

Chapter 10: Sewerage and Waste Water

The DSIS Report

- 10.1 The DSIS Utilities and Physical Infrastructure report contains a section on the provision of sewerage infrastructure and the likely impact of the two development scenarios assessed. The report provides significant background information on sewerage infrastructure and provides an assessment of existing and committed sewerage infrastructure and forecasted demand for new infrastructure.
- 10.2 As identified in the DSIS report, Thames Water provide infrastructure over an area much wider than just Dacorum, which makes it difficult to draw clear conclusions about the impact of the development planned in Dacorum alone.
- 10.3 Much of the information in the DSIS report is updated here in accordance with the advice received by email from Thames Water on the 28th March 2013. This chapter is set out in the same order as the relevant section of the DSIS in order to make clear which parts of the DSIS report are still considered valid, and which have been superseded by new information.

Policy Drivers and Context

- 10.4 The UK Water and Flood Management Act (2010) tackles issues with surface water drainage and makes the County Council the relevant flood authority – Lead Local Flood Authority. Developers will be required to submit sustainable drainage plans alongside planning applications, and these must be approved by the Local Planning Authority in consultation with the County Council as Lead Local Flood Authority (as a statutory consultee) before the developer can commence development. The developer's automatic right to connect surface water to the public sewer network has ceased, and it will now be dependent on the drainage system being approved by the Local Planning Authority.

Existing and Committed Infrastructure Provision

- 10.5 Based on the information to date, Thames Water's modelling and analysis suggested that neither Maple Lodge STW or Blackbirds STW will require significant growth upgrades in AMP6 (2015 to 2020). Ongoing reviews will take place and upgrades may be necessary in AMP7 (2020 to 2025).

Estimating Future Demand

- 10.6 Thames Water use Local Authority housing and employment growth figures and census data to help project likely increases in sewage flows to its works. They also take into consideration a range of other factors, including data on wastewater flows entering the sewage works. Using this information they seek to ensure that their sewage works have sufficient capacity to cater for the growth being proposed. Where capacity constraints at sewage works are predicted, they will invest in their sewage works at the appropriate time to ensure our treatment consents continue to be met.
- 10.7 Thames Water's investment programme is based on a 5 year cycle known as the Asset Management Plan (AMP) process. Thames Water have recently come to the end of the AMP5 period, which ran from 1st April 2010 to 31st March 2015. AMP6 covers the period from 1st April 2015 to 31st March 2020. As part of its five year business plan Thames Water advise OFWAT on the funding required to accommodate growth to ensure its treatment works can continue to meet the standard required by their treatment consents.
- 10.8 Where there are infrastructure constraints Thames Water may require an 18-month to three-year lead in time for provision of extra capacity to drain new development sites. If any large scale engineering works are needed to upgrade infrastructure the lead in time could be up to five years. Implementing new technologies and the construction of a major treatment works extension or new treatment works could take up to ten years.

- 10.9 Thames Water continually update their models and have recently been reviewing the Drainage Area Plans for some of the larger STW catchments such as Maple Lodge. Such tools do consider longer term growth and capacity; however there is less confidence in the accuracy of the model outputs, the further they look into the future.
- 10.10 DBC will continue to liaise closely with neighbouring Local Authorities and Thames Water, especially with regard to potential future high level modelling which would give an indication of the impact of proposed growth levels on local pipe-work and sewerage treatment works and their respective catchment areas.

Water Project for Hertfordshire

- 10.11 A project is currently underway to assess the likely impact of a range of growth scenarios on the water supply and waste water treatment infrastructure in Hertfordshire up to 2051. The project considers growth across the whole of Hertfordshire and Chiltern District, and tests a range of growth options for each of Local Authorities based on existing plans and options for future plans. The project partners are the Hertfordshire Local Authorities (with the exception of Broxbourne) Hertfordshire County Council, the Hertfordshire Local Enterprise Partnership, the Environment Agency, Thames Water, Affinity Water and Anglian Water, and is being carried out by consultants Hyder Arcadis.
- 10.12 The objectives of the study are:
- (i) to identify how current and planned water supply and/or waste water treatment infrastructure improvements may affect future growth levels across the study area.
 - (ii) To identify potential changes to water supply and wastewater treatment infrastructure required to support the scale of development envisaged for the county as a whole. And from this, to identify

infrastructure improvement strategies to accommodate the range of growth scenarios assessed.

