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**MEMO**

INDEPENDENT REGULATORY  
REVIEW COMMISSION

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**DATE:** November 19, 2009

**SUBJECT:** Chapter 102 Proposed Rulemaking Comments

NOV 24 2009

**TO:** Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

ENVIRONMENTAL QUALITY BOARD

**FROM:** Brian G. Thompson, P.E.  
Director  
Bureau of Design

INDEPENDENT REGULATORY  
REVIEW COMMISSION

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PennDOT offers the following comments on the PROPOSED RULEMAKING for 25 PA. CODE Ch. 102, Erosion and Sediment Control and Stormwater Management as published in the Saturday, August 29, 2009 PA Bulletin. If you have any questions please contact Mr. Gary C. Fawver, P.E. of my staff at telephone number (717) 787-1024.

GENERAL PROVISIONS

I. 102.1 Definitions.

1. *Road maintenance activities* definition has not been modified. This is problematic because the current definition is too vague. PennDOT wants to ensure that the following traditional roadway maintenance projects that maintain the original footprint of the roadway are consistently included within this definition. These activities include but are not limited to the following: shaping or re-stabilizing unpaved roads; shoulder grading and repaving; slope stabilization; cutting of existing cut slopes; inlet/endwall cleaning; reshaping and cleaning drainage ditches/swales; pipe cleaning; pipe replacement; resurfacing activities including minor vertical adjustment to meet grade of resurfaced area; and other similar activities. To assure consistent application, PennDOT requests that the definition of "road maintenance activities" be revised as follows to clarify the definition by incorporating these traditional road maintenance activities and by defining "existing road cross-section":

Earth disturbance activities within the existing road cross-section such as shaping or re-stabilizing unpaved roads; shoulder grading and repaving; slope stabilization; cutting of existing cut slopes; inlet/endwall cleaning; reshaping and cleaning drainage ditches/swales; pipe cleaning; pipe replacement; resurfacing activities including minor vertical adjustment to meet grade of resurfaced area; and other similar activities. The

existing road cross-section consists of the area between the existing toes of fill slopes and tops of cut slopes on either side of the road and any associated roadway drainage features.

These proposed revisions are consistent with the federal regulations which address post-construction stormwater management. The federal regulations show a clear intent not to include maintenance activities within the scope of the NPDES permitting process. First, in defining "small construction activity", the regulations provide: "Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility." 40 C.F.R. §122.26(b)(15). Second, according to the federal regulations for post-construction stormwater management, programs must be developed and implemented to address stormwater runoff "from new development and redevelopment projects that disturb greater than or equal to one acre. . . ." 40 C.F.R. §122.34(b)(5)(i). "Redevelopment" has been defined as "alterations of a property that change the 'footprint' of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land." 64 Fed. Reg. 68760(1999). Based on the definitions of "small construction activity" and "redevelopment", the clarifications requested by PennDOT for maintenance activities are consistent with these definitions. The activities identified above would fall outside of these definitions, and therefore, would not be subject to the federal post-construction regulations.

2. PennDOT is in support of including a definition for "non-discharge alternative" for purposes of stormwater management especially in light of the recent decision by the Environmental Hearing Board in *Crum Creek Neighbors v. DEP and Pulte Homes of PA*, docket # 2007-287-L, October 22, 2009. PennDOT also supports defining the nondischarge alternative in terms of storm events up to and including the 2 year/24 hour storm. Including storms events larger than the 2 year/24 hour storm in the definition would require additional analysis which cumulatively will result in significant costs to PennDOT's program. PennDOT is requesting a slight clarification of the definition. The definition of "Nondischarge alternative" includes the phrase "preexisting stormwater" which is open to interpretation. The definition should be revised to "Environmentally sound and cost-effective BMPs that individually or collectively eliminate the net change in stormwater volume, rate, and quality for storm events up to and including the 2 year/24-hour storm when compared to the stormwater volume, rate, and quality prior to the earth disturbance activity". This clarification is consistent with Section 93.4c(b)(1)(i) which requires the consideration of non-discharge alternatives only for "new, additional, or increased discharges" to HQ and EV waters.

