

3 April 2014

Flood Risk Management

Ward(s) All

Portfolios: Cllr A Andrew – Regeneration and Transportation, Deputy Leader

Executive Summary:

This report appraises the Panel of the latest position in relation to the Council's duties and responsibilities under the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010.

Reason for scrutiny:

To note the specific duties imposed by the legislation, the progress made by the authority to address these duties and offer any comments or observations on our activities and proposals.

Recommendations:

That:

1. Note the requirements of the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010 which establish Walsall Council as a Lead Local Flood Authority and establish specific duties as a result.
2. Consider the proposals to address these statutory duties and support the proposed course of action.

Background papers:

Final Walsall Preliminary Flood Risk Assessment

Reports to Environment Scrutiny Panel 12 January 2012 and 8 January 2013

Resource and legal considerations:

In response to the legislation Walsall Council initially produced a Preliminary Flood Risk Management Assessment in 2011 which was used by DEFRA as an exemplar. Since then we have utilised available resources to employ a Flood Risk Manager who has developed plans and procedures to take forward our statutory obligations.

Originally provided as a DEFRA grant Walsall now receive their flood risk allocation as part of the RSG. This is not ring fenced and it is for Council's to decide how they should respond to local need. During the early development stages £100,000 per annum was allocated in 2011/12.

As part of the savings for 2013/14 the Flood revenue budget was reduced by £40,000 which left a £60,000 total budget broken down into circa £40K salary and on costs and a revenue budget of £20K.

As discussed in the report below, the actual level of flood risk across the Black Country is relatively low in comparison to other councils. Discussions have subsequently commenced exploring the potential for a single, Black Country Flood Risk Manager to deliver our strategic functions on a regional basis. This will include the production of a Local Flood Risk Management Strategy.

As a result and in order to achieve the 2014/15 savings targets it was agreed at Council on 24 February to reduce this budget further, deleting the now vacant flood risk manager's post and reducing the revenue budget to £10K.

DEFRA have just awarded Walsall an additional Grant for 2013/14 and 14/15 of £60K (in total) for the development of a Sustainable Urban Drainage Approval Board (SAB). Work is now ongoing to determine the most effective use of this funding.

Citizen impact:

The Lead Local Flood Authority is a statutory organisation with an objective of identifying areas with potential flood risk, identifying mitigation measures and ensuring proper management for the safety and well being of the community.

Environmental impact:

Walsall Metropolitan Borough Council is approximately 40 sq miles in size and has a population of 253,499. Within the Council's boundaries there are two key watercourses, the Ford Brook and the River Tame together with numerous ordinary watercourses. Managing flood risk is part of the wider environmental management of the Borough.

The Council must make a contribution towards sustainable development through its Flood Risk Management activities. Following the example of other LLFAs, the Council are likely to undertake a Strategic Environmental Assessment for the Local Flood Risk Management Strategy. The Council is also working proactively with the Environment Agency and officers from Countryside and Planning to look for environmental improvement opportunities on watercourses in the Borough. This work will inform the Local Flood Risk Management Strategy.

Performance management:

Before the departure of the Flood Risk Manager a prioritised work plan for delivering the new responsibilities was produced. This prioritised our obligations based on duties and powers and involves engagement with internal departments and external organisations to take this forward.

Equality Implications:

An impact assessment has been carried out for the Preliminary Flood Risk Assessment.

This is a borough wide risk assessment and early indications suggest that the potential areas of flood risk are more dominant in the western part of the borough which is less affluent. Residents there may potentially be less able to accommodate the consequences of flood events.

Consultation:

As stated above a report was taken to Environment Scrutiny and Performance Panel on 12 January 2012 and 8 January 2013.

Officers have been working with key external organisations including the Environment Agency, Canal and River Trust, Severn Trent Water and other Midlands Lead Local Flood Authorities to share information, knowledge and experience. A Strategic Flood Partners Group meeting has been established to steer a partnership approach to flood risk management in the Borough.

