

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.

Whilst we are continuing our programme of surveys and investigations which will help us to understand ground conditions and the location of utility services across the catchment, there are certain locations where we have now completed our work.

Groundwater monitoring wells

Groundwater monitoring wells were installed in boreholes so that our team of surveyors could make periodic visits to gather information on seasonal changes in the water table. In areas where further groundwater monitoring is no longer required, the wells and monitoring equipment can start to be removed.

Essentially, the aim of the works will be to seal the wells, make them structurally stable and safe, for existing and future landowners. All materials left in the ground are inert and as such have no environmental impact. This will ensure the long-term protection of groundwater quality and resources.

The information gathered is being used to develop and inform the outline design for the Kendal and Upper Kent Flood Risk Management Scheme (FRMS). Once the scheme is complete, the aim is to provide a 1 in 100 year standard of protection (a 1% chance of flooding in any given year) to homes and businesses.

Unintrusive in their nature, the removal works will be undertaken by VolkerStevin, our Environment Agency contractor. A small team (2-4 people) will use the necessary tools, and materials to carry out the work, transported using a 4WD vehicle.



Example rig drilling a borehole to install a monitoring well



Example monitoring well set-up

Groundwater monitoring well removal explained

The first step in removing a monitoring well is to confirm the depth of the well, the groundwater level within it, and the nature of the surrounding headworks. We then remove any fence posts and concrete surrounds.

Wells can fill with silt over time. If this is the case any silt will be removed, and the well will be backfilled with a suitable material. Depending on the nature of the ground conditions and the well, the hole will then be backfilled with a permeable material. An impermeable cap is then formed of bentonite cement at the top. This will prevent any future contaminants from entering the well and contaminating the groundwater at depth. The headworks will then be removed, and the ground reinstated as close as possible to its previous condition using like for like materials. Where topsoil is used, it will be screened clean topsoil.

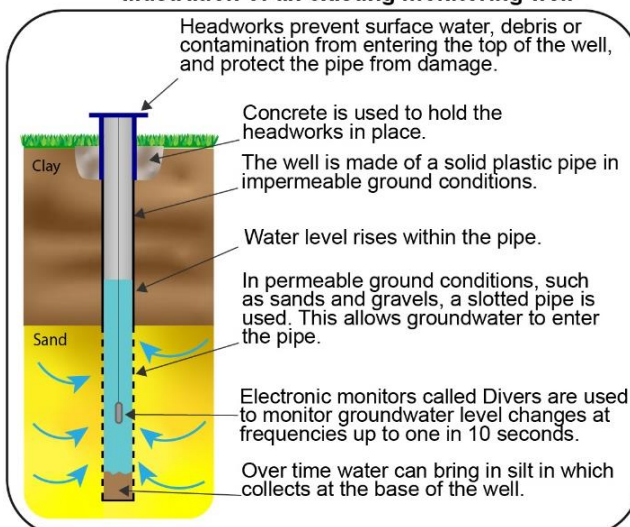
What happens next?

In some locations we will require access to gardens and land to remove the wells. Where access to gardens and land is required, a letter will be issued to the property owner.

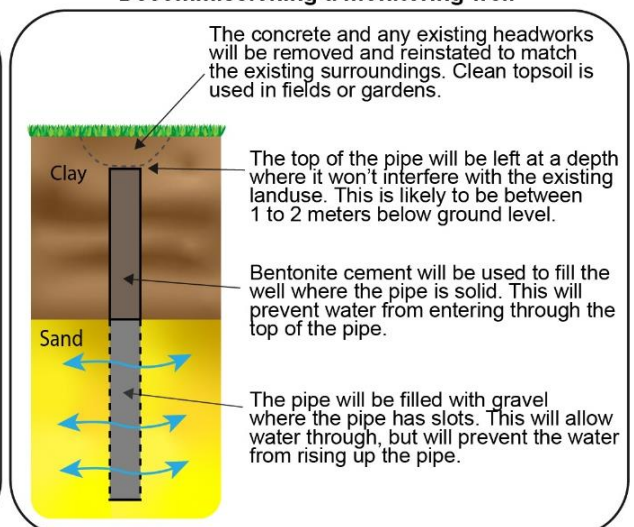
From early on we have been working with landowners, partners and members of the community to explain our work and listen to any concerns they might have. These discussions will continue as the proposals evolve.

The insight gathered, together with results of the groundwater monitoring will be used to further inform development of the outline design of the Flood Risk Management Scheme. Adding to this data, it is possible that further surveys may be required as the scheme progresses.

Illustration of an existing monitoring well



Decommissioning a monitoring well



Contact us
and keeping
up to date

Visit our online information hub at:
www.thefloodhub.co.uk/Kendal
www.thefloodhub.co.uk/upperkent



Follow us on  @EnvAgencyNW
Contact us on **03708 506 506**
Get in touch by emailing
kendalFRMS@environment-agency.gov.uk

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