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6 September 2011

Submitted by email and regular mail

Jennifer Means
Oil and Gas Management Program Manager
PADEP Northcentral Region
208 West Third Street Suite 101
Williamsport, Pennsylvania 17701

In re: Comments on DSEA Permit Application E5729-014

Dear Ms. Means:

This letter provides formal comments on a Dam Safety and Encroachments Act permit application (E5729-014) published in the *Pennsylvania Bulletin* on 23 July 2011. These comments have been prepared with funding from the Foundation for Pennsylvania Watersheds. The mission of FPW is to foster stewardship for the protection, preservation, and restoration of Pennsylvania's unique water resources and watersheds. These comments are being provided within the formal public comment period, which we understand has been extended two weeks beyond the normal 30-day period to 6 September 2011 in accordance with our prior request.

As discussed below, there are serious and significant problems associated with the subject application which must be addressed fully before any final decision is made by the Department. Our concerns relate to the inadequate identification of resources at risk; numerous omissions, inconsistencies, and inaccuracies in the information provided; an insufficient description of project activities and impacts; an inadequate assessment of project impacts and alternatives; and other technical and procedural problems.

1. The PADEP file for this application was not made available for public inspection until 23 days into the 30-day public comment period. This is unacceptable.

There are two types of permits available under PA Code Chapter 105: General Permits and Individual Permits. An application for an Individual Permit typically involves significant impacts, must follow prescribed public review and comment requirements, including publication in the *Pennsylvania Bulletin*, and entails a comprehensive review of impacts and alternatives. The subject application is for an Individual Permit, and thus was published.

General Permits (GPs) are available for certain classes of activities for which the associated impacts are relatively minor. No “approval” is issued by PADEP *per se* for General Permits; a project proponent simply “registers” to use a generic General Permit and asserts that the subject project meets all of the relevant conditions. Because they are no longer¹ published in the *Pennsylvania Bulletin*, General Permit registrations rarely trigger public review and comment. In addition to receiving no *public* review, General Permits typically undergo no PADEP review (although some regional offices claim to conduct limited technical review of some GPs).

Since it was published in the *Pennsylvania Bulletin* on 23 July 2011, the 30 day comment period for this Individual Permit application was due to expire on 22 August 2011. When we requested to review the subject file, we were informed that it would not be available for review until 15 August 2011. Due to a schedule conflict, we were unavailable that day, so we scheduled a formal file review at the Williamsport office of PADEP on the following day, 16 August 2011. Since the time available for public review of this permit application was reduced so significantly (from 30 days to 7 days), a written request for an extension of the comment period was made on 3 August 2011 by Schmid and Company. That request was acknowledged orally, and the comment period was extended by two weeks (orally), but the requested written acknowledgement of the extension was never provided.

When potential project impacts are serious enough to warrant evaluation under the Individual Permit process, the full comment period should be afforded for public participation. Specific information about a project can only be learned by reading the actual permit application and related files (see Comment 2). The long delay in making the subject files available to the public is unacceptable.

2. Significant pertinent information about the proposed activity is not included in the *Pennsylvania Bulletin* public notice.

According to the *Pennsylvania Bulletin* notice published on 23 July 2011, this application by Chesapeake Appalachia, LLC, is to construct, operate, and maintain two, 16-inch diameter temporary water lines, and associated temporary mats for roadway access, across streams and wetlands in Elkland Township, Sullivan County, Pennsylvania. Eleven proposed crossings of EV² (Exceptional Value) waters or wetlands are listed separately in the notice, along with the associated length of stream crossing or area of wetland disturbance, and the latitude/longitude coordinates at each crossing. The project is reported to entail 96 linear feet (0.04 acre) of stream impacts at 7 crossings (of Elk Creek, Lake Run, and several of their tributaries) and 11,060 square feet (0.25 acre) of wetland impacts at 4 wetland crossings.

¹ There was a time when all General Permit activities were routinely published in the *Pennsylvania Bulletin*, which practice allowed for greater transparency in the review process.

² EV is the highest classification assigned to the very best waters in the Commonwealth in accordance with the PADEP Chapter 93 Water Quality Standards.

It is not possible to provide informed comments on this application based solely on the information set forth in the *Pennsylvania Bulletin* notice. In particular, there is no mention in the notice about the specific purpose or need for the subject water lines, other than that they are “temporary” and intended “for Marcellus [shale gas] well development”. No definition of “temporary” is provided. The notice does not mention the nature of the water lines (that they will be constructed of high density polyethylene [HDPE] material [see Photo 1] to be placed aboveground and side-by-side). The notice does not mention that the water lines are intended to serve, and will run between, two separate natural gas drilling wellpad locations (only one of which has been reviewed or approved by PADEP). It provides no location map. It also does not mention that the waterways to be crossed by the proposed water lines are designated by the PA Fish & Boat Commission as being “naturally reproducing trout streams”, or that Elk Creek is a designated public highway, and as such is a “*Submerged lands of this Commonwealth*”³ for which a license agreement is required for crossing. Such basic information could and should be provided or made readily available to the public by PADEP as part of the *Pennsylvania Bulletin* notice for every permit application, including this one.

Our review of the permit application itself and related files revealed additional highly relevant details about the proposed activities. The proposed wetland and waterway crossings are to be accomplished using fiberglass or timber “mats” and cribbing, essentially forming boardwalks on which the twin water lines will be supported. Most of those mats are proposed to be 20 feet wide. At the western end of the proposed water line route are two existing Chesapeake Appalachia gas wells (2H and 5H) at a pad site known as “Benspond”. Those two gas wells already had been approved by PADEP (their files⁴ also were requested and examined as part of our review) and were being drilled at the time of our initial (5 August 2011) site inspection. Approvals for four additional wells potentially could be sought/granted at the same location, inasmuch as the Erosion and Sediment Control Plan for the Benspond well site covers six wells (1H-6H). We understand that water lines to transport water to the Benspond wellpad have been approved for construction, but those files were not reviewed.

At the eastern end of the proposed water lines there is to be a proposed Chesapeake Appalachia gas well pad known as “Brule”. No gas wells at the Brule location have yet been approved by PADEP, but presumably up to six wells potentially could be accommodated at that well site. No permit applications for the Brule gas wells have yet been submitted to PADEP.

³ Waters and permanently or periodically inundated lands owned by the Commonwealth, including lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth. (Pa Code Chapter 105.1)

⁴ Oil & Gas File # 113-20055 (Benspond Well 5H) and File # 113-20065 (Benspond Well 2H), and the associated Erosion and Sediment Control File # ESX10-113-0016 (Benspond 1H-6H)

3. Reliance on General Permits and Waivers should not be allowed in EV waters, nor when an Individual Permit is required.

An Individual Permit is required for the subject project because the associated activities do not fit one or more conditions of Chapter 105 General Permits or Waivers. For example, the subject project cannot rely on General Permit #5 (Utility Line Crossings) for its several stream and wetland crossings because that GP does not apply in EV waters. That does not mean, unfortunately, that all of the proposed disturbances to EV waters or wetlands are being regarded or protected equally by PADEP during permit review.

Pursuant to Chapter 105.12(a)(2), water obstructions in streams or floodways where the drainage area is less than 100 acres are “waived”, *i.e.*, are not reviewed at all per Chapter 105. This waiver applies whether or not a stream is EV⁵, and therefore exempts completely from regulation all obstructions in the critically important headwaters of all Special Protection streams. In the subject application, three of the seven stream crossings qualify as “waived” crossings and consequently do not require a permit review fee.

Chapter 105 General Permit #8 (Temporary Roadways) is available for roadways that will cross less than 200 linear feet. Consequently, three of the four proposed wetland crossings qualify under GP #8 (EV waters do not disqualify a project for GP #8). As a result, only the longest crossing, which entails more than 300 linear feet, requires an Individual Permit review fee.

It is standard practice in other states, such as New Jersey, when a project does not qualify for General Permits and must obtain an Individual Permit, that all of the proposed activities must be reviewed and evaluated in accordance with the Individual Permit standards. It is not permissible to split out specific activities that might have otherwise been waived or eligible for GPs. Such should be the case in Pennsylvania, especially when the proposed activities will affect EV waters and wetlands, as in the subject application.