Councillor Arif is currently nominated as a member of the Trent Regional Flood and Coastal Committee and his presence and contribution supported by officers.

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1. Report

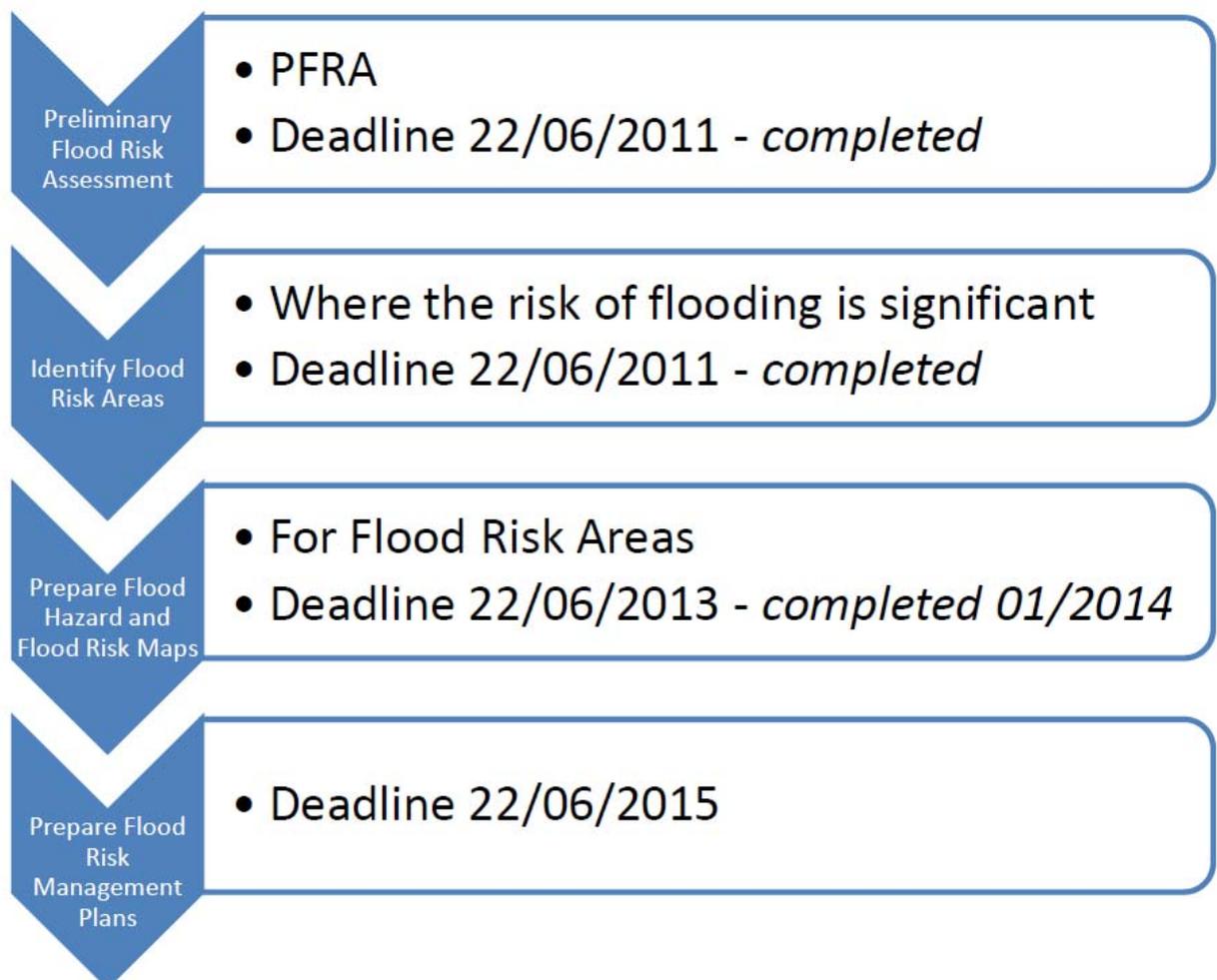
1.1 Flood Risk Regulations

The Flood Risk Regulations 2009 implement the requirements of the European Floods Directive. The aim of the Directive is to provide a consistent approach to managing flood risk across Europe. It establishes four stages of activity within a six year flood risk management cycle.

