



Outcomes of the Chapter 102 & 105 Permit Appeal for Mariner East 2

This article details the results of ongoing efforts to bring the Mariner East Pipeline into public scrutiny and protect the rights of Pennsylvania's citizens.

Background

Immediately after the Mariner East 2 permits were issued by the Department of Environmental Protection (DEP) in February of 2017, Mountain Watershed Association (MWA), Clean Air Council (CAC) and the Delaware Riverkeeper Network (DRN) filed a legal appeal of those permits with the Environmental Hearing Board. Between that initial filing and the week before the hearing was set to begin on August 1, 2018, we also filed three different supersedeas petitions. Supersedeas petitions are similar to injunctions. When successful, they result in the court immediately putting a temporary halt to harmful behavior without going through the entire process of a trial (or in this case hearing), which can take years.

Two of those supersedeas petitions were successful. Sunoco, DEP, and our organizations entered into settlement agreements that strengthen the existing permit conditions, one in August of 2017 and one in April of 2018. As far back as 2016, when the DEP started to issue deficiency letters for the Mariner East 2 permits, we discovered some areas of the permits that were severely lacking. The permits were sometimes scant in either the amount of information they required or the amount of information submitted by the applicant. We continued to discover concerning deficiencies during our legal challenge and as we worked to develop language that improved the permit conditions via the two settlement agreements. This lack of appropriate information in permits is due, in large part, to a lack of appropriate state laws and regulations regarding pipeline construction, and a failure to apply the law as written.

While there are very specific regulations found in Chapter 78a of Title 25 of the PA Code that address the act of constructing a fracked gas well and some of the associated infrastructure, they do not include the construction of pipelines that transmit the fracked gas across counties. **In fact, there are no state regulations that specifically address this type of pipeline construction.** They must meet the requirements of Chapters 102 and 105 which address erosion and sedimentation and waterways and wetlands respectively. Chapter 102 and 105 permits must be held by anyone engaging in a vast array of construction activities in the state and do not specifically address special considerations for the construction and remediation methods that are unique to developing these large pipelines.

Mariner East 2 is an unprecedented project in many ways. It is a much larger project in scale than the DEP has regulated before: it runs across 17 counties and if completed, will transport natural gas liquids across about 350 miles of Pennsylvania. And it is the largest of its kind to be permitted by the



state DEP. Pipelines of this size and type are usually regulated by the Federal Energy Regulatory Commission (FERC), which regulates the transport of substances such as natural gas or oil. However, Mariner East 2 will not transport natural gas but natural gas *liquids*. The state DEP is then left with the burden to permit projects of a size, scale, and nature that it has never done before. Other pipeline projects are already following similar paths and Shell's Falcon pipeline is mirroring the same permitting route as Mariner East.

Southwest Pennsylvania currently faces the looming possibility of the creation of a major petrochemical hub started by Shell. The goal of the hub is to eventually take fracked gas and turn it into ethylene, the building block of plastics, which will then be shipped overseas to companies that create plastic goods. In order to have a profitable production, the hub will require an increased amount of the natural gas liquids being transported directly to it. This will likely increase the amount of pipelines such as Mariner East being constructed. It seems that while Mariner East 2 may be the state's first go-round with a project of this scale, it is far from the last.

Pennsylvania has been historically slow to develop regulatory frameworks that address the extraction of natural resources. While the protections for activities like coal mining and frack-pad development are by no means exhaustive or always successful, they still provide certain protections that are simply unavailable to ecosystems and residents who are exposed to the harms of pipeline construction. For example, Pennsylvania's Chapter 78a regulations provide that if you live within a certain radius of frack-pad development and your water becomes contaminated after the gas pad is constructed, it is presumed that the gas company is responsible for the contamination and hence, responsible for providing you with an alternative water supply. This area around the well pad is sometimes called an area of "**rebuttable presumption.**" This means that the operator is presumed to be responsible for contamination but they are welcome to try to disprove, or "rebut" their responsibility. A gas company may do this, for example, by bringing in evidence to try and prove that the contamination existed before their specific activity began. But the rebuttable presumption creates an incentive for the operator to conduct pre-drill surveys. Because if they do not, and a landowner shows that their water was contaminated after activity began, the operator has very few ways to try and show that the contamination already existed and hence, that they're not financially responsible.