Perhaps this issue is best illustrated by the approvals granted by PADEP for the associated Benspond wellpad from which the subject water lines will extend. The access road for the wellpad crosses an unnamed tributary of Elk Creek, an EV waterway (see Photo F). Unlike the subject application, however, that crossing did not require an Individual Permit; in fact, it required no State or federal approval at all. At the point of crossing, the waterway has a drainage area of 62 acres, thus making it eligible for the Chapter 105 “waiver” provided no wetlands were being disturbed at the crossing. The applicant had identified wetlands along the Elk Creek tributary on both sides of the proposed road crossing, but no wetlands were identified where the crossing itself was to be constructed. [It should be noted that the applicant-delineated wetlands were not reviewed in the field by any regulatory agency.] Owners of an adjacent property had written a formal comment letter to PADEP

⁵ The Chapter 105.12(a)(2) waiver does not apply to wetlands located within the floodway.

regarding the wellpad application and had pointed out, among other concerns, that they believed that all existing wetlands had not been accurately identified at the wellpad site and along the nearby waterways (including the proposed access road). The plat map for the wellpad included a sketch of some wetlands, but clearly noted that the limits of those wetlands had not been confirmed by any agency. Had any wetlands existed at the proposed road crossing, not only would the crossing not have been eligible for the Chapter 105 “waiver”, but it would not have been eligible for Chapter 105 General Permit #7 (Minor Road Crossings), because that GP does not apply in EV waters. How fortunate for the applicant that it found no wetlands at its road crossing and that neither PADEP nor the Corps of Engineers field-checked the delineation.

4. The applicant’s proffered delineation of wetlands and waterways along the proposed route of the water lines, and any alternative routes, should be independently reviewed and verified as accurate.

No maps exist depicting the precise location and extent of “regulated waters of the Commonwealth” as defined by PA Code Chapter 105. As a result, wetlands and watercourses must be identified through case-by-case field investigation on every project site. On the ground, the upper limits of regulated waters often are not clearly defined, yet it is crucial to know exactly where those limits are if they are to be adequately protected during permit review and project development. The Department traditionally has not had the resources or expertise to confirm the accuracy of delineated wetlands and waterways on project sites, and Department staff may not have the opportunity during permit review to field-inspect every site proposed for construction activities. The Army Corps of Engineers does have the resources and expertise for stream and wetland delineation, and for decades it has implemented a formal “jurisdictional determination” process that works efficiently to review and confirm the existence and location of water resources subject to both State and Federal regulation.

An onsite wetland delineation was conducted for Chesapeake along the route of its proposed water lines by Rettew Associates, Inc., on 26 April 2011. That delineation has not been reviewed in the field by either the PADEP or the Corps of Engineers, a fact that is not mentioned in the Joint Permit application⁶. Unless and until the extent of wetlands and watercourses delineated in the vicinity of the proposed water lines is independently confirmed by the Corps of Engineers, the PADEP cannot know the full extent of impacts or the extent to which impacts have been avoided or minimized,

⁶ The Corps of Engineers has neither reviewed nor confirmed the extent of wetlands and waters for either the subject PADEP/Corps Joint Permit application, nor for the Well Permit applications for the two Benspond gas wells (2H and 5H). The Well Permit applications contained no formal wetland documentation, only a rough sketch of “field delineated wetlands” on a 1”=1,200’ plat map. These applications acknowledged the lack of agency review with a note saying: “Wetland labels shown are potential wetlands or wet areas for reference and avoidance only and have not been approved by the US Army Corps of Engineers”.

and thus PADEP cannot complete its review or make a final decision on this application.

It is notable and laudable that the applicant's consultant did an actual onsite wetland delineation rather than simply relying on National Wetlands Inventory (NWI) mapping. The NWI is not a regulatory map and typically identifies only the larger, more obvious wetland areas visible on high-altitude aerial photographs. NWI wetlands are shown in the general vicinity of the proposed pipelines, but none is mapped along the specific pipeline route. As expected, the applicant's onsite delineation identifies wetlands that were not picked up on the NWI maps. Nevertheless, recently reported incidents (Seneca Resources Corp. PADEP File # ESX 09-117-0017; Chesapeake Fitzsimmons PADEP File # 37-015-20306; Chesapeake Elevation Corps File NAB-2010-01771-P09; and Chesapeake Lundy Corps File NAB-2011-021509-P09) as well as our own experience elsewhere in Elkland Township⁷ suggest that water resources identified by Marcellus Shale gas project proponents can understate, sometimes significantly, the actual extent of regulated resources on a project site. Thus, it is crucial to have independent agency review and confirmation of all wetland and water delineations, especially in EV waters that are supposed to receive Special Protection.

On 5 and 16 August 2011, senior ecologists from Schmid and Company inspected most of the route of the proposed water lines⁸. We noted that the route of the water lines was marked with unnumbered flagging that appeared to be faded light green. We also observed numbered flags placed in the field along the edges or centerlines of streams and along the edges of wetlands. Typically the stream flags were blue and the wetland flags were blue and pink.

Outlines of the wetlands and streams delineated at each of the eleven proposed impact locations are depicted on 11x17-inch (1"=30') drawings included in the subject permit application. The numbered flags encountered in the field, however, are not identified on any of the drawings proffered in the permit application. No numbered flag locations, along streams or wetlands, are identified on any of the drawings. Similarly, none of the six Field Data Log locations is shown on any of the drawings. GPS coordinates are provided for the data log locations, but 2 of the 6 (Logs 5 and 6) apparently are misidentified because the reported latitude/longitude coordinates place them more than 13 miles to the south of this project site. The lack of correspondence between field conditions and drawings presents a serious difficulty in reviewing the wetland delineation (a difficulty which PADEP or the Corps also would have encountered had either conducted a field inspection here).

⁷ Along several properties on Bear Mountain, where Chesapeake planned to widen a Township road to provide access to proposed new gas wells, the extent of wetlands and waters delineated by the applicant in the roadway corridor was only about one-seventh the actual extent ultimately confirmed by the Corps of Engineers.

⁸ We obtained permission from the Boy Scouts of America to inspect the sections where the proposed water lines cross their lands. The sections along Lake Road and within State Game Lands #12 are public property. The only section we did not inspect was the short section on private property at the Benspond wellpad end of the route.

The applicant's wetland delineation was performed at a time of year (mid-spring) when conditions in northcentral Pennsylvania typically are relatively wet. The existence and location of streams and wetlands can be apparent at that time, and we concur that all of the features delineated are regulated resources. We believe, however, that some minor additions might be warranted, both to extend the limits of acknowledged wetlands in some places and to add additional areas of wetlands in others.

In particular, wetlands are identified along the west side of the main Elk Creek crossing (Impact #1), but not on the opposite side of the stream (see Photo B). We believe there may be unidentified wetlands within the floodplain on the east side of Elk Creek (which is several feet lower in elevation than on the west side) between the streambank and the bottom of the nearby hillside slope.

The wetland identified at Impact #3 is a flat area along the water line route above the final steep slope descending to Elk Creek. Because of poor correlation between the few flags that could be found in the field and the unnumbered wetland outline included in the application drawings, it is difficult to determine the limits of this wetland in the field. It appears, however, that wetland conditions likely extend a bit further along the crossing route to the northeast than currently acknowledged.

A similar difficulty with correlating the few flags found in the field and the unnumbered wetland outline in the application drawings was encountered at Impact #5 (Photo E). We believe that wetland conditions extend a short distance beyond the northern end of the wetland identified here.

Finally, there are several small depressions in the forest to the west of Lake Road along the route of the proposed water lines that may qualify as regulated wetlands, but have not been delineated. This section of the route also should be reviewed and examined closely in the field by the PADEP or the Corps of Engineers to ascertain whether additional regulated features need to be identified here.

Because different wetland professionals can look at the same property and reach different conclusions regarding the extent of wetlands (for any number of reasons, including observing conditions during different seasons), it is imperative to involve an independent third party (typically, the Army Corps of Engineers) to review and confirm the extent of regulated water resources prior to permit review.

5. Impacts to water resources have not been accurately identified or avoided/minimized to the maximum extent.

Unless and until the full extent of wetlands and waters has been accurately identified (see Comment 4, above), both at the proposed crossings and in the wider vicinity, it is not possible to determine A) whether all impacts associated with the proposed project have been identified, or B) whether minor revisions in the proposed routes

might further avoid or minimize impacts. Our review of the Chapter 105 permit application suggests that impacts to wetlands, even as currently delineated, have not been minimized.

