We have been asked to review SB 411, which proposes to amend the Environmental Good Samaritan Act’s liability protections for the use of mine drainage water in gas drilling development and other activities, and discuss some of the potential implications of the amendments. Below we provide an overview of the mine drainage issue, the Environmental Good Samaritan Act, and a prior version of legislation - SB 1346. We then will provide a preliminary review of SB 411, addressing some of the issues it poses. Additional issues may be present that are beyond the scope of this preliminary analysis.

Of primary concern is the expansive scope of immunity provided by SB 411, which could exempt the end-user of mine drainage water from any liability associated with its use, even after the water’s chemistry and composition changes through hydraulic fracturing or another industrial process. This immunity could prevent adjacent landowners or downstream riparian owners from recovering from covered companies even for operations far beyond the mere transport of mine drainage to the well site or other industrial facility. Because SB 411 applies this scope of
immunity to far more than just hydraulic fracturing or gas well development, entities that would otherwise be subject to suit for pollution from industrial or other facilities could be protected by the Environmental Good Samaritan Act if mine drainage water is used.

I. Overview

A. Background

Whether called abandoned/acid mine drainage (“AMD”), coal mine drainage (“CMD”), or mine-influenced water, this type of water pollution plagues many waterways in the Commonwealth. With the influx of gas extraction using high-volume hydraulic fracturing, discussions have occurred as to whether the industry can use the mine drainage water for hydraulic fracturing instead of withdrawing water from other resources, including higher quality watersheds.

In January 2013, the Department of Environmental Protection (“DEP”) published a white paper,¹ which suggested allowing for the use of mine water in natural gas extraction. The DEP discussed possible requirements for oil and gas operators who seek to use mine water, including possible standards for on-site storage of mine water. The DEP suggested that a “project could be structured to fit within the Environmental Good Samaritan Act,” as currently written.

RAND Corporation has also examined the possible use of mine-influenced water for hydraulic fracturing.² RAND produced a report of a roundtable conference, which had been held to discuss the issue. Numerous speakers asserted that “the most significant problem facing operators interested in using local [coal mine drainage] for hydraulic fracturing is the open-ended liability clause in the [Clean Streams Law].”

¹ http://files.dep.state.pa.us/Mining/Abandoned%20Mine%20Reclamation/AbandonedMinePortal Files/MIW/Final_MIW_White_Paper.pdf
² http://www.rand.org/pubs/conf_proceedings/CF300.html
B. **Environmental Good Samaritan Act**

The Environmental Good Samaritan Act (“Act”) was originally intended to encourage voluntary reclamation of property that is “adversely affected by mining or oil and gas extraction.” 27 Pa.C.S. § 8103. As can be seen throughout much of the Commonwealth, acid mine drainage and abandoned or orphaned oil and gas wells have harmed or pose threats to water quality, health, and safety. See 27 Pa.C.S. § 8102(3). However, as noted in the law, the Commonwealth lacks sufficient resources to address all of these issues. 27 Pa.C.S. § 8102(4). To encourage voluntary reclamation, the Act limits the liability of people, agencies, or organizations that voluntarily reclaim abandoned lands, or work to reduce or end water pollution resulting from these abandoned lands.

Immunity was deemed necessary because of the potential that voluntary reclamation could result in the person being liable without fault for the abandoned property or water pollution issue – effectively, the equivalent of “no good deed goes unpunished.”

The Act contains a layered set of provisions pertaining to, among other things:

- the scope of landowner immunity for allowing third party access (without charge or other payment) to a property for a reclamation project or project to address water pollution;
- the scope of immunity of the third party who “provides equipment, materials, or services at no cost or at cost” for a project;
- DEP review and approval of reclamation projects and projects to address water pollution;
- notice to adjacent and downstream riparian landowners of projects;

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3 The Act does not, however, limit liability of those who are or may bear the responsibility for reclaiming the land or addressing the water pollution caused by abandoned or inadequately reclaimed mines or oil and gas wells. 27 Pa.C.S. § 8103.
• statement that the Act does not waive existing permit or local zoning requirements;

• authority for DEP to issue general permits that cover all activities part of a project, and are issued in place of “any required stream encroachment, earth disturbance” or surface water (NPDES) discharge permits; and

• a water supply replacement provision, which places on the DEP the duty to replace water.

Overall, the Environmental Good Samaritan Act contemplates liability protections for those working to address mine discharge at or near its source to ensure that those entities do not trigger obligations to treat or remediate. The Act does not contemplate use or transport of mine water off-site.

