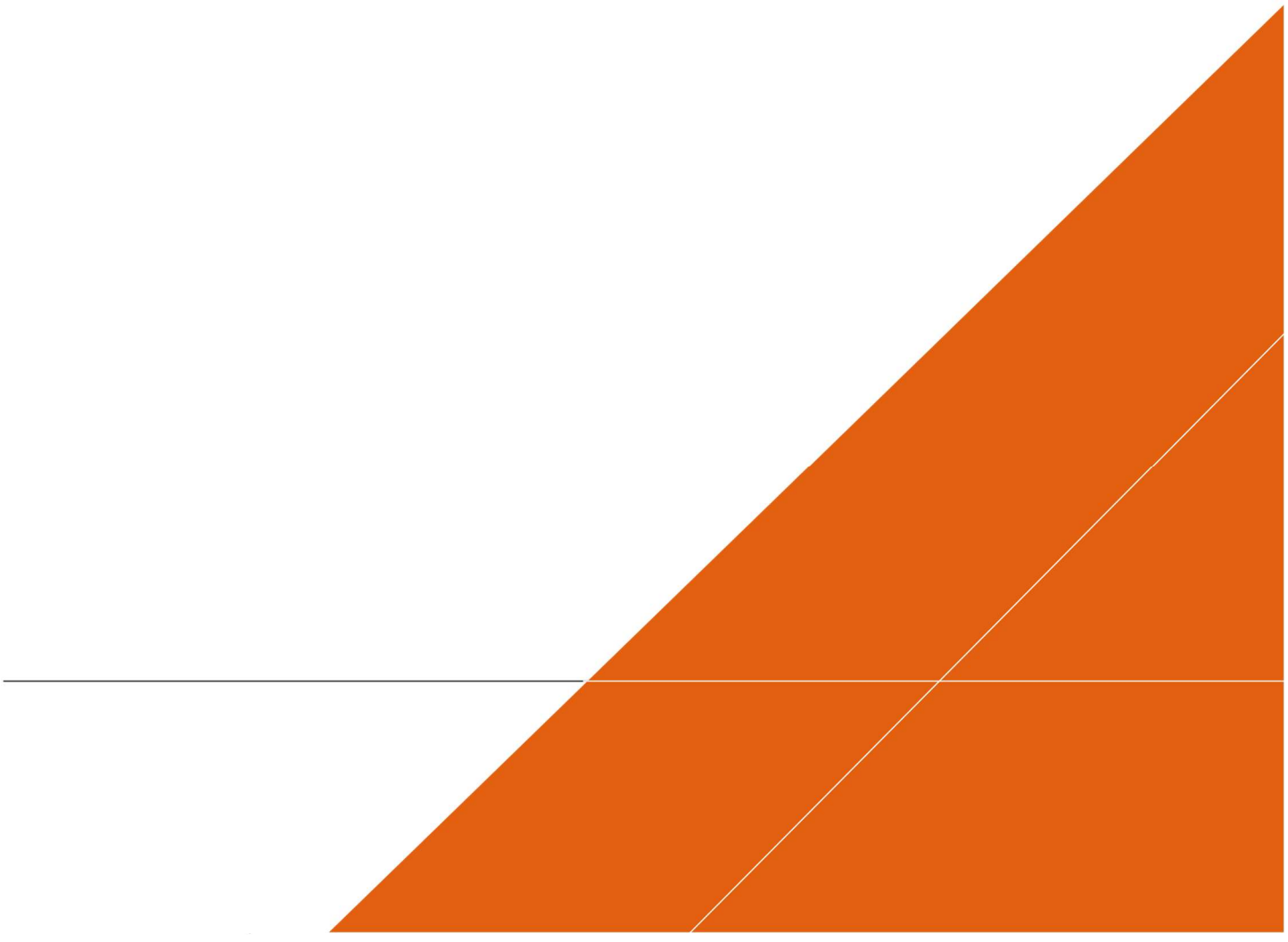
Uttlesford District Council

ARCADIS Design & Consultancy for natural and built assets

# UTTLESFORD DISTRICT WATER CYCLE STUDY

## Detailed Update – Second Stage

JANUARY 2019



# CONTACTS

**RENUKA GUNASEKARA**
**Technical Director**

m +44 (0) 7793 187 700
e Renuka.Gunasekara@arcadis.com

Arcadis.
10 Medawar Road,
Guildford GU2 7AR

# VERSION CONTROL

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# Technical Glossary

- **Asset Management Period (AMP)** - A period of five years in which water companies implement planned upgrades and improvements to their asset base. For example, AMP5 is 2010-2015 and AMP6 is 2015-2020.
- **Biochemical Oxygen Demand (BOD)** – a measure of the oxygen demand that results from bacteria breaking down organic carbon compounds in water. High levels of BOD can use up oxygen in a watercourse, to the detriment of the ecology.
- **Catchment Abstraction Management Strategies (CAMS)** - the production of a strategy by the Environment Agency (EA) to assess and improve the amount of water that is available on a catchment scale. The latest CAMS strategies can be found at: https://www.gov.uk/government/collections/water-abstraction-licensing-strategies-cams-process/
- **Combined Sewer Overflow (CSO)** – a point on the sewerage network where untreated wastewater is discharged during storm events to relieve pressure on the network and prevent sewer flooding. Sewerage systems that are not influenced by storm water should not require a CSO.
- **Deployable Output** – the amount of water that can be abstracted from a source (or bulk supply) as constrained by environment, license, pumping plant and well/aquifer properties, raw water mains, transfer, treatment and water quality.
- **Discharge Consent** – a consent issued and reviewed by the EA which permits an organisation or individual to discharge sewage effluent or trade effluent into surface water, groundwater or the sea. Volume and quality levels are set to protect water quality, the environment and human health.
- **Dry Weather Flow (DWF)** – an estimation of the flow of wastewater to a Water Recycling Centre during a period of dry weather. This is based on the 20th percentile of daily flow through the works over a rolling three year period.
- **Dry Year Critical Period (DYCP)** – the period of time during which the customer experiences the greatest risk of loss of potable water supply, during a year of rainfall below long-term average (characterised with high summer temperatures and high demand).
- **Eutrophication** – higher than natural levels of nutrients in a watercourse, which may lead to the excessive build-up of plant life (especially algae). Excessive algal blooms remove valuable oxygen from the watercourse, block filters at water recycling centres, affect the taste and smell of water, and can be toxic to other wildlife.
- **General Quality Assessment (GQA)** – The current assessment method used by the EA to describe the chemical and biological quality of watercourses, along with nutrient levels and aesthetic quality.
- **Habitats Directive** - promotes biodiversity by requiring measures to be taken to maintain or restore natural habitats and wild species to a favourable conservation status, introducing robust protection for those habitats and species of European importance.
- **Local Plan** – A document outlining the spatial planning strategy for each local authority. The Local Plan will contain a number of statutory documents setting out the long-term planning and land use policies for a given area.
- **Local Nature Reserve (LNR)** – are areas with wildlife or geological features that are of special interest locally. Details of LNR can be found at http://www.natureonthemap.org.uk/.
- **National Nature Reserve (NNR)** – are areas of national importance, protected because they are amongst the best examples of a particular habitat in the country. Details of NNR can be found at http://www.natureonthemap.org.uk/.
- **National Planning Policy Framework (NPPF)** - The National Planning Policy Framework sets out government's planning policies for England and how these are expected to be applied. The framework acts as guidance for local planning authorities and decision-takers, both in drawing up plans and making decisions about planning applications.
- **Natura 2000 Sites** - Natura 2000 is a network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. It stretches across all 28 EU countries, both on land and at sea. The aim of the network is to ensure the long-term survival of

Europe's most valuable and threatened species and habitats, listed under both the Birds Directive and the Habitats Directive. More information is available at: http://ec.europa.eu/environment/nature/natura2000/index_en.htm.

- **Optant –** In terms of water supply the term optant is used to describe customer driven water reducing measures. A customer can choose to use these measures under recommendation from the water supplier.
- **Per Capita Consumption (PCC)** – the volume of water used by one person over a day, expressed in units of litres per person per day (l/p/d).
- **Population Equivalent** – is a method of measuring the loading on a Water Recycling Centre and is based on a notional population comprising; resident population, a percentage of transient population, cessed liquor input expressed in population, and trade effluent expressed in population.
- **Potable Water** – is water that is fit for drinking, being free of harmful chemicals and pathogens. Raw water can be potable in some instances, although it usually requires treatment of some kind to bring it up to this level.
- **Raw Water** - is water taken from the environment, which is subsequently treated or purified to produce potable water.
- **River Basin Management Plans (RBMP)** – documents being produced for consultation by each of the EA regions to catalogue the water quality of all watercourses and set out actions to ensure they achieve the ecological targets stipulated in the WFD.
- **River Ecosystem (RE) Targets** – are the targets uses to assess quality against the above mentioned RQO.
- **River Quality Objective (RQO)** - targets for all rivers in England and Wales that specify the water quality needed in rivers if we are to be able to rely on them for water supplies, recreation and conservation.
- **Site of Special Scientific Interest (SSSI)** - an area of special interest by reason of any of its flora, fauna, geological or physiographical features (basically, plants, animals, and natural features relating to the Earth's structure). A map showing all SSSI sites can be found at: http://www.natureonthemap.org.uk/.
- **Source Protection Zones (SPZ)** - zones designated around public drinking water abstractions and sensitive receptors which detail risk to the groundwater zone they protect.
- **Special Area for Conservation (SAC)** - a site designated under the European Community Habitats Directive, 1991, to protect internationally important natural habitats and species. A map showing all SAC sites can be found at http://www.natureonthemap.org.uk/.
- **Special Protection Area (SPA)** - sites classified under the European Community Directive on Wild Birds to protect internationally important bird species. A map showing all SPA sites can be found at: http://www.natureonthemap.org.uk/.
- **Strategic Flood Risk Assessment (SFRA)** – document required by PPS25 that informs the planning process of flood risk and provides information on future risk over a wide spatial area. It is also used as a planning tool to examine the sustainability of the proposed development allocations.
- **Strategic Housing Market Assessment (SHMA)** - A study of local housing markets to assess needs and demand for different types of housing in the District.
- **Surface Water Management Plans (SWMP)** – assist in the assessment of flood risk to ensure that increased levels of development, and climate change, do not have an adverse impact on flooding from surface water sources within the catchment. SWMP were introduced following the severe flooding in 2007, as means for Local Authorities to take the lead in reducing flood risk.
- **Sustainable Drainage Systems (SuDS)** – a combination of physical structures and management techniques designed to drain, attenuate, and in some cases treat, runoff from urban (and in some cases rural) areas.
- **Target Headroom** - the threshold of minimum acceptable headroom, which would trigger the need for water management options to increase water available for use or decrease demand.
- **Type A Villages** – villages with a primary school with some local services e.g. village hall / pub / shop.

- **Urban Wastewater Treatment Directive (UWWTD) 1991** – A European Union directive (91/271/EEC) which sets treatment levels on the basis of sizes of wastewater discharges and the sensitivity of waters receiving the discharges. Under the Directive the UK is required to review environmental waters at four-yearly intervals to determine whether they are sensitive to the effects of wastewater discharges.
- **Water Available for Use (WAFU)** – the amount of water remaining after allowable outages and planning allowances are deducted from deployable output in a WRZ.
- **Water Framework Directive (WFD) 2000** - A European Union directive (2000/60/EC) which commits member states to make all water bodies of good qualitative and quantitative status by 2015. The WFD could have significant implications on water quality and abstraction. Important dates for the WFD are:

  2015
  - Meet environmental objectives
  - First management cycle ends
  - Second river basin management plan and first flood risk management plan

  2021
  - Second management cycle ends

  2027
  - Third management cycle ends, final deadline for meeting objectives
- **Water Neutrality** – the concept of offsetting demand from new developments by making existing homes and buildings more water efficient.
- **Water Resource Zone (WRZ)** – are areas based on the existing potable water supply network and represent the largest area in which water resources can be shared.
- **Wastewater** - is any water that has been adversely affected in quality by anthropogenic influence. It comprises liquid waste discharged by domestic residences, commercial properties, industry, and/or agriculture.
- **Water Recycling Centre (WRC)** – facility which treats wastewater through a combination of physical, biological and chemical processes.
- **Water Resource Management Plan (WRMP)** - Currently in their draft stages awaiting approval by OFWAT later this year, the Water Resource Management Plans are studies undertaken by every water company in England to determine the availability of water resources for the next 25 years. WRMPs can be found on most water company websites.

# Executive Summary

This Water Cycle Study (WCS) Detailed Update – Second Stage Report has been commissioned by Uttlesford District Council (UDC) to provide further evidence that the development proposed within the emerging Uttlesford Local Plan can be accommodated by the existing wastewater infrastructure, without causing a detriment to the wider receiving water environment.

Following the request of the Environment Agency (EA), the main focus of this Second Stage Report is to assess the provision of key wastewater infrastructure and any associated new environmental permit requirements for accommodating the proposed growth in the District in relation to the Easton Park Garden Community (GC), in close consultation with Thames Water (TW). On the information available to date and the assessments undertaken, TW believe that the public sewer system and Water Recycling Centres (WRC) will require upgrades to accommodate the proposed development but these upgrades are technically feasible to deliver and upgrades will be available on time. TW will continue to work closely with the Local Planning Authorities on understanding their future growth projections and likely changes in EA discharge consents. Overall the WCS envisages no overriding impediment to the delivery of proposed development.

## Background

The First Stage WCS Detailed Update, published in April 2018, covered water supply and flood management in detail for the entirety of UDC. The First Stage WCS Update also covered the wastewater treatment requirements in the Anglian Water Services (AWS) catchment in sufficient detail. However, due to the time constraints and complexities of the issues involved with serving the proposed Easton Park GC, the First Stage Detailed Update only provided an outline wastewater treatment strategy for the Thames Water (TW) catchment. Therefore, further information is now required in this Second Stage WCS Detailed Update to confirm the preferred approach for the treatment of wastewater generated by the development trajectory in the TW catchment, particularly in relation to the Easton Park GC.

## Development Trajectory

This study assesses the planned development within the TW Catchment only, which will potentially impact three WRCs; namely Bishops Stortford WRC, Stansted Mountfitchet WRC and Takeley WRC.

