



Environment  
Agency

 Floodguards®

## Flood Mitigation Report and Provision of Resistance Measures

Year:	2007
Area to benefit:	Gunthorpe
Protection offered for:	42
Protection accepted for:	33
Contract value:	£242,041
Median value per property	£7,335 (plus £500 survey cost)
Source of funding:	Local levy grant (Midlands Region RFDC)
Extent of protection:	Doors, windows, airbricks, non-return valves to drainage, sump pumps, re-pointing brickwork, rendering, water sealants etc

### What was exceptional about this scheme?

The first major contract for individual property protection to include individual Flood Mitigation Reports



The City of Nottingham is subject to improved capital flood defences comprising flood walls and embankments provided by the Environment Agency (EA). This will increase the level of protection to properties within the city itself however in downstream areas there will be little or no benefit, and in fact it is believed that some areas would have a slightly increased flood risk.



Unlike the city, the downstream area is sparsely populated with most of the population in small villages; therefore it has been assessed that these areas would be unlikely to benefit from their own capital flood defence scheme because of the cost outweighing the benefit.

As the area does have a long history of flooding it has been deemed that the villages themselves are of importance on a regional level and a budget to protect a number of properties using resilience measures had been set aside by the Regional Flood Defence Committee in 2007 after consultation with Newark and Sherwood District Council and the EA.

The village of Gunthorpe was one area which came particularly under the spotlight and had a number of people active in lobbying the EA and Newark & Sherwood District Council. It had a long history of flooding not just from the Trent but mainly from a tributary and in some cases surface water run-off and drainage. The probability of fluvial flooding was typically in the range of 1 in 50 years to 1 in 100 years.

42 properties were identified as being potentially at risk from a 1 in 100 year flood although this information was based on LIDAR data and flooding archives. Some of these properties were owner occupied, some were rented and others were vacant. The home owners in this area would be described as relatively property rich and in some cases income poor. Property types varied from older terrace properties to large detached and very individual properties. This variance meant that a common assessment of building structure and potential leak-paths for floodwater could not be made without individual mitigation reports – and for this purpose it was decided that an individual ‘flood risk mitigation reports’ would be required for each property.

The project was put out to tender as part of a four year plan to cover further properties in the Lower Trent Valley. Flood Guards Systems Ltd (FGSL) submitted a tender and was duly awarded the contract in August 2007.

Letters had already been sent by the EA asking for interest in participation in the scheme. Those positive responders were passed to FGSL for surveying who in turn sub-contracted the work to Flood Risk Management Services Ltd (FRMS). FRMS is a consultancy firm that FGSL had used previously as a specialist in not only assessing flood risk but more so reporting on what measures needed to be undertaken to prevent/slow ingress of flood water to prescribed levels. FRMS is the only company

approached by FGSL which could confirm it held professional indemnity insurance specifically for flood risk assessments and mitigation reports. The EA had already commissioned a drains survey, threshold level surveys and tables showing the probability of flooding to each property. These were provided to FRMS.

A copy of the report was sent to the EA with associated budgets for the work required in order to allow the project manager to decide on how to allocate the funds appropriately. It was decided that the doors guards and airbrick covers for which the contract had been awarded should go-ahead and further consideration would be made as to how far to go with each property in terms of project funds and levels of protection.

FRMS carried out the respective surveys in two batches and the initial batch provided sufficient 'early-adopters' to allow installation teams to be sent economically. The response was initially relatively slow but sufficient acceptances came in to allow works to commence on site. Once the FGSL installation teams were on-site the acceptance rate accelerated.

The variance in property size and type brought about vastly different costs for an overall solution and it had to be resolved how this would be addressed. In the end the terraced properties which had relatively low costs for Floodguards would also be approved for additional works i.e. re-pointing, water sealant, non-return valves and in some cases sump pumps. The largest properties would in some cases have guards costing in excess of £7,000 and also requested that the remaining works be also fully-funded. It was decided by the EA that to provide fairness the cost of the Floodguards would provide the funding cap in these cases.

In all, 40 properties accepted the offer of flood protection and from the point of view of the Newark & Sherwood District Council and the EA, the remainder had declined the offer and would therefore not benefit in the future from delivery of sandbags or other emergency measures. With few exceptions, every household was in receipt of a flood mitigation report identifying the risk as well as the necessary mitigation measures. A sample of the FRMS report is available upon request.

