



## Report of Ian Hope

### Report to CHIEF OFFICER (HIGHWAYS AND TRANSPORTATION)

Date: 10 September 2019

Subject: Approval for capital expenditure on Flood Alleviation Strategy Study, Lin Dike (Upper) Garforth

Capital scheme number: 32850

Are specific electoral wards affected? If yes, name(s) of ward(s): Garforth and Swillington	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has consultation been carried out?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the decision be open for call-in?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## Summary

### 1. Main issues

- There is a long history of property flooding in the Lin Dyke catchment going back to the 1980's and significant recent flooding recorded in 1997, 2000, 2002 (twice), 2004, 2007, 2012, 2014 and most recently in August 2015. (Figures 1, 2 and 3)
- A number of Flood Alleviation Schemes have been implemented to improve the level of flood protection to properties in the Lin Dyke catchment. An integrated hydraulic model has been undertaken and identified 30 potential improvements. (Figure 4)
- A further study is required to assess the potential of these improvements and the identification of potential schemes within the upper catchment (Garforth) to increase the standard of flood protection in the Lin Dyke catchment in Garforth and require capital funding to progress further.
- The benefits of this study will be to identify potential measures that will deliver a significant reduction in the risk of flooding to a number of residential properties

which are all known to be at risk. There will also be potential wider indirect benefits to other residential properties in the vicinity and to the public highway through better management of surface water runoff.

- The proposed works at Garforth are classified as S.31 'High Priority' in the Updated Local Flood Risk Management Strategy. This was adopted by Full Council on the 27<sup>th</sup> March 2019.

## **2. Best Council Plan Implications** (click [here](#) for the latest version of the Best Council Plan)

- The proposed scheme will have positive implications for “safe and strong communities” and “health and wellbeing” because it will reduce the risk of flooding for residents of Garforth and for employees and users of commercial premises nearby.
- The proposed scheme will have positive implications for “inclusive growth” because it will reduce the risk of flooding of Homes and Businesses.
- This scheme is classified as ‘High Priority’ in the 2018 Update of the Local Flood Risk Management Strategy.

## **3. Resource Implications**

- The total estimated cost of Consultancy Fees for the study is £128k.

## **Recommendations**

The Chief Officer (Highways and Transportation) is requested to:

- a) Approve the implementation of the proposed study to reduce flood risk at Garforth.
- b) Give authority to incur capital expenditure of £128,000 on progressing and implementing the proposed study fully funded from Environment Agency Grant in Aid.

## **1. Purpose of this report**

- 1.1 To note the issues with flooding within the Lin Dyke Upper Catchment and in Garforth in particular. Currently a number of residential properties are directly affected
- 1.2 To give authority to incur capital expenditure on the proposed study which will benefit the community of Garforth through reducing flood risk.

## **2. Background information**

- 2.1 There is a long history of property flooding in the Lin Dyke catchment going back to the 1980's and significant recent flooding recorded in 1997, 2000, 2002 (twice), 2004, 2007 and 2012. On Friday 8th August 2014 further significant flooding was experienced in the Lin Dyke catchment with over 60 residential properties flooded internally and an additional 100 properties externally. Further flooding occurred on 22<sup>nd</sup> August 2015, again causing significant concern to residents that had flooded

only 12 months previously. The sources of flooding are a complex mixture of surface water runoff from fields and urban areas and also fluvial flooding directly from Lin Dyke.

- 2.2 A study into flooding in the Lin Dyke catchment, centred on Garforth, was undertaken by Leeds City Council (LCC) in conjunction with the Environment Agency (EA), Yorkshire Water Services (YWS) and other partner organisations in 2008. This West Garforth, Integrated Urban Drainage Pilot (IUDP) Study involved hydraulic modelling of a section of the Garforth surface water drainage and culverted watercourse network which outfalls to Lin Dyke. A further study and integrated hydraulic model was completed by Leeds City Council in 2016.
- 2.3 A number of flood alleviation and drainage improvement schemes have been implemented, following on from this study, to increase the standard of flood protection to properties in the Upper Lin Dyke catchment. Most notably:
  - Barley Hill Recreation Ground Flood Alleviation Scheme, Garforth – surface water SUDS scheme utilising a recreation ground as a temporary flood storage area. Completed in 2018.
  - Glebelands Recreation Ground Flood Alleviation Scheme, Garforth – surface water SUDS scheme utilising a recreation ground as a temporary flood storage area. Completed in 2017.
  - Lowther Road Flood Alleviation Scheme, Garforth – 100m long culverted watercourse bypass. Completed in February 2014.
- 2.4 A further minor highway drainage improvement scheme is also currently in progress at Kingsway, Garforth
- 2.5 In addition to the above implemented and in progress schemes a further study to assess potential further schemes to further increase the standard of flood protection in the upper Lin Dyke catchment (Garforth) is proposed and requires capital funding to progress further
- 2.6 Proposed locations for further investigation are shown on Figure 4 in Appendix A.

