

### Flood Risk Assessment (FRA)

Waterco has extensive experience of completing Flood Risk Assessments (FRA) which are fully compliant with Planning Policy Statement 25: Development and Flood Risk (PPS25).

Under PPS25, Flood Risk Assessments are required for all developments within an identified flood risk area. All new developments greater than 1 hectare, whether in a flood zone or not, also require a FRA as part of the planning process.

As well as this, completion of a FRA is a mandatory requirement under the *Code for Sustainable Homes*. See the 'Sustainable Homes' information sheet for more information.

Waterco offers three levels of FRA in line with PPS25 and can advise which is most appropriate for your development.

#### FRA Level 1 – Screening Study:

- Investigation and report for the site to assess any flooding or surface water issues which may require further investigation or confirm that the site is at low risk of flooding from all sources.
- Define what 'Zone Classification' the development falls under.

#### FRA Level 2 – Scoping Study:

- Qualitative appraisal of flood risk posed to site and potential impacts development will have on flood risk elsewhere.
- Production of FRA Scoping Study Report including possible measures to reduce flood risk for submission to the Environment Agency for comment / approval.

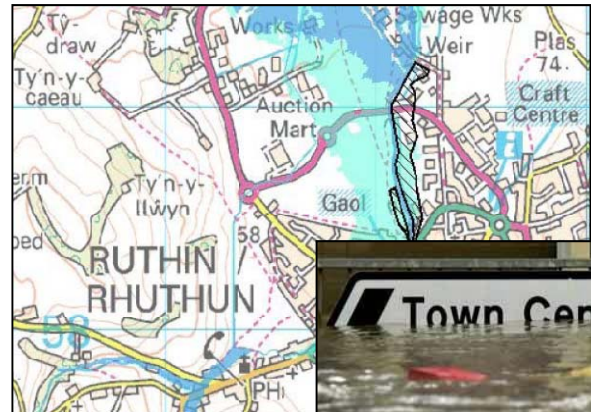
#### FRA Level 3 – Detailed Study:

- Undertaken if the Environment Agency requires further quantitative analysis to assess flood risk issues relating to development site.
- Production of a detailed FRA which may include catchment analysis, hydraulic calculations and modelling to quantify the potential flood risk to the site, any offsite flood risk impacts and determine appropriate flood mitigation measures.

For more details see our FRA Schedules and Standard Fees on our website.

**“I would give Waterco 11 out of 10 for their service. They have gone one step beyond our expectations with their guidance on flood risk assessments. They offer a friendly and personal service and their aftercare service is fantastic”**

Phil Parker, Environmental Engineer - C B Richard Ellis



#### Flood Modelling:

Flood Risk Assessments are increasingly accompanied by detailed flood computer simulations, as requested by the Environment Agency (EA) for larger sites or where the EA does not hold sufficient data.

Waterco utilises DHI MIKE software and LIDAR to model in detail the watercourses, flood defences and hydraulic structures which the EA flood maps do not take into account. These may influence the flood depths on your development site.

Waterco has successfully modelled a number of scenarios for Flood Risk Assessments including:

- Intergraded 1D / 2D hydraulic models of rivers
- Overland flow assessments
- Tidal breach assessments
- Surface water run-off simulations

Waterco is also able to produce high quality video animations of the flood simulation, which provides a visualisation tool illustrating accurately the potential flood risk to the development and surrounding area.

#### Benefits:

Waterco's staff are experts in the water industry and provide specialist advice and solutions on water related projects including Drainage Design, Water Supply Design, Sustainable Drainage design (SUDS), Strategic Planning and Underwater Surveys.

Waterco has produced over 150 Flood Risk Assessments over the last 9 years and we have an in- depth knowledge of the requirements of PPS25. We are experienced in dealing with the Environment Agency and Local Authorities.

For more information please contact us or visit our website – [http://www.waterco.co.uk/flood\\_risk.php](http://www.waterco.co.uk/flood_risk.php)

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