

August 28, 2014

Secretary E. Christopher Abruzzo
Pennsylvania Department of Environmental Protection
400 Market Street
Harrisburg, PA 17101

Cc: Scott Perry, Deputy Director, Office of Oil and Gas Management, PADEP
Eugene A. DePasqualie, Pennsylvania Auditor General

Dear Secretary Abruzzo:

As representatives of environmental and citizens organizations, we are writing with regard to the Special Performance Audit titled *DEP's performance in monitoring potential impacts to water quality from shale gas development, 2009-2012*, issued on July 22 by Auditor General (AG) Eugene A. DePasquale, Pennsylvania Department of the Auditor General (hereafter the "Performance Audit").

We are very concerned about the flaws in the Department of Environmental Protection's (DEP) programs that were exposed in the Performance Audit. As you are surely aware, Earthworks recently detailed similar problems in a comprehensive, site-by-site analysis of how DEP permits and oversees gas and oil operations, captured in a report released on August 7, *Blackout in the Gas Patch: How Pennsylvania Residents are Kept in the Dark on Health and Enforcement* (hereafter the "Blackout report").

It is perplexing that DEP rejected all of the eight key findings in the Performance Audit—while simultaneously agreeing with all or parts of 22 of the 29 related recommendations. **As detailed below, DEP has neglected to address specific issues raised in both the Performance Audit and the Blackout Report. We ask that DEP explains how and when it plans to do so—particularly in light of the Department's statements in response to the Performance Audit that, "To a great extent, the audit report reflects how the Oil and Gas Program formerly operated, not how the program currently functions."**

As you know, our organizations have met with DEP staff regularly for more than a year to discuss impacts from oil and gas operations on water quality, with the goals of bringing information to the Department on behalf of affected communities and learning more about DEP policies and perspectives. The Performance Audit and the Blackout report examine many of the issues explored at these meetings and verify the concerns we have raised.

In the same vein of collaboration and dialogue with which we have approached these meetings, we offer the following comments on DEP's formal responses to the Performance Audit. **We hope this will help facilitate swift action by DEP to solve and prevent environmental and health impacts associated with oil and gas operations, and to be more responsive to the public it serves.**

1. DEP communications with impacted citizens are neither clear nor timely.

DEP refutes this point (Finding Two in the Performance Audit) on the basis that the AG only examined isolated examples that are not representative of DEP's overall performance in communicating the results of investigations to affected residents. However, DEP does not offer any data or documents to support the assertion that its overall performance is different than what the AG has found. It is highly possible that none actually exist.

A 2013 investigation by the Scranton Times-Tribune found that DEP does not count how many letters it issues to residents following investigations of potential water contamination from oil and gas operations, track where they are kept in files, or maintain its records in a manner that allows for a comprehensive search.¹ In addition, our organizations have collectively reviewed hundreds of determination letters and found that the information DEP provides to residents is inconsistent and incomplete. Most concerning are the cases in which DEP simply tells residents that water quality changes are not due to oil and gas activities (i.e., negative determinations) or that DEP's investigation is inconclusive—but does not provide any guidance on how to address unresolved problems that can impact health in both the short- and long-term.

DEP has stated both in meetings and in response to the Performance Audit that standardized determination letters are currently being drafted. DEP should set a deadline for this process and make clear exactly when new letters will be issued in all ongoing and future investigations. DEP should also consider providing updated letters to residents who have in the past received scant information and been “left hanging” with potential contamination problems.

The Performance Audit recommends that the Legislature reevaluate DEP's goal of resolving water supply complaints within 45 days. DEP agrees that it is not meeting this goal because it is unrealistic—since water contamination investigations are complex and time-consuming—and that “additional time is needed.” If so, DEP should offer an alternative timeframe for resolution of cases and establish mechanisms to clearly communicate with residents about progress and findings in the interim.

The Times-Tribune investigation included cases that DEP considers to be ongoing, some months or years after first being launched, while the Blackout report describes cases in which water quality problems have reoccurred or remain unresolved for equally long periods of time. DEP should identify possible mechanisms to ensure that residents with water supply complaints are provided with alternative clean water sources while investigations are ongoing (e.g., through an operator requirement or newly funded program).

