

Notice of a public meeting of

Decision Session - Executive Member for Environment

To: Councillor Waller (Executive Member)

Date: Monday, 4 December 2017

Time: 5.30 pm

Venue: The Thornton Room - Ground Floor, West Offices (G039)

AGENDA

Notice to Members – Post Decision Calling In:

Members are reminded that, should they wish to call in any item* on this agenda, notice must be given to Democratic Services by **4:00 pm on Wednesday, 6 December 2017**.

*With the exception of matters that have been the subject of a previous call in, require Full Council approval or are urgent which are not subject to the call-in provisions. Any called in items will be considered by the Customer & Corporate Services Scrutiny Management Committee.

Written representations in respect of items on this agenda should be submitted to Democratic Services by **5.00 pm on Thursday, 30 November 2017**.

1. Declarations of Interest

At this point in the meeting, the Executive Member is asked to declare:

- any personal interests not included on the Register of Interests
- any prejudicial interests or

- any disclosable pecuniary interests which he might have in respect of business on this agenda.

2. Minutes (Pages 1 - 4)

To approve and sign the minutes of the Decision Session held on 2 October 2017.

3. Public Participation

At this point in the meeting, members of the public who have registered to speak can do so. The deadline for registering is **5.00pm on Friday, 1 December 2017**. Members of the public can speak on agenda items or matters within the Executive Member's remit.

To register to speak please contact the Democracy Officer for the meeting, on the details at the foot of the agenda.

Filming, Recording or Webcasting Meetings

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Residents are welcome to photograph, film or record Councillors and Officers at all meetings open to the press and public. This includes the use of social media reporting, i.e. tweeting. Anyone wishing to film, record or take photos at any public meeting should contact the Democracy Officer (contact details are at the foot of this agenda) in advance of the meeting.

The Council's protocol on Webcasting, Filming & Recording of Meetings ensures that these practices are carried out in a manner both respectful to the conduct of the meeting and all those present. It can be viewed at

https://www.york.gov.uk/downloads/file/11406/protocol_for_webcasting_film_and_recording_of_council_meetings_20160809

4. York 5 Year Flood Plan Update (Pages 5 - 20)

This report provides an update regarding progress on the York Five Year Flood Plan, including work carried out by the Environment Agency, since the last update in September.

5. Gulley Management Strategy Update (Pages 21 - 38)

This report provides an update on the review of the council's gulley management strategy, carried out at the request of the Executive Member in order to identify an efficient gulley cleansing programme, and sets out recommendations arising from the review.

6. Urgent Business

Any other business which the Executive Member considers urgent under the Local Government Act 1972.

Democracy Officer:

Fiona Young

Telephone No- 01904 552030

Email- fiona.young@york.gov.uk

For more information about any of the following please contact the Democratic Services Officer responsible for servicing this meeting:

- Registering to speak
- Business of the meeting
- Any special arrangements
- Copies of reports and
- For receiving reports in other formats

Contact details are set out above.

This information can be provided in your own language.

我們也用您們的語言提供這個信息 (Cantonese)

এই তথ্য আপনার নিজের ভাষায় দেয়া যেতে পারে। (Bengali)

**Ta informacja może być dostarczona w twoim
własnym języku. (Polish)**

Bu bilgiyi kendi dilinizde almanız mümkündür. (Turkish)

یہ معلومات آپ کی اپنی زبان (بولی) میں بھی مہیا کی جاسکتی ہیں۔ (Urdu)

 (01904) 551550

City of York Council

Committee Minutes

Meeting	Decision Session - Executive Member for Environment
Date	2 October 2017
Present	Councillor Waller

18. Declarations of Interest

At this point in the meeting, the Executive Member was asked to declare any personal interests not included on the Register of Interests, any prejudicial interests or any disclosable pecuniary interests which he had in the business on the agenda. No additional interests were declared.

19. Minutes

Resolved: That the minutes of the Decision Session held on 7 August 2017 be approved as a correct record and then signed by the Executive Member.

20. Public Participation

It was reported that there had been no registrations to speak at the meeting under the Council's Public Participation Scheme.

21. Update Report on action to mitigate risk of fire at City of York Council following the Grenfell Tower fire

The Executive Member considered a report that updated him of the work undertaken to mitigate the risk from fire following the Grenfell Tower fire.

The Shared Head of Health and Safety and Head of Building Services were in attendance to present the report and they confirmed the Council had been actively managing fire risk for a substantial period of time that was in line with the Regulatory Reform (Fire Safety) Order 2005 (RRO).

Officers highlighted each area of the report and the Executive Member noted that:

- 592 communal areas fell under the RRO and all except 2 areas, where officers were unable to gain access, had received a Fire Risk Assessment including 70 blocks identified, which had not previously been flagged in the Council's asset management system, of having communal areas.
- All urgent remedial actions had been completed and any non urgent actions were being addressed through a medial work programme.
- communication with residents on fire safety measures had taken place in the form of a letter, a press release and the Director of Health, Housing and Adult Social Care had taken part in a local radio interview.
- Senior managers and staff from Housing and Health & Safety had met to formulate an action plan that was considered by the Housing & Community Safety Senior Management Team for approval on 28 September 2017.
- hard wired detectors had been fitted to approximately 5000 homes and officers had been liaising with North Yorkshire Fire & Rescue Service to install lithium battery operated detectors in the remaining properties, as an interim measure.

Officers then responded to the Executive Members questions where it was acknowledged that:

- York had no high rise blocks above 18 metres and that no City of York Council (CYC) homes, schools or corporate buildings had Aluminium Composite Material type cladding.
- officers were aware of the type of cladding used in the 23 CYC owned 'system built' properties of 4 storeys.
- officers were not in a position to confirm what fire safety regulations were in place for non-council high rise residential buildings as the Council were not the only provider of building regulation services.

Further discussions took place around communal areas and fire safety assessments and officers agreed to email the current policy and guidance on the use of flower tubs to the Executive Member.¹

The Executive Member thanked officers for their update and he noted that the Local Government Fire Safety Sub Group, attended by fire safety professionals from Councils across the

north, met shortly after the Grenfell Tower fire to compare responses and gave particular consideration to the use of sprinkler systems, especially within sheltered and care home accommodation.

Resolved:

- (i) That the ongoing work to reduce the risk from fire and the council's response to managing and responding to those risks be noted.
- (ii) That any national inquiry reports and any relevant outcomes from the action plan be included in the 6 monthly update reports that will be presented at future Executive Member for Environment Decision Sessions.

Reason: To ensure the Executive Member and residents are assured that the council has proper arrangements in place for managing and responding to the risk from fire.

Action Required

Email the current policy and guidance on the use of flower tubs to the Executive Member.

SL

Cllr Waller, Executive Member

[The meeting started at 5.30 pm and finished at 6.00 pm].