However, as was mentioned, there are no such regulations and no such protections or measures taken for those who have lost their water due to pipeline construction. Some landowners along the Mariner East pipeline route have had their well water become contaminated within days of the start of construction in their area. For several landowners, Sunoco will not claim responsibility, which means that even the meager "temporary replacements" such as bottled water and water buffalos that Sunoco sometimes provided were costs ultimately paid for by the residents. Neither the state nor Sunoco provided pre-construction water samples in most instances so the landowners cannot rebut Sunoco's claim that Sunoco did not contaminate the water, since there's no way for homeowners to prove when their water became contaminated.



Pennsylvania desperately needs to address these gaps in its regulatory scheme and to create a set of rules that protect people and natural resources along major pipeline routes. Somewhat paradoxically, **DEP does not have authority to make new regulations** that legally bind the industry to certain standards. The Environmental Quality Board (EQB), an entirely separate entity, is tasked with that job. However, DEP is responsible for developing procedures and processes to implement and enforce the rules set forth by the EQB. During the process of reviewing the permits - and then enforcing the permits - for Mariner East 2, the DEP struggled with the gaps in protections for residents and natural resources near the route.

So, as a part of our settlement agreement, DEP agreed to develop policy or guideline documents on over 13 different issues and/or procedures that we hope will help to fill these gaps.

As a regulatory agency, the Department must follow certain processes in order to develop certain policy or guidance documents. For example, drafts of such documents must be made available to the public, whom then has a right to weigh in and comment on that document. The DEP is then required to consider each of those comments before they publish a final document. Although the process can be incredibly time consuming, the settlement sets forth a schedule for each aspect of the development. So while it may take time, we believe that these improved procedures will ultimately help to prevent the catastrophes that occurred with the construction of Mariner East 2

Settlement Agreement Content

As the DEP has stated, some of these documents will be improvements upon existing policies and procedures. However, a great many will cover issues that have not yet been addressed or addressed in sufficient depth by the Department. What follows is a description of many of the subject areas, why they matter, and how we intend to proceed.

The following are examples of *improvements* to existing DEP policies and procedures:

Making multi-county transmission pipeline permit materials publicly available online

- **What it is:** The DEP has been making some pipeline permit information available on their website, which is a helpful first step. Yet it is not always clear to readers how exhaustive that information is or what criteria the DEP uses to determine what is shared and what is not.
- Now, as a part of our agreement, before February 1, 2019, the DEP will include:
 - All materials that the Applicant submits to the Department for the Department's review and consideration of the Permit application, including but not limited to the initial application itself;
 - Technical deficiency letters and responses; and



- Final decision documents.
- **Why it's important:** The DEP has a duty to make permit documents publicly available. Yet if impacted landowners or interested groups want to view proposed pipeline plans, the only way to do so is often to drive to a DEP or County Conservation District office and pay for any copies of any materials the person might want to take home. Most of the time these permit applications are submitted in a piecemeal fashion so citizens must try to track any new changes to these documents and call DEP to arrange file reviews. That can be an enormous burden on time and resources and ultimately hinder the public's ability to inform themselves, and consequently to engage in the aspects of the public participation process to which they are entitled. When the permit materials are available online, more people can be better educated about potential impacts to their homes and give timely and detailed input to the DEP during public comment periods. This all decreases the chances of harm to the public and increases the likelihood of better permits ultimately being issued.

