geotechnical and environmental consultants

ground&water

Geoenvironmental – Environmental/Flood Risk /Pre-acquisition Assessments

Desk Study/Phase 1 Environmental Risk Assessment

A Phase 1 Desk Study report forms the first stage of any construction project. The aim of the study is to provide a holistic overview of a sites' history and environmental setting, which may then influence the objectives of the Phase 2 Intrusive Investigation. This is achieved by careful examination of the following datasets:

- Historical Ordnance Survey and aerial photograph examination to assess existing and former land-uses and potential contamination sources.
- Flood risk potential by reference to Environment Agency records.
- Solid and drift geology by reference to British Geological Survey mapping and borehole index records.
- Groundwater vulnerability from Environment Agency classification of aquifer status.
- Assessment of potential geological hazards such as subsidence, compressible deposits and dissolution features.
- A physical site walkover to assess the current land-use and potential sources of contamination.
- Active and historical surface and underground workings.
- Active and historical landfill assessment within 500m of the site boundary based upon local authority and Environment Agency records.
- Radon gas potential with reference to BRE211 and Public Health England databases.
- Planning history of the site by examination of local authority portal.
- Discussion with local authority where necessary.

Our data sets are not limited to the above, but these are the comment sources.

Ensuring that the appropriate due diligence has been performed before commencing to the Phase 2 Investigation is vital for the safety of all stakeholders involved.

Flood Risk Assessment

When do you need to undertake a Flood Risk Assessment (FRA) and what does it include?

There are a few possible reasons and it includes developments:

- In flood zone 2 or 3 including minor development and change of use.
- More than 1 hectare (ha) in flood zone 1, less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential).
- Where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs).
- In an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency.

You can find out what zone your development in by visiting a Flood Map for planning on the GOV website. **(https://flood-map-for-planning.service.gov.uk/)**

Usually your Local Authority will ask you to submit a Flood Risk Assessment to discharge a planning condition. A Flood Risk Assessment includes an extensive research into a site-specific area, which consists of data from surface water flooding maps, council-specific Strategic Flood Risk Assessment and Surface Water Management Plans as well as newly developed Tidal Breach Data for areas in the vicinity of the River Thames. After an analysis of all available data and calculating a risk of flooding, working with your Civil Engineers, our engineering team produces recommendations for flood resilience, taking into account the principles of Sustainable Urban Drainage System (SUDS) and the requirements of the Sustainable Drainage Scheme, to satisfy planning conditions.

Anticipated Ground Condition & pre-acquisition studies, risk assessments and advice

If you are unsure what the site for your development may have in store, we have the ability to provide an early insight into the risks associated with it by providing Anticipated Ground Conditions reports and Pre-acquisition studies. These reports can be tailored to your specific needs to ensure you get the most from the final reports.

We are also able to undertake the following risk assessments for you:

- Asbestos
- Chalk Dissolution
- Ground-gas
- Groundwater
- Subsidence
- Volatile vapour
- Human Health

We use a wide range of sources and industry guidance to ensure the advice and information we give you is the most accurate it can be.

If you require any of the services described above, please email:
enquiries@groundandwater.co.uk
or call us on 0333 600 1221