



# Force-Assisted Excavation

As proposed, the Mountain Valley Pipeline (MVP) project is a Federal Energy Regulatory Commission (FERC)-regulated natural gas pipeline system that spans approximately 300 miles from northwestern West Virginia to southern Virginia. The MVP will be constructed and owned by Mountain Valley Pipeline, LLC (Mountain Valley), which is a joint venture of EQT Midstream Partners, LP; NextEra US Gas Assets, LLC; Con Edison Transmission, Inc.; WGL Midstream; and RGC Midstream, LLC. EQT Midstream Partners will operate the pipeline and own a significant interest in the joint venture.

## Why is Mountain Valley contacting me?

On October 13, 2017, FERC issued the Certificate of Public Convenience and Necessity for the MVP project. As we progress into the excavation and construction phase, the project team would like to educate stakeholders regarding a potential technique, known as force-assisted excavation, which may be necessary to safely construct the pipeline.

## What is force-assisted excavation and why is it necessary?

Force-assisted excavation, also commonly known as low-charge blasting, can help highly skilled construction crews remove bedrock that is unable to be removed by other methods. A typical force-assisted excavation involves a controlled, small-scale, rolling detonation procedure that results in limited ground upheaval. These types of excavations are typically staggered detonations that use low-force charges specifically designed to dislodge only the rock being affected. The use of blasting is a common and safe practice in the pipeline construction industry.

The Final Environmental Impact Statement (FEIS) issued by the FERC in June 2017, notes that the MVP project will cross approximately 215 miles of shallow depth bedrock – and where possible, Mountain Valley will attempt to mechanically “rip” the bedrock. However, if the bedrock is unable to be ripped, the crews will consider using rock trenching machines, rock saws, hydraulic rams, and jackhammers, among other removal methods – which may include blasting.

## What should I expect if there is a force-assisted excavation on my property?

Depending on the geology of the region and appropriate methods identified by professionals, Mountain Valley may conduct force-assisted excavation through the end of project construction. In the event blasting is scheduled to occur within 150 feet of occupied buildings, structures, outbuildings, or water sources, Mountain Valley will contact you to evaluate the pre-activity condition of the property.

## What can I expect to see and hear when force-assisted excavation occurs?

When blasting is scheduled to occur, which will be during daylight hours, all access to the specific excavation site will be blocked, controlled, and safeguarded from unauthorized entry beginning 10 minutes prior to each scheduled blast. Signage indicating the excavation area will be erected and maintained at identified approaches to the blast area(s), including but not limited to access roads and trails. In accordance with laws and regulations, flaggers will also be stationed on roadways to stop all pedestrian or vehicle traffic during blasting operations.

An audible notification will be used to signal when force-assisted excavation is about to occur. The following air horn or siren signals will be used:

- **Warning signal** :: Three minutes prior to the blast, a series of long signals will sound for one minute
- **Blast signal** :: One minute prior to the blast, a series of short signals will sound

- **All clear signal** :: Following inspection of the blast area, an extended signal will sound

