled with millions of gallons of impaired water was the only likely source. The pad itself was some distance away to the south. There was no sign of any surface spills of a sufficient magnitude to explain the results. The water was not indicative of mine water because it had high chlorides and low sulfates. EQT paid inadequate heed to the alarm bells that were going off.

(*Id.* at 77-78.) In so doing, the Board expressly rejected as not credible testimony by an EQT consultant and expert witness, who opined that EQT could have reasonably believed that the observed seeps downgradient from the impoundment may have been caused by an unrelated spill of impaired water on the site on May 8, 2012. (*Id.* at 78.)

The Board also criticized EQT's conduct immediately after April 30, 2012, the date on which EQT discovered anomalous readings in monitoring wells near the impoundment:

It should be remembered that EQT was actively fracking its well during this period. Perhaps it was more concerned with its operation than worrying about signs that a massive pit which it sorely needed for its operations might be leaking. Remarkably, EQT continued to add water to the pit from April 30, 2012, when the first anomalous field sampling results were detected, until May 21, 2012.

(*Id.* at 78.) The Board found that an EQT consultant, James Casselberry, informed EQT on May 3, 2012, that the "surprising results" were indicative of gas well

operations. (*Id.* FF # 97.) “Almost immediately, EQT personnel and consultants recognized that the anomalous results could indicate that its impoundment was leaking.” (*Id.* FF # 98.) Yet, in determining the proper civil penalty, the Board opined: “James Casselberry almost singlehandedly worked to deal with what appeared could be a major developing problem with little obvious support from his multibillion-dollar client. Even he was told to ‘stand down’ for a relatively extended period of time at a critical period as the crisis was evolving.” (*Id.* at 78; *see id.* FF ## 158-62.)

In the Board’s assessment, EQT could have and should have done more once it learned of the anomalous well results. The Board rejected EQT’s claim that its slow reaction was due to the absence of any “scientific evidence” that the S Pit was actually leaking:

To have allowed a hazard to unfold in search of scientific certainty while it was busy fracking was inexcusable. This is not Monday morning quarterbacking: EQT personnel and consultants conceded that they knew right away after the well samples came back that there could be a problem with the pit. EQT simply did not make addressing the problem a priority, and it bears repeating, it continued to fill the pit.

(*Id.* at 78-79.)

EQT started to empty the impoundment on June 1, 2012, using the impaired water to frack a new well. EQT did not patch hundreds of holes found in the liner until June 15, 2012, after pressure washing the liner (with holes in it). (*Id.* at 79.) Although EQT emptied the impoundment in relatively short order, the Board noted that EQT benefitted from that activity by using the contents of the impoundment to frack another well, all while the impoundment continued to leak wastewater. (*Id.*) In the Board’s assessment, EQT could have employed resources

to empty the S Pit sooner, but EQT instead made a choice to drain the water through fracking operations. The Board also emphasized that EQT made the choice to store the impaired water on the site in the first place, in addition to adding water to the impoundment after April 30, 2012. (*Id.* at 79-80.)

In further considering the degree of EQT's willfulness, the Board faulted EQT for a lack of communication and cooperation with DEP: "The amount of work and cajoling that [DEP] was required to do in this case was simply unacceptable." (*Id.* at 80.) The Board also criticized EQT for taking until September 2012 to close the impoundment temporarily and then failing to reclaim the site fully until June 2013. Although the Board recognized that some delay could be attributed to DEP's slow review of EQT's remediation reports, the Board clearly believed that EQT could have and should have acted with more urgency in removing contaminated material from the site. (*Id.* at 80-81.) The Board, nonetheless, credited EQT for its efforts with respect to the long-term remediation of the site: "We have substantially reduced the penalty that we might otherwise have imposed in consideration of EQT's long-term remediation." (*Id.* at 81.)

The Board also concluded that the civil penalty against EQT should include a deterrence component, explaining:

The conduct that needs to be deterred here is not the use of multimillion gallon single-lined wastewater storage pits with no leak detection. The conduct that needs to be deterred is failing to build and operate storage facilities with great care, and failing to take necessary measures to prevent them from leaking. Building and operating must be closely supervised from start to finish, which repeatedly did not happen here. EQT simply did not exercise enough oversight, supervision, and control over the construction and operation of its impoundment. . . .

In pits, an adequate subbase must be installed. Water should not be added or removed carelessly. If there

is evidence of a leak, an operator must act with immediate dispatch. Among other things, an operator needs to search out potential avenues of release and, if needed, contain them immediately. It may be necessary to spend a few extra dollars for expedited samples. A potentially compromised pit should not continue to be filled. Operators must maintain open communication with the regulatory authorities during critical periods.

(*Id.* at 82.) In addition, the Board chided EQT for refusing to take responsibility and for, instead, blaming its contractors for causing the damage and DEP for failing to either inform EQT that the S Pit may be leaking or directing EQT more vigorously in how to respond: “EQT’s arguments along these lines reveal a failure to appreciate that it is EQT, not [DEP], that is responsible for operating its facilities lawfully and carefully.” (*Id.* at 83.) On deterrence, the Board concluded:

EQT operates well in excess of 1,000 wells. In 2015, it transported approximately 2 billion gallons of water, approximately 400 million gallons of which was impaired water. At one time it had over 40 pits in Pennsylvania, 21 of which had storage capacity of 4.2 million gallons or more. The added deterrence of a significant penalty is clearly needed here to help ensure that EQT exercises appropriate care in handling its impaired water going forward.

(*Id.* at 84 (citations to record omitted).)

Based on the foregoing, the Board laid out in detail its actual penalty calculation. First, it assessed a \$10,000 penalty for EQT’s violation of 25 Pa. Code § 91.34(a), which provides: “Persons engaged in an activity which includes the impoundment, production, processing, transportation, storage, use, application or disposal of pollutants shall take necessary measures to prevent the substances from directly or indirectly reaching waters of this Commonwealth, through accident, carelessness, maliciousness, hazards of weather or from another cause.” It also, as noted above, assessed a penalty of \$112,295.76, representing DEP’s costs.

