Babergh & Mid Suffolk District Council
Water Cycle Study

Final Report

October 2020

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Revision History

Revision Ref/Date	Amendments	Issued to
S3-P01 – 07/07/2020	Draft Report	Matt Deakin (BMSDC)
S3-P02 – 29/09/2020	Draft – Final Report	Matt Deakin (BMSDC)
A1-C03 – 16/10/2020	Final Report	Matt Deakin (BMSDC)

Contract

This report describes work commissioned by the Babergh & Mid Suffolk District Councils in March 2020. Louise Morgan and Richard Pardoe of JBA Consulting carried out this work.

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Purpose

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Acknowledgements

JBA Consulting would like to thank Babergh & Mid Suffolk District Councils, Anglian Water and Essex & Suffolk Water for their assistance in preparing this report.

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Executive summary

In February 2020, JBA Consulting was commissioned by Babergh & Mid Suffolk District Council to undertake a Water Cycle Study (WCS) to inform the Babergh & Mid Suffolk Joint Local Plan. This study assesses the potential issues relating to future development within Babergh & Mid Suffolk and the impacts on water supply, wastewater collection and treatment and water quality. The Water Cycle Study is required to assess the constraints and requirements that will arise from potential growth on the water infrastructure.

New homes and employment land require the provision of clean water, safe disposal of wastewater and protection from flooding. The allocation of development in certain locations may result in the capacity of existing available infrastructure being exceeded, a situation that could potentially cause service failures to water and wastewater customers, adverse impacts to the environment, or high costs for the upgrade of water and wastewater assets being passed on to the bill payers.

In addition to increased demands from housing and employment development, future climate change presents further challenges to the existing water infrastructure network, including increased intensive rainfall events and a higher frequency of drought events. Sustainable planning for water must now take this into account. The water cycle can be seen in the figure below and shows how the natural and man-made processes and systems interact to collect, store or transport water in the environment.

The Water Cycle

Source: Environment Agency – Water Cycle Study Guidance

This study will assist Babergh & Mid Suffolk District Councils to select and develop sustainable development allocations where there is minimal impact on the environment, water quality, water resources, infrastructure and flood risk. This has been achieved by identifying areas where there may be conflict between any proposed development, the requirements of the environment and by recommending potential solutions to these conflicts.

The Water Cycle Study has been carried out in co-operation with Anglian Water (AW), Essex & Suffolk Water the Environment Agency (EA), Natural England (NE) and the neighbouring Local Planning Authorities (LPAs).

Potential development sites were provided by Babergh & Mid Suffolk District Councils and Water Recycling Centres (WRC) likely to serve growth in the area were identified using the Environment

Agency Consents database. Each development site/growth scenario was then allocated to a WRC in order to understand the additional wastewater flow resulting from the planned growth. Available information was collated on water policy and legislation, water resources, water quality, and environmental designations within the study area.

Babergh & Mid Suffolk's proposed growth over the Local Plan period is comprised of completions, extant planning permissions and allocations. The growth also takes into account the neighbouring authority growth also.

The objective of the study is to provide evidence to guide development towards the most sustainable sites. Red / Amber /Green (RAG) assessments have been prepared at the settlement and site scale for the different aspects of the water cycle. It should be remembered that where a development is scored amber or red in a water supply or wastewater infrastructure assessment, it does not mean that development cannot or should not take place in that location, merely that significant infrastructure may be required to accommodate it. The decision on the suitability of sites is made up of a number of assessments outside the scope of this report.

Water resources – Section 4

Anglian Water is responsible for supplying all of Babergh & parts of Mid Suffolk, with Essex & Suffolk Water supplies water to the rest of Mid Suffolk. Anglian Water's Water Resource Zones (WRZ) include Bury Haverhill, East Suffolk, Ixworth and Sudbury, and Essex & Suffolk Water's WRZ is Hartismere.

The Anglian Water WRMP shows a regional supply-demand deficit of -30Ml/d by 2025, and by 2045, only Sudbury of the four aforementioned AW WRZs will be in surplus, but a regional deficit of 144Ml/d. Essex & Suffolk Water shows that there is a supply-demand surplus in the Hartismere WRZ until 2060, however potential sustainability reductions and the recent non-residential developments mean that limited water is available for development sites not already taken into account in the published WRMP. ESW have confirmed that current supplies will be sufficient to serve the planned growth to 2025. During AMP7 (2020-2025), ESW will assess options for addressing future supply-demand deficit, with a view to implementing these during AMP8 (2025-30) if necessary. ESW and the councils will jointly prepare a Statement of Common Ground addressing this issue. Notwithstanding this, ESW would support the use of water recycling at Eye Airfield, where a growing agglomeration of food processing industries has led to a high growth in water demand.

There is sufficient evidence to support the adoption of the tighter water efficiency target of 110l/p/d allowed for in building regulations. Policies to reduce water demand from new developments, or to go further and achieve water neutrality in certain areas, could be defined to reduce the potential environmental impact of additional water abstractions in Babergh & Mid Suffolk, and also help to achieve reductions in carbon emissions.

Water supply infrastructure – Section 5

312 potential allocations were assessed by the water companies, of these 58 sites were given a "green" assessment indicating there was sufficient capacity to accommodate growth, this represents approximately 2,400 houses. The remaining sites were given an "amber" assessment indicating that some infrastructure upgrades are required in order to serve growth, but no significant constraints to the provision of these upgrades have been identified. In this case, upgrades could consist of network reinforcement to ensure that there is no adverse impact on the levels of service to existing customers once new development is connected.

Where upgrades are required it is essential that the water companies are engaged early so that upgrade work can be planned and completed prior to occupation of new developments.

The water supply network assessment takes into account the size of the site and local constraints and results are therefore best viewed on a site by site basis. These are shown in Appendix A.

Wastewater collection infrastructure – Section 6

Anglian Water provide wastewater services to Babergh & Mid Suffolk. Sewerage Undertakers have a duty under Section 94 of the Water Industry Act 1991 to provide sewerage services and treat wastewater arising from new domestic development. Except where strategic upgrades are required to serve very large or multiple developments, infrastructure upgrades are usually only

implemented following an application for a connection, adoption, or requisition from a developer. Early developer engagement with Anglian Water is therefore essential to ensure that sewerage capacity can be provided without delaying development.

A site by site assessment of impact of the potential allocations on the foul sewer network was carried out by Anglian Water. 109 sites were given a "green" assessment indicating that there was capacity to serve growth, however as these tend to be smaller sites, they only deliver 630 dwellings. One site, SS0536 – a large employment site in Mendlesham was given a "Red" score by Anglian Water indicating that significant infrastructure may be required in order to accommodate this. They provided an additional comment that the "Site is remote from nearest sewer, connecting foul water may not be viable". In this case significant investment may be required in order to pump wastewater to the nearest sewer, or a bespoke treatment solution may be required.

The remaining sites were given an "amber" assessment indicating that some upgrades to infrastructure may be required in order to accommodate these sites. As with the water supply assessment, where upgrades are required it is essential that Anglian Water is engaged early so upgrade work can be planned and completed prior to occupation of new developments.

The wastewater network assessment takes into account the size of the site and local constraints and results are therefore best viewed on a site by site basis. These are shown in Appendix A.

Wastewater treatment capacity – Section 7

Anglian Water operate all of the WRCs serving growth within Babergh & Mid Suffolk, some of which are outside the study area. JBA carried out an assessment of WRC capacity based on a comparison of available headroom vs potential growth for each WRC serving growth in the study area.

Where a WRC has sufficient headroom to accommodate all of the potential growth during the plan period it has been given a "Green" RAG rating indicating that it that WRC is likely to operate within its permit. It does not take into account the impact on downstream water quality of using available headroom.

Of the 91 WRCs serving growth in the study area, 48 of these are predicted to be close to or exceeding their flow permit by the end of the plan period should all potential development in their catchment come forward, and no capacity upgrades delivered. These WRCs have been given an "Amber" RAG rating reflecting the likelihood that capacity upgrades may be required in order to accommodate growth.

Development in a catchment scored as "amber" will need to be carefully planned and engagement with Anglian Water is required to ensure that upgrades to capacity are delivered ahead of connection of a development site.

Opportunities should also be taken to focus growth in the catchments where there is capacity within a WRCs environmental permit, taking into account the water quality considerations contained in section 9.

Odour – Section 8

63 sites have been identified that are close enough to a WRC for nuisance odour to be a risk. At these sites it is recommended that an odour assessment is carried out to investigate it further. This should be undertaken as part of the planning process, paid for by developers. These sites have been given an amber assessment. A list of these sites is contained in Appendix A.

Water quality – Section 9

Water quality modelling was undertaken using the Environment Agency's SIMCAT tool. In this work it was assumed that all identified potential allocations are developed and so the modelling represents a worst case in every catchment. At many of the WRCs in the study area, planned growth would cause either a 10% deterioration in water quality or a deterioration in water framework directive class.

In the majority of cases this could be prevented by a tightening of environmental permit and/or upgrades to treatment processes. At five WRCs (Chantry, Diss, Hadleigh, Halesworth and Thurston) deterioration could not be prevented. This could impact development on the fringes

of Ipswich (Chantry WRC), and in the settlements of Diss, Hadleigh, Halesworth and Thurston. In the case of Diss and Halesworth WRCs, the majority of new growth in these catchments is from neighbouring authorities and so coordination between councils is recommended. At Mendlesham WRC, there is a risk that growth may prevent good ecological status being achieved in the future.

