



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Regional Permit Coordination Office

The Department's Role in Pipeline Permitting Process

Environmental Justice Advisory Board

May 2023

Harrisburg, PA

Overview

1. Types of Pipelines
2. Department's Permitting Process
3. Roles in Pipeline Permitting
 - Federal vs. State
4. Specific Project Items



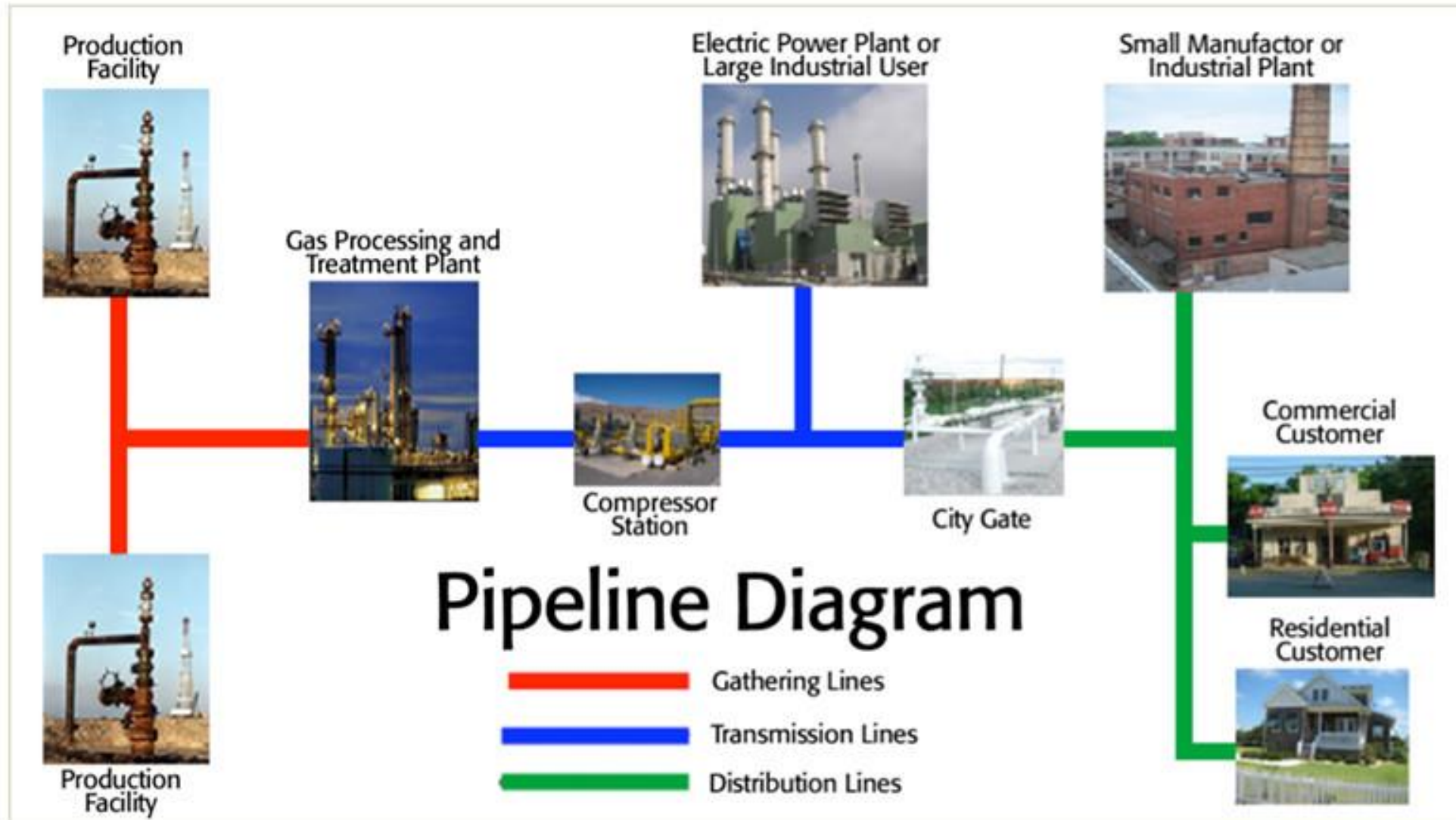
Source: GAO. | GAO-18-409

Types of Pipelines

There are essentially three major types of pipelines along the transportation route:

- **Gathering** pipeline systems gather raw natural gas from production wells and move them to facilities for processing.
 - Typically shorter in length, smaller in diameter, variable pressure
- **Transmission** pipeline systems transport natural gas thousands of miles across many parts of the continental United States.
 - Typically longer in length, larger in diameter, and higher pressure
- **Distribution** pipeline systems can be found in thousands of communities from coast to coast and distribute natural gas to our homes and businesses through mains and service lines.
 - Medium in length, small diameter, lower pressure

Types of Pipelines



Common Descriptive Pipeline Terms

- **Upstream** - pipes where drilling and well operations occur. Part of the pipeline system where the production of the oil and natural gas happens.
- **Midstream** – pipelines, such as gathering or transmission and their facilities that move the gas from the well (upstream) to users downstream.
 - Midstream is where the product is treated and compressed for delivery to markets downstream.
- **Downstream** - the distribution part of the system, this moves the clean gas to the user. Downstream not only includes homes and businesses, but could also include oil and gas customers such as power-plants, factories, export facilities and other industries.

Project Evaluation: Permitting

- Applicant would first determine the extent of their project.
 - Often referred to as the Limit of Disturbance (LOD)
 - Extent of LOD and potential impacts often determine what permit is needed
- Applicant would then determine the potential impacts from their project
 - Desktop review of available data
 - Field verification or ground truth
 - Regulated impacts may include
 - Earth disturbance
 - Water encroachment (stream crossing, wetland fill, etc)
 - Economic impact
 - Cultural impacts (e.g., archeological)
 - Air quality

Permits

Typical Permits required for Pipeline Construction

- Erosion and Sediment Control (Ch 102)
- Water Obstruction and Encroachment (Ch 105)
- State Water Quality Certification (Sect. 401)
- NPDES Permit for Discharge of Hydrostatic Testing Water
- Air Quality Permits (e.g., Compressor Stations)



Pre-Application: Chapter 102

- Chapter 102: Erosion and Sediment (E&S) Control
 - Regulates E&S resulting from earthmoving activities
- The size and scope of the project determines what type of permit is required
 - E&S plans required for disturbances of 5,000 sq ft. to less than 1 acre
 - If a project exceeds 1 acre of earth disturbance it requires an NPDES permit
 - If a project exceeds 5 acres of total earth disturbance, an erosion control permit is required.
 - Permittee is also required to implement best management practices to control stormwater runoff

Pre-Application: Chapters 105 & 106

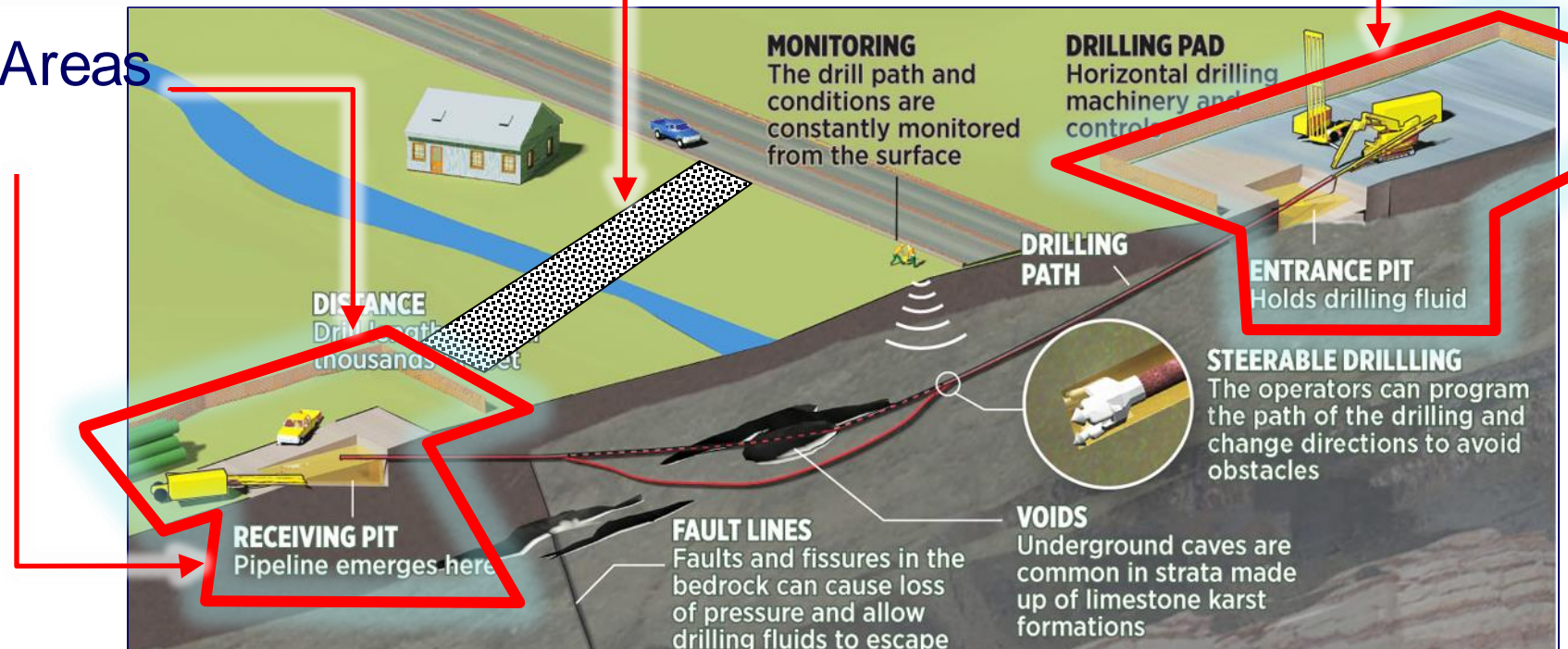
- Chapter 105: Dam Safety and Waterway Management
 - Regulates water obstructions and encroachments located in, along, or across wetlands, lakes, streams and floodways of the Commonwealth
 - Any water obstruction or encroachment requires a permit.
 - The size and nature of the impact will determine what type of permit is required.
 - Water obstruction and encroachment permits combine Chapter 105, Chapter 106, Section 404 of the Clean Water Act dredge and fill permit into one Joint Permit Application
 - General Permits may be authorized for smaller, less impactful projects
- Chapter 106: Floodplain Management
 - Regulates floodplain activities
 - Often combined with Ch. 105 activities.