DEP also sought penalties for EQT's violations of Sections 301,⁵ 307(a),⁶ 401,⁷ and 611⁸ of The Clean Streams Law. Section 301 of The Clean Streams Law provides:

No person or municipality shall place or permit to be placed, or discharged or permit to flow, or continue to discharge or permit to flow, into any of the waters of the Commonwealth any *industrial wastes*, except as hereinafter provided in this act.^[9]

(Emphasis added.) Section 307(a) of The Clean Streams Law provides:

No person or municipality shall discharge or permit the discharge of industrial wastes in any manner, directly or indirectly, into any of the waters of the Commonwealth unless such discharge is authorized by the rules and regulations of [DEP] or such person or municipality has first obtained a permit from [DEP].

Section 401 of The Clean Streams Law provides:

It shall be unlawful for any person or municipality to put or place into any of the waters of the Commonwealth, or allow or permit to be discharged from property owned or occupied by such person or municipality into any of the waters of the Commonwealth,

⁵ 35 P.S. § 691.301.

⁶ 35 P.S. § 691.307(a).

⁷ 35 P.S. § 691.401.

⁸ Added by the Act of October 10, 1980, P.L. 894, 35 P.S. § 691.611.

⁹ "Industrial waste" is defined to include

any liquid, gaseous, radioactive, solid or other substance, not sewage, resulting from any manufacturing or industry, or from any establishment, as herein defined, and mine drainage, refuse, silt, coal mine solids, rock, debris, dirt and clay from coal mines, coal collieries, breakers or other coal processing operations. "Industrial waste" shall include all such substances whether or not generally characterized as waste.

Section 1 of The Clean Streams Law.

any substance of any kind or character resulting in *pollution* as herein defined. Any such discharge is hereby declared to be a nuisance.^[10]

(Emphasis added.) Section 611 of The Clean Streams Law provides:

It shall be unlawful to fail to comply with any rule or regulation of [DEP] or to fail to comply with any order or permit or license of [DEP], to violate any of the provisions of this act or rules and regulations adopted hereunder, or any order or permit or license of [DEP], to cause air or water pollution, or to hinder, obstruct, prevent or interfere with [DEP] or its personnel in the performance of any duty hereunder or to violate the provisions of 18 Pa. C.S. section 4903 (relating to false swearing) or 4904 (relating to unsworn falsification to authorities). Any person or municipality engaging in such conduct shall be subject to the provisions of sections 601, 602 and 605.

The Board concluded that EQT violated each one of these sections. (*Id.* Conclusions of Law (COL) ## 20-23.) Rather than assess separate penalties for violations of each of these sections, however, the Board applied the “merger rule”: “Under the merger rule, a party cannot be penalized for multiple offenses stemming

¹⁰ “Pollution” is defined as follows:

“Pollution” shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. [DEP] shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined.

Section 1 of The Clean Streams Law.

from a single act unless one offense requires proof of a fact not required by the other.” (*Id.* at COL # 18.) The Board explained:

As a general principle, a person may be guilty of violating multiple statutory provisions with one act, but separate penalties may not be imposed for the overlapping offenses unless one offense requires proof of a fact not required by the other. In other words, the overlap must not be complete. Under the so-called merger rule, the party can be penalized for one or the other, but not both. EQT’s unpermitted release of pollutants does not require proof of facts unique to any one of Sections 301, 307, or 401 of [T]he Clean Streams Law. Therefore, regardless of whether EQT violated only Section 301 as it concedes, or 301, 307, or 401, we choose not to assess a combined penalty of more than \$10,000 per day for EQT’s release.

(*Id.* at 54-55 (citations omitted) (footnotes omitted); *see also id.* at 57 (employing same reasoning in refusing to assess separate penalty for EQT’s violation of Section 611 of The Clean Streams Law).)

Setting the maximum daily penalty for EQT’s statutory violations at \$10,000, the Board focused on three distinct time periods:

- April 30, 2012, when EQT learned of anomalous results from the monitoring wells near the impoundment, to June 15, 2012, the date by which EQT had emptied the impoundment of impaired water;
- June 16, 2012 to June 25, 2012, the date on which EQT submitted its first site characterization plan to DEP;
- June 26, 2012 to September 27, 2012, the date by which EQT fully excavated the impoundment, including the contaminated subbase, and installed a temporary liner.

Although, in the Board’s assessment, the releases of wastewater from the impoundment continued to infiltrate waters of the Commonwealth after

September 27, 2012, the Board did not assess any civil penalty beyond that date. It explained:

EQT caused severe harm to the waters of the Commonwealth and that pollution continued from and including April 30 through September 27[, 2012]. The severe harm resulted from EQT's reckless conduct. The consequences of its reckless conduct extended through September 27[, 2012]. Active releases from the pit continued but were greatly diminished as of June 15, [2012,] although substantial contamination remained in place and would take years to clean up. Active new releases after September 27[, 2012,] would have continued but at a very low level. EQT's level of cooperation and attention to the problem increased steadily throughout the entire period. Although there are no bright lines, by June 25[, 2012,] when it submitted its first complete characterization report, and thereafter with respect to its remedial activities, its level of cooperation was high.

(*Id.* at 85.) Based on its analysis, recounted above, the Board imposed the following penalty structure:

Dates	Number of Days	Daily Penalty	Subtotal
April 30 – June 15	47	\$ 10,000	\$ 470,000
June 16 – June 25	10	\$ 7,500	\$ 75,000
June 26 – Sept. 27	94	\$ 5,000	\$ 470,000
Sept. 27 – June 2013	-	\$ 0	\$ 0
June 2013 – present	-	\$ 0	\$ 0
			\$ 1,015,000

(*Id.*) This total, in conjunction with the \$10,000 penalty imposed for violating 25 Pa. Code § 91.34 and reimbursement of DEP's costs, comprise the total \$1,137,295.76

civil penalty that the Board imposed on EQT for the release of wastewater from the S Pit.

