

TITLE	Flood Risk Management Update
FOR CONSIDERATION BY	Community and Corporate Overview and Scrutiny Committee on 22 February 2021
WARD	None Specific;
LEAD OFFICER	Director, Place and Growth - Chris Trill

OUTCOME / BENEFITS TO THE COMMUNITY

To inform Members of the progress made with the Lead Local Flood Authority's (LLFA) duties under the Flood and Water Management Act (FWMA) 2010 during 2020/2021.

RECOMMENDATION

That the Committee review the report and consider the ongoing work in relation to flood risk reduction in the Borough.

SUMMARY OF REPORT

Flood risk management is a key responsibility of Wokingham Borough Council in its role as the Lead Local Flood Authority (LLFA) following the introduction of the Flood and Water Management Act (FWMA) in 2010. The LLFA has been gradually progressing with the implementation of its responsibilities (to manage the coordination of surface water and groundwater flood risk in order to protect residents from flooding) whilst continuing to deliver existing reactive drainage maintenance services. This report provides an update to Members on the progress made during 2020/21. The next 12 months will also see further progress which will be reported back to O&S committee next year.

Background

During the financial year 2020/21, the Flooding and Drainage team made further progress in fulfilling Wokingham Borough Council's (WBC) statutory obligations as Lead Local Flood Authority (LLFA) under the Flood and Water Management Act (FWMA) 2010. The primary responsibility as an LLFA is to manage the coordination of surface water and groundwater flood risk in order to protect residents from flooding. As the highways authority, WBC is also responsible for ensuring that the highways drainage is working effectively in order to prevent highway and property flooding following heavy rain. In order to continue to deliver these responsibilities, a number of actions have been taken over the past 12 months including:

1. The completion of the Surface Water Management Plan for Earley
2. Emergency flood response and subsequent S19 Flood Investigation Reports
3. CCTV condition surveys and repair works to the highways drainage system
4. The delivery of numerous capital drainage schemes across the borough
5. Ongoing revenue drainage maintenance works
6. Comments on planning applications in relation to flooding and drainage
7. Designation of additional flood risk structures.
8. Smart drainage trials
9. Manhole Inventory
10. Thames Water partnership to reduce surface water flood risk
11. Designation of additional flood defence structures
12. Maintenance of the Section 21 Asset Register

1. Completion of a Surface Water Management Plan for Earley

As a Lead Local Flood Authority, WBC has a responsibility to manage the risk of Surface Water Flooding in the borough. To help achieve this, last year, officers carried out a Surface Water Management Plan (SWMP) of Earley, which resulted in the successful delivery of a capital scheme to reduce flood risk to properties in Egremont Drive. For several years properties parallel to the ditch running to the rear of Egremont Drive have experienced surface water flooding as a result of debris blocking the concrete culvert in the ditch. In order to reduce the risk of flooding here, the Council have removed a section of culvert, cleared the stream and increased its depth. In the longer term, the Council intends to deliver a natural flood risk management scheme in partnership with Early Town Council, which will involve storing water in an offline attenuation basin downstream of Maiden Erlegh Lake. Feasibility and preliminary design for this scheme has already begun and officers intend to deliver this scheme within the next 2 years.

Moving forward, officers intend to carry out SWMPs for all town and parishes at risk of surface water flooding in the borough. During the next financial year, officers will begin to work with consultants to develop a SWMP for Hurst, focusing on the roads affected by flooding in January 2021 including Broadwater Lane, Nelsons Lane and Islandstone Lane.

2. Emergency response to flooding and subsequent S19 incident reports

As a Risk Management Authority (RMA) under the Flood and Water Management Act 2010, and as Highways Authority, WBC must respond to incidents of flooding across the borough during storm events. The Highways Contractor is responsible for closing flooded roads, delivering sandbags, tankering water away from properties, and providing any other assistance possible to reduce flood risk to properties and infrastructure.

In February 2020, Wokingham was hit by Storm Dennis and Storm Ciara, causing a significant amount of flooding to various parts of the borough. During the storms, officers and WBCs highways contractor responded to residents calls for assistance and successfully prevented several properties from flooding. However, unfortunately not all properties and roads avoided flooding. Under the FWMA Section 19, WBC has a responsibility to investigate all incidents of flooding that led to a road closure or a property internally flooding. The aim of a S19 report is to identify the cause of flooding and to make recommendations as to how key stakeholders, including but not limited to the Council, Thames Water, the Environment Agency and the residents, can reduce the flood risk in future. A S19 report was completed for the following locations: Greensward Lane, Church Lane and Reading Road Arborfield, and Bath Road Knowl Hill.

Officers have been working with the highway contractor, residents and other risk management authorities to ensure that the necessary works identified by the S19 reports to reduce flood risk are completed as soon as possible.

More recently, the Council has responded to major flooding across the borough in January/February 2021. Swallowfield, Riseley, Hurst and Remenham were among the parishes badly affected during the latest heavy rainfall event. S19 reports for those roads and properties affected by the flooding are now underway so that the causes can be identified and action can be taken to reduce the risk in future.

3. CCTV drainage surveys and repair works

During the Covid-19 pandemic, the highway network has seen significantly lower volumes of traffic as people have been advised to stay at home. This has presented the drainage team with an opportunity to carry out CCTV drainage conditions surveys and repair works on sections of highways drainage pipe systems that have been less accessible in the past due to heavy vehicular use. Between April 2020 and February 2021 the drainage team have conducted CCTV surveys and repair works at the following locations:

Reading Road
Wargrave Hill
Bath Road
Shinfield Road
Hartley Court Road
Greensward Lane
Reeds Avenue

Wilderness Road
Pepper Lane
Barkham Road
Pheasant Close
Easthampstead Road
Norreys Avenue
Nine Mile Ride
London Road
Binfield Road
Finchampstead Road
Avery Close
Greensward Lane
Jouldings Lane

The repair works resulting from the CCTV works have led to a significant drop in reports of surface water flooding in these locations and consequently has allowed emergency flood response to be focused elsewhere.