At these works, further mitigation may need to be taken to accommodate growth and options include pumping wastewater to a different WRC or changing the point of discharge to a less sensitive waterbody. Detailed optioneering is beyond the scope of this study and is best undertaken by Anglian Water who have a detailed knowledge and responsibility for their assets, and the range of options and constraints at each.

A full list of sites within these catchments can be found in Appendix A.

The modelling indicates that treatment upgrades would be required at the majority of WRCs in order to accommodate growth without deterioration in water quality downstream. Extensive engagement with Anglian Water is required in order to understand the phasing of growth with WRC upgrades to ensure capacity and upgrades to treatment processes are aligned. The growth scenario assessed assumes that every development site identified comes forward and so represents a worst case for each wastewater catchment. There may be options to consolidate growth within catchments that have more environmental capacity, and this should be considered alongside the capacity assessment in section 7. It is also recommended that further investigation of water quality at those WRCs identified above is undertaken using a growth scenario more aligned to the Reg. 19 JLP allocations.

Where a WRC is shared with a neighbouring authority coordination of growth plans in collaboration with Anglian Water is essential to ensure that infrastructure is in place prior to development to prevent a breach in environmental legislation.

Flood risk from additional foul flow – Section 10

A detailed assessment of flood risk can be found in the Babergh & Mid Suffolk District Councils Level 1 Strategic Flood Risk Assessment (SFRA) which is in the process of being written. The impact of increased effluent flows at WRCs from any of the proposed development has been assessed and is not predicted to have a significant impact upon flood risk in any of the receiving watercourses.

Environmental constraints – Section 11

A number of protected sites such as SSSIs and Priority Habitats are found within or downstream of the study area that should be carefully considered in future plan making and as part of the Habitats Regulations Assessment process.

There is potential for additional discharge from WRCs to impact sites with environmental designations (see Section 9). The Water Quality model used in section 9 was used to predict the water quality in rivers adjacent to protected sites. A significant deterioration was predicted adjacent to many sites, however in every case this could be completely prevented by improvements in treatment processes at WRCs upstream.

Development sites within Babergh & Mid Suffolk could also be sources of diffuse pollution from surface runoff. SuDS are required on all sites and their design must consider water quality as well as quantity. Runoff from these sites should be managed through implementation of a SuDS scheme with a focus on treating water quality of surface runoff from roads and development sites.

In the wider area, opportunities exist to implement natural flood management techniques to achieve multiple benefits of flood risk, water quality and habitat creation.

Summary

Babergh & Mid Suffolk District Councils' preferred development strategy proposes 17,828 dwellings and a significant area of employment land over the Local Plan Period 2016-2037. The aim of this water cycle study is to provide the evidence to inform the selection of sites, taking into account the constraints in the water environment and in water and wastewater infrastructure.

Anglian Water and Essex & Suffolk Water provide water supply to the study area, and Anglian Water provide wastewater services.

Babergh & Mid Suffolk is an area with limited water resources. The north east of Mid Suffolk is within the Hartismere Water Resource Zone which has limited available supply headroom. Essex & Suffolk Water have advised that there is sufficient headroom to serve planned growth to 2025 and will consider options for addressing increased demand due to growth beyond that date.

A number of WRCs have limited headroom in their environmental permit, additional growth may require changes to their flow permit and accompanying changes to their environmental permit and/or upgrades to treatment performance.

The water cycle study has also assessed the impact of additional wastewater discharge on water quality in Babergh & Mid Suffolk. Downstream of many WRCs that are expected to serve growth a deterioration in water quality is predicted, but in most cases, this could be prevented by improvements in treatment processes at those works. In five cases (Chantry, Diss, Hadleigh, Halesworth and Thurston WRCs), prevention of this deterioration may not be possible, and alternative solutions may be required in order to accommodate growth.

At Mendlesham WRC, whilst deterioration is not significant, should work elsewhere in the catchment improve upstream water quality, there is a risk that additional growth served by this WRC may prevent good ecological status being achieved in the watercourse downstream in the future.

The impact of additional discharges from WRCs at environmentally sensitive sites (such as SSSIs) was assessed by using the water quality model to predict the deterioration in phosphate concentration in the watercourses adjacent to protected sites. Significant deterioration was predicted during the local plan period; however, this could be prevented by improvements in treatment processes at WRCs upstream.

The recommendations outlined in the below table should be considered and early engagement between the Council and the water companies is key to ensure the required growth can be realised.

The conclusions from each topic area are summarised in Table 13.1 alongside the recommendations in Table 13.2. A site by site summary of all of the assessments can be found in Appendix A.

Summary of key Water Cycle Study recommendations

Babergh & Mid Suffolk District Council

- Local Plan to adopt enhanced water efficiency standards (110l/p/d) permitted by National Planning Practice Guidance.
- The concept of water neutrality potentially has a lot of benefit in terms of resilience to climate change and enabling waterbodies to achieve good ecological status under the water framework directive.
- Provide a yearly profile of projected housing growth for use in water company planning.
- Early and continued engagement with Anglian Water and Essex & Suffolk Water is required in order to ensure that where upgrades to water supply or wastewater infrastructure is required, it can be planned in to ensure that it is in place prior to occupation of development sites.
- Where infrastructure is shared across boundaries, BMSDC should engage with neighbouring authorities in collaboration with the water companies and the EA to ensure that a coordinated approach is taken to align the provision of infrastructure with both council's growth pans.
- Odour risk should be considered when allocating sites close to WRCs
- Incorporate water quality criterion into SuDS policy
- Work with developers to discourage connection of new developments into existing surface water and combined sewer networks.
- Opportunities for Natural Flood Management that includes schemes aimed at reducing / managing runoff should be considered to reduce nutrient and sediment pollution alongside reducing flood risk within Babergh and Mid Suffolk.
- Take "no regrets" decisions in the design of developments which contribute to mitigation and adaptation to climate change

Essex & Suffolk Water

- Continue to regularly review housing growth across supply region through WRMP Annual Update Reports, and where significant change is predicted, engage with local planning authorities.
- Advise BMSDC of any strategic water resource infrastructure developments within the authority where safeguarding of land is required.
- Where appropriate, undertake network modelling to ensure adequate provision of water supply.

Anglian Water

- Continue to regularly review housing growth across supply region through WRMP Annual Update Reports, and where significant change is predicted, engage with local planning authorities.
- Take into account the full volume of growth (from BMSDC and neighbouring authorities) within the catchment when considering WINEP schemes or upgrades at WRCs.
- Advise BMSDC of any strategic water resource infrastructure developments within the authority where safeguarding of land is required.
- Identify options to accommodate growth at Chantry, Diss, Hadleigh, Halesworth and Mendlesham WRCs where a risk of water quality deterioration has been identified
- Where appropriate, undertake network modelling to ensure adequate provision of water supply and wastewater services.
- Proposals to increase discharges to watercourse may require a flood risk activities environmental permit.

Developers

- Engage with BMSDC and the water companies early as part of pre-app and app consultations
- Work with AW and the Lead Local Flood Authority closely and early to develop an outline drainage strategy for sites
- Demonstrate to Lead Local Flood Authority and AW that surface water will be disposed of using a sustainable drainage system with connection to surface water sewers seen as a last option.
- Include the design of SuDS at an early stage to maximise the benefits of the scheme, including water quality, biodiversity and amenity benefits where appropriate
- Take "no regrets" decisions in the design of developments which will contribute to mitigation and adaptation to climate change impacts. For example, consider surface water exceedance pathways when designing the layout of developments

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Abbreviations / Glossary

ALS	Abstraction Licensing Strategy
AMP	Asset Management Plan
AONB	Area of Outstanding Natural Beauty
AP	Assessment Point
AW	Anglian Water
BMSDC	Babergh District Council and Mid Suffolk District Councils
BOD	Biochemical Oxygen Demand
BREEAM	Building Research Establishment Environmental Assessment Methodology
CAMS	Catchment Abstraction Management Strategies
CAPEX	Capital Expenditure
CED	Common End Date
CFMP	Catchment Flood Management Plan
CfSH	Code for Sustainable Homes
CSO	Combined Sewer Overflow
DCLG	Department of Communities and Local Government (Replaced by MHCLG)
DWF	Dry Weather Flow
DWI	Drinking Water Inspectorate
DWMP	Drainage and Wastewater Management Plan
EA	Environment Agency
EC	European Community
ECA	European Communities Act
EFI	Ecological Flow Indicator
EP	Environmental Permit
ESW	Essex & Suffolk Water
EU	European Union
FEH	Flood Estimation Handbook
FFT	Flow to Full Treatment
FWMA	Flood and Water Management Act
FZ	Flood Zone
GIS	Geographic Information Systems
HOF	Hands-Off Flow
HOL	Hands-off Level
JBA	Jeremy Benn Associates
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
l/p/d	Litres per person per day
Ml/d	Mega (Million) litres per day
MHCLG	Ministry of Housing Communities and Local Government
NH4	Ammonia
NMP	Nutrient Management Plan
NPPF	National Planning Policy Framework
OAN	Objectively Assessed Need
OfWAT	Water Service Regulation Authority
OPEX	Operational Expenditure

OS	Ordnance Survey
P	Phosphorous
RAG	Red / Amber / Green assessment
RBD	River Basin District
RBMP	River Basin Management Plan
ReFH	Revitalised Flood Hydrograph
RoFSW	Risk of Flooding from Surface Water (replaced uFMfSW)
RQP	River Quality Planning tool
RZ	Resource Zone
SA	Sustainability Appraisals
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SfA	Sewers for Adoption
SFRA	Strategic Flood Risk Assessment
SHELAA	Strategic Housing and Economic Land Availability Assessment
SHMA	Strategic Housing Market Assessment
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPZ	Source Protection Zone
SS	Suspended Solids
SSSI	Site of Special Scientific Interest
SU	Sewerage Undertaker
SuDS	Sustainable Drainage Systems
SWMP	Surface Water Management Plan
UWWTD	Urban Waste Water Treatment Directive
WaSC	Water and Sewerage Company
WCS	Water Cycle Study
WFD	Water Framework Directive
WINEP	Water Industry National Environment Programme
WRE	Water Resources East
WRLTP	Water Recycling Long Term Plan
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone
WTW	Water Treatment Works
WRC	Water Recycling Centres

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1 Introduction

1.1 Terms of reference

JBA Consulting was commissioned by Babergh District Council and Mid Suffolk District Council (jointly referred to as BMSDC in this report) to undertake a Water Cycle Study (WCS) for Babergh & Mid Suffolk. The purpose of the WCS is to form part of a comprehensive and robust evidence base to inform the preparation of the Local Plan Review, which will set out a vision and framework for development in the area up to 2037 and will be used to inform decisions on the location of future development.