On appeal, EQT raises four questions with respect to the assessed penalty. First, EQT asks whether substantial record evidence supports any violations of The Clean Streams Law, and thus the imposition of any civil penalty, for any or every day after June 14, 2012. Second, EQT asks whether the Board inappropriately shifted the burden of proof to EQT to establish when wastewater from the S Pit *ceased* entering into the waters of the Commonwealth. Third, EQT asks whether the Board erred in its consideration of the factors set forth in Section 605(a) of The Clean Streams Law. Finally, EQT asks whether, in light of this Court's decision in *EQT Production Company v. Department of Environmental Protection*, 153 A.3d 424 (Pa. Cmwlth. 2017) (*EQT III*),¹¹ *aff'd in part and vacated in part*, 181 A.3d 1128 (Pa. 2018), the Board committed legal error in concluding that EQT violated Sections 307 and 401 of The Clean Streams Law.

II. DISCUSSION

A. Standard of Review

Our appellate review of the Board's adjudications is limited to determining whether the Board committed an error of law, violated constitutional rights, or whether its material findings of fact are supported by substantial evidence.

¹¹ In *EQT Production Company v. Department of Environmental Protection*, 114 A.3d 438 (Pa. Cmwlth.) (*EQT I*), *rev'd and remanded*, 130 A.3d 752 (Pa. 2015), this Court sustained DEP's preliminary objections and dismissed EQT's declaratory judgment action, holding that the Board could adequately address the issues on which DEP sought declaratory relief when considering and deciding DEP's complaint for civil penalties, the very decision now on appeal here. The Supreme Court, however, reversed and remanded, directing the Court to entertain EQT's pre-enforcement challenge to DEP's interpretation under The Clean Streams Law of EQT's penalty exposure with respect to the S Pit. *EQT Prod. Co. v. Dep't of Env'tl. Prot.*, 130 A.3d 752 (Pa. 2015) (*EQT II*). *EQT III* is our decision on the merits of EQT's declaratory judgment action following remand.

2 Pa. C.S. § 704; *Kiskadden v. Pa. Dep't of Env'tl. Prot.*, 149 A.3d 380, 387 (Pa. Cmwlth. 2016) (en banc), *appeal denied*, 168 A.3d 1281 (Pa. 2017). On issues of law, our standard of review is *de novo* and our scope of review is plenary. *Dep't of Env'tl. Prot. v. Cumberland Coal Res., LP*, 102 A.3d 962, 970 (Pa. 2014).

In determining whether substantial evidence of record exists to support a material factual finding, we view the record in the light most favorable to the prevailing party below, giving that party the benefit of all reasonable inferences that can be drawn from the record evidence. *Kiskadden*, 149 A.3d at 387. Substantial evidence is such “relevant evidence upon which a reasonable mind could base a conclusion.” *MKP Enters., Inc. v. Underground Storage Tank Indem. Bd.*, 39 A.3d 570, 579 (Pa. Cmwlth.), *appeal denied*, 60 A.3d 537 (Pa. 2012). Resolution of evidentiary conflict, witness credibility, and evidentiary weight are matters committed to the discretion of the Board. *Kiskadden*, 149 A.3d at 387. “It is irrelevant whether the record contains evidence that would support contrary findings. Our critical inquiry is whether the findings are supported by substantial evidence.” *Id.*

As this is an appeal from a penalty assessment, we note further that this Court may not substitute its judgment for that of the Board. In this regard, we will uphold a penalty assessed by the Board so long as it reasonably fits the violations—*i.e.*, it would not “strike at one’s conscience as being unreasonable.” *U.S. Steel Corp. v. Dep't of Env'tl. Res.*, 300 A.2d 508, 514 (Pa. Cmwlth. 1973) (en banc); *see Pines at W. Penn, LLC v. Dep't of Env'tl. Prot.*, 24 A.3d 1065, 1070 (Pa. Cmwlth. 2011), *appeal denied*, 38 A.3d 827 (Pa. 2012). DEP, as the proponent of a civil penalty against EQT, bore the burden of proof before the Board. 25 Pa. Code § 1021.122; *Pines at W. Penn*, 24 A.3d at 1070.

B. Duration of Violations

EQT contends that although the Board concluded that EQT continued to violate The Clean Streams Law after it drained and pressure washed the impoundment, there is no record evidence to support this finding and thus no record evidence to support assessment of a civil penalty after June 15, 2012. In support, EQT argues that this Court's decision in *EQT III* held that evidence merely of the presence in the waters of the Commonwealth of constituents of the released wastewater is inadequate to prove a violation of The Clean Streams Law. Rather, DEP must show an active daily release into the waters of the Commonwealth in order to prove a violation. In EQT's view, DEP failed to meet this burden. EQT argues instead that the Board inappropriately shifted the burden to EQT to establish *when* the wastewater stopped entering the waters of the Commonwealth.

In response, DEP disputes EQT's claim that the Board found violations after June 15, 2012, based solely on evidence of the mere presence of pollution in waters of the Commonwealth. Instead, DEP claims that the Board's findings relating to continued violations after June 15, 2012, are supported by "fundamental hydrologic principles," the expert report and testimony of DEP's expert hydrogeologist Randy Farmerie, the testimony of EQT's experts James Casselberry and Larry Roach, and EQT's water sampling data.

In reply, EQT acknowledges that "it may be difficult to confirm a daily entry into groundwater in this factual setting," but similarly contends that DEP is not entitled to a presumption of daily entry. (EQT Second Br. at 9.) EQT contends that the record evidence DEP cites, particularly the testimony of Mr. Farmerie, falls well short of establishing as fact a daily entry. As to Mr. Farmerie's testimony specifically, EQT contends that it amounted to speculation, not evidence. EQT also

criticizes DEP for citing generally to the record, noting that the record in this matter is particularly large—thousands of pages. Of the specific record evidence cited by DEP, EQT attempts to refute each one. EQT stands by its point that the burden rested with DEP to prove by specific evidence a daily entry of contaminants into the waters of the Commonwealth—*i.e.*, a violation. Without such evidence in the record, EQT contends that the Board erred in assessing a daily penalty after June 15, 2012.

Both parties acknowledge that the pivotal question in this case is the duration of EQT's violations of The Clean Streams Law, that being the number of days contaminants from the impoundment entered into the waters of the Commonwealth. As noted above, each entry is a violation, and each violation may be assessed a maximum penalty of \$10,000 per day. EQT's evidentiary challenge focuses on the period of time after EQT drained, cleaned, and repaired holes in the impoundment liner (June 15, 2012). On appeal, EQT does not dispute that contaminants remained in the soil underneath the impoundment liner (including the impoundment subbase, blast rubble, unconsolidated material, and bedrock)¹² for some period of time after that date. (Adjudication FF ## 199-206.) It claims simply that there is no evidence that on any day or every day after June 15, 2012, those contaminants in the soil entered into the groundwater beneath the S Pit.

