

REPORT TO: Environment and Urban Renewal Policy and Performance Board

DATE: 16 June 2010

REPORTING OFFICER: Strategic Director Environment & Economy

SUBJECT: Flood Risk Management

WARDS: Boroughwide

1.0 PURPOSE OF THE REPORT

To brief Members on the implications of the Flood and Water Management Act (2010) for Halton and provide information on the status of the various plans and funding arrangements which support its introduction.

2.0 RECOMMENDATION:

- 1) That the Board note the new duties imposed on the Council as a Lead Local Flood Authority and the financial and resource implications associated with them; and**

- 2) That the Executive Board be requested to consider the financial and resource implications of the Flood and Water Management Act for Halton, including Defra's proposal to provide Area Based Grant to assist with the carrying out of its new duties.**

3.0 SUPPORTING INFORMATION

3.1 The Flood and Water Management Act 2010

This new Act, which is designed to provide more comprehensive management of flood risk for people, homes and businesses, received Royal Assent on 8th April 2010. The Act has very significant implications for Lead Local Authorities:

- **A new statutory responsibility for managing flood risk**

Whilst the Environment Agency will have an overview of all flood and coastal erosion risk management, Unitary and County Councils will become Lead Local Flood Authorities (LLFAs) responsible for managing local flood risk, in accordance with the national strategy. They will bring together relevant bodies, who will have a duty to co-operate, to develop Local Flood Risk Management Strategies for surface water run-off, groundwater and non-main rivers, The Act places new duties on LLFAs, to investigate flooding incidents in their area and to

maintain a register of structures or features which effect flood risk. The Act provides powers to carry out works for the management of surface water run-off and groundwater, and also environmental powers for works that would deliver leisure, habitat and other environmental benefits.

- **Responsibility for approving and maintaining sustainable drainage**

The automatic right for developers to connect to public sewers will be removed. Drainage systems for all new developments and redevelopments will need to incorporate sustainable drainage systems (SuDS) and be in line with new National Standards to help manage and reduce the flow of surface water into the sewerage system. County and Unitary Local Authorities will be SuDS Approving Bodies (SAB), responsible for approving SuDS before the developer can commence construction and for subsequent adoption and maintenance of the systems, which will be recorded on the local register of drainage structures.

Although part of planning guidance, the uptake of SuDS nationally has been slow for various legal and technical reasons. However, the provisions of the Bill together with the removal of the automatic right to connect to sewers will ensure that sustainable drainage design is an imperative feature of any new development.

- **Reservoir safety**

A new, improved, risk-based regime for reservoir safety will be introduced to protect the safety of the public. It will introduce regulation for some potentially higher risk reservoirs, currently outside of the system, and reduce the burden on regulated reservoirs where people are not at risk.

Halton currently has two reservoirs, surface water balancing ponds at Wharford Farm and Oxmoor in east Runcorn. It is anticipated that both are likely to be classified as 'low risk' reservoirs.

- **Other implications for Statutory Water and Sewerage Companies**

All sewers will be built to agreed standards in future so that they are adopted and maintained by the relevant sewerage company;

There will be an introduction of measures to control the use of water during periods of water shortage;

There will be a development of concessionary schemes and social tariffs for water and sewerage;

There will be proposals to reduce 'bad debt' including the provision of "named customer" to clarify who is responsible for paying the water bill.

3.2 The Flood Risk Regulations 2009

The Flood Risk Regulations were introduced on 10 December 2009 to implement the EU Floods Directive. It was previously intended to transpose the Directive through the Flood and Water Management Act, however, the Regulations are consistent with the Act's aims and they provide a more timely introduction of the intended provisions. In the future, it is intended to consolidate the Regulations and the Act to produce a single, coherent set of provisions for the assessment and management of flood risk.

The Regulations place duties on Lead Local Flood Authorities as follows:

- Duty to prepare preliminary assessment reports in relation to flooding in its area. (a PFRA) This is a report about past floods and the possible harmful consequences of future floods, to identify areas of potential significant risk
- Duty to identify flood risk areas and determine whether, in its opinion, there is a significant flood risk in its area, and identify the part of the area affected by the risk ;
- Duty to prepare flood hazard maps and flood risk maps in relation to each relevant flood risk area;
- Duty to prepare Flood Risk Management Plans in relation to each relevant flood risk area.

Strict timescales for delivery of the reports, plans and maps have been laid down by Defra / EA, which will have significant resource implications. There has already been a significant amount of work undertaken to date on the development of various plans that will assist and inform the delivery of the duties as described below.