Policy on Alternatives Analysis

- **What it is:** The DEP will make policy that states the recommended process and methodology applicants should consider when they complete their "alternatives analysis," which requires a company to show that it considered how to minimize the adverse impact of its pipelines.
- **Why it's important:** When a company wants to build a pipeline of any significant length, it needs what is called a Water Obstruction and Encroachment Permit. Chapter 105 of PA's environmental regulations governs the limits of those permits. According to those regulations, an applicant must submit "a detailed analysis of alternatives to the proposed action, including alternative locations, routings or designs to avoid or minimize adverse environmental impacts."
- With Sunoco's permit applications, we often saw a very bare-bones alternatives analysis. Sometimes the analysis was less than a half a page, with no explanation of what was considered in the analysis or how Sunoco arrived at the conclusion that all the other alternatives were inferior. If there's more detailed guidance about which factors an applicant should take into consideration, it can result in creating plans that come closer to minimizing harm.

Enhanced procedure for Horizontal Directional Drill (HDD) sites

- **What it is:** DEP will develop guidance or policy on Enhanced Best Practices ("EBP's") in the design and execution of HDDs and HDD Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plans ("HDD IR PPC Plans").
- **Why it's important:** The DEP already requires that a permittee who wishes to use HDD submit certain documents such as a "Preparedness, Prevention and Contingency" Plan. These documents set out how personnel should respond in case of emergencies.



- Larger pipelines like Mariner East sometimes use Horizontal Directional Drilling to install pipeline underneath features like roads and streams. When done successfully, this HDD method can reduce damage to natural resources. For the Mariner East II project, Sunoco planned to use the method at scores of sites. But at many of those there were “inadvertent returns.” Inadvertent returns (IR’s) mean that during the drill some amount of drilling fluid, or sometimes even groundwater, is discharged from the earth and flows onto the surface or into waterways. Sunoco had over 200 IR’s over the course of roughly a year that leaked over 200,000 gallons of drilling fluid. Yet there is little direction from the DEP on what exactly should be addressed within the HDD plans DEP requires. The settlement agreement sets forth several new areas of issues that should be considered and included in HDD site plans as well as IR PPC (Preparedness, Prevention, and Contingency) plans which we will discuss in the following section.
- This language also closely mirrors the agreements in our August 2017 and March 2018 settlement agreements with Sunoco. Hopefully, the inclusion of this EBP (Enhanced Best Practice) will mean that all similar pipeline construction projects will follow this more protective precedent that was created as a result of our legal challenge.

Prevention of Spread of Invasive Species

- **What it says:** The DEP will develop environmental best practices “for use of noninvasive species in construction, erosion and sediment control, and restoration plantings.”
- **Why it’s significant:** when workers try to stabilize the dirt and sediment at a construction site they often plant seeds, like grass, over freshly dug up earth. The seeds establish roots very quickly and help prevent erosion of large amounts of loose soil. Ultimately, this means that less soil is washed into waterways, which is good because sediment makes it difficult for aquatic life to survive. There is an existing list of species of seeds that permittees can choose from to temporarily or permanently stabilize a site. Currently, that list includes a variety of invasive species which, while they may help to stabilize soil, have harmful impacts on delicate ecosystems. This policy will set out the best practices for use of *non*-invasive species and make it easier to direct operators to choose those plants that won’t harm the existing environment.

The following are policies to be developed that cover *new* issues that were not addressed previously in policy by the DEP but will be as a result of the settlement:

Communication with Residents

- **What it says:** The DEP will develop “Environmental Best Practices for pre-application landowner communication for purposes of ascertaining site-specific considerations presented on any specific property”



- **What it means:** The Department will develop a best practices document that explains how a company should communicate with the landowners/residents along the right of way, in order to find out if there are any special considerations on their property and do so *before* the application is even submitted.
- **Why it's important:** No one knows the land as well as those who live upon it. Residents are often the most valuable source of information when planning construction activity. For example, there may be historical mining in a resident's backyard that isn't documented anywhere else, or past issues with steep slopes and landslides. An enormous amount of the damage caused by Mariner East could have been prevented if the companies involved had taken the time to listen to - and acknowledge - the concerns of the residents along the route regarding features on or near their properties.

