

## Pipeline Reports: A Special Series

# Let's talk about protecting our ecosystems.

Water resource protection strategies involve a collaborative effort between professionals, agencies, and wildlife organizations – and the Mountain Valley Pipeline (MVP) project team is committed to working extensively with various regulatory bodies and volunteer groups to ensure ecosystem preservation.



The MVP project includes a proposed underground, interstate natural gas pipeline that when complete would transport natural gas from the Marcellus and Utica shale regions through West Virginia and Virginia to energy consumers along its approximately 300-mile route and then access existing infrastructure to provide natural gas to the nation's Mid-Atlantic and Southeast regions. The project is subject to approval and regulatory oversight from the Federal Energy Regulatory Commission (FERC).

The proposed pipeline route unavoidably crosses, or is near, many water features and resources. However, long before the first shovel of soil is moved — detailed environmental, habitat, and groundwater studies will determine the best possible means to work in these sensitive areas, such as rivers, creeks, streams, and wetlands, in order to avoid potential impacts. Environmental experts will conduct thorough field evaluations to address erosion control, storm water runoff, karst, and other possible concerns to protect surface and groundwater resources. MVP's water and environmental experts are in communication with authorities and regulators to develop comprehensive plans that have oversight by state and federal environmental agencies.

In addition, MVP has partnered with the Wildlife Habitat Council (WHC), a non-profit organization with a long history of restoring and enhancing wildlife habitats. Operating in 45 states and 12 countries, the WHC was the first organization to bring together conservation and business to balance the demands of economic growth with a commitment to responsible environmental stewardship.

"One of the highest priorities for our MVP project team is to ensure the sustainability of the entire ecosystem along the pipeline route – and waterways are certainly a critical element of that plan," said Shawn Posey, Senior Vice President, Mountain Valley Pipeline Engineering and Construction. "From planning, to



construction, to restoration, MVP will work with local, state and federal regulators and agencies, as well as with environmental experts from the WHC to make sure that we effectively restore or enhance waterways and wetlands along the route."

Although not typically affected by pipeline construction, MVP plans to identify drinking-water wells located within 150 feet of the pipeline and work with landowners to establish water quality benchmarks prior to construction; and monitoring will continue during construction. Based on scheduling, water sources for domestic use would be sampled three to six months in advance of the construction and immediately prior to construction. The site setting, geology, and topography, along with conditions encountered during trenching would be carefully considered. As a final assurance that no impacts occurred, the supply would be sampled again upon completion of site restoration.

Where wetlands and streams cannot be avoided, MVP engineers will seek to minimize potential impacts by utilizing reasonable crossing procedures. With regulatory approval and oversight, these procedures may include:

- *Dam and pump crossing* that uses temporary dams upstream and downstream to briefly halt water flow
- *Flume crossing*, which directs the flow of water through temporary pipes
- *Horizontal bore crossing/horizontal directional drilling*, which uses boring equipment to safely pass under waterbodies, roads, and railroad tracks

- *Open-cut crossing*, where a trench is excavated across a waterbody and prefabricated pipeline segments are installed with native material, causing no disruption of water flow

- Selective use of highly regulated blasting techniques, only where standard excavation is not possible due to hardness of the rock

### Restoration and Reclamation

As each segment of the proposed pipeline is complete, restoration of waterways and wetlands will begin. Topography will be graded to match original contours and to be compatible with surrounding drainage patterns, except at those locations where permanent changes in drainage are required to prevent erosion and possible exposure of the pipeline.

To restore wetlands, there are varying degrees of saturation and water elevation that will require the re-establishment of a variety of plant species. In unsaturated wetlands, most vegetation will be replaced by seeding, while saturated wetlands will typically be allowed to re-vegetate naturally.

"Our goals are to restore the local habitat and waterways along the pipeline route to their condition prior to construction, and where possible enhance that habitat, and that is just one of the ways that we will define success," added Posey.

**The safety of our communities, our employees, our contractors, and our pipeline will always remain a top priority – as will the preservation and protection of the environment. This is the standard we live by every day, reinforcing what we mean when we say we're completely committed to building the Mountain Valley Pipeline safely and responsibly. Nothing is more important to us.**