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February 3, 2021

***Via Electronic Submission: [RegComments@pa.gov](mailto:RegComments@pa.gov)***

The Honorable Patrick McDonnell, Chairman  
Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

**Re: Comments on Proposed Rulemaking, 25 Pa. Code Ch. 105, Dam Safety and Waterway Management, 50 Pa. Bulletin 6863 (December 5, 2020)**

Dear Secretary McDonnell and Members of the Environmental Quality Board:

Pennsylvania-American Water Company (“**PAWC**”) welcomes this opportunity to provide comments on the proposed rulemaking encompassing amendments to the 25 Pa. Code Ch. 105 rules governing dams, water obstructions and encroachments. We believe that our company’s deep and broad experience in the field of water and wastewater services, including the construction, operation and management of a wide range of water-related projects and activities involving water bodies across the Commonwealth, provides significant insights and important perspectives concerning a number of the issues encompassed within these proposed rule amendments.

For members of the Environmental Quality Board (“**EQB**”) who might not be familiar with us, PAWC is a subsidiary of American Water (NYSE: AWK), and is the largest investor-owned water and wastewater utility in the Commonwealth. With approximately 1,100 dedicated Pennsylvania employees, PAWC provides high-quality and reliable water and/or wastewater services to approximately 2.4 million people in systems across the entire breadth of Pennsylvania.

As a company whose core is water, PAWC owns, operates and maintains literally thousands of structures and projects which involve works and activities in, along, and across streams and other water bodies. These include 52 regulated dams and reservoirs, 30 of which are classified by the Ch. 105 rules as high hazard dams due to their size and proximity to downstream population centers. Our operations also include a myriad of water intakes and weirs, outfall structures, pipeline crossings, other utility line installations, road culverts and other structures categorized as “water obstructions” and “encroachments.”



PAWC has a consistent history of complying with, and in many cases surpassing, the standards set by environmental laws and regulations. In fact, this is the foundation on which we build our environmental performance. We strive to not just meet, but exceed the environmental expectations of our stakeholders and establish new benchmarks by which others in our industry will be measured. Our commitment to the environment extends into the heart of who we are as stewards of the communities we serve.

It is with this perspective that we respectfully offer the following comments on the proposed amendments to 25 Pa. Code Chapter 105.

1. **Permit Waivers, §105.12**

When the Dam Safety and Encroachments Act was enacted in 1978, the General Assembly specifically embraced and included the concept of permit waivers to allow for waiver of permits for those categories of dams, water obstructions and encroachments determined to have an “insignificant effect upon safety and protection of life, health, property and the environment.” 32 P.S. §693.7(a). Recognizing the inherent limitations of agency staffs and budgets, the waiver concept was designed to allow the Department to focus upon those structures and activities that have significant effects. The key purpose of waivers is to avoid time-consuming paperwork and consumption of limited agency staff time for many small, minor, low impact projects. Based on our experience, the long-standing set of permit waivers reflected in the current version of Chapter 105 has served well in addressing those objectives.

Our concern is that the new formulations contained in the proposed amendments to §105.12 add complexity and additional submission requirements that undermine the original streamlining objectives of the permit waiver program. In this regard, we share the concerns and join in the comments submitted by the Pennsylvania Chamber of Business and Industry (“**PA Chamber**”), and would highlight several points that are relevant to facilities that we operate and maintain.

***(a) Dam, obstruction and encroachment removal***

Obviously, as a water and wastewater utility we are involved in the removal and decommissioning of facilities that are no longer used and useful. The current §105.12(a)(11) provides a permit waiver to allow such removal work to proceed without the encumbrance of submitting a permit application.

However, in this proposed rulemaking, changes to §105.12(a) (11) would require in all cases that a person using the waiver for dam, water obstruction or encroachment removal submit an “environmental assessment” form under §105.15. That form, even for “small projects,” involves the compilation and discussion of substantial information. The scope and breadth of this additional requirement should be reconsidered. Consideration should be given as to when such a submission should be required, particularly if the Department wants to encourage owners to remove no-longer useful structures. Ironically, the current language would inhibit the removal of a wide range of structures whose construction and maintenance are subject to other waivers – such as those covered by waivers for small dams ((a)(1)), small drainage area structures ((a)(2)), and areal crossings ((a)(3)). It seems difficult to justify that where a waiver is provided for construction or maintenance of a particular project (thus obviating the need for applications or information submission prior to construction), the removal of that structure would be hindered by a requirement to submit extensive EA information.