Walsall Council will continue to support the Flood Risk Regulations through the six year cycle.

By mid 2015 a full action plan will be written which will include:

- Historic flood risk;
- Future flood risk;
- Flood risk areas;
- Mitigation options to reduce flood risk (including consideration of flood defences).



1.2 Preliminary Flood Risk Assessment (PFRA)

Walsall Council is a Lead Local Flood Authority (LLFA) and is required by the Flood Risk Regulations 2009 to produce a Preliminary Flood Risk Assessment (PFRA). DEFRA approved Walsall Council's Preliminary Flood Risk Assessment (PFRA) and used it as an exemplar for others to use

1.3 Flood investigations

One of our responsibilities is to investigate significant floods after:

the internal flooding of a property on more than one occasion

Or

the internal flooding of five properties during a single flood incident

And

an ambiguity surrounding the source or responsibility of a flooding incident

(Internal flooding does not include the flooding of gardens and garages; only properties where internal flooding is above threshold level).

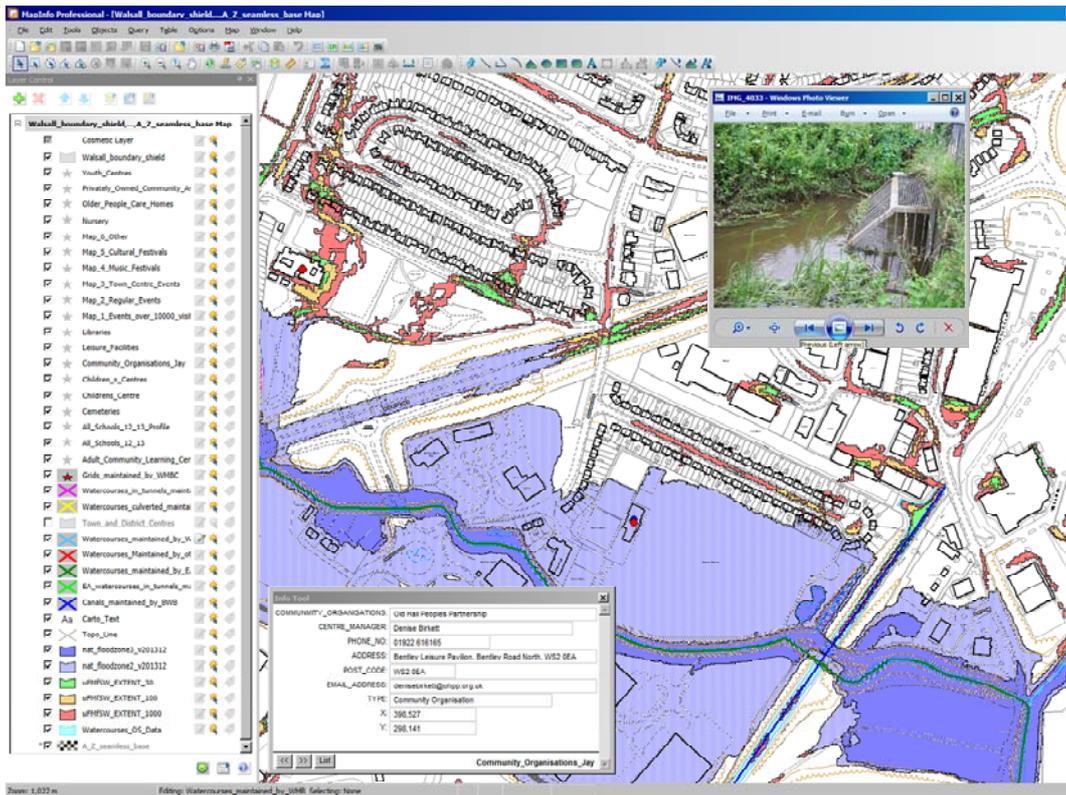
All incidents are recorded on a common database and a decision is taken by an engineer as to whether an investigation is required.