A July 2014 investigation by the Pittsburgh Post Gazette revealed that DEP intends to address the lack of water contamination tracking by posting on the Department's website the total tally of damaged water supplies in Pennsylvania since 2007 (which DEP put at 209 at the time of the media report).² This would include a list of affected water supplies by county and municipality, as well as the date when regulators concluded that oil and gas operations were the cause of contamination. DEP also committed to eventually adding links to determination letters or administrative orders.

However, a statement of plans is not the same as action. DEP should immediately post the number of damaged supplies and provide the public with complete information needed to understand the extent and causes of water contamination, including the responsible party, whether the problem stemmed from unconventional or conventional wells, the nature of the contamination, any incidents related to the contamination, DEP's basis for its determination, and how the issue has been resolved.

2. DEP does not sufficiently track complaints or document agency response.

DEP refutes this point (Finding Three in the Performance Audit) by stating that concerns raised by the AG have been resolved because the Department's Complaint Tracking System (CTS) has undergone improvements in the last several months and now includes additional information related to citizen reporting and Department investigations.

However, DEP still has not demonstrated to the public that key information about complaints and investigations are in fact being consistently included in the CTS. In May 2014, DEP provided Delaware Riverkeeper Network with a spreadsheet of 2,975 entries from the CTS database related to water supplies and gas migration received by DEP from 2006-2013. A copy of the excel spreadsheet containing the CTS data is available at: <http://bit.ly/1vmfyWn>. In addition, during spring 2014, DEP provided Earthworks with county-specific spreadsheets of CTS entries related to oil and gas activities.

These spreadsheets contain fields for the county and municipality from where complaints came, the general type of complaint, and the dates when DEP received it and considered it “resolved.” However, the spreadsheets don’t provide information needed to identify the causes of contamination or relate a complaint to a particular site or incident (e.g., facility ID or well permit number), nor any notes on how DEP responded or the reasons why DEP considered the complaint to be resolved.

As a result, even if DEP has begun to include such information in the CTS for internal use, it remains impossible for the public or officials (such as the AG) to fully assess the Department’s work and ensure public accountability. The recommendation in the Performance Audit that complaints be tracked on a one-to-one basis or receive a unique CTS identification number would ensure transparency about the actual number of complaints filed regarding oil and gas operations. But DEP rejected this recommendation, asserting that it is more efficient to instead track single incidents and include multiple associated complaints with each incident entry.

This recordkeeping approach might save staff time, but prevents an accurate assessment of the scope of problems experienced by Pennsylvania residents and potentially underrepresents the actual number of households or water supplies affected. For example, DEP counted the contamination of several private water wells in Dimock as a single incident, even though specific contamination problems and different remedies were associated with each household. It is also unclear how DEP defines an “incident” and decides that the same one is the reason behind multiple complaints.

DEP seems to acknowledge this problem by agreeing with the AG’s recommendation that aggregate numbers of complaints, investigations, and affected water supplies be posted on the Environment Facility Application Compliance Tracking System (eFACTS) website. DEP should apply the same logic to the CTS and track complaints on a one-to-one basis in order to ensure that DEP staff, as well as the public, have access to complete and consistent information. It is certainly possible to track complaints on a one-to-one basis, as both the State of New Jersey and the US Environmental Protection Agency do using the same technology available to DEP—and subsequently provide greater clarity about each individual water supply complaint.

DEP also asserts that the public has access to information even if it isn’t available through the CTS, since “a hard-copy file for each complaint containing *all* investigative information is stored in the regional office where the complaint originated.” DEP should provide evidence of the assertion that hard copy files kept at regional offices shed light on complaints and complaint investigations. The hundreds of file reviews conducted by our organizations have revealed that this is simply not true, as complaint records are not actually kept in DEP well and facility files.

In addition, the Blackout report found that 30% of complaint inspection reports (which contain information about incidents and how both operators and DEP handled the situation) that were listed in eFACTS were missing from the 135 hard copy well and facility files reviewed in person at four regional DEP offices. Using Pennsylvania’s Right To Know Law (RTKL), Earthworks submitted

requests to DEP regional offices for both the missing complaint inspection reports and records of public complaints—which DEP largely denied.

DEP should make clear how the Department is maintaining accurate numbers about complaints and water supply problems and ensuring that all information pertinent to complaint investigations and citizen response is being tracked. DEP should explain why it appears to be using exceptions in Pennsylvania’s RTKL as a way to restrict public access to agency documents. It also remains unclear why the Department is unable to redact personal/private information in order to provide complaints documents to the public and increase resources available for fulfillment of RTKL requests (both generally and in relation to complaints).

