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Kenneth Murin, Chief
Division of Wetlands, Encroachments, and Training
PADEP Bureau of Waterways Engineering and Wetlands
P.O. Box 8460
Harrisburg, PA 17105-8460

**In re: Comments on Proposal to Modify and Reissue General Permit BWEW-GP-8
(Temporary Crossings and Environmental Testing or Monitoring Activities)**

Dear Mr. Murin:

This letter provides comments on a proposal to modify and reissue PA Code Chapter 105 General Permit BWEW-GP-8 (Temporary Crossings and Environmental Testing or Monitoring Activities), published in the *Pennsylvania Bulletin* on 2 November 2013. These comments are based on my professional experience during more than 35 years as a private-sector environmental consultant, during which time I have worked closely with Pennsylvania regulatory programs relating to wetlands, streams, and water quality.

Comment 1. It appears that the Department is trying to create a General Permit that can authorize a wide range of disparate activities commonly needed by oil and gas operators as well as by other enterprises in wetlands and streams. Currently, GP-8 authorizes only temporary road crossings. The proposed GP-8 would continue to authorize temporary road crossings, but would greatly expand its scope to also authorize temporary service line crossings (which can include electric and telephone lines, and water lines and other pipelines as large as 24 inches in diameter that can carry polluted water). The proposed GP-8 also would authorize temporary testing and monitoring activities, which are ill-defined (see Comment 6 below). While the common denominator appears to be that all covered activities are “temporary”, the expanded scope of the revised GP-8 is inappropriate and contrary to Chapter 105 regulations. The activities are not “similar in nature” as required by §105.442(a)(1) for General Permits. To be consistent with existing regulations, the Department should create separate General Permits for (a) temporary service line crossings and (b) temporary environmental testing and monitoring activities, and leave the focus of GP-8 on temporary road crossings.

Comment 2. In Subsection 12.G it is noted several times that temporary service lines that would be eligible for proposed GP-8 could be transmitting either fresh water or “fresh water which may contain pollutional materials”. What constitutes “pollutional materials” is not defined, but presumably could include stormwater, sanitary wastewater, shale fracking fluids, and flowback fluids containing brine and radioactive materials from fracking operations. The types of “pollutional materials” allowed or not

allowed must be clearly defined, especially if those pipelines are allowed to be constructed in Special Protection watersheds under the proposed GP-8.

Comment 3. The existing GP-8 defines a temporary road crossing as being “across a wetland or across or along a stream”. The proposed GP-8 expands that to include crossings, by either roads or service lines, that are “placed in, along, under, across, or over a regulated water”. A new road “under” a stream or wetland necessarily would cause major impacts during its construction and its removal. Similarly troubling is the open-ended allowance for pipelines “under” regulated waters. How far “under” is not defined or limited in proposed GP-8, so presumably fracking pipes several feet or even 6,000 feet or more beneath regulated waters are included. Unless the specific scope of activities which are included or excluded from using revised GP-8 is more clearly defined, it appears that virtually any shale gas fracking activity would qualify, provided only that it is “completed” in less than 2 years time. Such an ill-defined, open-ended scope of activities is entirely inappropriate for authorization under a single General Permit, especially if those activities are allowed to be conducted in Special Protection watersheds.

Comment 4. The wide variety of activities authorized by proposed GP-8 are to be conducted and to remain in place for up to 2 years, and this is labeled “temporary”. The existing GP-8 and the proposed GP-8 both define “temporary” as one year, but the proposed GP-8 includes a specific allowance for extending the authorization one additional year, for a total of up to 2 years. The second year can be authorized upon written request and upon a “documentation of need”. No standard of “need” is defined, however, and since the original General Permit authorization (like all General Permits) is simply *registered* and not afforded any technical review, presumably any written request for extension and documentation of need will not be reviewed either. Two years of damage to water resources, even if labeled “temporary”, does not necessarily make the impact insignificant. Even one year can cause significant disruption to the functions and values of streams and wetlands, with many years required for recovery. One year measured from initial site disturbance to completion of site restoration should be adequate for truly temporary work, and extensions should not be allowed except in rare and unusual circumstances.