It is worth noting that under this strict definition there are very few incidents of internal property flooding that require formal investigation.

2.0 GIS mapping

2.1 Use of technology to predict and react to flooding risk – Surface Water Asset Management Plan

Engineers are using the Council's corporate GIS systems to map out and record information against all known watercourses throughout the borough, this includes open watercourses, culverts and tunnels regardless of who is responsible for their maintenance. The Surface Water Asset Management Plan is not only a register of all known drainage assets; it also maps out the latest Environment Agency data relating to flood risk and identifies areas susceptible to flooding from extreme rainfall.



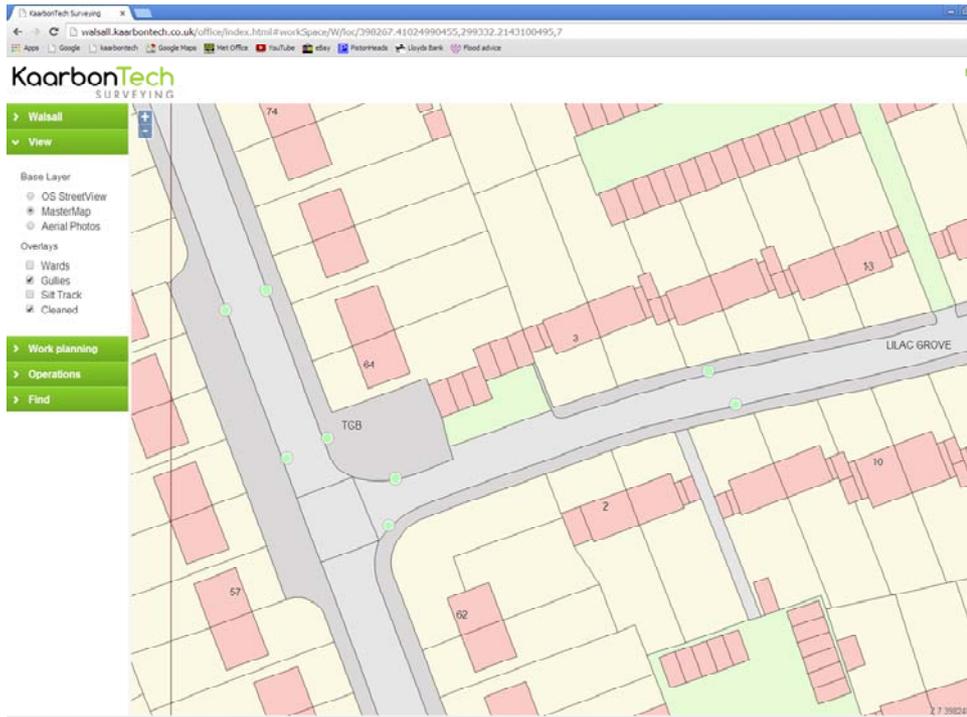
Engineers continually explore the use of GIS for improving efficiency and reducing risk to the Council, the Surface Water Asset Management Plan is currently being uploaded to a new corporate GIS system known as STRATUS, this will enable engineers and officers across the Council to view mapping data on a web based system. The system is externally hosted and data is routinely updated through scheduled tasks set up by the GIS manager, this will enable the Resilience Team to access flooding data from any location via the internet, even in the event of catastrophic failure of the Councils IT systems and servers.