Unmitigated future development and climate change can adversely affect the environment and water infrastructure capability. A WCS will provide the required evidence, together with an agreed strategy to ensure that planned growth occurs within environmental constraints, with the appropriate infrastructure in place in a timely manner so that planned allocations are deliverable.

1.2 The Water Cycle

Planning Practice Guidance on Water Supply, Wastewater and Water Quality[1] describes a water cycle study as:

"a voluntary study that helps organisations work together to plan for sustainable growth. It uses water and planning evidence and the expertise of partners to understand environmental and infrastructure capacity. It can identify joined up and cost-effective solutions, that are resilient to climate change for the lifetime of the development.

The study provides evidence for Local Plans and sustainability appraisals and is ideally done at an early stage of plan-making. Local authorities (or groups of local authorities) usually lead water cycle studies, as a chief aim is to provide evidence for sound Local Plans, but other partners often include the Environment Agency and water companies."

The Environment Agency's guidance on WCS[2] recommends a phased approach:

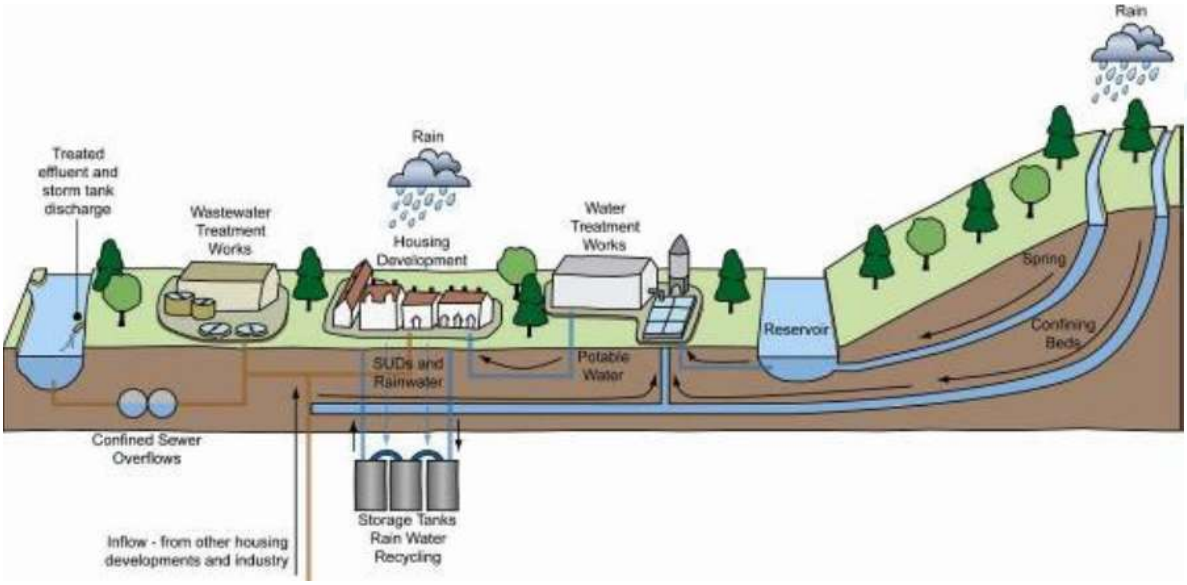
- Phase 1: Scoping study, focussing on formation of a steering group, identifying issues for consideration and the need for an outline study.
- Phase 2: Outline study, to identify environmental constraints, infrastructure constraints, a sustainability assessment and consideration of whether a detailed study is required.
- Phase 3: Detailed study, to identify infrastructure requirements, when they are required, how they will be funded and implemented and an overall assessment of the sustainability of proposed infrastructure.

Figure 1.1 below shows the main elements that compromise the Water Cycle and shows how the natural and man-made processes and systems interact to collect, store or transport water in the environment.

1 Planning Practice Guidance: Water supply, wastewater and water quality, Department for Communities and Local Government (2014). Accessed online at: http://planningguidance.planningportal.gov.uk/blog/guidance/ on: 06/07/2020

2 Water Cycle Study Guidance, Environment Agency (2009). Accessed online at: http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/geho0109bpff-e-e.pdf on: 06/07/2020

Figure 1.1 The Water Cycle



1.3 Impacts of Development on the Water Cycle

New homes require the provision of clean water, safe disposal of wastewater and protection from flooding. It is possible that allocating large numbers of new homes at some locations may result in the capacity of the existing available infrastructure being exceeded. This situation could potentially lead to service failures to water and wastewater customers, have adverse impacts on the environment or cause the high cost of upgrading water and wastewater assets being passed on to bill payers. Climate change presents further challenges such as increased intensity and frequency of rainfall and a higher frequency of drought events that can be expected to put greater pressure on the existing infrastructure.

1.4 Objectives

As a WCS is not a mandatory document, Local Planning Authorities are advised to prioritise the different stages of the WCS to integrate with their Local Plan programme. This scoping report is written to support the Babergh & Mid Suffolk Local Plan Review.

The WCS brief from Babergh & Mid Suffolk District Councils stated that the overall objective of the WCS is to understand the environmental and physical constraints of development and identify opportunities for more sustainable planning and improvements that may be required to achieve the required level of development. This should be assessed by considering the following issues:

- Water demand and supply;
- Wastewater infrastructure and treatment;
- Water quality and the environment;
- Flood risk and drainage.

The EA guidance requires a WCS to consider a range of key questions. Table 1.1 signposts where in this document these questions are addressed:

Table 1.1 Compliance with Environment Agency guidance

Outline study questions	Comments	Location of evidence
Is there enough water?	Has the water company's twin track approach to water resources made sure that there is enough water available to serve the projected growth levels?	Section 4
Will there be a water quality impact?	Can the existing sewerage and wastewater treatment networks cope with the increased load, and can the environment cope with the resulting increased flow and pollutant loads from the treated effluent? If not, are there alternative discharge locations that will not cause a failure of water quality targets? Is there an increased risk of storm water overflows causing an adverse water quality impact?	Section 7 Section 9 Section 11
Can development be accommodated without increasing flood risk?	The outline WCS needs to work alongside the SFRA and identify if there is there sufficient land at low risk of flooding for all the proposed development. Will rain water be adequately managed to prevent surface water flooding in the development or elsewhere? Will increased discharge from WwTWs increase flood risk?	Section 10
Are there other location specific environmental risks that need to be considered?	For example, relating to biodiversity or conservation requirements?	Section 11
What constraints are there on increasing capacity?	The outline study needs to summarise the answers to the questions above and identify where there are environmental or infrastructure constraints.	Section 5 Section 6 Section 7
What opportunities are there for changing proposed development location?	The outline study needs to inform core strategy decisions and compare major infrastructure provision for different options for development.	The outputs of this report should be used to inform local plan policy
Are there outstanding concerns about infrastructure provision?	That need to be addressed in a detailed WCS.	Section 13

1.5 Study Area

Babergh & Mid Suffolk District Councils cover an area of approximately 1,463km^2. The population of Babergh District is 87,740; Mid Suffolk population is 96,731, reported in the 2011 census. Across both districts, more than half of the population live in villages and rural areas, and the main centres are Eye, Needham Market and Stowmarket in Mid Suffolk and Pinewood, Hadleigh and Sudbury in Babergh.

Babergh & Mid Suffolk are located within the Anglian River Basin District, and contain the Stour, River Brett, River Gipping, River Deben and River Dove, which are the major waterbodies in the county.

Water supply is provided by Anglian Water (AW) and Essex & Suffolk Water (ESW). Wastewater services are provided by Anglian Water.

1.6 Record of Engagement

1.6.1 Introduction

Preparation of a WCS requires significant engagement with stakeholders, within the Local Planning Authority area, with water and wastewater utilities, with the Environment Agency and Natural England, and where there may be cross-boundary issues, with neighbouring local authorities. This section forms a record of engagement for the WCS.

1.6.2 Engagement

The preparation of this WCS was supported by the following engagement:

Inception meeting

Engaged Parties	Babergh & Mid Suffolk District Councils Environment Agency
Details	Scope of works and data collection requirements reviewed.

Neighbouring authorities

Engaged Parties	South Norfolk District Council East Suffolk District Council West Suffolk District Council Ipswich Borough Council Colchester Borough Council
Details	Request for water cycle studies conducted in their area, and housing growth that would be served by WRC within or shared with Babergh & Mid Suffolk District Councils. Braintree District Council, Breckland District Council, and Tendring District Council, were not contacted as they are not believed to share significant water infrastructure across their boundary.

