Comments on Proposed Changes to Pennsylvania's Erosion & Sediment Control / Stormwater Management Regulations [25 Pa. Code CH. 102]

TO: Environmental Quality Board,
P. O. Box 8477, Harrisburg, PA 17105-8477
Email: RegComments@state.pa.us

FROM: Andrew Potts, P.E., Water Resources Engineer
225 Mechanics Alley, West Chester, PA 19382

DATE: November 30, 2009

Summary comments (first page)

As a strong proponent of natural conservation, environmental protection, and sustainable stormwater management, I support the goals of the proposed regulatory changes to strengthen and improve the consistency of Erosion and Sediment (E&S) control and post-construction stormwater management (PCSM) in Pennsylvania. However, the proposed rulemaking is somewhat ambiguous, hard-to-follow, and repetitive in places. I suggest that a clear, concise summary be prepared comparing the existing regulations with those being proposed. Other general comments include the following:

1. *D. Background and Purpose, Codification of PCSM requirements:* I support the inclusion of specific PCSM requirements and agree that PADEP has incorporated some requirements through the NPDES program over the last several years.
2. I support the inclusion of a mandatory riparian buffer for pertinent Exceptional Value (EV) waters. I further recommend that 75-foot buffers be required for all perennial streams (especially High Quality ones) with appropriate exceptions for linear projects, utility connections, access, etc.
3. While a "permit-by-rule option" may be appropriate in some cases, the procedures, requirements, and applicant benefits are unclear at this point.
4. I agree that Pennsylvania's water resources and aquatic ecosystems will benefit from the proposed changes (if clarified and revised appropriately). I also agree that the regulated community could benefit from improved consistency between different counties/municipalities.
5. Compliance costs: As currently proposed, I anticipate that costs would increase somewhat significantly particularly due to the requirements for professional construction oversight (which one could argue should be done anyway), preparation of record drawings (it is unclear how much it might cost to have design professionals "certify" as-built plans), and operation & maintenance (O&M) of both PCSM facilities and riparian buffers.
6. The proposed PCSM requirement (volume control of the 2-year storm) is very rigorous and some sites/projects will have difficulty meeting it. Clearly defined exemptions, off-site mitigation options, or alternative (still protective) standards should be included.

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Comments on specific sections

102.1. Definitions.

ABACT - it is not clear why this definition is needed or how it differs from the new definition of "nondischarge." It includes the phrase "preexisting stormwater" which doesn't appear to be defined elsewhere. In addition, it is unclear what it means to manage the "net change" in stormwater quality.

E&S Permits - defined only as a permit required for disturbance activities associated with timber, road maintenance, or oil and gas. What about all the other types of activities that trigger the need for a permit?

NPDES Permit for Stormwater Discharges, permit required for projects (i) "...with a point discharge to surface waters..." This does not appear to be how the NPDES permit program has been applied in PA and indicates that if a project does not have a point source discharge then it does not need a NPDES permit. It also seems to indicate that a project that discharges to other than surface waters (swales, the ground surface, groundwater, etc.) would not require a permit.

Nondischarge alternative - Why must they be "cost-effective?" "Preexisting" is used in this definition while "preconstruction" is used in several other places. How is nondischarge different than ABACT?

Perennial Stream - this seems to be an unusual definition and may not be consistent with other definitions from USGS, US Army Corp of Engineers, etc.

Point Source - due to the definition of NPDES Permit above, this definition is critical to determine who might require a permit. "The term does not include sheet flow...," therefore any project with less than 5 acres of disturbance could simply use a level spreader with sheet flow discharge to alleviate the need for a NPDES permit.

Riparian forest buffer - "...along surface waters..." This implies that buffers can be found around springs and seeps as they are included in the definition of Surface Waters.

Surface Waters - a fairly comprehensive definition that includes wetlands, springs, and natural seeps. The regulations should clarify which of these features would require a riparian buffer.

102.4 E&S Control requirements.

a.4. "...must include cost-effective and reasonable BMPs..." I am not sure why an applicant would be required to use "cost-effective" BMPs (perhaps for aesthetic or other reasons they might choose a more expensive BMP); "reasonable" is somewhat ambiguous.

b.1. "E & S BMPs are required... for those activities which disturb less than 5,000 square feet." Is there a lower limit that doesn't require BMPs?

b.4.iii. "Minimize soil compaction." This is only applicable to areas that are intended to remain pervious.

b.5.iv. "The volume and rate of runoff..." Under what conditions/storm events?

b.5.x. "...after each stormwater event..." Is a stormwater event defined?

b.5.xiii. "Evaluate the potential for thermal impacts..." It is not clear what an applicant must do for this. This also seems more applicable to PCSM.

b.6. As defined previously, it does not seem that "ABACT BMPs and their design standards" would be found in the PA E&S Manual.

102.5 Permit requirements.

a.1. Repeat comment: "...point source discharge to surface waters" leaves two "outs" for activities to avoid getting a permit.