Better Erosion & Sedimentation (E&S) permitting process:

- **What it says:** "The Department will seek stakeholder input for policy, procedure, and/or guidance development related to the following: Categories of pipeline projects for which the Department will request that Applicants for projects obtain Individual Erosion and Sediment Control Permits for a Project"
- **What it means:** The state issues what are called "general permits" for certain erosion and sedimentation activities. This can mean that although there are different physical locations or activities involved in a project, all of the activity is related to each other and all covered under one "general permit." While a general permit can be somewhat tailored to a project there is no opportunity to include any "special conditions." Special conditions might be necessary to have an effective permit for a project as large as Mariner East.
- **Why it's important:** Going forward, having a more thoughtful process for determining when individual permits and when general permits are appropriate, will allow the inclusion of special conditions when needed and ultimately create safer, more effective permits.

Policy to Prevent and Respond to Contamination of Water as a Result of Horizontal Directional Drilling

- **Prevent and respond to groundwater discharges**
 - **What it says:** Creation of EBP's (Enhanced Best Practices) for preventing and responding to hydrological impacts from IR's.
 - **Why it's important:** Groundwater discharges are oftentimes inadvertent returns that do not contain much or any drilling fluid, but is also caused by the same process. The process is one in which the drill creates pressure buildup by forcing fluids into the ground, causing substances - either the drilling fluids that



are being pumped in or existing nearby groundwater pockets- to the surface. Now DEP will address how to prevent and respond not just to drilling fluid discharges but groundwater as well.

- **Prevent impacts to groundwater**

- **What it says:** Creation of EBP for groundwater quality and quantity protection
- **Why it's important:** As we said earlier, it appeared as though Sunoco conducted their HDD activity in ways that led to groundwater sources and even drinking water aquifers being punctured or otherwise depleted. Groundwater sources make up a large portion of the supply for private water wells and public water sources across the state. Having additional protections not only for the quality of groundwater but the quantity will hopefully prevent future residents from suffering damage to their drinking water.

- **Identify private water wells**

- **What it says:** Creation of EBP for procedures to be used to identify water supplies in the vicinity of a proposed HDD beyond the use of the Pennsylvania Groundwater Information System.
- **Why it's important:** Currently, DEP allows pipelines such as Mariner East to identify public water supplies and only any private water supplies that are documented via the Pennsylvania Groundwater Information System. The system does not have anything even remotely close to a complete directory of private water supplies. Hence, Sunoco was, in essence, not really required to take into account at all an enormous number of private water wells when developing its site plans. This is particularly problematic at HDD sites because Sunoco has admitted that if a private well user within 450 feet uses a well during drilling, there is an increased likelihood of damage to that water well. However, Sunoco was never required to identify wells beyond those scant ones listed in the Pennsylvania Groundwater Information System and so never even had to consider whether its drilling would permanently damage those private water supplies, let alone notify residents of the potential harm.
- **What it means:** DEP may develop policy that mimics our existing settlement agreement regarding this issue. In the settlement, Sunoco must send certified mail to all landowners within a certain radius of the drill site and ask them to identify their water supply. That way: 1) landowners are given notice of the



impending activity and the potential for harm, and 2) the permittee can adjust its drill plans accordingly to avoid potential impacts to private water supplies.

- **Water testing**

- **What it says:** Recommendations for permittee to conduct water supply testing (quality and quantity) for landowners within the vicinity of an HDD.
- **What it means:** Ideally, residents that live near pipeline construction would be entitled to the same rebuttable presumption that we discussed earlier. However, that was implemented by state regulations and it is beyond the DEP's ability to implement a similar scheme that shifts the burden of proof onto the operators and away from the residents to prove contamination. However, it is our hope that if the DEP provides recommendations for permittees regarding when and how to conduct water supply testing it will incentivize applicants to comply with the recommendations of the Department. It also helps to inform the public and those who may wish to obtain independent water supply testing on how to test and what constituents to test for.
- **What to do in the future:** we should advocate strongly to have these policies codified and adopted as regulations.

