Agenda Item No: 9

CAMBRIDGESHIRE SURFACE WATER MANAGEMENT PLANS FOR ST NEOTS, GIRTON, ELY, AND MARCH

To: **Cabinet**

Date: **2 October 2012**

From: **Executive Director: Economy, Transport and Environment**

Electoral division(s): **Little Paxton and St Neots North and St Neots, Eaton Socon and Eynesbury.**
Bar Hill (for Girton)
Ely North and East and Ely South and West
March North, March East and March West

Forward Plan ref: **N/A** *Key decision:* **No**

Purpose: **To update Members on the outputs of the St Neots, Ely, Girton, and March Surface Water Management Plans.**

Recommendation: **It is recommended that Cabinet:**

a) Approves the individual Surface Water Management Plans for, St Neots, Girton and Ely.

b) Delegates to the Cabinet Member for Growth & Planning in consultation with both the local County Councillors for March and the Executive Director: Economy, Transport and Environment, the approval of the Surface Water Management Plan for March once completed.

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1. BACKGROUND

1.1 The wide scale flooding experienced during 2007 precipitated the publication of the Pitt Review which contained 92 recommendations for Government to consider. The key recommendation in the Pitt Review with respect to surface water management is recommendation 18 which states "the development of local 'Surface Water Management Plans'… should be coordinated by local authorities, and should provide the basis for managing all local flood risk".

1.2 The Pitt Review recommendations became law in the Flood and Water Management Act (2010). The Act recommends that County Councils be designated Lead Local Flood Authority (LLFA) responsible for developing Surface Water Management Plans (SWMPs).

1.3 In the context of SWMPs, the Department for Environment Food and Rural Affairs (DEFRA) technical guidance defines surface water flooding as:

- Surface water runoff; runoff as a result of high intensity rainfall when water is ponding or flowing over the ground surface before it enters the underground drainage network or watercourse, or cannot enter it because the network is full to capacity, thus causing flooding (known as pluvial flooding);
- Flooding from groundwater where groundwater is defined as all water which is below the surface of the ground and in direct contact with the ground or subsoil;
- Sewer flooding; flooding which occurs when the capacity of underground systems is exceeded due to heavy rainfall, resulting in flooding inside and outside of buildings. Note that the normal discharge of sewers and drains through outfalls may be impeded by high water levels in receiving waters as a result of wet weather or tidal conditions;
- Flooding from any watercourse not designated as a Main River, including culverted watercourses which receive most of their flow from inside an urban area and perform an urban drainage function;
- Overland flows from the urban/rural fringe entering the built-up area; and
- Overland flows resulting from groundwater sources.

1.4 The SWMPs referred to in this report aim to consider surface water flooding issues in St Neots, Ely, Girton and March, but they do not address sewer flooding where it is occurring as a result of operational issues, i.e. blockages and equipment failure.

1.5 SWMPs are a tool to manage surface water flood risk on a local basis by improving and optimising coordination between relevant stakeholders. SWMPs build on Strategic Flood Risk Assessments and provide the vehicle for local organisations to develop a shared understanding of local flood risk and establish an action plan, including setting out priorities for action, maintenance needs and links into development frameworks.

1.6 SWMPs are also used for emergency management activities, and the content of the Cambridgeshire SWMPs would seek to inform the work of the Peterborough and Cambridgeshire Local Resilience Forum and associated emergency management activities in the County.

2. MAIN ISSUES

2.1 The aim of the SWMP studies was to produce long term surface water management action plans for St Neots, Ely, Girton and March. The objectives of the studies were to:

- Map historical flood incident data;
- Engage with partners and stakeholders;
- Map surface water influenced flooding locations;
- Identify surface water flooding wetspot areas;
- Assess, compare and prioritise options and confirm preferred options for the prioritised wetspots;
- Make recommendations for next steps;
- Use the evidence and findings from the SWMPs to secure funding from Government to pay for the recommendations to be implemented.

