Holmfirth Flood Risk Assessments

Marsden Developments

Project Aims

Discussions with Environment Agency to agree approach and scope of study. River modelling to establish flood plain and flood criteria. Produce flood risk assessment for planning submission.

The key aspects of this study included liaison with EA, site surveys, flood risk assessment and hydraulic river modelling.

Project Summary

The EAs indicative flood plain mapping showed the Fearnought Works and Thongsbridge Mill sites to be within the 100 year flood plain. To progress the planning applications for the development of these sites it was necessary to undertake river modelling of the River Holme and then assess the risk of flooding.

Clear carried out topographical surveys to establish ground profiles at the development sites. Further surveys were undertaken to obtain river cross sectional and flood plain data.

An assessment methodology and river modelling approach were discussed and agreed with EA. A steady state river model was built using HEC-RAS software. The model was uncalibrated and sensitivity analysis was used to provide additional confidence that the assessments were robust.

The river model was used to assess the 100 year flood profile and flood levels at the development sites.

The Fearnought Works development was shown to be above the 100 year flood level and not at risk of flooding. The flood risk assessment was completed and submitted.

Part of the Thongsbridge Mill site was shown to be at risk of flooding. To progress the planning application it was necessary to consider potential land use limitations and storage compensation measures that would mitigate any flood risk at the site.

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