Collaboration with Water Companies

Engaged Parties	Anglian Water Essex & Suffolk Water
Details	Water company assessments of water and wastewater infrastructure and capacity constraints.

Discussions on water quality and environmental impact

Engaged Parties	Babergh & Mid Suffolk District Councils Environment Agency Natural England
Details	Discussion on water quality modelling methodology and guidance on likely impact on protected sites.

2 Future Growth in Babergh & Mid Suffolk

2.1 Overview

Babergh & Mid Suffolk District Councils are creating a joint local plan, which will run from 2018 to 2037. The housing need is predicted to be 420/year for Babergh & 535/year for Mid Suffolk. The following section summarises how each council is expected to grow during the plan period and allows a forecast to be created that can used to predict the volume of water and wastewater required in the future and the resulting pressure on water infrastructure.

This forecast consists of:

- Potential Allocations - sites allocated, or planned to be allocated in Local Plans (shown in Figure 2.1)
- Sites with extant planning permission – sites already in the planning system (shown in Figure 2.2)
- Recent completions – sites completed in the last year that may not yet appear in flow data provided by the water companies (shown in Figure 2.2)
- Windfall – sites that have not been specifically identified in the Local Plan. They normally comprise previously developed sites that have unexpectedly become available
- Neighbouring authority growth – growth served by infrastructure within or shared with the study area

Information on expected growth during the plan period was provided by BMSDC and collated into a forecast for housing and employment floor space. Table 2.1 below contains a summary of this forecast. It should be noted that the number of dwellings forecast if all the potential allocations were to come forward in the Local Plan is higher than the housing need. The WCS assumes that all of the allocations in each wastewater catchment are allocated as a "worst case" for infrastructure demand. In the reality the WCS can provide information to guide final selection of sites to be included in the plan.

A map of the study area showing the relative locations of the local authorities is found in Figure 2.1.

Table 2.1 Overall Growth in BMSDC area

Type of Growth	Number of Houses	Employment floorspace (m^2)
Babergh		
Potential Allocations	7,639* (Draft JLP proposes 4,900 houses)	996,000
Windfall	500	0
Extant planning permissions (at 01/04/2018)	4,036	
Mid Suffolk		
Potential Allocations	10,220* (Draft JLP proposes 8,390 houses)	1,512,000
Windfall	500	0
Extant planning permissions (at 01/04/2018)	3,831	

* This figure includes all of the potential allocations, not all of which will be adopted in the local plan. BMSDC provided an estimate of Windfall during the plan period. In order

to create a forecast of water demand, the Windfall estimate was split between wastewater catchments based on the level of growth (from allocations and commitments) already forecast in each catchment.

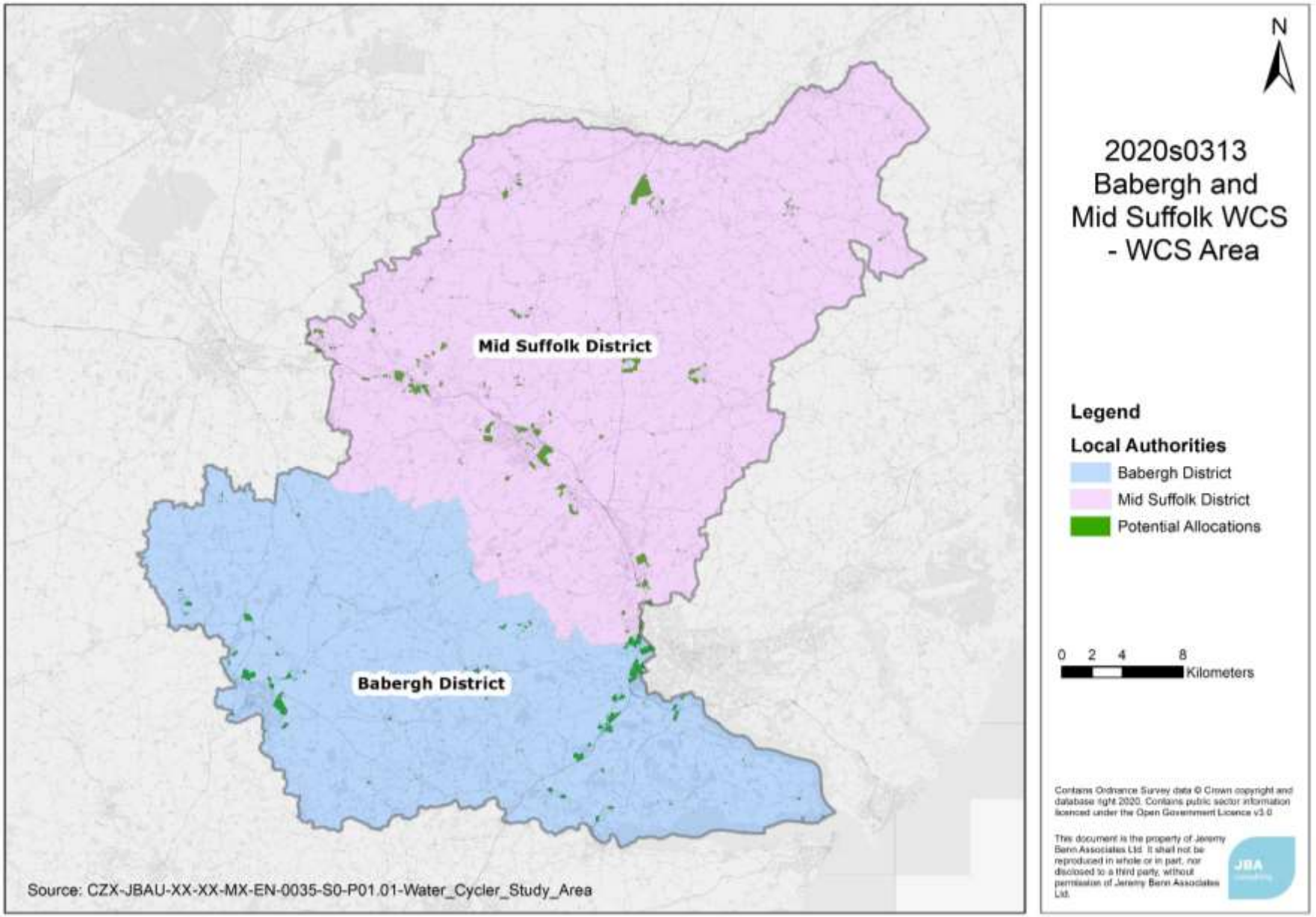


Figure 2.1 Water Cycle Study Area

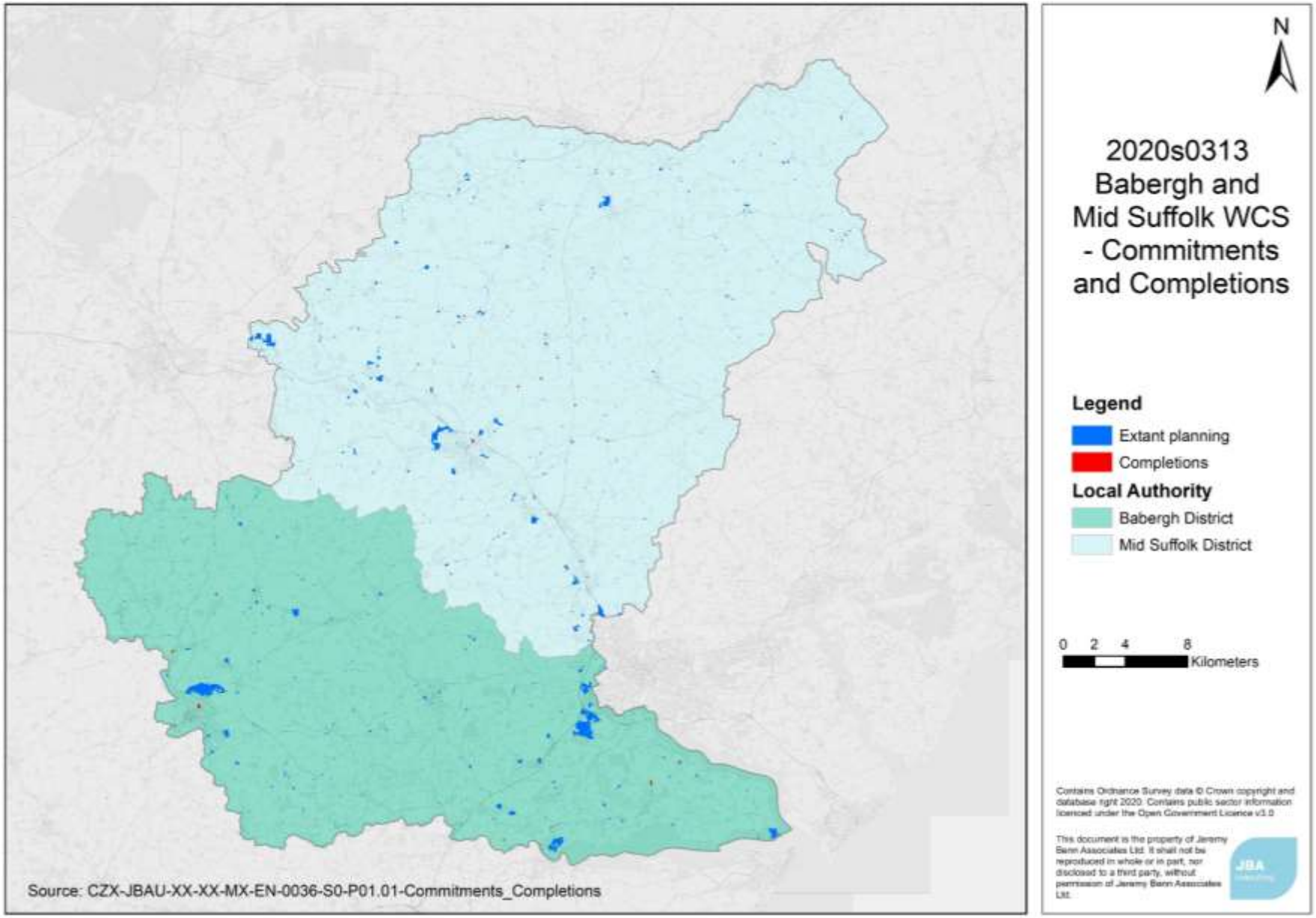


Figure 2.2 Commitments and Completions

Details of all sites, including estimates of water and wastewater demand, are included in the Site Tracker spreadsheet in Appendix A.