Additional Information for Horizontal Directional Drilling:

- As was mentioned earlier, Horizontal Directional Drilling requires certain types of plans and documentation in order to receive the necessary permits. The following are subjects, procedures, or issues regarding the design and execution of HDD's that will be addressed by these policy documents and had not yet been addressed by the DEP.
- **Geological, topographical, and hydrological analysis**
 - **What it says:** The DEP will develop environmental Best Practices regarding the "type of site-specific geological, topographical, and hydrological analysis to be considered, including, but not limited to past and current land use."
 - **What it means:** The DEP will instruct the applicants to include analyses regarding these specific features such as when an applicant should use additional geotechnical or geophysical surveying methods or consult with historical maps.
 - **Why it's important:** When Sunoco was conducting its Horizontal Directional Drills it sometimes caused inadvertent returns or other types of damage



because it did not have a thorough understanding of the geological features. Guiding applicants on the best way to analyze a site can help prevent dangerous outcomes like inadvertent discharges or puncturing aquifers, creating sinkholes, or causing acid mine drainage to discharge into (and destroy) nearby waters - many of which occurred during the construction of Mariner East.

- **Analysis and documentation of adjacent features.**
 - **What it says:** The DEP will develop environmental Best Practices regarding “the type of analysis and documentation of adjacent features in the vicinity of the project footprint and potential impact of the planned activity on or from adjacent features.”
 - **What it means:** This creates another part of the permit application in which applicants are directed to do additional analysis on potential impacts to or from adjacent features such as natural or historical sites.
 - **Why it’s important:** Sunoco’s applications and site plans often failed to take into account any features beyond the limits of the site construction, even if they were only a few feet away. This led to drilling near features such as treacherously steep slopes or abandoned mine voids without taking them into account, and resulted in landslides, subsidence, sinkholes, flooding, etc. When permittees take into account not only the features within the permit site but also the adjacent ones, they can develop construction plans that cause significantly less damage. Another adjacent feature that Sunoco did not have to take into account was private water wells located beyond the permit boundaries. That has also led to dire consequences which we hope will be prevented. We will discuss the ways in which private water supplies should be identified further on in this section.
- **Preventing and Responding to Drilling Fluid Discharges**
 - **What it says:** The DEP will develop EBP’s for preventing and responding to inadvertent returns.
 - **What it means:** The DEP will develop guidance that could, for example, provide an example or a model of procedure and protocol that pipeline companies should follow in case there is an inadvertent return of drilling fluid discharge while they are drilling.
 - **Why it’s important:** Because there is no official policy that guides procedures for preventing and responding to IR’s, Sunoco would often continue drilling



after causing an IR. Sometimes Sunoco would not address the underlying cause, or stop to report the incident to the DEP, or properly contain the spill. For example, while drilling underneath the Loyalhanna Lake, Sunoco caused at least six IR's over a period of about fifteen days that discharged over two hundred gallons of drilling fluid. This was in part because there was no policy by the DEP instructing Sunoco that instead of continuing to damage our natural resources, it should stop and reassess its drill plan. Often times, the IR's were not reported to DEP at all, or reported in inconsistent ways across the regions which made their impacts difficult to measure and gauge.

- The previous settlements we achieved require that whenever there is an IR over 50 gallons, Sunoco must stop drilling. It must submit a report to DEP that describes why the incident occurred and how it plans to prevent future returns. It is only until the DEP has reviewed these submissions that Sunoco is allowed to continue drilling. Similar procedures may be included in the policy developed by the DEP as a result of our most recent settlement.