One prime example is the acknowledged crossing of wetlands adjacent to Elk Creek (Impact #1) which reportedly involves 2,561 square feet of wetland disturbance. A slight adjustment in the route about 35 feet westward on the west side of Elk Creek would reduce the proposed wetland impact by about half and also would avoid much of the regulated floodway. No explanation is given why the westward shift would not be feasible or was not proposed.

The probable impacts at the Elk Creek crossing seem to be understated. There is no discussion of, or detailed map showing, how the heavy equipment necessary to install the water lines across Elk Creek and its associated wetlands will get to and from the crossing site. The proposed water line route is to cross undisturbed, currently forested, steep slopes on both sides of the Elk Creek crossing. Closest to Elk Creek on the east side, construction equipment will need to clear a straight-line corridor through the forest and then operate on 50% slopes that extend several hundred feet up the hillside. Similar conditions will be encountered on the west side of Elk Creek, although somewhat farther from the Elk Creek crossing. EV streams and wetlands exist immediately downslope from these very steep slopes. Extraordinary measures will need to be employed to install the water lines on these slopes safely and without serious environmental damage from erosion and sedimentation unless the water pipes and equipment are to be lowered in by helicopter (a construction method not discussed in this application). Other than standard straw bales/silt fence/filter sock barriers in the immediate vicinity of Impacts #1 and #2, no special measures are proposed to deal with these issues.

Proposed Impact #3 is a wetland crossing by the twin water lines using a 12-foot wide timber mat road crossing. All of the other crossings of wetlands, and the crossings of streams where no culvert presently exists, involve a 20-foot wide timber mat road crossing. It is nowhere explained why Impact #3 is not also 20 feet wide (in which case the calculated impact would be larger). Alternatively, if a road only 12 feet wide is adequate here, it should be explained why a 12-foot wide road is not adequate for any of the other crossings. If 12 feet is wide enough in other locations, impacts there have not been minimized. At minimum, this crossing should be examined carefully to ensure that the impact is correctly calculated.

For several of the proposed stream crossings, the applicant has identified the associated 25-year flood elevation and has calculated impacts based on it. For example, at Stream #3 (Impact #4), which is a small unnamed tributary to Elk Creek, the normal water depth is very shallow (less than an inch) and so the width of the 25-year floodplain is relatively wide (calculated by the applicant to be 52 feet in total width).

Nowhere in Chapter 105, however, is the 25-year floodplain mentioned as a basis for calculating or evaluating impacts. The Chapter 105 definition for “regulated waters of this Commonwealth” includes, among other things, “*streams or bodies of water and their floodways*”. The “floodway” per Chapter 105 is as mapped by FEMA, and in the absence of any FEMA floodplain mapping (as is the case here⁹), the floodway extends 50 feet beyond the top of each bank of a stream, for a total width of approximately 100 feet. The impact calculated at Stream #3 is 1,041 square feet (for a 20-foot wide wooden road crossing 52 linear feet of 25-year “floodway”). Using the prescribed 100-year floodway width of 100 feet, however, the actual impact at this crossing would be almost double that which has been acknowledged (2,000 square feet vs. 1,041 square feet of floodway). Though they may only be temporary, a 100-year storm could occur at any time during the months that the water lines and roadways will remain in place.

The 25-year floodplain at Stream #8 (Impact #11) is calculated by the applicant to be contained within the streambanks. The stream impact here from the 20-foot wide roadway is incorrectly identified as 81 square feet (based on the 25-year floodplain), calculated using the stream width at the bottom of the stream channel (4 feet), rather than at the top of the bank where the distance is 5.64 feet. If using a 25-year floodplain, the impact here should be acknowledged to be 5.64 linear feet and 113 square feet. By regulation, however, the 100-foot wide floodway should be used to identify impacts, in which case the impact here would be almost 25 times larger (2,000 square feet).

Likewise, the actual impact at Stream #1 (Impact #2) will be considerably larger than the 513 square feet calculated on the basis of a 25-year floodplain. All of the stream crossing impact calculations should be carefully reviewed and corrected as necessary using the 100-year floodway as the basis.

The Project Narrative notes that a pumping station will be located at the well pad (presumably the Benspond wellpad, but that is not stated) along with water storage tanks, but that “*additional booster pumps may need to be placed along the corridor*” depending upon the topography in order to push the water through the pipes and up the steep slopes. A typical detail and plan view for a booster pump is provided in the application drawings. This “boilerplate” information does not address the actual conditions at this specific site. The applicant should be able to determine whether and how many booster pumps are needed here. Indeed, it seems probable that several booster pumps will be needed along this water line route, yet there is no mention of how many such pumps will be required, what their dimensions are, where they will be located, or whether their placement or operation will require additional disturbance to any streams, floodplains, or wetlands. These aspects of the water line project must be identified and evaluated.

⁹ None of the stream floodplains in this project area in Elkland Township has been mapped by the Federal Emergency Management Agency (FEMA).

6. The proposed water lines should not be reviewed and evaluated in isolation from the two gas well sites at either end that they are meant to connect, nor from any pipelines that will need to be constructed to transport natural gas away from the wells, nor from any other roadway or other site preparation work that has been or will be done for the overall gas extraction project.

The subject water lines serve no purpose apart from the gas wells at either end and the other aspects of the gas extraction project. According to PA Code Chapter 105.18a, the PADEP “*will not grant a permit...affecting an exceptional value wetland, unless the applicant affirmatively demonstrates in writing ... that ... [t]he cumulative effect of this project and other projects will not result in the impairment of the Commonwealth’s exceptional value wetland resources.*” At minimum, all of the related components of this Chesapeake gas extraction project (gas wells, access roads, water lines, gas pipelines, etc.) must be evaluated together to determine the cumulative effects on the EV streams and wetlands at risk. To provide full resource protection, the quoted excerpt from §105.18a would suggest that this gas extraction project must even be evaluated in conjunction with all other gas extraction projects in the region, existing and reasonably projected, in order to determine the cumulative effects on exceptional value wetland resources. This clearly has not yet been done.

To focus exclusively on this specific waterline “project” constitutes piecemealing, the splitting apart of a single large project into its small component pieces, which effectively conceals the total and cumulative impacts of the overall project. In so doing, the smaller “pieces” of a project may not exceed regulatory thresholds that would be exceeded if it were viewed as one project. For example, the water lines “piece” may qualify for a Pennsylvania State Programmatic General Permit (SPGP) federal approval, but if the other aspects of the project were considered at the same time, the 250-linear foot stream impact threshold or the 1.0 acre waters of the US cumulative impact threshold might disqualify reliance on an SPGP.

Approvals granted for earlier pieces of a project tacitly narrow the alternatives available for subsequent pieces. These water lines serve no purpose in and of themselves, and would not be needed or constructed but for the gas wells at either end of them. Furthermore, the Brule gas well, which is the real reason for installing these water lines (water lines apparently have already been approved up to the Benspond well pad), has not yet even been reviewed, much less approved, by PADEP. Furthermore, there is no mention of the source of water to be used in the proposed water lines, or how it will be transported to the Benspond wellpad and ultimately to the Brule wellpad. All of these aspects of the overall gas extraction project, which are directly related to the subject water line application, must be evaluated together. That PADEP has waived the requirements for considering cumulative impacts (see discussion under Environmental Assessment Form in Comment 11, below) is not consistent with its existing regulations.

7. Elk Creek is a designated public highway, and as such is a “Submerged lands of this Commonwealth” per Pa Code Chapter 105.1.

Pursuant to Public Law 196 (dated 2 May 1876), “*Elk creek, and its several branches in the county of Sullivan*” were declared to be public highways. Under Section 15 of the Dam Safety and Encroachments Act of 1978, the PADEP, with the approval of the Governor, may grant a license for certain uses (including water supply and energy production) in submerged lands of the Commonwealth, provided the use does not adversely affect navigation or significantly impair the public's right in lands held in trust by the Commonwealth. Such a license is granted through a Submerged Lands License Agreement (SLLA). As part of the subject Chapter 105 application, Chesapeake has requested a SLLA for only the main Elk Creek crossing, but not for the one crossing (or two crossings, depending upon which section of the application one believes) of an unnamed tributary to Elk Creek which would be among “*its several branches*”. All crossings subject to SLLAs¹⁰ should be appropriately reviewed and approved before any Encroachment permit is issued by PADEP.

8. Descriptions of the project and its impacts in this application are mainly boilerplate and generic, not site-specific.

