

The Environment Agency is delivering a Flood Risk Management Scheme (FRMS) to better protect homes and businesses from flooding in the Kent Catchment, enhance the local environment and improve community amenities.

We are continuing our programme of site investigations for Stock Beck, Burneside, Staveley, Ings and potential upstream storage locations.

Ground investigation surveys – Catchment update

As we continue with our ground investigation (GI) works we want to provide you with more specific information as to what's involved. To inform our detailed design of the scheme we need to build our understanding of the ground conditions and underground features by undertaking a number of intrusive surveys, ranging from hand dug trial pitting to the use of drilling rigs for both shallow and deep boreholes. These surveys are being undertaken in a number of locations throughout Burneside, Staveley, Ings, and potential upstream storage locations by a team of surveyors that are fully qualified and experienced at carrying out this work.

At times, our ground investigations will appear more intensive in their nature – you may notice things like welfare cabins, large machinery and/or track mats where we will enter sensitive land we want to protect, for example farmers' fields. Once the ground investigation surveys are completed, the pits or boreholes are backfilled, and reinstated on a like-for-like basis based on the original ground surfacing.

What do they tell us?

A GI survey is a means of determining the condition of the ground. They focus specifically on intrusive works such as trial pits and boreholes, and so differ from the wider investigation surveys which we have already undertaken that tend to be non-intrusive in nature, such as visual and environmental surveys.

The ground investigations that we are undertaking will help determine:-

- the water table level and water flow;
- the nature of faults, fissures and voids underground;
- ground layer thicknesses and soil properties;
- detailed information about soil and ground samples.



A hand dug trial pit

What will we see?

The types of equipment used to undertake these surveys will depend on what information and data we need. Some surveys will be undertaken using very low-level impact techniques such as hand digging, whereas some will require more heavy and sophisticated machinery as we dig down to greater depths.

In some locations you may see small installations left above ground which allow a surveyor to attend for monitoring seasonal changes in groundwater movement.

Below is an example of the range of techniques and equipment that will be used.



Window sample rig

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



Sonic drilling rig



Typical GI survey working area



Ground protection mats

What time of day will the survey works be undertaken?

Survey works are typically carried out between 8.00am and 6.00pm (daylight dependent), Monday to Friday. Weekend work may be required. This will be agreed with individual landowners in advance.

How will the land be protected from damage?

We will use a combination of specialist ground investigation equipment and ground protection mats to mitigate as much impact to land as possible.

Access routes required to get to borehole locations have been carefully planned in order to minimise the frequency of travel to further reduce any damage. Work areas will also be fenced off to maintain public safety. Any diversions required will be agreed with landowners and notices displayed accordingly.



Monitoring installation
(land prior to reinstatement)

What will happen during the surveys?

The surveys will range in impact and duration as this will depend on what information we require. Some surveys will be undertaken quickly with little impact, whilst others may require more intensive works that require larger drilling equipment. There may be some locations that require monitoring equipment to be left on site for a period of time. Where this is the case all areas will be fenced off and secured.

How will the land be left once the survey works have finished?

Prior to any works being undertaken, a full photographic record of the present condition will be taken. It may be necessary to leave certain equipment in-situ in order to monitor ground conditions. Where this is required, equipment will be covered, clearly marked and fenced off. On completion of the works, the land will be reinstated to its original state, as close as practicable. There are no foreseeable works that will cause long-term damage.

How many people will there be undertaking surveys?

This will vary but there will be a minimum of two operatives, one supervisor and one specialist operating the specialist GI equipment. The total number of operatives at any given location will be kept to the absolute minimum required.

How long will you take to complete this work?

This will vary at each location based on the number of pits/boreholes required. Overall, we aim to complete GI works across the Kent Catchment in 2024. There may be several re-visits required over the period to the monitoring equipment.

Will you need to access individuals land, gardens or need diversion routes?

We inform all affected landowners where we need to undertake these investigations. Residents are also informed where we need to access their gardens or driveways. Notices of diversion routes are put in place if required and residents in the immediate vicinity are informed directly. Information on diversion routes are also uploaded to the Flood Hub website – see below.

Where will we find the latest information?

We will be keeping the Flood Hub up to date with information relating to the investigation works, news on any diversion routes and the Flood Risk Management Scheme over the coming weeks and months. For more information visit www.thefloodhub.co.uk/UpperKent.

Contact us
and keeping
up to date

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