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Decision Session – Executive Member for Environment**4 December 2017**

Report of the Director of Economy & Place

York 5 Year Flood Plan Update**Summary**

1. The flooding in late December 2015 followed an intense period of rainfall across November and December due to the impacts of Storms Desmond and Eva. Record river levels were observed in many river catchments across the north of England. More than 4000 homes and 2000 businesses flooded across Yorkshire with 453 properties and 174 businesses flooded in York.
2. Funding has been allocated to the Environment Agency (EA) following the floods to renew existing and provide new flood defences across the city, £17m has been allocated to the Foss Barrier improvements and £45m to the wider flood defences across the city.
3. Defra approvals have been granted for the high level business case and the contract has been awarded to consultants to develop the detailed business case and consequent detailed design of packages of works, agreements are being sought with regard to the approach to climate change in the project.
4. An update on progress has been supplied by the Environment Agency, this can be seen in Annex 1.
5. High level options for each flood cell have been reviewed and are detailed in Annex 1 and the approach taken to prioritise the measures across the flood cells is discussed.
6. Meetings are scheduled with utilities companies to update on actions from the York Flood Inquiry and the National Flood Resilience Review. No further progress has been made by the Local Resilience Forum (LRF) to relocate the Tactical Command (Silver) Centre.

7. Work has commenced with the Integrated Catchment Solutions Partnership (iCASP) to further research into Natural Flood Risk Management processes and appraisals, City of York Council are fully involved in all aspects of this work.

Recommendations

8. The Executive Member for the Environment is asked to note the update report and the evidence presented by the Environment Agency in the session, feedback is sought from the Executive Member on all content.

Background

9. Following the development and publication of the York Five Year Plan (<https://www.gov.uk/government/publications/york-5-year-flood-plan>) the EA have developed the Defra Strategic Outline Business Case and financial approvals have been sought and obtained from Defra. This is a significant hurdle for any major project.
10. The Environment Agency continue to work closely with City of York Council on all aspects of the York Five Year Plan, an update has been provided by the EA at Annex 1.
11. The high level options identified for each community in the York Five Year Flood Plan have been considered further during the summer and an initial explanation of the methods and process used to identify the priority of action across flood cells was discussed at the 4th September 2017 Decision Session, an action was taken to further report on all methods used and plans to take forward these measures. The Environment Agency have made this information available at Annex 1.
12. The review of the York Flood Inquiry provided to the Executive Member in the 4th September 2017 Decision Session raised further questions on how utility companies are responding to the York Flood Inquiry and the National Flood Resilience Review and the progress that is being made by all partners in the development of a new location for the Strategic Command (Silver) Group.
13. All utilities companies are represented at the North Yorkshire LRF Lifeline Services Group quarterly meetings, the September Lifeline meeting was held before the actions of the 4th September Decision Session were confirmed but City of York Council Emergency Planning

Officers are scheduled to attend the next meeting on the 7th December. All Category 2 responders attend the meeting, initial feedback of the discussion at the meeting will be provided for the minutes of the 4th December Decision Session.

14. The work to identify alternative Silver Command locations is ongoing and sits with NYCC as the secretariat of the LRF.
15. Additional resources have been committed to develop and deliver the work identified in the inquiry, an Emergency Planning Assistant role is currently being recruited with interviews scheduled for 11th and 12th December 2017, the development of community flood resilience measures is a core function of this post.
16. The role of natural flood risk Management / catchment scale measures was debated at the 4th September meeting, a core concern was the ways in which the effectiveness of such interventions can be measured to allow them to input into scheme appraisals and to identify flood risk or other funding opportunities. One of the key issues identified was the lack of telemetry and monitoring in the further reaches of catchments and small scale tributaries to show reductions in peak flood flows following the adoption of these measures.
17. The iCASP initiative has developed a workstream based around natural flood risk management and a workshop was held on the 19th September 2017 to co-develop a range of research topics to better understand these approaches, City of York Council attended the workshop and one of the outputs was the need for a better understanding of catchment scale monitoring. Further updates will be brought to a future decision session as this work develops.

Consultation

18. Public consultation on the York Five Year Plan was held in late November 2016 and quarterly newsletters have been developed by the EA to further inform on progress. The Economy & Place Scrutiny Committee Scrutiny Committee received a paper detailing progress at their 4th March 2017 meeting and regular formal updates will be provided to the Executive Member for Environment and the Economy & Place Scrutiny Committee at quarterly and six month frequencies respectively.

19. Detailed public consultation events will be held in each community following the production of the long list of options and further refinement of the preferred options.

Options

20. The principal options open to the Executive Member for Environment are to comment on and review the work undertaken to date and the future work identified to date and the representations made by the Environment Agency.

Analysis

21. Ongoing liaison will continue between the Executive Member for Environment and the CYC Flood Risk and Asset Manager, future briefings to the Executive Member for Environment Decision Session will be made to ensure key outputs and decisions are supported by CYC and to provide formal opportunities for members and the public to consult. Further recommendations will be made for agreement at these sessions.
22. City of York Council Officers welcome the programme details provided in Annex 1 of this report and endorse the continued development a wide ranging programme as soon as practically possible.

Council Plan

23. Improved provision of flood defences supports a prosperous city for all through safer communities for residents, businesses and visitors, a wide range of consultation events will ensure this is in line with the needs and expectations of local communities.

Implications

24. **Financial** – Funding is allocated directly to the EA, the additional funding of £45M is available to be directed towards key flood risk projects in the city in the short term. The extent of required works may require wider funding and Defra funding bids will be developed. There are likely to be contribution requirements as part of this wider work. This will be developed further and consulted upon later in 2017.
25. **Property** – The Site Investigation programme will include sites under CYC ownership and/or control, consultation will be carried out with Estates teams and all relevant agreements will be put in place.

- 26. Human Resources (HR) – No implications
- One Planet Council/Equalities – No implications
- Legal – No implications
- Crime and Disorder – No implications
- Information Technology (IT) – No implications

Risk Management

- 27. No known risks are identified at this time, detailed risk management work will be developed as the business case and detailed design works commence.

Contact Details

Author:

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Flood Risk & Asset Manager
Highways
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Chief Officer Responsible for the report:

Neil Ferris
Director of Economy & Place

Report **Date** 20/11/17
Approved

Wards Affected: List wards or tick box to indicate all **All**

For further information please contact the author of the report

Background Papers: None

Annexes: Annex 1 York 5 Year Flood EA Briefing Dec17

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York Flood Alleviation Scheme

Update for 4 December Decision Session

November 2017

At September's Decision Session we provided an overview of the range of projects ongoing in York, from the Foss Barrier to the 5 Year and Long Term Plans. Here, we want to provide greater detail on progress towards the delivery of new or upgraded flood defences in the city through the 5 Year Plan.

Summary of Recent Activities

Topographic Surveys

We have now completed ground level and threshold surveys in the city on both banks of the Ouse downstream of Skeldergate Bridge. This data is informing the development of detailed options in this area prior to public consultation later in the year.

Geotechnical Studies

Given the scale of potential works within the city, we anticipated that a significant programme of ground investigations would be required. Inevitably this work will create temporary disturbance in some areas. In light of this we have been conducting detailed reviews of previous investigations across the city, to reduce the number of potential ground investigation sites. Our engineers have also visited a number of locations across the city to evaluate the practicalities of conducting surveys in these areas. Discussions with key stakeholders are taking place to ensure necessary investigations are scheduled to minimise disturbance.