2.2 Extensive local engagement has been undertaken with key local groups in the development of the individual SWMPs, and data for the SWMPs came from a variety of sources including, but not limited to, historical flooding information provided by stakeholders and members of the public as part of the 'Flooding Memories' project, the Environment Agency's National Receptor Database and Flood Maps for Surface Water, Information from each District Council and its Councillors, Town and Parish Councils and its Councillors, Huntingdonshire's Flood Forum, the County Council's Highways team, Anglian Water Services, and the Emergency Management Team. A detailed list of the organisations involved is contained within each SWMP report.

2.3 The wetspots were identified after considering what could be affected in the event of a flood. For example housing; critical infrastructure, such as a waste water treatment works; vulnerable sites, such as schools, residential care homes; and traffic infrastructure. Surface water interaction with main rivers, including the River Great Ouse was also considered.

2.4 The development and approval of these SWMPs is important because once approved, the County Council is able to apply for funding to pay for the flood reduction measures detailed in the SWMPs. The following preliminary grant applications have been made:

- St Neots - £429,000
- Ely - £937,000
- March - £1,157,000
- Girton - measures for the Thorton Road area were funded locally in partnership with South Cambridgeshire District Council, and Girton Parish Council. Following the successful implementation of the measures by partners, the area that flooded in the past, did not flood in the heavy rainfall experienced in July.

2.5 The following section provides details on the individual SWMPs for Cabinet's approval.

St Neots SWMP

2.6 Four wetspot areas in St Neots were identified following consultation. This was then followed by detailed modelling, to produce refined maps for each site. The four locations that showed flows and depths of flooding are known as Meadowsweet, Eynesbury Manor, Riverside, and the Town Centre.

2.7 The final stage of the study was to identify measures that could help reduce the surface water flood risk in these four areas. Reference to section 7 of the St Neots Surface Water Management Plan provides details on the measures identified to address the wetspots and these were assessed. In accordance with

DEFRA guidance the measures were subject to an economic appraisal that assessed the whole life costs, flood damages, and residual damages to evaluate the cost benefit ratio of the proposed measures.

2.8 Following the economic appraisal, the preferred options were documented for further investigation. The aspects of the four St Neots wetspots that require further investigation and consideration are:

- Increased maintenance of ordinary watercourses and surface water drains within the wetspots;
- To gather more information relating to culverted sections of ordinary/awarded watercourses within each wetspot to ensure all are being taken into account;
- Smaller scale engineering work in specific locations except for the Riverside wetspot where combined small and large scale engineering work is recommended;
- Property level resistance/resilience measures; and
- Investigate the current flood resilience of schools and other critical infrastructure identified as being at risk from surface water flooding within St Neots.

2.9 St Neots SWMP has been approved by Huntingdonshire District Council Committee Members. Cabinet approval is sough for the St Neots SWMP and the report can be found at the following links (owing to the report's large file size it has been divided into two parts):
http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/89836306-CF51-4038-B59E-176DD5899CAB/0/5101UA002163BMR01StNeotsSWMPReportFINALPart1.pdf

http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/CC37BC48-E3FC-450A-A7D9-D324DFBB7A19/0/5101UA002163BMR01StNeotsSWMPReportFINALpart2.pdf

Ely SWMP

2.10 Three wetspots were identified in Ely following the consultation exercise. Again modelling was used to produce refined maps for each of the three sites that showed flows and depths of flooding. The three sites identified are North West Ely, St Johns Road, and Silver Street.

2.11 The final stage of the study identified measures that could help reduce the surface water flood risk in the three 'wetspots' identified. Again section 7 of the Ely Surface Water Management Plan provides details on the measures identified and their assessment.

2.12 The following preferred options were documented for further investigation in Ely:

- Increase maintenance of ordinary watercourses and surface water drains across the whole area whilst targeting on predicted high to moderate risk areas as identified in the study;
- Engineering work as detailed in the Ely SWMP report (section 7.3); and
- Investigate the current flood resilience of school indentified as being at risk from surface water flooding within Ely.