4. Delivery of capital drainage schemes

In addition to the programme of CCTV surveys and repair works carried out this financial year, officers have delivered several capital drainage schemes in 2020/21 including at Lower Wokingham Road (resolution of a long standing surface water drainage issue involving the installation of 20 metres of additional pipework), Castle Road (installation of a large soakaway), Gipsy Lane (installation of 30 metres of additional pipework), Egremont Drive (removal of restrictive culvert) and Redhatch Drive (replacement of existing drainage infrastructure).

In 2020/21 officers are also expecting to deliver capital schemes for Barkham Ride, Broadwater Lane, Bull Lane and Church Lane.

5. Ongoing drainage maintenance revenue works

WBCs contractor emptied over 40,000 gullies between January 2020 and January 2021 as part of the annual gully cleansing programme. As normal, the contractor records the silt levels within the gullies allowing officers to continue to develop a risk based approach to gully cleansing. WBC now has almost 4 years of silt level monitoring data allowing officers to identify areas where silt builds up rapidly and where silt doesn't build up at all. This information is reviewed annually in order to update the annual gully cleansing programme, ensuring that a risk based approach is used and that areas prone to silt build up are targeted more regularly.

In addition, 1045 drainage problems, reported by residents, were responded to on the highways network, including localised flooding, gully emptying, delivery of sandbags, replacement of small sections of pipe, installation of new drainage, manhole and gully lid replacement and CCTV works.

6. Commenting on planning applications in relation to flooding and drainage

During 2020/21 the Flooding and Drainage team provided consultation responses to 632 planning applications. This has helped to ensure that the most appropriate drainage

strategies are being implemented by developers, in turn contributing towards a reduction in surface water flood risk across the borough.

7. Smart drainage trials

As previously mentioned, officers have been monitoring silt levels within the gullies over the last 4 years to identify which gullies are more susceptible to silt build up. This has allowed the drainage team to use a more risk based approach for the annual gully emptying programme, targeting those areas where more cleansing is required. On top of this, the drainage team are now piloting a scheme that uses gully sensors to identify when a gully needs emptying, allowing for proactive maintenance of the gullies, and reducing the number of reactive response to flooding incidents. The roads included within the pilot scheme are Gipsy Lane and Wilderness Road, Earley and Reading Road, Arborfield.

If the scheme proves to be a success in these locations, the drainage team will look to roll the scheme out on a much wider basis across the borough and will ultimately look to eliminate the annual gully cleansing programme, instead using gully sensors to proactively identify when a gully needs emptying.

8. Manhole Inventory

Over the last 2 years officers have collated data on almost 5,000 highways drainage manholes to assist with the development of a highways manhole inventory for the borough. This is a requirement of the Highways Maintenance Management Plan which states that all WBC highways drainage manholes must be inspected at least once every 5 years in order to record condition and identify any required maintenance.

The information is now stored on our online asset register and moving forward we will be inspecting 20% of our manhole infrastructure each year to ensure this data is kept up to date and accurate. The benefit of this is that the drainage team can proactively carry out manhole upgrades and repairs, and identify any blockages in the pipe systems, before it leading to flooding.

9. Thames Water partnership to reduce surface water flood risk

The drainage team are currently working closely with Thames Water in order to identify locations in the borough that experience flooding due to the surface water drainage systems and the highways drainage systems being combined (typically seen in locations with older properties and older road networks). Where these systems exist, Thames Water and the Council's team will work in partnership over the next 2 years to deliver capital schemes to reduce the burden on the surface water drainage systems, consequently reducing flooding.

10. Designation of additional flood defence structures

Over the last 12 months officers have formally designated a number of features/structures within the borough that could have an impact on flood risk if significant changes are made to them. This means that the owner of the feature/structure is unable to do anything to it without the previous consent of the LLFA. Furthermore, the feature/structure will be

shown as a designated structure on the local land charges register so that any successive owner is aware of the significance of it in terms of flood risk.

11. Section 21 Asset Register

Under Section 21 of the FWMA the LLFA has a duty to maintain a register of features or structures within the borough that, in the opinion of the Authority, could affect flood risk. The LLFA must also maintain a record, aligned to the register, of information regarding the ownership and state of repair of each feature or structure.

The register and record helps the Council to develop more informed maintenance regimes which can take account of assets important for managing flood risk. It also helps to establish where the borough's drainage and watercourse systems are, allowing for quicker identification of the responsible authority in incidences of flooding.

The information is currently being stored in ArcGIS, allowing staff to view the assets via a mapping system. Part of the information has been made publicly available so that residents are able to report faults with individual assets across the borough.

FINANCIAL IMPLICATIONS OF THE RECOMMENDATION

The Council faces severe funding pressures, particularly in the face of the COVID-19 crisis. It is therefore imperative that Council resources are focused on the vulnerable and on its highest priorities.

	How much will it Cost/ (Save)	Is there sufficient funding – if not quantify the Shortfall	Revenue or Capital?
Current Financial Year (Year 1)	£0	Yes	R
Next Financial Year (Year 2)	£0	Yes	R
Following Financial Year (Year 3)	£0	Yes	R

Other financial information relevant to the Recommendation/Decision
None
Cross-Council Implications
N/A
Public Sector Equality Duty
Due regard has been given to WBCs duties under the Equality Act

Reasons for considering the report in Part 2
Not applicable

List of Background Papers
The Flood and Water Management Act 2010 http://www.wokingham.gov.uk/community-and-safety/emergencies/drainage-and-flooding/

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