Structural Surveys

York's river frontage is already heavily developed. Therefore there is limited potential to create new standalone flood defences along the riverside. New defences will in some instances need to tie in to existing buildings. In order to determine whether this is feasible, we have begun the process of surveying buildings in key areas. Using existing buildings will minimise the visual impact of new defences, and should lead to less disturbance during construction.

Engagement with Key Stakeholders

We have recently convened an Advisory Group of key stakeholders to discuss upcoming issues and ensure we maximise the potential benefits of the scheme. The group consists of representatives from the fields of archaeology, heritage, business, utilities, planning, ecology, and flood risk. The initial meeting of the group served as an opportunity to bring all parties up to speed on proposals, and the next meeting in December will focus on ground investigation works and discussion of the shortlisted options in Clementhorpe and New Walk.

Flood Warning Changes

One of the actions from the Independent Review of the 2015 floods was to investigate ways to improve flood warnings further. We have recently completed a review of the warnings we issue in York, following the completion of new flood risk modelling. On the Ouse, there were very few changes which confirms that the understanding we have of the flood risk on the Ouse is current and relevant. For the Foss, changes have been made to areas covered by each flood warning, making them more relevant to the communities they cover.

The understanding of what rainfall and river levels are in the Foss catchment will also improve. This is via a rain gauge which has been installed in the upper Foss catchment, 20 miles north of York. This will be followed by a river level gauge being installed in December just north of Strensall on the Foss. This data will feed directly into a better river forecast for the Foss and support more intelligent operation of the Foss Barrier in York.

Habitat Surveys

There is a defined window in which to conduct ecological surveys. In order to ensure that ground investigations could commence without delay, we took the decision to conduct initial habitat surveys over large areas of the city at an early stage. Not only has this informed the need for more detailed surveys in key areas, but crucially will enable us to begin ground investigation works without having to wait until the start of the ecological survey season next year.

Appraising Climate Change Methodology

Key to our works to improve the defences in the city we are looking at how climate change might impact water levels in the future. Current modelling predicts a significant rise in flood levels over the next century. This obviously has implications for the height of defences in the city. Therefore we are looking at different ways of providing improved protection, including upstream storage, local defence raising and combinations of both. This work will also help us determine when best to invest in different types of solutions.

Shortlisting Options

In conjunction with the survey and feasibility work ongoing at this time, we are in the process of shortlisting viable options for each flood cell (York is split into 29 distinct flood cells, each of which represents a geographical area where the flood risk to that area is self-contained and can be mitigated by flood risk measures e.g. walls, embankments and gates. Most cells will require a number of flood risk measures at different locations to reduce the overall risk of flooding to that cell). Within this project we have shortlisted 18 flood cells (19 flood cells including Clifton Ings and Rawcliffe) to progress further. Actions in other flood cells will be progressed through future projects.

Priority has been given to undefended areas and shortlisting has been progressed furthest in these areas. This will enable us to consult with residents in these areas on a shortlist of viable options, to determine the optimal solution. Shortlisting for the remainder of the cells is ongoing.

Public Engagement

Due to the ongoing survey and shortlisting process, over the past 3 months, our engagement work has focused on updating residents about progress across the city, rather than specific events focussed on individual schemes. However now that detailed options appraisal for the first flood cells is well underway, we will be holding the first of many public drop in sessions. In contrast to the exhibitions we held last year, which were city wide in their content and audience, future events will be more targeted. We will be discussing details of specific schemes in distinct areas, and therefore we want to give priority to local residents in these communities to share their views.

Citywide engagement will of course continue through established media and social media channels, along with the opening of our new drop in centre at Wellington Row.

Progress of Each Flood Cell

What follows is a brief summary of the current position of each flood cell within York. Outline options for each area were published in the 5 Year Plan in November 2016. The detailed feasibility work ongoing since then has helped to clarify options in each area. Given the number of flood cells, and the upcoming consultation events for the first schemes (which will begin in advance of the Decision Session), we have omitted detailed options for the purposes of this summary. The following serves as an update on current cell specific activities and reasoning for this.

Flood Cell	Status	Comment
B16 - New Walk	Within 5 Year Plan. Due for public consultation	We have identified a potential feasible solution to reduce the risk of flooding which also mitigates against any theoretical impacts of increased pumping from the Foss Barrier. We will be meeting with residents individually during November. In December we will be holding a public drop in event and then seeking to develop detailed designs by February 2018.
B8 - Clementhorpe	Within 5 Year Plan. Due for public consultation	As an area with limited current defences, this is a priority to progress. Numerous investigations have taken place and we will be consulting with local residents on potential options beginning in November. This consultation period will run until February with ample opportunity for residents to get involved. We will then use the results of this to produce a detailed design to submit for planning approval.
B4 - Scarborough to Ouse Bridge (Right Bank)	Within 5 Year Plan. Will consult on options January 2018	Modelling shows the need to increase the height of existing defences in this area, and develop solutions for Memorial Gardens and the Post Office car park. Discussion with key landowners is underway and consultation will focus on the best way to raise existing defences.
F9 - South Beck	Within 5 Year Plan. Undergoing assessment	Though our modelling only indicates that there are a small number of properties at risk from flooding we will be investigating the risk in more detail and from this assessing the potential for flood defence options for this area. We would consult with local residents on the options
C3 - Naburn	Within 5 Year Plan. Currently identifying locations for borehole surveys to inform design	We have been working closely with Naburn Flood Group for a number of years to tackle the various causes of flooding to the village. A detailed modelling study commissioned prior to the 2015 floods has provided clarity on the scale of risk and the interventions needed to reduce this. We are now looking to undertake ground investigations to confirm the viability of works before consulting residents on the preferred option.
C2 - Acaster Malbis	Within 5 Year Plan. Undergoing assessment	Due to flood flow routes in the area, developing a formal flood defence scheme would be extremely difficult. We will offer property level resilience options for affected properties.
B9 - Fulford	Within 5 Year Plan. Undergoing assessment	We are working closely with CYC to develop an effective solution to the issues in Fulford.
C1 - Bishopthorpe	Within 5 Year Plan. Undergoing	Records from recent flood events and our modelling shows the risk from flooding is greatest along a stretch of Bishopthorpe Road and Main Street/Chantry Lane. We will