### Local Plan Trajectory

The key development proposal included within the UDC's TW catchment is the Easton Park GC as outlined in Table 1 and Figure 1.

*Table 1: Proposed UDC Local Plan Development Summary within TW Catchment*

| Sewerage Company | Existing Water Recycling Centre (WRC) | Potential Communities Served | Proposed Development Type/Details |
|---|---|---|---|
| Thames Water | Stansted Mountfitchet | Stansted Mountfitchet and Elsenham | Development in Towns and Key Villages |
| | Bishop's Stortford | Easton Park Garden Community | Potential location for new settlement site (1,925 dwellings up to 2033) |
| | Takeley | Takeley | Development in Towns and Key Villages |
| | | Easton Park Garden Community | Potential location for new settlement site (1,925 dwellings up to 2033) |

In addition to the proposed increase in development within UDC listed in Table 1, there is an anticipated increase in housing growth from East Hertfordshire District Council (EHDC) within the remaining TW catchment and therefore this additional development outside of the UDC area is also being assessed by TW to inform this Second Stage Detailed WCS Update. This will determine if the WRCs in the area will be able to support the demand from the wider development within the entire TW catchment.

In addition to the proposed development promoted in the UDC Local Plan, significant additional commercial development is planned adjacent to Stanstead Airport and an increase in air passenger numbers from the Terminal. TW have been actively engaged with UDC and Stansted Airport regarding the current airport planning application, which proposes an increase in passenger numbers from 35 million up to 43 million per annum by 2028 at Stansted Airport (under planning application reference UTT/18/0460/FUL). For completeness and to ensure all development is assessed within the TW catchment, the increase in passenger numbers has been included in the assessment. Foul water flows from Stansted Airport currently drain to Bishops Stortford WRC where it is treated. Contaminated surface water runoff (containing Glycol from de-icing operations) is pumped to Rye Meads WRC (located outside of UDC) for treatment.

### Post Local Plan Development

In addition, the TW assessment includes the planned entire 10,000 dwellings at Easton GC, including those 8,075 dwellings beyond the current 2033 Local Plan period. This will ensure the cumulative impacts of the development are fully understood to determine if the WRCs in the area will be able to support the demand from the wider development.

## Water Quality

The results of the indicative water quality discharge permit analysis indicate that the proposed development will require tightened water quality parameters where existing WRC flow consents have been exceeded, to ensure no deterioration to the water environment. The WCS and TW assessments indicate that the treatment technology required is technically feasible, however significant investment is required at the receiving WRCs to meet the tightened water quality parameters. The increased flows as a result of the proposed development trajectory do not present any major constraints in relation to wastewater treatment or water quality. Developers should engage with the EA and TW as soon as possible in the planning process to facilitate timely site-specific assessments.

## Preferred Wastewater Treatment Option

There is a significant amount of growth forecasted for UDC and surrounding Districts (including East Hertfordshire) within Asset Management Period (AMP) 7 (2020-2025) and beyond. Due to the extent of growth proposed and available capacity of the receiving WRC, TW has conducted a new study to identify a preferred solution for accommodating the proposed development. This study has been conducted in collaboration with UDC, Arcadis and the EA, to support this WCS. The TW assessment included a review of potential options at three WRCs; Bishops Stortford WRC, Stansted Mountfitchet WRC and Takeley WRC. Eight potential WRC growth scenarios were assessed within the study, and as a result of the analysis, the preferred option is Option 8, which includes the details outlined in the Table below:

*Table 2: Option Summary*

| Option | Details |
|---|---|
| Option 8 | • Transfer all flow from Easton Park GC to Bishops Stortford WRC.<br>• Takeley WRC to remain in operation.<br>• Retain portion of Takeley village currently draining to Bishops Stortford WRC.<br>• Divert domestic flow from Stansted Airport to Bishops Stortford WRC.<br>• Divert Bishops Stortford North developments and the airport commercial flows to Stansted Mountfitchet |

| | |
|---|---|
| | WRC. |

Option 8 avoids the need for a new WRC and the inherent challenges of delivery. Nevertheless, Option 8 is a complex scenario and it is important to note that the preferred treatment scenario is subject to change based on the following:

- The TW options are closely linked to published housing trajectories. TW will continue to monitor these closely and adapt the strategy accordingly;
- The TW options have been currently designed at a high-level using conventional technology. TW delivery partners may propose new or innovative technology which could impact the chosen scenario;
- Timing of WRC upgrades is high-level and will be subject to change when TW move into design and construction phases; and
- The whole life cost of solutions will be confirmed in the design phase and may impact the chosen scenario.

## Preferred Wastewater Network Option

TW are also undertaking a Network Modelling Study to assess the existing capacity constraints, review the viable solution options and recommend the preferred option to serve the proposed Local Plan growth. The assessment includes a review of the requirements for the reconfiguration of the existing sewer network and construction of additional sewers and/or and pumping stations to transfer the flows from the development sites to the most appropriate WRC. The study will assess this for the viable scenario options from the wastewater treatment study.

TW are assessing the network implications to transfer the additional foul water flow from the proposed development sites to the appropriate WRC outlined in Option 8 above, which can be implemented in line with the proposed Local Plan development trajectory. This option will require transferring all flow from Easton Park GC and diverting domestic flow from Stansted Airport to Bishops Stortford WRC, as well as diverting Bishops Stortford North developments and the airport commercial flows to Stansted Mountifitchet WRC. TW believes that infrastructure can be delivered on time to meet the current housing delivery trajectory in relation to the Easton Park GC.

Detailed Outputs from the TW study will be available in August 2019, which will be then used to as the basis for developing the business case and detailed design for the required network upgrades, in consultation with UDC, EHDC and site promoters.

# 1 Introduction

This Second Stage WCS Detailed Update has been commissioned by UDC to provide further evidence that the emerging proposed Local Plan development can be accommodated by the existing wastewater infrastructure, without causing a detriment to the wider receiving water environment. A summary of the most recent WCSs covering UDC are outlined below:

- A high-level Detailed WCS update in 2017; and
- A First Stage WCS Detailed Update in 2018.

Wastewater treatment and conveyance within UDC is managed by both AWS and TW (Figure 1). Since the publication of the 2012 Detailed WCS the proposed development trajectory has been modified by UDC, this along with any changes or upgrades to AWS and TW assets has led to the WCS updates in 2017 and 2018.

The First Stage WCS Detailed Update published in 2018 covered water supply and flood management in detail for the entirety of UDC. The First Stage WCS Detailed Update also covered the wastewater treatment in the AW catchment in sufficient detail. However, due to the time constraints and complexities of the issues involved with serving the proposed Easton Park GC, this assessment only provided an outline wastewater treatment strategy for the TW catchment. Therefore, an update is now required to confirm the preferred approach for the treatment of wastewater generated by the development trajectory as per EA requests in the TW catchment, particularly in relation to the Easton Park GC.

In order to confirm the impact of the proposed residential development and the treatment of wastewater generated by the development, the following aspects have been assessed as part of this update:

- Impact of development trajectory on volumetric discharge in terms of Dry Weather Flow (DWF) in relation to existing discharge consents;
- Identification of WRCs that required upgrades;
- Identification of key wastewater constraints in relation to the proposed trajectory within the TW catchment; and
- Identification of a preferred feasible option by TW to serve the proposed development trajectory.

We have held extensive discussions with TW and the EA to confirm all the key issues are identified in relation to the Easton Park GC and the wider development in the TW catchment, including the proposed expansion at the Stansted Airport (using 45M passengers/annum projection) within the recent planning application (UTT/18/0460/FUL) that is not currently included in the UDC Local Plan. The assessment will conclude the most viable and preferred option to serve the wastewater generated, determining the impact on the water environment based on a robust approach to the study.

Wastewater treatment capacity of the impacted Takeley, Stansted Mountfitchet and Bishops Stortford WRCs, including water quality implications of the receiving watercourses are reviewed. A focused assessment to assess the impacts of the GC on water quality is undertaken i.e. water quality modelling using the River Quality Planning (RQP) tool for the increased WRC flow discharge point located in the headwaters. The provision of suitable wastewater infrastructure is a major factor for the achievable scale, distribution, timing of development within UDC. The report will establish which WRC option is the most viable from a wastewater network capacity and process capacity perspective.

This Second Stage WCS Detailed Update has been based on the following key data sources:

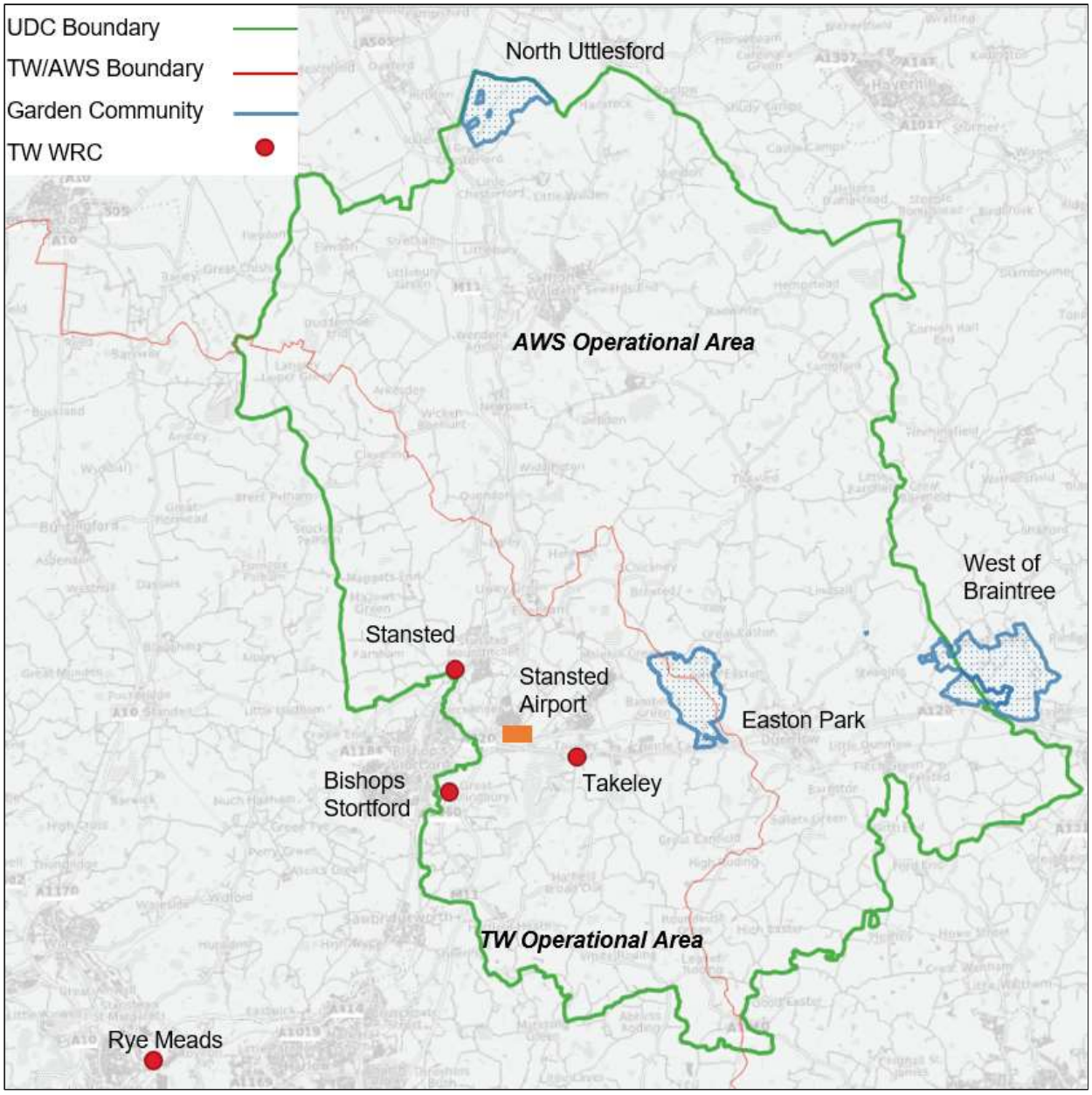
- **UDC and EHDC**- Local Plan Growth Proposals;
- **TW** - Assets Datasets: Sewers / Assets / WRC; and

- **EA** - River Basin Management Plan, and water body quality and Catchment Abstraction Licencing Strategies.

## 1.1 Study Area

Uttlesford District is located in the northwest of the County of Essex, in the East of England. The District is predominantly rural in nature, although it includes the key service centres including Stansted Mountfitchet, Takeley, and Thaxted. The District also contains a large number of smaller villages. Stansted Airport is located within the study area. In respect to the water environment, the TW catchment of the Uttlesford District is located at the headwaters of the Upper Lee river catchment (River Stort, Stansted Brook and Pincey Brook). This report covers the TW operational area only as outlined in Figure 1.

*Figure 1- Study Area*

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## 1.2 Key Stakeholders

Stakeholder engagement is key to informing and providing an evidence base for the WCS in terms of the wastewater treatment capacity and water environmental capacity constraints. The following Stakeholders have been engaged throughout the WCS preparation process from the Outline to the Detailed Stages:

- EA - Water Resources and Water Environment; and
- TW - Sewerage and Wastewater.

Consultations have been undertaken through meetings and teleconferences, and representation provided to UDC.

## 1.3 Development Trajectory

This study assesses the planned development within the TW Catchment only. The key development proposal included within the UDC TW catchment is the Easton Park GC as outlined in Table 3 and Figure 1.

### 1.3.1 Local Plan Trajectory

The UDC Local Plan development trajectory assessed in this WCS study and the parallel TW study are given in Appendix A. The developments included in the TW catchment are highlighted in yellow in Appendix A. It should also be noted that the sites constructed between 2011 and 2015 (or 2016 for Stanstead Mountfitchet WRC) are already accounted for in the baseline data used by TW.

