



January 26, 2021

Secretary Patrick McDonnell  
Pennsylvania Department of Environmental Protection  
Policy Office  
Rachel Carson State Office Building  
16th Floor  
400 Market Street  
Harrisburg, PA 17101-230

*Submitted via eComment website*

Dear Secretary McDonnell:

Subject: Proposed Rulemaking to Amend Chapter 105 Dam Safety and Waterway Management  
Public Comments

We appreciate the opportunity to provide comments on Proposed Rulemaking to amend Chapter 105 Dam Safety and Waterway Management issued on December 5, 2020. These comments are respectfully submitted on behalf of Civil & Environmental Consultants, Inc., (CEC), an environmental and engineering consulting firm headquartered in Pittsburgh, Pennsylvania, that has been dedicated for over 30 years to assisting the regulated community with compliance. The address of the CEC Pittsburgh office is 333 Baldwin Road, Pittsburgh, PA 15205.

## 1.0 COMMENTS

COMMENT 1: The term “geomorphic stability” added at § 105.2(4) *Purposes* and § 105.161(a)3. *Hydraulic Capacity* for culverts and bridges is not defined in Chapter 105. Geomorphic stability is a relative concept based on a continuum. Many streams in Pennsylvania do not maintain an equilibrium state of geomorphic stability; channel patterns, profiles, and dimensions are dynamic and subject to a certain degree of natural stochasticity. Adding a design standard for culverts and bridges at § 105.161(a)(3) that “The structure may not materially alter the natural regimen and the geomorphic stability of the stream” is problematic, because any change for better or worse in a dynamic channel could “alter” geomorphic stability. We suggest revising § 105.161(a)(3) to read that “The structure may not degrade the natural regimen and the geomorphic stability of the stream.” Consider if this addition is necessary since it is duplicative with § 105.161(a)(1) “The structure shall pass flood flows without loss of stability.” Loss of stability is traditionally evaluated by hydroengineering analysis of peak flows and material resistance (shear stresses) to erosive velocities. If the intention is to require structures that align with the natural channel regimen, then state this instead, rather than use of a nebulous term like geomorphic stability. If this term is added as a design standard, then reference quantifiable ways to measure degradation, such as width/depth ratios, entrenchment, and sinuosity so that permit applicants and reviewers have a consistent method of assessing whether a structure is geomorphically stable.

COMMENT 2: The addition at § 105.446(e) that “The Department will periodically review issued general permits for adequacy and make necessary revisions, updates or revocation of a general

permit, when necessary or appropriate” is a very prudent goal. We suggest that “periodically” should refer to a review every five years timed to coordinate with Pennsylvania State Programmatic General Permit (PASPGP) re-authorizations. The General Permit reviews should attempt more consistency between federal Nationwide Permits (NWP). It would also be helpful if the General Permit conditions more clearly referenced the design standards in Chapter 105, so that projects with routine minor impacts are not deemed ineligible for insignificant factors—resulting in Joint Permit Applications simply because an impact does not precisely fit a General Permit condition not codified in Chapter 105.

Additionally, can the Department explain what process would be followed to revise the conditions of general permits? That is, would proposed revisions be conducted through an iterative public comment process such as proscribed in §105.446 for new general permits, or would it be conducted through closed internal technical workgroups?

COMMENT 3: Regarding § 105.12(2) *Waiver of permit requirements*: Clarification of Waiver 2 is desperately needed so that claims are more consistently reviewed throughout the Commonwealth. Please clarify:

- a) Would the revised language categorically prohibit placement of fill in the assumed floodway of headwater streams, unless the fill was shown to “not impede flow or aquatic life passage”?
- b) Is the standard for “will not impede flow” based on 105.201 *Hydraulic Capacity*: designed and constructed to pass the flows from a flood of 100-year frequency, with no more than a 1.0-foot increase in the 100-year water surface elevation over the water surface elevation? If not, please clarify what the design standard is to validate a claim based on this term.
- c) Does the “impede flow or aquatic life passage” refer to temporary as well as permanent flow conditions? For example, if temporary dewatering by pump-around diversion were proposed in order to install an appropriately designed culvert in a Waiver 2 setting, would the culvert still be eligible? If yes, please add “permanently impede flow or aquatic life passage” to the revisions.
- d) Does “aquatic life passage” refer to just fish, or also macroinvertebrates? If both, is embedding a culvert sufficient treatment to not impeding macroinvertebrate passage?
- e) Are Waiver 2 claims required to be reviewed by DEP, or is it only “upon complaint or investigation” that DEP review is necessary?