2.2 Spatial distribution of growth

The BMSDC Preferred options consultation[3] outlines the spatial distribution of development sites within the Joint Local Plan (at the Reg. 18 stage). This is summarised in Table 2.2 below. Whilst this data table represents an earlier position in JLP process, it can be seen from the distribution between the settlement hierarchy, and from mapping in Figure 2.1 and Figure 2.2 that whilst much of the growth is focussed on the fringe of Ipswich, and in Market towns, a significant proportion is located in Core Villages, Hinterland Villages and Hamlets. This distribution of growth can have the advantage of spreading the environmental impact of the local of plan across a wider area and so the impact in any one area is reduced, however it can also increase the requirement for additional infrastructure as upgrades may be required at a greater number of locations.

Table 2.2 Spatial distribution of growth (at Reg 18 stage)

Settlement Hierarchy	Distribution of new houses in Babergh	Distribution of houses in Mid Suffolk
Ipswich Fringe	24%	15%
Market Towns and Urban Areas	30%	25%
Core Villages	28%	43%
Hinterland Villages	10%	10%
Hamlets	3%	4%
Windfall	5%	4%

2.3 Growth outside Babergh & Mid Suffolk Districts

2.3.1 Overview

Where growth within a neighbouring Local Planning Authority (LPA) area may be served by infrastructure within or shared with Babergh & Mid Suffolk, the LPA were contacted as part of a duty to cooperate request to provide information on:

- The latest growth forecast (housing and employment) for the district
- Details of future growth within the catchments of WRC which serve part of their council area and BMSDC.

Where specific trajectory was not given by the neighbouring councils, committed development was spread evenly over the next five years (2018/19 to 2022/23) and Local Plan development was spread evenly from 2018/19 to the end of the Local Plan period.

2.3.2 South Norfolk District Council

Diss WRC is predicted to serve growth in both the BMSDC area and the town of Diss in South Norfolk. Information provided by South Norfolk District Council is summarised in Table 2.3.

3 Joint Local Plan – Preferred Options (Reg 18) – July 2019, Babergh & Mid Suffolk District Councils (2019). Accessed online at: https://www.midsuffolk.gov.uk/assets/Strategic-Planning/JLP-Reg18-2019/BMSDC-JLP-2019-Part-1-Objectives-and-Strategic-Policies.pdf on: 07/07/2020

Table 2.3 Summary of growth in South Norfolk served by infrastructure shared with Mid Suffolk.

WRC	Proposed number of dwellings	Employment floor space (m^2)	Period
Diss	1,156	43,200	2020-2035

2.3.3 East Suffolk District Council

Two WRC catchments are expected to be shared with East Suffolk District Council, who provided information on growth served by Ipswich – Cliff Quay WRC (which also serves the city of Ipswich), and Halesworth WRC. This is summarised in Table 2.5.

Table 2.4 Summary of growth in East Suffolk served by infrastructure shared with Babergh

WRC	Proposed number of dwellings	Employment floor space (m^2)	Period
Ipswich – Cliff Quay	395	83,912	2020-2035
Halesworth	705	11,565	2020-2035

2.3.4 Ipswich Borough Council

Ipswich – Cliff Quay WRC serves the majority of Ipswich town and is expected to also serve growth within the BMSDC area. Growth within this WRC was taken from the Ipswich Water Cycle Study and summarised below in Table 2.6.

Table 2.5 Summary of growth in Ipswich Borough served by infrastructure shared with Babergh

WRC	Proposed number of dwellings	Employment floor space (m^2)	Period
Ipswich – Cliff Quay	9,243	118,605	2020-2035

2.3.5 West Suffolk District Council

Thurston WRC is expected to serve growth in both BMSDC and West Suffolk (the town of Great Barton). West Suffolk District Council provided details of growth within this catchment that is summarised in Table 2.7 below.

Table 2.6 Summary of growth in West Suffolk served by infrastructure shared with Mid Suffolk

WRC	Proposed number of dwellings	Employment floor space (m^2)	Period
Thurston	150	0	2020-2035

2.3.6 Other neighbouring authorities

The remaining authorities neighbouring Babergh & Mid Suffolk (Braintree, Colchester and Tendring) are not expected to share any wastewater infrastructure with Babergh & Mid Suffolk, and therefore growth in these authorities have not been considered as part of this study.

3 Legislative and Policy Framework

3.1 Introduction

The following sections introduce several national, regional and local policies that must be considered by the LPA, water companies and developers during the planning stage. Key extracts from these policies relating to water consumption targets and mitigating the impacts on the water from the new development are summarised below.

3.2 National Policy

3.2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF)[4] was published on 27th March 2012, as part of reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth. A comprehensive revision was issued in July 2018. This was further revised in February 2019[5], but the changes were not significant from the July 2018 version for policy areas relevant to the WCS. The NPPF provides guidance to planning authorities to take account of flood risk and water and wastewater infrastructure delivery in their Local Plans. Key paragraphs include:

Paragraph 34:

> *"Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan."*

Paragraph 149:

> *"Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply..."*

Paragraph 170 (e):

> *"…preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans".*

In March 2014, the Planning Practice Guidance was issued by the Department for Communities and Local Government, with the intention of providing guidance on the application of the National Planning Policy Framework (NPPF) in England. The MHCLG is in the process of updating the Guidance to consider the necessary 2018 and 2019 updates of the NPPF. Of the sections relevant to this study, only the Water Supply, Wastewater and Water Quality section has been updated.

- Flood Risk and Coastal Change[6]

4 National Planning Policy Framework, Department for Communities and Local Government (2012)
5 National Planning Policy Framework, Ministry of Housing, Communities and Local Government (2019). Accessed online at: https://www.gov.uk/government/publications/national-planning-policy-framework--2 on: 06/07/2020
6 Planning Practice Guidance: Flood Risk and Coastal Change, Department for Communities and Local Government (2014). Accessed online at: http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/ on: 28/05/2020.

- Water Supply, Wastewater and Water Quality[7].
- Housing - Optional Technical Standards[8].

3.2.2 Planning Practice Guidance: Flood Risk and Coastal Change

Diagram 1 in the Planning Practice Guidance sets out how flood risk should be considered in the preparation of Local Plans (

7 Planning Practice Guidance: Water supply, wastewater and water quality, Department for Communities and Local Government (2014). Accessed online at: https://www.gov.uk/guidance/water-supply-wastewater-and-water-quality on: 06/07/2020

8 Planning Practice Guidance: Housing - Optional Technical Standards, Department for Communities and Local Government (2014). Accessed online at: https://www.gov.uk/guidance/housing-optional-technical-standards on: 28/05/2020

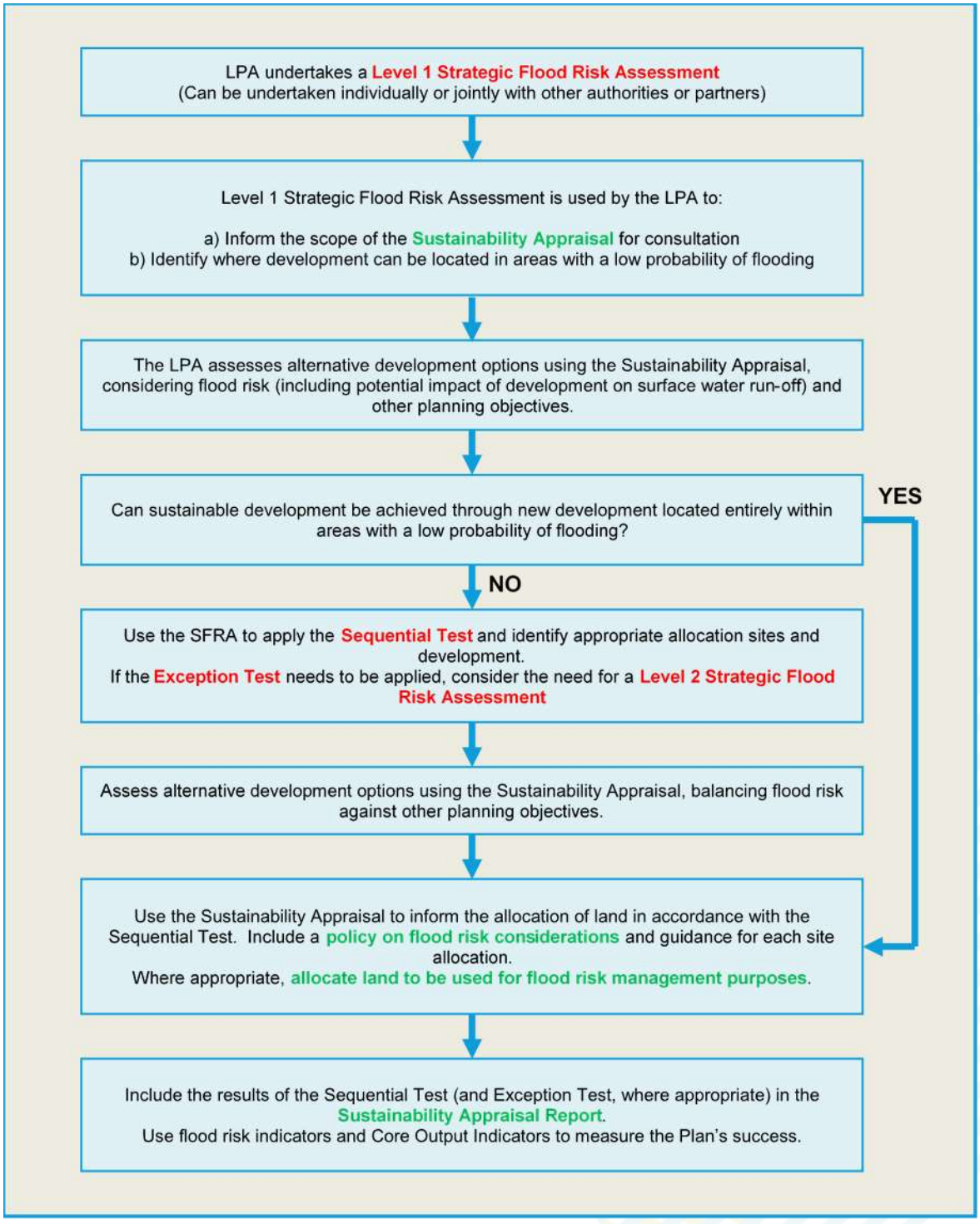
Figure 3.1). These requirements are addressed principally in the Council's Strategic Flood Risk Assessment.