	assessment	be investigating potential options in these areas and consulting with local residents.
F4 - Tang Hall Beck	Within 5 Year Plan. Undergoing assessment	Our modelling and experience from the 2015 floods shows that a significant flood flow into the Foss comes from both Tang Hall and Osbaldwick Becks. We are investigating opportunities to develop storage areas upstream of the city to reduce flood flows, as well as de-culverting within the city.
F5 - Osbaldwick Beck	Within 5 Year Plan. Undergoing assessment	Our modelling and experience from the 2015 floods shows that a significant flood flow into the Foss comes from both Tang Hall and Osbaldwick Becks. We are investigating opportunities to develop storage areas upstream of the city to reduce flood flows, as well as de-culverting within the city.
F8 - Groves to Haley's Terrace	Within 5 Year Plan. Undergoing assessment	Following the upgrade to the Foss Barrier we are investigating additional flood defence options for this area, including embankments and walls. We are also investigating opportunities to develop storage areas on the Foss upstream of the city to reduce flood flows.
F10 - Haley's Terrace to Link Road	Within 5 Year Plan. Undergoing assessment	Our modelling shows there is a risk of flooding to a number of properties along the stretch of the Foss in this area. We will be investigating options for this area as well as investigating opportunities to develop storage areas on the Foss upstream of the city to reduce flood flows.
F11 - Link Road to Ring Road	Within 5 Year Plan. Undergoing assessment	Though our modelling only indicates that there are a small number of properties at risk from flooding we will be investigating the risk in more detail and from this assessing the potential for flood defence options for this area.
F12 - Westfield Beck	Within 5 Year Plan. Undergoing assessment	Our records shows there is a risk of flooding to properties in this area. We will be investigating this risk in more detail and looking at potential flood defence options to mitigate the impact of the risk flooding. We will be engaging with local residents before any proposals are taken forward.
B11 - Copping Farm to Scarborough Bridge (Left Bank)	Within 5 Year Plan. Undergoing initial discussions with landowners	This flood cell covers a wide area with a range of different issues. There are a range of existing defences which will need to be raised in order to continue protecting homes and businesses into the future. We are in discussions with a number of landowners in the area to understand how best to incorporate a new scheme.
B12 - Scarborough Bridge to Lendal Bridge (Left Bank)	Within 5 Year Plan. Discussions ongoing with statutory bodies	A significant area of this flood cell falls within the historic city centre and therefore any scheme needs to have the support of heritage bodies. We are keen to ensure this support before shortlisting options.
B15 - King's Staith to Skeldergate Bridge	Within 5 Year Plan. Undergoing	As was highlighted in the publication of the 5 Year Plan, providing protection at King's Staith to the same level as elsewhere in the city would not be acceptable. We are

	assessment	assessing the optimum size of any defence in this location to provide additional protection without negatively impacting the riverside amenity and neighbouring businesses. Due to government spending rules around cost benefit, this scheme may require additional funding support.
B7 - Queen's Staith and Skeldergate	Within 5 Year Plan. Undergoing assessment	There is potential to reduce flooding by installing floodwalls/gates between existing buildings on Skeldergate. This is dependent upon structural integrity and ground conditions which are currently under assessment. Until the outcome of this we cannot provide more detailed options.
A5 - Upper & Nether Poppleton	Not looking to progress a scheme within 5 Year Plan	Assessment has shown that due to the very small number of properties affected and high cost of a solution, we cannot justify a scheme here under current government spending rules. We will revisit this if the situation changes.
B1 - Millfield Industrial Estate	Not looking to progress a scheme within 5 Year Plan	Assessment has shown that due to the very small number of properties affected and high cost of a solution, we cannot justify a scheme here under current government spending rules. We will revisit this if the situation changes.
B3 - Clifton Bridge to Scarborough Bridge & Hob Moor	Improvements being delivered outside of 5 Year Plan. Preferred option in the design phase	Significant assessment of the options for this area has taken place following meetings with local residents. As a result the preferred option for this area is to increase the resilience of the Holgate Beck pumping station. Our consultants are currently identifying the best way to achieve this, with construction due in spring 2018.
B10 - Clifton & Rawcliffe	To be delivered through a bespoke scheme. Currently in the detailed design phase	Central to this area are the upgrade to the embankment at Clifton Ings, and the formalisation of pumping arrangements for Blue Beck. These are both EA assets and we are committed to maintaining their effectiveness.
B13 - Lendal Bridge to Ouse Bridge	Not looking to progress a scheme through the 5 Year Plan	There are very few properties affected in this area, and there do not appear to be any technically feasible solutions.
B17 - Nun Ings	Not looking to progress a scheme through the 5 Year Plan	There are no properties at risk.

F1 - Cliffords Tower	Increased protection provided by the Foss Barrier	The £17m investment in the Foss Barrier provides additional protection in this area
F2 - Hungate	Increased protection provided by the Foss Barrier	The £17m investment in the Foss Barrier provides additional protection in this area
F3 - Foss Islands	Increased protection provided by the Foss Barrier	The £17m investment in the Foss Barrier provides additional protection in this area
G6 - Foss Bank	Increased protection provided by the Foss Barrier	The £17m investment in the Foss Barrier provides additional protection in this area
F7 - Layerthorpe	Increased protection provided by the Foss Barrier	The £17m investment in the Foss Barrier provides additional protection in this area

Programme

Below is the planned dates for work for each flood cell. Local engagement will take place during each phase of the work, focused on that location.

	Preferred option		OBC	Detail design		Planning		FBC	Construction	
	Start	Finish		Start	Finish	Start	Finish		Start	Finish
Tranche 1										
B09 - Germany Beck C01 - Bishopthorpe C02 - Acaster Malbis C03 - Naburn	Mar-18	Jul-18	Feb-19	Mar-19	Oct-19	Jun-19	Feb-20	Dec-19	May-20	Dec-21
Tranche 2										
F08 - Huntington Road F09 - South Beck F10 - Haleys Terrace to Link Road F11 - Link Road to Ring Road F12 - Westfield Beck F4 & F5 - Tang Hall Osbaldwick	Mar-18	Jul-18	Feb-19	Mar-19	Oct-19	Jun-19	Feb-20	Dec-19	May-20	Dec-21
Tranche 3										
B07 - Queens Staithes and Skeldergate B11 - Copping Farm to Scarborough Bridge B12 - Scarborough Bridge to Lendal Bridge B15 - King Staithes	Jan-18	Mar-18	Aug-18	Aug-18	Apr-19	Nov-18	Aug-19	May-19	Oct-19	Jun-21
Tranche 4										
B04 - Scarborough Bridge to Ouse Bridge B08 - Clementhorpe	Dec-17 Dec-17	Jan-18 Jan 18	May-18 Apr-18	Mar-18 Feb 18	Apr-18 Apr-18	Jun-18 Apr-18	Dec-18 Nov-18	Oct-18 Aug-18	Jan-19 Nov-18	Oct-19 Mar 20
Tranche 5										
B10 - Clifton Ings B16- Foss confluence / New Walk	Nov-17 Nov-17	Dec-17 Mar-18	Jan-18 N/A	Jun-18 Apr-18	Nov-18 May-18	Feb-18 N/A	Nov-18 N/A	Nov-18 N/A	Feb-19 May-18	Dec-20 Nov-18

Assumptions

There are a number of assumptions made when developing this programme, they include:

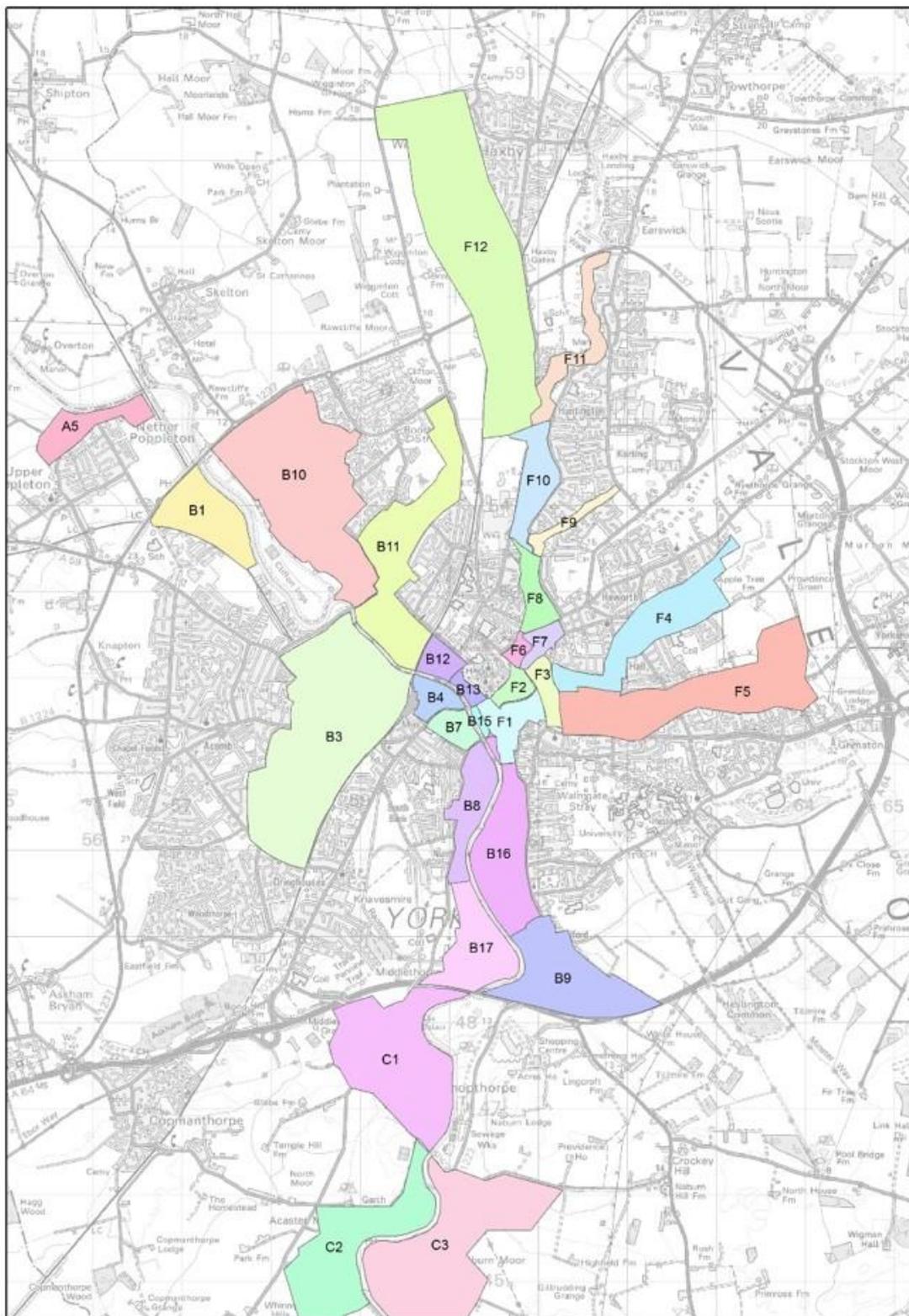
- 1 - Individual project approach to each cell for Environmental Impact Assessment
- 2 - Construction work on cells in the Tranches are likely to take between 6 to 12 months and we will work with the contractor on most efficient sequence for delivery for each tranche.
- 3 - Full business case approval will be awarded without planning permission
- 4 - Planning conditions not necessarily discharged before contract award
- 5 - B16 Foss Confluence / New walk to be completed as part of the Foss Barrier work and is likely to be Property Level Resilience.

Programme Risks

There are a number of risks that potentially could impact these delivery timescales. The risks are proactively being managed as part of the controls of the York FAS programme. Whilst mitigation plans are in place, there remains the potential for the risks to impact delivery timescales. The risks include:

- There is a risk that current assumption of a cell by cell approach to undertaking Environmental Impact Assessments (EIA) and planning approvals is not acceptable to City of York Council Planning. Options are currently being assessed and legal opinion sort with a view to consult with CYC on preferred approach to EIA and planning in December.
- This programme is reliant on a number of external (non-Environment Agency) organisations. We are building relationships and working with them to reduce the potential impact on this programme.
- Ground conditions or potential archaeological findings may impact timescales. To mitigate this risk surveys, bore holes and consultation with archaeological representatives will be carried out before the planning and construction stages.
- Challenges or different views to the proposed designs from individuals or groups may delay the planned programme. An engagement plan is being implemented to mitigate the risk.
- Prolonged or severe winter weather conditions or a server flood event could delay start or completion of the construction stage. Construction start dates, durations and sequencing to be considered to mitigate against this risk.

York Flood Cells Map



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Decision Session - Executive Member for Environment**4 December 2017****Report of the Director of Economy & Place****Gulley Management Strategy Review****Summary**

1. This report details an update to the review of the City of York Council gulley management strategy, carried out at the request of the Executive Member for the Environment, in order to identify an efficient gulley cleansing programme, based around existing operational resources and the findings of additional investigation works and linkages with neighbouring authorities. The additional survey and investigation work is resulting in an improved performance across the network but further work is required to complete this task.
2. To date more than 35,000 of the 43,690 known gullies have been logged, investigated and cleansed as part of the capital funded investigation process, a flood risk assessment process has been previously carried out to ensure key assets have been prioritised. 53% of all assets were found to be blocked but significant work has ensured the majority of the system investigated to date is operating effectively, however more than 900 asset will require wider engineering works to ensure they can operate effectively.
3. Following the completion of the investigation process a risk based approach to gulley maintenance will ensure available budgets are used efficiently and effectively.

Recommendations

4. The Executive Member is asked to:
 - Agree the proposed gulley cleansing approach set out below

Reason: To improve the management of York's gully assets.

Background

5. The 42,690 known gully assets in the City of York Council area carry out an essential role to drain excess water from our highways. Primarily these assets contribute to the provision of a road network able to safely carry all road users but in times of excessive or extreme rainfall they can contribute to the reduction of surface water flood risk.
6. Following the 2007 floods there has been a significant increase in the awareness of surface water flood risk and we have a Lead Local Flood Authority role partly because of this. Significant surface water flooding has occurred in the city most notably in August 2014, June 2016 and August 2017.
7. An effective gully cleaning service should deliver a programme of works that addresses the safe drainage of the highway for all users and a resilient network of drains that can better cope with extreme rainfall and minimises the risk of surface water flooding away from the highway.
8. The current gully cleansing service is undertaken by the Highways department in Economy and Place, revenue funding is available for routine proactive and reactive cleansing by two jetting tankers which are staffed with four personnel, one of the tankers is part funded from recharge of works to other parts of CYC i.e. housing and schools.
9. Any gullies that are still defective following cleansing are classed as 'non-runners' and further investigation and additional structural works are undertaken funded through capital budgets and supported by the findings of the Surface Water Management Plan. A further two operatives are allocated to these works. All works are coordinated and managed by two Flood Risk Management Engineers reporting to the Flood Risk and Asset Manager.
10. All assets on the gritting route network are identified to be cleansed once a year in addition to which reported defects are cleansed reactively. The 7th March 2016 paper to the Executive Member for the Environment endorsed the expansion of the annual proactive cleanse to include identified surface water hotspots and for all other assets to be cleansed proactively over an 8 year cycle.