3. DEP cannot demonstrate that all active shale gas wells are inspected in a timely manner.

Although DEP acknowledges that its inspection policy, developed in 1989, needs to be updated, it refutes this point (Finding Four in the Performance Audit) by insisting that inspections are conducted at all “critical stages” of well construction. DEP asserts that the Department is “committed to inspecting all unconventional gas wells” at these critical stages. DEP should provide data and documentation to support this assertion and clarify the timeframe and plan for issuing a revised inspection policy. DEP should also demonstrate how it ensures that operators are inspecting their own sites and notifying DEP prior to commencing certain activities, in accordance with recommended guidelines and regulatory requirements.

DEP’s insistence on focusing only on well construction phases, and only for unconventional wells, contradicts the current recommended policy in the Pa. Code, which includes an inspection at least once a year during production, i.e., *after* well construction.³ This is critical because environmental impacts can take months or years to become evident, and inspections during and after the production phase are when problems such as deteriorating equipment, waste pit liner tears, site erosion, and excessive emission releases may be discovered. In addition, the vast majority of active, producing oil and gas wells in Pennsylvania are conventional wells.

Based on DEP data, the Blackout report found that even though the total number of inspections conducted statewide has increased, the average number of inspections conducted per unconventional well has gone down, from 3.3 in 2008 to 2.2 in 2013 (the average at conventional wells appears to have remained steady).⁴ The vast majority of all active, producing wells continue to operate with no oversight: in 2013, DEP inspected 13,367 wells—leaving more than 66,000 (83%) uninspected.⁵

DEP should provide data and documentation to justify the Department’s narrow prioritization of unconventional wells and construction phases. DEP should demonstrate how it allocates resources in relation to work requirements in order to ensure that inspections are comprehensive, frequent, timely, and cover all stages of extraction and production for all types of active wells.

4. DEP uses a disjointed system to track oil and gas field waste.

DEP rejects this point (Finding Five in the Performance Audit) and the corresponding recommendations for adopting a comprehensive waste manifest system. Such a system would track waste from the site where it is created all the way through transport, treatment, and disposal. A uniform and standard tracking system is essential to ensuring that the characteristics (e.g., chemical composition and radioactive properties) and ultimate fate of waste are known, and that water quality and health are being protected from associated risks.

DEP asserts that records developed and kept by operators are sufficient documentation of waste. DEP also considers the current lack of waste tracking and reporting requirements under Act 13 and the Solid Waste Management Act to be an acceptable rationale for not needing to adopt comprehensive waste management systems. DEP should explain why it believes that self-reported data provides sufficient information for the Department to do its work of ensuring that waste is not being improperly managed, treated, or disposed.

Operator waste records are only available to DEP upon request and difficult for the public to obtain. Our organizations have been largely unsuccessful in obtaining waste records from operators and haulers through DEP file reviews and RTKL requests. Further, the self-reported data available to the public through DEP's online waste tracking system is inconsistent, varies in terminology, does not include definitions of waste types, and lacks verification that the facilities intended to receive the waste actually did so (or are even permitted to do so).

Finally, well restoration reports are not currently a search option in eFACTS, making it impossible for the public to know the number of these reports that DEP has received and which wells they are associated with. This is problematic because the reports contain information on the status of a well site or activities and potential for environmental risks, including whether waste has been removed or buried onsite.

DEP acknowledges the shortcomings of current waste reports from operators by agreeing with the AG's recommendation that DEP reviews and cross-checks self-reported waste data from drillers, haulers, and disposal facilities. DEP should make clear when it will begin to conduct a more detailed review and verification process for self-reported waste data, and what this new process will involve.

DEP asserts that a waste manifest system is unnecessary because "much of the wastewater generated by the oil and gas industry is recycled and reused." DEP should provide supporting data or documentation to support the assertion that this practice is in fact widespread and covers a significant volume of wastewater produced. In 2013, a comprehensive study of water and waste reporting data available for the Marcellus Shale region found that Pennsylvania operators reported an almost 70% increase in waste generated between 2010 and 2011 (a total of 613 million gallons) and that more than 50% is treated and discharged to surface waters through brine/industrial waste treatment plants or municipal sewage treatment plants.⁶

5. DEP's website lacks transparency and public accountability.

Throughout the Performance Audit response document, DEP states that the AG relied too heavily on electronic data, asserting that the hard copy files maintained at regional offices provide information that would prove some of the AG's conclusions to be incorrect (such as the large proportion of errors and omissions in eFACTS related to inspection reports and DEP inspector comments). In particular, DEP states that "it is unfair to assess the transparency of its regulatory efforts based solely on the accessibility of information made available to the public on its website" and that "the files maintained at DEP's regional offices are the official records of DEP's regulatory efforts, not eFACTS."