Chapter 102 – What does DEP Regulate?

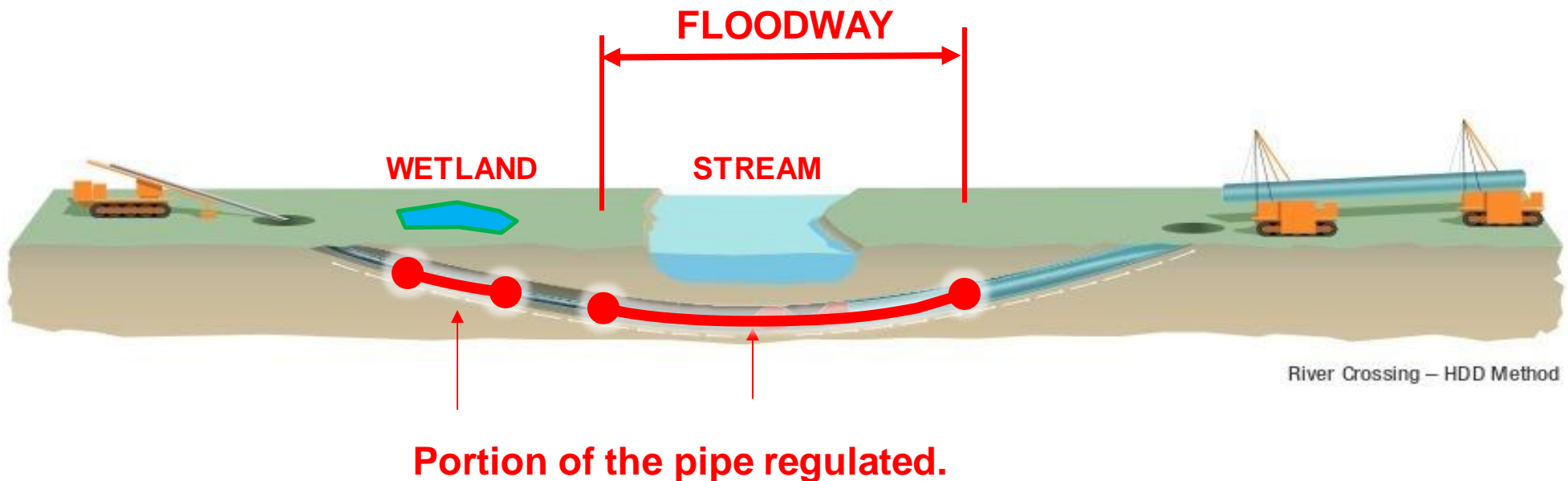
Erosion and Sediment Control – Disturbed Areas