**(b) Eligibility Criteria**

The new language of §105.12(c) imposes additional criteria governing the eligibility of projects for use of the enumerated waivers. While we understand the rationale behind some of the new criteria (such as the exclusion for structures in areas serving as the habitat of threatened or endangered species), we question some of the other new limitations.

For example, the new blanket exclusions for structures or activities located in areas identified as a state and local historical places are questionable. If someone wants to remove an intake or outfall pipe that lies within a historical site (where the intake or outfall itself is not the historical feature), why should the waiver for structure removal be barred? A more nuanced approach should be considered. If a project owner provides notice to and obtains a concurrence from the Historic and Museum Commission or the political subdivision that designated a local historical site that the proposed structure or activity would not impact the historical or archeological resource or that such impact has been mitigated, these waivers should continue to be applicable. In short, the rules should not on a blanket basis shift otherwise waiver eligible projects to the Ch. 105 individual permit program unless there is a real objection that the proposed waiver eligible activity will adversely impact protected cultural resources.

**(c) Submerged Lands of the Commonwealth Exclusion**

Not surprisingly, water and wastewater utilities such as PAWC have a variety of facilities (particularly intakes and outfalls) that are located in or adjacent to navigable rivers or “public highway” streams. And a large number of these facilities are covered by existing waivers. However, the proposed new §105.12(c)(1) would for the first time exclude from permit waivers any project located in submerged lands of the Commonwealth.

This categorical exclusion is unwarranted. Section 7 of the Act, 32 P.S. §693.7(a), authorizes the EQB to waive permit requirements for any insignificant project, irrespective of whether it is located in, under or above submerged lands of the Commonwealth or not. If a project is sufficiently small and insignificant to warrant a waiver, the fact that it lies in areas of either navigable waters or other waters whose bed is owned by the Commonwealth should not preclude *waiver of the permit*. The regulations may waive the permit requirement, but nevertheless, if warranted, retain the requirement as applicable for projects that occupy state owned submerged lands to obtain a Submerged Lands License Agreement. The requirements for Submerged Lands License Agreements and for permits are separate and independent, and that point can be made clear by stating in §105.12(c) that one cannot utilize a waiver for a structure or activity that occupies submerged lands of the Commonwealth unless the project has obtained a Submerged Lands License Agreement if and to the extent required under §§105.31-105.35.

**(d) Small Water Supply Dams**

The existing §105.12(b)(1) provides a waiver for the continued operation and maintenance of existing small ( $\leq 5$  foot high) dams operated and maintained for water supply purposes, irrespective of location. This waiver applies to such small water supply dams (essentially intake weirs) that were constructed prior to July 1, 1979, and applies so long as the Department does not find that the structure poses a significant effect on public health, safety, property or the environment. Now, after 40 years, the Department is proposing to negate that waiver if the existing dam is located in an area of submerged lands of the Commonwealth. Again, there is no compelling need for such a change. If there is some concern that certain such

structures require a Submerged Lands License Agreement, the remedy is to clarify that requirement, not flip the entire existing small project into an individual permit process.

## **2. Water Dependency and No Practicable Alternatives Criteria**

As a water and wastewater utility, many of PAWC's dams, water obstructions and encroachments are, by their nature and purpose, structures and activities that require access or proximity to or siting within water bodies that involve aquatic resources in order to meet their basic purpose (i.e., the withdrawal or storage of water, or the discharge of stormwater or treated wastewater). At the same time, like many other utility type operations, PAWC's services require a range of linear infrastructure, such as water pipelines, sewer collection and interceptor lines, access roads, and the like. Those linear projects often need to get from one side of a stream or water body to the other in order to fulfill their purpose (e.g., conveying water, wastewater, or vehicles). Similarly, sewer systems often need some portion of their lines to intercept wastewaters at the lowest points of the system (often along streams) and convey those flows to a wastewater treatment plant.