3.3 Catchment Flood Management Plan

Catchment Flood Management Plans (CFMPs) give an overview of the flood risk across each river catchment and estuary and recommend ways of managing those risks now and over the next 50-100 years. CFMPs consider all types of inland flooding, from rivers, ground water, surface water and tidal flooding, taking into account the likely impacts of climate change, the effects of how we use and manage the land, and how areas could be developed to meet our present day needs, without compromising future needs. CFMPs identify flood risk management policies, to assist all key decision makers in the catchment and will help to target limited resources where the risks are greatest.

There are two CFMPs covering Halton:

- The Mersey Estuary Catchment Flood Management Plan – covering north of the River Mersey and

- The Weaver Gowy Catchment Flood Management Plan, covering the south side of the Mersey estuary.

Both plans were prepared in partnership with regional and local planning authorities, community and environmental groups and other stakeholders and they were agreed by the North West Regional Flood Defence Committee in April 2009.

The Mersey Estuary CFMP

There are ten Sub-Areas within the Mersey Estuary CFMP. Sub Area 6 - Widnes and Penketh is defined as an area of “low flood risk” where the policy is to “take action to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits”. Current flood risk is managed through routine maintenance of the river channels and raised defences. Hale Bank is a tidal flood warning area.

The plan includes specific actions for partners including:

- The development of a Multi Agency Flood Plan for Widnes to ensure safe access and evacuation can be provided during flood events;
- Encouraging the use of appropriately designed Sustainable Urban Drainage Systems (SUDS) to control run-off at source;
- The production of a hydraulic model for Stewards Brook to provide key Environment Agency data and deliver accurate flood outlines for updating the Flood Map;
- Implementation of United Utilities recent proposals for remedial works to reduce sewer flooding issues in this sub-area.

The Weaver Gowy CFMP

There are seven sub-areas within the Weaver Gowy CFMP. Sub Area 2 – Frodsham and Runcorn, is an area where the residential communities of Sandymoor, Runcorn are infrequently exposed to fluvial flooding from Keckwick Brook, This is expected to increase as climate change occurs, resulting in higher flood damage and hazards to people. There are around 25 to 50 properties in East Runcorn that have a 1% chance of flooding in any one year from Keckwick Brook. The policy for the area is that there “may be a need to take further actions to keep pace with climate change” The plan includes specific actions for partners including:

- In the short term, complete the proposed new flood defence scheme for the Keckwick Brook area. (Note: This is an Environment Agency scheme as Keckwick Brook is a main river)

Delivery against the actions contained in the CFMPs is measured under National Performance Indicator NI189. Actions include:

- Encouraging the use of flood resilience and flood-proofing to properties;
- Investigation of the resilience to flooding of key infrastructure;

- Production of SWMPs;
- Plan and guide development away from the floodplain;

Halton has made satisfactory progress in meeting its actions required for 2009/10 under the Action Plan.

3.4 Shoreline Management Plan

A Shoreline Management Plan is a non-statutory, high level policy document used for coastal flood and erosion risk management planning which will be used to help the Environment Agency and Local Authorities plan work to manage coastal risks. It is a large-scale assessment of the risks associated with coastal processes, such as tidal patterns, and it helps to reduce risks to people and the environment. SMPs are intended to inform wider strategic planning.

The second generation of Shoreline Management Plans (SMP2s) are currently in production, covering the entire coastline in England and Wales. Although not a 'Coastal' authority, Halton is included in the North West England and North Wales Coastal Group, which covers the section of coastline from Great Ormes Head to Scotland and includes the Clwyd, Dee and Mersey Estuaries.

The SMP identifies four main policy approaches for the short term (0 to 20 years) medium term (20 to 50 years) and long term (50 to 100 years):

- **Hold the line:** Keeping the shoreline in the same place
- **Advance the line:** Creating more land by moving coastal defences into the sea
- **Managed realignment:** Letting the shoreline move forward or backwards in a controlled way
- **No active intervention:** Letting nature take its course on the shoreline

The long term plan for the inner Mersey estuary is to maintain the status quo, continuing to provide the same extent of protection currently afforded to property and infrastructure, while allowing natural evolution of the shoreline where there are currently no defences present

Halton's coastline is covered by 5 sections within Sub Cell 11(a), two on the south side and three on the north side of the estuary. To the west of Pickerings Pasture (Hale Point) the policy is one of 'no active intervention'. The commercial / industrial shoreline frontages to the west of Runcorn Widnes Bridge are designated as 'Hold the Line'. East of the Bridge, the policy is to 'Hold the Line' in the short term but a policy of 'Managed Realignment' will be considered in these areas, following further studies.