C. Prior Proposed Legislation – SB 1346

In the last session of the Pennsylvania General Assembly, SB 1346 sought to amend the Environmental Good Samaritan Act to add immunity for companies seeking to use mine water for hydraulic fracturing. As examined more below, SB 1346 was more limited in scope than the current SB 411.

II. SB 411

The memo from Senator Kasunic that accompanies SB 411 states in part:

I plan to re-introduce SB 1346 of last session, which is legislation that would **limit the treatment liability** of entities that choose to utilize acid mine water (AMD) for hydraulic fracturing of oil/gas wells, or other industrial uses. This legislation passed the Senate unanimously late last session but was not considered by the House of Representatives.

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One of the major reasons the oil/gas industry has not fully committed to utilizing AMD is the concern with the old adage “once you touch it, you own it”. The cost of treatment, and the continued liability associated with an AMD source can often run into the millions of dollars. Without limiting these potential costs it is highly unlikely the industry will consider using AMD over other fresh water sources.

*This bill would provide liability protection from the perpetual treatment of AMD at its source when the end use is for hydraulic fracturing or industrial use.* An AMD treatment project eligible for this liability protection would be vetted thru a DEP process developed in the Environmental Good Samaritan Act (Act 68 of 1999). This liability protection was a policy recommendation that was acknowledged in the report issued by the Governor’s Marcellus Shale Advisory Commission.5

(emphasis added).

The actual language of SB 411 is much broader than this stated intention. The new uses contemplated by SB 411 are inconsistent with the findings and purposes sections of the current Act. Specifically, SB 411 would grant immunity relating to transport and use of mine drainage water *off-site*, which the Act did not previously contemplate. SB 411 does not contain a clear indication as to when immunity for the transported mine water ends once the water is used.

Further, as discussed in more detail below, SB 411 is significantly broader than its predecessor, SB 1346. SB 411 would authorize the use of mine drainage, not just for hydraulic fracturing and gas well development, but also for other industrial and so-called “beneficial” uses.

A. Broader In Scope Than SB 1346 – Qualifying Projects Include More Than Gas Drilling Activity

SB 411 would broaden the scope of projects eligible for immunity under the Act (and also under SB 1346) by amending the definition of “water pollution abatement project.” Under

5 http://www.legis.state.pa.us/cfdocs/Legis/CSM/showMemoPublic.cfm?chamber=S&SPick=20130&cosponId=98231052730.6/46952
SB 411, these types of projects would include more than activities to reduce, treat, or abate mine drainage. SB 411 would also add: 1) the withdrawal, diversion, and use of mine drainage or mine pool water, with or without treatment; and 2) the withdrawal, diversion, and use of treated mine drainage\(^6\) from a permitted mining activity site. For these added projects, off-site use of mine water can entail use for:

- “the hydraulic fracturing or other development of a gas well,”
- “industrial or other water supply,” or
- “other beneficial use.”

“Industrial or other water supply” includes the “supply of water for use by any lawful industrial, commercial or agricultural facility or activity or by any public water supply\(^7\)” “Other beneficial use” is broadly defined as:

Any use of water for a purpose that produces any economic, environmental, ecological or other benefits, including irrigation, silviculture, cooling water, flow maintenance and augmentation, consumptive use makeup, and any other use of water deemed to be a beneficial use under common law.

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\(^6\) “Treated mine drainage” is defined as “Water from an active or closed mine that is treated by the mine operator or water pollution abatement project operator under a permit issued by the department. Treated mine drainage that meets the effluent limits for the National Pollutant Discharge Elimination System permit for the source mine is not a solid waste as defined in section 103 of . . . the Solid Waste Management Act, and the regulations promulgated thereunder.”

\(^7\) SB 411 points to the Pennsylvania Safe Drinking Water Act as defining “public water supply,” but it does not. The Pennsylvania Safe Drinking Water Act only defines “supplier of public water” and “public water system.”

A “public water system” is “[a] system for the provision to the public of water for human consumption which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. The term includes: (1) Any collection, treatment, storage and distribution facilities under control of the operator of such system and used in connection with such system. (2) Any collection or retreatment storage facilities not under such control which are used in connection with such a system. (3) A system which provides water for bottling or bulk hauling for human consumption.
This is much broader than this bill’s predecessor (SB 1346), which only authorized withdrawal, diversion, and use for hydraulic fracturing or other gas well development.\(^8\)

The water could be taken from “eligible lands and water,” which includes abandoned mine lands and water adversely affected by inadequate reclamation or abandoned mines when a mine operator bond forfeiture is involved, or when no entity has a continuing obligation as to the site. Water could also be taken from “a permitted mining activity site,”\(^9\) which is an expansion of the prior Act.