In this context, we understand and support those elements of the proposed rule which reiterate the long-standing interpretation of the existing Ch. 105 regulations with respect to "water dependency" criteria and the linkage of water dependency determinations to considerations of **practicable** alternatives. It is essential that the Ch. 105 rules, as they are being amended, continue to embrace the interpretations set forth in the *Clean Air Council* and *Delaware River Network* cases, that the water dependency and no practicable alternatives criteria must be read together, and that there are some projects (for example, linear projects) which qualify as being "water dependent" because there are no practicable alternatives to placing some part of the project in proximity to or in a wetland or water body in order for the project to meet its ultimate purpose.

### **(a) "Water Dependency" Definition, §105.1**

We join with the PA Chamber in urging that care be taken, both in crafting the regulatory language and in statements accompanying the rulemaking, to make clear that these rules are codifying, not modifying, the interpretations reflected in *Clean Air Council* and *Delaware Riverkeeper Network*. In this regard, we concur in the suggestion that the definition of "water dependent" being placed in §105.1 specifically reflect the established interpretations from those cases:

**Water dependent**—The circumstance which requires a dam, water obstruction or encroachment to have access or proximity to, or siting within, aquatic resources to fulfill the basic purposes of the project, including a circumstance where no less disruptive practicable alternatives are available.

### **(b) Water Dependency Application Description, §105.13(e)(iii)(D).**

The new language of §105.13(e)(iii)(D) provides for submission of a narrative description and analysis of water dependency. While it refers to a consideration of whether or not practicable alternatives exist, which we support, it actually changes the test that was enunciated by the Environmental Hearing Board in *Clean Air Council*. In that case, the EHB referred to making a determination that "no **less disruptive** practicable alternatives are available" (emphasis added).

The draft language of §105.13(e)(iii)(D) refers to “demonstrated unavailability of *any* practicable alternative.” This, perhaps inadvertently, drops a very important point. The EHB’s formulation recognizes that there may be other “practicable alternatives” available, but if those alternatives have other significant adverse effects on the environment, those other adverse effects must also be considered and weighed.

We would suggest that §105.13(e)(iii)(D) be revised to read:

Water dependency must be based on the demonstrated unavailability of any practicable alternative location, route or design that does not have other significant adverse effects on the environment and the use of location, route or design to avoid or minimize the adverse impact of the dam, water obstruction or encroachment upon the environment and to protect the public natural resources of this Commonwealth.

**(c) “Practicable Alternatives” Concept**

Throughout the Ch. 105 rules, the term “practicable alternative” is used. And in this regard, we support the change to §105.14(a)(7) adding the word “practicable” to the phrase “alternative location, route or design and the use of location, route or design.”

While we support the practicable alternatives concept, we believe that it would be helpful to provide some further elucidation in the regulations and accompanying explanatory text of what is meant by the term “practicable alternative.” Under the pertinent federal regulations and guidelines, “practicable alternatives” are those alternatives that are “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” 40 CFR 230.10(a)(2). Many “alternatives” might be conceivable, but “practicable” alternatives involve a narrower set of those location and design options which are actually available, technically feasible, and economically feasible, considering a project’s purposes. Currently, that concept is buried in §105.18a(a)(3); but given its usage in various parts of Ch. 105, moving the definition of that term to §105.1 would be warranted.

**3. Alternatives Analysis, §105.13(d)(viii)**

**(a) *Analysis Commensurate with Anticipated Impact***

We generally support the concept reflected in the new §105.13(d)(viii)(A) that the alternatives analysis required to be submitted as part of a permit application be of a level of detail commensurate with the anticipated environmental impact of the project. A small project with a minor impact -- such as a recreational dock or an underground or overhead utility line that impacts 0.1 acres of wetlands -- does not warrant the same degree and level of alternatives analysis as a project that impacts 25 acres of wetlands or may impact specially protected habitat. Common sense and practicality need to be applied to the alternatives analysis requirements.