3.5 Surface Water Management Plan

Surface water flooding can occur from a variety of sources (such as sewers, drains, groundwater, and runoff from land, small water courses and ditches)

when high rainfall events exceed the drainage capacity in an area. This can lead to serious flooding of property and possessions where surface water flows and collects. A Surface Water Management Plan (SWMP) outlines the preferred surface water management strategy for a particular area, describing the causes and effects of surface water flooding and the most cost effective way of managing surface water flood risk for the long term. As LLFA, Halton has the leadership role in the development of a SWMP in consultation with key local partners. The plan is intended to establish a long-term action plan to manage surface water in an area and should influence future capital investment, drainage maintenance, land-use & emergency planning, and future developments.

In August last year, as part of the Government's response to the Pitt Review, £9.7 million was awarded to 77 local authorities to develop SWMPs in the areas considered to be at highest risk of surface water flooding. In March, a further £5.3 million was awarded to 49 local authorities to help them tackle surface water flooding. Halton has been granted £100,000 for the development of a SWMP for Widnes, and work is now underway to establish partnerships and identify the scope of the SWMP study.

3.6 Transfer of Responsibility for Private Sewers

From 2011 all private sewers that drain to public sewers will become the responsibility of the statutory water and sewerage companies. It has been estimated that up to 50 per cent of properties in England and Wales are connected to private sewers, which are generally collectively owned and maintained by the owners of the premises they serve (though often extending beyond the property boundary into the public highway).

There are no comprehensive records of where private sewers are located or what condition they are in. Unless a problem occurs householders are often unaware that they are responsible for the maintenance and repair of their private sewer, sometimes jointly with others. Defra estimate that nationally, there will be a £50m saving to Local Authorities as a result of the transfer through reduced management and maintenance costs. Very often, Local Authorities need to get involved in resolving problems and issues relating to private sewers, exercising their powers under the Public Health Act. In addition, Local Authorities may themselves be the owners of considerable lengths of private sewers.

However, the Local Government Association dispute the Government's estimates and say that the saving is likely to be much lower. The costs of transfer will be met by an increase in the sewerage element of bills to householders, currently estimated to be around 7.5 pence to 23 pence a week.

3.7 Sustainable Urban Drainage Systems

Traditional drainage is designed to move rainwater as run-off from hard paving and roofing to a discharge point, either a watercourse or soakaway, as rapidly as possible. However, this approach can cause sudden rises in water levels and flow rates in watercourses and increase the risk of flooding downstream. By diverting rainfall to piped systems, water is stopped from soaking into the ground, depleting ground water and reducing flows in watercourses in dry weather. The Sustainable Drainage System (SuDS) approach to drainage is intended to reduce flood risk and restore natural flows to groundwater and watercourses which will in turn reduce pollution, improve water resources and enhance the amenity of developed areas.

SuDS fall into three broad groups which provide a number of options for draining an area.

- Reducing the quantity of runoff from the site through source control techniques such as rainwater recycling or the use of permeable pavements;
- Slowing the velocity of runoff to allow permeation and infiltration through filter drains and swales (wide / shallow ditches);
- Providing passive treatment to collected surface water before discharge, utilising retention ponds and basins, large diameter pipes or storage tanks.

As described above, the Flood and Water Management Act establishes SuDs Approval Bodies (SAB) with the responsibility for approval, adoption and future maintenance of systems. Sustainable drainage will have to comply with new national standards and the right to connect to a public sewer will be conditional on the drainage system being approved by the SAB. There are a number of technical factors, which may prove challenging in the design and implementation of SuDS schemes in Halton. Impermeable clay ground conditions in Widnes, the presence of a high water table in East Runcorn and areas of contaminated land will in certain circumstances, constrain options. It will be important for developers to determine their drainage strategy and design at an early stage as SuDS techniques can take up a significant amount of space within a development, which may affect the developable area, land ownership, and landscape design etc. It should be noted that in the context of the Bill, development works can include the construction of impermeable patios and driveways.

Halton will have SAB responsibilities and the assessment & approval process of developer's drainage proposals and this itself have a significant resource requirement. However, following adoption, it is the duty for future maintenance of SuDS that will have the greatest impact on resources and funding. This is described in paragraph 3.10 below.