Comment 5. The proposed allowance for a registrant to request that “temporary” structures remain in place for a second year raises the possibility that a registrant may ultimately wish to leave certain pipelines or roads in place permanently. Presumably, the registrant could ask to recharacterize an activity from one covered by GP-8 to one covered by GP-5 (utility line crossings) or GP-7 (minor road crossings). Such a “bait and switch” action, however, should be specifically disallowed once any construction has taken place under the GP-8 registration. The authorizations for permanent pipeline crossings (GP-5) or road crossings (GP-7) have more restrictive conditions that a registrant may not have been able to satisfy, had she/he initially registered for their use, including limits on the length and area of authorized impact, limits on the size and types of waterways that can be disturbed, and requirements for mitigation. The Department should make it clear that no activities constructed under a GP-8 authorization can later be recharacterized under another General Permit. Rather, an Individual Permit would

need to be approved with appropriate mitigation following review and evaluation of the activity as if it had never been constructed.

Comment 6. The newly-proposed definition of “Environmental Testing or Monitoring Activities” is much too vague and open-ended. Included in the definition is “*borings of soil or rock material ... and other similar or related activities*”. That description potentially could cover a full-scale exploratory gas well project, which would be a major operation¹ that conceivably could be completed within 2 years (“temporary”) if it encounters a low potential yield of gas. In addition to providing a separate General Permit for Environmental Testing or Monitoring Activities, (see Comment 1 above), the Department must better define the scope of such allowable activities in a way that limits the area to be disturbed, limits the depth of borings, and/or limits the diameter of boreholes so as to ensure that any associated impacts to streams and wetlands are minimal both individually and cumulatively, and thus can appropriately be authorized by a General Permit registration.

Comment 7. In accordance with §105.442(a), projects authorized under a General Permit must comply with the Department’s requirements for permit issuance in §105.14-105.17 and §105.21.

Per §105.14(a)(6) and §105.21(a)(2), the project must comply with the standards and criteria of applicable laws administered by the Department, and that would include all Chapter 93 antidegradation requirements.

Per §105.21(a)(4), the project also must be consistent with the environmental rights and values secured by Pennsylvania Constitution Article 1, Section 27.

It is mentioned upfront in the proposal to modify GP-8 that “*[t]he majority of Chapter 105 general permits have not been materially revised since 1996 and the revisions to BWEW-GP-8 represent the opportunity to reorganize and establish a better organized and more concise general permit. As pointed out in Comment 1 above, however, the new GP-8 is not being made more concise; the proposed expansion of its scope makes it less concise.*”

One major change that has occurred since most Chapter 105 General Permits were revised in 1996 was the adoption during 1999 of antidegradation requirements in PA Code Chapter 93 (at §93.4a-d). The current recognition by the Department that EV (Exceptional Value) and HQ (High Quality) waters of the Commonwealth deserve “special protection” has not yet been fully incorporated into the majority of Chapter 105 General Permits. The existing GP-8 only prohibits fords on EV and HQ streams, and the proposed GP-8 maintains that ford prohibition, but allows other kinds of temporary road crossings and greatly expands beyond temporary roads the types of structures and activities authorized in Special Protection waters.

¹ Subsection 12.B.3 shows that the Department expects that “*cutting or boring liquids*” will be created as part of the allowed activities, which may engender significant impacts to water quality and aquatic biology and which should be subject to greater scrutiny than is provided in a mere General Permit registration if the waters of the Commonwealth are to be protected.

Unless the Department has done a thorough analysis of the potential kinds and numbers of projects that are likely to rely on the expanded GP-8, and thus has determined its anticipated effects on EV wetlands, EV waters, and HQ waters, as well as the cumulative impacts of constructing and maintaining roads, pipelines, and other “temporary” activities in, under, and across such resources for up to 2 years, and has found those impacts to be negligible, the public has no reason to expect that this action will comply with the antidegradation requirements of Chapter 93 or the environmental rights and values assured to Commonwealth residents under Article 1, Section 27 of the Pennsylvania Constitution.

The Department should make the revised GP-8 (and indeed all General Permits) ineligible for use in any Special Protection waters. That would not prohibit these activities; it would simply allow the Department the opportunity to review the proposed work, provide public notice, and authorize approval by Individual Permit if appropriate, thereby ensuring that the antidegradation requirements will be met.