Please consider allowing minor or temporary obstructions or encroachments to remain under Waiver 2 under certain conditions other than “impede flow or aquatic life passage”, such as if pursuant to a plan which has been approved, in writing, by the Department—such as through a Chapter 102 stormwater plan. There may be situations where it is not possible to prove conclusively that slight alterations of the pre-construction topography of a channel origin will not impede flow because such a small topographic change (or change to the ground surface for slope stabilization) is beyond the scale for which conventional hydrologic analysis can resolve. However, unless these

activities are allowed to proceed under GP-3 for Bank Protection or Small Project Permits, they would be funneled into Joint Permit Applications.

COMMENT 4: Regarding § 105.12(3) “An aerial crossing ... does not apply to the maintenance and construction of towers, single poles with concrete foundations or pilings, roads or other water obstructions or encroachments.” It would be helpful to clarify that Waiver 3 applies to poles located in regulated waters, not just the aerial crossings. Please consider expanding the use of this waiver for H-frame wooden structures if no foundations or pilings are needed.

COMMENT 5: Regarding § 105.13(viii)(A) Alternatives Analysis: “The level of detail required must be commensurate with the anticipated environmental impact.” The idea that more extensive impacts require more detailed applications is commonly understood, but would it be more appropriate to put this statement into technical guidance documents? The term “commensurate” is inherently subjective unless it can be defined by measureable criteria such as the number of alternatives presented per unit of impact. It may be helpful to align language and definitions with those used for Clean Water Act Section 401 CFR Part 230 Section 404(b)(1) for consistency.

COMMENT 6: Regarding § 105.13(xiii) Cumulative impact analysis: Please verify that this section is applicable only to proposed wetland impacts and would not apply for a proposed stream impact.

COMMENT 7: Regarding § 105.13(xiii) Cumulative impact analysis: Can the term “projectwide” and “available resources” be defined or clarified?

COMMENT 8: Regarding § 105.13(xiii) Cumulative impact analysis: “The applicant must demonstrate that the proposed project, along with other potential or existing dams, water obstructions or encroachments, does not result in impairment of the Commonwealth’s wetland resources...” This requirement seems to muddle §105.18b(1) that requires that “The project will not have a significant adverse impact on the wetland.” Please clarify how an applicant could meet an open-ended requirement like analyzing “other potential” dams, obstructions, or encroachments. Also, the requirement of “does not result in impairment” appears more stringent than “will not have a significant adverse impact”—clarify if the intent is to supersede §105.18b(1), or revise to make equivalent.

COMMENT 9: § 105.13e(1)(viii)(E) Alternatives Analysis: “A dam, water obstruction or encroachment must be designed, constructed, operated and maintained to assure adequacy and compliance with this chapter, taking into account reasonably foreseeable development within the watershed.” This may be an ambiguous standard for applications to meet and appears to be redundant with section D that requires analysis “within the affected wetland, wetland complex, or watercourse upstream and immediately downstream.” Is the intention for the applicant to submit a plan for construction, operation, and maintenance other than the site plan, such as the *Repair, Rehabilitation, and Restorative Actions* narrative in the EA Form?

Also, please reconsider the terms “reasonably foreseeable future development within the watershed” as a standard for permit applications. Or, provide guidance on how this should be interpreted for minor impacts. Some Joint Permit Applications are to authorize minor impacts not eligible for General Permit registrations. While it makes sense to require watershed-scale analysis for watershed-scale impacts, a commensurate scope for a localized impact may be within the

wetland or stream reach, not within the watershed. Conversely, “watershed” is not a precise geographic unit—if a project was proposed along a large river, would the applicant be required to analyze development trends within the entire river basin?

Please consider referencing the federal definitions of “reasonably foreseeable” (43 CFR § 46.30 or 40 CFR §1502.22) cited in the National Environmental Policy Act in regards to future impacts and alternatives analysis. These definitions limit analysis to that which has “reasonably close causal relationship to the proposed action”, is technically feasible, not exorbitant in costs, not highly speculative or indefinite, etc. Federal rules also limit the analysis necessary for effects from factors over which they have no control or effects that would occur regardless of the proposed action. According to the federal Council on Environmental Quality (CEQ), these definitions are intended to eliminate extraneous analysis of effects that are remote in time or in geography or which would happen regardless of the proposed action.