To a great extent this application relies on boilerplate descriptions, and in so doing ignores many relevant site-specific factors that should be considered during permit review. A large proportion of the proposed waterline passes through lands belonging to, and used by, the Boy Scouts of America for educational and recreational purposes, but this is nowhere mentioned in the application. In the boilerplate description, the applicant mentions its attempted use of existing all-terrain vehicle and logging trails, but does not specifically mention that the subject water lines are proposed to follow certain Scout pedestrian trails.

More significantly, the application makes no mention of the fact that a significant section of the water line route will pass through Pennsylvania State Game Lands. Approximately 1,560 linear feet (at least 0.7 acre) of the proposed water line project will be constructed through currently undisturbed woodlands on State Game Lands #12. Additionally, the most significant impacts to waters and wetlands (at the Elk Creek mainstem crossing) will occur within State Game Lands #12. The physical changes that will occur to the undisturbed SGL soils and woodlands on steep slopes above Elk Creek, the associated effects on the integrity of the forest structure itself, and the visual impacts for users of the SGL all are unaddressed, inasmuch as the very existence of State Game Lands in and near the project site is not acknowledged in the application.

¹⁰ There reportedly is a written determination from the PADEP Central Office in Harrisburg stating that only the Elk Creek mainstem is subject to a SLLA. No such documentation was found in the files provided by PADEP for this review.

The boilerplate discussion in the Alternatives Analysis notes that “*if deemed necessary...tree clearing will also be kept to a minimum, only clearing small shrubs and trees no greater than six inches in diameter*”. Given the admission elsewhere in the application (e.g., in a May 2011 letter to PADCNR) that “*the proposed project corridor is dominated by mid to late successional and mature forests*”, it is difficult to believe that no trees greater than six inches in diameter will be cut anywhere along the 20-foot wide access corridor needed to install the water lines through about 3,000 linear feet of undisturbed woodlands.

By limiting itself to boilerplate descriptions, this application also fails to disclose environmental constraints specific to this project site. It fails to discuss the wooded steep slopes on both sides of the proposed Elk Creek crossing that apparently will need to be traversed with heavy equipment to deliver the pipes and to construct the crossing. To traverse the 50% slopes on the hillsides to gain access to the Elk Creek crossing may require a construction/access corridor even wider than that proposed at the stream crossing itself, but such details are not provided in the application. If so, additional adverse environmental effects, including additional sedimentation impacts into EV streams and wetlands, may be realized (see also Comment 9, below).

The boilerplate descriptions also do not make clear how two, 16-inch diameter side-by-side pipelines will be placed aboveground along Lake Road without A) encroaching into the driving surface of the roadway, or B) falling into the stream below. There are no more than a few feet of flat area between the edge of the road surface and the start of the very steep slope (see Photos C and D). Special measures that may be needed to anchor the water lines along the top of the very steep slope, and to ensure that erosion of the slope and sedimentation of the stream below (EV Lake Run) are prevented, are not discussed in the application.

9. The “temporary” nature of these water lines is promoted by the applicant as a primary reason there will be minimal impact, yet there seems to be no assurance either that the impacts in fact are minimal or that these water lines will be removed within 6 months. The forest clearing that will be required in order to install the water pipelines will be of extended duration.

More than 3,000 feet¹¹ of clearing through undisturbed forest - about 30% of the total length - will be required for the proposed installation of the water lines, most of which clearing will take place in public State Game Lands. None of this forest clearing is acknowledged in the permit application. Indeed, the opposite is true. In its coordination letter with the PADCNR Bureau of Forestry (18 May 2011, regarding the Pennsylvania Natural Diversity Index search results which identified three rare plants in the vicinity), the applicant specifically stated that “*no grubbing, excavation, clearing of forested right-of-ways (ROW), or other ground-disturbing activities would occur during construction or removal of the waterlines.*” In its 2 June 2011 response, the

¹¹ This number is nowhere found in the application. It is our measurement of scaled drawings after walking the route of the proposed water lines and noting where it does not follow trails, rights-of-way, or field edges.

Bureau of Forestry repeated that exact statement as the basis for its conclusion that the project likely would not impact identified species of concern in the area.

It simply will not be possible to install the water lines and a 20-foot wide access road without forest clearing. Newly-cleared corridors through undisturbed forestland will result in localized fragmentation. What impacts this fragmentation will have on forest habitat and recreational uses are nowhere described in the application.

Where existing Boy Scout trails are proposed to be used, those trails may not always be wide enough to accommodate the construction equipment that will be needed to install the water lines. As a result, additional (unacknowledged) clearing may be necessary in those areas as well.

Site restoration after the “temporary” use is completed is not discussed. In particular, there is no mention of, much less timetable for, reestablishing forest cover in the areas to be cleared. The water lines are proposed to be in place for no longer than 6 months, but there appears to be no regulatory recourse if they remain for longer, given the presumed need to fracture several additional wells for which approvals have not yet been applied. It would not be unexpected for the applicant to request, at some future date, that PADEP permit the use of this waterline route for “gathering” pipelines once the gas wells have been fractured, inasmuch as the route will already have been created and disturbed for this waterline construction. No gathering lines are shown in the applications for the associated well permits, despite the directives of PADEP’s Oil and Gas Operator’s Manual (550-0300-01). Yet, unless the entire gas project is evaluated at once, it is not clear whether this waterline route would have been the most environmentally preferable route for sister water or gathering pipelines. In other words, PADEP approval of this waterline route may have the effect either of narrowing or eliminating future alternative locations for gathering lines that would be more environmentally benign, or clearing forest and crossing EV water bodies unnecessarily.

10. Specific alternatives to the proposed waterline route are not described.

The boilerplate discussion claims that “[s]ignificant effort ... was taken to first avoid, and then minimize, impacts to wetlands and streams during the routing” design. “In particular, impacts to wetlands or streams, especially EV waters, are avoided where possible.” Yet the application offers no documentation of alternative routes that might have been considered but were dismissed as being more environmentally damaging. Inasmuch the proposed route (Figure 1) involves crossing four EV wetlands, and between seven and nine (depending upon which section of the application is to be believed) crossings of EV waterways, it is unclear whether the chosen route truly avoids and minimizes impacts to the maximum extent. Two obvious alternatives (see A and B on Figure 2) would appear to require significantly shorter overall distances and have fewer impacts to wetlands, streams, and undisturbed forestland. Why

those routes were not considered, or if they were, why they were not chosen, should be discussed.

11. Discrepancies and other inadequacies in the application forms:

Joint (PADEP-Corps) Permit Application

The number of stream crossings proposed is not consistent. The Joint (PADEP Chapter 105-Corps Section 404) Permit Application for the water lines mentions eight stream crossings (including two crossings of unnamed tributaries to Elk Creek) and four wetland crossings. The “Project Description” section of the Chapter 105 application Project Narrative also mentions “twelve unavoidable” impacts. However, only eleven wetland/stream crossings are listed in the *Pennsylvania Bulletin* notice and only eleven are described in the “Proposed Impacts” section of the Project Narrative (including one [not two] crossing of an unnamed tributary to Elk Creek). The “Impact Table” lists four wetland impact locations and seven stream impact locations, numbered as Streams 1, and 3 through 8. The applicant’s 18 May 2011 letter to the DCNR Bureau of Forestry states that “[n]ine Exceptional Value (EV) stream crossings and four EV wetland crossings are located along the proposed route”. Thus, depending on which section of the application is being read, there are either 7, 8, or 9 proposed stream crossings.

Fifteen encroachments are acknowledged in the fee calculation section of the joint application. Apparently, this includes 7 stream and/or wetland crossings (by 2 pipelines at each) plus 1 wetland crossing of greater than 200 linear feet. There are 7 stream crossings and 4 wetland crossings acknowledged in the Impact Table, so one might logically conclude that there are a total of 11 encroachments (or 22, if each pipeline is counted separately). Several of the proposed “impacts”, however, are not being counted as “encroachments”: four of the stream crossings (Streams #3, 4, 5, and 8) are viewed by the applicant as PADEP Chapter 105 “waivered” activities by virtue of their watersheds being less than 100 acres¹². Only one of the four proposed wetland crossings (Impact #5, which is longer than 200 linear feet) is being counted as an “encroachment”; the other three qualify under Chapter 105 General Permit #8. (GP #8 authorizes temporary road crossings of less than 200 linear feet; EV waters or wetlands do not disqualify use of GP #8.) The *Pennsylvania Bulletin* notice lists eleven proposed crossings, with no distinction made as to whether some of them are “waived” or General Permit activities.

