Protect PT

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Pennsylvania Department of Environmental Protection
400 Market St.
Harrisburg, PA 17101

Proposed Rulemaking: **Policy for Erosion and Sediment Control and Stormwater Management for Earth Disturbance Associated with Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities**

Background

We are submitting this comment to DEP as a coalition of environmental organizations in southwestern Pennsylvania. Together, we work to preserve the health of Pennsylvania's people and natural resources. Thank you for the opportunity to comment on this rulemaking.

Protect PT (Penn-Trafford)

Protect PT is a nonprofit based in Harrison City, Pennsylvania. We ensure residents' safety, security, and quality of life by engaging in education and advocacy to protect the economic, environmental, and legal rights of the people in Westmoreland and Allegheny counties. Today, we are writing on behalf of our members who live throughout these counties.

The primary concern for our members is the conduct of the unconventional oil and gas industry, whose facilities and operations are ubiquitous in Southwestern Pennsylvania. In order for our local communities to thrive into the future, industry needs to operate responsibly, which is why strong regulations to safeguard our water, air, and land are critical. Erosion and Sedimentation policy is of concern to our organization due to the risks that come along with living in an area dense with unconventional oil and gas development (UOGD). Our members' homes are near these industrial sites. They travel the same roads as industrial UOGD equipment. They live and recreate in the watersheds affected by UOGD runoff and sedimentation. Without proper and effective E&S policies to guide UOGD activities, our members are put at increased risk of:

- Dangerous road conditions evolving on rural roads and site access roads that are isolated, steep, windy, narrow and already prone to landslides. Road accidents, collisions, spills, and road blockages are all a concern.
- Unstable conditions on slopes that support UOGD pipeline infrastructure. Damage to these pipelines can cause dangerous explosions and release of hazardous chemicals into the air, soil and waterways of Pennsylvania.

- Exposure to hazardous contaminants that are used, stored and generated at UOGD sites and transported by UOGD vehicles. This includes carcinogens, adaptogens and radioactive materials which pose health risks to the general public and the environment.
- Damage to private property and to natural resources, including springs, streams, wetlands, water wells, and agricultural soils.

Three Rivers Waterkeeper

Three Rivers Waterkeeper was founded in 2009 and serves as both a scientific and legal advocate for the Allegheny, Monongahela, and Ohio Rivers and their watersheds in Southwestern PA. These waterways are critical to the health, vitality, and economic prosperity of our region and communities. We are both a scientific and legal advocate for the community, working to ensure that our three rivers are protected and that our waters are safe to drink, fish, swim, and enjoy. We also highlight the variety of species that live in our aquatic and riparian ecosystems.

FracTracker Alliance

FracTracker Alliance maps, analyzes, and communicates the risks of oil, gas, and petrochemical development to advance just energy alternatives that protect public health, natural resources, and the climate. FracTracker supports groups across the United States, addressing pressing extraction-related concerns with a lens toward health effects and exposure risks on communities from oil and gas development. We provide timely and provocative data, ground-breaking analyses, maps, and other visual tools to help advocates, researchers, and the concerned public better understand the harms posed by hydrocarbon extraction.

Introduction

We understand the intention of this rulemaking is to clarify how Oil and Gas projects must operate in order to maintain compliance with applicable Pennsylvania law concerning Erosion and Sedimentation, and that the applicable law exists in order to protect the the environmental rights of the people of Pennsylvania, as established in Article I, Section 27 of the Pennsylvania State Constitution. However, the organizations supporting this comment are concerned that the proposed policy fails to meet the goals of relevant legislation in that :

- Its interpretation of legal requirements currently fails to prevent E&S problems at O&G sites
- It fails to ensure that practices at sites will be adequate to deal with current and future conditions that increase erosion and sedimentation risk

It is evident that effective erosion and sedimentation policies are critical for maintaining the quality of Pennsylvania waterways and for protecting the right of the people of Pennsylvania to "pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment." As stated in the PA DEP Erosion and Sediment Pollution Control Program Manual (2012): "By volume, sediment is the greatest pollutant to the surface waters of Pennsylvania." This indicates that, not only is sedimentation impacting our waterways, but that excessive erosion is degrading the landscape and ecosystems of Pennsylvania. It takes over 100 years and the work of myriad organisms to create just an inch of soil, yet it can take one wet season to wash away soils due to poor management of industrial sites, turning it from an invaluable resource into a harmful pollutant, and impoverishing the natural heritage that is the right of Pennsylvanians.