Further, in another amendment, solely for gas drilling and other activities, “eligible lands and water” would now include abandoned or inadequately reclaimed lands for which a treatment trust fund has been established, when the DEP is a beneficiary of that trust. Treatment trust funds are an alternative to the bonding requirements under the surface mining laws.\(^10\) The trust provides funds to the DEP to treat a mine discharge should a mining permittee fail to carry out its legal obligations to do so.\(^11\)

B. No Clear Limits to the Scope of Immunity

With the expansion of qualifying projects, SB 411 expands the scope of liability. The Act as originally written did not contemplate immunity for off-site use of the water. As a result, SB 411 suggests that immunity applies far beyond the mere on-site treatment and abatement of mine drainage water. This is a significant concern, particularly because the chemistry and

\(^8\) For ease of reference, this group of uses will be referred to as “gas drilling and other activities” in this memo.
\(^9\) A “permitted mining activity site” is a site permitted by the DEP under one or more of the following laws: the Clean Streams Law; the Surface Mining Conservation and Reclamation Act; the Bituminous Mine Subsidence and Land Conservation Act; the Coal Refuse Disposal Control Act; or the Noncoal Surface Mining Conservation and Reclamation Act. 27 Pa.C.S. § 8104. Although this term appears in the Act, its definition only appears once in the Act under Section 8111 – Exceptions.
\(^10\) http://www.portal.state.pa.us/portal/server.pt/community/treatment_trust_funds/20767
\(^11\) http://www.portal.state.pa.us/portal/server.pt/community/treatment_trust_funds/20767
composition of the mine water will change once used in hydraulic fracturing operations, industrial processes, or any other use.\textsuperscript{12}

SB 411 contains two problematic provisions regarding the scope of liability. Each will be examined below.

1. Continued Immunity For A Company That Both Treats And Uses Mine Water

To show the problem posed by SB 411, it helps to examine the existing Act and SB 1346, which was introduced last legislative session. The Act, as noted above, describes the scope of landowner immunity for allowing third party access, without charge or other payment, to a property for water pollution abatement projects (a type of reclamation project or project to address water pollution as described in the Act). The Act also delineates the scope of immunity for the third parties who “provide[] equipment, materials, or services at no cost or at cost” for one of these projects. Further, the Act specifically states that it does not waive existing permit or local zoning requirements.

SB 1346, the predecessor to SB 411, proposed the following addition (among other amendments) to the landowner liability provisions of the Act:

§ 8106. Landowner liability limitation and exceptions.

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(d) Use of mine water for hydraulic fracturing.-- Notwithstanding a provision of this chapter, landowners and mine operators that are responsible for treating mine drainage or mine pool water from a permitted mining activity site shall not be deemed to assume legal responsibility for or to incur liability with respect to a cost, injury or damage that arises out of or occurs in connection with the use of mine drainage, mine pool water or treated mine water in connection with the hydraulic fracturing process or other

\textsuperscript{12} If the DEP chooses to use general permits for these types of projects, the expansive scope of SB 411 may remove the operator’s need to obtain an erosion and sedimentation permit or water encroachment permit not simply for the treatment and transport, but also for well site or other facility construction.
This would have provided that landowners and mine operators (as described) would not be liable for any cost, injury, or damage resulting from the subsequent use of the mine water in the hydraulic fracturing and gas well development process. This provision would have effectively shielded these landowners and mine operators for any issues that could arise during hydraulic fracturing and gas well development. SB 1346 also would have amended the landowner liability provisions to make clear that landowners and mine operators would not be responsible for damage caused to downstream riparian landowners resulting from one of these projects.

Section 8106 can thus be read as providing immunity to all landowners and those mine operators responsible for treating mine drainage or mine pool water from a permitted mining activity site. This grant of immunity would not be limited to those responsible for treatment. Rather, SB 1346 would have provided protection from liability for everyone, including the end-user of the mine drainage, such as the owners of gas well sites and other industrial applications.

SB 411 makes this expansion of immunity even clearer, and would create significant problems if applied in practice. The currently proposed version provides:

§ 8106. Liability limitation and exceptions.