**(b) *Demonstration Criteria***

We question the meaning and impact of some of the additional language incorporated in (viii)(B) and (C), specifically their references to “reliable and convincing evidence” or “reliable and representative” demonstrations. These phrases do not have established legal or regulatory meaning. For example, what is a “representative” demonstration as opposed to an “unrepresentative” demonstration? Representative of what? Compared to what? In each

instance referred to in subparagraphs (B) and (C), the applicant needs to provide information demonstrating that certain criteria listed in other rule sections are met. Tacking on a string of additional words does not clarify the demonstration requirement. If the information submitted by an applicant does not support the demonstration, the Department can request additional supporting information or determine that the demonstration has not been met. But adding these undefined phrases may well provide fodder for third-party permit appeals; even if the Department finds that the demonstration was made, this type of loose language would allow third parties to haggle over what was representative or reliable, or whether the information was sufficiently “convincing.”

#### **4. Impact Analysis**

##### **(a) *Scope and Detail Commensurate with Project Impacts, §195.13(d)(x).***

As in the case of alternatives analysis, the impact analysis provisions should explicitly recognize that the scope and detail of required impact assessment should be commensurate with the impact of the project or activity. Small projects with limited impacts should not require the same depth and detail of impact assessment as larger, more complex projects. We would recommend that the following sentence be added to §105.13(d)(x):

The scope and level of detail of impact analysis required should be commensurate with the anticipated impacts of the proposed project.

##### **(b) *Offsite Alternatives, §105.13(d)(x)***

The opening sentence of §105(d)(x) refers to an analysis of both onsite and offsite alternatives. While it may be appropriate to consider alternative locations and routes for particular projects, the rule and accompanying narrative should make clear that the scope of offsite location considerations are limited to those that are practicable. Alternative locations are not practicable unless (1) they are reasonably available -- meaning that they can be acquired and actually utilized at reasonable cost; and (2) those sites can actually be utilized for the proposed purpose (i.e., considering site conditions, applicable land covenants, zoning, siting, setback and other restrictions). The theoretical existence of other locations is meaningless unless the sites are fully suitable and there are owners ready and willing to sell or grant easements at a reasonable price. Most project sponsors lack the power of eminent domain, and even those that possess such condemnation authority (such as public utilities) confront legal and practical limits on its use -- not the least of which is the considerable time involved in contested condemnation proceedings.

##### **(c) *Indirect and Secondary Impacts, §105.13(d)(x)(D)-(E)***

The new language of §105.13(d)(x)(D) and (E) introduce new requirements for consideration of “indirect” and “secondary” impacts. We are concerned that the definitions of “indirect impacts” and “secondary impacts” are extremely broad and not well focused.

- ***Indirect Impacts Definition.*** The “indirect impacts” definition should be refined to make clear that what we are talking about are alterations of the chemical, physical, or biological characteristics of an aquatic resource ***that are caused by the construction, operation or maintenance of the structure or activity that is the subject of the permit application.***

- **Secondary Impacts Definition.** Although borrowed from the existing §105.14(b)(12), the definition of “secondary impacts” should nevertheless be carefully re-examined and clarified.

First, the loose wording of the definition, referring to “changes associated with but not the direct result of the construction or substantial modification of a dam or reservoir, water obstruction or encroachment” leaves open room for considerable debate, and litigation, as to “changes” to what, and how far the concept of “associated with” goes. Some project opponents might argue, for example, that a simple culvert permit for a road or pipeline requires consideration of all impacts arising from the road or pipe over its entire length, and might further argue that secondary impacts should encompass evaluations of the climate change implications of emissions associated with vehicles using the road or activities producing products conveyed by the pipeline.

Second, the final clause of the definition – referring to “future impacts of dams, water obstructions and encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose” – is far from clear. The future impacts *of what* dams, water obstructions and encroachments? The language seems to refer to the future impacts of structures that cause the need for other structures, but is that the intended concept, or is this language garbled? A revised formulation is needed to much better define what additional dams, water obstructions or encroachments are to be considered, and that scope should be tied back to those activities that are tied to the purpose of the project that is the subject of the pending permit application.