3. *PPC Plan* contains the phrase "security and external factors". PennDOT requests clarification on what constitutes an "external factor" and whether it is associated with security, or is it a standalone consideration. Does DEP consider "external factor" to be limited to vandalism?

4. *Riparian forest buffer* uses "forbs" which requires most readers to consult a dictionary. The DEP SWM BMP manual states riparian forest buffer is a managed area of trees, usually

accompanied by shrubs and other vegetation. PennDOT requests that “forbs” be replaced by “other vegetation”.

## II. 102.4 Erosion and sediment control requirements

5. 102.4(b)(4)(v) [page 10]; 102.8(b)(9) [page 17]; 102.11(a)(1) includes language that all earth disturbance and management of post construction stormwater shall to the extent practicable “protect, maintain, reclaim, and restore the water quality” (underline added). PennDOT would like DEP to clarify that the intent of the word “restore” will not give DEP and the conservation districts the authority to require BMPs for stormwater originating from existing impervious surfaces or to require decreases in peak rates or volumes over the pre-development conditions. For purposes of this Chapter, is restoration triggered only for surface waters determined to be impaired due to stormwater following a formal assessment process and/or for surface waters with a stormwater related TMDL? PennDOT requests that the following language be added to the end of Section 102.4(b)(4)(v), Section 102.8(b)(9), and the first sentence of Section 102.11(a)(1): “in accordance with the requirements in this Chapter.” Also, when determining whether a surface water is impaired who determines what the previous condition of the stream was, and how far back in time is reasonable to use as the baseline (or undisturbed) condition?

6. 102.4(b)(5)(iv) states the E&S Plan shall describe “The volume and rate of runoff from the project site and its upstream watershed area.” This provision should include which storm event to be described on the E&S plans. As it reads now, it also seems to indicate that stormwater runoff calculations for peak rate and volume must be provided for the E&S Plan. These types of computations belong in the PCSM Plan. PennDOT requests that this language be clarified. E&S runoff calculations should be limited to areas draining into swales or ditches, or areas draining to a storm sewer discharges that requires outlet protection.

7. 102.4(b)(5)(x) contains the phrase “completion of a written report documenting each inspection...”. For E&S during construction by contractors, the inspection diaries document the inspection, repair and maintenance of BMPs. A separate written report is not generated. PennDOT requests that the language be changed to “documentation of each inspection...”.

8. 102.4(b)(5)(xiii) requires the potential for “thermal impacts” to be evaluated as part of the E&S Plan. Potential thermal impacts during construction are negligible; it is the long-term impact of reducing base flows and removal of riparian buffer that create potential. Therefore, an evaluation of potential thermal impacts should not be a requirement of the E&S Plan. If this condition is not removed from the regulations, it should be emphasized that the evaluation is qualitative rather than quantitative. The justification is that no current studies exist that provide an empirical relationship between temporary construction activities and thermal degradation in streams. The permit application should only require a narrative identifying where the potential for thermal impacts exist and how the potential impact will be addressed. PennDOT recommends the following modification: “Provide a qualitative evaluation of the potential for thermal impacts to surface waters from the earth disturbance activity and include

BMPs to avoid, minimize, or mitigate potential pollution from thermal impacts when potential exists.”

9. 102.4(b)(6) & 102.8(h) describe the requirements for activities which may result in discharge to waters classified as High Quality or Exceptional Value. Please confirm that the SEJ provisions contained in 25 Pa. Code 93.4c(b) are still applicable.