3.8 Reservoirs

The provisions of the Flood and Water Management Act make changes to the Reservoirs Act 1975. A new risk-based regime for reservoir safety will reduce

the burden on regulated reservoirs where people are not at risk, but will introduce regulation for some potentially high risk reservoirs currently outside the current system

- The Environment Agency will maintain a register of all reservoirs above 10,000 cubic metres capacity (previously this was 25,000 cu.m) held above the natural level of any part of the surrounding land
- The Environment Agency will classify each relevant reservoir according to whether, in the event of an uncontrolled release of water from the reservoir, they pose a threat to human life
- The duties of reservoir managers 'panel engineers' will be specified, based on the level of risk.

Although the thresholds for registering reservoirs would be reduced to 10,000 cubic metres, "only those that pose a risk to life would be required to have the same level of supervision and periodic inspections by qualified civil engineers as at present" and reservoirs judged to be 'low risk' could be exempted from certain inspections and procedures.

Halton currently has two reservoirs that come within the criteria described in the Act. Both are balancing ponds (Wharford Farm Basin and Oxmoor Basin), constructed as part of the flood attenuation system for Keckwick Brook, in connection with development at Sandymoor and Manor Park. As part of the risk assessment process, Defra have completed a reservoir inundation mapping exercise to rank reservoirs in order of priority for the purpose of informing emergency planning processes. Defra have confirmed that none of the reservoirs located in Halton have been assessed as high priority.

3.9 Funding and Grants

Prior to the recent elections, Defra have stated that they are fully committed to fully funding the *net* new burdens imposed on LLFAs. The majority of new financial costs relate to the leadership role and to SuDS adoption and maintenance. It is hoped that this position at least will be maintained, if not improved upon, but the Government's planned cuts in public expenditure may have an impact in this regard and further developments are awaited.

In response to consultation on the draft Bill, the LGA, on behalf of members, expressed serious concerns over the cost estimates of the Bill's proposals and funding assumptions used in Defra's impact assessment. Given the importance of the flood leadership role and local authorities concerns about funding, Defra have agreed that, together with the LGA, they will jointly monitor the situation and will keep costs and assumptions under review, addressing any shortfalls that arise.

Defra's assessment of the cost of new burdens is based on upper-end of cost estimates and conservative saving assumptions in order to provide added confidence. Defra have stated that they will provide:

- An extra £36m/yr for lead local flood authorities, distributed via Area-Based Grants to LLFAs, which will allow local authority-led activity to triple to £54m per year. The allocation of funding will be determined by Defra in consultation with CLG.
- The ongoing costs of maintaining adopted SuDS will be funded in full. Initially costs of maintenance will be low, but as more systems are built and adopted the costs will increase. Funding options are being reviewed and the long-term position will be made clear before commencement to ensure certainty that there will be no funding shortfall.
- An extra £2.7m per year, will be raised through the existing 'local levy' (an increase of 10%) by Regional Flood & Coastal Committees for local coastal erosion schemes, plus up to £3m per year for reservoir emergency plans.
- An £8m contingency in the first year of implementation.

As described in paragraph 3.6 Defra have estimated that the transfer of private sewerage to statutory water companies would produce savings to Local Authorities estimated at £50m, and this 'saving' will fund the majority of costs in undertaking new duties. Whilst Defra maintain that this is a conservative estimate, the LGA dispute this figure and say that dealing with private sewerage problems and issues is much less. This estimated 'saving' would be reflected in future Local Authority budgets and accounting for the transfer is expected to affect funding provision by less than 1%.

As indicated in paragraph 3.5, in March Halton was awarded £100,000 by Defra under their 'Early Action' programme to tackle surface water flood risk, for the development of a SWMP.

The Environment Agency has designed a scheme to provide flood protection to residential properties in Sandymoor, which are at risk of flooding from Keckwick Brook, a main river. This flood alleviation scheme is estimated to cost in the region of £1.5m, and is included within the Weaver Gowy CFMP action plan. We understand that a cost-benefit analysis was to be carried out on the proposals before the scheme could be programmed. One aspect of the scheme is to provide a silt trap to intercept solids within the Brook and improve flow, and Halton submitted an Early Action Bid for this specific improvement. The intention was to fund this improvement with proposed match funding from Halton's Risk Management capital allocation and a £50,000 contribution from Homes and Communities Agency (HaCA). Unfortunately this bid was not successful,

although HaCA have provided their contribution, to ensure the cleansing and maintenance of the pedestrian subway above the Keckwick Brook culvert by Halton.