(d) Mine water for beneficial uses.--Notwithstanding any other provision of this chapter, landowners, mine operators and water pollution abatement project operators that are involved in treating mine drainage or mine pool water from a permitted mining activity site or water pollution abatement project shall not be deemed to assume legal responsibility for or to incur liability with respect to a cost, injury or damage that arises out of or occurs in connection with the use of mine drainage, mine pool water or treated mine water in connection with the hydraulic fracturing process or other development of a gas well, industrial or other water supply or other beneficial use of the water.

(emphasis added).
A “water pollution abatement project operator” includes the owner or operator of a DEP-approved project, and those who act as contractors to these owners or operators. Under SB 411, a “water pollution abatement project operator” (which could include a gas company or its contractor) would not be liable for any cost, injury, or damage associated with the subsequent use of the mine water if the company or the contractor treats the mine water as part of the DEP-approved project. This could effectively grant a full exemption from liability for whatever happens to the water, even once used in an industrial or other process that changes the chemistry and composition of the water.

This open-ended immunity could lead to significant problems. It could, for example, eviscerate the water supply replacement provisions of the Oil and Gas Act when mine water is used. If the Environmental Good Samaritan Act, which has its own water supply replacement provision, is amended to shield an oil and gas operator from liability for damaging a water supply from hydraulic fracturing or gas well development, it could render meaningless the Oil and Gas Act’s water supply replacement provisions.\(^\text{13}\)

2. Lack Of Limitation On Environmental Immunity For Subsequent Mine Water Use

SB 411 would expand project-related immunity by shielding the “water pollution abatement project operator” from liability under the Hazardous Sites Cleanup Act, the Solid Waste Management Act, and the Clean Streams Law. SB 411 fails to identify any limits on immunity when mine water is used in an industrial process.

The provision as proposed by SB 411 is set forth below.

§ 8107. Project liability limitation, exceptions and exemptions.

\(^{13}\) Ultimately then, the DEP would be charged with providing the water, not the company or other entity that damaged the water supply.
(a) General rule.--Except as specifically provided in subsection (b), a water pollution abatement project operator or other person who provides equipment, funding, materials or services at no cost to the Commonwealth for a reclamation project or a water pollution abatement project or who implements any such project at no cost to the Commonwealth:

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(6) May not be considered to be releasing a hazardous substance or contaminant under the . . . Hazardous Sites Cleanup Act, or engaging in the processing, treatment or disposal of a solid waste under . . . the Solid Waste Management Act, or in the discharge of industrial waste or pollutants under . . . The Clean Streams Law, when using mine drainage, mine pool water or treated mine drainage for hydraulic fracturing or other development of a gas well, industrial or other water supply or other beneficial use of the water.

(7) May not be considered an owner or operator of the project site for purposes of a State law that imposes reclamation or remediation obligations on the basis of past or present ownership or operation of the site, solely by reason of a water pollution abatement project involving the use of mine drainage or mine pool water for hydraulic fracturing or other development of a gas well, industrial or other water supply or other beneficial use of the water.

*** (c) Exemptions.--A person qualifying for immunity under this chapter, provided that the person’s actions comply with the water pollution abatement project as approved by the department, is not deemed to be releasing hazardous waste or hazardous substances and is not subject to enforcement under the Solid Waste Management Act or . . . the Hazardous Sites Cleanup Act.

(Emphasis added).

Under these proposed amendments, entities that provide funding for water pollution
abatement projects would now receive immunity from liability, as would anyone operating the project or supplying materials or services. Such an arrangement shields those who might otherwise be liable for environmental damage from gas well sites, industrial sites, or other locations where mine water is subsequently used. Without the ability to seek response or remediation costs from these companies, regardless of whether they operated the site or engaged in joint ventures or other arrangements, Pennsylvania taxpayers could ultimately pay for remediation of contaminated well sites, industrial factories, and other locations where mine water is used. Further, unless the DEP fails to give notice of the project, or the project operator engages in gross negligence or willful misconduct, adjacent landowners and downstream riparian owners could be unable to recover from the project companies due to the expansive immunity as proposed by SB 411. 27 Pa.C.S. § 8107(b)(1)(i) & (iii).

C. Change in Review Standard for a “Water Pollution Abatement Project”

Previously, the DEP had to approve a water pollution abatement project that would both improve the water quality and not make the pollution worse. SB 411 would change this standard, to the following (deletion in strikeout, addition underlined):

§ 8105. Eligibility and project inventory.