The Joint (PADEP-Corps) Permit Application boilerplate discussion mentions the need for a Highway Occupancy permit from PennDOT for state road crossings. No state roads, however, are within or along the proposed route of these water lines.

¹² This “waiver of permit requirements” pursuant to 105.12(a)2, currently applies to EV waters such as those at the subject project site, thus providing no means of implementing the “special protection” that ostensibly is afforded to EV and HQ waters. Waivered activities typically receive no PADEP staff review.

The only public roads being crossed are Lake Road and North Street, both Elkland Township roads.

Because the subject application is for a Joint (PADEP-Corps) Permit Application, the public might think that there will be some level of Corps review and approval involved. On the contrary, we were told by staff in the PADEP Williamsport office that there will be no Corps review of this project because it is being treated as a Category II project per Pennsylvania State Programmatic General Permit #4. The PADEP will simply issue the PASPGP-4 federal approval on behalf of the Corps when it issues its State approval. There is no place on the Joint Permit application form to specify what category of Corps approval is warranted or being sought for a project. This is a “process” problem and is something that should be corrected on the application form itself to promote public understanding and efficient processing of every Joint Permit Application.

In light of the concerns expressed elsewhere in this letter, however, including (1) that the wetlands and waters have not been inspected in the field, (2) that PADEP is not evaluating regional or cumulative impacts, (3) that PADEP apparently has “waived” all environmental assessment requirements (see below), and (4) that PADEP is viewing many of the project activities as eligible for waivers or General Permits, a project-specific review by the Corps of Engineers (Category III) clearly is warranted to ensure that no more than minimal adverse environmental impacts will occur in the Exceptional Value waters and wetlands of the project site.

General Information Form (GIF)

In the section on Site Information (page 1 of 7) the site description is misleading in that it suggests that the route of the water lines is along field edges and previously disturbed areas. It fails to disclose that more than 3,000 linear feet (about 30%) of the proposed waterline route will require disturbance/clearing of currently undisturbed woodlands, much of which is on very steep slopes immediately above the main crossing of Elk Creek, and some of which is in State Game Lands.

In the section on Facility Information (page 2 of 7), questions are asked whether the subject project will modify or involve an addition to, an existing facility, system, or activity. The response in both cases is “no”. In reality, however, the subject water lines serve no purpose in and by themselves. They clearly are an addition to the Chesapeake natural gas wells existing at Benspond and proposed (presumably) at Brule.

Environmental Assessment Form

Approximately 1,560 linear feet (at least 0.7 acre) of the proposed water lines will be constructed through currently undisturbed woodlands on State Game Lands #12. Additionally, the most significant impacts to waters and wetlands, at the Elk Creek mainstem crossing, will occur within SGL #12. Yet the response provided in Part 1.2.E. of this form to the question “*Is the site within or adjacent to State Game*

Lands” is “no”. This outright error clearly reflects a lack of attention to detail in the subject application.

Enclosure B is supposed to be a map, at USGS topographic quadrangle scale, of all water resources and the features listed at Part 1.2.A through F. The Enclosure B included in this application is an aerial photo base at the correct scale, but it identifies only Prime Farmland Soils along with the route of the proposed water lines. No water resources are indicated on the map, and the limits of State Game Lands #12 (through which the water lines will pass) are not shown.

There is no indication in the permit files that the Pennsylvania Game Commission has been informed of the proposed temporary roads and water lines. Whether it has agreed that the proposed route is the least damaging to SGL #12 is not stated anywhere in the application or PADEP file.

Enclosure C (Description of the Aquatic habitat) and Enclosure D (Project Impacts) are the two principal sections of any joint permit application Environmental Assessment Form. A note inserted by the applicant in this section of the application states that “[u]pon discussions with Jared Dressler (PADEP-NCRO), Enclosures C and D ... were waived due to the project’s temporal nature and lack of environmental disturbances”.

To waive these two most fundamental parts of the environmental assessment is to ignore the main purpose of an Individual Permit review. Only for a “Small Projects Application” are these parts of the environmental assessment not required; thus, it would appear that PADEP is treating this application like a “Small Project”. This “waiver” of the assessment requirements, if indeed it was granted¹³, would be totally inappropriate inasmuch as any project that is located in wetlands, and any project with significant impacts to Special Protection waters or wild trout streams, does not qualify as a “Small Project”. Until the aquatic resources are fully identified and described, and the impacts fully evaluated - which is the purpose of the environmental assessment - no determination of a “lack of environmental disturbances” or a lack of significant impacts can be made.

Enclosure D is also a crucial part of any Individual Permit application because it addresses related impacts (“*Identify all environmental impacts on other adjacent land and water resources... in the area of the project*”), cumulative impacts (“*Identify and evaluate the potential cumulative environmental impacts of this project and other potential or existing projects like it, and the impacts that may result through numerous piecemeal changes to the resource.*”), and other impacts related to the project (“*Identify and describe all other ... encroachments which may or will be needed, in*

¹³ At the bottom of the Environmental Assessment form it states : “*The Department may waive a specific information requirement in writing, at the request of the Applicant, during the pre-application review process if the Department determines that specific information is not necessary to review the application*”. No written waiver of the assessment requirements was found in the PADEP file.

addition to those described in this Application, to fulfill the purpose of the current project.”) [See also Comments 6 and 9, above.]

Significant damage can be caused by temporary projects in six months or less, such as forest clearing and fragmentation that will take years to become fully restored, depending on any measures taken after pipe removal. No tree replanting or long-term restoration measures are noted in the application.

As discussed above, the federal approval of the proposed activities in waters of the United States is currently slated to be provided by PADEP in the form of a Category II PASPGP-4 (no Corps of Engineers review). That federal approval is based on the premise that PADEP will have conducted a full environmental review and assessment, not only of project-specific impacts, but also of cumulative impacts. If the Department chooses not to require a full assessment of the individual and cumulative impacts of this project, the Corps of Engineers must use its discretion and conduct its own project-specific review.

SUMMARY

In conclusion, we request that PADEP take the following actions prior to issuing the E5729-014 permit:

1. Conduct (or preferably, have the Army Corps of Engineers conduct) a field inspection to verify the location and extent of all waters and wetlands along the proposed waterline route and along any viable alternative routes.
2. Require the applicant to correct omissions, inconsistencies, and inaccuracies in the application, including the number of proposed stream crossings, the locations of field data logs, the existence of State Game Lands, the extent of forest clearing, the identification of stream and wetland boundary field flags on drawings, the impacts to 100-year floodways rather than 25-year floodways, etc.
3. Require a genuine assessment of impacts for this project by completing Enclosures C and D in the Environmental Assessment Form.
4. Require the applicant to demonstrate that all impacts to wetlands, waters, and floodways at all of the proposed crossings have been avoided or minimized to the greatest extent practicable.
5. Require the applicant to expand the alternatives analysis to provide specific information about alternative routes considered and rejected, and to compare the impacts associated with those alternatives with the chosen route.
6. Require that the Corps of Engineers conduct a project-specific review of this application (Category III PASPGP-4) to ensure that no more than minimal adverse environmental impacts will occur to the affected Special Protection waters including Exceptional Value streams and wetlands.
7. Require the applicant to apply for, and obtain, all necessary SLLAs for crossings of Elk Creek and its several branches.

We request that the Department acknowledge its receipt of this letter in writing and advise us as to what actions will be taken to address the concerns raised.