*Table 3: Proposed UDC Local Plan Development Summary within TW Catchment*

| Sewerage Company | Existing Water Recycling Centre | Potential Communities Served | Proposed Development Type/Details |
|---|---|---|---|
| Thames Water | Stansted Mountfitchet | Stansted Mountfitchet and Elsenham | Development in Towns and Key Villages |
| | Bishop's Stortford | Easton Park Garden Community | Potential location for new settlement site (1,925 dwellings up to 2033) |
| | Takeley | Takeley | Development in Towns and Key Villages |
| | | Easton Park Garden Community | Potential location for new settlement site (1,925 dwellings up to 2033) |

In addition to the proposed increase in development within the UDC Local Plan listed in Table 3, there is an anticipated increase in housing growth from East Hertfordshire District within the remaining TW catchment, and therefore this additional development outside of the UDC area is also being assessed by TW to inform this Second Stage Detailed WCS Update.

In addition to the proposed development promoted in the UDC Local Plan, significant additional commercial development is planned adjacent to Stanstead Airport and an increase in air passenger numbers from the Terminal. TW have been actively engaged with UDC and Stansted Airport regarding the current airport planning application, which proposes an increase in passenger numbers from 35 million up to 43 million per annum by 2028 at Stansted Airport (under planning application reference UTT/18/0460/FUL). For completeness and to ensure all development is assessed within the TW catchment, the increase in passenger numbers has been included in the assessment. Foul water flows from Stansted Airport currently drain to Bishops Stortford WRC where it is treated. Contaminated surface water runoff (containing Glycol from de-icing operations) is pumped to Rye Meads WRC (located in EHDC) for treatment.

### 1.3.2 Post Local Plan Development

In addition, TW assessment includes the planned entire 10,000 dwellings at Easton Park GC, including those 8,075 dwellings beyond the current 2033 Local Plan period. This will ensure the cumulative impacts of the development are fully understood to determine if the WRCs in the area will be able to support the demand from the wider development. Similarly, WCS assessment includes a sensitivity test using the full 10,000 dwellings at Easton Park GC.

# 2 Wastewater Treatment and Sewerage

In order to confirm the impact of the proposed development, the following aspects have been assessed as part of this Second Stage WCS Detailed Update:

- Impact of development trajectory on volumetric discharge in terms of DWF in relation to existing discharge consents;
- Identification of key wastewater constraints in relation to each site considered within UDCs proposed development trajectory;
- Identification of process capacity upgrading requirements at the three impacted WRCs;
- Commentary on the key sewerage network constraints and preferred solutions; and
- Recommendations for future detailed studies.

## 2.1 Wastewater Treatment Options

### 2.1.1 Wastewater Treatment Option Long List

TW have undertaken a robust assessment to identify potential wastewater treatment options to serve the total predicted population from UDC and EHDC Local Plans within the three impacted WRC catchments (including the potential Stansted Airport Expansion). TW identified a total of eight outline potential options to serve the wastewater from the proposed Easton Park GC and the wider development. A description of the options is outlined below and diagrams representing the options are contained in Appendix B.

- **Option 1** - Easton Park GC is served by Takeley WRC and the works are upgraded. The existing link between Takeley Village and the Bishops Stortford WRC catchment is broken. Domestic flows from Stansted Airport served by Bishops Stortford WRC. Commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Stansted Mountfitchet WRC.
- **Option 2** - Easton Park GC is served by Bishops Stortford WRC. Takeley WRC is decommissioned but will act as a pumping station. The existing link between Takeley Village and the Bishops Stortford WRC catchment is broken. Domestic and commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Bishops Stortford WRC.
- **Option 3** – Easton Park GC is served by Takeley WRC and the works are upgraded. The existing link between Takeley Village and the Bishops Stortford WRC catchment is broken. Domestic and commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Bishops Stortford WRC.
- **Option 4** – Easton Park GC is served by Bishops Stortford WRC. Takeley WRC is decommissioned but will act as a pumping station. The existing link between Takeley Village and the Bishops Stortford WRC catchment is broken. Domestic flows from Stansted Airport served by Bishops Stortford WRC. Commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Stansted Mountfitchet WRC.
- **Option 5**– Transfer part of the flow from Easton Park GC to Takeley WRC until maximum capacity is met at the treatment works. Pump the excess flow from Easton Park to Bishops Stortford WRC. Retain a portion of Takeley village currently draining to Bishops Stortford WRC. Domestic and commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Bishops Stortford WRC.
- **Option 6** – Transfer part of the flow from Easton Park GC to Takeley WRC until maximum capacity is met at the treatment works. Pump the excess flow from Easton Park to Bishops Stortford WRC. Retain a portion of Takeley village currently draining to Bishops Stortford WRC. Domestic flows from Stansted Airport served by Bishops Stortford WRC. Commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Stansted Mountfitchet WRC.
- **Option 7** – Transfer all flow from Easton Park GC (in its entirety) to Bishops Stortford WRC. Takeley WRC to remain in operation. Retain portion of Takeley village currently draining to Bishops Stortford WRC. Domestic and commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Bishops Stortford WRC.

- **Option 8** – Transfer all flow from Easton Park GC (in its entirety) to Bishops Stortford WRC. Takeley WRC to remain in operation. Retain portion of Takeley village currently draining to Bishops Stortford WRC. Domestic flows from Stansted Airport served by Bishops Stortford WRC. Commercial flows from Stansted Airport and Bishops Stortford northern catchment are served by Stansted Mountfitchet WRC.

### 2.1.2 Wastewater Treatment Option Short List

An assessment of the long list of options ruled out any options that are considered to be unviable. The outline option short listing is presented in Table 4.

*Table 4: Scenario assessment outputs with Easton Park GC (full 10,000 allocation) discharging to existing WRC*

| TW Option | Proposed WRC | Assessment Outcome |
|---|---|---|
| Option 1 | Takeley | Option is Not Viable - Not Selected for further assessment |
| | Stansted | |
| | Bishops Stortford | |
| Option 2 | Stansted | Option is Not Viable - Not Selected for further assessment |
| | Bishops Stortford | |
| Option 3 | Takeley | Option is Not Viable - Not Selected for further assessment |
| | Stansted | |
| | Bishops Stortford | |
| Option 4 | Stansted | Selected for further assessment |
| | Bishops Stortford | |
| Option 5 | Takeley | |
| | Stansted | |
| | Bishops Stortford | |
| Option 6 | Takeley | |
| | Stansted | |
| | Bishops Stortford | |
| Option 7 | Takeley | Option is Not Viable - Not Selected for further assessment |
| | Stansted | |
| | Bishops Stortford | |
| Option 8 | Takeley | Selected for further assessment |
| | Stansted | |
| | Bishops Stortford | |

In order to assess the viability of the scenarios above, TW reviewed the ability to treat the increase in flow at each of the WRCs and meet the associated consent limit requirements using the conventional treatment technology. Options 1, 2, 3 and 7 were not technically achievable using existing conventional wastewater treatment technology and have therefore been discounted.

The selected options, Options 4, 5, 6 and 8 have been deemed viable based on the ability to treat the increase in flow and meet the expected consent requirements. The options have been taken forward for further assessment and further detail on these short listed options are outlined in the sections below.

### 2.1.3 Wastewater Projections

DWF refers to the wastewater flow in a sewer system during periods of dry weather with minimum infiltration. DWF estimates have been provided by TW and the calculation for DWF is outlined below.

Where

$$\text{Total DWF} \quad \text{Existing DWF} + \text{New DWF}$$

$$\text{DWF} \quad (\text{number of dwellings} \times \text{occupancy rate} \times \text{PCC}) + \text{I infiltration} + \text{trade flow}$$

Discussions with TW engineers and planners based on their knowledge of current capacity and performance at the WRCs have been undertaken to assess the potential impact from the proposed development. The majority of WRC catchments in the Uttlesford District will be impacted by the proposed Local Plan development in the Towns and Key Villages, whereas some WRC catchments could be additionally impacted by the new Easton Park GC site (Table 3). The total DWF presented in Table 5 below for the impacted TW's WRCs is mainly associated with the trajectory for the Local Plan Period.

*Table 5: Additional Dry Weather Flow Impacts with Easton Park (to 2036) discharging to existing WRC*

| TW Option | Existing WRC | Existing DWF Consent ($m^3$/day) | Existing DWF ($m^3$/day) Baseline | Estimated 2036 DWF ($m^3$/day) |
|---|---|---|---|---|
| Option 4 | Stansted | 2,650 | 1,730 | 3,565 |
| | Bishops Stortford | 17,349 | 15,749 | 19,978 |
| Option 5 | Takeley | 667 | 475 | 1,220 |
| | Stansted | 2,650 | 1,730 | 2,475 |
| | Bishops Stortford | 17,349 | 15,741 | 20,085 |
| Option 6 | Takeley | 667 | 475 | 1,220 |
| | Stansted | 2,650 | 1,730 | 3,565 |
| | Bishops Stortford | 17,349 | 15,741 | 18,807 |
| Option 8 | Takeley | 667 | 475 | 457 |
| | Stansted | 2,650 | 1,730 | 3,565 |
| | Bishops Stortford | 17,349 | 15,741 | 19,577 |

With the proposed development trajectory within each WRC catchment the existing DWF consent is significantly exceeded under all options except for Takeley WRC under Option 8. This indicates that notable upgrades are required to serve the proposed growth at the WRCs.

All options utilise the available capacity at the large Bishops Stortford WRC. All options also maintain or increase the consented flow to the Pincey Brook from Takeley WRC, either as a WRC discharge or as a compensation flow where Takeley is decommissioned. This is because lower flows in the Pincey Brook could result in environmental degradation, as flows from the WRC supplement baseflows in the receiving watercourse. The current Q95 flow in the brook is estimated to be 810m$^3$/day and the estimated existing DWF input from the WRC to the brook is 475m$^3$/day. To ensure no environmental deterioration the permitted consent will need to be more stringent and this is discussed in Section 2.2. Nevertheless, Section 2.2 confirms no showstoppers in regard to river quality.

### 2.1.4 Wastewater Networks

Beyond what is required for the WCS and the Local Plan, TW are also undertaking a Network Modelling Study to support the detailed delivery of Local Plan growth. The TW Network Modelling Study will assess the existing capacity constraints, review the viable solution options and finalise the preferred option to serve the proposed Local Plan growth. The assessment included a review of the requirements for the configuration of the existing sewer network to transfer the flows from the development sites to the most appropriate treatment site. The study will assess this for the viable scenario options from the wastewater treatment study.

For the purposes of the WCS and Local Plan a current preferred network upgrade scenario to serve the wastewater treatment Option 8 above, has been identified on the following basis:

- Capacity of the existing network to accept additional flows;
- Likely upgrades to sewers and pumping stations required to maintain the current level of service;
- Locations of projected upgrades and impact on local communities during construction;
- Buildability/Ease of construction; and
- Adaptability/ Resilience to further growth.

TW and the EA are therefore satisfied that sufficient work has been completed for the WCS and Local Plan in order to not envisage concerns over delivery of wastewater infrastructure. TW are also satisfied that their preferred delivery option can be implemented in line with the proposed Local Plan development trajectory. It should be noted that no new WRC is proposed at Easton Park GC in line with the EA's normal advice and the above WCS findings i.e. that necessary upgrades are viable and achievable.

Detailed Outputs from the TW network study will be available in August 2019, which will be then used to as the basis for developing the business case and detailed design for the required network upgrades, in consultation with UDC, ECDC and site promoters. It is anticipated that an updated Statement of Common Ground regarding the preferred implementation scenario will be finalised once the report of the network study is available.

## 2.2 Water Quality

River Basin Management Plans (RBMP) have been developed by the various regional offices of the EA and were published in 2009. The RBMPs set out a strategy, including a Programme of Measures, for each catchment to comply with the requirements of the WFD. An assessment of the current status of the rivers has been made, showing the rivers and lakes that currently fall below the 'good' status required to meet the WFD objectives. The documents then set out those rivers that should be at 'good' status by 2027. UDC falls

within the Thames RBMP area. Further information on the WFD, the current status, and future targets of the District's watercourses is included in Table 6.

*Table 6: RMBP Summary*

| Catchment | Sub Catchment | WRC Discharge | River Reach | RMBP Cycle 2 2015 | | | |
|---|---|---|---|---|---|---|---|
| | | | | Overall Status | Ecological Status | Chemical Status | Objectives |
| Thames | Upper Lee | Stansted WRC | Stansted Brook | Bad | Bad | Good | Good by 2027 |
| | | Takeley WRC | Pincey Brook | Moderate | Moderate | Good | Moderate by 2015 |
| | | Bishops Stortford WRC | Stort at Clavering | Moderate | Moderate | Good | Moderate by 2015 |

The EA River Quality Planning (RQP) tool (version 2.5) was made available for use in this WCS. The RQP tool uses mass balance Monte Carlo simulations to understand the future indicative consent standards that would need to be applied to a new discharge or increased existing flow consents, and the change in downstream concentrations of physio chemical elements following a discharge.

For the purposes of comparing RQP results against future consent requirements, the following physio-chemical standards have been assumed to represent current and future best practice. These should not be considered definitive, and will be subject to individual site conditions, existing processes employed, and strategic investment decisions undertaken by TW based on current and future Ofwat/ EA priorities. The Red Amber Green (RAG) colour convention in Table 7 is used throughout the following Sections to identify where the modelled water quality values fit in to the above categories.

*Table 7: Current and future effluent quality standards assumed to be economically achievable using conventional treatment technology*

| Notes | BOD mg/l (95%ile) | Ammonia mg/l (95%ile) | Phosphate mg/l (Annual Average) |
|---|---|---|---|
| Limits typically considered as reliably economically achievable using conventional technologies. | 8 | 3 | 1 |
| Limits that may be currently achieved by enhanced operation of conventional and emerging processes. Although not as reliable as the above, it is assumed that consents such as these will become more common over the study period if water quality constraints are to be met. | 5 | 0.5 | 0.25 |
| Limits more stringent than the above, where it is assumed unlikely a sewerage company or process supplier would be able to guarantee such performance in the foreseeable future at a large scale without resorting to energy intensive processes normally reserved for potable water treatment. * | <5 | <0.5 | <0.25 |

** If such standards were required in the short term, it is likely the sewerage company and the EA would have to agree to set lower targets for the waterbody under the provision of the WFD, allowing the failure to meet good status for reasons of technical feasibility or disproportionate cost. This would be reviewed every six years under the WFD.*

For WRCs which receive effluent from combined sewer systems or separate foul sewer systems, the EA regulate flow volume discharged by limiting the DWF of the discharge to a maximum value. This is important, because the impact of a discharge on the receiving water is directly linked to the volume

discharged. The effluent quality limits are determined on the basis of the consented DWF. In general, as the DWF increases, the quality limits become tighter.