2.1 Drainage Maintenance

The Engineering and Transportation service has recently introduced a new project to manage highway drainage maintenance. Since February 2013 national experts have been engaged to map out, visit and clear every one of the boroughs estimated 32,000 highway gullies. To date over 29,500 have been cleared resulting in the removal of over 700 Tonnes of silt. The intention is to collate asset data and repeat the exercise next year. This will generate intelligence on which of the drains get silted up quickest which will allow the prioritisation of resources targeting those in greatest need.

The information is managed using the company's on line GIS system. A screen shot of which is included below. This gives officers access to live data on condition, date of cleansing, amount of silt removed etc.

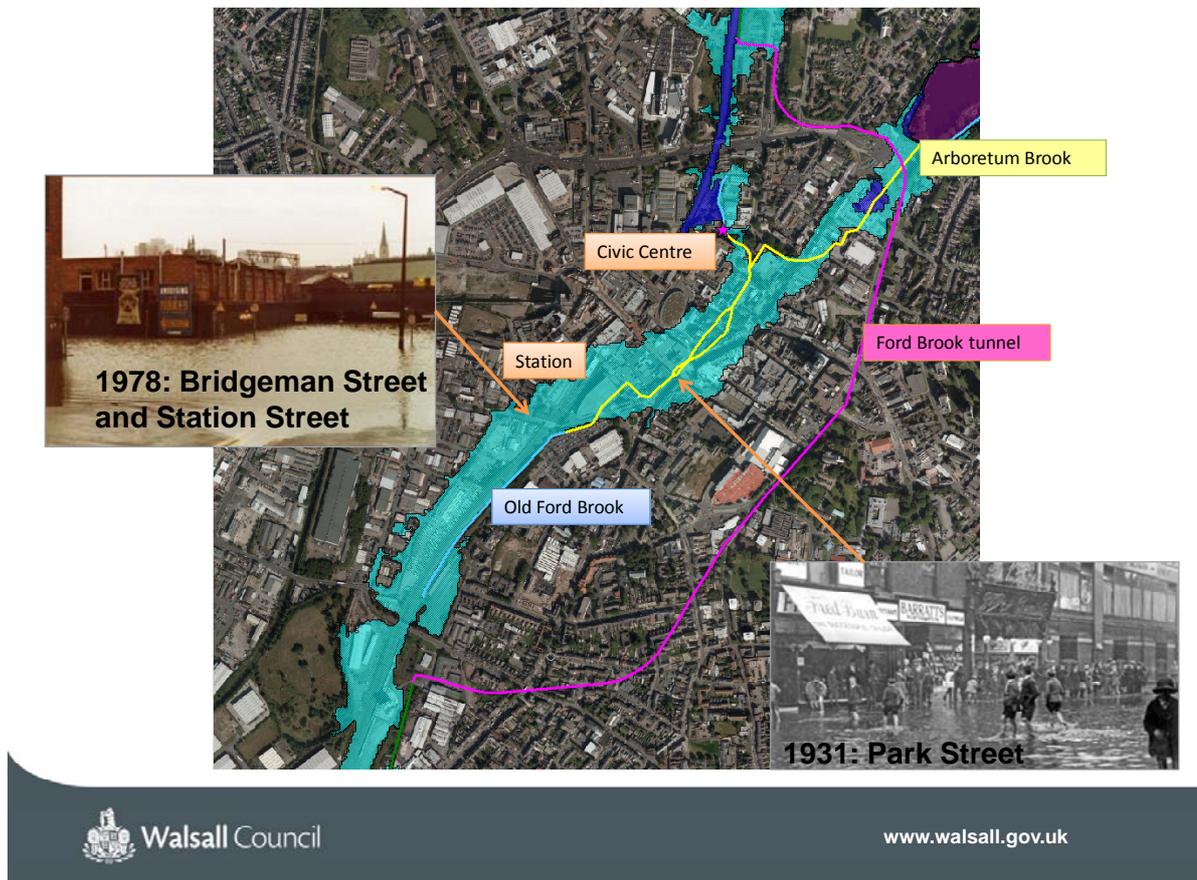
Information on areas susceptible to flooding, including local knowledge, are being added to this system to provide additional refinement.



