



## Loose Fill – Wormington to Sapperton Pipeline



### Project details:

National Grid needed to expand its network of high-pressure (75 bar) natural gas pipelines in Gloucestershire to help meet growing demand for reliable gas supplies in the south west of England in readiness for the 2010/11 winter.

The Wormington-Sapperton pipeline, which received Government consent in November 2009, is 900mm in diameter and will run for 44km, connecting the compressor station at Wormington, near Broadway, to the above-ground installation at Sapperton, near Cirencester.

The work involved fencing the working area (the 'spread'), removing and storing topsoil and digging a trench as the new pipeline had to be buried underground throughout its length, allowing the land to be reinstated to its original condition once work was completed. The pipeline route crosses the Cotswolds AONB (Area of Outstanding Natural Beauty), mainly through agricultural land. The pipeline was built, on schedule in just seven months and the route is barely visible.

Lyttag Ltd Geo-fill<sup>®</sup> civil engineering bulk fill L2, a secondary aggregate manufactured from a waste stream, was an ideal material to help reduce the soil to pipe friction ratio by reduction of the soil overburden over 1200m on a steep (10-20degree) slope, where there was significant spring water present. The particles size and shape of Lytag Ltd Geo-fill<sup>®</sup> civil engineering bulk fill also gives it excellent hydraulic conductivity properties

**Project:**  
Wormington to Sapperton Pipeline

**Date:**  
2010

**Client:**  
National Grid

**Engineer:**  
Laing O'Rourke Infrastructure,  
UK Pipeline Ltd

**Main Contractor:**  
PPS Pipeline Services