Discharges from the WRC are calculated by the operator and a new consent is issued by the EA which states a maximum DWF and corresponding limits for various parameters, principally BOD, phosphate and Ammonia. It should be noted that the consent limits set by the EA for the new discharge consent may not be within the limit of conventional technology and thus could constrain development within a WRC catchment.

### 2.2.1 Local Plan Trajectory RQP Results

The results presented in the table below provide an initial high-level indication of the potential constraints relating to the WRC discharges based on RQP analysis to accommodate the Local Plan Growth to 2033 for the TW operational area. It is recommended that as the allocated sites are developed that UDC maintain a dialogue with key stakeholders to determine the permit limits associated with the increased DWF.

*Table 8: RQP Results Summary for the TW Operational Area*

| ***Future DWF TW Option 4*** | **To Achieve WFD No Deterioration Targets (mg/l)** | | | **To Achieve Good Status (mg/l)** |
|---|---|---|---|---|
| | **BOD** | **Ammonia** | **Phosphate** | **Phosphate** |
| Stansted | | | | |
| Bishops Stortford | | | | |
| ***Future DWF TW Option 5*** | **To Achieve WFD No Deterioration Targets (mg/l)** | | | **To Achieve Good Status (mg/l)** |
| | **BOD** | **Ammonia** | **Phosphate** | **Phosphate** |
| Takeley | | | | |
| Stansted | | | | |
| Bishops Stortford | | | | |
| ***Future DWF TW Option 6*** | **To Achieve WFD No Deterioration Targets (mg/l)** | | | **To Achieve Good Status (mg/l)** |
| | **BOD** | **Ammonia** | **Phosphate** | **Phosphate** |
| Takeley | | | | |
| Stansted | | | | |
| Bishops Stortford | | | | |
| ***Future DWF TW Option 8*** | **To Achieve WFD No Deterioration Targets (mg/l)** | | | **To Achieve Good Status (mg/l)** |
| | **BOD** | **Ammonia** | **Phosphate** | **Phosphate** |
| Takeley | | | | |
| Stansted | | | | |
| Bishops Stortford | | | | |

The above preliminary assessment details the indicative consent requirements if the proposed development is connected to existing WRCs. Overall, the increased DWF results in more stringent requirements for all determinants. The initial assessments indicate that the treatment technology required is technically feasible, however significant investment is required at the receiving WRCs to meet the tightened water quality parameters. A non-parametric method was agreed with the EA and this method was applied to Ammonia only. The method provides a more realistic representation of the distribution in the RQP modelling, based on previous evidence, due to the enhanced treatment performance at the works when achieving tight quality standards. The non-parametric assessment for ammonia shows that the permit required to avoid deterioration is technically feasible.

The results show that where 'Good Status' cannot be achieved in the waterbodies now for Phosphate, that the proposed growth will not prevent the status being achieved. This is evidenced by an RQP analysis undertaken for the existing situation, which showed that 'Good Status' could not be achieved using the for the existing consented flows using conventional technology and this remained the case for the assessment including growth. This is a catchment wide and regional issue, which requires significant policy and financial intervention by the UK government to address this issue in full.

### 2.2.2 Post Local Plan RQP Results

As a sensitivity test, to ensure the impacts of the total Easton Park GC trajectory are understood, the 8,075 dwellings beyond the current 2033 Local Plan period have been included in the RQP assessment. With the planned entire 10,000 dwellings the assessment indicated that although consent reequipments would slightly tighten there would be no change to the RAG classification shown in Table 8. This concludes that the entire development can be accommodated by the receiving WRCs within the limits of conventional technology. It should be noted that the calculations also include the currently known wider development within the TW catchment outside UDC and the commercial expansion at Stansted Airport.

## 2.3 Preferred Wastewater Treatment Option

The TW assessment has included a comprehensive review of potential options for three WRCs; Bishops Stortford WRC, Stansted Mountfitchet WRC and Takeley WRC. The following criteria have been considered in the assessment:

- Land availability for additional treatment assets at the three sites;
- Potential effluent discharge consent limits for 'no deterioration' of the receiving water course;
- Timescales for delivery;
- Available technology to achieve the expected standard; and
- Alignment with outputs of the outline RQP analysis.

As outlined in Section 2.1, four growth scenarios were assessed in detail within the study, and as a result of the analysis, the preferred option is Option 8, which includes the details outlined in the Table below:

*Table 9: Option Summary*

| Option | Details |
|---|---|
| Option 8 | • Transfer all flow from Easton Park to Bishops Stortford WRC.<br>• Takeley WRC to remain in operation.<br>• Retain portion of Takeley village currently draining to Bishops Stortford WRC.<br>• Divert domestic flow from Stansted Airport to Bishops Stortford WRC.<br>• Divert Bishops Stortford North developments and the airport commercial flows to Stansted Mountfitchet WRC. |

Option 8 is a complex scenario and it is important to note that the preferred treatment scenario is subject to change based on the following:

- The TW options are closely linked to published housing trajectories. TW will continue to monitor these closely and adapt the strategy accordingly;
- The TW options have been currently designed at a high-level using conventional technology. TW delivery partners may propose new or innovative technology which could impact the chosen scenario;
- Timing of WRC upgrades is high-level and will be subject to change when TW move into design and construction phases; and
- The whole life cost of solutions will be confirmed in the design phase and may impact the chosen option.

TW will continue to work closely with the local councils on understanding their future growth projections and likely changes in EA discharge consents. TW is content for the Local Plan to proceed on the basis.

# 3 Conclusions

The conclusions of the Second Stage WCS Detailed Update are presented in the section below. This is an update to the 2018 First Stage WCS Detailed Update and it should be treated as a 'living document' with the conclusions and analysis being subject to change following further investigation and consultation.

It is considered that the capacity of the WRCs and the associated impact on water quality are one of the greatest potential issues in relation to meeting the development aspirations of the proposed Easton Park GC within the Uttlesford District. However, this WCS and associated TW studies have demonstrated that this can be overcome through careful planning and substantial upgrades to the existing WRCs and sewerage network.

## 3.1 Water Quality Impacts

The major impact of the potential development sites on the water environment will be the variations in water quality and quantity discharged to receiving watercourses from the site itself (surface water runoff) and the WRC that serve the sites to treat their wastewater flows. Water discharged from the sites will require careful management to ensure the development does not have a detrimental impact on the water environment. Tightened water quality parameters will be required where WRC flow consents have been exceeded to ensure no deterioration to the water environment.

## 3.2 Wastewater and Sewerage Impacts

The WCS results provide a general indication of the impacts of the proposed development trajectory on existing wastewater assets.

TW believe that infrastructure can be delivered on time to meet the current housing delivery trajectory. Similarly, existing WRCs that are impacted by the proposed development will require major upgrades and new tighter discharge consents in order to accommodate the increased flow.

## 3.3 Preferred Wastewater Treatment Option

The TW assessment has included a review of options for three WRCs; Bishops Stortford WRC, Stansted Mountfitchet WRC and Takeley WRC. The preferred option is Option 8, which is a complex scenario and it is important to note that the preferred treatment scenario is subject to refinement and change. TW will continue to work closely with the local councils on understanding their future growth projections and likely changes in EA discharge consents. TW is content for the Local Plan to proceed on this basis.

This preferred option will require major upgrades at Bishops Stortford WRC and Stansted Mountifitchet WRC to accommodate the entire 10,000 dwellings Easton Park GC as well as the remaining Local Plan growth in UDC and EHDC Local Plans, but Takeley WRC is not impacted and will remain in operation as present. TW have no current concerns that the required WRC upgrades will be in place to meet the Local Plan development trajectory and do not expect a future impediment to delivery.

## 3.4 Preferred Sewerage Network Option

Preliminary Outputs of TW study indicate that a preferred network upgrading option have been identified to serve their preferred wastewater treatment Option 8 above, which can be implemented in line with the proposed Local Plan development trajectory. This is in line with the EA requirement on upgrades instead of a new WRC and means there will be no WRC land requirement on Easton Park GC.

This option will require transferring all flow from Easton Park GC and diverting domestic flow from Stansted Airport to Bishops Stortford WRC as well as diverting Bishops Stortford North developments and the airport

commercial flows to Stansted Mountifitchet WRC. TW believes that infrastructure can be delivered on time to meet the current housing delivery trajectory in relation to the Easton Park GC.

Outputs from the TW network study will be available in August 2019, which will be then used as the basis for developing the business case and design for the required network upgrades, in consultation with UDC, EHDC and site promoters. TW commitment to this work is part of investment process and the timely delivery of infrastructure. TW would also not expect any impediment to delivery especially given that a new WRC is not required. It is anticipated that an updated Statement of Common Ground regarding an implementation scenario will be included once the finalised network study report is also available.

# 4 Recommendations

Developers should contact TW in order to assess what upgrades are required following the Site Allocation process as part of pre-development enquiries as the individual sites enter the normal planning application process.

Nevertheless, developers should engage with the EA and water and sewerage companies as soon as possible in the planning process to facilitate timely site-specific assessments and negotiations are undertaken to address the identified constraints.

UDC and EA are currently in the process of updating their existing position statement regarding the proposed Local Plan Regulation 19 submission, in order to assist the Examination of the submission version of the UDC Local Plan. There is also an opportunity that this position statement considers how the UDC Local Plan can assist in achieving 'Good' status in the existing water bodies, by incorporating suitable planning policies in the Local Plan to support the ecology by referring to Defra's 25 Year Environment Plan published in 2018, including the need to deliver Net Gains for Biodiversity. The position statement/statement of Common Ground can also update on any relevant information beyond the scope of a WCS.

TW will to continue with their appraisals to develop their preferred wastewater and sewerage options. The Statement of Common Ground should be updated if necessary regarding the preferred scenario once TW's network study report is also available.