11. City of York Council representatives lead the West Yorkshire Combined Authority drainage group and changes in the Code of Practice for Highway Maintenance will identify best practice for gully maintenance. All authorities are working together to evidence the needs of the DfT Self Assessment process and the new code of practice and CYC lead on the requirements surrounding gully management practices.

Review Work to Date

12. The existing review of gully management is based on the following strategic aims:
 - To move towards a proactive cleanse for all gullies
 - To create a risk based programme linked to highway drainage needs and surface water flood risk factors
13. The review work to date has developed digital data capture and survey methods for all field operatives using allocated capital funding. This has investigated a proportion of the city's drainage infrastructure. We have used this to develop an improved asset register and an improved understanding of the condition of gully assets in the city. This information will underpin future gully maintenance works, we aim to develop an intelligent programme based on asset needs not solely driven by previous inspection dates and frequencies, this will further develop the approach and timescales indicated in paragraph 10. An overview of this process is given at Annex 1.
14. CYC capital funding has allowed a proportion of the network to be cleansed and surveyed and additional details have been captured via the remote collection tool detailed in Annex 1. 53% of the surveyed network has been found to be blocked and many of the blockages are considerable meaning that each cleanse took far longer than would have been anticipated.
15. A full cleanse of the gully was carried out as part of the survey to ensure the asset was left in a 'running' order once complete. However, even after intense jetting some gully assets remain blocked and require further engineering works to resolve see paragraph 22.
16. In addition to this parking suspension orders have been carried out through this period further impacting on cleansing rates in heavily

parked areas (often terraced streets) and assets in these locations are often heavily blocked. A rolling programme of annual closures has been implemented.

17. Subsequent heavy rainfall events have given rise to reduced numbers of complaints and reports of localised flood incidences, this is a clear indication of the success of this process, however, significant rainfall such as experienced on the 23rd August this year can still overwhelm a well maintained and operable drainage system as their design capacity would be compromised.

Proposals

18. Given the number of blockages across the network surveyed to date previous gulley cleansing operations were clearly not effective and were likely driven on the quantity of work done rather than the requirement for it to be effective and deliver a cleansed asset.
19. The above has, in turn, led to an over reliance on reactive cleansing to address issues when they arise rather than a planned and effective maintenance schedule that ensures the asset is working after routine maintenance has been carried out.
20. It is therefore imperative that the asset data capture and effective cleanse of the network that has occurred through the 35334 assets investigated to date continues before any proactive cleansing principles outlined in the 7th March 2016 Executive Member for the Environment Decision Session paper can be considered.
21. However, further work is required to identify how future gulley cleansing works can be implemented following the investigation works, the available revenue funding will be used to target gulley tankers and crews to deliver a risk based effective and efficient needs based gulley cleansing programme to achieve the aims outlined in paragraph 12.
22. The survey work has also identified more than 900 assets to date that cannot be made operational even with extensive cleansing and jetting. These will be required to be added to our none runner/defect list that is addressed annually with the £200k p.a. capital funding, subject to the Council Budget Process. The list of investigations on this list constantly outstrips the amount of available funding and it increases significantly after every intense storm or surface water

flood event. Each investigation is particular to the site and can involve excavation, locating of manholes and long sections of connecting drainage systems, CCTV, usage of tankers to jet systems and negotiations with utilities companies and landowners examples are shown in Annex 2.

23. In addition to this a range of poorly designed gulley assets have also been identified through the survey work, the grills/lids or the main gulley pot are of a layout that causes operational difficulties when cleansing and take considerable time and work to gain access for cleansing. In addition to this many gulleys are of a poor design that can easily be blocked by debris such as plastic bottles and other litter. Further information will be gathered through the continuing survey, examples are shown in Annex 2.
24. The capital funding allocation awarded after the 2012 Surface Water Management Plan highlighted the deterioration in the cities drainage network and called for £5m of investment. It is likely that this valuation still remains as the £200k p.a. spent since that time has addressed repeat and key locations that feature in response to reactive drainage requests. The defects identified so far in the survey work, if representative of the whole system, support the original £5m valuation and will underpin the need for continued and likely increased investment to address these defects.
25. The approach to identify surface water flood locations in the 8th March 2016 Decision Paper and the ideals and approaches identified in Annex 1 of this report show how CYC are developing a gulley cleansing strategy based on rich data and outputs to evidence an effective and efficient maintenance programme. This will evidence our work with DfT in the Self Assessment process and our aims to be a level 3 (highest level) authority and to draw down the maximum available DfT incentive funding to deliver our highways maintenance needs. Further details of how this work supports question 11 of the assessment are provided at Annex 3.
26. The Well Maintained Highways code of practice will be live from October 2018 and the ideals identified in the self assessment underpin the needs of the code, it will be essential that we have an effective approach to gulley management as part of our delivery of the code of practice.

Consultation

27. This review has been carried out in response to a range of events and an increase in reactive maintenance needs for the gulley service. The review and subsequent report are the latest stages of a process to change current operational practices and no further consultation has been undertaken at this stage.

Options and Analysis

28. The principal options open to the Executive Member are to:
- Support the findings of the reviewed gulley management survey set out above and the recommendation for further work to develop the service, or
 - Change or add to the recommendations following which further work will be undertaken by officers in the next stage of review and brought back to the Executive Member

Council Plan

29. The review of the gulley management service will deliver an enhanced and improved gulley cleansing service, this has strong links with the expectations of a Focus on Frontline Services and will aid the delivery of these aspects of the Council Plan.

Implications

30. Financial

Current budgets:

Gulley cleansing (proactive & reactive)	£190,000 revenue
Gulley investigation and drainage defects	£200,000 capital

31. **Equalities:** The review of the gulley management service has highlighted a range of ways in which the gulley cleansing service can be delivered to address wider benefits and will lead to a positive improvement for all residents and businesses in the council area.

32. There are no human resources, legal, crime and disorder, property, IT or other implications arising from this report.

Risk Management

33. Further work to fully survey and effectively cleanse the gulley network will continue and a revised proactive cleansing programme will follow.

Contact Details

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Neil Ferris
Director Economy & Place

Report
Approved

Date 20/11/17

Wards Affected:

All

Background Papers:

Annex 1 – City of York Gulley Management Tools

Annex 2 - Examples of Investigation issues and problematic asset types

Annex 3 – Question 11 Evidence for DfT Self Assessment

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City of York Gulley Data Management Tools

Overview

The known 42,690 gullies in the City of York Council area have been cleansed and managed on a mainly reactive basis over many years, although the majority of the system is mapped and available on asset databases and mapping layers no data and information on the asset type and cleansing process is captured in a meaningful and usable way.

Revenue budgets across all authorities are under pressure and it is essential that CYC utilise the available budget to deliver an effective and efficient gulley cleansing process. The Well Maintained Highways Code of Practice underpins all highway maintenance activities and the revised code to go live in October 2018 incorporates the recommendations of the HMEP (Highways Maintenance Efficiency Programme) Guidance on the Management of Highway Drainage Assets, the processes developed in this work will deliver the recommendations and begin the process of the development of an effective and efficient gulley management strategy.

