

Policy and Scrutiny

Open Report on behalf of Richard Wills, Executive Director for Environment & Economy and Phil Younge, Area Manager Lincolnshire & Northamptonshire, Environment Agency

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	04 September 2015
Subject:	Environment Agency Consultation on the Future Management of the Black Sluice Drain and Pumping Station

Summary:

This report is to inform the Committee of the Environment Agency's (EA) ongoing Black Sluice Catchment Consultation and how this may impact upon the future of the Black Sluice Pumping Station and the implications relating to the establishment of Boston as a waterways destination. The consultation will run until 27th September 2015 and the EA have set up a number of public consultation events. The briefing note for the consultation is attached to this report (Appendix A) and details of the consultation events are also attached (Appendices B & C).

Actions Required:

1. That the Committee are made aware of the consultation process and are enabled to make informed decisions about their response to it.
2. That the Committee approve the proposal for a single co-ordinated response from the County Council.

The LCC response to this consultation will be approved by Councillor Colin Davie, Executive Member for Economic Development, Environment, Planning and Tourism and Councillor Lewis Strange, Chairman of the Flood and Drainage Management Scrutiny Committee. Members wishing to contribute to this response should do so in writing and forward their responses to Amanda Manns at amanda.manns@lincolnshire.gov.uk by Friday 11th September 2015.

1. Background

The Environment Agency Consultation

The Black Sluice, also known as the South Forty Foot Drain, drains a catchment covering from Boston, west to Sleaford and south to Bourne. A map of the area can be seen in the attached Environment Agency Briefing Note at Appendix A. The

majority of the 500+ miles of drains and channels within this catchment are managed by the Black Sluice Internal Drainage Board but the main drain, the South Forty Foot Drain and its tributaries, is managed by the Environment Agency.

The catchment ends at the Black Sluice where the South Forty Foot Drain discharges into the Haven. The Black Sluice complex includes the Black Sluice Pumping Station and two gravity discharge sluices at London Road, Boston (one of the sluices doubles as a navigation lock). On a day to day basis the South Forty Foot Drain discharges naturally by gravity flow during the lower half of the tidal range. When flow rates from the catchment area are high, and the sluices are tide locked, the gravity discharge is supplemented by pumping via the Black Sluice Pumping Station. This facility has five pumps with a total pumping capacity of up to 60 cubic metres of water per second (cumecs). It was built 69 years ago initially with a capacity of 30 cumecs and upgraded approximately 20 years later to its current capacity.

The pumps in the Black Sluice Pumping Station are coming to the end of their life and three of the five were damaged by the tidal flooding in December 2013 and are no longer in use. The EA estimates the cost of replacing one or two pumps to be £5-£10million.

The EA are therefore undertaking a study of the catchment area and how its drainage is managed. This study will inform the business case as to whether to replace the pumps and/or carry out other works to manage water levels and provide adequate protection from flooding to properties, farmland and other assets in the catchment area. Modelling by two independent consultants to the EA and property threshold surveys, have shown that no homes are put at increased risk of flooding if the pumping station at Black Sluice did not operate. The pumps do provide some flood protection to 178 hectares of farmland in a 1 in 10 chance flood event (in a slightly rarer, 1 in 20 chance event, this land is at risk of flooding with or without pumping).

Due to no properties and limited agricultural land benefitting from a reduction in flood risk as a result of the pumping station, the EA is unable to fund this from Flood Defence Grant in Aid. The EA is therefore seeking partnership funding from other organisations with an interest in keeping the pumping station operational.

The EA's management options for the Black Sluice under consideration are therefore:

Black Sluice Pumping Station Options	Lower Catchment Options	Upper Catchment Options
Do Nothing	Do Nothing	Do Nothing
Do Minimum – Removing the pumps	Do Minimum – Continue with current maintenance	Do Minimum – Continue with current maintenance
Replacing the pumps: <ul style="list-style-type: none"> - 2 pumps (current capacity: 30 cumecs) - 1 pump (15 cumecs) 	Make flood products (known as 'property level flood protection') available to homes most at risk	'Slowing the flow' upstream to hold water back

	Protecting low points along the raised banks from erosion	Increased channel maintenance
		Make flood products (known as 'property level flood protection') available to homes most at risk
Transfer to Black Sluice IDB		

As can be seen from the above table in parallel with this process the EA are also considering handing over the management of the Black Sluice to the Black Sluice Internal Drainage Board and their response to the consultation and the transfer of responsibility for the management of the Black Sluice is attached to this report (Appendix D).

LCC response – potential impacts of the Black Sluice Catchment Management Review

The level and duration over which water can be impounded in the Haven (Water Level Management or WLM) by the proposed Boston Flood Barrier are limited by the need to discharge from incoming waterways such as the River Witham and the Black Sluice. The levels and duration of WLM are important as recognised in the economic studies undertaken by Richard Glenn Associates in 2014/15 which looked into Boston's potential growth as a waterways destination and indicated that water levels in the Haven would have to be managed above the level of the Black Sluice throughout the boating season for Boston to see significant benefits. This is to enable boats to pass through Boston without having to negotiate tidal currents and to make bankside mooring possible. The aspiration to impound water in the Haven permanently throughout the boating season to accommodate boats for passage and to moor up overnight to establish Boston as a waterways destination would require the Black Sluice to either be pumped out into the Haven or for an alternative route found for it to discharge downstream of the Boston Barrier (or a combination of both). For this aspiration to be attainable it is essential that the future management of the Black Sluice and the method(s) by which it discharges into the Haven do not limit the options for Water Level Management.

2. Conclusion

The Committee's views are sought on the EA consultation on the future management of the Black Sluice catchment and Pumping Station and support is recommended for a single co-ordinated LCC response to:

- a. Protect the existing levels of flood protection throughout the catchment.
- b. Recognise outcomes that support the aspirations of the Council for Water Level Management in the Haven.

3. Consultation

a) Policy Proofing Actions Required

n/a

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Environment Agency Briefing Note – 'Managing the Risk of Flooding: Black Sluice Catchment'
Appendix B	Environment Agency Consultation Event at Rippingale
Appendix C	Environment Agency Consultation Event at Bicker
Appendix D	Black Sluice Internal Drainage Board Response to the Consultation

5. Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document Title	Where the document can be viewed
Boston Barrier Water Level Management Economic Benefit Analysis Report January 2015 – Richard Glen Associates	http://lincolnshire.moderngov.co.uk/documents/s8976/Boston%20Barrier%20-%20Appendix%20E.pdf
Boston Barrier Opportunities before Water Level Management Report January 2015 – Richard Glen Associates	http://lincolnshire.moderngov.co.uk/documents/s8977/Boston%20Barrier%20-%20Appendix%20F.pdf

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