### III. 102.5 Permit requirements

10. 102.5(e) requires preconstruction meetings unless the permittee has been notified otherwise in writing by DEP or the conservation district. Mandatory attendance for all projects at preconstruction meetings by DEP or conservation district personnel (“must attend...along with the Department or conservation district”) will overload the (DEP and conservation district) staff and cause construction contract delay claims due to scheduling conflicts. PennDOT requests that this language be changed to require that DEP and the conservation districts will be invited to the meetings, but they are not required to attend. PennDOT does not want projects delayed due to the unavailability of DEP or conservation district personnel. The following revision to the language is requested to address this comment:

(e) For earth disturbance activities authorized by a permit under this chapter, a preconstruction meeting is required unless the permittee has been notified otherwise in writing by the Department or conservation district. The Permittee(s), co-permittee(s), operator(s), and licensed professional or designee responsible for critical stages of construction must attend a preconstruction meeting. The permittee must invite the Department and conservation district to attend the preconstruction meeting and must provide reasonable notice of the preconstruction meeting. The permittee must contact the Department or conservation district at least 7 days but not more than 30 days prior to the commencement of construction.

11. 102.5(g) states that a person conducting an earth disturbance activity under a DEP permit issued under a chapter other than Chapter 92 does not need to obtain an additional E&S permit or NPDES permit for stormwater discharges associated with construction activities. PennDOT requests that this be clarified by providing the specific chapters under which such a permit would be issued. PennDOT also requests clarification on the application of this section to its projects. If a bridge replacement project requires a Chapter 105 permit does that mean that a separate E&S permit or NPDES permit is not required under the regulations? If a separate E&S or NPDES permit is required, explain the reasons for requiring the separate permit and the areas included in the permit area.

12. 102.5(i) provides that if the activity (associated with discharging dredged or fill material) requires a permit pursuant to Section 404 of the Clean Water Act, there is no need to obtain an additional E&S or NPDES permit for stormwater discharges associated with construction activities for the area of disturbance covered by the Section 404 permit. First and foremost,

PennDOT supports this provision. Second, PennDOT requests the following clarifications on the application of this section to its projects:

(a) Projects involving only the replacement of an existing bridge with incidental approach work require Section 404 permits. Would these projects not require an additional E&S or NPDES permit under this section? If these projects would require a NPDES permit, explain the reasons for requiring the separate permit and the areas included in the permit area.

(b) If an NPDES permit is not required under this section of the regulations, would a bridge crossing project in an EV watershed be required to satisfy the forested riparian buffer requirements contained in Section 102.14?

(c) For a bridge project that also involves other improvements, e.g., intersection improvements, realignment of the existing road to straighten out a road or widening of the footprint for a stretch of the roadway that includes the area of the bridge replacement, if the bridge replacement portion of the project requires a Section 404 permit, would that area of the project involving the bridge replacement and the areas incidental to the bridge replacements, e.g., the approaches, be excluded from the NPDES or E&S permit area, i.e., not included in the disturbed areas under either of these permits.

(d) If the area related to the stream crossing of a larger project located in an EV watershed is excluded from the permit area under this section, would that area be subject to the forested riparian buffer requirements contained in Section 102.14?

#### IV. 102.6 Permit application and fees

13. 102.6(a)(3). PPC plans are prepared and implemented by the contractor, and not the person proposing the activity via a permit application. Please revise this requirement so that it can be a condition of the permit rather than a permit application requirement. PennDOT suggests revising this language as follows: "Prepare and implement a PPC Plan prior to commencing earth disturbance activities when storing, using or transporting materials . . ."

14. 102.6(b) which addresses the proposed permit fees has been revised in such a way to no longer include references to other Chapters which excluded agencies of the Commonwealth from fee provisions. It appears that PennDOT would be subject to fees under the revised regulations. PennDOT requests an explicit exclusion from the fee provisions for agencies of the Commonwealth. Specifically, PennDOT requests the following revision to 102.6(b)(1): "A person except agencies of the Commonwealth submitting a permit application . . ." This revision is consistent with the fee provisions in Section 91.22. If agencies of the Commonwealth are not excepted, this could amount to a \$330,000 to \$500,000 annual impact to PennDOT.