Improved data collection

Gulley cleansing data was confined to paper records, any mapping or cleansing metrics were handed to the Highways team from operatives and these records were often stockpiled and little further action was taken.

Discussions were held with colleagues in the CYC GIS team and development began on the utilisation of the 'Collector for ArcGIS' tool that can be used to remotely gather data to be included in the councils corporate GIS layers that utilise ESRI ArcGIS outputs. The existing gulley spatial management data is managed by the Benley/Exor asset management system

The gulley layer map service is accessed via the Collector for ArcGIS app using either an Android or Apple device, Android tablets have been procured for Flood Risk Management Engineers and the gulley cleansing operatives. Gullies can be added to the map using the GPS location to define the x:y position or added manually to the map where the GPS is poor. Attribute info is then added using dropdown menus. Recorded information includes:

- ID (Exor)
- Type
- Inaccessible (Y/N)
- Cover (condition)
- Debris (amount)
- Debris type (leaves/silt etc)
- Pot (type)
- Pot size
- Trap (type)
- Final condition (after cleansing)
- Notes
- Amended by (name)
- Date of cleanse
- Cleaning frequency (recommendation)
- Date last cleansed
- Outlet direction (12 hr clock to help map connecting pipework)

All data appears live on the CYC GIS layers and defective gullies can be mapped and reported and included in repair programmes. Gullies can also be deleted or moved from the map using the tablet or phone interface and the app includes other flood risk related layers to assist users such as lamp columns and adopted roads.

Benefits

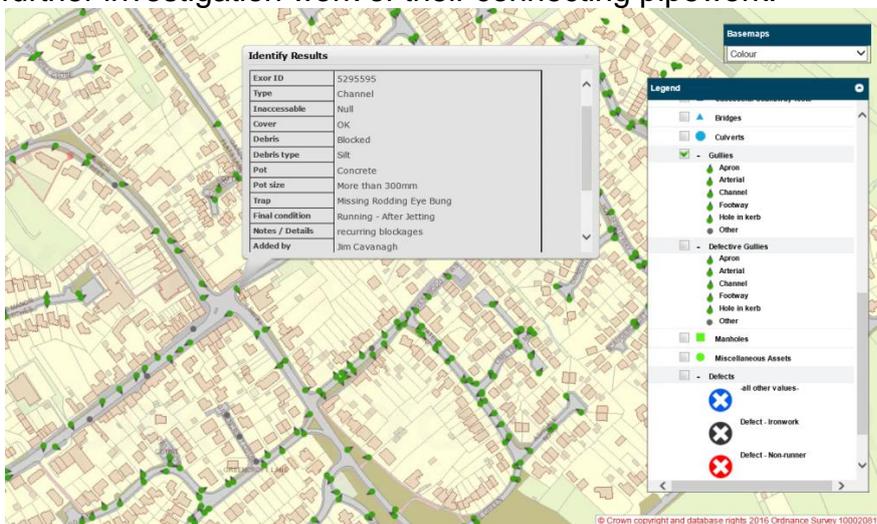
The app uses an OS base map alongside the council's business data in a live environment, the data is collected using Master Map Topography as a backdrop ensuring detail at small scale to support location finding where GPS quality is low. The App was developed in house, thereby making considerable savings in terms of having to pay an outside supplier, the costs of the app are included with the wider support/maintenance of ArcGIS as our corporate GIS product so there was no extra funding required to use the license.

Any changes made to the gullies layer in the app are immediately available for display in ArcMap and web based applications. Flood Risk Management Engineers used the devices during the Boxing Day 2015 flood event to identify the location and severity of flooding to homes and businesses, this information appeared almost instantly on the Flood Risk Management mapping layers which were viewable to users in the Strategic Control Room providing real time updates on flood risk information for officers working with all partners to manage flood response efforts.

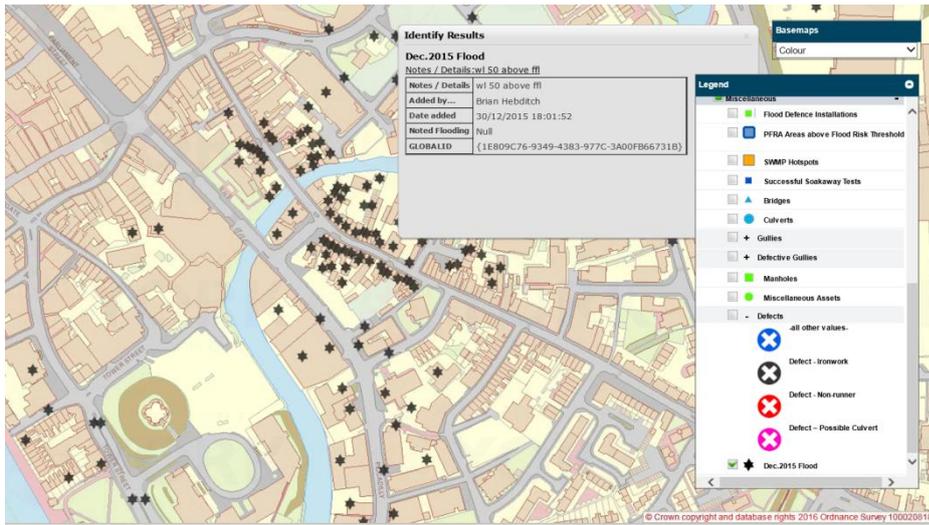
Outputs

After a slow start with all users learning and developing the approach more than 35,000 assets have been captured or updated on the system to date. 53% of those cleaned were found to be blocked.

Many of the blocked gullies required significant works to unblock due to many years of build up of debris. This significantly slowed the rate of cleansing for the crew and has raised questions over the proactive cleansing schedules that we can achieve and will drive requests for additional capital investment to ensure the asset stock is in a working condition before routine/proactive schedules can keep the network effectively clean. Even after cleansing more than 900 'none runners' were identified and require further investigation work of their connecting pipework.



Example Gully Cleansing Data Outputs



Example Flood Response/Post Event Survey Outputs

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Examples of Investigation issues and problematic asset types

A 'none running' gully is classed as an asset that will not effectively drain the highway even after cleansing. In many occurrences this requires excavation works, CCTV, jetting and liaison with other partners and land owners.

As an example - historic problems over a number of years have been experienced at Acomb Green, service connections have severed pipework and changes to road layouts and resurfacing have precluded free drainage to existing gullies.



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HMEP Guidance on the Management of Highway Drainage Assets

SUMMARY OF RECOMMENDATIONS

Department for Transport (DfT) have an incentivisation element of funding from 16/17, £578M of the £6Bn available to 20/21 will be distributed according to each authorities self assessed performance across 22 questions covering the following areas:

- Asset Management Policy and Strategy
- Resilience
- Customer
- Benchmarking and Efficiency
- Operational Service Delivery

Full award of the incentivised element will be given to authorities performing at the highest (band 3) level, authorities operating at lower levels will receive a proportion of the funding.