102.8 PCSM requirements.

b.3, b.4, b.6, and b.7. "Minimize" and other similar words do not have much regulatory meaning.

f.2. "The types, depth, slope, locations, and limitations of the soils and geologic formations." While this information is readily available for soils, finding it for geology may be difficult.

f.4. "...net change in volume and rate of stormwater from preconstruction..." Again, under what conditions? Terminology is now "preconstruction" instead of "preexisting."

f.14. "...evaluation of potential thermal impacts..." Again, it is not clear what must be done for this.

g.1. "Analytical testing and assessment of soil, geology, ..." What does "analytical" testing of geology and soils entail?

g.2. "...or manage the net change for storms...when compared to preconstruction runoff volume and water quality." What does "manage" mean? It appears to mean that the increased volume cannot be discharged. If so, this is a very rigorous standard and there should probably be some exemptions for difficult site conditions (poor soils, high water table/bedrock, etc.). Again, I am not sure what "the net change" in water quality for storms would mean in practice. Again, the term "preconstruction" is used while the subsection immediately following uses "predevelopment" (g.2.i.).

g.3. It seems excessive to require analysis of 6 different design storm events - using the 2-, 10-, 50-, and 100-year storms should be sufficient.

g.3.i. Are there any details on the type of routing required or is that completely up to the applicant?

h. "...achieve no net change..." This says that there cannot be an increase or decrease in volume - it is difficult if not impossible in practice to exactly match "preconstruction discharges...during storm events up to and including the 2-year..." Again, "no net change" in water quality is a confusing concept. This section also includes the terms "nondischarge" and "ABACT" which are not clearly defined.

k. "A licensed professional...shall be present onsite and be responsible during critical stages..." This implies that the licensed professional has direct control over the contractors which is generally not the case. Typically we are present to observe, offer guidance, and document - not to be "responsible." This may require a significant change in contracting procedures.

l. Requiring the licensed professional to certify "Record Drawings" could be problematic. What happens if they don't? Shouldn't the contractor certify that the plans were followed? The certification language itself could also be improved: "...accurately reflect redline drawings..." What does that mean? "...the project site was constructed in [add: 'general'] accordance..."

102.14 Riparian forest buffer requirements.

a.1. While I support the requirement for a large riparian buffer for EV waters, it concerns us that absolutely no buffer would be required for many activities (i.e., those not near EV waters and those not using the permit-by-rule). I recommend that an absolute minimum buffer (perhaps 25-feet wide) be required for all streams.

a.1.i. It is unclear what must be buffered - this states that a buffer is required if the activity is located within "150 feet of a river, stream, creek, lake, pond or reservoir." However, the definition of a riparian buffer is based on "surface waters" which also includes wetlands, springs, and seeps. As written, it appears that if an activity required a buffer, then the buffer would be required for all surface waters.

b.2.i. "...must be composed of a variety of native riparian tree species." Is a list of applicable species available? "Variety" is quite subjective.

d. "Average minimum widths." - this is confusing as it may be read that these widths are required everywhere. Clarify that these apply only when riparian buffers are required.

d.2. Are there specific reasons to require a wider buffer for impaired waters? Many impaired waters are in developed areas where getting a 150-foot buffer may not be feasible for most sites. This may actually discourage buffers along impaired waters because the permit-by-rule option will not be achievable and therefore there will be little incentive to provide buffers. In urbanized areas, even getting a 50- or 75-foot buffer could be very beneficial for impaired waters.

e.2. "...invasive species have been removed or controlled to the extent possible for a period of at least 5 years." "Extent possible" is subject to considerable interpretation and 5 years is a long time. This section could therefore serve to discourage the use of riparian buffers. If an existing buffer is in good condition and is left undisturbed, is maintenance required?

e.4.i. Many of these "acceptable activities" would appear to undermine the function of the buffer. There need to be limits to them and a qualifying statement should be added: "if the functions of the overall buffer are maintained."

e.5.i. "...the disturbance of existing vegetation, tree removal, shrub removal, clearing, mowing, burning, or spraying..." These generally sound like activities that should NOT be done in the buffer. The language of this section should be strengthened and clarified.

e.5.iii. Why would scientific studies need to be approved by the Department?

f.2. How must the limits of the buffer be "clearly marked"?

102.15 Permit-by-rule

General comment - it is not clear what is exactly required to qualify for this option or what advantages it offers to applicants.

c. "...shall meet the following requirements:"

c.5. "Analysis demonstrating that the PCSM BMPs will..." This doesn't flow from section c above - do applicants have to perform the analysis? Provide it to DEP? If the latter, how is this different from a general permit? Again, this is a very rigorous standard and not all sites may be able to practically achieve it.

c.7.i. What does it mean to certify that plans are "true and correct" before they are implemented/constructed?

d.1. "...shall demonstrate that all construction and post-construction discharges will not degrade...surface waters..." How is this demonstrated? "...registrants shall utilize solely nondischarge alternative BMPs..." What does this mean? Controlling the 2-year storm is the definition of "nondischarge"- therefore this seems to be repetitive with c.5. above.

f.3. Buffers should also be designed in accordance to the PA riparian buffer manual.

f.4. "...achieve no net change..." Under what conditions?

g.4. & g.5. Reference to "outlet protection" in both sections seems out of place.

h.4. "...constructed to convey runoff..." This seems to be contrary to the other requirements of this subsection.

p. "Program Audit" - it is unclear how the Department can the audit the program as stated. How will they determine if plan certifications are correct? How can achievement of the "desired environmental results" be measured?

102.22 Site stabilization

b.1. "...where a cessation of earth disturbance activities will exceed 3 days..." This is a very short period - it should at least be "business days." This type of language could also encourage unnecessary earth disturbance activities just to avoid the need for stabilization. The language could be improved to prevent this: "when earth disturbance activities are not required for more than 3 business days..."

Chambers, Laura M.

From: Andrew Potts [andrew.potts@gmail.com]
Sent: Monday, November 30, 2009 10:44 AM
To: EP, RegComments
Subject: PROPOSED RULEMAKING - Erosion and Sediment Control and Stormwater Management

Attached please find my comments. I have included a file with one page of summary comments and a separate file containing all my comments.

Thank you,
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