

Mariner West & Allegheny Access Pipeline Projects



What Are They & Why Are They Planned?

Mariner West is a pipeline project to deliver ethane from the liquid-rich Marcellus Shale processing and fractionation areas in Western Pennsylvania to the Sarnia, Ontario petrochemical market. The project is anticipated to have an initial capacity to transport up to 50,000 barrels per day of ethane and can be scaled to support higher volumes as needed.

Ethane is a byproduct of natural gas development. In order to utilize the byproduct, a pipeline will be built and connect with existing pipelines to move ethane from operations in Western Pennsylvania to the petrochemical market in Sarnia, Ontario, Canada.

Sunoco Pipeline L.P., a subsidiary of Sunoco Logistics, will construct a pipeline from MarkWest Energy Partners L.P.'s Houston, Pennsylvania processing complex in Houston, PA to an inter-connection with an existing Sunoco Logistics pipeline at Vanport, Pennsylvania. *Mariner West* is scheduled to be operational by July 2013 to meet the expectations of the ethane producers and consumers.

Allegheny Access is a pipeline project to deliver refined products from the Midwest to Eastern Ohio and Western Pennsylvania. Utilizing existing and new assets, the Allegheny Access project will have an initial capacity to transport up to 85,000 barrels of refined products per day. *Allegheny Access* is scheduled to be operational by the first half of 2014.

Pipeline Regulation

Due to the interstate connection of the pipeline, the US Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for regulating the pipeline. PHMSA regulates and ensures safe and secure movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines.

Built for Safety and Security

Safety, Security and Environmental Stewardship are core values at Sunoco Logistics and we are dedicated to safe operation of our pipeline systems. Sunoco Logistics is an experienced pipeline company and has been operating pipeline systems safely nationally for more than 75 years.

As an active member in several respected trade organizations like the American Petroleum Institute and the Association of Oil Pipelines, we meet or exceed the most robust requirements of PHMSA for the construction and operations of its pipeline systems.

Additionally, Sunoco Logistics employs some of the most advanced methods of leak detection, integrity management, and damage prevention to minimize the risk of a release and ensure minimal to no impact on individuals, businesses and the environment adjacent to our pipelines. The pipeline system is monitored 24/7 via our control centers.

Our pipelines have been studied and tested to ensure optimal safety for residents and businesses located within close proximity of those pipelines.

Projected Economic Benefits

Total construction jobs for *Mariner* projects: 450

Total amount of ethane transported per day for *Mariner* projects: 50,000 barrels

Total capital invested for *Mariner* projects: >\$600,000,000

Total amount of refined products transported per day for *Allegheny Access* projects: 85,000 barrels

Project Timetable

Outreach Meetings: *Ongoing*

Mariner West Targeted Full In-Service Date: *July 2013*

Allegheny Access Targeted Full In-Service Date: *June 2014*

Information & Inquiries:

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Sunoco Logistics
| Mariner West

- Shale Regions
- Mariner West Pipeline
- Refined Product Pipeline
- Existing SXL Facilities

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Sunoco Logistics, LP – Rochester Hills to Shelby Pipeline Replacement Project

Key Facts & Information

Purpose – Maintenance project to replace existing pipeline sections with thicker wall pipe to improve safety and reliability of the system, and provide increased safeguards for local residents and business owners

General Information:

- Existing 8-inch pipe to be replaced by new 8-inch pipe with external FBE (Fusion Bonded Epoxy) coating.
- Pipeline ships – LPG (Liquefied Petroleum Gas) products such as ethane as part of the larger Mariner West system.
- Extent of work - Approximately 9-mile section between Rte 59 and 26 Mile Rd, along existing pipeline right of way.
- Area located within Rochester Hills and Rochester City, Oakland County and Shelby Township, Macomb County, MI.
- The new pipeline will be buried at a minimum depth of 3-feet.
- Restoration of land within the pipeline replacement area will include fences, sod, and the repair of other property.

Schedule:

- Project Duration – May thru July 2013
- Typical Work Days / Hours – 7 Days a week, 07:00 – 17:00
- Site Duration – Max one week per site (per property) but anticipate much faster. Restoration crew shall follow not more than a week behind.

General Pipeline Replacement Approach:

The pipeline will be replaced along the route following local, state, and federal permitting requirements and regulations along the 9-mile stretch using the following three methods. In all cases, Sunoco Logistics shall take every measure possible to keep work activities limited to the 40-foot right of way as defined by the existing easements with property owners

Open Trench Method:

- The centerline of the pipeline shall be located and marked.
- Encroachments within the pipeline right of way shall be evaluated by the Right of Way department or their designees to determine appropriate resolution.
- Installation of safety fence and silt fence shall be initiated defining the work area of the existing pipeline right of way, 40-foot wide typically.
- Other environmental controls shall be installed based upon location and impacts. e.g. rock construction entrances, straw bale run off filtration, storm water inlet filtration / isolation, street sweeping, dust control.
- Construction workers and equipment shall remain within right of way / safety fence corridor only.

- Sunoco Logistics shall take every measure possible to protect each property from damage outside of the work zone.
- Trackhoe shall be the primary method of excavation minimizing land disturbance.
- Pipeline shall be fully excavated. Top soil shall be segregated from normal fill.
- Existing coating shall be removed at cut locations only, bagged and properly disposed of offsite.
- Existing pipe shall be cut into 20' or 40' lengths, as required, and removed from site.
- The thicker wall carbon steel pipe shall be installed by welding 40' joints together on site and lowered into position with minimum 3' of cover to existing grade.
- All welds shall be x-rayed to confirm and document joint integrity, coating installed and trench backfilled.
- Duration shall not exceed one week from excavation to backfill, at each property.
- Restoration crew(s) (Landscaper) shall follow behind the backfill crew to perform final stabilization and seeding and mulching.

Small Road Bore Methodology:

- Safety and silt fence shall be installed. Trenches shall be excavated on either side of the roadway.
- Equipment shall be positioned to pull / push existing pipe out from under the roadway while at the same time pulling new section of pipe directly behind it, replacing pipeline in same location.
- The pipe shall be welded to the adjacent new pipe as required and x-rayed. Trench locations shall be backfilled and stabilized.

Horizontal Directional Drill (HDD) Bore Methodology:

- Typical site safety and environmental fencing / preparation as previously listed.
- HDD (Horizontal Directional Drill) equipment shall be set up on one end of the bore section.
- The pipe shall be laid out, welded together, welds x-rayed and weld area coated on the other side of the bore section.
- The bore drill shall be completed until full size pipe hole developed at which time the pipe shall be attached to the drill pipe and pulled back through the drill range until exposed on the bore side and properly tied-in to the adjacent new pipe.
- Trench locations shall be backfilled and stabilized as previously mentioned.