

CABINET

DATE	13 th March 2024
REPORT OF	Councillor Stewart Swinburn Portfolio Holder for Environment and Transport
RESPONSIBLE OFFICER	Carolina Borgstrom, Director of Economy, Environment and Infrastructure
SUBJECT	Greater Lincolnshire Groundwater Project
STATUS	Open
FORWARD PLAN REF NO.	CB 03/24/03

CONTRIBUTION TO OUR AIMS

The Council Plan 2023 contains aspirations for borough residents that include:

- Benefiting from a high-quality environment.
- Enjoying good health and wellbeing.
- Living in a safe environment, can have their say about things that are important to them and participate fully in their communities.

The Saltings wetland scheme will reduce groundwater flood risk to many adjacent properties.

EXECUTIVE SUMMARY

This report seeks approval for the construction of a wetland on the abandoned part of the Saltings Allotments.

The aim of the project is to reduce groundwater flood risk to property and provide ecological benefits, as well as improving the local environment.

The project will be 100% funded by Lincolnshire County Council through funding from the Defra Flood and Coastal Resilience Innovation Programme with a value in the region of £2M.

RECOMMENDATIONS

It is recommended that Cabinet:

1. Agrees to accept the funding offer from Lincolnshire County Council made via the Defra Flood and Coastal Resilience Innovation Programme
2. Authorises the Executive Director for Environment, Economy and Resources, in consultation with the Portfolio Holder for Environment and Transport to commence the procurement of a contractor to construct a wetland at the Salting's allotments and thereafter award, mobilise, implement and undertake all other activity reasonably arising.
3. Authorises the Assistant Director of Law and Governance to execute all documentation arising.

REASONS FOR DECISION

The Council is a Lead Local Flood Authority which means it is responsible for the management of flood risk from groundwater. This is one of the statutory duties bestowed upon it by the Flood and Water Management Act 2010.

The commitment to identify appropriate groundwater flood risk management measures across Grimsby is contained in the NELC's Local Flood Risk Management Strategy. This Strategy is a statutory document required of a Lead Local Flood Authority.

The Defra Flood and Coastal Resilience Innovation Programme will fully fund the cost of the project with up to £2M available for North East Lincolnshire Council from funding held by Lincolnshire County Council.

1. BACKGROUND AND ISSUES

- 1.1 There is a history of groundwater issues in Grimsby that affect dozens of properties around Chelmsford Avenue, Littlefield Lane and elsewhere in Grimsby. It is likely to be impacting hundreds of properties where the residents are unaware. Groundwater can be in the sub floor space without residents being aware. Poor underfloor ventilation can then lead to deterioration of the floor timbers due to the presence of flood water.
- 1.2 Since 2001, changes to Anglian Water's abstraction rates at their Chelmsford Avenue works, and the loss of a number of local large water usage factories, has seen an overall rise in local groundwater levels. Nowhere has this been more evident than at the Saltings Allotments in Littlefield Lane where approximately 50% of the allotment plots were permanently lost to groundwater flooding.
- 1.3 As well as the impacts to property, there is the impact on the local sewerage network. At the Chelmsford Avenue water works, to help minimise flood risk to adjacent property, groundwater is pumped into the combined sewer network. Also, the flooded area of the Saltings currently drains into the sewer network. This is putting significant base loads into the network, which results in reduced capacity and increased flood risk during heavy rainfall.
- 1.4 Over the years the Grimsby sewerage system has not been expanded sufficiently to keep pace with the development and expansion of the town. Coupled with climate change which is making the rainfall we experience both more intense, and more frequent, we are at a higher risk of flooding than ever and any additional groundwater entering the sewerage system increases the risk even more.
- 1.5 North East Lincolnshire Council are a partner on the Greater Lincolnshire Groundwater Project lead by Lincolnshire County Council. The project aims to achieve a better understanding of groundwater flood risk in the Greater Lincolnshire area. The County Council were successful in their bid for funding from the Defra Flood and Coastal Resilience Innovation Programme, so the Saltings wetland project will be 100% externally

funded. There is a £2M allocation for the Saltings.