We, thus, concur in the PA Chamber’s suggestion of the following proposed language for defining “secondary impacts”:

(iii) Secondary impacts—Changes to aquatic resources associated with but not the direct result of the construction or substantial modification of the dam or reservoir, water obstruction or encroachment that is the subject of the permit application where such changes occur in the area of the project structure or activity being permitted and in areas adjacent thereto and future impacts to aquatic resources associated with additional dams, water obstructions or encroachments, the construction of which are planned or reasonably anticipated to be required to fulfill the purpose of the project which is the subject of the permit application would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose.

## 5. **Cumulative Impact Analysis, §105.13(d)(xiii)**

The new §105.13(d)(xiii) would add a requirement that all permit applications include a broad “cumulative impact analysis.” While we understand and support a requirement that a permit application include an analysis of the impacts of all dams, water obstructions and encroachments that are part of a single project (i.e., all stream crossings of a proposed sewer line), the proposed §105.13(d)(xiii) seems to go way beyond that concept. It refers to conducting a “projectwide cumulative impact analysis” without specifying impacts *to what*. Similarly, it is

unclear what it means by requiring “analysis **using available resources**” – does that mean using reasonably available information sources or something else?

Finally, and perhaps most troublesome, the provision purports to require that an applicant evaluate “reasonably foreseeable” dams, water obstructions or encroachments on wetlands. That phrasing appears to require evaluation of projects to be potentially conducted by other entities and parties on other properties over a completely undefined area. The concluding sentence of (xiii) then requires the applicant to demonstrate that the project, along with other “potential or existing” structures, “does not result in an impairment of the Commonwealth’s wetland resources under §105.18a(a)(6) or a major impairment of the wetlands under §105.18a(b)(6).

This cumulative impact formulation presents numerous concerns:

- Requiring every project applicant who proposes to construct or modify, operate, or remove any structure to submit a cumulative impact analysis is extremely burdensome. Many projects are small in character and in impact, and permit application requirements should be commensurate with the scope and impact of the project being considered.
- The areal extent of impact analysis is left entirely undefined. It would be one thing if the analysis were focused on impacts on the same wetland area. But the first and last sentences of §105.13(d)(xiii) are not so focused. Those sentences contain no geographic limitation.
- The last sentence goes beyond consideration of other structures and projects that are actually known to requiring an evaluation of all “potential” structures.
- Taken together, (xiii) seems to require an analysis of all impacts by all existing, proposed and potential structures and activities on some undefined scope of wetland resources. The expansive phrasing sets up a requirement to engage in crystal ball conjecture and analysis of unknown and unknowable future possibilities.

Up to present, it was the Department that was required to consider the cumulative impacts of projects planned or proposed by other parties when evaluating an applicant’s permit application. That makes sense, since the Department is far more likely to have information regarding proposed and planned projects, based upon its tracking of pending and proposed projects, its own projects in watershed, and its water planning functions. In contrast, individual permit applicants only have access to information as to the project they themselves are planning. Asking each permittee to hunt for and identify potential dams, water obstructions and encroachments that might be undertaken by some number of unknown entities is not reasonable and incredibly inefficient.

The scope of cumulative impact analysis in (xiii) should be refined and focused, and tied to a trigger that invokes such requirements only when a cumulative impact evaluation is determined to be truly needed. We support the following alternative wording:

(xiii) *Cumulative Impact Analysis.* A permit applicant shall provide an analysis of the cumulative impacts on wetland resources of all dams, water obstructions and encroachments that the permit applicant plans to undertake as part of a



project, including all current and future phases of the project. If the Department determines that the proposed project, in combination with other existing and known planned projects, has a reasonable potential to have a significant impact upon the wetland resources in the project area, the Department may require the permit applicant to conduct an analysis of the cumulative impacts on such wetland resources of all dams, water obstructions and encroachments planned by the applicant together with those existing and known proposed dams, water obstructions and encroachments undertaken by other persons on the same complete interconnected wetland area. The cumulative analysis required under this provision will be considered as part of the Department's determinations under § 105.18a(a)(6) and §105.18a(b)(6).