We are concerned that the existing policy for Oil and Gas sites fails to prevent this degradation and pollution. For example:

- DEP records and documents reflect that existing policies are not preventing problematic conditions; siltation of streams is an increasing problem in the Commonwealth. According to the Draft 2026 Pennsylvania Integrated Water Quality Report, the number of stream segments in the commonwealth impaired by siltation has increased since the previous integrated report. According to the "Stream 2024 to 2026 Changes Table," 12,641 streams that remained impaired had changes to their assessment in 2026 versus 2024. 30 streams formerly impaired by siltation are no longer impaired. However, between 2024 to 2026 siltation was added as a new source of impairment for 3,127 stream segments. Siltation was a new cause of impairment in 24.7% of stream segments with new causes of impairment since 2024. In Allegheny County, 95 out of 112 stream segments assessed with new causes listed include siltation, while in Westmoreland County, 298 of 544 such stream segments have siltation as a newly added cause. While the 2026 report is currently preliminary and undergoing review, it is unlikely that this review will result in final data that contradicts this trend
- Additionally, we know that erosion and sediment events at well pads are a major contributor to stream siltation. Between January 1, 2008 and December 4, 2025, the Department of Environmental Protection issued over 89,484 violations to operations at oil and gas well sites that FracTracker has been able to find a location for, using either the well's API number for specific wells, or the site ID number for violations assessed to the well pad. Of these, 10,085 (11.3%) were for erosion and sediment related infractions, where the violation code description contained one or more of the following terms: "erosion", "sediment", "E&S", "E & S", or "silt." The most frequent of these is, "102.4 - Failure to minimize accelerated erosion, implement E&S plan, maintain E&S controls. Failure to stabilize site until total site restoration under OGA Sec 206(c)(d)." with 1,854 instances in that time frame.

We are also concerned that the failures of the existing policy will multiply and worsen because it does not account for documented and expected increases in erosion and sedimentation risk as a result of climate forcing. Establishing a policy today that is rooted in E&S conditions of the past ensures that future O&G projects will not be designed appropriately. For example:

- As the PA DEP Erosion and Sediment Pollution Control Program Manual acknowledges, climate and vegetative cover are two of the main factors determining erosion. The 2024 Pennsylvania Climate Impacts Assessment integrates and summarizes data and climate modeling for our state. It describes how climate has changed across the Commonwealth since 2000, and how it is expected to continue changing in the future. Extreme rainfall events, such as cloudbursts, have already increased and are expected to further increase in magnitude, frequency and intensity. The amount of rainfall we receive is increasingly arriving in the form of intense events, and less so in the form of gentle rain that landscapes are able to absorb. This is a finding echoed in the 2017 PENNDOT Extreme Weather Vulnerability Study. These changes to our state climate all increase erosion risk. This is especially concerning to our organizations, whose service areas extend across the notoriously hilly and flash flood prone terrain of southwestern Pennsylvania.
- While climate and vegetative cover are considered two separate factors that influence erosion, they are tightly entangled. Climate conditions play an important role in determining vegetative cover. As described in the 2024 Climate Assessment, we are currently seeing and expect to see higher extreme temperatures, higher nighttime temperatures, longer hot periods, shifts in growing seasons, longer gaps between rain events, and more extreme rainfall events. All of these trends impact vegetative cover because they affect processes that guide plant reproduction, survival and growth. These stressors will alter plant communities in unpredictable ways and cause changes to the vegetative cover that certain soils and terrains can maintain. Additionally, the seasonality of rainfall is changing, resulting in wetter winters and springs, and drier falls. This means that we will have more rain during seasons when vegetative cover is either greatly reduced (winter) or is still establishing (spring).

Specific Concerns and Recommendations

We are specifically concerned about the following elements of the policy:

- **Lack of assessment** - Erosion and sediment control policy updates should be informed by documented sediment impairment trends and demonstrated outcomes, not assumptions that existing practices are sufficient. Effective regulation requires adaptive responses to observed environmental conditions, especially when available data show persistent and

increasing sediment-related impairments that indicate worsening siltation in many Pennsylvania watersheds.

  - Erosion and sedimentation remain some of the most pervasive and damaging sources of pollution that affect Pennsylvania's surface waters.The draft policy repeatedly emphasizes erosion and sediment control as the core objective of Chapter 102 implementation. However, despite sediment being widely acknowledged as a central pollutant in PA waters, the policy does not assess whether existing erosion and sediment control practices are effectively reducing sediment-related impairments statewide, or regionally. Many streams in Southwestern Pennsylvania are already listed as impaired due to siltation or sediment-related causes, while others may be impaired by multiple stressors in which sediment plays a contributing role, even if not identified as the primary cause. Without an explicit assessment of sediment impairment trends or a requirement to adapt practices based on documented trends and outcomes, the policy falls short to adequately address existing conditions.