- (iii) To identify the potential environmental impacts of the development of water supply and wastewater treatment related infrastructure in order to advise on which options are most feasible.
- (iv) To provide a range of options to meet strategic and local infrastructure needs, with an indication of the scale of investment required at the sub-catchment level.
- (v) To set out a range of policy options and solutions to remedy any shortfalls in infrastructure provision. This process will demonstrate where direct infrastructure investments will facilitate development and where some of the catchment constraints are unlikely to be resolved.

10.13 The outcomes of the study, expected later in 2016, will inform the assessment of growth options for the Council's new Local Plan and will be fed into future IDPs and considerations for use of CIL funds.

Issues/Future Trends

10.14 This section of the DSIS report is still considered to be useful and valid.

Demand for Sewerage Infrastructure arising from Growth

10.15 See paragraphs 10.6 – 10.10 above.

Resulting Sewerage Infrastructure Requirements

10.16 Thames Water has confirmed that the infrastructure upgrades required as a result of the development planned in the Core Strategy is as follows:

- With the information that is available to date, Thames Water's modelling and analysis suggested that neither Maple Lodge STW or

Blackbirds STW will require significant growth upgrades in AMP6 (2015 to 2020). However ongoing reviews will take place and upgrades may indeed be necessary in AMP7 (2020 to 2025) to cater for the growth envisaged.

- Berkhamsted's WWTW has recently been upgraded. There are no current plans to significantly upgrade the sewage treatment works but Thames Water will keep this under review to ensure the levels of growth can be catered for at the sewage works. Network upgrades are likely to be required and may require developer funding contributions.
- Tring is served by its own WWTW. There are no current plans to significantly upgrade the sewage treatment works but Thames Water will keep this under review to ensure the levels of growth can be catered for at the sewage works. Network upgrades are likely to be required and may require developer funding contributions.
- Bovingdon is served by the Chesham WWTW. There are no current plans to significantly upgrade the sewage treatment works but Thames Water will keep this under review to ensure the levels of growth can be catered for at the sewage works. Network upgrades are likely to be required and may require developer funding contributions. It is noted that Chiltern District Council are promoting significant growth around Chesham in their new local plan and this will necessitate upgrades to Chesham WWTW if adopted.
- Markyate WWTW is to be upgraded to improve site resilience and ensure compliance with consents. Network upgrades are likely to be required and may require developer funding contributions.

10.17 Overall Thames Water confirmed that, whilst the level of development programmed in the Core Strategy and recent Pre-submission Focused Changes Site Allocations Development Plan Document will create the need

for some infrastructure upgrades, they are happy that such upgrades can be provided at the appropriate time.

Wastewater Network

- 10.18 The key issue will be to ensure that there is sufficient hydraulic capacity of the network to cater for the growth being proposed. This should be determined through drainage strategies and detailed discussions with the developer; where the point of connection to the existing network is appraised against the scale of development and its potential phasing.
- 10.19 Through the policies proposed above, and if necessary through the use of Grampian style planning conditions, drainage strategies and any subsequent infrastructure network upgrades should be provided by either the developer or Thames Water. This will ensure that sufficient hydraulic capacity is provided ahead of occupation of new development, and in so doing, avoiding any increased risk of sewer flooding. Where required Thames Water will seek a fair and reasonable contribution from developers for sewerage network infrastructure.
- 10.20 Thames Water supports the use of Sustainable Drainage Schemes in new development. SuDS not only help to mitigate flooding by controlling surface water through sustainable drainage systems, but over the lifetime of the development they can also help to:
- improve water quality
 - provide opportunities for water efficiency
 - provide enhanced landscape and visual features
 - support wildlife
 - provide amenity and recreational benefits.
- 10.21 Thames Water will work with the District Council, the Lead Local Flood Authority and the EA to ensure that SuDS opportunities are maximised, and that they are effectively adopted and maintained over their lifetime.