However, the AG followed a process that most members of the public would use to seek information today, particularly because traveling to regional offices for in-person file reviews can be prohibitively time-consuming and expensive for many residents. Based on our organizations' experiences, it can take 2-4 weeks to secure an appointment for a file review—potentially rendering the purpose for seeking specific information moot.

The electronic organization of data is also important to provide a complete picture that can be interpreted and used to improve DEP's operations and identification of problems at sites. Perhaps for this reason, DEP acknowledges that Act 13 requires the greater use of electronic media. DEP should fully explain why the adoption and improvement of online systems has not yet occurred, how it plans to ensure progress in the immediate future, and a timeframe for doing so.

Electronic information is particularly important because the 2013 report on Pennsylvania by the State Review of Oil and Natural Gas Environmental Regulations, Inc. (STRONGER) identified consistent and reliable online information as a primary recommendation for improvement. STRONGER stated, "The review team recommends that DEP maintain consistent standardized data for tracking violations and enforcement actions to facilitate accurate internal DEP performance evaluation and to provide accurate information to the public."⁷

Although DEP has clearly known of the need for standardized data for self-evaluation and public accountability for quite some time, many benchmarks of progress remain out of reach. DEP should make clear how it will make data management and transparency a priority in the immediate future and when the public can expect to have access to information related to oil and gas operations.

DEP should also indicate how and when it will remedy information gaps in eFACTS—in particular the omission of certain waivers and authorizations as search options—and steps being taken to make the database more user-friendly and consistent across different sections.

The problem of having online information that is limited and difficult to access becomes even more significant in light of the fact that the hard files that DEP maintains are far from complete. Our organizations have collectively conducted hundreds of in-person file reviews and found that DEP's paper records are not consistently maintained across regional offices and are often missing important documents. DEP should explain why this is the case. If DEP insists that hard-copy files are the key source of public information, it should reveal how and when these files will in fact contain all pertinent information.

The Blackout report was in part based on documents found in 135 gas well and facility files at four regional DEP offices. Just as the AG did, Earthworks encountered significant problems with regard to the availability of information on inspections, violations, waste management, and other aspects. For example, operators of 99 wells in the files reviewed should have filed a restoration report; however, they were missing for 81 of those wells (or 82%).⁸ In addition, 25% of the drilling completion reports and 35% of the stimulation completion reports that should have been in the files Earthworks reviewed were missing.⁹

In closing, we would like to emphasize that both the Performance Audit and the Blackout report underscore the link between DEP's limited resources and ongoing inability to adequately implement its regulatory programs, particularly at a time of surging oil and gas development. The prioritization of industry expansion is illustrated by Governor Corbett's 2012 Executive Order, the Permit Decision Guarantee, requiring DEP review permit applications in set timeframes.¹⁰ This policy places undue pressure on DEP staff to review applications and issue permits quickly. DEP should explain how Department staff are ensuring adequate review of environmental considerations, while also increasing the pace of permitting and being forced to "do more with less."

In this vein, we wholeheartedly agree with the overall conclusion of the AG (contained in a letter to Governor Corbett accompanying the Performance Audit) that "...DEP needs assistance. It is

underfunded, understaffed, and does not have the infrastructure in place to meet the continuing demands placed upon the agency by expanded shale gas development.”

DEP clearly agrees as well. In its response to the Performance Audit, resource constraints and burdens on staff were frequently cited a key reasons why the Department is unable to follow policies related to recordkeeping, waste tracking, and citizen response. In particular, DEP emphasizes that its efforts to improve its information management systems “have been hampered by large scale layoffs in FY2009-2010 which resulted in the loss of 183 positions.” DEP also states that more oil and gas inspectors are needed and will be hired using increased permitting fees from operators.