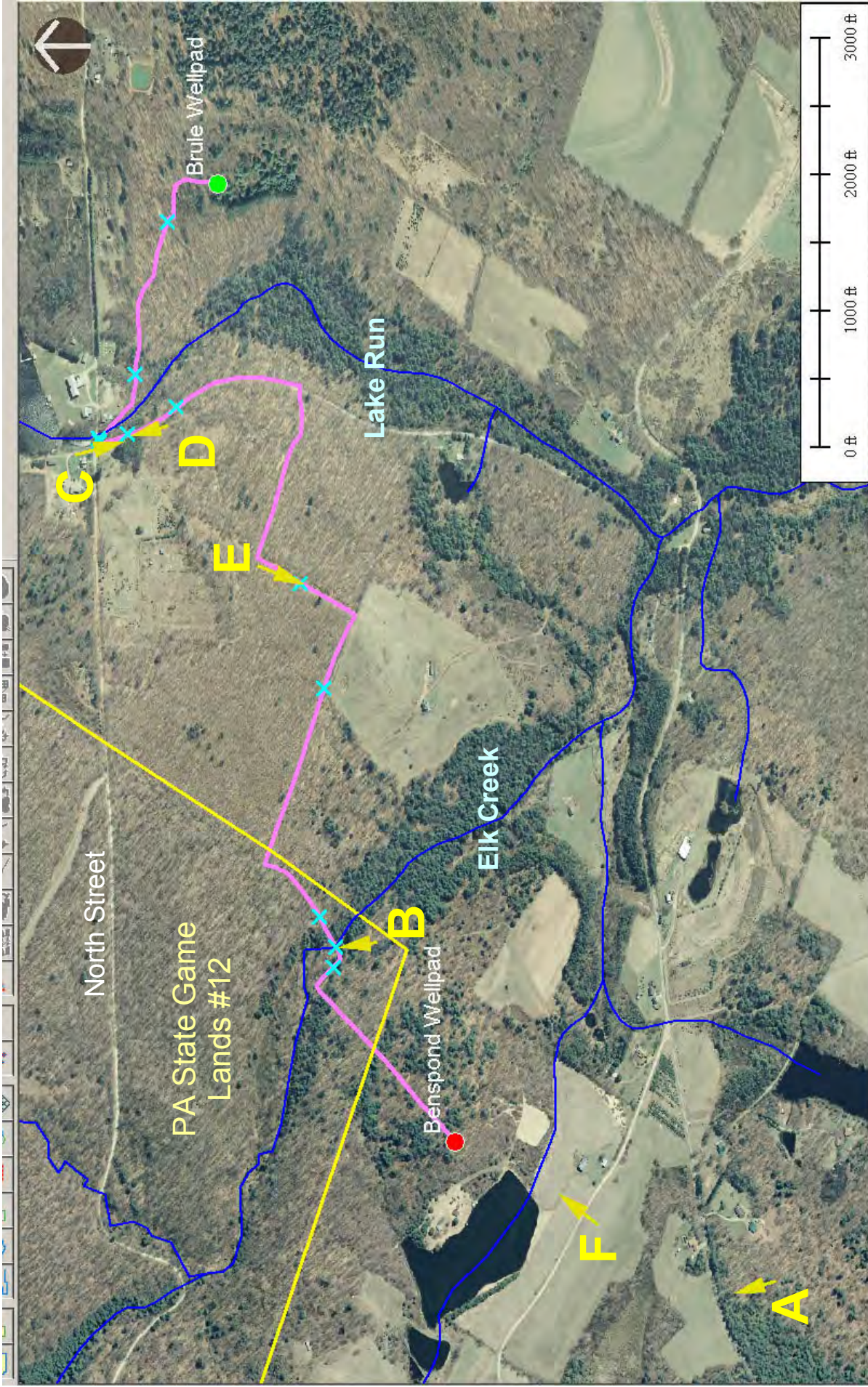
Thank you for this opportunity to comment on the subject application.

Yours truly,

A handwritten signature in black ink, appearing to read "Stephen P. Kunz". The signature is written in a cursive style with a large, stylized "S" and "K".

Stephen P. Kunz
Senior Ecologist

cc: W. B. Chandler, P. Strong, Pennsylvania Section, USACE Baltimore District,
Kelly Moran, USEPA Region 3
John Dawes, Executive Director, Foundation for Pennsylvania Watersheds



PHOTOINDEX. Location and orientation of ground-level photographs (A through F). All photos were taken on 16 August 2011, except Photo D which is from the Chesapeake application and was taken on 26 April 2011. Base is an aerial photo from 2008. Blue lines are major waterways (all of which are EV existing use). Little blue Xs are applicant's acknowledged impact areas along the proposed route of the water lines (purple).



PHOTO A: A high density polyethylene (HDPE) water pipe, similar to those that are proposed to be installed side-by-side per the subject application. This pipe has been installed under SR 4008 and will bring water to the Benspond Wellpad. Apparently only one pipe brings water to Benspond, but two will take water from Benspond to Brule.



PHOTO B: Elk Creek mainstem at the proposed crossing within State Game Lands. View is northward (looking upstream). Delineated wetlands along the west side of the crossing (to the left) will be impacted. No wetland or floodway impacts were identified along the east side of the crossing (right).



Photo
C

PHOTOS C and D: Views to south (C, August 2011) and north (D, April 2011) along Lake Road. Two 16-inch HDPE water lines will be placed side-by-side here along the edge of the road and atop the metal pipe that carries an unnamed tributary to Lake Run. The application contains no discussion about how the pipes will be installed and anchored so as not to block traffic or cause erosion and sedimentation of this very steep slope. How the aboveground pipes will cross Lake Road also is not discussed in the application.



Photo
D

This is
Photo 8 in
Section XI
of the
Chapter
105 permit
application



PHOTO E: View southward of an emergent wetland within a cleared right-of-way along the route of the proposed water lines (Impact #5). The water pipes will be placed on a 20-foot wide access road/timber mat crossing more than 300 feet of this wetland. If the wetland extends farther to the north than delineated, the impact of this crossing will be larger than calculated.

PHOTO F: View northward of the access road toward the Benspond Wellpad. The road was constructed across an EV stream (unnamed tributary to Elk Creek, at white arrows), and the riparian forest was cleared, without any PADEP Chapter 105 permit, because the drainage area here is less than 100 acres, and so the crossing was “waived”.



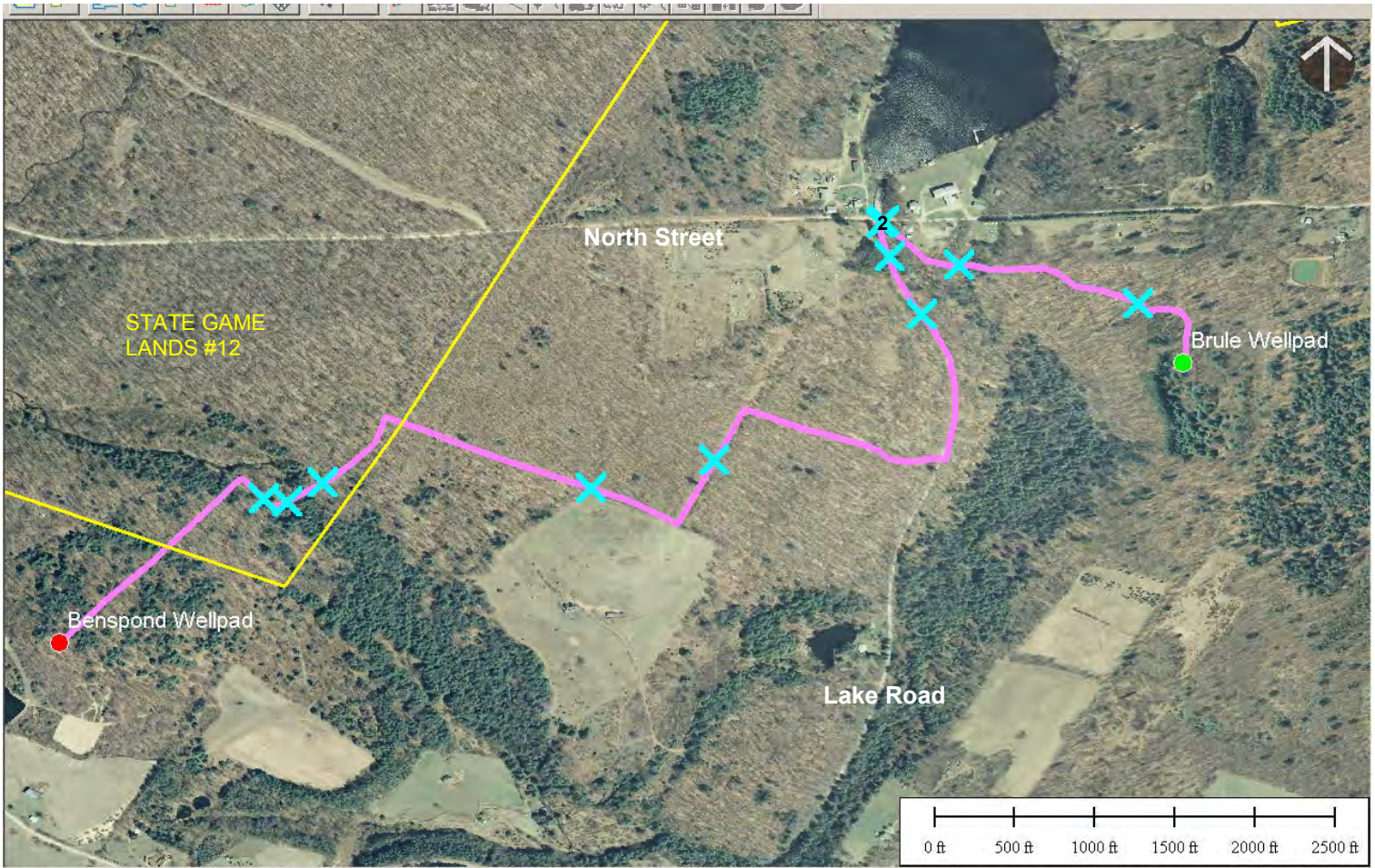


FIGURE 1: Proposed Waterline Route The proposed route (purple line) is 1.79 miles long, extending from the existing Benspond Wellpad to the (unapproved) Brule Wellpad. It passes mainly through lands controlled and used by the Boy Scouts of America and PA State Game Lands (yellow outline). Applicant-acknowledged crossings of streams or wetlands are noted by small blue Xs. (There are two crossings at the intersection of Lake Road and North Street, denoted by a “2”.) Basemap is an aerial photograph taken during 2008.

