

Perils of the Pipelines

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Sunoco Logistics Partners has status as a public utility. This enabled them to use eminent domain to coerce us and others throughout the state to sign easements for construction of Mariner East pipelines. These pipelines are scheduled to pass through our property, disrupting our lives, destroying our landscape, and posing chronic danger. Although our concern is personal, it is important that everyone living along or traveling in proximity to these pipelines understands their risks.

Sunoco's new pipelines are slated to follow the path of an existing pipeline installed during the early 1930s when the majority of Chester County was farmland. In a two-mile stretch through the heart of Exton, residential neighborhoods, retail centers, Meadowbrook Manor Little League Field, Chester County Library, Exton Elementary School, Sunrise Senior Living Facility, AMTRAC/SEPTA rail lines, routes 100 and 30, and a stream and wetlands will fall within the Mariner pipelines' impact zone. The potential danger for this densely developed area is exceptional and deserves careful consideration.

OVERVIEW OF MARINER EAST PIPELINES

The purpose of Mariner East pipelines is to transport propane, ethane, butane, and other liquefied hydrocarbons from the Marcellus and Utica shale regions of Ohio, West Virginia, and Western Pennsylvania to Sunoco's facility in Marcus Hook. The gas and oil industry refers to liquefied hydrocarbons as *natural gas liquids* (NGLs). The federal government, however, classifies these products as "*hazardous, highly volatile liquids*." NGLs are liquid only under very high pressure or extremely cold temperatures. If a leak occurs, NGLs escape into the atmosphere as colorless, odorless gases that are heavier than air, extremely flammable or explosive, and asphyxiating.

MARINER EAST 1

ME1 is an 8-inch diameter steel pipeline whose original use was moving petroleum products 300 miles from Sunoco's oil refinery in Marcus Hook to markets in Western Pennsylvania. During 2014, ME1 was converted to carry 70,000 barrels of NGLs per day to the repurposed Marcus Hook facility for storage, processing, and distribution.

MARINER EAST 2

During December 2013, Sunoco announced plans for ME2, a 350-mile 20-inch diameter pipeline that spans Pennsylvania and parts of West Virginia and Ohio. Initial capacity of this pipeline will be approximately 275,000 barrels of NGLs per day, with a maximum capacity of 450,000 barrels daily.

MARINER EAST 2X

Mariner East 2X (ME2X) is another new pipeline included in Sunoco's plans. This 16-inch diameter pipeline has the potential of transporting 250,000 barrels of NGLs daily.

SUMMARY OF MARINER EAST PIPELINES' CAPACITY

The volume of an oil barrel is 42 gallons. The following chart shows the quantity of NGLs moving through Pennsylvania if Sunoco's three pipelines operate at full capacity. Most of these materials are intended for export to European petrochemical manufacturers.

Daily Capacity of Mariner East Pipelines			
Pipeline	Diameter	Barrels	Gallons
Mariner 1	8-inch	70,000	2,940,000
Mariner 2	20-inch	450,000	18,900,000
Mariner 2X	16-inch	250,000	10,500,000
TOTAL		770,000	32,340,000

WHO IS AT RISK?

According to written testimony by Middletown Coalition for Community Safety (November 2016), a pipe containing NGLs that leaks and explodes creates a *blast zone* of approximately 1100-1500 feet, with *thermal impacts* (such as severe burns or property damage) up 2200-3000 feet. FracTracker (December 2017) estimates that 105,419 Pennsylvanians live within Mariner East's blast zone; almost one-third of these residents live in Chester County. The table below rank orders the five Pennsylvania counties whose populations are most at risk.

Residents within the Blast Zone of Mariner East Pipelines		
Rank	County	Number of residents
1	Chester	31,632
2	Delaware	17,791
3	Westmoreland	11,183
4	Cumberland	10,498
5	Berks	10,498

Further highlighting local vulnerability, FracTracker found that thirteen (32.5%) of the 40 Pennsylvania public and private schools that lie within the Mariner East's thermal impact zone are located in Chester County.

CONCLUSION

Governor Wolf and Pennsylvania's regulatory agencies, including the Public Utility Commission and the Department of Environmental Protection, have not been diligent enough in oversight of Sunoco's practices during Mariner East pipeline planning and installation. Sunoco has violated regulations and agreements, damaged homes, created sinkholes, contaminated aquifers and wells, and disrupted wetlands. The danger of major explosions looms as millions of gallons of hazardous, highly volatile liquids flow near homes, businesses, schools, and recreation facilities on a daily basis. No county is more at risk than Chester County. It is necessary to be informed, vigilant, and proactive to assure the safety and well being of our community.