3.2.3 Planning Practice Guidance: Water Supply, Wastewater and Water Quality

A summary of the specific guidance on how infrastructure, water supply, wastewater and water quality considerations should be accounted for in both plan-making and planning applications is summarised below in

Figure 3.2.

Figure 3.1 Flood Risk and the Preparation of Local Plans[9]



9 Based on Diagram 1 of NPPF Planning Practice Guidance: Flood Risk and Coastal Change (paragraph 004, Reference ID: 7-021-20140306

Figure 3.2 PPG: Water supply, wastewater and water quality considerations for plan-making and planning applications

Plan-making		Planning applications
Infrastructure	Identification of suitable sites for new or enhanced infrastructure. Consider whether new development is appropriate near to water and wastewater infrastructure. Phasing new development so that water and wastewater infrastructure will be in place when needed.	Wastewater considerations include: First presumption is to provide a system for foul drainage discharging into a public sewer. Phasing of development and infrastructure, ensuring no occupation of properties until adequate infrastructure is in place. Circumstances where package sewage treatment plants or septic tanks are applicable.
Water supply	Not Specified	Planning for the necessary water supply would normally be addressed through the Local Plan, exceptions might include: Large developments not identified in Local Plans; Where a Local Plan requires enhanced water efficiency in new developments. This is recommended in all areas of water stress.
Water quality	How to help protect and enhance local surface water and groundwater in ways that allow new development to proceed and avoids costly assessment at the planning application stage. The type or location of new development where an assessment of the potential impacts on water bodies may be required. Expectations relating to sustainable drainage systems.	Water quality is only likely to be a significant planning concern when a proposal would: Involve physical modifications to a water body; Indirectly affect water bodies, for example as a result of new development such as the redevelopment of land that may be affected by contamination etc. or through a lack of adequate infrastructure to deal with wastewater. Directly or indirectly result in a deterioration in water quality or a breach of environmental legislation as a result of adequate infrastructure in place to accommodate additional development pressures.
Wastewater	The sufficiency and capacity of wastewater infrastructure. The circumstances where wastewater from new development would not be expected to drain to a public sewer.	If there are concerns arising from a planning application about the capacity of wastewater infrastructure, applicants will be asked to provide evidence of initial liaison with AW with reference to plans to accommodate additional wastewater flows or provide information about how the proposed development will be drained and wastewater dealt with.
Cross-boundary concerns	Water supply and water quality concerns often cross local authority boundaries and can be best considered on a catchment basis. Recommends liaison from the outset.	No specific guidance (relevant to some developments).

SEA and Sustainability	Water supply and quality are considerations in strategic environmental assessment and sustainability appraisal ... sustainability appraisal objectives could include preventing deterioration of current water body status, taking climate change into account and seeking opportunities to improve water bodies.		No specific guidance (should be considered in applications).

3.2.4 Planning Practice Guidance: Housing – Optional Technical Standards

This guidance, advises planning authorities on how to gather evidence to set optional requirements, including for water efficiency. It states that "all new homes already have to meet the mandatory national standard set out in the Building Regulations (of 125 litres/person/day). Where there is a clear local need, local planning authorities can set out Local Plan policies requiring new dwellings to meet the tighter Building Regulations optional requirement of 110 litres/person/day. Planning authorities are advised to consult with the EA and water companies to determine where there is a clear local need, and also to consider the impact of setting this optional standard on housing viability. A 2014 study[10] into the cost of implementing sustainability measures in housing found that meeting a standard of 110 litres per person per day would cost only £9 for a four-bedroom house. Within the Essex & Suffolk Water supply area (see Figure 4.10) development can benefit from a discount in the infrastructure charge if new housing is built to achieve a consumption of no more than 105 l/p/d.

3.2.5 Building Regulations

The Building Regulations (2010) Part G[11] was amended in early 2015 to require that all new dwellings must ensure that the potential water consumption must not exceed 125 litres/person/day, or 110 litres/person/day where required under planning conditions.

3.2.6 BRE Standards

The Building Research Establishment (BRE) publish an internationally recognised environmental assessment methodology for assessing, rating and certifying the sustainability of a range of buildings.

New homes are most appropriately covered by the Home Quality Mark[12], and commercial, leisure, educational facilities and mixed-use buildings by the Building Research Establishment Environmental Assessment Methodology (BREEAM) UK New Construction Standard[13].

Using independent, licensed assessors, BREEAM/HQM assesses criteria covering a range of issues in categories that evaluate energy and water use, health and wellbeing, pollution, transport, materials, waste, ecology and management processes.

In the Homes Quality Mark, 400 credits are available across 11 categories and lead to a star rating. 18 credits are available for water efficiency and water recycling. A greater number of credits are awarded for homes using water efficient fittings (with the highest score achieving 100l/p/d or less), and further credits are awarded for the percentage of water used in toilet flushing that is either sourced from rainwater or from grey water.

The BREEAM New Construction Standard awards credits across nine categories, four of which are related to water: water consumption, water monitoring, leak detection and water efficient equipment. This leads to a percentage score and a rating from "Pass" to "Outstanding".

The Councils have the opportunity to seek BREEAM or HQM status for all new, residential and non-residential buildings.

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10 Housing Standards Review: Cost Impacts, Department for Communities and Local Government (2014). Accessed online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/353387/021c_Cost_Report_11th_Sept_2014_FINAL.pdf on: 28/05/2020

11 The Building Regulations (2010) Part G - Sanitation, hot water safety and water efficiency, 2015 edition with 2016 amendments. HM Government (2016). Accessed online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504207/BR_PDF_AD_G_2015_with_2016_amendments.pdf on: 28/05/2020

12 Home Quality Mark, BRE, (2018). Accessed online at: https://www.homequalitymark.com/professionals/standard/ on: 16/04/2020

13 BREEAM UK New Construction, BRE, (2018). Accessed online at: https://www.breeam.com/NC2018/ on: 16/04/2020

3.2.7 Sustainable Drainage Systems (SuDS)

From April 2015, Local Planning Authorities (LPA) have been given the responsibility for ensuring that sustainable drainage is implemented on developments of 10 or more homes or other forms of major development through the planning system. Under the new arrangements, the key policy and standards relating to the application of SuDS to new developments are:

- The National Planning Policy Framework, which requires that development in areas already at risk of flooding should give priority to sustainable drainage systems.
- The House of Commons written statement[14] setting out governments intentions that LPAs should "ensure that sustainable drainage systems for the management of run-off are put in place, unless demonstrated to be inappropriate" and "clear arrangements in place for ongoing maintenance over the lifetime of the development." This requirement is also now incorporated in the 2019 update of the NPPF (paragraph 165). In practice, this has been implemented by making Lead Local Flood Authorities (LLFAs) statutory consultees on the drainage arrangements of major developments.
- The Defra non-statutory technical standards for sustainable drainage systems[15]. These set out the government's high-level requirements for managing peak flows and runoff volumes, flood risk from drainage systems and the structural integrity and construction of SuDS. This very short document is not a design manual and makes no reference to the other benefits of SuDS, for example water quality, habitat and amenity.
- Suffolk Council is the LLFA in the area and play a key role in ensuring that the proposed drainage schemes for all new developments comply with technical standards and policies in relation to SuDS. Suffolk Council's" Sustainable Drainage Systems (SuDS) a Local Design Guide"[16] contains guidance for the design and application of SuDS in Suffolk.
- An updated version of the CIRIA SuDS Manual[17] was published in 2015. The guidance covers the planning, design, construction and maintenance of SuDS for effective implementation within both new and existing developments. The guidance is relevant for a range of roles with the level of technical detail increasing throughout the manual. The guidance does not include detailed information on planning requirements, SuDS approval and adoption processes and standards, as these vary by region and should be checked early in the planning process.
- CIRIA also publish "Guidance on the Construction of SuDS" (C768)[18], which contains detailed guidance on all aspects of SuDS construction, with specific information on each SuDS component available as a downloadable chapter.