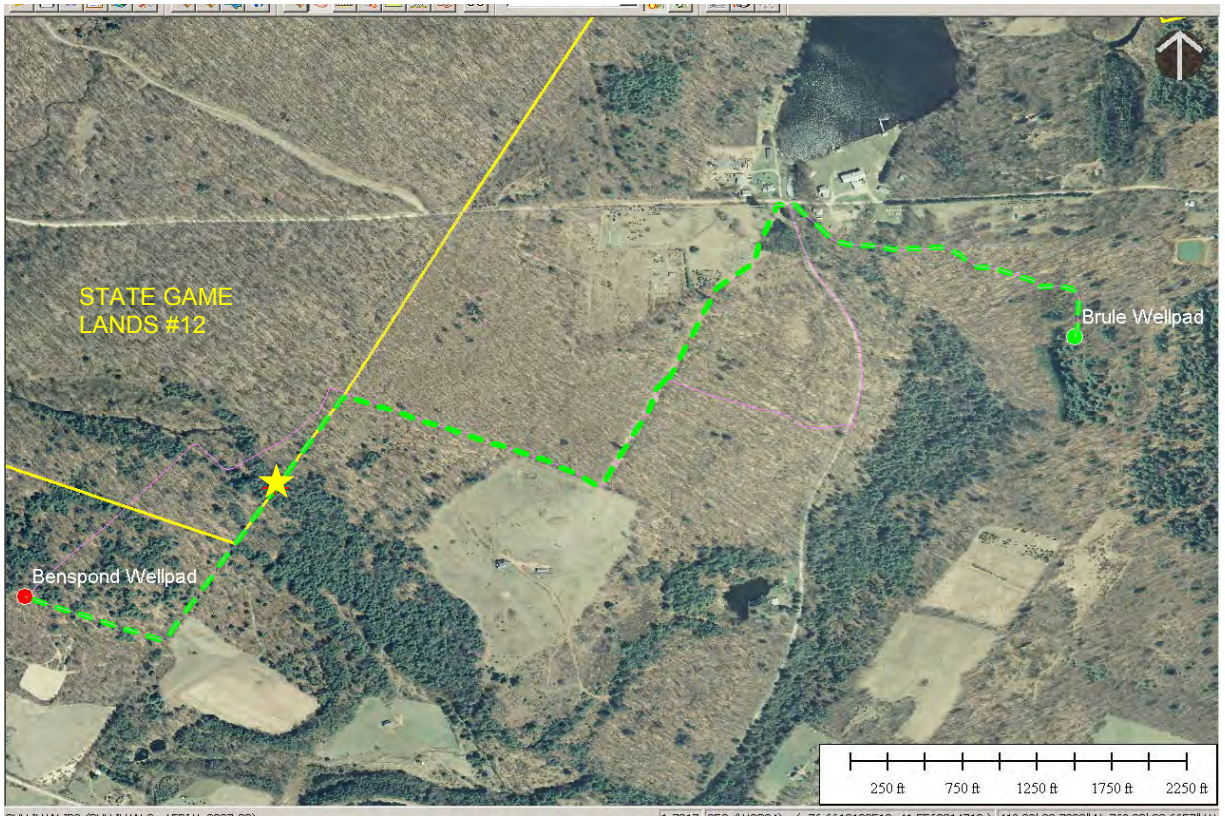
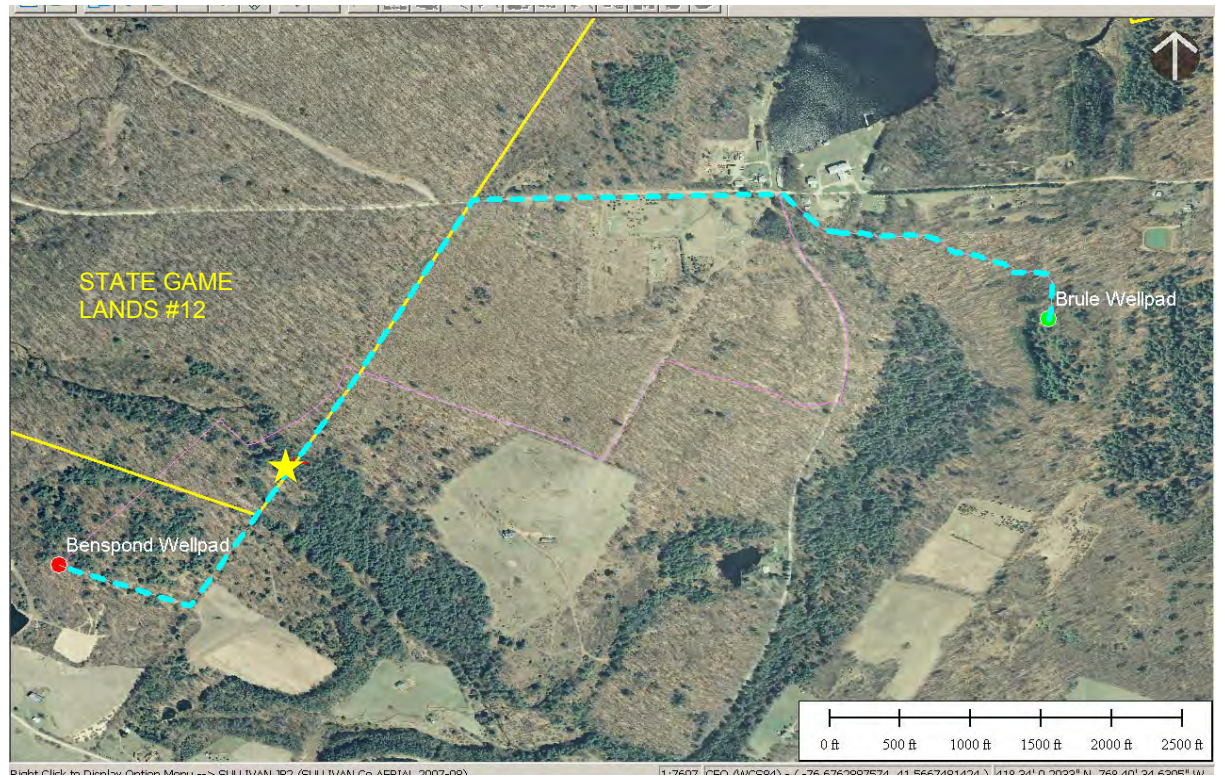


FIGURE 2: Possible Alternative Routes Route A (green dashed line, above) is more than 1,000 linear feet shorter than the proposed route, and avoids 5 proposed regulated crossings. Route B (blue dashed line, below) is more than 1,600 linear feet shorter than the proposed route, and avoids 7 proposed regulated crossings. Both of the alternatives would need to cross Elk Creek - yellow star - in a different location. Both of these routes require less clearing of undisturbed forest than the proposed route, and they follow the periphery of State Game Lands.



The Significance of This Permit Application Review

Stephen P. Kunz

With funding from the Foundation for Pennsylvania Watersheds, Schmid & Company reviewed a Dam Safety and Encroachments Act permit application (E5729-014) submitted during July 2011 by Chesapeake Appalachia, LLC to the Pennsylvania Department of Environmental Protection (PADEP). The application is for a proposal to install and operate a pair of 16-inch diameter pipes along a 1.79-mile route in Elkland Township, Sullivan County, Pennsylvania, to extend a supply of fresh water for hydrofracking between two Marcellus Shale gas well pad sites.