The Board assessed a civil penalty on each day from June 15, 2012 to September 27, 2012. To sustain this portion of the penalty, this Court must conclude that there is substantial record evidence to support the Board's findings that

¹² The Court uses the term soil generally to capture all of the material, including the subbase, underneath the liner from which DEP contends, and the Board found, releases of contaminants from the impoundment entered the waters of the Commonwealth after June 15, 2012, on a daily basis.

contaminants from the soil entered into the waters of the Commonwealth, specifically groundwater under the S Pit, daily during this period. The Board found that they did in one of two ways. First, the wastewater from the impoundment saturated the soil, and this contaminated residual moisture in the soil continued to drain out, even as the water table fell below the zone of contamination. (*Id.* FF ## 207-08.) Second, areas of residual moisture as well as areas where the soil had completely dried out would come into actual contact with previously uncontaminated groundwater. (*Id.* FF # 209.) The Board summarized:

[B]etween the slow draining of all of the industrial waste itself, and new underground water picking up residual contamination left in the subbase, the contaminants in EQT's industrial waste would have been released every day from areas inside the pit and outside of the groundwater, and entered into the underground waters of the Commonwealth below the water table for the first time at least through September 27, 2012. (T 538-39, 541, 704, 720-22, 727-31, 749, 1361; [DEP] Ex. 433.)

(*Id.* FF # 216.) Later in the Adjudication, the Board offered a further explanation for its findings that the contamination from the S Pit continued to enter waters of the Commonwealth daily from June 15, 2012 forward:

Some of the contaminants entrained in the water in the subbase were released quickly as much of the water containing contaminants drained into the underground waters, but others would have been left behind and would have slowly been released both as the original industrial waste continued to drain by gravity, and as new water came into contact with the subbase by way of precipitation and the subsurface flow of new underground water and picked up those contaminants and transported them to underground waters below the water table for the first time. ([DEP] Ex. 433.) These pollutants initially actively entered the waters of the Commonwealth from areas outside of the waters of the Commonwealth for the first time over many months, at least through September 2012. Just as the drip-drops from an interstitial compartment in

a vessel or tank result in continuing liability, so do EQT's prolonged releases from the subbase of its impoundment. The parties disagree on the amount, nature, and consequences of the releases, but no witness for EQT claimed that there would have been zero new releases of contaminants, at least until the contaminated subbase was finally removed on September 27[, 2012]. Liability turns on the fact, not the amount, of the releases. [DEP] proved by a preponderance of the evidence, including the credible testimony of its expert, Randy Farmerie, P.G., that this occurred.

(*Id.* at 58-59.)

It is clear that in finding daily violations after June 15, 2012, DEP and, for purposes of the Adjudication, the Board relied heavily on the expert testimony of Mr. Farmerie, which EQT dismisses as speculative. Without objection by EQT, the Board accepted Mr. Farmerie, a 27-year DEP employee, as an expert witness in the areas of geology, hydrogeology, and hydrology. (Transcript (Tr.) at 567.) Mr. Farmerie testified that the groundwater underneath the S Pit is part of a larger hydrologic system: “[A] hydrologic system is just a way of referring to -- you’re not just looking at groundwater. You’re not just looking at surface water. You’re looking at the whole system and how they interact.” (*Id.* at 686-87.)

Asked to explain how the wastewater from the S Pit entered into and travelled within the system, Mr. Farmerie testified:

[O]nce it escaped from the impoundment through the -- through the holes, it would have infiltrated through the vadose zone, the unsaturated zone It would have entered the groundwater at the water table. Within the water table, it’s -- the contamination would spread by -- there’s a number of different mechanisms: diffusion, dispersion.

(*Id.* at 687.) With respect to the continuing presence of contaminants from the wastewater in the vadose zone (unsaturated zone beneath the S Pit but above the water table), DEP elicited the following testimony:

Q. . . . [L]et me get back to the vadose zone. Can you tell us at what rate the contaminants would have moved through the vadose zone?

A. I can't put a precise number on that.

Q. Do you believe that there are still some constituents to this day, some flowback fluid at this time in the vadose zone under the footprint of the S Pit?

A. Some constituents of flowback fluid, yes.

Q. What makes you say that?

A. I think that's what the science supports.

Q. What evidence have you seen in this case to support that conclusion?

A. The -- there's still a lot of contamination left in -- in wells in and around the source area that the water table -- there's enough space above the water table, enough elevation above the water table, at least at times of the year, that we could have contaminants left in the vadose zone.

(*Id.* at 689.) Mr. Farmerie testified that the depth to groundwater within the footprint of the impoundment varied seasonally, "from within a few feet of the bedrock to deeper than that, eight or ten feet, probably, in the dry part of the year." (*Id.* at 690-91.)

Mr. Farmerie testified that although data shows that the level of contamination of affected surface waters has trended downward over time, contaminants continue to move within the hydrologic system. (*Id.* at 700.) In terms of groundwater impact, Mr. Farmerie testified that fluid from the S Pit entered into the groundwater from at the latest April 30, 2012 (the documented data of impact)

“to date”—meaning, the date of his testimony. (*Id.* at 700-01.) On cross-examination, Mr. Farmerie clarified his opinion:

Q. . . . So then is it your testimony that fluid from the S Pit is entering into groundwater every day since April 30 of 2012 until today, July 28th, 2016?

A. I took [counsel’s] question and perhaps it was incorrect, but I took [counsel’s] question to mean constituents of fluid. So I believe that, yes, it is correct that constituents of the fluids that were in the S Pit continue to enter groundwater.

Q. Every day?

A. Up to today at much lower rates than they previously did but I believe that it is still happening.

. . . .

Q. . . . So your conceptual model that you testified to, if I remember this accurately, is fluid from the S Pit escaped through the holes in the liner, entered into a vadose zone, then from there entered the groundwater, the water table, and from there was either dispersed or moved by diffusion through this hydrologic unit that you described; is that accurate?