(d) Departmental review.-- . . .
The department shall review each proposed water pollution abatement project and approve the project if the department determines the proposed project is likely to improve the water quality and is not likely to make the water pollution worse or reduce the volume or loading of mine water or an existing discharge of pollution of mine water pollutants or will likely have

14 The exceptions also include “unlawful activities,” but because of the expansive immunity proposed by SB 411, it is not clear what would qualify as unlawful. 27 Pa.C.S. § 8107(b)(1)(ii). The exceptions also include situations in which DEP finds a violation of the coal mining laws; however, SB 411 amends the Act to specify that water pollution abatement projects with an end use for gas drilling or other activities do not qualify as surface or underground mining activities under the two coal mining laws specified in the Act.
a beneficial impact on water resources in this Commonwealth.

Under the new standard, a project would need only do one of three things for DEP approval:

- improve the water quality;
- reduce the volume or loading of mine water, or an existing discharge of pollution of mine water pollutants; or
- likely have a beneficial impact on water resources.

“Beneficial impact” is not defined, but operators could foreseeably argue that using the mine water for hydraulic fracturing replaces the need for a water withdrawal from a cleaner stream, resulting in a beneficial impact on water resources of the Commonwealth.

The removal of the requirement that a project not worsen water quality is a concern, particularly with the expansive scope of immunity under SB 411. This is because the transport and use of mine drainage water into higher quality watersheds could simply serve to spread polluted water into other places, rather than actually fixing the mine drainage problem at its source.

D. Solid Waste Exemption – Transport, Illegal Dumping, And Accidents/Spills

Under SB 411, “treated mine drainage” that meets effluent discharge permit requirements would not be a “solid waste” within the meaning of the Solid Waste Management Act. Further, under SB 411, those transporting and using mine drainage (treated or untreated) would not be engaged in processing, treatment, or disposal within the meaning of the Solid Waste Management Act.

This exemption, from a review of the RAND report, appears to be designed to ensure that companies transporting mine drainage water to well sites or other activities do not have to comply with generator, transport, or disposal requirements. RAND Report, p. 25-26. An exemption from the transport requirements removes the regulatory floor from the transport of
mine drainage, allowing potentially careless handling of the drainage to go unchecked. See, e.g., 35 P.S. § 6018.303 (setting forth requirements for the transport of residual waste). For instance, under the Solid Waste Management Act, a company engaged in the transport of residual waste must:

> take immediate steps to contain and clean up spills or accidental discharges of such waste, and notify the department, pursuant to department regulations, of all spills or accidental discharges which occur on public highways or public areas or which may enter the waters of the Commonwealth as defined by the . . . “The Clean Streams Law,” or any other spill which is governed by any notification requirements of the department.

35 P.S. § 6018.303(b)(2)(footnotes omitted).15 Mine drainage composition can vary, but often may contain high levels of metals (such as iron and manganese), high acidity or alkalinity, total dissolved solids (“TDS”), or sulfate.16 The treatment requirements for mine drainage can vary, but may include pH adjustment, and treatment for iron and manganese, and potentially other parameters. See, e.g., 25 Pa. Code § 87.102 (surface coal mining). Consequently, even treated mine drainage could still contain high levels of TDS, which pose a threat to water quality and vegetation if spilled or handled improperly.

III. Conclusion

The expansive scope of immunity provided by SB 411 is a serious issue, as it could exempt the end-user of mine drainage water from any liability associated with its use, even after

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15 Also, SB 411 exempts mine drainage water from the Clean Streams Law when used for gas drilling or other activities. Specifically, anyone covered by the liability protections and who is using mine drainage water for gas drilling and other activities is not “considered to be . . . engaging . . . in the discharge of industrial waste or pollutants under . . . The Clean Streams Law.” This raises further questions about waste streams leaving a well site or other industrial location, and how the Clean Streams Law will apply to those waste streams, given the expansive liability protections under SB 411. The federal Clean Water Act may still apply. 27 Pa.C.S. § 8109.

the water’s chemistry and composition changes through hydraulic fracturing or another industrial process. This immunity could prevent adjacent landowners or downstream riparian owners from recovering from covered companies even for operations far beyond the mere transport of mine drainage to the well site or other industrial facility. Because SB 411 applies this scope of immunity to far more than just hydraulic fracturing or gas well development, entities that would otherwise be subject to suit for pollution from industrial or other facilities could be protected by the Environmental Good Samaritan Act if mine drainage water is used.

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