#### V. 102.8 PCSM requirements

15. 102.8(f)(2) states that the PCSM Plan describe "...limitations of the soils and geologic formations." Soils information in the PCSM Plan should be specific to properties that affect the performance of PCSM BMPs. PennDOT requests that this section be modified to indicate which soils properties and geologic formations are to be noted.

16. 102.8(f)(8). The calculations should be limited to show satisfaction of the volume and rate requirements. As stated in DEP's BMP Manual, calculations for particulate pollutants are not required if there is no net increase in runoff volume. See Chapter 8, page 12. Therefore, DEP should continue to let its BMP Manual describe when water quality calculations are required. PennDOT requests the following revision to Section 102(f)(8): "Supporting calculations for volume and rate of runoff." Also, PennDOT requests clarification on what is needed to satisfy the "supporting calculation" requirements. Can the specifications for the BMPs included in DEP's BMP Manual be used?

17. Section 102.8 (m) requires a covenant that runs with the land regarding the operation and maintenance of the BMP be placed on the property with the BMP. For PennDOT projects, most BMPs are adjacent to the roadway and within the right-of-way. Any restrictions placed on the right-of-way could pose problems for future improvement to the roadway. PennDOT requests an exception for filing a covenant for BMPs on Commonwealth-owned property adjacent to roadways. Under the regulations, PennDOT will be required to submit an operation and maintenance plan. This plan can address the steps taken if the property with the BMP is ever transferred.

18. 102.8(f)(14) requires that the PCSM Plan include an evaluation of the thermal impacts from the post construction stormwater to surface water. The December 27, 2007 PennDOT Policy on Anti-degradation and Post Construction Stormwater Management on page 13-33 lists seven strategies to reduce potential thermal impacts (i.e. limit the use of curbing). The December 27, 2007 Policy also provides that in most cases, a narrative discussing the BMPs located between the impervious surface and surface water will be sufficient. PennDOT requests that DEP confirm that if PennDOT is in compliance with the December 27, 2007 Policy, additional evaluation will not be necessary. PennDOT also requests that DEP clarify that calculations related to thermal impacts are not required under this section.

19. 102.8(g)(1) & (2) requires "[a]nalytical testing and assessment of soils, geology, and other predevelopment characteristics including infiltration and geotechnical studies...". PennDOT has concerns about having to do analytical testing for all projects, e.g., bridge replacement over water < 200' on new alignment; bridge replacement over water > 200' long on ex. alignment with > 25% over land (e.g., viaduct bridges); bridge replacement over land; increase width of travel lanes or shoulders; extension of acceleration/deceleration ramps in shoulder areas; intersection improvements (e.g., channelization, addition of turning lanes); improve horizontal or vertical alignment; and new pull-off areas. This would increase the design and construction costs of our projects. PennDOT requests that the language be revised as follows: "analytical testing, assessment, or other data on soils, geology, and other predevelopment characteristics which may include infiltration and geotechnical studies. . ."

20. Section 102.8(g)(2)(i) addresses the cover type for non-forested pervious areas. For purposes of calculations, the cover type for PennDOT projects should be the existing cover type and not automatically meadow in good condition. PennDOT would be severely

penalized for pervious areas within its existing right-of way that are not meadow in good condition which would result in increased project costs. PennDOT requests that the following exception be added to this section also: "except for repair, reconstruction, or restoration of roadways or utility infrastructure when the site will be returned to existing function."

21. Section 102.8(g)(2)(ii) requires that when the project site contains impervious area, 20% of the existing impervious area to be disturbed must be considered meadow when calculating the predevelopment runoff volume. The revisions do include an exception for the repair, reconstruction, or restoration of roadways when the site will be returned to existing condition. When applying this exception to projects involving the addition of impervious surfaces, PennDOT requests clarification that the existing impervious surfaces associated with the roadway will not be subject to the 20% meadow requirement even when the existing roadway will be repaved or repaired. This clarification could be achieved by changing "existing condition" to "existing function" as described above. PennDOT is also seeking verification that the following cover types would be considered impervious: previously constructed embankments, drainage slopes, and unpaved shoulders.

