

# Kendal and Upper Kent Catchment Flood Risk Management Scheme

## Non-Intrusive Ground Investigation Works



As part of the Kendal and Upper Kent Flood Risk Management Scheme we will be undertaking Non-Intrusive Ground Investigation (GI) works to inform our review of potential upstream flood risk measures. To give you advance notice, GI works will commence **during February and March 2024**. VolkerStevin and Fugro, our specialist contractors will set up their works area. They are fully qualified and experienced in undertaking ground investigation works.

### Ground Investigation Surveys

To order to progress the upstream measures of the scheme, and to better understand the viability of potential locations for flood storage we need to build our knowledge of the ground conditions and underground features by undertaking further **Ground Investigation (GI) surveys**. Very light touch in their nature, these investigations will use 'seismic refraction' and 'electromagnetic conductivity' techniques.

This will help determine:-

- further detail about the location, depth and formation of the bedrock;
- the nature of faults, fissures and voids underground.

Bedrock is important because it provides a natural impermeable layer that will stop any see construction of flood storage.

The non-intrusive GI will provide a high level digital image of the underlying ground conditic composition of the underground landscape.

GI surveys are being undertaken in a number of locations throughout the scheme area by a experienced at carrying out this work.



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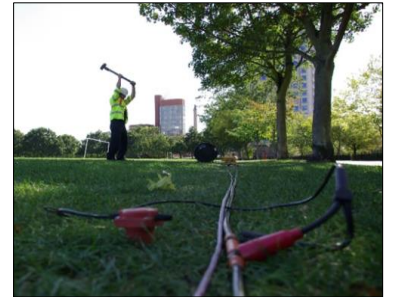
### What will we see?

This work appears less intensive in its nature than some of the other GI works – people may notice one or two personnel walking along with hand held survey equipment, or vehicles transporting personnel and survey equipment to and from site. It is unlikely that you will see any heavy machinery being used.

As an example, a Seismic Refraction survey involves placing a spiked 'geophone' at regular intervals along the survey line. The geophones are then connected to a seismograph by multi-core cables. A seismic source is then generated by striking a plastic plate, as shown in the image below.

In a similar way, a Frequency Domain Electromagnetic survey requires one or two personnel to walk along in a two metre line separation, carrying a CDM Explorer ground conductivity meter (as shown in the image opposite).

Ground investigations are extremely important - they help minimise risk by better understanding potential geohazards that can be addressed early during the design phase, that may otherwise cause delays and additional cost during construction.



Seismic refraction survey in progress



Electromagnetic conductivity survey in progress

### Contact us

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### VolkerStevin Engage

Our new project app allows you to keep up to date on the Kendal Flood Risk Management Scheme, view construction progress, images and provide feedback.

Scan the QR code to download VolkerStevin Engage. Available from both Apple and Google Play.



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