Comment 8. It is important that the Department use GP-8 to authorize the impacts of “single and complete projects” rather than indefinite numbers of discrete activities. If a landowner needs to cross a stream or wetland to perform work on another part of her/his property, and a temporary road crossing of a wetland represents the only regulated impact associated with the work she/he plans to do, then GP-8 may be the appropriate way to authorize the work, provided she/he meets all of its conditions.

If, on the other hand, a gas company wants to drill a set of wells to extract natural gas, needs to cross streams and wetlands with roads to access and construct the drill pad, needs additional road and pipeline crossings to get fresh water to and contaminated water from the drilling site, and needs to connect the extracted gas by pipeline to an existing transmission line, then the entire project must be evaluated as a whole even if some of its activities are “temporary”. If road or pipeline crossings serve no purpose independent of a gas well, coal, or other project, then any impacts associated with the crossings must be added to and evaluated in light of all other impacts associated with the primary project. Otherwise, General Permits are just being used to piecemeal larger projects, making it appear that their total and cumulative impacts are less than they actually are. This is true in any watershed, but it is especially important where Special Protection waters are to be impacted.

Comment 9. The term “appurtenant works” is defined, and it is used in the definitions of “bridge” and of “culvert”. Elsewhere in proposed GP-8 “support structures” are mentioned when discussing temporary bridge and service line crossings of watercourses, but there is no definition or limitation for what constitutes a support structure. If “support structures” are “appurtenant works”, that must be made clear. Furthermore, the Department must specify some appropriate limit on the size or dimension of support structures or appurtenant works to be authorized under GP-8 within streams and wetlands.

Comment 10. Subsection 12 lists several conditions regarding the orientation and structural stability of proposed crossings and support structures, including that they “*shall*

be placed in such a manner as to not be displaced by flood waters” [Subsection 12.A.14]. While the concern for potential damage to the structures is commendable, there is no comparable condition or specific requirement that authorized structures are not to displace floodwaters, nor any analysis or requirement that maintaining such structures in a floodway or floodplain for up to two years will not obstruct floodwaters or adversely affect upstream or downstream flooding² in a stream of any size. Such a condition/requirement must be added to GP-8.

Comment 11. General Condition #4 (Subsection 12.A.4) requires that wetlands be delineated in accordance with the latest Corps of Engineers wetland delineation criteria. This requirement is a good start, but it must be expanded in three ways if it is to have any real meaning or credibility. First, it must specify that an onsite wetland delineation must be conducted for the entire project area, including the recording of vegetation, soils, and hydrology data on appropriate data forms at representative locations. Second, the extent of regulated streams also must be delineated, inasmuch as many streams (and especially their headwaters) are not shown on US Geological Survey maps or the Department’s eMapPA database. Third, every wetland and stream delineation must be reviewed and confirmed in a written Jurisdictional Determination (JD) following field inspection by the appropriate Corps District. In my experience, and from discussions with Corps representatives, the Corps JD process in Pennsylvania quite often identifies additional jurisdictional wetlands and streams that were not initially recognized in a consultant’s delineation. Unless and until all wetlands and streams are accurately identified, neither the General Permit registrant nor the Department can be confident that impacts have been avoided and minimized. Again, this is especially important in Special Protection watersheds, where antidegradation otherwise cannot be assured.

Comment 12. General Condition #5 (Subsection 12.A.5) requires that crossings of wetlands be avoided if possible, but elicits no information to demonstrate that a registrant has tried to achieve avoidance or minimization. This condition must be expanded to require an analysis of other possible crossing alternatives, and an explanation of how the proposed crossing avoids wetlands and why it is the registrant’s preferred alternative.

Comment 13. According to Subsection 12.C, causeways are allowed to extend no more than 300 linear feet along a watercourse, and cannot exceed 0.25 acre in “aerial” extent. I believe what might be meant here is “areal” extent.

Comment 14. Existing GP-8 limits the length of temporary road crossings of wetlands to 200 linear feet. Proposed GP-8 eliminates that length limit and replaces it with an areal limit of 0.1 acre of wetland. Presumably, the 0.1 acre applies to each temporary road crossing, but a single project could have multiple road crossings. In addition to the 0.1 acre limit on each road crossing, proposed GP-8 must impose a cumulative acreage limitation for all road crossings (e.g., no more than 0.25 acre of wetlands, the same limit

² In accordance with Subsection 12.G.10, “*The owner shall be responsible for any damages resulting from increased backwater caused by the temporary [service line] crossing*”.

imposed by GP-7 for permanent road crossings³), beyond which reliance on GP-8 would not be allowed because it represents more than a minimal impact.