# APPENDIX A

## Development Trajectory

| Site | UTT reference | Date of Permission | Capacity (Gross) | | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | Re 16/17 | Yr1 17/18 | Yr2 18/19 | Yr3 19/20 | Yr4 20/21 | Yr 5 21/22 | 6 22/23 | 7 23/24 | 8 24/25 | 9 25/26 | 10 26/27 | 11 27/28 | 12 28/29 | 13 29/30 | 14 30/31 | 15 31/32 | 16 32/33 | Status | PDL/G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small sites(< 6 Units) with PP | | | | | 99 | 62 | 68 | 70 | 114 | 122 | | | | | | | | | | | | | | | | | |
| Windfall Allowance | | | | | | | | | | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | |
| Aythorpe Roding: Windmill Works | UTT/14/0779 | Nov-14 | 11 | | | | | | 11 | | | | | | | | | | | | | | | | | Built | PDL |
| Birchanger 300 Birchanger Lane | UTT/1527/09/DFO | built | 9 | 300 Birchanger Lane | 9 | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Clavering: Jubilee works | UTT/13/3357/DFO | 26-Sep-14 | 23 | Jubilee Works Stickling Green Clavering Essex CB11 4WA | | | | 2 | 21 | | | | | | | | | | | | | | | | | Built | PDL |
| Clavering: Land south of Oxleys Close | UTT/15/2606/DFO | 13-Jan-14 | 13 | Land South Oxleys Close Stortford Road Clavering (CB11 4PB?) | | | | | | | | | 13 | | | | | | | | | | | | | 3 | G |
| Clavering: Land to the rear of the shop and Oxleys Close | UTT/2251/11/FUL | 07-Aug-12 | 14 | Land Rear Of Oxley Close Clavering CB11 4PB | | | | | 14 | | | | | | | | | | | | | | | | | Built | G |
| Elsenham: Hailes Wood | UTT/13/2917/FUL<br>UTT/15/1121/FUL | 01/07/2014<br>8 Dec 2015 | 32<br>3 | Land Adj Hailes Wood Elsenham CM22 6DQ | | | | | 9 | 25 | | | | | | | | | | | | | | | | Built | G |
| Elsenham: Land at Alsa Leys | UTT/13/2836/FUL | 12-Mar-14 | 6 | Land At Alsa Leys Alsa Leys Elsenham CM22 6JS | | | | | | 6 | | | | | | | | | | | | | | | | Built | G |
| Elsenham: The Orchard | UTT/1500/09/OP<br>UTT/2166/11/DFO | 25/11/2010<br>10 August 2012 | 51 | The Orchard Station Road Elsenham CM22 6LG | | | 44 | 7 | | | | | | | | | | | | | | | | | | Built | G |
| Elsenham: Former Goods Yard, Old Mead Lane | UTT/12/6116/FUL | 07-Feb-14 | 10 | The Old Goods Yard Old Mead Lane Elsenham CM22 6JL | | | | | | | 10 | | | | | | | | | | | | | | | 1 | PDL |
| Elsenham: Land north Stansted Road | UTT/14/3279/DFO | 01-May-15 | 155 | Land north of Stansted Road Elsenham (CM22 6DL??) | | | | | -1 | 34 | 40 | 40 | 41 | | | | | | | | | | | | | 1 | G |
| Elsenham: Land south Stansted Road | UTT/13/1790/OP | 23-Dec-13 | 165 | Land South Of Stansted Road Elsenham | | | | | | 49 | 40 | 40 | 36 | | | | | | | | | | | | | 1 | G |
| Elsenham: Land north of Leigh Drive | UTT/15/3090/OP | 14-Nov-16 | 20 | Land North Of Leigh Drive Elsenham | | | | | | | | | 20 | | | | | | | | | | | | | 3 | G |
| Elsenham: Elsenham Nurseries, Stansted Road | UTT/14/2991/OP (UTT/17/0335/DFO) | 02/12/2015 (July 2017) | 40 | Elsenham Nurseries Stansted Road Elsenham CM22 6LJ | | | | | | | 5 | 20 | 15 | | | | | | | | | | | | | 3 | G |
| Felsted: Land East of Braintree Road | UTT/14/2591/DFO | 01-Dec-14 | 25 | Land East Of Braintree Road Braintree Road Felsted (CM6 2EF??) | | | | | | 25 | | | | | | | | | | | | | | | | Built | G |
| Felsted: Lyndfields Bannister Green | UTT/0799/08 | Built | | (Built) | | 6 | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Felsted: Former Ridleys Brewery, Hartford End | UTT/16/2149/FUL | 13-Jan-17 | 22 | Former Ridleys Brewery Mill Lane Hartford End Essex CM3 1JZ | | | | | | 1 | 21 | | | | | | | | | | | | | | | 1 | PDL |
| Flitch Green: Land at Webb Road, Hallett Road | UTT/13/1123/FUL | Jul-13 | 9 | Flitch Green | | | | | 9 | | | | | | | | | | | | | | | | | Built | PDL |
| Flitch Green: Land off Tanton Road | UTT/15/2089/DFO | Dec-15 | 98 | Land Off Tanton Road Flitch Green Dunmow Essex | | | | | | 51 | 47 | | | | | | | | | | | | | | | 1 | G |
| Flitch Green: Village Centre, Land at Webb Road and Hallett Road | UTT/14/3357/FUL | 15-Oct-15 | 25 | Land At Webb Road And Hallett Road Flitch Green Essex | | | | | | | 25 | | | | | | | | | | | | | | | 1 | PDL |
| Great Canfield: Canfield Nursery, Bullocks Lane | UTT/15/1732/FUL | 20-Oct-15 | 7 | Canfield Nursery Bullocks Lane Takeley CM22 6TA | | | | | | | | | 7 | | | | | | | | | | | | | 2 | G |
| Great Chesterford: Land south of Stanley Road | UTT/12/5513/OP<br>UTT/13/3444/DFO | 12 July 2013;<br>13 February 2014 | 50 | Land South Of Stanley Road And Four Acres Great Chesterford | | | | 41 | 9 | | | | | | | | | | | | | | | | | Built | G |
| Great Chesterford: New World Timber and Great Chesterford Nursery, London Road | UTT/14/0174/FUL | Dec-14 | 42 | New World Timber Frame/Graveldene Nurseries London Road | | | | | | | 2 | 20 | 20 | | | | | | | | | | | | | 1 | G/PDL |
| Great Chesterford: Land at Thorpe Lea, Walden Road | UTT/15/2310/OP | 13-Jun-16 | 31 | Land At Thorpe Lea Walden Road Great Chesterford Essex CB10 1PS | | | | | | | | | 29 | | | | | | | | | | | | | 3 | G |
| Great Chesterford: land north of Bartholomew Close | UTT/14/0425/OP | Oct-14 | 14 (up to) | Ld North of Bartholomew Close Gt Chesterford, Saffron Walden | | | | | | | | | 11 | | | | | | | | | | | | | 3 | G |
| Great Dunmow: Melville House, High Street | UTT/15/0293/P3JPA | Mar-15 | 7 | Melville House, High Street, Dunmow CM6 1AF | | | | | | 7 | | | | | | | | | | | | | | | | Built | PDL |
| Great Dunmow: Springfields | UTT/1412/09 | Built | | (Built) | | 25 | | | | | | | | | | | | | | | | | | | | Built | G |
| Great Dunmow: Former Council Offices, 46 High Street | UTT/2116/10 | Built | 10 | (Built) | | 8 | 2 | | | | | | | | | | | | | | | | | | | Built | PDL |
| Great Dunmow: Barnetston Court | UTT/1519/12/FUL | 19-Apr-13 | 10 | Barnetson Court Braintree Road Great Dunmow CM6 1HS | | | | 5 | 5 | | | | | | | | | | | | | | | | | Built | PDL |
| Great Dunmow: Land Adj Harmans Yard | utt/0912/10/ful | 12-Jul-13 | 6 | Land At Harmans Yard Great Dunmow Essex CM6 1AS | | | 6 | | | | | | | | | | | | | | | | | | | Built | PDL |
| Great Dunmow: Brick Kiln Farm | UTT/13/0847/OP<br>UTT/14/0265/DFO | 11 July 2013<br>4 June 2014 | 68 | Brick Kiln Farm St. Edmunds Lane Dunmow Essex CM6 3BB | | | | | -2 | 28 | 40 | | | | | | | | | | | | | | | 1 | G |
| Great Dunmow: North of Ongar Road | UTT/16/1435/FUL | 13-Jan-17 | 60 | Land North Of Ongar Road Great Dunmow CM6 1EX | | | | | | | 3 | 19 | 19 | 19 | | | | | | | | | | | | 1 | G |
| Great Dunmow: South of Ongar Road | UTT/14/0127/FUL | 03-Dec-15 | 99 | Land South of Ongar Road, Great Dunmow | | | | | | | 9 | 30 | 30 | 30 | | | | | | | | | | | | 1 | G |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Newport: Carnation Nurseries | UTT/14/3506/DFO | 01-Feb-15 | 21 | Carnation Nurseries, Cambridge Rd, Newport Saffron Walden CB11 3TR | | | | | 20 | | | | | | | | | | | | | | | | | | | | | | | | Built | G/PDL |
| Newport: The Maltings Station Rd | UTT/1405/09 | Built | 11 | (Built) | | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Newport: Bury Water Lane/Whiteditch Lane | UTT/13/1769/OP | 29-Nov-13 | 84 | Land At Bury Water Lane Bury Water Lane Newport | | | | | | | 4 | 40 | 40 | | | | | | | | | | | | | | | | | | | | 1 | G |
| Newport: Land west of Cambridge Road | UTT/15/2364/FUL | 15-Mar-16 | 34 | Land West Of Cambridge Road Newport | | | | | | | 34 | | | | | | | | | | | | | | | | | | | | | | 1 | G |
| Newport: Reynolds Court, Gaces Acre | UTT/14/3655/FUL | 01-Mar-15 | 41 | Reynolds Court Gaces Acre Newport CB11 3RJ | | | | | -12 | 15 | -19 | 26 | | | | | | | | | | | | | | | | | | | | | 1 | PDL |
| Newport : Land at Bury Water Lane (Retirement village (up to 50 bed residential care facility; up to 90 units comprising apartments and cottages). Trajectory excludes residential care faciltiy | UTT/16/0459/OP | 01-Nov-16 | 90 (+ 50) | Land At Bury Water Lane Bury Water Lane Newport Essex | | | | | | -1 | | | 30 | 30 | 30 | | | | | | | | | | | | | | | | | | 3 | G |
| Newport: Bricketts, London Road | UTT/16/1290/OP | 25-Nov-16 | 11 | Bricketts London Road Newport CB11 3PP | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | 3 | G |
| Newport: Land at Holmwood, Whiteditch Lane | UTT/15/0879/OP | 23-May-16 | 12 | Land At Holmwood Whiteditch Lane Newport Saffron Walden CB11 3UD | | | | | | | | | 12 | | | | | | | | | | | | | | | | | | | | 3 | G |
| Newport: Land opposite Branksome, Whiteditch Lane | UTT/14/1794/OP | 23-Jul-15 | 15 | Land Opposite Branksome Whiteditch Lane Newport CB11 3UD | | | | | | | | | 5 | 10 | | | | | | | | | | | | | | | | | | | 3 | G |
| Newport: Land south of Wyndhams Croft, Whiteditch Lane | UTT/14/3266/OP | 18-Dec-15 | 15 | Land South Of Wyndhams Croft Whiteditch Lane Newport Essex CB11 3UD | | | | | | | | | 5 | 10 | | | | | | | | | | | | | | | | | | | 3 | G |
| Quendon: land r/o Foxley House | UTT/14/3662/FUL | 16-Jun-15 | 19 | Land At Foxley House Green Road Rickling Green CB11 3YD | | | | | | 19 | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Quendon: Ventnor Lodge, Cambridge Road | UTT/16/0873/FUL | 01-Nov-16 | 12 | Ventnor Lodge Cambridge Road Quendon Saffron Walden CB11 3XQ | | | | | | -1 | 12 | | | | | | | | | | | | | | | | | | | | | | 1 | G |
| Radwinter: Land north of Walden Road | UTT/13/3118/OP UTT/15/1467/DFO | 28/02/2014 3 August 2015 | 35 | Land Off East View Close And Walden Road East View Close Radwinter CB10 2TZ | | | | | | 13 | 22 | | | | | | | | | | | | | | | | | | | | | | 1 | G |
| Saffron.Walden: Lt Walden Road | UTT/1576/12/DFO | 15-Nov-12 | | Land At Little Walden Road Saffron Walden Essex | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| S Walden Bell College Peaslands Road | UTT/0503/10 | Built | 86 | Land To The East Of The Former Bell Language School Peaslands Road Saffron Walden CB11 3ED | 86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| S Walden: Bell College South road (retirement flats) | UTT/1981/10 | Built | 27 | (Built) | | 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: 8-10 King Street | UTT/0280/12/REN of UTT/1733/08/FUL | 21-Jun-12 | 8 | 8 King Street Saffron Walden Essex CB10 1ES | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Ashdon Road | UTT/1572/12/DFO | 21-Nov-12 | 130 | Land At Ashdon Road Saffron Walden | | | 22 | 72 | 36 | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Saffron Walden: Bell College South Road | UTT/0828/09 | Built | 62 | (Built) | 25 | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Former Gas Works Thaxted Rd | UTT/0123/09 | 24-Mar-09 | 9 | (Built) | | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Former Willis and Gambier Site, 119 Radwinter Road | (UTT/14/3182/FUL) | 30-Jun-16 | 73 | Site At 119 Radwinter Road (CB11 3HY?) | | | | | | | | | 73 | | | | | | | | | | | | | | | | | | | | 1 | PDL |
| Saffron Walden: Former Willis and Gambier Site, 121 Radwinter Road | UTT/13/3406/FUL | July 204 | 52 | Site At 121 Radwinter Road Saffron Walden Essex (CB11 3HY??) | | | | | 3 | 38 | 11 | | | | | | | | | | | | | | | | | | | | | | 1 | PDL |
| SAffron Walden: Friends School | UTT/0188/10 | 31-Mar-11 | 76 | Friends School Mount Pleasant Road Saffron Walden Essex | | 30 | 37 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Garage Site, Catons | UTT/14/2514/FUL | 01-Oct-14 | 6 | Garage Site at Catons Lane, | | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Goddards Yard | UTT/13/0669/FUL UTT/13/2395/FUL | 21/06/2013 July 2014 | 14 | Goddards Yard Thaxted Road Saffron Walden Essex CB11 3AA | | | | 12 | 2 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Goddards Yard (phase II) Thaxted Road | UTT/15/3537/FUL | 11-Jul-16 | 5 | Goddards Yard Thaxted Road Saffron Walden Essex CB11 3AA | | | | | | 5 | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Land to the West of Debden Road (Tudor Works) | UTT/1252/12/OP UTT/14/0356/DFO | 21/11/2012 24 July 2014 | 24 | Tudor Works Debden Road Saffron Walden CB11 4AN | | | | | 24 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Lodge Farm, Radwinter Rd (Pt of Jossaumes) | UTT/12/5226/FUL | 04-Jan-13 | 31 | Land At Lodge Farm Radwinter Road Saffron Walden Essex (CB11 3JB??) | | | | 31 | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Great Dunmow: Woodlands Park Sectors 1 - 3 | UTT/1006/04; UTT/1809/02; UTT/0395/05; UTT/0496/05; UTT/0386/05; UTT/0392/05; UTT/0246/07; UTT/13/1600 | ranges between 26 November 1992 - July 2013 | 1633 | Woodlands Park, Great Dunmow | 24 | 23 | 22 | 43 | 42 | 62 | 40 | 40 | 40 | 40 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 28 | | | 1 | G |
| Great Dunmow: Land west of Chelmsford Road | UTT/13/1684/OP | 04-Nov-14 | 370 | Land At Smiths Farm Chelmsford Road Great Dunmow Essex (West of | | | | | | | | 20 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | 1 | G |
| Great Dunmow: 2-2A Twyford Court, High Street | UTT/16/2605/PAP3O | 07-Nov-16 | 9 | 2 - 2A Twyford Court High Street Dunmow CM6 1AE | | | | | | | 9 | | | | | | | | | | | | | | | | 1 | PDL |
| Great Dunmow: Land adjacent Tower House, St Edmunds Lane | UTT/15/2425/FUL | Oct-15 | 7 | Land Adj To Tower House St Edmunds Lane Great Dunmow CM6 3BA | | | | | | 6 | 1 | | | | | | | | | | | | | | | | 1 | G |
| Great Dunmow: Kings Head, North Street | UTT/15/1544/FUL | Jul-15 | 6 | Kings Head North Street Dunmow CM6 1BA | | | | | | | | | 6 | | | | | | | | | | | | | | 2 | PDL |
| Great Dunmow: Land East of St Edmunds Lane | UTT/14/0472/OP | May-15 | 22 | Land east of St Edmunds Lane, Great Dunmow | | | | | | | | 2 | 5 | 5 | 5 | 5 | | | | | | | | | | | 3 | G |
| Great Dunmow: Canada Cottages | UTT/14/0787/OP | Sep-14 | 7 | Ld R/o Canada Cottages, Stortford Rd, Gt Dunmow, CM6 1DA | | | | | | | | | 7 | | | | | | | | | | | | | | 3 | PDL |
| Great Dunmow: west of Woodside way | UTT/13/2107/OP | 22-Oct-15 | 790 | Land West Of Woodside Way Woodside Way Great Dunmow Essex | | | | | | | | 50 | 50 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 40 | | 3 | G |
| Great Easton: The Moat House Dunmow Road Care home | UTT/0874/11 | 29/07/2011 | 26 | Moat House Dunmow Road Great Easton CM6 2DL | | | | 26 | | | | | | | | | | | | | | | | | | | Built | PDL |
| Great Easton: The Moat House Dunmow Road Care home | UTT/16/2233/FUL | 16-Dec-16 | 9 | The Moat House Dunmow Road Great Easton Dunmow | | | | | | | 9 | | | | | | | | | | | | | | | | 1 | G |
| Hatfield Heath: Broomfield | UTT/12/5349/FUL | Oct-13 | 14 | | | | | 14 | | | | | | | | | | | | | | | | | | | Built | G |
| Hatfield Heath: The Stag Inn, | UTT/13/2499/FUL | Nov-13 | 6 | The Stag Inn, The Heath, Hatfield Heath | | | | 6 | | | | | | | | | | | | | | | | | | | Built | PDL |
| Henham: land north of Chickney Road and west of Lodge Cottages | UTT/14/0065/FUL | 15-May-14 | 16 | Land At Chickney Road Chickney Road Henham (CM22 6BG) | | | | 10 | 6 | | | | | | | | | | | | | | | | | | Built | G |
| Henham: Land south of Chickney Road | UTT/14/2655/FUL | Jan-15 | 21 | Ld South of Chickney Rd, Henham | | | | | 21 | | | | | | | | | | | | | | | | | | Built | G |
| Henham: Elsenham Goods Yard (north) | UTT/15/0362/FUL | 30-Jul-15 | | Elsenham Goods Yard (North) Old Mead Lane Elsenham CM22 6JL | | | | | | | 6 | | | | | | | | | | | | | | | | 1 | PDL |
| Henham: Land north of Chickney Road | UTT/16/1988/FUL | 22-Sep-16 | 9 | Land North Of Chickney Road Chickney Road Henham Hertfordshire | | | | | | | 9 | | | | | | | | | | | | | | | | 1 | G |
| High Roding: Meadow House Nursery | UTT/13/1767/FUL UTT/15/3663/FUL | 07/01/2014 17 May 2016 | 31 9 | Land At Meadow House Nursery The Street High Roding CM6 1NP | | | | | | -1 | 20 | 20 | | | | | | | | | | | | | | | 1 | PDL |
| Leaden Roding: Holloway Crescent | UTT/1357/11 | Built | 8 | 21-33 & 23A-33A & 35-43 Holloway Crescent Leaden Roding Dunmow CM6 1QD | | -18 | 8 | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Little Canfield (Takeley): Ersamine, Dunmow Road, Little Canfield | UTT/14/0122/FUL | Sep-14 | 15 | Ersamine, Dunmow Rd, Little Canfield, Dunmow, CM6 1TA | | | | | 14 | | | | | | | | | | | | | | | | | | Built | PDL |
| Little Canfield (Takeley): North View and 3 The Warren | UTT/13/1779/FUL | 03-Oct-13 | 46 | Land At Northview And 3 The Warren Dunmow Road Little Canfield Great Dunmow Essex CM6 1TA | | | | -1 | 21 | 25 | | | | | | | | | | | | | | | | | Built | PDL |
| Little Canfiled (Takeley): Priors Green Stansted Motel & 2 Hamilton Rd | UTT/0240/12/OP UTT/14/1819/FUL | 03/09/2012 29/10/14 | 13 | Stansted Motel & 2 Hamilton Road Dunmow Road Little Canfield CM6 1SS | | | | | 12 | | | | | | | | | | | | | | | | | | Built | PDL |
| Little Canfield: Land at Dunmow Road | UTT/16/0270/FUL | 08-Jul-16 | 12 | Land At Dunmow Road Little Canfield Essex | | | | | | | 12 | | | | | | | | | | | | | | | | 1 | G |
| Little Canfield: Tree Tops, Dunmow Road | UTT/16/2328/FUL | 03-Oct-16 | 5 | Tree Tops Dunmow Road Little Canfield Dunmow Essex CM6 1TA | | | | | | | 5 | | | | | | | | | | | | | | | | 2 | G |
| Little Dunmow: Dunmow Skips Site | UTT/13/2340/OP UTT/15/1615/DFO | 27/10/2014 30 July 2015 | 40 | Former Dunmow Skips Site, Station Road Felsted CM6 3HG | | | | -2 | | 34 | 6 | | | | | | | | | | | | | | | | 1 | PDL |
| Little Easton (Gt Dunmow): Woodlands Park Sector 4 | UTT/2507/11/OP. UTT/13/1663/DFO | 2 August 2012; 31 October 2013 | 125 | Woodlands Park, Great Dunmow | | | | | | | | | 10 | 28 | 28 | 29 | 29 | | | | | | | | | | 1 | G |
| Little Hallingbury: Land at Dell Lane | UTT/15/1046/FUL | 03-Aug-15 | 16 | Land At Dell Lane Little Hallingbury | | | | | | | 16 | | | | | | | | | | | | | | | | 1 | G |
| Littlebury: Peggys Walk | UTT/1984/10 | Built | 14 | Land at Peggys Walk, Littlebury | 2 | 12 | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Manuden: Site off the Street | UTT/0692/12/FUL | 12-Feb-13 | 14 | Land At The Street The Street Manuden | | | 9 | 5 | | | | | | | | | | | | | | | | | | | Built | G |