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14 Sustainable drainage systems: Written statement - HCWS161, UK Government (2014). Accessed online at: http://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2014-12-18/HCWS161/ on: 28/05/2020

15 Sustainable Drainage Systems: Non-statutory technical standards for sustainable drainage systems, Defra (2015). Accessed online at: https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards on: 28/05/2020

16 Sustainable Drainage Systems (SuDS) a Local Design Guide (2018) Accessed online at: https://www.suffolk.gov.uk/assets/Roads-and-transport/Flooding-and-drainage/Strategy-Apendicies/2018-10-01-SFRMS-SuDS-Guidance-Appendix-A-.pdf on: 28/05/2020

17 The SuDS Manual (C753), CIRIA (2015).

18 Guidance on the Construction of SuDS (C768), CIRIA (2017), Accessed online at: https://www.ciria.org/ItemDetail?iProductcode=C768&Category=BOOK on: 28/05/2020

- Anglian Water have a SuDS adoption manual[19], which includes types of SuDS as well as options and maintenance information. Additionally, Anglian Water has a preferred method of surface water disposal of using a sustainable drainage system (SUDS) with connection to sewer seen as the last option. This is in line with the NPPF (Para 163).
- As of April 2020, the new Design and Construction Guidance (DCG) came into force in England. This contains details of the water sector's approach to the adoption of SuDS, which meet the legal definition of a sewer. The guidance replaces Sewers for Adoption 8 as the government made the decision not to implement Schedule 3 of the Flood and Water Management Act 2010. It differs from previous Sewers for Adoption guidance as compliance by water companies in England is now mandatory

3.3 Regional Policy

3.3.1 Catchment Flood Management Plans

Catchment Flood Management Plans (CFMP) are high level policy documents covering large river basin catchments. They aim to set policies for sustainable flood risk management for the whole catchment covering the next 50 to 100 years. . The CFMPs relevant to the study area are:

- North Essex Catchment Flood Management Plan (2009)[20]
- East Suffolk Catchment Flood Management Plan (2009)[21]
- Broadland Rivers Catchment Flood Management Plan (2009)[22]

3.3.2 Surface Water Management Plans (SWMPs)

SWMPs outline the preferred surface water management strategy in a given location and establish a long-term action plan to manage surface water. SWMPs are undertaken, when required, by LLFAs in consultation with key local partners who are responsible for surface water management and drainage in their area. The only SWMP that has been conducted for the area so far is Sudbury & Great Cornard[23].

3.4 Local Policy

3.4.1 Localism Act

The Localism Act (2011) changes the powers of local government, it re-distributes the balance of decision making from central government back to councils, communities and individuals. In relation to the planning of sustainable development, provision 110 of the Act places a duty to cooperate on Local Authorities. This duty requires Local Authorities to *"engage constructively, actively and on an ongoing basis in any process by means of*

19 Anglian Water SuDS Adoption Manual (n.d). Accessed online at: https://www.anglianwater.co.uk/siteassets/developers/aw_suds_manual_aw_fp_web.pdf on: 28/05/2020
20 North Essex Catchment Flood Management Plan (2009), accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288888/North_Essex_Catchment_Flood_Management_Plan.pdf on: 28/05/2020
21 East Suffolk Catchment Flood Management Plan (2009) Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288886/East_Suffolk_Catchment_Flood_Management_Plan.pdf on: 28/05/2020
22 Broadland Rivers Catchment Flood Management Plan (2009) Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288882/Broadland_Rivers_Catchment_Flood_Management_Plan.pdf on: 28/05/2020
23 Sudbury and Great Cornard Surface Water Management Plan (2019) Accessed online at: http://www.greensuffolk.org/assets/Greenest-County/Water--Coast/Surface-Water-Management-Plans/FINALSudburyandGreatCornardSWMPv3.pdf on 28/05/2020

which development plan documents are prepared so far as relating to a strategic matter"[24].

The Localism Act also provides new rights to allow local communities to come together and shape the development and growth of their area by preparing Neighbourhood Development Plans, or Neighbourhood Development Orders, where the ambition of the neighbourhood is aligned with strategic needs and priorities for the area. This means that local people can decide where new homes and businesses should go and also what they should look like. As neighbourhoods draw up their proposals, Local Planning Authorities are required to provide technical advice and support.

3.5 International Environmental Policy

3.5.1 Ramsar

The Convention on Wetlands of International Importance, more commonly known as the Ramsar convention after the city where it was signed in 1971, aims to protect important wetland sites. Under the treaty, member counties commit to:

- Wise use of all their wetlands
- Designating sites for the Ramsar list of "Wetlands of International Importance" (Ramsar Sites) and their conservation
- Cooperating on transboundary wetlands and other shared interests.

"Wise use" of wetlands is defined under the convention as "the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development". A handbook on the wise use of wetlands is available from the Ramsar Convention Secretariat[25].

Ramsar Sites are designated by the National Administrative Authority, responsible for the Ramsar Convention in each country. In the case of the UK this is the Joint Nature Conservation Committee (JNCC).

In general, the designation of UK Ramsar sites is underpinned through prior notification of these areas as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife and Countryside Act 1981 (as amended). More recently, Paragraph 176 of the NPPF states that Ramsar sites should be given the same protection in the planning process as sites designated under the EU Habitats Directive.

3.6 Environmental Policy

3.6.1 Urban Wastewater Treatment Directive (UWWTD)

The UWWTD[26] is an EU Directive that concerns the collection, treatment and discharge of urban wastewater and the treatment and discharge of wastewater from certain industrial sectors. The objective of the Directive is to protect the environment from the adverse effects of wastewater discharges. More specifically Annex II A(a) sets out the requirements for discharges from urban wastewater treatment plants to sensitive areas which are subject to eutrophication. The Directive has been transposed into UK legislation through enactment of the Urban Waste Water Treatment (England and Wales) Regulations 1994 and 'The Urban Waste Water Treatment (England and Wales) (Amendments) Regulations 2003'.

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24 Localism Act 2011: Section 110, UK Government (2011). Accessed online at: http://www.legislation.gov.uk/ukpga/2011/20/section/110 on: 01/06/2020
25 Wise use of wetlands, Ramsar Convention Secretariat (2010). Accessed online at: https://www.ramsar.org/sites/default/files/documents/library/hbk4-01.pdf on: 01/06/2020
26 UWWTD. Accessed online at: https://ec.europa.eu/environment/water/water-urbanwaste/index_en.html On:01/05/2020.

3.6.2 Habitats Directive

The EU Habitats Directive aims to protect the wild plants, animals and habitats that make up our diverse natural environment. The directive created a network of protected areas around the European Union of national and international importance called Natura 2000 sites. These include:

- Special Areas of Conservation (SACs) - support rare, endangered or vulnerable natural habitats, plants and animals (other than birds).
- Special Protection Areas (SPAs) - support significant numbers of wild birds and habitats.

Special Protection Areas and Special Areas of Conservation are established under the EC Birds Directive and Habitats Directive respectively. The directive also protects over 1,000 animals and plant species and over 200 so called "habitat types" (e.g. special types of forests, meadows, wetlands, etc.), which are of European importance.

3.6.3 The Water Framework Directive

The Water Framework Directive (WFD) was first published in December 2000 and transposed into English and Welsh law in December 2003. It introduced a more rigorous concept of what "good status" should mean than the previous environmental quality measures.

River Basin Management Plans (RBMP) are required under the WFD and document the baseline classification of each waterbody in the plan area, the objectives, and a programme of measures to achieve those objectives. Mid Suffolk and Babergh falls within the Anglian River Basin District (RBD)[27]. Under the WFD the RBMPs, which were originally published in December 2009 were reviewed and updated in December 2015. A primary WFD objective is to ensure 'no deterioration' in environmental status, therefore all water bodies must meet the class limits for their status class as declared in the Anglian River Basin Management Plan. Another equally important objective requires all water bodies to achieve good ecological status. Future development needs to be planned carefully so that it helps towards achieving the WFD and does not result in further pressure on the water environment and compromise WFD objectives. The WFD objectives as outlined in the updated RBMPs are summarised below:

Main Issues:

- Physical modifications
- Pollution from wastewater
- Pollution from towns, cities and transport
- Changes to the natural flow and level of water
- Negative effects of invasive non-native species
- Pollution from rural areas

Objectives

- Prevent deterioration of the status of surface waters and groundwater
- Achieve objectives and standards for protected areas
- Achieve good status for all water bodies or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status
- Reverse any significant and sustained upward trends in pollutant concentrations in groundwater

27 Anglian River Basin District River Basin Management Plan: 2015, Environment Agency (2015). Accessed at: https://www.gov.uk/government/publications/anglian-river-basin-district-river-basin-management-plan on: 01/06/2020

- Stop discharges/emissions of priority hazardous substances into surface waters
- Progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants

Local Planning Authorities (LPAs) must have regard to the Water Framework Directive and associated statutory objectives as implemented in the Environment Agency's River Basin Management Plans. It is of primary importance when assessing the impact of additional wastewater flow discharges on local river quality.

3.6.4 Protected Area Objectives

The WFD specifies that areas requiring special protection under other EC Directives, and waters used for the abstraction of drinking water, are identified as protected areas. These areas have their own objectives and standards.

Article 4 of the WFD required Member States to achieve compliance with the standards and objectives set for each protected area by 22 December 2015, unless otherwise specified in the Community legislation under which the protected area was established. Some areas may require special protection under more than one EC Directive or may have additional (surface water and/or groundwater) objectives. In these cases, all the objectives and standards must be met.