3.0 Flood Risk

3.1 Main river flooding

There are very few historic records of main rivers flooding within Walsall. Walsall Borough does incorporate some key watercourses such as Ford Brook and the River Tame (including the Wolverhampton Arm), which generates the main fluvial flood risk for the area. Prior to work being completed on both main and ordinary watercourses by various agencies and authorities, flooding did occur in Walsall from rivers as shown below at Bridgeman and Park Street, although this risk is now significantly lower.



This slide shows the route of some town centre culverts, modelled area of flood risk and some old photographs showing the potential impact.

It is worth noting that flood management and alleviation work has been carried out in Walsall the most recent of which is a £40K project to upgrade trash screens in Darlaston. This is an Environment Agency (EA) project being funded through Local Levy. In addition a further combined bid for Local Levy funding is being developed in partnership with the EA, Severn Trent Water and the Black Country Authorities to carry out condition surveys of the major culverts across the region.

3.2 Surface water flooding

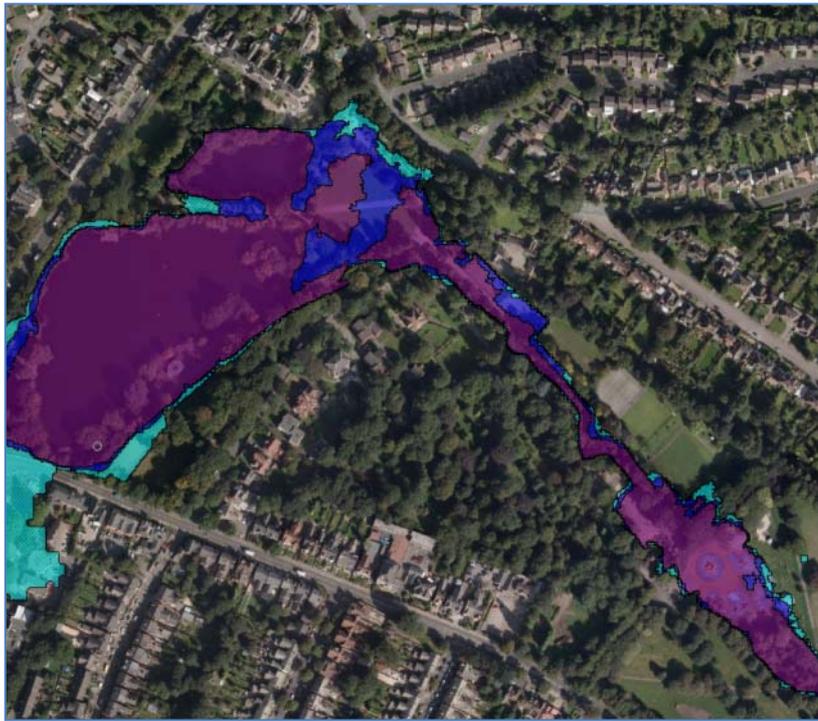
During the PFRA data gathering process over 100 records of surface water flooding were collected with the majority of flood events dating from 2005 onwards.

These flood records have been uploaded onto council GIS systems and used to prioritise gully maintenance routines. This has dramatically reduced reports of surface water flooding across the borough.