### **3. Main issues**

- 3.1 Additional hydraulic modelling will be required to assess combinations of the potential locations to provide reduced flooding.
- 3.2 Topographical surveys will be required to provide baseline data for outline designs.
- 3.3 The proposed study will select potential scheme which reduce the risk of flooding to residential properties in Garforth. At present these properties flood at a frequency of greater than 1 in 10 years.
- 3.4 The study will aim to identify schemes which will not increase the flows of water downstream and therefore will not increase the risk of flooding to properties downstream of the sites.
- 3.5 It is intended to undertake the works in the 2017/19 financial years.

## **4. Corporate considerations**

### **4.1 Consultation and engagement**

- 4.1.1 Regular consultation and engagement has been, and continues to be undertaken with landowners, local residents, Ward Councillors and the Environment Agency. This has taken the form of public meetings, presentations and dialogue with the Garforth Flood Support Group.
- 4.1.2 Yorkshire Water Services, Parks & Countryside and LCC Highways have also been consulted as the scheme design progresses to ensure that the proposals do not negatively impact on their assets. Representatives from both parties attend progress meetings.
- 4.1.3 Further continuous engagement will take place as the schemes are developed.

### **4.2 Equality and diversity / cohesion and integration**

- 4.2.1 An EDCI screening has been completed and indicated that an Equality Impact Assessment is not required for what is being proposed.
- 4.2.2 It should be noted that by carrying out these works the Council will be ensuring the safety of the local community and in particular more vulnerable residents such as those who are elderly or have a disability and may struggle to get to safety if flooding occurred.

### **4.3 Council policies and the Best Council Plan**

- 4.3.1 The proposed works will provide improvements to the community and the neighbourhood by reducing the risk of flooding to this area  
Climate Emergency
- 4.3.2 The Council is meeting its responsibility as Lead Local Flood Authority in reducing flood risk

### **4.4 Resources, procurement and value for money**

- 4.4.1 The total estimated study cost is £128,000. This comprises £107,000 Consultancy costs, £21,000 LCC staff cost
- 4.4.2 The scheme costs will be funded from Environment Agency Grant in Aid
- 4.4.3 The maintenance regime will be delivered in partnership with landowners

Funding Approval :	Capital Section Reference Number :-							
<b>Previous total Authority to Spend on this scheme</b>	<b>TOTAL</b>	<b>TO MARCH</b>	<b>FORECAST</b>					<b>2023</b>
		<b>2019</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>on</b>	
	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>
LAND (1)	0.0							
CONSTRUCTION (3)	0.0							
FURN & EQPT (5)	0.0							
DESIGN FEES (6)	0.0							
OTHER COSTS (7)	0.0							
<b>TOTALS</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Authority to Spend required for this Approval</b>	<b>TOTAL</b>	<b>TO MARCH</b>	<b>FORECAST</b>					<b>2023</b>
		<b>2019</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>on</b>	
	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>
LAND (1)	0.0		0.0					
CONSTRUCTION (3)	0.0		0.0					
FURN & EQPT (5)	0.0		0.0					
DESIGN FEES (6)	21.0	14.5	6.5					
OTHER COSTS (7)	107.0	58.7	48.3					
<b>TOTALS</b>	<b>128.0</b>	<b>73.2</b>	<b>54.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total overall Funding (As per latest Capital Programme)</b>	<b>TOTAL</b>	<b>TO MARCH</b>	<b>FORECAST</b>					<b>2023</b>
		<b>2019</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>2022/23</b>	<b>on</b>	
	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>	<b>£000's</b>
LCC Supported Borrowing	0.0							
Revenue Contribution	0.0							
Capital Receipt	0.0							
Government Grant	128.0	73.2	54.8					
Any Other Income ( Specify)	0.0							
<b>Total Funding</b>	<b>128.0</b>	<b>73.2</b>	<b>54.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Balance / Shortfall =</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

#### 4.5 Legal implications, access to information, and call-in

4.5.1 The proposed works will reduce the flood risk in Garforth. The content of the report is not a Significant Decision; therefore it will not need to be included in the Forward Plan and is not subject to Call In

#### 4.6 Risk management

4.6.1 There is a low risk of potential overspend due to encountering unforeseen conditions during the options assessment. However, this risk will be mitigated through proactive monitoring and if the available capital expenditure is considered insufficient to cover the proposed work at any stage then the study proposals will be revised accordingly.