CYC self assessed a band 2 performance for 2016/17 and received 100% of the incentivisation level, however, all authorities will have to evidence Band 3 performance to receive 100% of the funding from 2017. All of the West Yorkshire Combined Authorities are working together to achieve this.

Question 11 of the self assessment requires authorities to evidence their work in accordance with the HMEP Guidance on the Management of Highway Drainage Assets, the below recommendations are made in the guidance document and commentary is given regarding CYC works that will be used to evidence our performance in this area. The approaches detailed in the above Gully Management Strategy Update report directly contribute to 9 of the 12 recommendations (recommendation 1, 3, 4, 5, 6, 8, 10, 11 12) and wider work of the team deliver the requirements of the remaining recommendations.

Recommendation 1 - Effective use of limited budgets

Adopt highway drainage asset management strategies based on information held.

Current maintenance strategy is prioritised on gritting routes to ensure that high risk locations are cleansed annually, all others reactively.

Surface water flood risk locations have been identified (8th March 2016 paper to the Executive Member for the Environment Decision Session) and a proactive cleanse for all other assets will be spread over numerous years. A reactive budget is retained for issues that arise within this programme.

Further survey and investigation work is underway and an asset data capture tool has been developed, this will be used to develop a smarter future gully maintenance strategy based on an effective usage of available funds.

Reviews and investigations are managed through annual capital funding allocations evidenced by the CYC surface water management plan and post event investigations.

Recommendation 2 - Understanding evolving duties and responsibilities

New regulations bring new obligations. These evolving responsibilities will have an effect on budgets and operations. Understand and adapt to these changes.

CYC has an adopted Local Flood Risk Management Strategy and Surface Water Management Plan, Flood Risk Engineers have annual investigation and reinstatement funding to address key issues in the network. All aspects of the Flood and Water Management Act (2010) are delivered through this team.

Gulley maintenance responsibilities were transferred to the team in 2015 and works are underway to update the service in line with wider flood risk and highways maintenance requirements – see 1 above.

Recommendation 3 - Selection of highway drainage asset survey equipment

Before selecting equipment, have a detailed equipment requirement specification and evaluation check-list to ensure that equipment being trialled is done in an objective and consistent manner. Allow sufficient time for the trial. Ensure mobile GPS software complies with the latest National Marine Electronics Association (NMEA) protocols.

CYC Flood Risk Management team have a range of investigation tools and survey equipment available, all are managed and procured through wider Highways processes and contracts. Gulley tankers are managed by Fleet Services and new technology is procured appropriately via this service.

New technologies for data capture and management are being developed in partnership with CYC ICT GIS team and linkages are being made with the emerging CYC CRM update.

Recommendation 4 - Involvement of colleagues in selecting technology

Understand your authority's information technology procurement processes, purchasing documentation requirements and get the appropriate council staff (finance, IT GIS etc.) involved early on.

All current approaches are being developed in-house and in full partnership with ICT colleagues. All built around CYC GIS provision and links to the Bentley/Exor asset management system.

Recommendation 5 - Data Integration

Link systems to maintenance activities, focus future activities and map 'hotspots'. Address the causes of problems as opposed to symptoms.

Full review of current systems as per recommendation 1, updated drainage strategy taken to Executive member in March, further paper detailing continued survey and investigation taken to 5th September 2016 Executive Member Decision Session, both use advanced data to develop the service – S/W flood map data and modelling and detailed asset survey and cleansing data via handheld tablet devices. In addition to the gritting route analysis carried out as part of the CYC Winter Maintenance Plan this will allow future programmes to be developed on need rather than systematic cleansing based on last inspection dates etc.

Capital funding in place to deliver and develop this review.

Recommendation 6 - Data Use

Use highway drainage asset data to focus, support and inform maintenance activities. These should be linked to the overall asset management objectives for local highways.

The data collected as part of the survey process includes the full range of metrics regarding the asset type, condition on arrival and the condition after leaving, cleansing frequencies can be determined based on the condition of the asset and its needs.

Recommendation 7 - Partnerships

Form partnerships with all relevant bodies, such as the Environment Agency and water companies, to address water management issues and to cooperate in service delivery and information sharing.

CYC work closely with the EA and YWS on all aspects of drainage and flood risk management, quarterly Flood Risk Partnership meetings are held and all contribute to the quarterly Regional Flood and Coastal Committee meetings. The CYC LFRMS identifies the roles of all partners and the action plan contains the works of all partners.

CYC work closely with all Highways Authority partners through the West Yorkshire Combined Authority asset management group and CYC head up the WYCA Drainage Group that reports to the asset group.

Recommendation 8 - Data Sharing

Drainage data must be transferable between owners and stakeholders who understand its value and make use of it.

Data sharing protocols are agreed with the Environment Agency and Yorkshire Water, this is further underpinned by responsibilities in the Flood and Water Management Act. All data sources are available from standard GIS/asset database products for electronic transfer and sharing.

All current gully management investigations and metrics are available across the in-house CYC GIS products.

Recommendation 9 - Understanding demand and service delivery requirements

Develop a clear understanding of the demand or service delivery level for the drainage asset, as this will clarify and focus activities and budgets to deliver efficient and effective service.

Review papers to Executive Member show how the drivers for a review of the CYC gully maintenance strategy have been considered, further investigation and survey will provide additional data across the network to deliver a long term review and an efficient service.

The new CYC CRM has provided easy reporting access for customers to identify gully issues and defects, this information will be used by operational teams to deliver reactive cleansing requirements and to further evidence the future strategy.

Recommendation 10 - Use peoples knowledge

In many cases the organisation's employees are the best source of asset management information. Ensure local knowledge of drainage assets held by long service experienced staff is captured and incorporated into data records.

The CYC Flood Risk Management team maintain flood risk and drainage data on the CYC GIS system detailing information about all key assets including gully information. All of the current investigation work is further developing this information.

The CYC SWMP in 2012 provided information on surface water flood risk locations and GIS data has developed a range of locations where this needs to be incorporated in the gully cleansing programme. All councillors and the public were consulted as part of this process and consultation outputs from the LFRMS publication in 2014 further evidence this.

The Winter Maintenance plan has been developed to identify gritting routes and has incorporated a range of data and knowledge of users across the Highways team.

Recommendation 11 - Resourcing

Allocate resources and funds to routes, sections, or specific areas or assets where most needed. Monitor the maintenance of these assets and require contractors to provide details of the condition of assets; for example, gully cleansing records that details the location of the asset and amount of material removed.

All of the work in the current Gully Maintenance Strategy is aligned to the development of a programme based on asset need driven by an assessment of the risks and drivers on the network and the data collected on its condition and need. Current capital funding is driving the investigations and future delivery of maintenance programmes will be amended in line with these findings.

Recommendation 12 - Solutions

Do not let the management tool become more important than the job deliverables and recommend simple solutions that do not require a great deal of maintenance or administration.

The development of an in-house solution to data gathering and analysis is allowing quick and simple approaches to be developed that mimic many of the commercially available tools that exist.

The updated CRM has gully maintenance reporting as a key issue and the data will be readily available for operatives as part of the whole package of CRM reportables.