COMMENT 10: § 105.20e(3)(d)(1)(ii): Compensation factors. Please provide a definition of “indirect impacts.” The federal Clean Water Act Nationwide Permit document defines “Indirect effects” as *Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.* It would be helpful to align to this definition if appropriate.

COMMENT 11: Regarding §105.12(18): Can the term “low impact” be defined? The federal Clean Water Act Nationwide Permit 43 for Stormwater Management Facilities provides a definition of “*low impact development integrated management features such as bioretention facilities (e.g., rain gardens), vegetated filter strips, grassed swales, and infiltration trenches; and the construction of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters to meet reduction targets established under Total Daily Maximum Loads set under the Clean Water Act.*” Is this the intended definition?

COMMENT 12: Regarding §105.12 (22): Can the Department clarify if the waiver for “placement, maintenance and removal of temporary mats and pads used for minimizing erosion and sedimentation at a wetland crossing” would cover timber mats placed in a wetland for equipment access? Is there an expectation of how long the mats could remain under this waiver? Please consider whether this waiver would be appropriate for temporary air-bridging of small stream crossings too.

COMMENT 13: Has the revised language regarding alternative analysis and compensatory mitigation been reviewed for consistency with federal Clean Water Act regulations? State rules should mirror federal rules where possible to avoid confusion under the Pennsylvania programmatic general permits.

COMMENT 14: Providing a definition of temporary and permanent impacts/disturbances would help clarify registration fee calculations under §105.13.

COMMENT 15: Regarding §105.14(b)(1) Potential threats to [life or] life, property or the environment created by the dam, water obstruction or encroachment: can the Department clarify what the criteria is for determining whether a project poses a threat to the environment?

COMMENT 16: The prescriptive language added codifying application requirements for Environmental Assessments at § 105.15 and Wetland Replacement Criteria at § 105.20a is similar but not identical to that drafted in Environmental Assessment Form Instructions (3150-PM-BWEW0017) and Technical Guidance for the Draft Compensatory Mitigation Protocol (310-2137-001). It would be helpful to resolve differences in the terminology used, or simply revise the instructions and protocol instead of the code. Please explain if the instructions and protocol are planned to be revised and reissued to match the final amendments; and if not, will the codified language supersede previously issued guidance documents?

COMMENT 17: Regarding the addition of §105.12 Waiver 17 for “construction and maintenance of a streambank fencing conservation practice associated with crop production.” We suggest deletion of the phrase “associated with crop production” so that streambank fencing for livestock, deer management, and other beneficial projects would be covered by this waiver.

COMMENT 18: Regarding the addition of §105.12 Waiver 20 for “temporary emergency placement, operation and maintenance of a water obstruction or encroachment for water withdrawal related to crop production or fire protection.” Please consider granting a similar waiver for purposes other than crop production or fire protection. Or condition the use of a general (non-use specific) waiver based on best management practices such as accomplished without disturbance to streams or wetlands and properly screened to avoid impacts to aquatic life. This change would reserve GP-4 Intakes and Outfalls for structures that are permanent or have significant environmental impacts.

COMMENT 19: Regarding the addition of §105.12 Waiver 21 for “the construction, operation or removal of temporary environmental testing, monitoring activities, or investigative activities of a temporary nature.” This is a prudent and useful addition to the waivers, but consider specifying what best management practices are needed, similar to that outlined for Clean Water Act Nationwide Permit 6 Survey Activities: *“The area in which the exploratory trench is dug must be restored to its pre-construction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. This NWP authorizes the construction of temporary pads, provided the discharge does not exceed 1/10-acre in waters of the U.S.”*

COMMENT 20: Regarding the revision at §105.401(5) requiring applicants to identify all public water supply wells within one mile radial distance of proposed project boundaries, please consider 1) whether these data are readily available to a typical applicant, and 2) whether this requirement should apply to ALL 105 applications or only those as specified in the application instructions (such as the current situation with certain General Permit Registrations like GP-4). We are not aware of any readily available database or map that identifies the location of public water supply wells. Basic reference information is available through the USEPA Safe Drinking Water Information System (SDWIS) and PA Groundwater Information System (PAGWIS), but applicants might have to contact water systems to inquire about the location of intakes and service area and be authorized for release of that information. An alternative might be to require that applicants identify if a project is within a source water protection area (data which if released may not pose public safety concerns). Or, the PADEP should add public water wells to the Water Resources (WR) Groundwater or Surface Water Withdrawal layers available on eMap or the Environmental Site Assessment Search Tool to enable an applicant to obtain these data.