2.13 The Ely SWMP has been approved by East Cambridgeshire District Council Committee Members. Cabinet approval is sough for the Ely SWMP and the

report can be found at the following links (owing to the report's large file size it has been divided into two parts):
http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/E8E44AE8-1B74-4A27-B465-7F4B138E944C/0/5301UA002163BMR01_Ely_SWMP_Report_FINALpart1.pdf

http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/FF6EA7D3-F300-492F-9CAD-B82D0D928611/0/Pagesfrom5301UA002163BMR01_Ely_SWMP_Report_FINALpart2.pdf

Girton SWMP

2.14 The wetspot areas were identified in Girton. Detailed modelling showed flows and depths of flooding in two distinct areas, to the North and South of the A14 road. Following consultation with Parish Councillors, an area to the South of the A14 known as Thorton Road, was identified for a detailed assessment.

2.15 In the northern half of Girton the predominant source of flood risk was identified as being from the main rivers; Washpit Brook and Beck Brook, although isolated surface water flooding incidents may have occurred in areas near to the rivers where existing outfalls may have surcharged due to high water levels in the main rivers. The Environment Agency has already identified this area through a separate study and the County Council was assured that work was ongoing to address main river flooding in the area.

2.16 Since the Girton SWMP report was completed, the area identified by the Environment Agency as at risk of main river flooding experienced flooding in July this year. The County Council is continuing to liaise with the Environment Agency regarding measures to reduce flood risk in this area.

2.17 The final stage of the study identified measures that could help reduce the surface water flood risk in the wetspot identified. Section 7 of the Girton Surface Water Management Plan contains measures identified and assessed. In accordance with DEFRA guidance the measures were subject to an economic appraisal that assessed the whole life costs, flood damages, and residual damages to evaluate the cost benefit of the proposed measures.

2.18 The following preferred options were documented for further investigation:

- Increased maintenance of ordinary watercourses and surface water drains within the wetspot;
- Increased conveyance and storage within the open channel sections along with downstream floodplain enhancements;
- Property level resistance/resilience measures; and
- Small scale drainage schemes.

2.19 Girton SWMP has been approved by the South Cambridgeshire District Council Portfolio Holder. Cabinet approval is sough for the Girton SWMP and the report can be found at the following links (owing to the report's large file size it has been divided into two parts):
http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/B24788AC-D88A-4F29-9C66-BBC607509106/0/1502UA002163BMR01CambridgeshireSWMPGirtonDetailedAssessmentFINALREPORTpart1.pdf

http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/9A6C3745-1DE6-4907-9EF9-

C1D2C21D20C2/0/Pagesfrom1502UA002163BMR01CambridgeshireSWMPGirtonDetailedAssessmentFINALREPORTpart.pdf

March SWMP

2.20 Three wetspot areas in March were identified following consultation. Detailed modelling to produce refined maps was undertaken for each of the three wetspots known as North West March, South West March, and South East March, which showed flows and depths of flooding.

2.21 The final stage of the study was to identify measures that could help reduce the surface water flood risk in the three wetspots. Substantial work has been undertaken on this SWMP and the report is due to be approved in December by Fenland District Council's Committee, following the conclusion of discussions with the Middle Level Commissioners on one of the proposed options.

2.22 To meet DEFRA deadlines, and enable the County Council to apply for grant funding to carry out the measures detailed in the March SWMP, it is proposed that Cabinet Members delegate the final approval of the March SWMP to the Portfolio Holder for Growth and Planning in consultation with local County Council members for divisions March North, March East and March West.

3. ALIGNMENT WITH PRIORITIES AND WAYS OF WORKING

In addition to aligning with the Corporate Priorities and ways of working, it should be noted that this work enables the Council to comply with new statutory duties under the Flood and Water Management Act (2010) and the Flood Risk Regulations (2009).

3.1 Developing the local economy for the benefit of all

The implementation of the SWMPs can help to provide significant economic benefits to the community through better preparation against potential extreme rainfall events, through targeting resources, influencing local development and emergency management and protection to people, properties and businesses in Cambridgeshire.