- Trenchless Technology Commonly employed
- Around Drilling Pad/Entrance Pit
- Access Roads
- Equipment Laydown Areas
- Around Receiving Pit



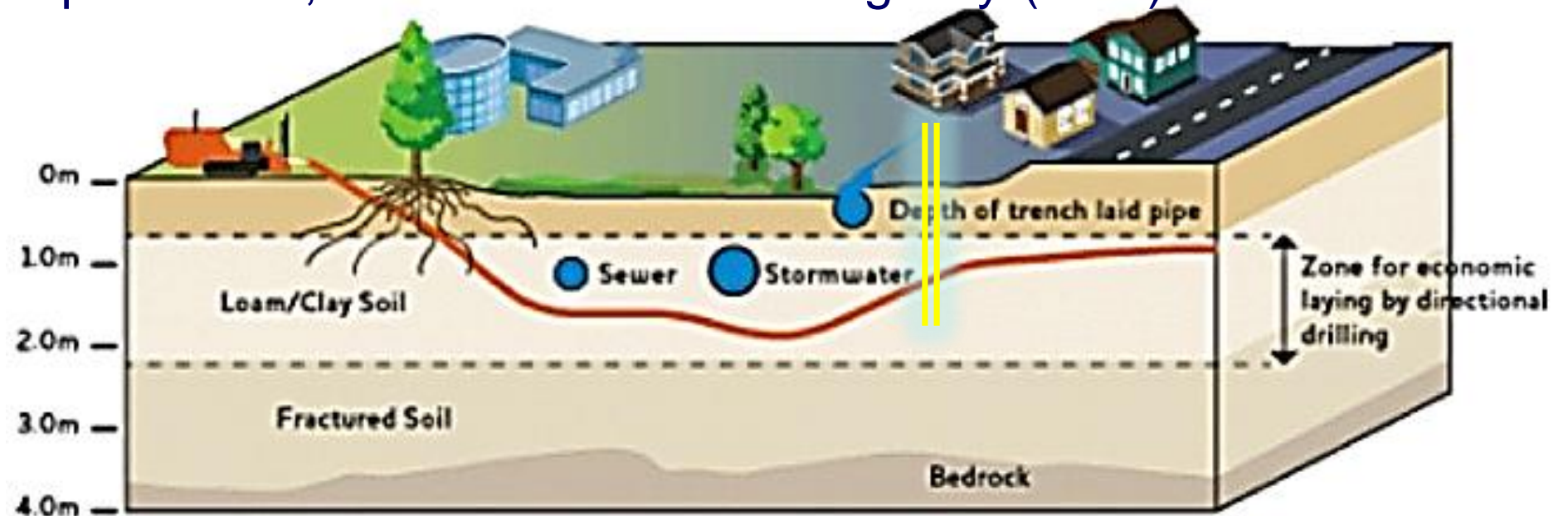
Chapter 105 - What does DEP regulate?

- Water Obstruction & Encroachments
 - Limits of Stream and its Floodway
 - Limits determined by FEMA Floodway Insurance Rate Maps (FIRM)
 - Limits of a Wetland
 - Field Delineation
- Only the portion of the pipe beneath the resource is regulated.



DEP's Role in Water Supply Wells

- Though not regulated under Ch. 102 or Ch. 105
 - the Clean Streams Law requires pipeline companies to **avoid and mitigate** issues with public and private water supplies.
- Impacts to water supplies are also violations and may also result in penalties.
- Water Supply Preparedness, Prevention and Contingency (PPC) Plans are required



Pipe laying in urban/industrial areas

Public Outreach

- For larger permits, the Department publishes a notice in the PA Bulletin that allows for public comments to be submitted.
 - Those comments must be responded to in a Comment/Response Document
- The Department may also hold public hearings to collect comments on projects when there is enough demand to do so and the project is considered high profile.
 - These hearings are open to everyone and commonly held virtually.
- FERC regulated projects often hold scoping meetings as well. FERC scoping meetings that focus on public input and concerns on a project.

Pre-Construction

- Permitting requirements, tree clearing, habitat delineation, etc.
- Growing seasons
- Notifications
- Water sources
- T&E species, etc.