## 5. Conclusions

- 5.1 The benefits of the proposed study will be to identify measures that could provide a significant reduction in flood risk to a number of residential properties in Garforth; which are all known to be at risk. There will also be potential wider benefits to other residential properties in the vicinity and to the public highway through better management of surface water runoff

## 6. Recommendations

- 6.1 The Chief Officer (Highways and Transportation) is requested to:
- Approve the implementation of the proposed study to reduce flood risk at Garforth
  - Give authority to incur capital expenditure of £128,000 on progressing and implementing the proposed study funded from Environment Agency Grant in Aid

## 7. Background documents<sup>1</sup>

- 7.1 **Appendix A** - Figures and photographs (as referenced in the above report).

*Figure 1 - Flooding at Barley Hill Recreation Ground, August 2014*

*Figure 2 – Flooding at Ninelands Lane, July 2005*

*Figure 3 - Flooded property off Wakefield Rd, Garforth*

*Figure 4 – Proposed study - key sites*

- 7.2 **Appendix B** – Equality Impact Assessment

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<sup>1</sup> The background documents listed in this section are available to download from the council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.

## Appendix A – Figures and Photographs



*Figure 1 – Flooding at Barley Hill Recreation Ground, August 2014*



*Figure 2 – Flooding at Ninelands Lane, July 2005*



*Figure 3 Flooded property off Wakefield Rd, Garforth*

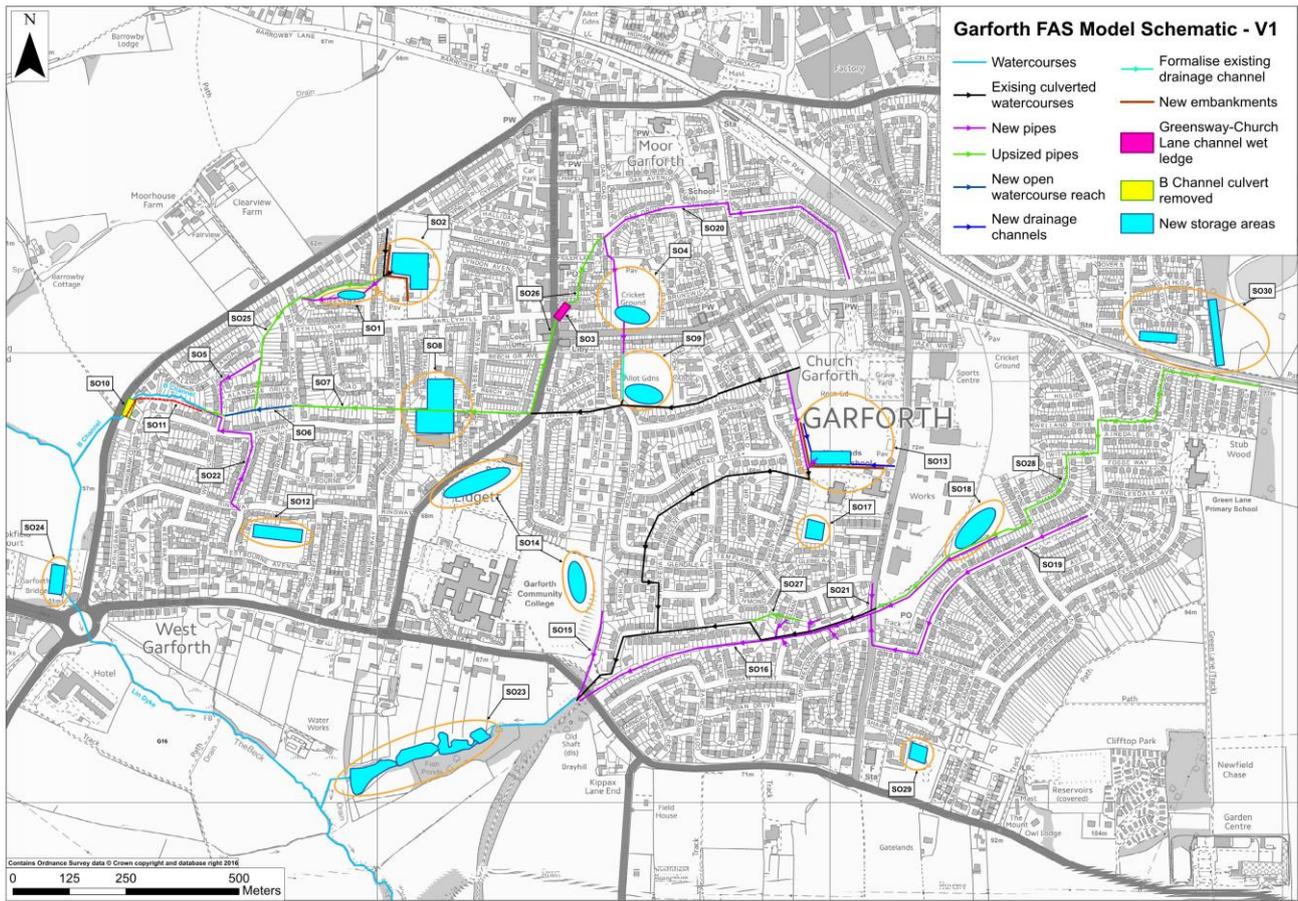


Figure 4 – Proposed study - key sites

## Appendix B - Equality, Diversity, Cohesion and Integration Screening

As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration.