Funding has been made available by the Environment Agency to jointly fund a post that will take on a co-ordinating and advising role across LLFAs within an area, working together with partner authorities on flood related matters. Together with other Merseyside authorities, Halton will contribute £5000 toward the cost of this post.

Since 2004, an allocation of £100,000 per year has been made available from Halton's Capital programme to fund a variety of flood risk management and drainage improvement works. The works have ranged from minor improvements to existing drainage infrastructure, increasing capacity and preventing potential blockages, to extensive programmes of desilting to maintain flood resilience. The money has also been spent on flood protection to individual properties, through the provision of flood gates, sand and gel bags etc.

4.0 POLICY IMPLICATIONS

4.1 There are policy implications for Halton contained within the Environment Agency's CFMP and SMP2. These documents establish flood risk management policies within river catchment areas and along coastlines. They are designed to assist and inform stakeholders, including local Authorities, who can use the plans to develop more detailed policies, strategies and plans within their area. Policies in relation to surface water management, SuDS schemes and reservoir management will be brought to the Board as they are developed.

5.0 OTHER IMPLICATIONS

5.1 Resource Implications

The Act has significant resource implications for Halton as a Lead Local Flood Authority and SuDS Approval Body. These are described within the body of the report together with the proposed funding arrangements outlined by Defra. The transfer of private sewerage to the statutory water companies will also have resource implications for Halton, in reduced involvement in problems relating to private sewers.

5.2 Sustainability

Defra's whole approach to flood and coastal erosion risk management is based upon sustainable strategies. This is delivered in partnership with the Environment Agency, through the strategic, sustainable, flood risk management approaches including Catchment Flood Management Plans and the Shoreline Management Plans and Surface Water Management described above. The

measures in the Flood and Water Management Act for the adoption of Sustainable Drainage Systems for all new developments and the removal of the automatic right to connect to public sewers demonstrates the commitment to sustainable solutions.

5.3 Best Value

Expenditure on preventing floods and minimising the impact of flooding and coastal erosion can be highly beneficial, compared with the cost of responding to incidents and repairing and reinstating damage. It has been estimated that the benefits of improved defences to control and manage flood risk, outweighs the cost of such works by a factor of 8 to 1. A cost – benefit approach to all flood risk management work by Local Authorities is positively encouraged to ensure that the cost of plans and investments are justified.

5.4 Legal Implications

The Act places many new statutory duties on Halton as a LLFA and SAB are briefly outlined in the body of the report above. These are in addition to existing powers and duties under (inter-alia) the Land Drainage Act, the Public Health Act and Reservoirs Act.

6.0 IMPLICATIONS FOR THE COUNCIL'S PRIORITIES

6.5 Halton's Urban Renewal

The management of flood risk will have a beneficial effect on both the sustainability of existing development and the planning and delivery of new developments in those areas with potential to suffer flooding. These include parts of southern Widnes where the expansion of industrial and commercial development continues apace, and areas of housing and commercial growth in east Runcorn. SuDS schemes have the potential to provide new, high quality open spaces within the urban environment.

7.0 RISK ANALYSIS

7.1 The report summarises the impact of new legislation and the effect that the various plans, to manage flood risk in the area, will have on Halton. The new duties of LLFA and SAB will bring with them challenges and risks for the Council, but it is too early to scope and define these in any detail. It is proposed that the Executive Board be requested to consider a report on the financial and resource implications of the Act, which will include a risk analysis of these specific aspects.

8.0 EQUALITY AND DIVERSITY ISSUES

8.1 There are no Equality and Diversity Issues associated with the report.

9.0 LIST OF BACKGROUND PAPERS UNDER SECTION 100D OF THE LOCAL GOVERNMENT ACT 1972

Document	Place of Inspection	Contact Officer
Catchment Flood Management Plan – Mersey Estuary	Highways Transportation and Logistics Department, Rutland House, Runcorn	D. Cunliffe
Catchment Flood Management Plan – Weaver Gowy	Ditto	D.Cunliffe
Shoreline Management Plan – North West England and North Wales Coastal Group Sub Cell 11A	Ditto	D.Cunliffe
Defra Early Action Programme Bid – Flood Risk Management. Development of a SWMP for Widnes	Ditto	D.Cunliffe