**6. Project Review Criteria / Margin of Safety, §105.14**

We share the concerns expressed in comments submitted by the PA Chamber concerning new “margin of safety” language being dropped into §105.14. The current rule requires a determination of the proposed project's effect on health, safety and the environment in accordance with prevailing practices in the engineering profession and current environmental principles. New language, however, would add reference to “with an adequate margin of safety,” with no additional definition or explanation as to what that “adequate margin of safety” means, or how far it extends.

The Ch. 105 rules already establish a wide range of hydrologic, hydraulic and other design standards and other criteria which are formulated to protect public health, safety, property and the environment. Those design criteria already embed conservative assumptions that provide a “margin of safety” and encompass the margins of safety reflected in generally accepted engineering practice. Adding another layer of review criterion referring to “an adequate margin of safety” opens the prospect that individual staff members can apply their own notions of what additional “safety margins” and additional “protective” prescriptions should be imposed. And this formulation threatens to become an invitation for third party appeals claiming the need for a layer cake of “margins of safety” to “adequately” protect various resources or situations.

**7. Provisions Relating to Abandonment**

**(a) *Definition of “Abandonment”, §105.1***

PAWC concurs in the comments offered by the PA Chamber concerning the definition of “abandonment” in §105.1. The proposed new definition's use of “discontinuation” (another undefined word) is not helpful, and tends to add confusion rather than clarity. For the reasons stated in the PA Chamber's comments, abandonment involves concepts of permanency and intention, and should never be inferred in instances where facilities (such as water sources) are being held in reserve for intermittent or emergency use. For this reason, we support the alternative formulation of the definition suggested by the PA Chamber's comments:

“Abandonment” -- The intentional and permanent discontinuation of the construction, or operation and maintenance of a dam, water obstruction or encroachment by the owner or permittee.

At the same time, we support the suggestion in the PA Chamber's comments that the regulation include procedures for addressing situations where an "abandonment" is alleged to have occurred as the result of perceived inaction. Owners and permittees should be given "show cause" notice by the Department where it believes that circumstances indicate a potential abandonment, allowing the owner or permittee to rebut that claim.

**(b) *Abandonment – Structure Removal, §105.47***

We also concur in the PA Chamber's comments suggesting needed refinements to §105.47(b) and (d).

- Section 105.47(b) should be amended to avoid the illogical requirement to remove a structure before its use ends, and instead trigger the removal requirement only at and promptly after abandonment.
- Section §105.47(c) should be likewise amended to include a triggering phrase linked to the time of abandonment. (We note that separately the Department has the power under Section 14 of the Dam Safety and Encroachments Act, 32 P.S. §693.14(b), to order repair, improvement or removal of any dam (or any water obstruction or encroachment) that it determines poses a threat to public health, safety, property or the environment.)
- In §105.47, the scope of the removal requirement should be clarified. The rule should only require removal of those portions of structures determined to poses a threat to public health, safety, property, or the environment." Given that the removal involves both significant costs and impacts (i.e., disturbance of the aquatic environment), if the structure or portions thereof do not pose a threat to public health, safety, property or the environment, removal for the sake of removal is not justified.
- Sections 105.47(b) and (c) warrant refinement in terms of recognizing that sometimes "other actions" may be taken in lieu of "removal" to address elements of structures to be abandoned. For example, a water or sewer pipeline might have been placed under a stream. Instead of digging up the stream to remove the no longer useful line, it may be better (in terms of the balance of effectiveness and impact) to close and seal the line in situ.

For these reasons, we support the alternative wording suggested in the PA Chamber's comments.

**8. Transfer of Permits - Facilities Not Requiring Permits, §105.25(f)**

PAWC also supports the PA Chamber's comments concerning §105.25(f), relating to notification of changes of change of ownership of small dams that lie outside the scope and permitting jurisdiction of the Dam Safety and Encroachments Act. Although this provision does not affect typical water supply dams, it does impact other impoundments, including typical stormwater impoundments that have a contributory drainage area of  $\leq 100$  acres, with a depth of  $\leq 15$  feet, and an impounding capacity of  $\leq 50$  acre-feet. And as noted above, the Act and regulations provide for waivers of permits for structures that have insignificant impacts, including dams (e.g., weirs that are less than 3 feet high and 50 feet in width on streams other than wild trout streams. 25 Pa. Code §105.12. If such structures are insignificant such as to not

warrant a permit, we do not see justification for imposing an ownership transfer notice. Absent a compelling justification, adding such an ownership transfer notice to unregulated dams will doubtless result in confusion and inadvertent non-compliance. For these reasons, we would recommend deletion of the new §105.25(f).