A **screening** process can help judge relevance and provides a record of both the **process** and **decision**. Screening should be a short, sharp exercise that determines relevance for all new and revised strategies, policies, services and functions. Completed at the earliest opportunity it will help to determine:

- The relevance of proposals and decisions to equality, diversity, cohesion and integration.
- whether or not equality, diversity, cohesion and integration is being/has already been considered, and
- Whether or not it is necessary to carry out an impact assessment.

<b>Directorate: City Development</b>	<b>Service area: Flood Risk Management</b>
<b>Lead person: Ian Hope</b>	<b>Contact number: 0113 37 87412</b>

1. Title: **Flood Alleviation Strategy Study, Lin Dike (Upper) Garforth.**

Is this a:

Strategy / Policy

Service / Function

Other

**If other, please specify**

2. **Please provide a brief description of what you are screening**

This EIA screening assessment is for the proposed study of flood alleviation works in Garforth. The works involve the identification of potential schemes which will reduce the risk of flooding to residential properties in Garforth.

3. **Relevance to equality, diversity, cohesion and integration**

All the council's strategies/policies, services/functions affect service users, employees or the wider community – city wide or more local. These will also have a greater/lesser relevance to equality, diversity, cohesion and integration.

The following questions will help you to identify how relevant your proposals are.

When considering these questions think about age, carers, disability, gender reassignment, race, religion or belief, sex, sexual orientation and any other relevant

characteristics (for example socio-economic status, social class, income, unemployment, residential location or family background and education or skills levels).		
Questions	Yes	No
Is there an existing or likely differential impact for the different equality characteristics?		x
Have there been or likely to be any public concerns about the policy or proposal?		x
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?		x
Could the proposal affect our workforce or employment practices?		x
Does the proposal involve or will it have an impact on <ul style="list-style-type: none"> <li>• Eliminating unlawful discrimination, victimisation and harassment</li> <li>• Advancing equality of opportunity</li> <li>• Fostering good relations</li> </ul>		x

If you have answered **no** to the questions above please complete **sections 6 and 7**

If you have answered **yes** to any of the above and;

- Believe you have already considered the impact on equality, diversity, cohesion and integration within your proposal please go to **section 4**.
- Are not already considering the impact on equality, diversity, cohesion and integration within your proposal please go to **section 5**.

<b>4. Considering the impact on equality, diversity, cohesion and integration</b>
If you can demonstrate you have considered how your proposals impact on equality, diversity, cohesion and integration you have carried out an impact assessment.
Please provide specific details for all three areas below (use the prompts for guidance).
<ul style="list-style-type: none"> <li>• <b>How have you considered equality, diversity, cohesion and integration?</b> (think about the scope of the proposal, who is likely to be affected, equality related information, gaps in information and plans to address, consultation and engagement activities (taken place or planned) with those likely to be affected)</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Key findings</b> (think about any potential positive and negative impact on different equality characteristics, potential to promote strong and positive relationships between groups, potential to bring groups/communities into increased contact with each other, perception that the proposal could benefit one group at the expense of another)</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Actions</b> (think about how you will promote positive impact and remove/ reduce negative impact)</li> </ul>

<b>5. If you are not already considering the impact on equality, diversity, cohesion and integration you will need to carry out an impact assessment.</b>
Date to scope and plan your impact assessment:

Date to complete your impact assessment	
Lead person for your impact assessment (Include name and job title)	

<b>6. Governance, ownership and approval</b> Please state here who has approved the actions and outcomes of the screening		
<b>Name</b>	<b>Job title</b>	<b>Date</b>
Ian Hope	Group Engineer	18/02/19

<b>7. Publishing</b> This screening document will act as evidence that due regard to equality and diversity has been given. If you are not carrying out an independent impact assessment the screening document will need to be published.  Please send a copy to the Equality Team for publishing	
<b>Date screening completed</b>	15/08/19
<b>If relates to a Key Decision send to Corporate Governance</b>	
<b>Any other decision please send to Equality Team (equalityteam@leeds.gov.uk)</b>	