Also, please clarify if “public water supply wells” includes surface water intakes, and if it includes private systems that are registered as “Public Water Systems (PWSs)” by the USEPA because they provide at least 15 service connections or serves at least 25 people for at least 60 days of the year; or, only Community Water Systems (CWSs) that are year-round public water systems such as municipal water authorities.

COMMENT 21: Regarding the revision at § 105.401(5) requiring “a demonstration that the dredged or fill material is uncontaminated, nonwater-soluble, nondecomposable, inert solid material,” is it the Department’s intention to require evidence that all dredged native backfill or imported fill into Waters of the Commonwealth be specifically verified to be “uncontaminated” regardless of whether sampling/testing is warranted based on due diligence reviews or observation of toxicity characteristics? If yes, this would introduce a more stringent criteria than the Management of Fill Policy that only requires sampling and analysis (‘toxicity characteristic evaluation’) when environmental due diligence indicates that the fill may have been affected by a release of a regulated substance. Would this effectively mean that all dredge and fill material in waters be somehow certified as clean fill?

Also, please clarify what would be acceptable as a “demonstration” satisfying this requirement—for example, would a statement that there is no known contamination be adequate without professional reporting or is the Department expecting a formal process of due diligence review, such as Phase 1 Environmental Site Assessment?

COMMENT 22: Regarding the revisions at §105.13a(2)b and §105.13e(4) that changes the incompleteness review response time from 60 days to “a specified period,” please clarify if the Standard Operating Procedures or Permit Decision Guarantee Policy will be updated to stipulate a minimum time frame for applicants to respond. Not citing a minimum time frame could result in inconsistent and subjective requests that may not always reflect a reasonable assessment of the level of effort involved in providing adequate response to reviewer comments by an applicant during the frequent back-and-forth information sharing. Considering the consequences of not meeting this deadline (voiding the application as a ‘withdrawal’ without fee refund), and the limited extension approval process, specifying a minimum time frame would improve regulatory certainty and ensure fairness in the review process. It is not uncommon for written data requests and comment letters to not be received by all interested parties (consultants, contractors, etc.) until a week or longer after the issue date, accounting for busy schedules and imperfect communication delays, and it would be counter-productive to the stated goal of efficient use of Department resources if an application had to be resubmitted after months of effort simply due to the lapse of a week or two. Fifteen business days might be a reasonable minimum timeframe to avoid a rushing a low quality response to a reviewer comment.

COMMENT 23: Regarding the revisions at §105.13e(1) that states that (e) An application for or a registration of a permit must be accompanied by the following information” and then (1) “a permit application for a water obstruction or encroachment...must include the following information”: it appears that some of the codified content listed here is not included in the General Permit Registration Instructions (3150-PM-BWEW0500) and presumably only applies to Joint Permit Applications—such as Alternatives Analysis, Stormwater/Floodplain Management Consistency, Impacts Analysis. Should mention of ‘registration’ be deleted, or can the Department clarify if the

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codified list of requirement supercedes the requirements outlined in the General Permit Registration Instructions. That is, is this section only applicable to Joint Permit Applications, not General Permit Registrations?

Since the General Permit Registration content has been standardized in recent years, it may be helpful to codify the minimum requirements under §105.446 *Procedure for issuance* to avoid confusion with the aforementioned section.

COMMENT 24: The revision at §105.1 to the definition of *Stormwater management facilities* is helpful to articulate that abandoned facilities induce stream/wetland formation thereby reverting to jurisdictional under Chapter 105. However, can the Department provide general guidance to define what would reasonably constitute “swales or ditches that have not been maintained.” For example, in the absence of written maintenance plans approved under a Chapter 102 permit, is there a general time frame or salient characteristic that could be used to evaluate whether a ditch has developed into a watercourse? Please take into consideration that some stormwater facilities, such as conveyance channels and rock-lined ditches, are often designed to require minimal maintenance—and are not abandoned even if they accumulated sediment, vegetate with hydrophytic plants, or concentrate runoff in ways similar to natural wetlands or streams. It may be counter-productive and cost-prohibitive to require aggressive maintenance such as herbicide spraying or dredging solely to preempt Chapter 105 jurisdictional claims in such situations.

## 2.0 CLOSING

Thank you for your consideration of these comments and suggestions. Please feel free to contact us at the below email for further clarification as needed.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



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