Yet DEP stops short of acknowledging that under current conditions, the Department is unable to adequately oversee the oil and gas industry or be a transparent, accountable public agency. Should the Department decide to become its own best advocate and seek increased resources through the state budget, our organizations would gladly support such efforts—and are confident that the public would as well.

We look forward to DEP providing the information and documentation detailed above—which will help ensure that going forward, Pennsylvania does not prioritize industry expansion over protection of the Commonwealth’s environment and communities.

Please direct any responses or questions to Steve Hvozdovich with Clean Water Action at shvozdovich@cleanwater.org or 412-765-3053, ext. 210.

Sincerely,

Thomas Au, Sierra Club Pennsylvania Chapter
Tracy Carluccio, Deputy Director, Delaware Riverkeeper Network
Kristen Cevoli, Fracking Program Director, PennEnvironment
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Steve Hvozdovich, Marcellus Shale Campaign Coordinator, Clean Water Action
Nick Kennedy, Community Outreach Coordinator, Mountain Watershed Association
Nadia Steinzor, Eastern Program Coordinator, Earthworks Oil & Gas Accountability Project
John F. Stolz, Director, Center for Environmental Research and Education, Dusquesne University

¹ Laura Legere. “Sunday Times Review of DEP drilling records reveals water damage, murky testing methods.” Scranton Times-Tribune, May 19, 2013.

² Laura Legere, “DEP: Oil and gas operations damaged water supplies 209 times since the end of ‘07.” Pittsburgh Post-Gazette, Power Source feature, July 22, 2014.

³ Pennsylvania Code, Title 25, §78.901-906.

www.pacode.com/secure/data/025/chapter78/subchapXtoc.html.

⁴ PADEP Secretary Christopher Abruzzo and Deputy Secretary Scott Perry, “2013 Oil and Gas Annual Report.” Using figures in DEP’s annual report, we divided the number of inspections for each type of well (unconventional and conventional) by the number of wells inspected to reach the average number of inspections conducted.

⁵ **Inspected wells:** According to PADEP’s 2013 Oil and Gas Annual Report (Ibid. p. 19), in 2008 PADEP conducted inspections of 377 unconventional and 7,143 conventional wells = 7,520 wells inspected. In 2013, PADEP conducted inspections at 5,559 unconventional and 7,808 conventional wells = 13,367 wells inspected. **Active wells:** Earthworks was unable to find PADEP-generated statistics on the number of active wells in the state. In its Permitted Well Inventory (“Inventory”) under “Well Status” there is an option to select “Active.” But because the data in the Inventory are submitted by operators, this category does not actually guarantee that the well is still in service, or in a condition where it should be inspected (e.g., temporarily plugged or abandoned). Inventory available at PADEP Oil and Gas Reporting Web site, under statewide downloads: <https://www.paoilandgasreporting.state.pa.us>.

⁶ E. Hansen, D. Mulvaney, and M. Betcher. Water Resource Reporting and Water Footprint from Marcellus Shale Development in West Virginia and Pennsylvania. Downstream Strategies and San Jose University, 2013.

⁷ State Review of Oil and Natural Gas Environmental Regulations, Inc. (STRONGER), *Pennsylvania Follow-up State Review*, 2013.

⁸ Based on the regulation that restoration must be finished within nine months of completion of drilling a well, Earthworks found the drilling completion date for each of the wells on forms in the hard copy files reviewed. When the necessary forms weren’t in the files, Earthworks presumed that the date of well stimulation completion would provide a rough approximation, since stimulation only occurs once drilling has been completed. Earthworks also factored in whether DEP had granted a restoration extension, and for how long.

⁹ To determine which wells should have had a drilling completion report filed with DEP by the time file reviews were conducted, Earthworks assumed that if the well of concern was producing gas, or had a well completion report indicating that the well had been stimulated, that the well had obviously been drilled. For well files that were missing drilling completion reports, it was obviously impossible to know the drilling completion date, so Earthworks added 30 days to the date of well completion, or if the file was missing that report, 30 days to the first date of production (found on the PA Oil and Gas Reporting web site, www.paoilandgasreporting.state.pa.us/publicreports/Modules/Welcome/Agreement.aspx) to determine the expected date by which the operator should have filed the drilling completion report.

¹⁰ Office of the Governor, Executive Order 2012-11, “Permit Decision Guarantee for the Department of Environmental Protection.” Pennsylvania Office of Administration, records and directives.