Federal Energy Regulatory Commission

Federal Energy Regulatory Commission (FERC)

- FERC reviews applications for construction and operation of interstate natural gas pipelines under authority of Section 7 of the Natural Gas Act.
- FERC itself has no jurisdiction over pipeline safety or security, but actively works with other agencies with safety and security responsibilities (e.g., PHMSA).



Note: Interstate vs. Intrastate

- **Interstate** refers to pipelines that traverse multiple states
- **Intrastate** refers to pipelines that stay within state lines

Pipeline & Hazardous Material Safety Administration

Pipeline & Hazardous Material Safety Administration (PHMSA)

- PHMSA is a division of the U.S. Department of Transportation
- PHMSA's mission is to protect people and the environment from the risks of hazardous materials transportation such as natural gas and hazardous liquid pipelines.
- To do this, they establish national policy, set and enforce standards, educate, and conduct research to prevent incidents (e.g., 49 CFR Parts 190 through 199).
- They also prepare the public and first responders to reduce consequences if an incident does occur.



▶ Pipeline & Hazardous Material Safety Administration

Pipeline & Hazardous Material Safety Administration (PHMSA)

- PHMSA determines what pipeline and pipeline facilities are regulated under Federal pipeline safety laws, and consequently the Commission's jurisdiction as well. All Class 1, 2, 3, and 4 gathering, transmission and distribution pipelines and pipeline facilities are regulated by PHMSA, excluding the following:
 - Pipeline and pipeline facilities used in production operations
 - Gathering lines in Class 1 locations (rural, non-regulated gathering lines)

Class 1



Class 2



Class 3



Class 4

Pennsylvania Public Utility Commission

- The Pennsylvania Public Utility Commission (PUC) “*balances the needs of consumers and utilities, ensures safe and reliable utility service at reasonable rates, protects the public interest, educates consumers to make independent and informed utility choices, furthers economic development, and fosters new technologies and competitive markets in an environmentally sound manner.*”
- The [Pipeline Safety](#) section of PUC is responsible for enforcing federal and Commission pipeline safety regulations as they apply to the certificated natural gas utilities in Pennsylvania.
- Act as an agent for the federal PHMSA, the Pipeline Safety section enforces the federal pipeline safety regulations as adopted by the PUC.

Regional Offices

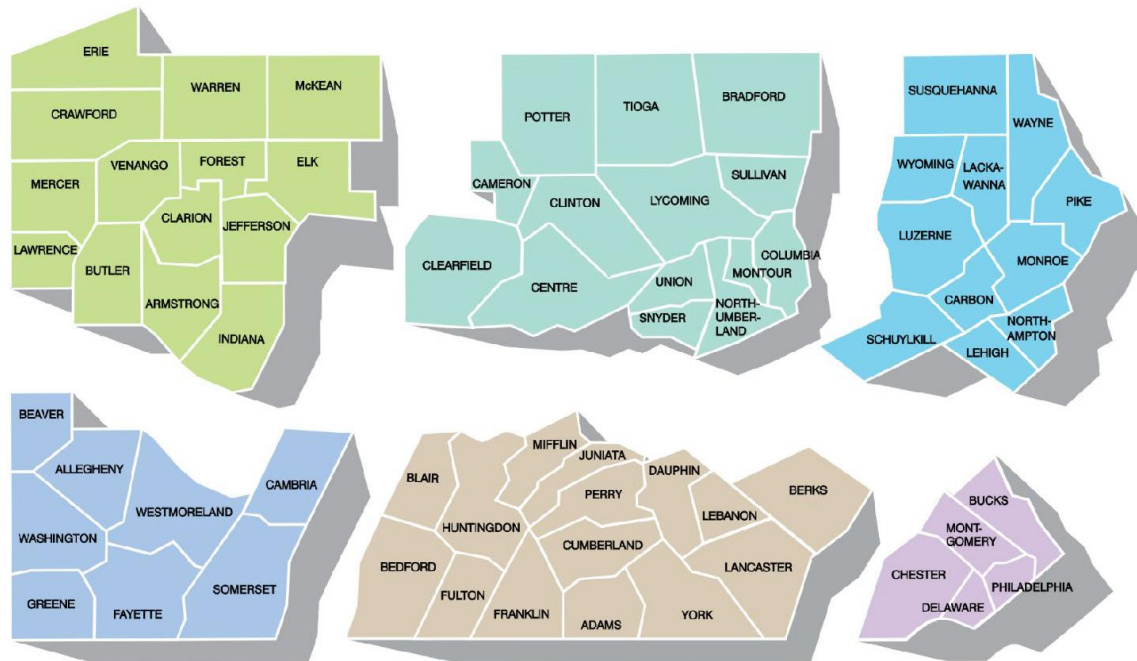
- DEP's Regional Offices are responsible for implementing department programs through permitting, inspection, enforcement, and other field services for environmental and public health protection;
- The Regional Offices provide program and technical support to Pennsylvania's 66 conservation districts;
- and compliance assistance to our regulated community.

