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**Report of: Chief Officer Environmental Action, Head of Engineering Service**

**Report to: Scrutiny Board (Sustainable Economy and Culture)**

**Date: 23<sup>rd</sup> April 2013**

**Subject: Briefing note: Flood Risk Management: Gully Cleaning & maintenance**

## **1. Background**

- 1.1 Maintenance and cleansing of the road drainage system has its part in minimising the accumulation of water on roads and pavements both for safety and to prevent accelerated deterioration of the road surface and increased maintenance costs. It is also important to maintain and clean the whole drainage system to ensure that it works as intended and to prevent inadequate systems in one area overloading systems in lower areas.
- 1.2 The total number of gullies in the city is approximately 140,900. These are installed, maintained and repaired by Highways & Transportation in City Development and cleansed by Locality Teams in Environment & Neighbourhoods.
- 1.3 There has been a focus on the maintenance of road drainage systems in Leeds for a number of years. The floods in Leeds of 2004 and 2005 prompted the creation of the corporate Water Asset Management Group with funding allocated to complete a number of projects. The projects included establishing a full inventory of road gullies and combined kerb drainage systems between 2006 and 2010. The gully cleansing work was further enhanced through this funding and in 2011, five gully tankers were on the road, each crewed by two people. These vehicles / crews were allocated a programme of work with a theoretical cleansing frequency of once every nine months. In reality, this was never achieved due to vacancies and absences in the team.

## **2. Current Service delivery: Gully Cleansing**

- 2.1 Whilst gullies are currently serviced by services across two Directorates, there has been an improvement in co-ordination and information sharing in recent years. This has enabled the information on the stock to directly inform the programme of cleansing. The delegation of this work to Area Committees in 2011 has also increased the direct influence of local ward Members to the programme of work to deal with very local hot spots.
- 2.2 The cleansing service now operates with one dedicated gully tanker per locality area with another two operating in the city centre and on city wide hot spots which need servicing more frequently. These latter hot spot gullies are attended to every 3 months and a programme is in place to deal with the standard gullies elsewhere, which make up the vast majority across the city.

2.3 The frequency of gully cleansing across the three localities currently varies from 9 months to 18 months. This frequency can occasionally be disrupted by the need to provide support or responses to road incidents which can often result in tankers being out of service for a whole day. Another reason for disruption to programmed cleansing is through responding to flooding on key routes which has recently become more frequent. The service in locality teams operates on a cyclical ward by ward basis with gullies being serviced 7 days a week across two shifts. In all locality areas, there is an element of the 7 day working week set-aside for reactive work of usually 1 day. Currently the frequency is largely determined by sheer capacity to get round the 141,000 gullies in the city. The introduction of metered hydrants two years ago has also had an adverse effect on the amount of down-time for gully tankers - it can now take up to 2 hours to re-fill a tanker. We are not yet fully using the recycled water held on the tankers as opposed to fresh water to rinse and jet, which takes time to draw-off.

### **3. Highways Operations**

3.1 Highways Inspectors report all gullies that appear not to be working properly during their routine safety inspections to the Locality Teams. Inspections are carried out monthly on main roads and between quarterly and annually on side roads. Blocked gullies are reported to Locality Teams for cleansing. Where gullies cannot be cleaned by routine operations they are referred to the Highway Maintenance team for a specialist contractor to be sent to clear blockages.

### **4. 'Blocked' gullies: Service Demand**

4.1 The reports of blocked gullies received since last summer are shown below. This includes problems where a blockage is the assumed cause of localised flooding, only to discover that the gully is in fact defective or simply unable to cope with the quantity of water present. The figures below should be seen in the context of having experienced record levels of rainfall and surface water run-off in 2012.

West / North West: 316 or 12 /wk

South South East: 336 or 14 per week

East / North East: 413 or 17 per week

City Centre / City Wide: 73 or 3 per week

An out of hours wet weather response service is in place and was called out 36 times in the last six months.