- 1.6 The wetland will be constructed on the part of Saltings allotments that has been abandoned due to permanent groundwater flooding. It will be constructed in such a way as to reduce groundwater levels, which are affecting adjacent properties, and provide ecology benefits for the area.
- 1.7 Also, it is intended to open the wetland to public access, allowing residents of the borough to benefit from visiting an area designed to nurture nature and provide habitat to many different species of flora and fauna. The wetland could also provide opportunities for the education of the public and local school pupils about wetland and groundwater science and the role the wetland plays in flood risk protection.
- 1.8 Improvements to the nearby Kingston Gardens will also be carried out. This is a Council owned wooded area to the west of the Chelmsford Avenue waterworks, and the Council ecology team would like to see it improved through vegetation clearance and the de-silting of the two blow wells on the site. A blow well is feature unique to Lincolnshire and is where significant volumes of groundwater can flow to the surface due to the pressures in the aquifer rock deep underground. The pressure of the groundwater emerging from a blow well is entirely dependant on the amount of rainfall in the preceding few months. A lot of rainfall increases groundwater pressure, whereas low levels of rainfall reduces pressure, sometimes to the point of the well drying up for a period.
- 1.9 A later part of the Greater Lincolnshire Groundwater project may be the creation of a new telemetry network, monitoring groundwater levels within boreholes.

2. RISKS AND OPPORTUNITIES

- 2.1 There is a risk to the Council should the project not proceed in that it may be seen as failing in its duty as a Lead Local Flood Authority and having a duty to manage flood risk from groundwater flooding in North East Lincolnshire. This risk may be exacerbated by the fact the project will be entirely externally funded, including the recouping of the costs of the NELC staff tasked with delivering the project.
- 2.2 The long-term predictions for rainfall patterns in England are for less cumulative rainfall, but more intense storms in the summer, thereby the risk of flooding to property will increase further in the future. The spring/summer period is when groundwater levels in the borough peak and groundwater flows into the sewerage systems are at their maximum. This means there is less capacity for dealing with the intense rainfall that occurs during some summer storms. This project will reduce groundwater flows into the borough's sewerage systems during the period of highest flood risk.
- 2.3 Since 2001, most of the southern half of the allotments has been permanently flooded and some adjacent property have permanent flooding of their sub floor space. Back gardens of the properties regularly suffer

from extensive flooding. As a result, some of the affected residents came together to form the Chelmsford Avenue Flood Action Group. The NELC/Equans Drainage team have met this resident's group on a number of occasions. This enabled team members to get the Group's views on the future management of the abandoned area of the Saltings Allotments. The Group made it clear that any future plans should include measures to reduce flood risk. Members of the allotment holder's association have also attended two of the meetings.

- 2.4 A main aim of the Flood Action Group is to enhance the biodiversity of nature in the local area by adding more trees, plants and meadow to spare land in local urban areas. During the meetings the Group came to understand that with the right approach at the Saltings, the local ecology can be improved, flood risk reduced, and a contribution can be made to balancing carbon emissions. Furthermore, the Group understood that a wetland constructed on the abandoned part of the Saltings can achieve all this and so were fully supportive of the proposals, as were the allotment holders.
- 2.5 Previously, there was a proposed scheme to install a pumping station to reduce groundwater levels at the Saltings. Also, there was a previous wetlands scheme drawn up for the Saltings. Neither scheme went ahead due to lack of funding. This is an opportunity to deliver the multi-benefit Saltings wetland scheme which would be welcomed by local residents. There would be no cost to the Council as the scheme is fully externally funded including NELC staff time for work on the delivery of the scheme.

