

<b>Summary of Findings of the Stage 2 Water Cycle Study.</b>		<b>Agenda No: 8</b>
<b>Corporate Priority: The Environment is Clean and Green</b>		
<b>Report presented by: Emma Boaler</b>		
<b>Report prepared by: Emma Boaler</b>		
<b>Background Papers:</b> Braintree District, Haverhill and Clare Water Cycle Study Stage 1 – Entec November 2008 Braintree District Stage 2 Water Cycle Study – Hyder December 2010 Submission Draft Core Strategy May 2010 Report on the Findings of the Stage 2 Water Cycle Study – LDF Panel Report 1 <sup>st</sup> December 2010.		<b>Public</b>
<b>Options:</b> <b>To note the conclusions of the Stage 2 Water Cycle Study.</b>		<b>Key Decision:</b>  <b>NO</b>
<b>Executive Summary:</b>  The report builds on the information given to Members on the 1 <sup>st</sup> December 2010 and provides a full summary of the findings of the final Stage 2 Water Cycle Study, broken down by water resources, waste water treatment and water quality, waste water treatment capacity and sewerage capacity. Sites where the study has identified significant constraints, with possible solutions identified are considered in more detail.		
<b>Decision:</b> <b>To note the contents of the Stage 2 Water Cycle Study</b>		
<b>Purpose of Decision:</b> <b>To note the contents of the Stage 2 Water Cycle Study as it has been added to the LDF evidence base</b>		

<b>Corporate implications</b>	
<b>Financial:</b>	None
<b>Legal:</b>	None
<b>Equalities/Diversity</b>	None
<b>Customer Impact:</b>	None
<b>Environment and Climate Change:</b>	The document has assessed the impact of the Core Strategy growth in both flood risk at the waste water treatment works, on water quality and on the sites of European protection downstream, outside of the District.
<b>Consultation/Community Engagement:</b>	The water cycle study is now available on the BDC website. The study has previously been the subject of extensive consultation with key stakeholders including the Environment Agency, Natural England and the water supply and waste water treatment companies.
<b>Risks:</b>	None
<b>Officer Contact:</b> Emma Boaler	
<b>Designation:</b> Planning Policy Officer	
<b>Ext. No.</b> 2511	
<b>E-mail:</b> emboa@braintree.gov.uk	

## 1. Background

1.1 As set out in the LDF Panel report on the draft Water Cycle Study in December, a Stage 2 Water Cycle Study was requested by The Environment Agency to build on the work done through the Outline Water Cycle Study in 2008. The Stage 2 report was to look at the proposed growth locations and spatial strategy in the Core Strategy submission document and to see if they could be accommodated in terms of water and waste water infrastructure and their impact on the wider water environment.

1.2 Whilst the final report had not been completed in December, the draft executive summary of the document was made available to be considered at the LDF Panel on the 1<sup>st</sup> December 2010 and included a brief summary of the outcomes of the report. The Panel agreed to note these findings and to delegate approval of the document to Councillors McCrea and Harley.

## 2. The Findings of the Stage 2 Water Cycle Study

2.1 The final conclusions of the Stage 2 Water Cycle Study differ little from those set out in the draft executive summary reported to this Panel in December. They are;

### 2.2 Water Resources

Water resources will not constrain development subject to water company funding becoming available as planned for infrastructure projects. However the report notes that; *“BDC should consider including a development control policy requiring developers to show how, through the installation of certain components and fittings, water use per person per day will be limited to a lower rate than the current statutory requirements”*.

### 2.3 Wastewater Treatment and Water Quality

At Bocking, Coggeshall, Earls Colne and Sible Hedingham Waste Water Treatment Works any increase in flow resulting from the development will require the negotiation of a new consent. The Environment Agency state that the likely quality standards required to ensure no deterioration of current river quality would be achievable using conventional wastewater treatment technologies; hence this will not constrain development.

At Braintree, Halstead, Rayne and Witham, it is predicted that the increased flows can be accommodated within the existing consented discharge, hence there is no immediate constraint to development.

### 2.4 Waste Water Treatment Process and Hydraulic Capacity

Development at Coggeshall, Earls Colne, Rayne and Sible Hedingham will not require extensive upgrades to the Waste Water Treatment Works processes. Hence development is not considered to be completely constrained.