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| Saffron Walden: The Sun Inn Gold Street | utt/0681/12 | 07-Jul-12 | 6 | The Sun Public House 57/59 Gold Street Saffron Walden CB10 1EJ | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Saffron Walden: Land at Ashdon Road Commercial Centre | UTT/13/2423/OP | 26/11/2014 | 167 | Ashdon Road Commercial Centre (Ridgeons) CB10 2NQ | | | | | | | 2 | 50 | 50 | 50 | 15 | | | | | | | | | | | | | | | | | | | 1 | PDL |
| Saffron Walden: Moores Garage, Thaxted Road | UTT/14/2003/FUL | 03-Sep-15 | 10 | Moores Garage Thaxted Road Saffron Walden Essex CB11 3BJ | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | | | | 1 | PDL |
| Saffron Walden:Land south of Radwinter Road | UTT/13/3467/OP<br>UTT/16/1856/DFO | 26/05/2015<br>13 Jan 2017 | 200 | Land south of Radwinter Road (CB10 2JP) | | | | | | | 10 | 20 | 40 | 40 | 40 | 50 | | | | | | | | | | | | | | | | | | 1 | G |
| Saffron Walden: Land west of 9 and 10 Everitt Road | UTT/15/1218/FUL | 14-Oct-15 | 7 | Land West Of 9 And 10 Everitt Road Saffron Walden Essex CB10 2YY | | | | | | | | 7 | | | | | | | | | | | | | | | | | | | | | | 2 | G |
| Saffron Walden:Land south of Radwinter Road for retirement village ("Extra care housing within class C2 provision" - 60 bed care home; 12 extra care bungalows; 30 extra care apartments. Trajectory excludes 60 bed car home) | UTT/13/3467/OP | 26-May-15 | 102 | Land south of Radwinter Road (CB10 2JP) | | | | | | | | | | | | 12 | 30 | | | | | | | | | | | | | | | | 3 | PDL |
| Saffron Walden: Thaxted Rd (Kiln Court) | UTT/16/1444/OP | 15-Nov-16 | 49 | Land Behind The Old Cement Works Thaxted Road Saffron Walden Essex CB10 2UR | | | | | | | | | 23 | 26 | | | | | | | | | | | | | | | | | | | | 3 | PDL |
| Stansted Mountfitchet: 68-70 Bentfield Road | UTT/2479/11/FUL | 07-Feb-12 | 9 | (Built) | | 3 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Stansted Mountfitchet: Mead Court Redevelopment of 27 units with 29 units therefore net gain of 2 | UTT/13/0749/FUL | 06-Jun-13 | 29 | Mead Court Cannons Mead Stansted Essex CM24 8EL | | | | -23 | | 25 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Stansted Mountfitchet: Rochford Nurseries | UTT/2265/07/DFO | 28-Feb-08 | 663 | Foresthall Park, Stansted Mountfitchet | 84 | 148 | 64 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Stansted Mountfitchet: 2 Lower Street | UTT/1522/12/FUL | 07-Jan-13 | 14 | 2 Lower Street Stansted CM24 8LP | | | | | | 14 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Stansted Mountiftchet: Land at Elms Farm | UTT/13/1959/OP<br>UTT/14/2133/DFO | 17/01/2014<br>18 Dec 2014 | 53 | Elms Farm Church Road Stansted Essex CM24 8PX | | | | | | | 3 | 25 | 25 | | | | | | | | | | | | | | | | | | | | | 1 | G |
| Stansted Mountfitchet: Land at Walpole Farm | UTT/13/1618/OP<br>UTT/15/2746/DFO | 1 april 2014<br>15 Feb 2016 | 147 | Land At Walpole Farm Cambridge Road Stansted CM24 8TA | | | | | | | | 47 | 50 | 50 | | | | | | | | | | | | | | | | | | | | 1 | G |
| Stansted Mountfitchet: 14 Cambridge Road | UTT/16/2632/FUL | 13-Feb-17 | 10 | 14 Cambridge Road Stansted CM24 8BZ | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | 2 | PDL |
| Stansted Mountfitchet: Land north of Water Lane | UTT/16/2865/OP | 09-Feb-17 | 10 | Land North Of Water Lane Stansted Essex | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | 3 | G |
| Stebbing: land to east of Parkside and rear of Garden Fields | UTT/14/1069/OP | 01-Feb-15 | 30 | Ld Nth of Stebbing primary school R/o Gdn Fields & Parkside, Stebbing (CM6 3RA?) | | | | | | | | 15 | 15 | | | | | | | | | | | | | | | | | | | | | 3 | G |
| Takeley: Brewers End Takeley | UTT/13/1393/OP<br>UTT/14/3295/DFO | 23/08/2013<br>Feb 2015 | 100 | Land South Of Dunmow Road Brewers End Takeley | | | | | 40 | 60 | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Chadhurst Takeley | UTT/13/1518/FUL | 12-Sep-13 | 13 | Chadhurst Dunmow Road Takeley Bishop's Stortford CM22 6SL | | | | | -1 | 13 | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Land South of Dunmow Road and east of The Pastures/Orchard Fields | UTT/1335/12/FUL | 24-Sep-13 | 41 | Land At Brewers End Dunmow Road Takeley CM22 6QH | | | | 15 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Land west of The Chalet, Dunmow Road | UTT/14/2387/FUL | 01-Mar-15 | 10 | Land west of The Chalet, Dunmow Road, Takeley | | | | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Priors Green | | | 799 | | 98 | 162 | 76 | 32 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Priors Green,Takeley Nurseries | UTT/0515/10 | Built | 35 | Priors Green Takeley | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |
| Takeley: Land adj Olivias, Dunmow Rd | UTT/12/5142/FUL | 14-Dec-12 | 6 | Land Adjacent To The Olivias Dunmow Road Takeley CM22 6SP | | | | 1 | 2 | 0 | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | G |
| Takeley: Land north of Dunmow Road | UTT/15/2424/FUL | 19-Jun-16 | 7 | Land North Of Dunmow Road East Of Church Lane Takeley | | | | | | | | | | 7 | | | | | | | | | | | | | | | | | | | | 2 | G |
| Thaxted: 25 Barnards Fields | UTT/15/1959 | 17-Sep-15 | 9 | 25 Barnards Field Thaxted Essex CM6 2LY | | | | | | 9 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL |
| Thaxted: Artington, Orange Street | UTT/15/1541/FUL | 21-Sep-15 | 6 | Artington Orange Street Thaxted Dunmow Essex CM6 2LH | | | | | -1 | 6 | | | | | | | | | | | | | | | | | | | | | | | | Built | PDL/G |
| Thaxted: Land East of Barnards Fields Thaxted | UTT/13/0108/OP<br>UTT/14/2426/DFO | 07/06/2013<br>15 October 2014 | 8 | Land East Of Barnard's Field Barnards Field Thaxted (CM6 2LY) | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | Built | G |