By reducing the risk of flooding to critical infrastructure and transport routes in and around the County the SWMPs are able to positively contribute to the local economy.

3.2 Helping people live healthy and independent lives

The SWMP's would seek to contribute to the communities of Cambridgeshire living a healthy life, by ensuring that flood risk in the County is identified and mitigated where possible.

By addressing the root cause of flooding in the County, there would be an opportunity to not only reduce the physical risk to life, but also reduce emotional strain that being flooded can cause.

The SWMP process allows the opportunity to enhance the condition of urbanised catchments helping to improve the water quality.

3.3 Supporting and protecting vulnerable people

The SWMP's would seek to identify areas and communities at significant risk of flooding, and suggest measures to be put in place to reduce the risk.

The SWMP's would inform emergency management plans to ensure communities are afforded the best protection practicable in the event of a flood.

3.4 Ways of Working

The following bullet points set out details of implications identified by officers:

Leadership

The work of the flood risk management team in Cambridgeshire County Council is recognised as delivering best practice at a national level.

Working locally

- Being a genuinely local Council by ensuring that key stakeholders in flood risk management, including local communities were able to contribute toward the content of the SWMP.
- Working together at a local level using the skills and resources that exist in the County to collectively reduce flood risk for all. As demonstrated through the work of the Cambridgeshire Flood Risk management Partnership (CFRMP).
- Section 2.2 of the report outlines the community and key stakeholder engagement that has been undertaken in the development of this work.

Investing in growth

- Making sure the right services are provided in the right way by identifying the areas at the most significant risk of flooding and targeting resources in those areas.
- Investing in prevention by identifying areas in Cambridgeshire that are at significant risk of flooding, and identify possible mitigation measures, and attracting funding to reduce the risk of flooding in the future.

4. SIGNIFICANT IMPLICATIONS

Resource and Performance Implications

Completion of the SWMP's will allow applications to be submitted for grants that will help to alleviate the flooding issues identified in the SWMP's.

4.1 Statutory, Risk and Legal Implications

This work enables the Council to comply with new statutory duties under the Flood and Water Management Act (2010), & The Flood Risk Regulations (2009).

4.2 Equality and Diversity Implications

There are no significant implications.

4.3 Engagement and Consultation Implications

Section 2.2 of the report outlines the community and key stakeholder engagement that has been undertaken in the development of this work.

4.4 Public Health Implications

There are no significant implications.

Source Documents	Location
	Documents are available electronically at the following links (owing to the large file size each report has been sectioned into part 1 and part 2):
St Neots Surface Water Management Plan	http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/89836306-CF51-4038-B59E-176DD5899CAB/0/5101UA002163BMR01StNeotsSWMPReportFINALPart1.pdf http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/CC37BC48-E3FC-450A-A7D9-D324DFBB7A19/0/5101UA002163BMR01StNeotsSWMPReportFINALpart2.pdf
Ely Surface Water Management Plan	http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/E8E44AE8-1B74-4A27-B465-7F4B138E944C/0/5301UA002163BMR01_Ely_SWMP_Report_FINALpart1.pdf http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/FF6EA7D3-F300-492F-9CAD-B82D0D928611/0/Pagesfrom5301UA002163BMR01_Ely_SWMP_Report_FINALpart2.pdf
Cambridgeshire SWMP – Girton Detailed Assessment and Options Appraisal Report	http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/B24788AC-D88A-4F29-9C66-BBC607509106/0/1502UA002163BMR01CambridgeshireSWMPGirtonDetailedAssessmentFINALREPORTpart1.pdf http://www.ccc.cambridgeshire.gov.uk/NR/rdonlyres/9A6C3745-1DE6-4907-9EF9-C1D2C21D20C2/0/Pagesfrom1502UA002163BMR01CambridgeshireSWMPGirtonDetailedAssessmentFINALREPORTpart.pdf Paper copies are also available in the Members Lounge Shire Hall, Cambridge.