

## **Policy and Scrutiny**

# Open Report on behalf of Environment Agency

Report to: Flood and Drainage Management Scrutiny Committee

Date: **26 February 2016** 

Subject: Louth and Horncastle Flood Alleviation Schemes

## Summary:

To outline progress on implementing flood alleviation schemes for Louth and Horncastle.

## **Actions Required:**

To consider and comment on progress made towards implementing flood alleviation schemes for Louth and Horncastle.

## 1. Background

Louth and Horncastle have suffered historic flooding from main rivers, most recently in 2007.

Louth is a "rapid response" catchment situated on the River Lud with a low standard of protection from flooding. The preferred flood risk management option is to build two flood storage reservoirs to reduce flood risk to homes and businesses in Louth.

Horncastle is situated on the confluence of the rivers Bain and Waring. Flooding occurs due to high flows in both watercourses. The town has a significant number of properties with a low standard of protection. Flood events have been recorded in 1920, 1960, 1981, 1993 and 2007. The preferred option is to build a flood storage reservoir on the River Bain and individual property protection for those at risk from the River Waring.

In March 2009 it was concluded that external contributions would be necessary to make any scheme viable. A partnership approach to funding was therefore adopted by; The Environment Agency, Lincolnshire County Council, East Lindsey District Council, Lindsey Marsh Drainage Board and the Witham Third Drainage Board to deliver flood storage schemes at both locations. Both Town Councils have agreed in principle to fund future maintenance of the completed schemes.

Horncastle

## **Key Information**

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Current probability of Main River flooding	5% (1in20)	10%(1in10) Bain
in any year		20%(1in5) Waring
Probability following construction works*	0.67% (1in150)	1% (1in100)
Number of properties benefiting from scheme	355	288
Estimated construction completion	August 2016	Sept 2016
Capital Cost including contingency	£6.5 million	£8.2 million
(today's prices)**		

Louth

#### Louth

Work started on site in July and is progressing well. The control structures at both sites are substantially complete and adjoining culverts have been installed. Work to the earth embankment on the north site is 40% complete and trial embankments have commenced on the south site. There have been site visits with the town Council and Monks Dyke Tennyson College. The wet weather in December and January led to a suspension of earthworks which have led to a delay to the completion. Negotiations with the landowners are continuing.





North site control structure

Internal view of control structure

## Horncastle

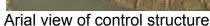
Work began on site in July 2015. There have been significant archaeological finds on the site. The lattice timber work has provided an insight into how the river was managed. Samples have been sent for carbon dating. Due to the type of material at the site, construction of the main earthworks has stopped for the winter period. Work continued on the control structure until early February when it was more cost effective to stop all work on site until the earthworks can resume. There have been sites visits with the Town and Parish Councils. The scheme is expected to finish in September 2016.

<sup>\*</sup> the figure quoted for annual probability of river flooding post-construction works is based on current river flows. For Louth, the probability is expected to increase to 1.25% (1in80) over the 100 year life of the scheme based on the latest climate change guidance. We have not yet undertaken the climate change calculations for Horncastle but similar changes should be expected.

\*\* includes additional £430,000 acceleration funding, secured for potential Property Level Flood Protection (PLFP) works.

Agreements in principle have been reached with five of the seven landowners and some advance payments have been made.







Steelwork fixed to central dividing wall

#### 2. Conclusion

Construction work has commenced at both Louth and Horncastle. The archaeological investigation at Horncastle and the susceptibility of the available material to wet weather has put back the expected completion date to September 2016. The wet weather in December and January led to a suspension of earth work at Louth pushing back the completion date of that scheme to August 2016. There remains a risk of delay due to inclement weather.

## 3. Consultation

# a) Policy Proofing Actions Required

Not applicable

# 4. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

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