The purpose of the review was to provide comments¹ on the application to PADEP during the formal public comment period. This review turned out to be quite enlightening in terms of both the subject project and the larger context of PADEP regulation of Marcellus Shale gas extraction activities. It does not bolster confidence that current regulatory review offers adequate protection to the public or to natural resources.

On the face of it, the immediate impacts of the proposed work may seem to be relatively benign. Two 16-inch diameter plastic pipes are proposed to be laid side-by-side on top of the ground, primarily along field edges and cleared rights-of-way, and then are to be removed within 6 months time. The applicant has said that all of the proposed disturbances are temporary and the impacts are negligible. It claims that impacts have been avoided and minimized as much as possible through its proposed route selection. Minimal documentation is provided, however.

The PADEP seems to be ready to accept all of the applicant's rosy assertions at face value - at least that is the impression I got after speaking about this application on 16 August 2011 with Brian Bailey (PADEP Environmental Review Manager in the NCRO in Williamsport). At the time, he had not yet looked into this application in detail, but he suggested that its approval was all but certain because there are more serious activities for available PADEP staff to be concerned about.

The closer we examined the proposed work, however, and the contents of the application itself, the more concerned we became that A) the impacts may not be so benign as they are purported to be, and B) the cavalier attitude of PADEP may not be the appropriate response in evaluating this application. We also gained important insights about the lack of transparency in the current review process for shale gas permits and the obstacles to public review and input on applications such as this one.

It turns out that there are real, and potentially serious, environmental issues associated with the proposed work. As with many things, "the devil is in the details" - but unfortunately, there are precious few details revealed in this permit application.

¹ Comments on DSEA Permit Application E5729-014, Stephen P. Kunz to Jennifer Means, 6 September 2011, 24 pages.

For one thing, the proposed work could be taking place almost anywhere in Pennsylvania - the boilerplate descriptions of the project and the alternatives analysis provide very little site-specific information. That is most unfortunate, because this "site" is quite sensitive indeed - all of the waters and wetlands are of the very highest (EV, or "Exceptional Value") quality; three species of rare plants grow nearby; there are very steep (up to 50%) wooded slopes being crossed immediately adjacent to the streams; and more than 17% (almost 1,700 linear feet) of the proposed route will require the clearing of construction corridors through PA State Game Lands, most of which area is currently undisturbed forest. (The incursion into State Game Lands is nowhere acknowledged in the application; rather, it is denied.)

The simple fact that there are seven (or eight, or maybe nine - the actual number changes in different parts of the water line application) stream crossings and four wetland crossings - and all of those streams and wetlands are "Exceptional Value" - should be enough to elicit a careful evaluation of impacts by PADEP. The applicant-acknowledged impacts to water resources total 0.3 acre, but there appear to be unacknowledged impacts to these identified resources, and possibly additional impacts to wetlands that have not yet been identified. The applicant failed to answer the question of how many acres of wetlands exist on the project site.

Our review reveals several problems inherent in the PADEP regulatory process which affect, but are not limited to, this specific project or application. Review of permit applications by the general public is not easily accomplished or accommodated by PADEP. Applications published in the *Pennsylvania Bulletin* are allocated a 30-day timeframe for public comments after the date of publication. The *Bulletin* notice provides few details about any proposed activity, however, so one must examine the actual permit application file to understand what is being proposed. In this case, the file was not available until 23 days into the 30-day comment period. Our request for a 30-day extension of the comment period was never acknowledged in writing (as requested), but we were told orally that a 2-week extension would be granted. We then submitted timely comments providing as much detail as practicable given the time available.

One major problem revealed by our review is that Marcellus gas drilling operations are being evaluated by PADEP in a piecemeal fashion, contrary to explicit Chapter 105 regulatory directives to consider the cumulative impacts of each proposed activity and its related activities. This application is for a tiny part of a much larger shale gas extraction project. The proposed water lines serve no purpose by themselves or in isolation from the larger gas drilling project. Indeed, the stated purpose of this water line project is to transport water needed for hydrofracturing between two gas well pads, yet one of those well pads has not yet even been reviewed, much less approved, by PADEP. No information at all is provided about the water being transported - its source, its quality, or its ultimate disposal. The millions of gallons of water conveyed by the pipelines will be combined with various chemical additives, injected into deep bedrock, and returned back to the surface in

substantial quantity after collecting brine and other naturally occurring radioactive and chemical substances. These substances pose a significant hazard to water quality in the EV streams near the well pads, yet none of these issues is evaluated, or even discussed, in this application.

At minimum, all aspects of the waterlines and the two endpoint well pads should be included in the PADEP review of this project; prudent review would address the impacts of all activities related to the entire gas extraction process for both well sites (including the pad sites themselves, construction access, water lines, gathering pipelines, and production pipelines) at one and the same time. These impacts, however, are addressed nowhere in the application for the waterlines nor in the Benspond well permit files, and there are no permit applications describing the Brule well pad. Inasmuch as the pipelines apparently are proposed to carry only fresh water, there appears to be no intent to reuse produced water from the Benspond well pad when fracturing wells at the Brule well pad.

Another significant problem illustrated by our review of this application is the lack of protection being afforded by PADEP to “Special Protection” waters. The streams and wetlands to be impacted by this proposed water line project are classified as EV, the very best waters in the Commonwealth. The standards for evaluating work proposed in EV waters are “no adverse impact” on EV wetlands and “no degradation” of EV waters. Hence one might expect that any project in EV waters (or in HQ [high quality] waters, which also are considered “Special Protection”) would receive thorough regulatory scrutiny.

PADEP in fact requires no review at all of any fill or structure placed in a waterway where the upstream drainage area is 100 acres or less, even if it is an EV or HQ stream. Instead, it “waives” Chapter 105 regulation in such headwaters, which are critical to maintenance of downstream water quality. The access road for the recently constructed Benspond gas wellpad (at the western end of the proposed water line route) did not require PADEP review or approval, much less any public notice, even though the stream which it crossed has an EV existing use, because it qualified for the Chapter 105 waiver at §105.12(a)2. Several of the proposed waterline stream crossings are similarly waived.

For the crossings of EV streams and wetlands by the proposed water lines in the subject application that are not eligible for the Chapter 105 headwaters waiver, PADEP reportedly has exercised administrative discretion to grant an additional waiver from the *environmental assessment* requirements, requirements which constitute the central focus of any Individual Permit application. Hence, this Individual Permit application contains almost no information on affected resources or potential impacts.

The subject application is for a Joint (PADEP/Corps of Engineers) Individual Permit. Unlike the General Permits for activities that propose to comply with standard limitations and conditions, and which receive little or no review by any agency,

activities which require an Individual Permit are supposed to engender comprehensive review and evaluation. An application for a Joint (PADEP/Corps of Engineers) Individual Permit sounds like it should get adequate agency review. In this case, however, the PADEP review (unless expanded as a result of public comments) appears poised to be cursory at best.

Furthermore, this project will receive no review at all by the Corps of Engineers. Why? To avoid duplication of effort, the Corps has established a State Programmatic General Permit (SPGP) in Pennsylvania, whereby formal federal review is not required for various activities so long as the PADEP gives its authorization. At times this can lead to the unfortunate situation which we see in this instance -- when the PADEP review is superficial, and public review is hindered, then projects like this one simply slip through the regulatory cracks unless the Corps of Engineers performs a project review of its own.

In his presentation at a natural gas industry conference in Philadelphia on 8 September 2011, PADEP Secretary Michael Krancer was quoted as saying "*There is an ideologically-based opposition to this industry. That opposition is not based on science or fact.*" In a similar vein, PADEP review of permit applications should be based on facts and sound technical information; if that information is missing or inadequate, no permit should be issued until it has been supplied. Unfortunately, this does not always occur, as reflected in news accounts of spills, pollution incidents, and other violations at many Marcellus Shale gas operations. As a result, PADEP permit reviews are failing to achieve the environmental protection that the laws and regulations intended.

The public rightfully expects that the site-specific conditions and facts of every project will be carefully considered and evaluated by PADEP before any permit is issued. Projects with the potential to adversely impact our precious water resources, especially EV waters and wetlands, should always be subject to a comprehensive evaluation, whether those impacts are associated with a gas extraction project or any other kind of land development project. We are hopeful that our comments will compel PADEP to give this project the careful and thorough review and evaluation it deserves.