

**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 7<sup>th</sup> 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 gulley 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 gulley management practices.

## **Review Work to Date**

12. The existing review of gulley 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 gulley assets in the city. This information will underpin future gulley 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 gulley 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 gulley 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 23<sup>rd</sup> 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 7<sup>th</sup> 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 8<sup>th</sup> 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

**Author:**

Steve Wragg  
Flood Risk and Asset Manager  
Highways  
553401

**Chief Officer responsible for the report:**

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**