



NiSource Gas Transmission & Storage®

UNDERSTANDING ENGINEERING, ENVIRONMENTAL AND CULTURAL RESOURCE SURVEYS

Columbia Gas Transmission LLC (Columbia) safely transports natural gas along approximately 12,000 miles of pipelines throughout Mid-Atlantic, Midwest and Northeast, providing critical infrastructure for the nation's energy needs. Whether planning new facilities or repairing existing ones, Columbia first takes steps to make sure they are planned, designed and constructed in a way that protects natural and cultural resources for future generations. We do this by having trained and experienced personnel gather critical information before the building process starts. This document provides a high-level overview of Columbia's engineering, environmental, and cultural resource survey process.

Many of our survey procedures are coordinated with the regulations and standards found within the Federal Energy Regulatory Commission's (FERC) energy project review process, the U.S. Department of Transportation (DOT) pipeline safety protocols, or in important environmental and cultural resource protection laws such as the Endangered Species Act (ESA), the Clean Water Act (CWA) and the National Historic Preservation Act (NHPA). We also look to state law – specifically Pennsylvania Statute 26 Pa. C.S. § 309(a) – to govern how and when we must notify landowners of our need to conduct surveys in a particular area. The law allows Columbia employees or qualified contractors to access private property for the purpose of conducting surveys, but first requires that we notify landowners by mail at least 10 days prior to visiting their property. The law also establishes legal remedies for landowners to pursue in the unlikely event that property damages occur as a result of the survey.

Before beginning any survey, Columbia first notifies landowners of their intent and need to analyze a particular area where a facility may be located. Typically, these surveys involve small crews of technicians (engineers, biologists and archaeologists) who evaluate potential routing options and study areas that may be impacted if a pipeline project is ultimately approved and implemented. Typical activities that take place during these surveys include the following:

- Engineering surveys are designed to evaluate potential facility locations and construction work areas with an eye toward maximizing safety and minimizing impacts to the surrounding community. These surveys may take into account factors such as physical terrain and slope, operational requirements, access to work areas or roads and proximity to other facilities.
- Biological surveys document vegetation types, determine the likelihood of encountering endangered or threatened species, and identify the location of streams and wetlands. Biological surveys typically involve a "walkover" by a qualified survey team. Sometimes, to determine the presence or absence of wetlands, our biologists may use a small diameter soil probe to evaluate soil conditions. Soil probes are used to extract small diameter columns of soil from potential wetland locations. Once removed, the soil is examined on site and promptly returned.



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- Archaeological surveys are designed to identify cultural or historic resources, and can be more involved than biological assessments. Prehistoric artifacts are often found buried beneath the ground surface. Therefore, small excavations are required in order to conduct an adequate survey. Generally, “shovel tests” are required to be performed at pre-established intervals (such as every 50 feet). Shovel tests can measure up to about 20 square inches and are excavated to varying depths depending on soil structure. In lawns or other landscaped areas, our teams take special care to remove and separate sod and topsoil so it can be promptly replaced once the excavation is completed. If any recovered artifacts are found, they are considered property of the landowner and are returned after they are studied and catalogued.

We are sensitive to the intrusions these activities pose to landowners and strive to minimize the number and duration of visits made by our survey crews. In circumstances where follow-up visits are required, we will consult with landowners about proposed survey activities that were not originally anticipated or described.

For more information on Columbia’s survey procedures or pipeline projects generally, contact Brendan Neal via email at brenneal@nisource.com or by phone at 202-216-9776.