3. OTHER OPTIONS CONSIDERED

- 3.1 The Council has a statutory duty as a Lead Local Flood Authority to manage groundwater flood risk. There are measures in place to manage this risk at the Saltings but this 100% externally funded wetland scheme would lead to a big reduction in flood risk to adjacent properties, as well the other benefits to be enjoyed by residents of the Borough. Therefore, the option of doing nothing would be difficult to justify.
- 3.2 To continue to manage the abandoned part of the Saltings in the current manner will gradually become more and more unsustainable due to ever increasing vegetation and tree growth. This is making it increasingly difficult to maintain drainage channels due to access problems for plant and operatives. It is also causing annual maintenance costs to gradually increase.

4. REPUTATION AND COMMUNICATIONS CONSIDERATIONS

- 4.1 Failure to reduce flood risk emanating from a Council owned location with a long history of groundwater flooding could generate reputational risks for the Council. The Saltings wetland scheme will reduce the flood risk to potentially hundreds of properties in the locality.
- 4.2 The Greater Lincolnshire Groundwater Project team were successful in obtaining over £7M of funding from the Defra Flood and Coastal Resilience Innovation Programme. Following on from this, successful representations

were made by the NELC/Equans Drainage team for £2M of funding for the wetland scheme. This illustrates how the Council is exploring all funding avenues to reduce flood risk in its role as Lead Local Flood Authority.

- 4.3 Meetings with the local resident's flood group and allotment holders have been overwhelmingly positive. There has not been one objection to the proposed construction of the wetland. The successful delivery of the wetland will result in a positive view of the Council due to the resultant reduction of flood risk along with the ecological and leisure benefits that will become available to Borough residents and visitors.

5. FINANCIAL CONSIDERATIONS

- 5.1 The cost of the Saltings wetland scheme will be in the region of £2M but will be 100% funded by Lincolnshire County Council who have obtained the funding from the Defra Flood and Coastal Resilience Innovation Programme.
- 5.2 The Council Ecology team will be managing the wetlands after construction. However, the cost of future management is unlikely to exceed current maintenance costs to manage flood risk from the Saltings. The Lincolnshire Wildlife Trust, one of the project partners, will be looking at the feasibility of obtaining green finance to fund the future maintenance of the site. This would result in a saving for the Council.
- 5.3 There will be no effect on Council capital expenditure and there will be no call on Council reserves.

6. CHILDREN AND YOUNG PEOPLE IMPLICATIONS

It is planned to construct educational boards at various vantage points around the wetlands. This will provide an opportunity for local schools to bring their pupils on educational visits to the site. As well as learning about the various flora and fauna on the site, the pupils will also learn about hydrology and the water cycle, including flood risk.

7. CLIMATE CHANGE AND ENVIRONMENTAL IMPLICATIONS

- 7.1 As well as reducing flood risk, the wetland will capture large quantities of carbon dioxide and other greenhouse gases from the atmosphere and store it in its soil and plants, a process called carbon sequestration. Effectively, the wetland reduces carbon in the atmosphere, so is helping towards the Council's carbon neutral target.
- 7.2 The wetland is designed to nurture nature and provide habitat to many different species of flora and fauna, resulting in significant biodiversity gains. Also, it will provide a leisure space for residents of the Borough.

8. CONSULTATION WITH SCRUTINY

Scrutiny will be consulted when the design options for the wetland have been developed further.

9. FINANCIAL IMPLICATIONS

The project will be 100% funded by Lincolnshire County Council from the Defra Flood and Coastal Resilience Innovation Programme.

10. LEGAL IMPLICATIONS

- 10.1 Immediate legal implications arising will be around the terms and conditions of external grant funding and the completion of funding agreements and ancillary documentation. Legal Services will support this process, ensuring the interests of the Council are protected.
- 10.2 The delegations sought are appropriate for an exercise of this nature.

11. HUMAN RESOURCES IMPLICATIONS

There are no direct HR implications contained within this report.

12. WARD IMPLICATIONS

The South Ward is the principal beneficiary of the wetland scheme with potential wider impacts across adjacent wards.

13. BACKGROUND PAPERS

None

14. CONTACT OFFICER(S)

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