A. Yes.

(*Id.* at 720-21.)

EQT’s counsel pressed Mr. Farmerie on his daily release into groundwater theory, particularly focusing on the frequency the water table might come into contact with the contaminated soil (vadose zone):

Q. How many days per year does the water table touch an area where there was produced fluid, where there is produced fluid constituents remaining in the vadose zone?

A. I cannot answer that.

Q. But your model is that there is a daily release, a daily entry into of constituents of produced fluid into the water table from this bedrock vadose zone?

A. That is correct.

Q. So does that happen every day?

A. That was my testimony, yes, sir.

Q. So let me ask you the basis for that testimony. Isn't it true that you're drawing an inference that there is a continuing entry into groundwater of constituents formerly in the S Pit because those constituents are still detected in monitoring wells and surface water monitoring stations?

A. That's part of the argument, yes, sir.

Q. What's the other part of it?

A. Contaminant movement is not just limited to the groundwater table. In my 27 years of experience, contaminant movement above the water table within the vadose zone does occur as a continuing process.

Q. You're saying it moves laterally within the vadose zone?

A. It can move laterally. It can move vertically.

Q. What evidence does [DEP] have that that's occurring here?

A. The direct evidence you did summarize as the continuing results in the springs, streams, and groundwater.

(*Id.* at 728-29.) Questioning on this line continued:

Q. Okay. So if the inference is, . . . if I find constituents of produced fluid at one of the distant locations, say the Danzer Seeps, if I find barium or strontium there, you're saying that that is evidence of the continuing entry into from produced fluid in the vadose zone?

A. That's not what -- you have to look at the whole system. You can't just say because it's at the Danzer Seeps, and I never said just individually the Danzer Seeps. You cannot look at just the Danzer Seeps in isolation and make the conclusion that there's an ongoing discharge from the pit that -- and what I represented was you need to look at the whole hydraulic system, looking at the groundwater data in conjunction with the data at the seeps and springs.

And that's both the chemical and flow data, that you need to consider all of that and looking at just a single point is a misrepresentation of where I was going.

(Id. at 730-31.)

Asked whether the declining levels of contaminants in groundwater and surface waters over time could indicate an "attenuation" of entry into the groundwater dating back to 2012, Mr. Farmerie demurred:

A. Not solely.

Q. Why not solely.

A. It could just as well be that there is less contamination entering than it was in 2012. The contaminants entering may be at a lesser concentration; and, therefore, you have a lesser amount in the groundwater.

Q. It could be and it may be but do you have evidence that it is?

A. No direct evidence other than my 27 years of experience on that contaminant movement.

Q. Sure. It's substantial experience. I don't doubt that for a minute. But in this case your inference is, I find it in a well; therefore, it must be still coming from the vadose zone. That's your working inference.

A. You've greatly simplified it as we've discussed because I did look at the entire system, but I see it in the system. I see it at levels that I believe can support my conclusion.

(Id. at 736-37.)

The record also includes Mr. Farmerie's expert report. (Reproduced Record (R.R.) 3216a-59a; DEP Ex. 433.) In his report, Mr. Farmerie reviews the characteristics of the S Pit site, specifically in terms of hydrology, geology, hydrogeology, and groundwater chemistry. He then provides background about discovery of the pollution at the site, as well as remediation efforts. Specifically,

with respect to the soil underneath the impoundment and its impact on groundwater, the report provides:

When [the S Pit] was subsequently pumped out in June 2012 numerous holes were reported in the single liner and documented through photographs. . . . The removal of the fluid from the S Pit, removed the original source of contaminants, but the brine which pooled in the unconsolidated materials under the pit in the unsaturated zone of bedrock continued to flow into the groundwater and was discharged to the springs and the surface water. However, the brine contaminants would have remained in the unconsolidated material under the pit, in the unsaturated zone bedrock above the groundwater, being transported within the groundwater, in the spring discharges and finally within the surface water (Rock Run and its tributaries). *The brine contaminants in the unconsolidated material and vadose zone bedrock would be an ongoing source of contamination. While removal of the fluid in the pit would reduce the flow of new contaminants entering into the groundwater by reducing the hydraulic head driving water through the system, contaminated fluid would continue to flow into both the saturated and unsaturated zone at slower rates in the immediate vicinity of the pit. Contaminated fluid from the unconsolidated material would continue to flow through the unsaturated bedrock.*

(*Id.* at 3221a-22a (endnote omitted) (emphasis added).)

Upon our review of the record, we can agree with EQT that there is no “direct” evidence that contaminants from the S Pit entered into the groundwater beneath the impoundment every day or any day after June 15, 2012. Although it is unclear in the context of this case, what such “direct” evidence might look like, DEP and the Board considered expert testimony in the absence of direct evidence. Although not bound by the technical rules of evidence, the Board generally adheres to the Pennsylvania Rules of Evidence in its formal proceedings. *See* 25 Pa. Code

§ 1021.123(a). Under the Pennsylvania Rules of Evidence, expert opinion testimony is authorized as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge is beyond that possessed by the average layperson;

(b) the expert's scientific, technical, or other specialized knowledge *will help the trier of fact to understand the evidence or to determine a fact in issue*; and

(c) the expert's methodology is generally accepted in the relevant field.

Pa. R.E. 702 (emphasis added). "An opinion is not objectionable just because it embraces an ultimate issue." *Id.* at 704.

In *Al Hamilton Contracting Company v. Department of Environmental Resources*, 659 A.2d 31 (Pa. Cmwlth. 1995) (*Hamilton*), the Board upheld an order by the then-Department of Environmental Resources (DER), now DEP, requiring a mine operator to conduct a groundwater study at its operating site. DER contended that mine drainage at the site degraded a nearby drinking water supply. Before the Board, DER offered the expert testimony of one of its employee hydrologists (Barnes). Barnes conducted the investigation into the source of the water supply contamination. Barnes rendered an opinion on the ultimate issue, concluding that discharges from the operator's site was the "most likely" source of the pollution. Barnes admitted, however, that he could not say conclusively that it was the source of pollution. *Hamilton*, 659 A.2d at 34. The Board held that DER made a *prima facie* showing of a causal connection between the polluted water supply and the mine operations.