- **DEP Interpretation/DEP leeway concerning "extent practicable"** - By designating the policy as non-binding guidance and allowing undefined deviations "where circumstances warrant" DEP undermines consistent enforcement and could weaken the ability to reliably protect waters under the Clean Streams Law.

  - This policy is designated as non-binding guidance rather than a regulation or adjudication, and DEP reserves the right to deviate from its provisions "if circumstances warrant" without establishing defined criteria for such deviations. This structure does raise concerns about enforceability and consistency. Over-reliance on non-binding guidance risks weakening the Commonwealth's ability to ensure consistent protection of public water resources under the Clean Streams Law.

- **Restoration Extensions** - Allowing multi-year restoration extensions without enhanced interim controls or performance benchmarks significantly increases erosion and sedimentation risks during prolonged disturbance periods, particularly in steep and hydrologically vulnerable regions.

  - The existing policy allows DEP to grant restoration extensions of up to two additional years if operators demonstrate increased efficiency, water reuse, or weather-related constraints. During these extended disturbance periods, interim post-construction stormwater management control measures may remain in place. Extended disturbance significantly increases erosion and sedimentation

risk, particularly in steep terrain and under increasingly variable precipitation. Without safeguards of enhanced interim protections, additional monitoring, or strengthened performance standards, extensions risk increased likelihood of sediment discharges to nearby waterways.Where extensions are granted, the policy should require enhanced interim erosion and sediment controls, increased inspection frequency, and clear performance benchmarks to protect downstream waters.

- **Landowner Reclamation/Waivers** - Permitting landowners to waive post-drilling and post-plugging restoration requirements creates a pathway for persistent erosion and sediment delivery to downstream waters, even though water quality impacts extend beyond property boundaries.

    - The policy also permits surface landowners to waive post-drilling and post-plugging restoration requirements, even in cases where downstream waters may be affected. Permitting landowner waivers may result in long-term erosion, increased runoff, or sediment delivery to waterways, risking public water protection.

- **Expedited Review Process** - The expedited review framework relies too heavily on professional certification while failing to require minimum geologic, hydrogeologic, and site-specific characterization necessary to prevent erosion, instability, and water impacts before disturbance occurs.

    - The expedited review process appropriately excludes projects involving known geologic hazards such as acid-producing rock, abandoned mines, karst, and unstable slopes. However, outside of the expedited review exclusions, the policy does not establish a clear minimum standard for geologic, hydrogeologic, or site-specific characterizations. The optional 14-day expedited review for ESCGPs relies heavily on licensed professional certification and excludes HQ and EV waters and certain high-risk sites, but it does not account for cumulative watershed stress from repeated oil and gas disturbance. Past projects in Southwestern Pennsylvania demonstrate that reliance on professional certification alone, without robust ground-truthing requirements, has failed to identify groundwater, wetlands, or acid-producing materials prior to disturbance.

- **Cumulative Impacts** - By allowing projects to be segmented and reviewed in isolation, the policy may fail to fully account for cumulative sediment loading from repeated oil and gas

disturbance, enabling gradual but significant degradation of our already-stressed watersheds.

  - Cumulative impacts on waterways can lead to significant degradation in water quality, reduced aquatic biodiversity, altered river morphology, increased flooding potential, and disruption of ecosystem functions, primarily resulting from the combined effects of multiple stressors like pollution, land use changes, and infrastructure development within a watershed over time, causing a more severe impact than any single activity alone.

  - The policy allows projects to be segmented and treated as independent once restoration reports are submitted, permanent stabilization is achieved, and Notices of Termination are acknowledged. This approach enables serial disturbance within the same watershed over time without cumulative impact analysis. In watersheds already stressed by oil and gas development, legacy mining, and impaired streams, repeated disturbance compounds erosion and sediment delivery even when individual projects are reviewed in isolation. The policy does not explain how DEP will evaluate cumulative watershed impacts of repeated oil and gas earth disturbance, nor how cumulative sediment loading will be addressed.

- **Site Characterization** - Past oil and gas projects in Southwestern Pennsylvania demonstrate that insufficient pre-disturbance site characterization leads to erosion, sediment runoff, and downstream water quality impacts that could be avoided through enforceable standards. We need stronger requirements for groundtruthing and site investigation in order to ensure that erosion and sedimentation risks are accurately assessed prior to permit application. The following cases in Westmoreland county illustrate the failures of current site characterization requirements.