Comment 15. There is no limitation on the area of wetland that can be disturbed by service line crossings, by environmental testing or monitoring activities, by bridges, or by any other activities (except for roads, see Comment 14) authorized by proposed GP-8. There must be an overall areal limitation (e.g., no more than 0.5 acre) on wetland disturbances authorized by GP-8 from all proposed activities combined. Projects that exceed that limitation may be authorized, but only by Individual Permits after appropriate review and public notice.

Comment 16. The requirements for restoration of disturbed areas, as described in the proposal, are inadequate and must be strengthened. Subsection 12.A.2 directs that authorized crossings and activities (other than fords) “*shall be restored to original topography and stabilized*”. Subsection 12.B directs that sites disturbed by environmental testing or monitoring activities “*be restored to original topography where practicable*”. Subsection 19 directs that temporary fills be removed and that “*affected areas [be] stabilized and returned to their pre-existing elevations*”. However, where a forested wetland or a forested stream corridor has been filled or disturbed, simply returning the area to original topography will not provide adequate restoration. At minimum, GP-8 must include a requirement that all wetlands and riparian corridors disturbed by authorized activities be restored to original “condition”, including topography, hydrology, and vegetation. Additionally, there must be a requirement to report to the Department on the condition of each restored wetland or riparian corridor at some interval (I suggest one year) following restoration, and to undertake enhanced or supplemental measures and additional monitoring if the initial restoration is found to be inadequate. Again, this is especially important in Special Protection watersheds.

Comment 17. Subsection 16 offers the feeble statement that “*No regulated activity may substantially disrupt the movement of those species of aquatic life indigenous to the watercourse, stream or body of water, including those species which normally migrate through the area.*” First, the qualifier “*substantially disrupt*” is not defined. Second, unless the project proponent is required to inventory indigenous aquatic species and those “*which normally migrate through the area*”, this condition is unlikely to be taken seriously and cannot be enforced. The same is true of Subsection 17 which states that “*Breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.*” The Department must require those who would use GP-8 to include with the General Permit registration documentation of the movements of aquatic species and of the presence or absence of any breeding areas of migratory waterfowl.

Comment 18. With budget reductions and cutbacks becoming routine, the Department consistently is being called upon to do more with less. Yet the risks to the resources that the Department is responsible for protecting and preserving are growing, not

³ GP-7 has the following additional limitations: road crossings of EV waters are not allowed, crossings are allowed only where the upstream drainage area is 1.0 square mile or less, wetland crossings cannot exceed 100 feet in length, and all wetland impacts must be mitigated.

shrinking. A fundamental problem with all General Permits is a lack of transparency -- project proponents merely register to use and abide by them on the honor system. There essentially is no technical review by the Department, only a clerical "acknowledgment" that a registration has been received. Making matters worse, there is little opportunity for review or input by the general public because notice of a General Permit registration is provided only to the Township and County where the project is located, and it is no longer published in the *Pennsylvania Bulletin* as once was the case. I recommend that GP-8 registrations, and the registrations of all other General Permits, be published in the weekly *Pennsylvania Bulletin*. The general public then would have an opportunity to know what activities are being proposed and where, can assist the Department by providing additional oversight, and can alert the Department timely when inappropriate or ineligible activities are proposed to be undertaken.

In summary, the proposed modification of GP-8 should not be approved because it expands its scope inappropriately, sets minimal or no limitations on the length or area of streams and wetlands that can be impacted "temporarily" (up to 2 years), sets no special restrictions on its use or eligibility in Special Protection (EV or HQ) waters, provides no mechanism to assure full restoration of disturbed wetlands and streams, and severely restricts transparency and public oversight.

Thank you for the opportunity to provide these comments.

Yours truly,



Stephen P. Kunz
Senior Ecologist

cc: PADEP Citizens Advisory Council
US Environmental Protection Agency (Jon Capacasa, Dir., Water Protection Div.)