On appeal to this Court, the operator alleged, *inter alia*, that the Board erred in admitting Barnes' expert testimony on the issue of causation. The operator claimed that Barnes was not sufficiently certain. We observed that while expert opinion "need not be based on an absolute certainty, an opinion based on mere possibilities is not competent evidence." *Id.* at 36. "To prove causation," we opined, "an expert witness must testify with 'reasonable certainty' that in his or her professional opinion the result in question did come from the cause alleged." *Id.* at 37. We held that Barnes' testimony on causation met this standard:

As to causation, Barnes testified that, within a reasonable degree of scientific certainty, the Little Beth Mine Site was the probable cause of the pollutorial condition at the Cowder property. Moreover, when questioned about the old strip mines to the east of Cowder's property (to the north of Little Beth Mine Site), which was the only other possible cause suggested, Barnes ruled out this possibility. The old mine sites were ruled out as a source of the pollution because the mining was 25 years earlier and should not cause current water problems, and because the water quality was not as bad in the eastern tributary hollow which would be between the 1950's [sic] mine site and the Cowder property. After ruling out the only other suggested possible cause of Cowder's pollutorial problem, Barnes['] testimony is, in effect, that Little Beth is the only logical cause of the pollution. Barnes' testimony is "reasonably certain" that Little Beth Mine Site is the cause of the pollution and is admissible as an expert opinion on causation, even though his opinion is stated as "the most probable cause[.]" We find no error in the [Board's] decision to admit and rely on the testimony of Barnes.

Id. (citation omitted) (record citations omitted).

Here, on direct examination, Mr. Farmerie testified, to "a reasonable degree of scientific certainty," that contaminants from the S Pit remained in the soil (vadose zone) after June 15, 2012, and entered therefrom into the groundwater on a

daily basis after June 15, 2012, and continued to do so as late as the hearing before the Board. (Tr. at 704.) Mr. Farmerie based his expert opinion on his understanding of the nature and amount of the release(s) from the S Pit, the hydrologic system connecting the areas underneath the impoundment liner with surface water and groundwater, the geology of the site, and EQT's remediation efforts from June 15, 2012 forward, as well as data from the monitoring wells and surface water monitoring stations. Under withering cross-examination by EQT's counsel, Mr. Farmerie did not retreat from his ultimate opinion that contaminants in the soil under the impoundment continued to enter the groundwater on a daily basis during this period of time. Upon review of the record in the light most favorable to DEP and affording all deference due to the Board's determinations with respect to evidentiary weight and witness credibility, we find no error in the Board's decision to find and assess daily violations from June 15, 2012 to September 27, 2012, based in substantial part on Mr. Farmerie's testimony and expert report.

We also reject EQT's related contentions that the Board's findings and conclusions of daily releases into the groundwater were based solely on the mere continued presence of contaminants in the soil, the groundwater, and the hydrologically connected surface waters. As noted above, the continued presence of contaminants was but one factor Mr. Farmerie considered in rendering his opinion.¹³ We also reject EQT's claim that the Board improperly shifted the burden

¹³ EQT relies on this Court's decision in *EQT III*, as affirmed in part and vacated in part by the Pennsylvania Supreme Court in *EQT Production Company v. Department of Environmental Protection*, 181 A.3d 1128 (Pa. 2018) (*EQT IV*). Affirming the principal ruling of this Court in *EQT III*, the Supreme Court opined:

The mere presence of a contaminant in a water of the Commonwealth or a part thereof does not establish a violation of Section 301, 307, or 401 of [T]he Clean Streams Law, since movement of a contaminant into water is a predicate to

to EQT to establish *when* the wastewater stopped entering the waters of the Commonwealth. The Board held that DEP met its burden of establishing daily releases from the soil into the groundwater (violations) for the period of the assessed civil penalty. Although EQT had the opportunity to rebut DEP’s evidence with evidence tending to show that no contamination from the soil flowed into the groundwater after June 15, 2012, the Board did not *require* EQT to do so.

C. Amount of Penalty

Next, EQT challenges the Board’s consideration of certain factors set forth in Section 605(a) of The Clean Streams Law in calculating the amount of the civil penalty. More specifically, EQT challenges the Board’s determination that EQT acted recklessly with respect to the design and construction of the S Pit, its investigation of the release(s), and its response to the release(s), claiming that no record evidence supports the Board’s determination. EQT also challenges the Board’s determination that the violations caused “severe” damage to the waters of the Commonwealth.

In determining the appropriate civil penalty amount, the Board must consider, *inter alia*, the willfulness of the violation. Section 605(a) of The Clean Streams Law clearly provides that the Board may assess a civil penalty even in the absence of a willful violation. Nonetheless, the willfulness of a violation is one of the factors that the Board must consider. *Stambaugh v. Dep’t of Env’tl. Prot.*, 11 A.3d 30, 36 (Pa. Cmwlth. 2010).

violations. This statement pertaining to the governing legal standard is distinct from whether and to what extent presence may serve as evidence of movement.

EQT IV, 181 A.3d at 1149 (emphasis added). Our decision here is consonant with this holding.

As noted above, the Board considered the degree of willfulness of the violations in this case and concluded that EQT acted recklessly. In *Stambaugh*, we noted that neither willful nor reckless is defined in The Clean Streams Law. As a result, we construed them according to their common usage:

[W]illfulness has been defined as “[t]he fact or quality of acting purposely or by design; deliberateness; intention” and “does not necessarily imply malice, but it involves more than just knowledge.” The word reckless has been defined as “the creation of a substantial and unjustifiable risk of harm to others and . . . a conscious (and sometimes deliberate) disregard for or indifference to that risk.”

Id. at 37 (quoting BLACK’S LAW DICTIONARY 1737, 1385 (9th ed. 2009)). Upon our review of the record in the light most favorable to DEP, we conclude that the Board’s determination that EQT’s violations of The Clean Streams Law were reckless is supported by the record evidence.