22. Section 102.8(g)(3) requires that post-construction peak rates must be demonstrated to be no greater than pre-construction peak rates for the 2-, 5-, 10-, 25-, 50-, and 100-year/24-hour storm events or they must be consistent with an approved and current Act 167 plan. This standard is different from the DEP BMP Manual in that the 24-hour storm event is to be analyzed. This means that a full hydrograph procedure must be used to produce pre- and post-peak rates, thus eliminating the Rational method and TR-55 graphical method. Analysis of a 24-hour storm event should only be necessary when hydrograph routing is needed (e.g., BMPs with storage, combination of multiple sub-areas).

23. In general, PennDOT has concerns about the applicability of the December 2007 Antidegradation Policy given the proposed regulations. Specifically, are the stormwater standards contained in its Post Construction Policy (Publication 584, Chapter 14, pages 14-6 through 14-7) for bridge replacement over water < 200' on new alignment; bridge replacement over water > 200' long on existing alignment with > 25% over land (e.g., viaduct bridges); bridge replacement over land; increase width of travel lanes or shoulders; extension of acceleration/deceleration ramps in shoulder areas; intersection improvements (e.g., channelization, addition of turning lanes); improve horizontal or vertical alignment; and new pull-off areas in compliance with Section 102.8(g). These projects involve minor addition of impervious area relative to existing conditions and do not generally change the direction of runoff or the potential for pollutants in the runoff. PennDOT is currently using the standards contained in Pennsylvania Stormwater Best Management Practices Manual for Control Guideline 2. PennDOT is requesting the inclusion of the standards for Control Guideline 2 in regulations as an option for these types of projects. These types of projects make-up a significant percentage of PennDOT's program. Increased requirements and studies for these types of projects will significantly increase project costs which will in turn eliminate funding for other needed projects.

24. PennDOT requests the addition of a public health and safety exception to Section 102.8 to cover instances when standards may not be satisfied due to health, safety, and welfare issues, such as road stability issues in karst areas. PennDOT requests the addition of a subsection that reads:

“(o) The Department will not grant a permit under this Chapter which does not satisfy the applicable standards set forth in Sections 102.8 and 102.14 unless the applicant affirmatively demonstrates and the Department finds in writing that a project is necessary to abate a substantial threat to the public health or safety.”

#### EROSION AND SEDIMENT CONTROL AND POST CONSTRUCTION STORMWATER MANAGEMENT BMPs

##### VI. 102.14 Riparian forest buffer requirements

25. 102.14(a)(1)(i) & 102.14(a)(2) describe when riparian forest buffers will be required. PennDOT requests clarification on the following issues:

- Is Section 102.14 applicable only if the earth disturbance activity requires a NPDES permit?
- If only a Chapter 105 permit is required, does Section 102.14(a)(2) provide the Chapter 105 permit program with the authority to require forested riparian buffers? If so, please explain under what circumstances.
- Will PennDOT be required to increase the length of bridges, which are adequately designed hydraulically in order to accommodate a new buffer area?
- If a project located in an EV watershed abuts a stream for a mile and approximately 0.25 miles of roadway work will involve significant disturbance, would the buffer be applied from one end of the project to the other or only in the vicinity of the earth disturbance?

26. 102.14(a)(1) & (2) states that a riparian forest buffer must be incorporated “within the project boundaries”. There will be project locations where the establishment of a riparian buffer within the project limits will not be feasible. Project limits within densely developed EV watersheds and those located adjacent to EV streams in the centers of rural villages are two such examples. PennDOT recommends revising this to allow for the option of constructing a riparian buffer along sections of the stream or its tributaries that may have a greater need, but may not be within the project boundaries. Additionally, the rule should allow for riparian mitigation banking and in-lieu-fee programs.