Regional Offices

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County Conservation Districts

- County Conservation Districts (CCD): aid the Department in
 - Ch. 102 - Erosion & Sedimentation Pollution Control & Stormwater Management
 - Ch. 105 - Waterway and Wetland Management
 - Agricultural Land Preservation
 - Chesapeake Bay Program
 - Abandoned Mines
 - Floodplain Management
 - Wildlife Management
- The CCDs serve as an agent of DEP and are afforded the same level of courtesy given to DEP reviewers or inspectors. For many of the Department's pipeline permits, the CCDs are the inspectors on-site for day-to-day observations for construction projects.

Not DEP's Role in the Pipeline Process

- Determining Pipeline Route and Siting
 - Proposed by the applicant – like any other project.
 - Market Driven



- DEP has little involvement in selecting pipeline route
 - Applicant completes alternate analysis under Chapter 105, choosing the least environmental impactful alternative
 - DEP may also provide comments during the EA/EIS process for FERC regulated projects

Not DEP's Role in the Pipeline Process

- Determining Pipeline Route
 - Proposed by the applicant
 - Market Driven
 - DEP has a minor role in selecting pipeline route
- Determining or inspecting for Pipeline Safety or Integrity
 - DEP's role is with regards to environmental protection through our regulatory authority.
 - Falls under FERC, PUC and PHMSA



NERO Feeder Line Project

- PA Midstream Pipeline
 - No applications have been submitted. Likely will require Chapter 102 and 105 permits
 - As currently proposed it would be a gathering line, which is handled by O&G.
 - We understand it will likely be a 60-mile, 30-inch pipeline that will collect natural gas, starting in Susquehanna County and transporting it to Luzerne County
 - As currently proposed, it would traverse Susquehanna, Lackawanna, and Luzerne Counties including the cities of Carbondale and Scranton, and many others.
 - It's important to note that until the submit an application, this information is preliminary.

Energy Intensive Facilities

- Energy Intensive Facilities (e.g. iron *and* steel, cement and lime, chemicals and refineries)
- Examples in PA: Shell Cracker, Braskem, and the proposed Gibbstown LNG terminal
 - The regulatory requirements of natural gas manufacturing plants are still regulated by Chapter 102, 105, Air quality permits, etc.
 - Permitting is not handled by RPCO.
 - Pipelines feeding the Shell Petrochemical facility was handled by SWRO in 2018. The project was not regulated by FERC and did not transverse 2 Regions and 3 Counties, so it did not come to RPCO.
 - [Shell Petrochemical Complex \(pa.gov\)](#)
 - [Shell Falcon Ethane Pipeline \(pa.gov\)](#)

Shell Petrochemical Complex

- Shell Chemical constructed a petrochemical complex in Potter Township, Beaver County.
- Facility include an ethylene cracker that uses ethane (a NG product) to produce polyethylene (plastic).
- First of it's kind in PA
- Required several complex environmental reviews, approvals and permits

Air Quality Plan Approval [04-00740]	▼
Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES) Discharge Requirements for Industrial Wastewater Facilities [PA0002208]	▼
Water Quality Management Permit for Industrial Wastewater Treatment Plant [No. 0417201]	▼
Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Hydrostatic Testing of Tanks and Pipelines [NPDES Permit No. PAG106214]	
State Water Obstruction and Encroachment Permit – Chapter 105 [E04-250-A1]	▼
Act 2 of 1995: Land Recycling and Environmental Remediation Standards Act	▼

Additional Information

- Regional Resources webpage:

This webpage provides contact information, including emergency contact information, for all six regions.

– <https://www.dep.pa.gov/About/Regional/Pages/default.aspx>

- Pipeline Portal webpage:

This webpage provides access to permit information for some of the larger pipeline projects across the state.

– <https://www.dep.pa.gov/Business/ProgramIntegration/Pennsylvania-Pipeline-Portal/Pages/default.aspx>

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