North Essex Section 1 Local Plan 2030: note relating to Water Resource Management Plan and Colchester Water Recycling Centre (February 2020)

Anglian Water Services Ltd.

At the Matter 6 further hearing session held on 16th January 2020 the Planning Inspector requested that Anglian Water provide further information relating to:

- assumptions relating to growth in the North Essex Local Plan area to inform Anglian Water's Water Resource Management Plan (WRMP);
- what level of treatment the permit for Colchester Water Recycling Centre (formerly known as a wastewater treatment works) requires for discharges into the river Colne, and whether it permits untreated sewage to be discharged in some circumstances as was suggested at the hearing; and
- what the treatment requirements are for discharges from a storm tank at Colchester Water Recycling Centre

The purpose of this note is to provide further information on these topics to assist the Planning Inspector examining the North Essex Section 1 Plan.

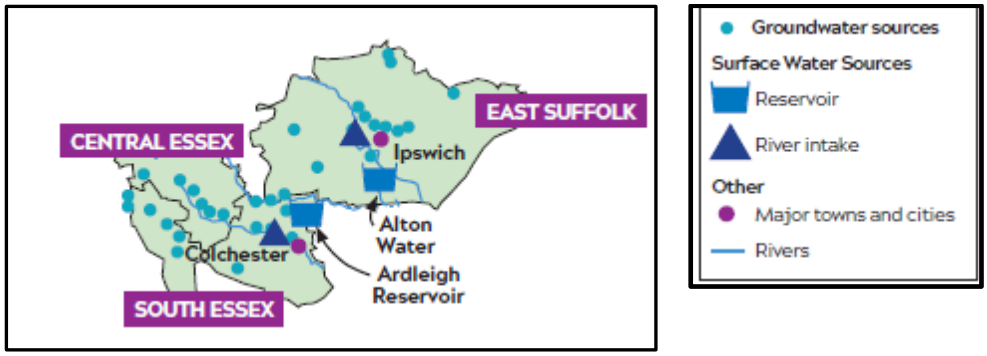
Anglian Water's Water Resource Management Plan

We supply water to the majority of Braintree District and Colchester Borough administrative areas. Affinity Water and Essex and Suffolk Water also supply water to part of the North Essex Local Plan area. The following information relates to the Anglian Water company area only.

Anglian Water is responsible for preparing as part of a statutory process a Water Resources Management plan (WRMP) at least once every 5 years and reviewed continuously which outlines how we will manage the supply/demand balance so that we can continue to serve our customers now and in the future in respect of population growth, climate change and environmental protection. Anglian Water's current WRMP 2019[1] covers the period 2020 to 2045 and has been approved by Defra.

Water resources are managed on a larger geographical scale than Councils and individual development proposals. The Water Resource Zone is the principal building block used by water companies to develop forecasts of supply and demand and produce a supply-demand balance. The North Essex Local Plan area forms part of the Central Essex and South Essex Water Resource Zones as shown on the figure below:

[1] https://www.anglianwater.co.uk/about-us/our-strategies-and-plans/water-resources-management-plan/



The WRMP has been prepared in accordance with the Environment Agency's Water Resource Planning Guidelines. These guidelines specify that water companies should base the forecast population and property figures on local plans published by the local council. In doing so water companies are expected to consider the stage e.g. adopted or draft which the local plan has reached when identifying their population and property figures.

Demand has been derived using growth projections for Anglian Water region, which have been based upon Local Authority Planning data, assessed and collated by external demographic consultants based upon the best evidence available at the time. For the North Essex Local Plan we have taken account of proportion of the overall housing and employment growth in the plan area which would be expected to be located within the Anglian Water company area. These assumptions will be updated to inform the preparation of Anglian Water's WRMP 2024 and the Regional Plan for water resources being led by Water Resources East[2] with water companies and a wider range of stakeholders.

The assumptions used for the anticipated number of properties in the Central Essex and South Essex Water Resources Zones are as follows:

Central Essex WRZ

Table 5.3.3:Central Essex Rates of population and property growth per AMP

	AMP7	AMP8	AMP9	AMP10	AMP11
Additional Household population per AMP	2,610	1,980	1,740	1,230	1,290
Additional Household properties per AMP	1,340	1,070	940	700	760

[2] https://wre.org.uk/

South Essex WRZ

Table 5.5.3: Rates of household population and property growth per AMP

	AMP7	AMP8	AMP9	AMP10	AMP11
Additional Household population per AMP	14,620	13,540	14,360	10,140	8,830
Additional Household properties per AMP	7,290	6,890	7,520	4,630	5,180

In addition to the assumptions relating to growth we also provide additional headroom to manage uncertainties over the plan period.

Full details of the methodology used to identify demand and a summary of the assumptions used of each Water Resource Zones are available to view at the following addresses:

Demand Forecast:

https://www.anglianwater.co.uk/siteassets/household/about-us/demand-forecast.pdf

Demand Management Strategy:

https://www.anglianwater.co.uk/siteassets/household/about-us/demand-management-strategy.pdf

WRZ summaries:

https://www.anglianwater.co.uk/siteassets/household/about-us/wrz-summaries.pdf

Colchester Water Recycling Centre

The Environment Agency as our environmental regulator issue Environmental Permits to Anglian Water for our water recycling centres, which specify requirements relating to both hydraulic and environmental capacity to be met by Anglian Water.

The current permitted dry weather flow for Colchester Water Recycling Centre is 29,824m3/d. The permit requires that flows into the Recycling Centre, up to 884 litres/second, must receive 'secondary treatment'. 'Secondary treatment" means treatment of urban waste water by a process generally involving biological treatment with a secondary settlement or other process in which the requirements detailed in Schedule 3 of the Environmental Permit are met. A copy of the current environmental permit issued by the Environment Agency for Colchester Water Recycling Centre is attached with this note.

Storm tank at Colchester Water Recycling Centre

As mentioned above Colchester Water Recycling Centre is consented by the Environment Agency to treat a Full Flow to Treatment (FFT) of 76,400m3/d before spilling into to storm tanks where it receives settlement. This will occur in wet weather, or following snow melt. The volume of the storm tank storage provided is in accordance with the requirements outlined in the Environmental Permit. Flow that passes to, the storm tanks is then stored for a period of time before either being returned for full secondary treatment after the storm has subsided or, if the storm lasts for several hours or more, discharging to watercourse..

Any overflows would receive settlement and screening before being discharged. As such there would be a level of treatment before any discharges during storm conditions.