The Board based its determination in part on its finding that EQT was aware that operating this type of unconventional impoundment was “fraught with risk.” (Adjudication FF # 60.) The Board noted that “no one aspect of EQT’s conduct might in isolation have supported a finding of recklessness.” (*Id.* at 75.) Nonetheless, “taken together they evince a conscious disregard of the fact that its conduct could result in a violation of the law and harm to the environment.” (*Id.*) Anchoring the Board’s recklessness determination is the Board’s finding that EQT knew of dangers and risks associated with impoundments like the S Pit but chose to proceed with its construction and use anyway. The Board wrote: “EQT knew that the multimillion-gallon impoundments being used to store impaired water were causing a lot of problems throughout the Commonwealth . . . The [unconventional] impoundments almost always leaked.” (*Id.*) “[H]aving made the decision to build such a pit,” the Board held, “EQT was knowingly engaging in a high-risk endeavor

that called for an enhanced level of attention and care throughout the life of the facility, including removal activity if things went wrong, as they almost certainly were bound to do.” (*Id.*)

As supporting evidence, the Board referenced a letter dated August 20, 2010—over a year before EQT constructed the S Pit—in which DEP informed various energy companies, including EQT, of the frequent problems with unconventional impoundments like the S Pit. (*Id.* FF ## 51-58; DEP Ex. 258.) The letter reminded the energy companies of the regulatory requirements governing these pits and listed numerous past violations by the energy companies, including EQT. (*Id.*) In fact, the letter mentioned a prior instance where EQT was forced to replace another one of its pits due to holes. (*Id.* FF ## 57-58.) DEP’s inspector reinforced the high risk nature of these impoundments when EQT contacted him to notify DEP of the plan to construct the S Pit. (*Id.* FF # 43; R.R. at 781a-82a.) DEP’s inspector specifically reminded EQT to construct an adequate subbase. (*Id.*) Notably, EQT does not contest any of the Board’s findings of fact pertaining to its knowledge before constructing the S Pit. The Board found that despite EQT’s prior experience and awareness of the dangers of these unconventional impoundments, EQT nonetheless decided to “tempt the fates” by building the S Pit with an insufficient subbase, an insufficient liner, and no leak detection system. (*Id.* at 75.)

As part of its recklessness determination the Board also considered EQT’s response to the field sampling and monitoring well results beginning on April 30, 2012. The Board wrote: “EQT personnel and consultants conceded that they knew right away after the well samples came back that there could be a problem with the pit.” (*Id.* at 79 and FF # 98.) EQT told one of its consultants, James Casselberry, to stand down after he informed EQT that natural gas well operations

were the likely cause of the monitoring well results. (*Id.* FF ## 97, 162.) The Board found that the S Pit was the “only natural gas product feature within the immediate vicinity of the contaminated wells.” (*Id.* FF # 104.) Given the indications that the S Pit was leaking, the Board expressed incredulity that EQT not only failed to empty the pit with any level of haste, but actually *added* water to the pit until May 21, 2012, the date on which EQT first professed that it knew “for certain” that the S Pit was leaking. (*Id.* FF # 131.) The Board rejected EQT’s contention that the evidence of a leak prior to this date was not sufficiently conclusive to warrant action.

Finally, the Board determined EQT was reckless for a period of time after May 21, 2012, when EQT first acknowledged that the S Pit was leaking, until two weeks later when EQT, through further fracking operations, completely emptied the pit of impaired water. (*Id.* at 79.) The Board determined that EQT exacerbated its liability by failing to remove timely the contaminated subbase, in part because EQT intended to “preserve the scene” for purposes of litigation with one of its contractors, Terra Services. As a result, the impaired liner and subbase continued to discharge contaminants into the groundwater.

In contesting the Board’s finding of recklessness, EQT likens this case to *Stambaugh*. In that case, the owners of a dairy farm, the Stambaughs, appealed the Board’s assessment of a civil penalty under The Clean Streams Law, where the owners discharged silage leachate into groundwater in violation of the statute. As noted above, the Board described the owners’ conduct as *both* willful and reckless. *Stambaugh*, 11 A.3d at 37. Recklessness requires some showing of knowledge or conscious disregard or risk, whereas willfulness requires that and more. *Id.* In *Stambaugh*, this Court held that DEP’s evidence, testimony of an expert witness

(Landis), fell short of establishing the Stambaughs' knowledge or conscious disregard of risk:

Landis' testimony that farmers, in general, know that silage can cause contamination is not substantial evidence on which the Board can find that the Stambaughs acted willfully and recklessly. First, Landis cannot possibly know what is in the mind and experience of each and every farmer in Pennsylvania. Second, a statement of what farmers generally know does not prove what two individual farmers, *i.e.*, the Stambaughs, actually knew. Finally, there was no evidence presented that the Stambaughs knew of the existence of the neighboring wells or the risk presented to their water quality by the trench silo. In short, the record lacks evidence to support a finding that the Stambaughs knew their actions would cause a risk of pollution and did so in wanton disregard of that risk.

Id. Accordingly, we vacated and remanded the matter to the Board for recalculation of the civil penalty.

In *Stambaugh*, DEP's expert testified, without any real basis, that the dairy farmers knew of the risk of their silage trenches. The finding of knowledge in *Stambaugh* was supported merely by sweeping testimony of what farmers generally know and, seemingly, the rejection of George Stambaugh's testimony without an explanation. Simply stated, and as explained in greater detail above, the record before the Board of EQT's knowledge in this matter is more robust. The result in *Stambaugh* was justified by the record in that case. The record in this case, and our standard of review, supports the Board's knowledge determination and thus justifies a different result. EQT's substantial evidence challenges invite this Court to reweigh the evidence on which the Board relied and/or to substitute our judgment for that of the Board's in assessing a civil penalty. To be certain, EQT sees the evidence in terms of its investigation and response to the leaks from the S Pit differently. The

Board, however, rejected EQT’s version of events. We will not reweigh the evidence or substitute our judgment for that of the Board.

EQT also challenges the Board’s determination that “EQT caused severe damage to the waters of the Commonwealth.” (*See* Adjudication FF # 278.) EQT argues that the only evidence in support of the finding of severe damage is the geographic spread of contamination and the degradation of a High Quality, Class A Wild Trout stream and the nearby waters. As noted above, on this point the Board admonished EQT: “*No* unpermitted degradation of such a valuable natural resource is tolerable.” (*Id.* at 74 (emphasis in original).)