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| Thaxted: Sampford Road | UTT/12/5754/FUL | 08-Feb-13 | 60 | Land To South Walden Road Thaxted (CM6 2FE) | | | | 23 | 37 | | | | | | | | | | | | | | | | | | Built | G |
| Thaxted: Wedow Road | UTT/1562/11/OP UTT/12/5970/DFO; | 9 december 2011; 18 February 2013; | 55 | Land Off Wedow Road Thaxted (CM6 2JZ / CM6 2JY) | | | | 30 | 25 | | | | | | | | | | | | | | | | | | Built | G |
| Thaxted: East of Weaverhead Close | UTT/13/1170/OP UTT/16/1572/DFO | 01/05/2014 27 Sept 2016 | 47 | Land Off Wedow Rd, Thaxted | | | | | | 7 | 20 | 20 | | | | | | | | | | | | | | | 1 | G |
| Thaxted: Former Molecular Products Ltd site, Mill End | UTT/16/0171/FUL | 29-Sep-16 | 29 | Molecular Products Ltd. Mill End Thaxted Essex CM6 2LT | | | | | | | 9 | 20 | | | | | | | | | | | | | | | 1 | PDL |
| Wendens Ambo: The Mill, Royston Road | UTT/14/3091/P3JPA UTT/14/3788/FUL x 1 | 01/12/2014 March 2015 | 17 | The Mill, Royston Road, Wendens Ambo CB11 4JX | | | | 2 | 14 | 1 | | | | | | | | | | | | | | | | | Built | PDL |
| Wimbish: Land at Mill Road | UTT/14/1688/FUL | 01-Mar-15 | 11 | Land At Mill Road, Wimbish | | | | | | 11 | | | | | | | | | | | | | | | | | Built | G |
| GARDEN COMMUNITY Easton Park | ALLOCATION | | | | | | | | | | | | | | 50 | 75 | 125 | 150 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | | 9 | G |
| GARDEN COMMUNITY West of Braintree | ALLOCATION | | | | | | | | | | | | | | | | | | 50 | 70 | 100 | 150 | 150 | 150 | 150 | 150 | 9 | G |
| GARDEN COMMUNITY North Uttlesford | ALLOCATION | | | | | | | | | | | | | | 75 | 100 | 150 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 9 | G |
| Debden: Land west of Thaxted Road | ALLOCATION | | 25 | | | | | | | | | | | | | 10 | 15 | | | | | | | | | | 9 | G |
| Elsenham: Land south of Rush Lane | ALLOCATION | | 40 | | | | | | | | | | | | | 20 | 20 | | | | | | | | | | 9 | G |
| Elsenham: Land west of Hall Road | ALLOCATION | | 130 | Land West Of Hall Road Elsenham | | | | | | | | | | | | 30 | 30 | 35 | 35 | | | | | | | | 9 | G |
| Great Dunmow: Land at Helena Romanes School | ALLOCATION | | 150 | | | | | | | | | | | | | | | | | | | | | 30 | 50 | 70 | 9 | PDL |
| Great Dunmow: Land south of B1256 (Stortford Road) and west of Buttleys Lane | ALLOCATION | | 60 | | | | | | | | | | | | | 30 | 30 | | | | | | | | | | 9 | G |
| Great Dunmow: Land west and south of Great Dunmow | ALLOCATION | | 400 | | | | | | | | | | | | | | | | 30 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 9 | G |
| Great Dunmow: Oaklands, Ongar Road | ALLOCATION | | 13 | | | | | | | | | | | | | 13 | | | | | | | | | | | 9 | G |
| Great Dunmow: Woodfield, Woodside Way | ALLOCATION | | 120 | | | | | | | | | | | | | | | | 60 | 60 | | | | | | | 9 | G |
| Gt Dunmow: 14 Stortford Road, Perkins Garage | ALLOCATION | | 12 | 14 Stortford Road Great Dunmow Essex CM6 1DA | | | | | | | | | | | | 12 | | | | | | | | | | | 9 | PDL |
| Quendon: Land east of Foxley House | ALLOCATION | | 19 | | | | | | | | | | | | | | | | | | | 19 | | | | | 9 | G |
| Saffron Walden: land west of Lime Avenue | UTT/17/0255/FUL Approved subject to S106 June2017 | | 31 | | | | | | | | | | | | | 31 | | | | | | | | | | | 9 (5) | G |
| Saffron Walden: Land at Viceroy Coaches | ALLOCATION | | 10 | | | | | | | | | | | | | 10 | | | | | | | | | | | 9 | PDL |
| Saffron Walden: Land north and south of Thaxted Road | ALLOCATION | | 150 | | | | | | | | | | | | | 50 | 50 | 50 | | | | | | | | | 9 | G |
| Saffron Walden: 56 High Street | ALLOCATION | | 10 | | | | | | | | | | | | | | 10 | | | | | | | | | | 9 | PDL |
| Saffron Walden: Jossaumes | ALLOCATION | | 12 | | | | | | | | | | | | | | | | | 12 | | | | | | | 9 | PDL |
| Saffron Walden: Land at De Vigier Avenue | ALLOCATION | | 14 | | | | | | | | | | | | | 14 | | | | | | | | | | | 9 | G |
| Saffron Walden: Land south of Tiptofts Lane, Thaxted Road | ALLOCATION | | | | | | | | | | | | | | | | | | | | 13 | | | | | | 9 | PDL |
| Stansted Mountfitchet: land east of Cambridge Road (B1383) and west of High Lane | ALLOCATION | | 40 | | | | | | | | | | | | | | | 40 | | | | | | | | | 9 | G |
| Takeley: Land between 1 Coppice Close and Hillcroft, south of B1256 Takeley Street | ALLOCATION | | 20 | | | | | | | | | | | | | 20 | | | | | | | | | | | 9 | G |
| Thaxted: Land east of the Mead | ALLOCATION | | 25 | | | | | | | | | | | | | | 12 | 13 | | | | | | | | | 9 | G |
| | | | | | **521** | **540** | **390** | **463** | **554** | **722** | **566** | **641** | **857** | **535** | **473** | **741** | **731** | **693** | **755** | **722** | **693** | **749** | **730** | **738** | **710** | **710** | | |

# APPENDIX B

## Thames Water Options

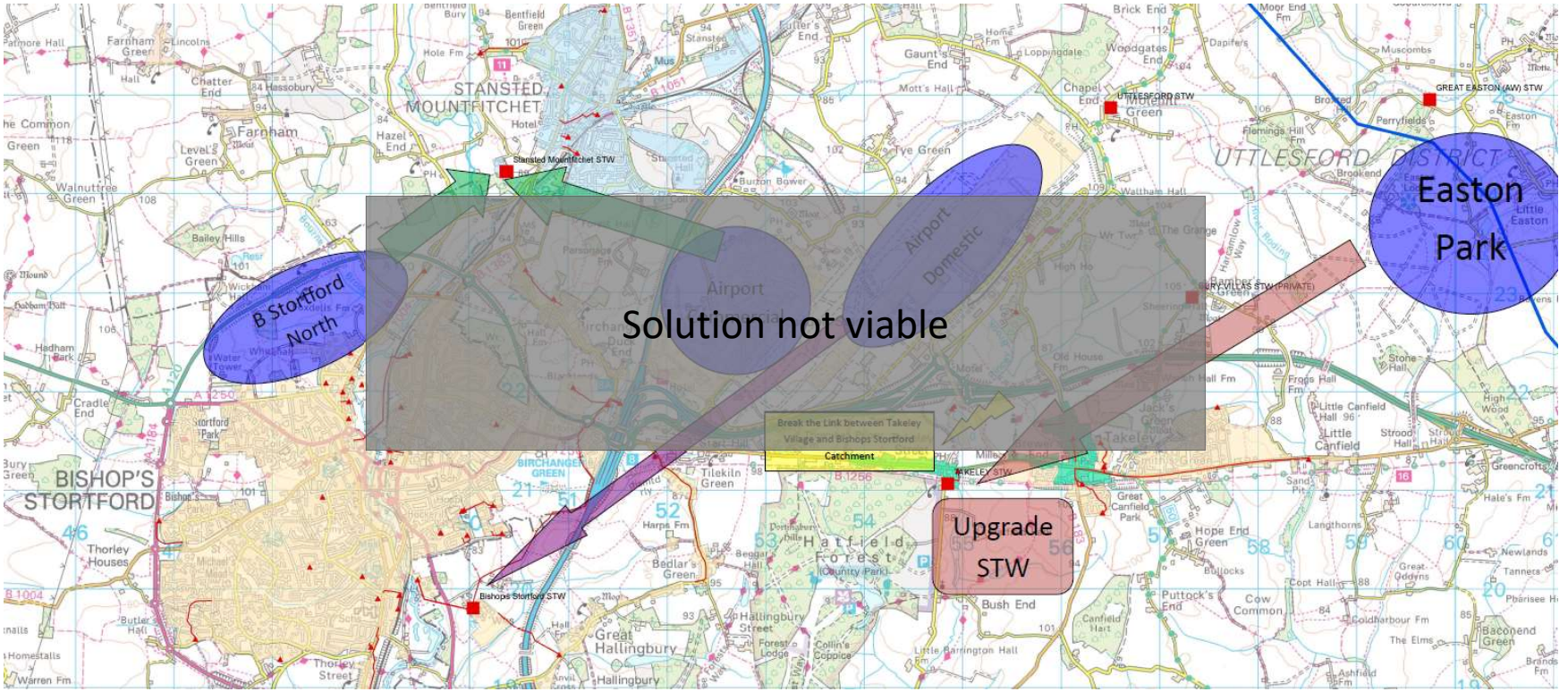
# Bishops Stortford Area Growth

## Scenario Options

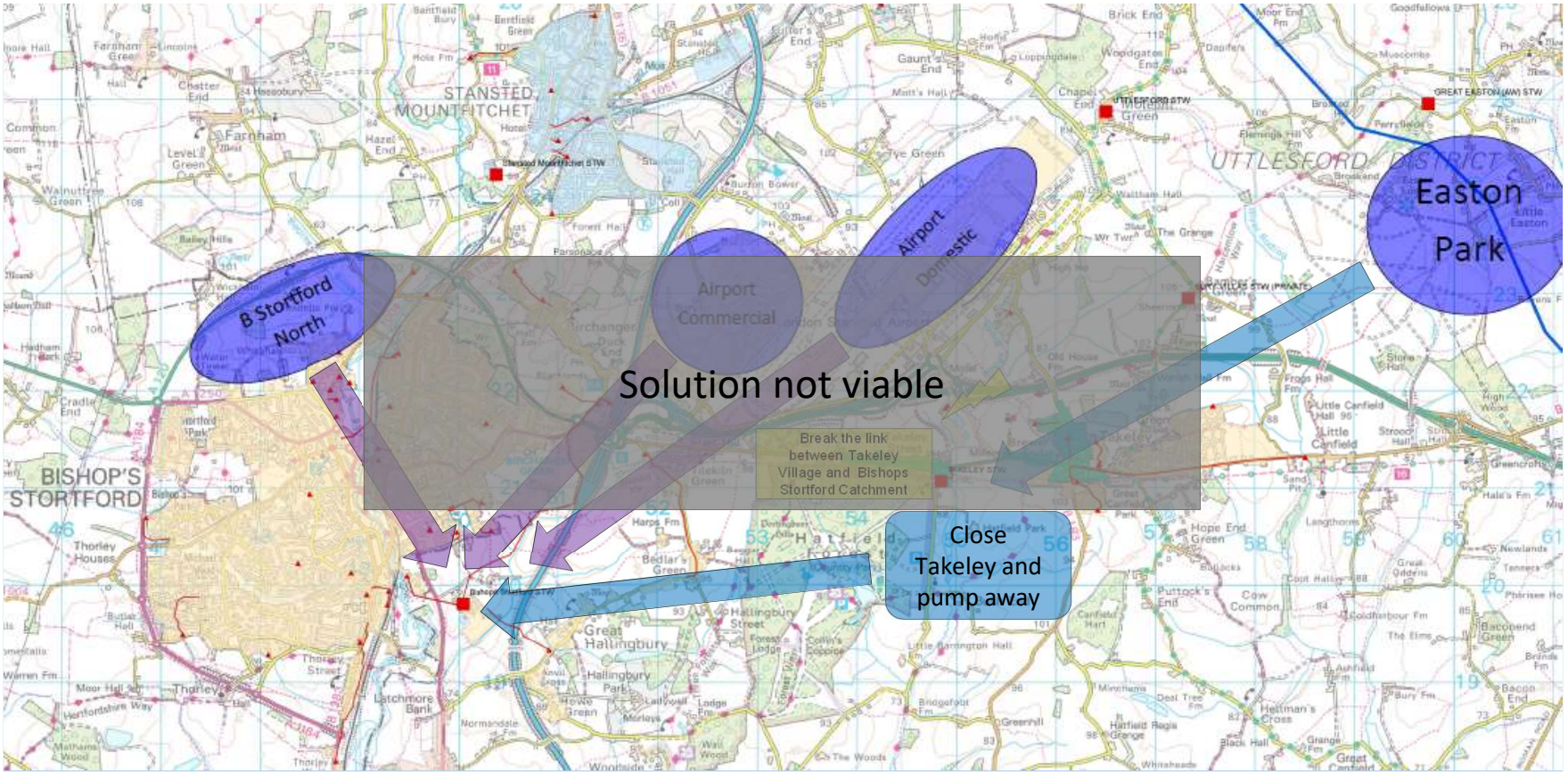
**30th October 2018**

Sharra Lock – Asset Planning

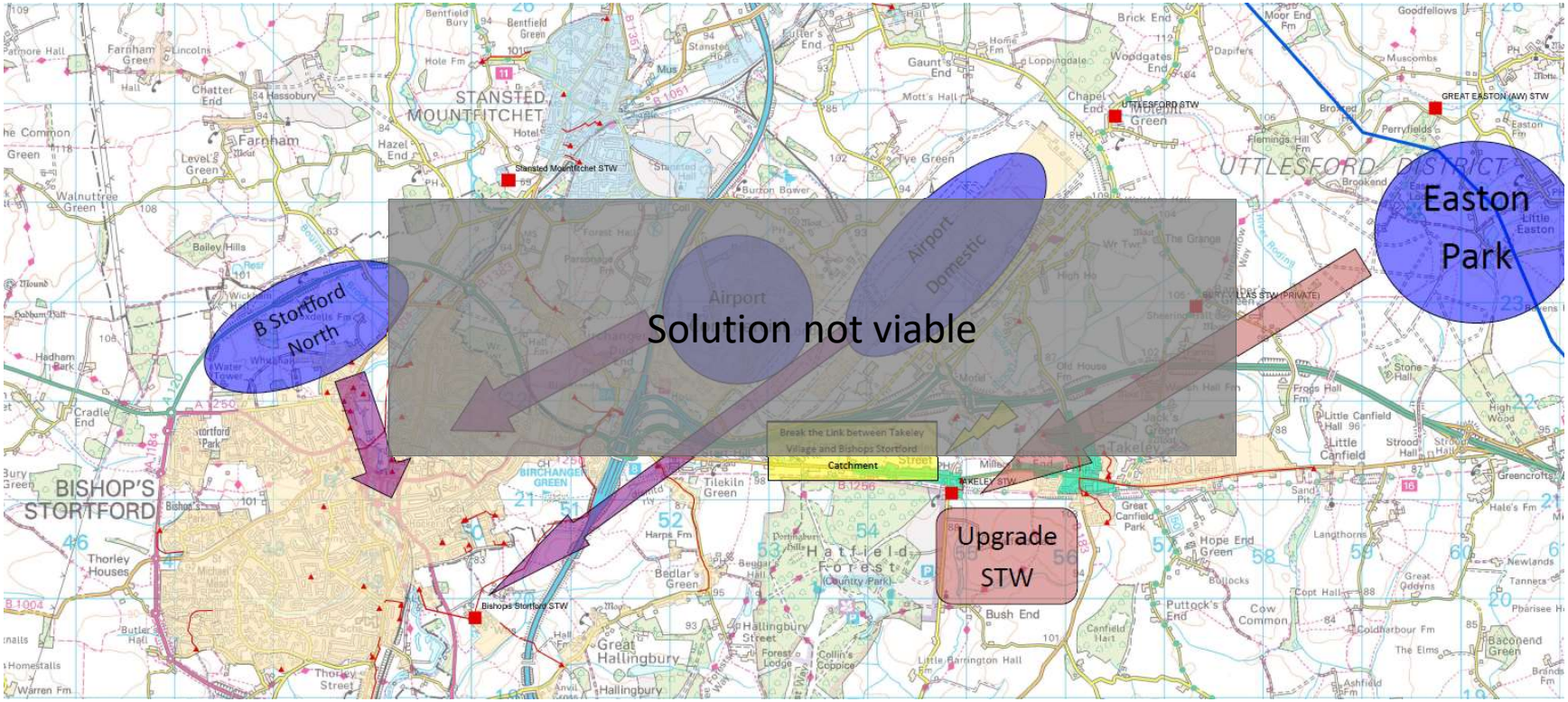
# Scenario 1


Solution not viable
Airport
Domestic
Airport
B Stortford North
Easton Park
Upgrade STW
Break the Link between Takeley Village and Bishops Stortford Catchment
Stansted Mountfitchet STW
Bishops Stortford STW
UTTLESFORD STW
GREAT EASTON (AW) STW
TAKELEY STW
STANSTED MOUNTFITCHET
BISHOP'S STORTFORD
UTTLESFORD DISTRICT
Hatfield Forest
Takeley