**9. Provisions Relating to Dams**

**(a) *Construction Time Limits, §105.43***

The new §105.43(c)(2) provisions concerning time limits for dam construction are troublesome and unworkable. This new subsection purports to require that if the work authorized by a dam permit cannot be completed within the timeframe stated in the permit, the permittee must notify the Department at least 90 days prior to commencing any work, and that in turn will trigger a reassessment of the project design.

The first problem is that frequently it is not known whether or not construction or modification work cannot be completed within a permit's timeframe. Construction and alteration of dams is a technically complex and time-consuming process, and during the course of work conditions may arise (such as adverse weather conditions) that delay efforts. In those situations, permittees have no "time machine" allowing them to go back to 90 days before work commenced in order to notify the Department. Moreover, if the Department thinks that work should take a certain period (say, 24 months), but it takes a somewhat longer period, triggering a project design reassessment is not justifiable. Design reassessments should be limited to those rare situations where delays have been engendered by the discovery of new geologic, foundation, or other similar conditions that impact the design and engineering of the structure.

We recommend that §105.43(c)(2) be amended to read as follows:

(2) If work involving construction or modification of a dam authorized under a dam permit or other Department approval will commence but will not be completed on or before the date established in the permit or other Department approval, the permittee or dam owner shall promptly notify the Department, and the Department may extend the time for completion of the work upon good cause shown. If the delay in completion of the authorized work is caused by unanticipated geologic, foundation, or similar site conditions that impact the design and engineering of the structure, unless extended by the Department in writing, the permittee or dam owner shall notify the Department 90 days before the anticipated commencement of work so that the Department can reassess the project design and reauthorize or extend the approval. During the project design reassessment, the Department may require the permittee or dam owner to revise the project design due to changes in site conditions, changes in dam classification, new technology or revisions to this chapter.

**(b) *Piping System/Conduit Inspections, §105.53***

The proposed new §105.53(a)(3) would impose new and extensive requirements related to inspections of all "piping systems passing through or under" any Category 1 and 2 dams, with the mandate that such inspections be conducted at least every 10 years. The provision would, without any apparent exceptions, mandate visual inspections of all conduits, intakes, valves, gates, and other appurtenant features, including photographic or video documentation.

While various types of period inspections, tailored to the particular design, age and conditions of the dam, may be appropriate as a preventative measure to check the structure and functionality of its works, this particular prescription fails to recognize some important points:

- Not all Class 1 and 2 dams are alike. These class dams include a range of construction types. Inspection or other checks on conduits are most pertinent in relation to earthfill embankment dams, where uncontrolled leakage and internal erosion present a risk of potential failure. The same is not true of other types of structures, such as concrete or masonry gravity or arch dams, which are not subject to “piping” as a failure mode. In the latter case, absent observations of seepage or other unusual issues that might indicate a need to investigate internal works, inspection of the entire piping system is not justified.
- As a corollary, different types of structures would warrant differing inspection intervals and different types of inspections. While conduit-related inspections at least every 10 years may be appropriate for earthfill embankment structures, different types of inspections and a different frequency would be justified for non-earthfill dams where conduit issues do not pose a dam failure risk.
- Many existing Class 1 and 2 dams were not designed with piping systems that can be inspected visually, either from the outside or the inside. For example, PAWC owns dam facilities where the control works lie within underground tunnels between reservoirs, include complex manifolded piping arrangements, or have no physical opening for thousands of feet.. The current wording of §105.53(a)(3) seems to countenance no exceptions -- it simply refers to “all piping” without any differentiation as to location or accessibility. With respect to such piping systems, inspection is not as simple as running cameras down and through the pipes. Pipe diameters, turns and angles frequently restrict or preclude passage of visual imaging devices over their entire length. Any inspection rule needs to provide for exceptions and alternatives where sections of the conduit system are not reasonable accessible to visual inspection via typical methods.
- The functionality and performance of some piping system features, such as valves and gates, can readily be checked and confirmed via means other than visual inspections -- including via actually exercising (opening and closing) those features and assuring that they function as expected.