### **5. Current Issues**

#### **5.1 Communications & feedback loops**

5.1.1 The current feedback of intelligence from gully crews on gullies found to be defective is not completely reliable. Some forms and processes are not standardised and are largely paper based.

5.1.2 The recent delegation and accountability of gully cleansing services to area committees has acted as a driver for more regular communication on referrals back to highways from cleansing for issues such as 'collapsed gullies'. The scrutiny from area committees and increased locality focus of the cleansing service has also triggered improved dialogue and communication with highways teams on issues such as repair time-scales for gully work etc. An electronic process for the referral of gully work from Cleansing to Highways is being investigated but challenges remain in terms of different IT management systems in the two services. More influence is expected from ward members on local capital works - Highways are now regularly attending area committee environmental services sub-groups across the city and the next round of area committee environmental service level agreements will be produced from July 2013. Local task groups are also in operation in each locality bringing highways and cleansing officer and crews together to problem solve and action plan issues with gully cleansing and maintenance.

## **5.2 Cleaning 'Kerb Drainage Blocks' & Channels etc**

5.2.1 The cleaning of these drainage systems is complex and time consuming. They are often located on high speed roads (see below). Usually a drain of this type consists of a channel and gully pots at set intervals. These blocks are currently not included on ward cleansing schedules and there is currently no planned maintenance schedule for kerb drainage blocks in the city - the gullies are usually cleansed reactively at the request of highways. As a result of low levels of planned maintenance over recent years there is a significant built-up of silt in these drains across the city which will need to be cleared on a programmed basis. Work is now underway with highways in each locality to include these drains on ward schedules and agree cleansing frequencies to manage the back-log.

5.2.2 It takes a vast amount of water to service these drainage channels (about 40 minutes of work and the tanker is empty) and there is a considerable amount of ancillary work required to clean up when using the jetting method which sprays detritus all over the roadway. The time taken to service the blocks in this way is far greater compared with servicing regular gullies and performance can be just 200 metres in a day.

## **5.3 Traffic Management issues**

5.3.1 All roads need some form of traffic management whilst cleansing work is undertaken and this varies greatly from having adequate signage on gully tankers warning of its slow speed right up to full lane closures of primary routes across Leeds. Compliance with the relevant safety code and restrictions to avoid major traffic disruption can significantly increase costs. The interpretation of safety practice on this issue varies and is being reviewed to allow work to be undertaken safely but efficiently. Full use is not always made of road closures, particularly when there is the potential for interruptions to the work which was the original reason for the closure.

5.3.2 There has been a back-log of cleansing gullies on arterial routes and central reservations on dual-carriageways due to the need for specific training and traffic management arrangements to work on these stretches of road. All gully cleansing staff and supervisors have now been trained on safe working practices on such routes and how to undertake necessary risk assessments to undertaken gully cleansing on these routes safely.

5.3.3 Work has been undertaken as part of the Council's Grounds Maintenance contract to identify sensitive locations with respect to carrying out work safely whilst causing the minimum of disruption to the travelling public. A joint group is to be established between Highways Services and the Locality teams to review this information and establish suitable traffic management proposals and collaborative working opportunities for the cleansing operations.

5.3.4 Information about planned road works and the proposed traffic management is readily available and this has been used to utilise proposed road closures to undertake cleansing operations particularly on the Inner Ring Road. Further work is required to ensure all possible opportunities are realised.

#### **5.4 Productivity**

5.4.1 There is a greater understanding required of the realistic levels of productivity which is obviously influenced by the condition of the gullies, the frequency of cleanse, adherence to correct health & safety practice and down time on travel for example. A realistic programme of activity needs to be drawn up and well managed thereafter.

#### **5.5 Highway Planning**

5.5.1 Relationships need to develop with Highways planners so that appropriate consideration can be given to cleansing factors when at the design stage of a highways project.