In resolving this challenge by EQT, we are guided by our decision in *Pines at West Penn*, wherein this Court affirmed the imposition of penalties on the operator of a mobile home park. The mobile home park operator received a NPDES permit¹⁴ from DEP to discharge treated sewage into a nearby tributary. The NPDES permit, however, imposed limitations and required the mobile home park operator to submit a monthly discharge monitoring report. DEP initiated an action for violation of The Clean Streams Law when the discharge monitoring reports revealed discharges in excess of the permit limits.

On appeal, this Court rejected the argument that the penalty was excessive because the record lacked evidence of harm to the receiving stream. We reasoned that the receiving stream warranted special attention because of its classification as a trout stock fishery. We further reasoned that the NPDES permit

¹⁴ “NPDES” is the acronym for the National Pollutant Discharge Elimination System, created in 1972 by the Federal Water Pollution Control Act (commonly known as the Clean Water Act), 33 U.S.C. §§ 1251-1387, which governs the discharge of pollutants into waters of the United States. Section 402(b) of the Clean Water Act, 33 U.S.C. § 1342(b), delegates authority to states to issue NPDES permits for discharges within their borders, upon approval of the state’s permit program by the federal Environmental Protection Agency. 33 U.S.C. § 1342(b).

included a special condition that the receiving stream was seasonally dry and that the stream would dilute the discharges less during the dry periods of the year. Nonetheless, the mobile home park discharged sewage in excess of the permit limits for over two-and-a-half years. Thus, we held that the record in *Pines at West Penn* supported the finding of harm to the waters of the Commonwealth.

Similarly, there is ample evidence in the record here to support the Board's finding that the leaks from the S Pit resulted in damage to the waters of the Commonwealth. The Board appropriately considered the classification of the individual waters harmed and the length of time of the contamination, as this Court did in *Pines at West Penn*. The leaks polluted two High Quality Streams and an Exceptional Value wetland. (Adjudication FF ## 230, 238.) Likewise, as the Board pointed out in this case, the scope of contamination was massive. The leaks from the S Pit resulted in the contamination of at least 35 million gallons of groundwater. (*Id.* FF # 247.)¹⁵ The contamination plume was over 2,000 feet long. Finally, the fact that EQT was still cleaning up the contamination four years after discovering the leaks demonstrates that the contamination was "persistent and prolonged." (*Id.* at 73.) Given the classification of the waters affected, the magnitude of the contamination, and the time of the degradation, we reject EQT's arguments that the record lacks evidence of damage to the waters of the Commonwealth.¹⁶

¹⁵ EQT addresses the 35 million gallons of contaminated groundwater by arguing that it is not proof of injury under this Court's decision in *Westinghouse Electric Corporation v. Department of Environmental Protection*, 745 A.2d 1277 (Pa. Cmwlth. 2000) (*Westinghouse II*). We need not address *Westinghouse II* in much detail; there is simply no part of that case that stands for the proposition that the contamination of 35 million gallons of groundwater cannot serve as evidence of damage to waters of the Commonwealth.

¹⁶ To the extent EQT challenges the Board's use of the word "severe" in characterizing the extent of damage to the waters of the Commonwealth, we will not quibble with the Board's characterization. As noted above, we are prohibited from substituting our judgment for that of the

Having rejected EQT's arguments, we have no reason to conclude that the penalty that the Board imposed in this matter does not fit the violations. In so doing, we note the Board's decision to decrease the daily penalty for the period of June 16, 2012, to June 25, 2012, and further for the period of June 26, 2012, to September 27, 2012. Both decreases acknowledged EQT's increased willingness to work with DEP and responsiveness to the source of the contamination. The assessed penalty begins with the maximum daily amount, \$10,000, but decreases over time as EQT became, essentially, less reckless with respect to the violations. While the Board penalized EQT when it "dragged its feet," the Board also credited EQT when the company acted appropriately. This approach seems both reasonable and compatible with the statutory scheme of The Clean Streams Law.

D. Violations of Sections 307 and 401

In its final issue, EQT asks whether, in light of this Court's decision in *EQT III*, the Board committed legal error in concluding that EQT violated Sections 307 and 401 of The Clean Streams Law. In *EQT IV*, however, the Pennsylvania Supreme Court vacated the portion of our decision in *EQT III* on which EQT relies. *See EQT IV*, 181 A.3d at 1139. Accordingly, EQT cannot prevail on this issue.

Board, and we must uphold a penalty so long as it reasonably fits the violations. *U.S. Steel Corp.*, 300 A.2d at 514. Vacating a penalty because we disagree with the exact level of damage to the waters of the Commonwealth seems to run afoul of that rule and could result in an endless remand cycle in an effort to correlate perfectly (as opposed to reasonably) adjective to penalty amount. Moreover, as we describe above, the evidence of a four-year, 35-million-gallon contamination of groundwater, two specially-protected streams, and an Exceptional Value wetland supports the Board's damage determination.

III. CONCLUSION

The Board's determination that contaminated water continued to infiltrate the groundwater beneath the S Pit on a daily basis after June 15, 2012 (the date by which EQT had completely emptied the impoundment, pressure washed it, and patched the holes in the liner) is supported by substantial evidence of record. The Board's determination that EQT acted recklessly with respect to the design and construction of the S Pit, its investigation of the release(s), and its response to the release(s) is also supported by substantial evidence of record. Upon reading the Adjudication and considering EQT's arguments on appeal, we cannot conclude that the Board's assessed civil penalty of \$1,137,295.76 does not reasonably fit the violations of The Clean Streams Law in this case. Finally, EQT's contention that the Board violated this Court's decision in *EQT III* by concluding that EQT violated Sections 307 and 401 of The Clean Streams Law is without merit. For these reasons, we affirm the Board's civil penalty assessment.

P. KEVIN BROBSON, Judge

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

EQT Production Company,	:	
Petitioner	:	
	:	
v.	:	No. 844 C.D. 2017
	:	
Department of Environmental	:	
Protection,	:	
Respondent	:	

ORDER

AND NOW, this 10th day of September, 2018, the May 26, 2017
Adjudication of the Pennsylvania Environmental Hearing Board is AFFIRMED.

P. KEVIN BROBSON, Judge