3.3 Ordinary water courses



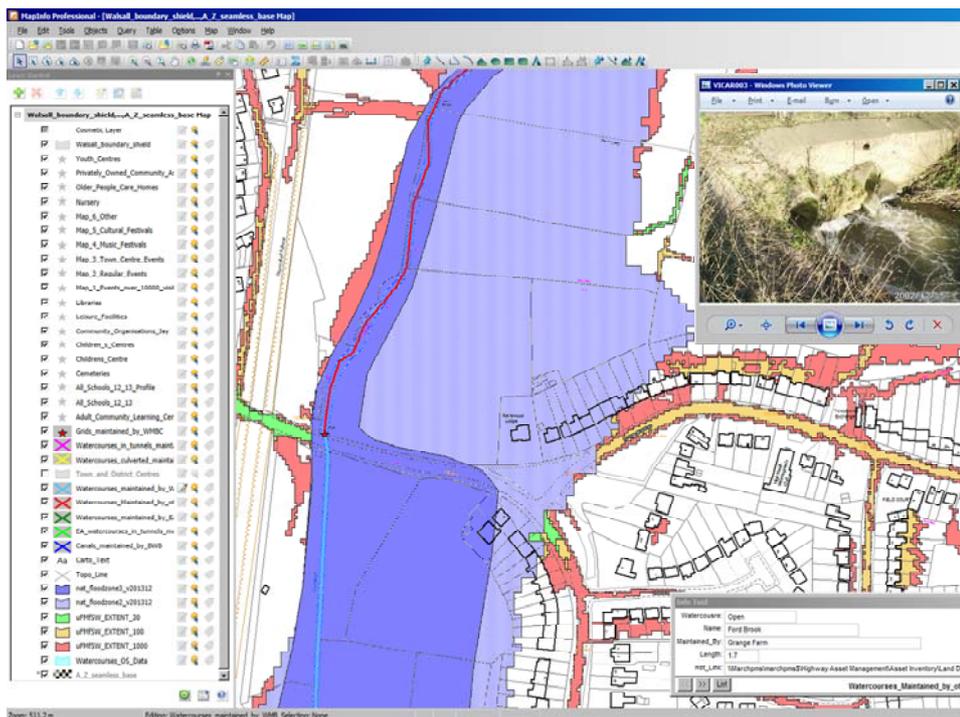
There have been very few reported ordinary watercourse fluvial flood events recorded in Walsall in recent history. In 2007 however the Arboretum area flooded, although no property or businesses were affected. Walsall is lucky in that it sits at the top of the Trent catchment area and it has relatively little significant flood risk. One of its greatest concerns relates to the potential for one of the many culverted watercourses to get blocked. For example there are some water courses that transgress the town centre via underground tunnels. Some of these are approaching the end of their design life. (see slide above) Officers have commissioned detailed flood risk modelling of various blockage scenarios of these culverts. This is being used to prioritise surveillance work and a report is being prepared to apply for Local Levy funding to assist in cctv condition surveys across the Black Country.



Flood modelling and mitigation works have been undertaken in the Arboretum.

3.4 Consideration of flood defences

Part of the statutory function is to collate flood asset information even where this is not council owned. Engineers are again developing this asset register integrating the information with the GIS systems. There is the legal power to protect some of these defences through designation however Walsall has not used this facility to date.



3.5 Operational response

A series of winter storms has seen December 2013 and January 2014 have the highest rainfall since 1876/77 and was the 2nd wettest period since records began in 1766.

During this time our engineers worked closely with our contractor Lafarge Tarmac in order to be able to respond quickly where assistance was required. Specific examples of a heightened response include:

- Sand and sand bags are stored at the depot and dispatched to areas of need where there appears to be a threat of internal property flooding.
- Engineers regularly monitor weather predictions via the Meteo Group website which is used for winter service operations. During times of actual or predicted heavy rainfall the activity of cyclic gulley cleansing is switched to a reactive response. Watercourses are checked with increased frequency and kept clear of debris.
- A gulley cleaning vehicle is used to react to localised flooding and is used to pump and tanker away standing water, providing that the volume of water is not too excessive.
- During Autumn months Clean and Green increase the frequency of road sweeping in areas where the drainage is prone to leaf blockages and specifically address these areas when heavy rainfall is expected.
- We have access to machinery such as diggers and JCBs through our contractor who have been used very effectively in avoiding specific localised flooding by digging temporary ditches and diverting water away from property.

The Council's highway contractor has also been provided with a map identifying all known flooding hotspots which enables them to routinely monitor such locations and react as necessary.