For these reasons, PAWC recommends that the Department work with dam owners and their engineers to develop a more refined approach to periodic inspection and facility checks. Those provisions should differentiate between different dam construction types, and should provide for alternatives to visual inspections to confirm the functionality of essential conduit and control structure features. PAWC would be well prepared to participate in that process, and bring to the table our considerable knowledge, experience and resources in the area of dam operations and maintenance.

**(c) *Stability Criteria, §105.97***

PAWC generally supports the new guidance on stability found in proposed §105.97. Previous regulations were unclear in terms of stability criteria requirements, and these refinements represent a significant improvement. At the same time, it is important to note that as to some existing dams where the new numeric factors of safety prescriptions might not be

met, revised factors of safety may be considered and approved under renumbered §105.97(e) where appropriate under circumstances that still provide for dam integrity and adequate protection of life and property.

**(d) Emergency Action Plan/EAP, Public Notice Provisions, §105.134(d)**

With all due respect, the public notice provisions of §105.134(d) reflect an outmoded and substantially ineffective method for disseminating to the public information concerning the potential inundation areas of a Class 1 or 2 dam failure.

The current and proposed provisions mandate that notices be posted in the city, borough, and township buildings and in locations within or near the inundation area, such as post offices, libraries, grocery stores, and gas stations. In our experience, these modes of communication are not functional or effective:

- The fact is the most municipalities do not have public bulletin boards where information can be posted, secured, and observed by the public over a long period of time.
- Where such community bulletin boards exist in municipal offices, post offices, libraries or commercial establishments, information may go up one day, and be taken down by anyone within a short time later.
- Limited members of the public actually stop to read posted materials in public buildings, and even fewer in grocery stores and gas stations.

The original §105.134(d) was written in the days before the internet. With technological advancement, and very different public habits in terms of seeking out and obtaining information, it would be far more effective if the rule were to provide for posting notices via the internet of where information may be obtained, with postings of the notices to (i) municipal websites (where available); (ii) county emergency management websites; and/or (iii) a dedicated dam safety information page on the PADEP website. It should be noted that for homeland security/protection of crucial infrastructure reasons, the actual inundation mapping should not be posted.

**10. Permits for Dredge or Fill Material, §105.401**

Section 105.401(1) would require that applications for placement of dredged and fill material include information on any public water supply wells within a 1 mile radius and any within 1 mile upstream to 10 miles downstream of a proposed material placement site.

While PAWC supports knowing if dredged and fill materials are being discharged near public water supply wells or intakes, this application requirement would suggest the water utility locations are known. Because of infrastructure security concerns, the specific locations of wells and intakes are not public information, and are protected from disclosure under provisions of the Pennsylvania Right-to-Know Law. As a result, dredge and fill material applicants will find it difficult to compile this information, and water supply system operators will be reluctant to release such infrastructure security information.

On the other hand, information concerning public water supply well and intake locations is readily available to the Department. When a dredged and fill material placement application

February 3, 2021

Page 14

comes into the Department, the agency should be readily able to check the location against known public water system well and stream source locations in order to ascertain whether a potential concern arises. If such a concern is flagged, the Department can and should provide notice to and confer with the public water system operator.

\* \* \*

Pennsylvania-American Water Company very much appreciates your consideration of these comments. If there are any questions concerning any of our comments, please do not hesitate to contact us. As indicated above, PAWC stands ready and willing to work with the Department and others in discussing further refinements to these proposed rules. We believe that we share with the Department the objective of assuring an effective, workable and efficient regulatory program governing dams, water obstructions and encroachments of all types. We look forward to working with you in the months ahead in furtherance of that objective.

Sincerely,



Andrew L. Swope

cc: Bruce Aiton, P.E., Vice President - Engineering  
R. Timothy Weston, Esq.