27. PennDOT requests the inclusion of a public health and safety exception to the buffer requirement. PennDOT’s compliance with the buffer requirements contained in Section 102.14 can result in public safety issues. For example, Compliance with Section 102.14(a)(4), (5), and (6) may require planting trees. Planting trees close to a stream can result in changing the hydraulic characteristics of the stream over time and become a source of large flood



debris. PennDOT requests that the public health and safety exception be added to Section 102.8. See previous comment 24.

28. 102.14(b)(2)(i) requires that newly established buffers have undisturbed trees in Zone 1. Many times, the adjacent floodplain is not currently forested. Also, this can dramatically change the hydraulic characteristics of a stream and increase the potential for flooding at adjacent properties due to higher n-values (as the trees mature) as well as create a source of large flood debris (floating trees).

29. 102.14(a)(8) states that a riparian forest buffer management plan must be prepared and submitted with the PCSM Plan. PennDOT requests clarification from DEP on what constitutes an acceptable plan.

30. 102.14(d)(1-3) requires minimum riparian buffer widths be 100 feet along all rivers, perennial and intermittent streams (both sides), lakes, ponds or reservoirs; 150 feet along impaired waters; 150 feet long HQ and EV waters. Due to property ownership and rights issues as well as costs, this is not possible by PennDOT. PennDOT requests that Commonwealth properties be explicitly excluded from this requirement.

31. 102.14(e) specifies a timeframe of "at least 5 years" for the post-construction management/monitoring of established buffers. No timeframe for management is placed on existing buffers and it seems as though this might be intended to continue in perpetuity. This open ended "management" requirement could result in Department led management and monitoring activities for significant acreages of land scattered across many locations. OCC comment (2) to the Draft Riparian Forest Guidance addresses a similar issue within the Guidance. This additional burden on the Department might be manageable if riparian forest buffers are banked resulting in fewer locations to be managed.

32. 102.14(e)(4) allows construction of roads and bridges in a riparian forest buffer "when permitted by the Department". It is unclear if this is referring to a Chapter 105 permit or whether it simply means "when allowed by the Department". PennDOT requests that DEP clarify this.

33. 102.14(f)(1) requires buffers be protected in perpetuity. Any restrictions placed on property adjacent to a PennDOT bridge could pose problems for future improvements to the roadway. If the land between the disturbed area and the adjacent stream does not belong to the PennDOT, it is unclear if PennDOT would be forced to acquire the land or purchase some type of conservation easement from the property owner. PennDOT requests an exclusion be added for Commonwealth-owned projects.

#### VII. 102.15 Permit-by-rule for low impact projects with riparian forest buffers

34. 102.15(b)(2)(iii) states that permit-by-rule cannot be used in wetlands or floodplains unless for access and utilities and permitted under Chapters 105 or 106. PennDOT requests

clarification whether this mean that if the project encroaches upon a wetland (temporary or permanent) or a floodplain for any reason other than "access and utilities" the permit-by-rule cannot be used. And then even if the purpose is access or utilities, must it also be authorized by a Chapter 105 and/or 106 permit?

35. 102.15(c)(5)(ii) includes the same meadow requirement as set forth in Section 102.8(g)(2)(i).

102.15(c)(6)(i) includes the same hydrologic routing analysis for peak rate of discharges required in Section 102.8(g).

36. 102.15(c)(1)(ii) refers to a presubmission meeting checklist. Please provide the presubmission meeting checklist form for PennDOT's review.

37. 102.15(c)(5)(ii) requires 20% meadow requirements for existing sites. This should read returned to "existing function", not existing condition.

38. 102.15(c)(5)(ii) requires 20% meadow requirements for existing sites. PennDOT requests clarification that this requirement would not be applicable to PennDOT, especially on long linear projects.