Witham Waste Water Treatment Works has adequate process capacity to accommodate the proposed development in the short term. Anglian Water Services have the opportunity to investigate any upgrades required now so that they can be brought online as the growth rate increased past 2015.

Bocking Waste Water Treatment Works has sufficient capacity to accommodate existing flows and development which is already committed, however measures will be required to attempt to reduce the received flows to accommodate the remaining dwellings proposed in the short term, however given the scale this is unlikely to constrain development.

Braintree and Halstead Waste Water Treatment Works may cause some operational difficulties in the short term by the expected period of development of the proposed sites. There is a chance that short term operational issues caused by growth will increase the risk of pollution events from the waste water treatment works. It is therefore recommended that; *“the BDC Core Strategy policy CS8 be modified to require that developers provide evidence to BDC that they have consulted with Anglian Water regarding wastewater treatment capacity, and the outcomes of this consultation, prior to development approval”*.

## 2.5 Sewerage Capacity

Some of the proposed development sites, particularly the Core Strategy sites in the main towns, will require significant upgrades to the sewerage network. On the whole, the expected period of development of the sites preferred by BDC allows adequate time for these solutions to be investigated, designed, funded (through the developer requisition process) and constructed. It is therefore recommended in the study that; *“BDC Core Strategy Policy CS8 be modified to require that adequate sewerage capacity is in place prior to development approval.”*

## 2.6 Site Assessments

The following sites have one of more area where they are classed as orange. This is where they are significant constraints. Possible solutions have been identified, however the expected period of development may not allow adequate time for any upgrades required. Concerns regarding timeframe and cost need addressing with developers.

Braintree BRC30 adjacent telephone exchange, BRC76 Crossman House, BRS2/3/4 Riverside Centre and BRS7 Rifle Hill Works. Developers should liaise with Anglian Water to overcome short term capacity concerns in the sewerage network.

Great Notley Employment Site – A significant network solution will be required in the area where the single sewer passes under the A120. Anglian Water estimate that it may take up to 5 years for such an upgrade to be designed, funded and constructed through developer requisition, although it may be possible to accelerate this process if additional funding is made available from developers.

Halstead All sites. Anglian Water estimate that upgrades will be required to the Waste Water Treatment Capacity. The growth may cause operational issues, however this may drive future investment. Developers of HAS22 Priory Hall should also liaise with Anglian Water to overcome short term capacity concerns in the sewerage network.

Witham Forest Road – Anglian Water estimate that the existing sewerage network does not have adequate capacity to accommodate flows from the site. It is likely that a significant network upgrade will be needed to provide adequate capacity, either upgrades along the existing sewer or a new sewer bypassing the urban area. Whilst the planned phasing of the site will allow adequate time for the above solutions to be assessed, designed and constructed, such a scheme may prove to be expensive compared to the scale of growth.

Witham Lodge Farm – Anglian Water estimate that the existing sewerage network will require upgrading to provide the capacity required to accommodate Lodge Farm. Three potential options have been identified which need further development. These are; upgrades to the existing sewer, construction of a new sewer to Hatfield Peverel or construction of a new pumped sewer around the town. Given the current economic situation, it is unlikely that Anglian Water will investigate this issue in the current funding period (2010 – 2015), therefore it is likely that the required network upgrade will not be completed until 2020, subject to developer funding. BDC will therefore need to liaise with Anglian Water and the developers on accelerating the provision of the required sewerage network.

Witham WIS9 Maltings Lane. Developers should liaise with Anglian Water to discuss local capacity issues in the sewerage network. In the long term this could be resolved by the solution for Lodge Farm discussed above.

### 3. Next Steps

3.1 Anglian Water are continuing to work on sewerage network modelling for the three main towns of the District which will give them a better indication of the type of work needed in each of the above cases. This work is ongoing but is expected within the next few months.

3.2 BDC have contacted all the developers of the growth locations who have been made aware of the findings of the water cycle study and asked to liaise closely with Anglian Water. No major issues in terms of costs of phasing have been identified.

3.3 The stage 2 Water Cycle Study recommends a number of changes to policy CS8 of the submission Draft Core Strategy. These changes are supported by The Environment Agency. Negotiation between BDC, The Environment Agency and Anglian Water to agree any changes to policy CS8 and any other accompanying text of the Core Strategy will be required and it is likely that this will take place through a Statement of Common Ground.