## Pipe Installation at Pennsylvania Flood Protection Projects

**FREQUENTLY ASKED QUESTIONS**

*The purpose of this FAQ is to explain the roles and responsibilities for operation and maintenance of a flood protection project. The information in this guidance is solely advisory and does not represent a legal interpretation by the Department. Nothing in this summary shall affect any statutory requirements.*

## What is DEP’s role in state flood protection projects?

The Department of Environmental Protection’s (DEP) Bureau of Waterways Engineering and Wetlands leads the effort to provide flood protection throughout Pennsylvania to reduce severe property damage and loss of life. DEP has designed and constructed flood protection projects in many Pennsylvania communities. DEP and the protected communities are the caretakers of lands containing flood protection projects that were constructed by the commonwealth.

1. **Who is involved in approval of changes to a flood protection project?**

The municipality and DEP must approve any change or alteration to the flood protection project, or any encroachment on the lands. The partnership between DEP and the sponsoring communities ensures that the project provides the designated level of flood protection for future generations.

1. **What approvals are required for pipe installation at a Flood Protection Project**?

Whenever a pipe installation is requested at one of DEP’s flood protection projects, whether it be a levee or concrete structure, both DEP and the sponsoring community must approve the installation. The sponsoring community must first approve the installation methods of the utility pipe system (i.e. sanitary, storm, water, or gas) and identify local requirements. Then the plans for the utility pipe system must be sent to DEP to determine the impact, if any, on operation of the project. Upon receipt of all approvals, construction of the pipeline can begin. Sample guidelines for work at levees or concrete structures may be obtained by contacting DEP.

1. **Are any other agencies involved in approval for Work on Lands of the Flood Protection Projects?**

The Department of General Services or DEP must grant approval for use of any lands at a flood protection project. An Occupancy License Agreement is required for any private installations within flood protection lands owned by the commonwealth. This agreement is in addition to any DEP or U.S. Army Corps of Engineers’ permits that may be required under Chapter 105 for waterway obstructions and encroachments, or Section 404 of the Clean Water Act.

# Why is new pipe construction a potential risk to a levee or floodwall?

The placement of new pipe under a levee can cause the levee to breach if the pipe is not properly installed.

New storm or sanitary systems can be extremely beneficial to a community, but the design and construction of these systems in this context vary from common construction and must recognize the flood protection project as an engineered structure that must not be altered or changed without consideration of its function and obtain proper approvals and permits.

For most levee installations, open cut methods will be approved. The levee is excavated and the material stockpiled to be used as backfill. Once the pipe has been placed, stockpiled material is replaced and compacted and the levee restored to its original condition. All work should be completed and the levee restored within 48 hours of its breach. A DEP inspector must be given access to the site to ensure all guidelines are followed during construction. In cases where a breach of the levee is required to construct the pipeline, an emergency action plan must be developed and implemented in the event or threat of high water.

Horizontal directional drilling (HDD) or other trenchless technology is typically not permitted beneath the levee or within fifteen (15) feet of both the landside and riverside levee toes. In cases where HDD is considered, a Site Suitability Analysis, which includes a geotechnical analysis, and a trenchless technology specific preparedness, prevention and contingency (PPC) plan must be submitted to the Department for review as part of the application process. Further information on requirements for HDD and levees is provided by U.S. Army Corps of Engineers [ER 1110-1-1807](https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-1-1807.pdf). Additionally, the PADEP technical guidance can be found here: [Trenchless Technology Guidance 310-210-003](https://greenport.pa.gov/elibrary/GetFolder?FolderID=1039254)

Any unauthorized activity that alters or changes the project could cause it to be inoperable or even fail during a high water event. This could lead to severe property damage and possible loss of life. This unauthorized activity could also cause the community to lose the right to receive funding for project repairs or restoration.

# Are pipes taken out of service also a concern and do they require DEP review?

Yes, the installation of new sanitary or storm systems may mean that existing pipes that extend through the levee are no longer in use and will be abandoned.

Corrugated metal pipes that conveyed storm drainage tend to deteriorate over time and should be completely filled with cement grout when taken out of service.

Abandoned sanitary sewer laterals extending from adjacent homes through the levee must also be completely filled with cement grout as part of any new sanitary sewer system. All abandoned storm, sanitary and other utility pipe systems through levees must be taken out of service as required in the permit and approved by DEP.

Securing abandoned pipes is vital to maintaining the integrity of the flood protection project. By following the proper guidelines, the project will function as designed for years to come.

# Where can additional information be found?

For more information on the Flood Protection Program or technical assistance regarding specific projects, visit [Flood Protection](https://www.dep.pa.gov/Business/Water/Waterways/Flood-Protection/Pages/default.aspx) or [www.dep.pa.gov](http://www.dep.pa.gov) (select “Businesses,” then “Water,” then “Waterways Engineering and Wetlands,” then “Flood Protection”), or contact:

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