39. 102.15(d)(1) states that permit-by-rule registrants may not utilize the SEJ process. PennDOT requests clarification that the SEJ process is allowed for other permit types.

40. 102.15(f) requires the registrant to develop the PPC plan. This is inappropriate for construction contract jobs in that PennDOT does not control the contractors' use of fuels, etc.

#### VIII. 102.22 Site stabilization (formerly Permanent stabilization)

41. 102.22(b) defines the term "temporary stabilization" as follows: "Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 3 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities." It would probably not be cost effective to seed and mulch a large disturbed area if it were not worked on for 3 days. PennDOT could have some extremely large areas that would not be worked on for 3 days. This is a short time period and may be excessive during the summer months, which is the height of construction activities. In addition, the 3-day limit would encompass every holiday weekend. PennDOT requests that the definition be amended to read, "will exceed 3 days from September through May and 5 days from June through August...".

#### IX. Grammar and Wording Items (some of which are critical):

42. The definition of *Diversion* should be revised to delete the work “off-site”. The purpose of a diversion is to divert any clean runoff away from the disturbed area regardless of whether that runoff is from onsite or offsite.

43. The definition of *E&S Plan* should be limited to before and during earth disturbance activities. Including the requirement of after earth disturbance activities makes the E&S Plan duplicative of what is required in the PCSM. This is particularly important since there will now be a PCSM Plan and 102.8(d) requires that the PCSM Plan be separate from the E&S Plan.

44. The definition of *NPDES Permit for Stormwater Discharges Associated with Construction Activities* should be reworded to make it clearer. Break it into two sentences or bullets – one for each situation. Also, reword (i) and (ii) to say “plan of sale or development” to make it more clear to the lay reader.

45. The definition of *Top of streambank* should read edge of the bank, not edge of the bed. The channel bed normally refers to that portion roughly parallel to the ground, and the first substantial break at the edge of bed would be the bottom of streambank, not the top of streambank.

46. 102(a)(5) should be reworded and scrutinized, particularly “...roads and crossroads, and BMPs; soils maps; and ....”

47. 102.4(b)(5)(xv) should read riparian forest buffer, and not forest riparian buffer.

48. 102.5(a)(1) should be reworded to read “plan of sale or development”

49. 102.8(b)(5) should be revised to read “Maximize the protection of existing natural drainage features and existing vegetation” (underline added for emphasis only)

50. 102.8 (f) states “The PCSM Plan must contain drawings and narrative requirements as described within this chapter...” should be revised to, “The PCSM Plan must contain drawings and a narrative per the requirements described within this chapter...”

51. 102.8(f)(4) states that the stormwater volume and rate changes be identified “for the entire project site and each drainage area”. This should be restated to read, “...for the entire project site and each drainage area within the site boundaries.”

52. 102.8(k) should be rewritten. Grammatically, it is not well structured.

53. 102.8(l) contains the language “...accurately reflect the redline drawings” which should be revised to “accurately reflect as-built conditions” or “accurately reflect field modifications”.

54. 102.15(c)(1)(i) should capitalize “usgs”.
55. 102.14(a)(2) should actually be (a)(1)(iii), or the word “or” should be removed from (a)(1)(ii).
56. 102.15(b)(2)(i)(C) should read “15% or greater...”.
57. 102.15(c)(1) The acronym “ROC” is used here, but has not been defined up to this point
58. 102.15(b)(2)(iii) has a part in parentheses referring to Chapters 105 and 106 of the PA Code. Therefore, strike “National Pollutant Discharge Elimination System permitting, monitoring and compliance,” and replace with “water obstruction and encroachments.”
59. 102.15(c)(11) should be revised to “...conservation district at least 3 days prior to critical stages...”.
60. 102.15(m) has the acronym ROC which is previously referring to Registration of Coverage. However, here it seems to mean Renewal of Coverage. This should be clarified.

GCF/rlr/4300

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