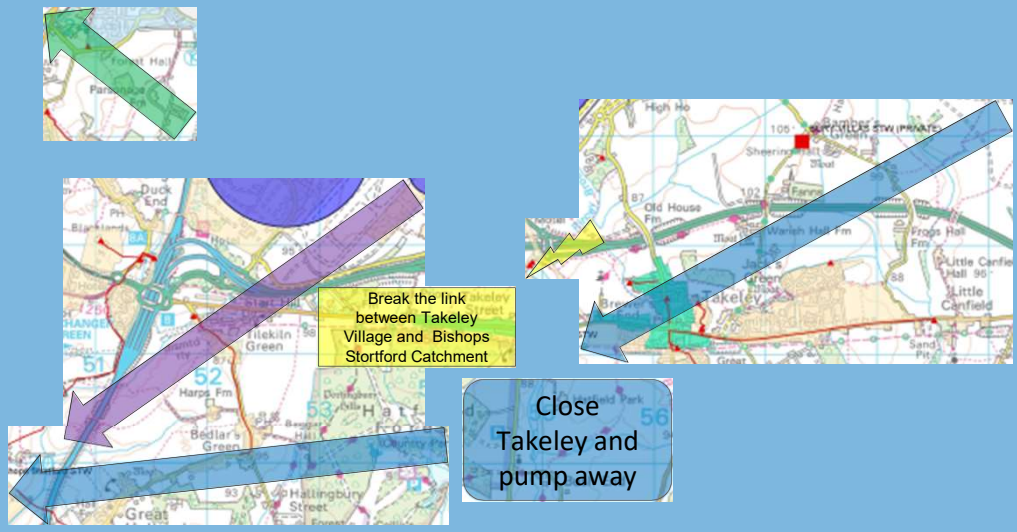
# Scenario 2


B Stortford North
Airport Commercial
Airport Domestic
Easton Park
Solution not viable
Break the link between Takeley Village and Bishops Stortford Catchment
Close Takeley and pump away
STANSTED MOUNTFITCHET
BISHOP'S STORTFORD
UTTLESFORD DISTRICT

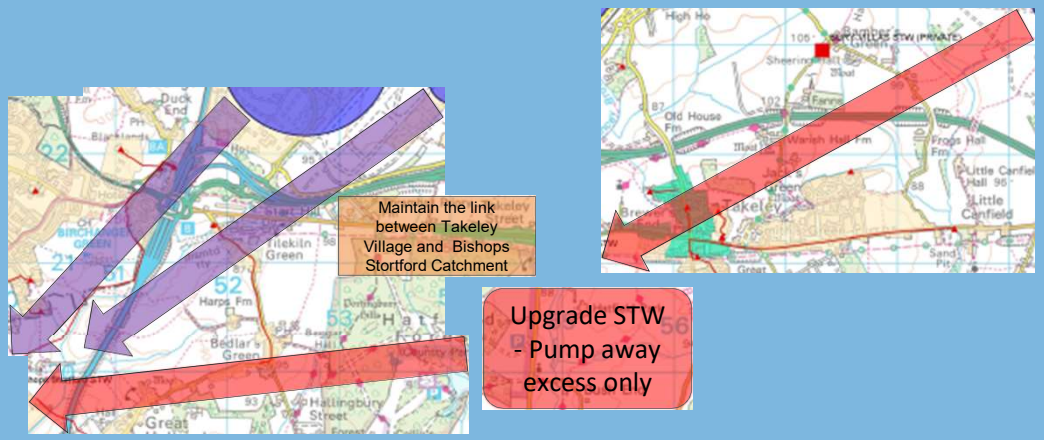
# Scenario 3


Solution not viable
B Stortford North
Easton Park
Upgrade STW
Break the Link between Takeley Village and Bishops Stortford
Catchment
Stansted Mountfitchet STW
Bishops Stortford STW
UTTLESFORD STW
GREAT EASTON (AW) STW
TAKELEY STW
STANSTED MOUNTFITCHET
BISHOP'S STORTFORD
UTTLESFORD DISTRICT
Airport
Domestic
Hatfield Forest
(Country Park)

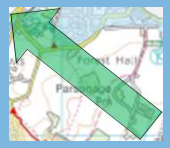
# Scenario 4

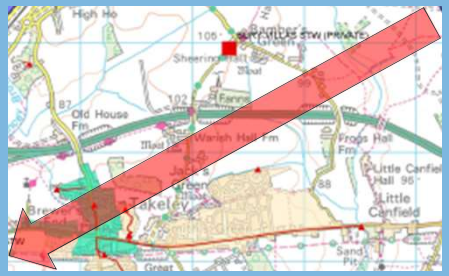

Break the link between Takeley Village and Bishops Stortford Catchment
Close Takeley and pump away

# Scenario 5


Maintain the link between Takeley Village and Bishops Stortford Catchment
Upgrade STW - Pump away excess only

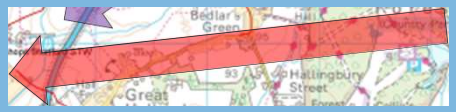
# Scenario 6



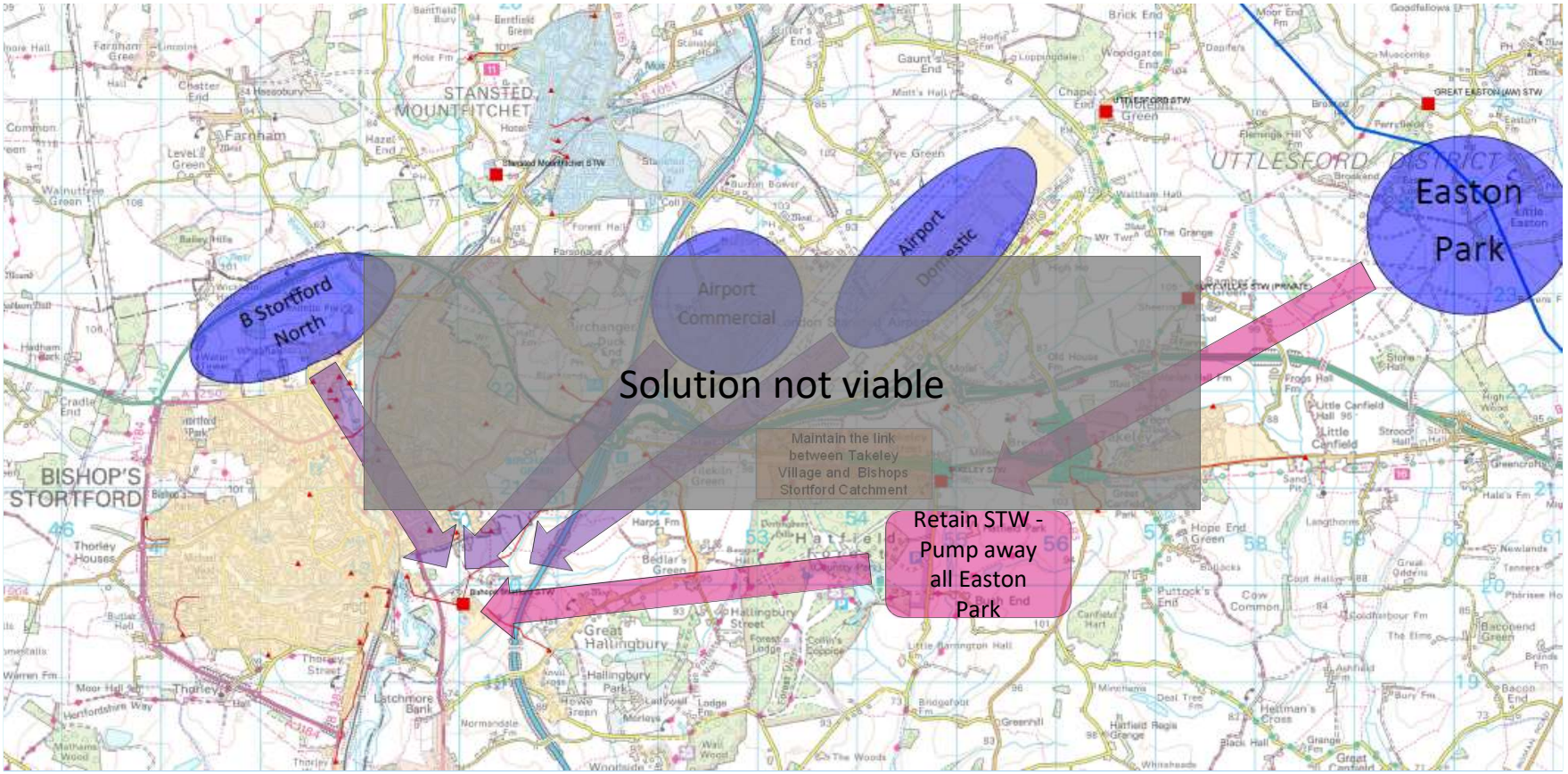


Maintain the link between Takeley Village and Bishops Stortford Catchment

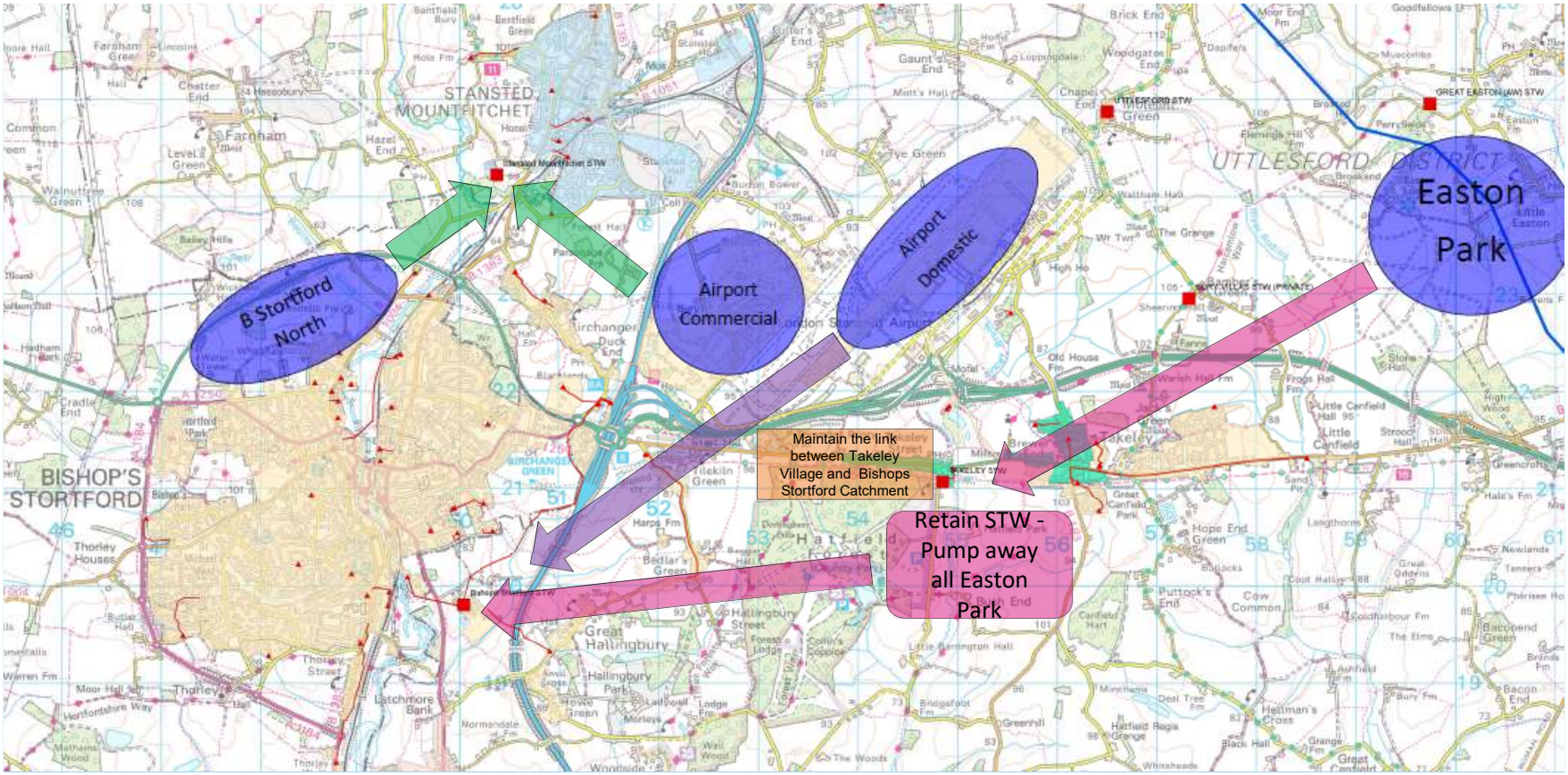
Upgrade STW - Pump away excess only



# Scenario 7


B Stortford North
Airport Commercial
Airport Domestic
Easton Park
Solution not viable
Maintain the link between Takeley Village and Bishops Stortford Catchment
Retain STW - Pump away all Easton Park
STANSTED MOUNTFITCHET
UTTLESFORD DISTRICT
BISHOP'S STORTFORD
Farnham
Great Hallingbury
Hatfield

# Scenario 8


B Stortford North
Airport Commercial
Airport Domestic
Easton Park
Maintain the link between Takeley Village and Bishops Stortford Catchment
Retain STW - Pump away all Easton Park
STANSTED MOUNTFITCHET
BISHOP'S STORTFORD
UTTLESFORD DISTRICT
Farnham
Hatfield
Great Hallingbury

Arcadis Consulting (UK) Limited

The Surrey Research Park
10 Medawar Road
Guildford
GU2 7AR
United Kingdom

T: +44 (0)1483 803 000

**arcadis.com**