  - At the Fatur well pad, groundwater and wetland features were not fully identified prior to disturbance, despite being observable on site. Subsequent runoff containing sediment and drilling-related materials entered a tributary to Beaver Run, a drinking water source. DEP ultimately concluded that insufficient ground-truthing had been conducted, and corrective actions were required only after violations occurred and public concerns were raised, resulting in a consent order.
  - Similarly, at the Guardian compressor station, site preparation activities encountered subsurface instability that had not been adequately identified during initial review, resulting in undermining and slope failure concerns. These

conditions posed risks not only to site stability but also to downstream waterways due to increased erosion potential.
    - At the Poseidon wellpad, permit applications indicated that there was no acid producing rock, even though this was evident from a cursory review of surface conditions and site history. This mischaracterization of conditions at the site was only recognized after local citizens submitted public comment on the permit. This resulted in an amendment to the permit which would not otherwise have happened.

- **Treatment of Applicants with Noncompliance Issues** - While DEP dutifully keeps track of the industry's missteps of erosion and sediment related issues, it is apparent from the large number of these violations that the industry itself is apathetic regarding the issue. Still, even with sloppy track records, operators are allowed to move forward with projects, impacting the waters of the Commonwealth time and again. Vagaries in the proposed policy leave questions about what checks will be placed on operators who are continuing to conduct business in ways that result in erosion and sedimentation violations.

    - With this in mind, in section C(v) of the regulations discussing applicants seeking an expedited review process, we see that, "Projects submitted by an applicant who has any existing unresolved noncompliance issues with DEP." This calls into question DEP's process of resolving such violations, or patterns of violations. How many days must pass after an incident before an operator is able to fast-track their next project's review process? Or are there other steps that must be taken to resolve such a violation, perhaps more and more stringent as the operator's E&S violations pile up? The regulations are unclear on this point, but certainly leave room for more stringent enforcement.

- **Acceptable BMPs and Climate Change** - Relying on outdated BMP guidance and precipitation assumptions, with a lack of incorporating climate-adjusted runoff calculations, leaves erosion and sediment controls less-equipped to perform under current or future hydrologic conditions. In order to meet the legal mandate that the E&S policy attempts to fulfill, any plans accepted by the PA DEP as adequate must be based on estimates and methods that take the impacts of climate change into account and realistically reflect current and future conditions.

    - The proposed DEP policy identifies currently accepted programs and manuals, and allows permittees to use "other alternatives approved by the DEP," but it is unclear what the criteria is for accepting these. As precipitation and runoff regimes diverge from historical patterns, programs and manuals that premise their BMPs on outdated modelling will fail to meet plan goals. As described in the 2024

Climate Impacts Assessment, conditions have changed from the base years of 1975-2000, which is the period that most programs and manuals are based on.

- The current versions of the DEP Erosion and Sediment Pollution Control Program Manual (2012) and Stormwater Best Management Practices Manual (2006) are examples of BMP guidance that is increasingly becoming outdated. Neither of these manuals establishes any criteria for the currency of precipitation data used in methods and modelling. As an example, one acceptable runoff calculation method in these manuals includes SCS TR-55 Urban Hydrology for Small Watersheds. Maps that determine calculation variables used in that method are based on precipitation data that is at least 50 years old.
- Many models use NOAA data to base calculations on, however the most recent NOAA Atlas that covers Pennsylvania (Atlas 14 volume 2) was published in 2004. The most current data reported in this product is from 2000. Because of trends in rainfall patterns since that time, this provides erroneous calculations that do not reflect actual erosion and sedimentation potential.

- **Revising Relevant DEP Manuals** - In light of points above, DEP manuals used as guidance for permittees need to be revised with more timely and accurate information. We request that DEP require climate-adjusted runoff calculations and explain how future manuals and the BMPs contained within will be evaluated for effectiveness under future conditions. Below are some examples of how current DEP manuals are affected by reliance on outdated information:

    - Climate modelling indicates that we need to reevaluate what a 2-hour/24-hour storm looks like in southwestern Pennsylvania. This will alter the sediment removal efficiency that is sufficient to adequately protect HQ or EV streams from excessive siltation, therefore requiring a reevaluation of which BMPs are appropriate.
    - Changes to the intensity and frequency of 2-year/24 hour storms affect which BMPs are effective as “nondischarge alternatives.”
    - Increased frequency of intense rain events and drying conditions means that current timelines for when protective measures must be in place may be inadequate. For instance current guidelines may not provide enough time for a slope to revegetate before being scoured by an intense rainfall event.
    - In general, new precipitation regimes will impact the sediment removal potential and rating of all methods in the PADEP manual. This would require changes throughout the manual regarding when certain BMPs are appropriate.

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On behalf of Protect PT, Three Rivers Waterkeeper and Fractracker, thank you for your consideration. If you have questions or comments, please contact us at info@protectpt.org or call (724) 392-7023.

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