General Operational Policy Changes:

- DEP will develop guidance on EBP for pipeline permit applicants to show they have established Training Plans that apply to:
 - management,
 - employees,
 - and contractors associated with construction,
 - construction oversight and supervision,
 - and Permittee compliance monitoring of the Project.
 - **What it means:** This can help the DEP and the applicant be sure that personnel that are on pipeline construction sites are given consistent instructions on how to implement permit conditions.
 - **Why it's important:** Having training on issues like proper internal procedures or implementation and reporting practices can make a huge difference in preventing environmental harms. For example, it became apparent during construction of Mariner East II that if a hazardous situation or a potential permit violation arose at a site, personnel did not always know who to communicate with in order to best prevent or remediate a permit violation. Or, at times the



informal communication protocol was inconsistent across sites, which made gauging impacts difficult and DEP's own reporting procedures much more difficult.

- For example, as a part of the proceedings of the Mariner East II permit appeals, the DEP's hydrogeologist mentioned an unsettling example of this. The hydrogeologist stated in his report that during site inspections of HDD sites, "[he] was twice told by the onsite Professional Geologists that they were not permitted to speak directly with the driller." Trainings such as those included in this settlement are an important step towards ensuring that all personnel can best implement the terms of the permit.

Miscellaneous

Consideration for *all* residents, not just landowners

- The settlement agreement defines "landowners" as, "both the owner of a parcel and any tenants or residents living or working on the parcel." This is an incredibly important distinction. For many of the existing regulations regarding fracking (like those in Chapter 78a) the right to protections such as notifications or pre-drill water supply testing are only granted to the property **owners**. This means that if someone is renting their home and their landlord is absent, they may never know their water is threatened and never be entitled to a supply of safe replacement water. As you might imagine, it is often those who cannot afford to buy their own property that end up renting. This means that the people who are more likely to be struggling financially are less likely to receive protections. However, in order to comply with all of the policy and guidance documents developed as a result of this settlement, the pipeline permittee must show the same consideration to those who live or work on rented property.
- For example, the policy mentioned earlier that will recommend increased communication with residents about site specific features on their property, will apply to **all** residents. Hopefully, this will result in more people being notified of potential pipeline construction and subsequently, more people who are better able to educate and protect themselves. And certainly more people who will contribute to the creation of what will ultimately be better, safer permits.
- Similarly, the DEP's policy to recommend water supply testing for permittees at HDD sites applies to **all residents**. Water supply testing can be incredibly costly. We believe that with this inclusion, people who may not have the resources to conduct their own water supply testing will have increased opportunities to do so without bearing the financial burden themselves.

Moving Forward:



This most recent settlement is only between the environmental groups and the DEP, so it does not require Sunoco to take any additional protective measures as it continues to construct Mariner East II. However, the two prior settlements from August 2017 and March 2018 that occurred as a result of this legal challenge do, and are still in effect. Those two settlements require Sunoco to adhere to many of the protective standards that are discussed in this most recent settlement. In fact, those earlier two settlements served as somewhat of a springboard for the inclusion of many of the issues that will be addressed by this more recent settlement. The earlier settlements require Sunoco to take such measures as shutting down drilling in the event of an inadvertent return and conduct scientific review and reanalysis of drilling plans where there have been spills. They also include the opportunity for the public to comment on revised HDD site plans and to follow new spill protocols in HDD IR plans, and much more. (See the DEP's Mariner East Portal webpage for more information).

While this particular legal challenge has come to its conclusion, it by no means signifies an abatement of legal challenges against Sunoco for the Mariner East II pipeline. Clean Air Council is involved in five other active lawsuits relating to Mariner East II and the Delaware Riverkeeper Network has one as well. There are also countless other individual lawsuits brought by landowners across the 350-mile route.

And while this does mean the end of MWA's only legal challenge, it by no means signifies that we are finished. In fact, quite the opposite. We will work harder than before to hold Sunoco accountable for damage done to the Youghiogheny River Watershed and throughout the area. We will be vigilant in monitoring construction sites, recording impacts, and filing complaints wherever we uncover permit violations or potentially destructive conditions. We will also continue to advocate for impacted residents and support grassroots movements that aim to protect communities from potential devastation that arises from this type of pipeline construction.