The types of protected areas are:

- Areas designated for the abstraction of water for human consumption (Drinking Water Protected Areas)
- Areas designated for the protection of economically significant aquatic species (Freshwater Fish and Shellfish)
- Bodies of water designated as recreational waters, including Bathing Waters;
- Nutrient-sensitive areas, including areas identified as Nitrate Vulnerable Zones under the Nitrates Directive or areas designated as sensitive under Urban Waste Water Treatment Directive (UWWTD)
- Areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection including relevant Natura 2000 sites

Many WFD protected areas coincide with water bodies; these areas will need to achieve the water body status objectives in addition to the protected area objectives. Where water body boundaries overlap with protected areas the most stringent objective applies; that is the requirements of one EC Directive should not undermine the requirements of another. The objectives for Protected Areas relevant to this study are as follows:

Drinking Water Protected Areas

- Ensure that, under the water treatment regime applied, the drinking water produced meets the requirements of the Drinking Water Directive plus any UK requirements to make sure that drinking water is safe to drink
- Ensure the necessary protection to prevent deterioration in the water quality in the protected area in order to reduce the level of purification treatment required

Economically Significant Species (Freshwater Fish Waters)

- Protect or improve the quality of running or standing freshwater to enable them to support fish belonging to indigenous species offering a natural diversity; or species, the presence of which is judged desirable for water management purposes by the competent authorities of the Member States

Nutrient Sensitive Areas (Nitrate Vulnerable Zones)

- Reduce water pollution caused or induced by nitrates from agricultural sources
- Prevent further such pollution

Nutrient Sensitive Areas (Urban Waste Water Treatment Directive)

- Protect the environment from the adverse effects of urban waste water discharges and waste water discharges from certain industrial sectors

Natura 2000 Protected Areas (water dependent SACs and SPAs)

The objective for Natura 2000 Protected Areas identified in relation to relevant areas designated under the Habitats Directive or Birds Directive is to:

- Protect and, where necessary, improve the status of the water environment to the extent necessary to achieve the conservation objectives that have been established for the protection or improvement of the site's natural habitat types and species of importance

3.6.5 Groundwater Source Protection Zones

The Environment Agency has a Groundwater Protection Policy to help prevent groundwater pollution. In conjunction with this the Environment Agency have defined groundwater Source Protection Zones (SPZs) to help identify high risk areas and implement pollution prevention measures. The SPZs show the risk of contamination from activities that may cause pollution in the area, the closer the activity, the greater the risk. There are three main zones (inner, outer and total catchment) and a fourth zone of special interest which is occasionally applied.

Zone 1 (Inner protection zone)

This zone is designed to protect against the transmission of toxic chemicals and water-borne disease. It indicates the area in which pollution can travel to the borehole within 50 days from any point within the zone and applies at and below the water table. There is also a minimum 50 metre protection radius around the borehole.

Zone 2 (Outer protection zone)

This zone indicates the area in which pollution takes up to 400 days to travel to the borehole, or 25% of the total catchment area, whichever area is the largest. This is the minimum length of time the Environment Agency think pollutants need to become diluted or reduce in strength by the time they reach the borehole.

Zone 3 (Total catchment)

This is the total area needed to support removal of water from the borehole, and to support any discharge from the borehole.

Zone of Special Interest

This is defined on occasions, usually where local conditions mean that industrial sites and other polluters could affect the groundwater source even though they are outside the normal catchment.

The Environment Agency's approach to Groundwater protection[28] sets out a series of position statements that detail how the Environment Agency delivers government policy on groundwater and protects the resources from contamination. The position statements that are relevant to this study with regard to discharges to groundwaters, include surface water drainage and the use of SuDS, discharges from contaminated surfaces (e.g. lorry parks) and from treated sewage effluent.

3.6.6 European Derived Legislation and Brexit

Much of the legislation behind the regulation of the water environment derives from the UK enactment of European Union (EU) directives. Following the departure of the United Kingdom from the European Union on 31st January 2020, this legislation remains in force during the transition period, until 31st December 2020. The UK government has

28 The Environment Agency's approach to groundwater protection, Environment Agency (2018). Accessed online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/598778/LIT_7660.pdf on: 01/06/2020

signalled that "the UK will in future develop separate and independent policies in areas such as … the environment … maintaining high standards as we do so."[29]

As the details of future changes to environmental regulation are not yet known, this study has used existing, European Union derived environmental legislation, most significantly the Water Framework Directive, to assess the environmental impacts of planned development during the plan period for the Local Plan. Should this situation change, a review of this Water Cycle Study may be required considering any new emerging regulatory regime.

3.7 UK Environmental Policy

3.7.1 Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2010 (commonly referred to as the Habitats Regulations) consolidated the Conservation (Natural Habitats, &c.) Regulations 1994, and transposed the EU Habitats Directive in England and Wales. This was further amended in 2017.

The Habitats Regulations define the requirement for a Habitats Regulations Assessment (HRA) to be carried out. The purpose of this is to determine if a plan or project may affect the protected features of a "habitats site". These include:

- A special area of conservation (SAC)
- A site of Community Importance
- A site hosting a priority natural habitat type or priority species protected in accordance with Article 5(4) of the Habitats Directive
- A Special Protection Area (SPA)
- A potential SPA

All plans and projects (including planning applications) which are not directly connected with, or necessary for the conservation management of a habitat site require consideration of whether the plan or project is likely to have significant effects on that site.

This is referred to as the "Habitats Regulations Assessment screening" and should take into account the potential effects of both the plan/project itself and in combination with other plans or projects.

Part 6 of the conservation of Habitats and Species Regulations 2017 states that where the potential for likely significant effects cannot be excluded, a competent authority must make an appropriate assessment of the implications of the plan or project for that site, in view of the site's conservation objectives.

The competent authority may agree to the plan or project only after having rules out adverse effects on the integrity of the habitats site.

If adverse effects cannot be rules out, and where there are no alternative solutions, the plan or project can only proceed if there are imperative reasons of over-riding public interest and if the necessary compensatory measures can be secured.

The "People over Wind" ECJ ruling (C-323/17) clarifies that when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any mitigation measures. This must be part of the appropriate assessment itself.

29 The Future Relationship between the UK and the EU (2020) Accessed online at: https://www.gov.uk/government/speeches/the-future-relationship-between-the-uk-and-the-eu on 01/06/2020

3.7.2 Wildlife and Countryside Act 1981

Sites of Special Scientific Interest (SSSI) are designated and legally protected under the Wildlife and Countryside Act 1981, Section 28G places a duty to take reasonable steps, consistent with the proper exercise of the authority's functions, to "further to the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest."[30]

The Government's 25-year Environment Plan[31] has a target of "restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term." In line with this, and the Wildlife and Countryside Act 1981, LPAs should put forward options that contribute to conservation or restoration of favourable condition, and at the very least must not introduce policies that hinder the restoration of favourable condition by increasing existing issues.

A site is said to be in "favourable condition" when the designated feature(s) within a unit are being adequately conserved and the results from monitoring demonstrate that the feature(s) in the unit are meeting all the mandatory site specific monitoring targets set out in the favourable condition targets (FCT).

3.7.3 The Natural Environment Rural Communities Act (NERC)

The Natural Environment and Rural Communities Act 2006 (commonly referred to the as the NERC Act), was intended to implement key aspects of the Government's Rural Strategy published in 2004 and established Natural England as a new independent body responsible for conserving, enhancing and managing England's natural environment.

Section 40 of the NERC Act places a duty to conserve biodiversity on public authorities, including Local Planning Authorities and water companies. "The public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity."[32]

Section 41 requires the Secretary of State to publish and maintain a list of species and types of habitat which in the Secretary of State's opinion (in consultation with Natural England) are of "principal importance for the purpose of conserving biodiversity."

3.8 Water Industry Policy

3.8.1 The Water Industry in England

Water and sewerage services in England and Wales are provided by 10 Water and Sewerage Companies (WaSCs) and 12 'water-only' companies. The central legislation relating to the industry is the Water Industry Act 1991. The companies operate as regulated monopolies within their supply regions, although very large water users and developments are able to obtain water and/or wastewater services from alternative suppliers - known as inset agreements.

The Water Act 2014 aims to reform the water industry to make it more innovative and to increase resilience to droughts and floods. Key measures could influence the future provision of water and wastewater services include:

- Non-domestic customers will be able to switch their water supplier and/or sewerage undertaker (from April 2017)
- New businesses will be able to enter the market to supply these services
- Measures to promote a national water supply network

30 Wildlife and Countryside Act 1981, HM Government (1981). Accessed online at: http://www.legislation.gov.uk/ukpga/1981/69/section/28G on: 01/06/2020
31 A Green Future: Our 25 Year Plan to Improve the Environment, HM Government (2018). Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf on: 01/06/2020
32 Natural Environment and Rural Communities Act 2006, HM Government (2006). Accessed online at: http://www.legislation.gov.uk/ukpga/2006/16/section/40 on: 11/05/2020

- Enabling developers to make connections to water and sewerage systems

3.8.2 Regulations of the Water Industry

The water industry is primarily regulated by three regulatory bodies;

- The Water Services Regulation Authority (OfWAT) – economic/ customer service regulation
- Environment Agency - environmental regulation
- Drinking Water Inspectorate (DWI) - drinking water quality

Every five years the industry submits a Business Plan to OfWAT for a Price Review (PR). These plans set out the companies' operational expenditure (OPEX) and capital expenditure (CAPEX) required to maintain service standards, enhance service (for example where sewer flooding occurs), to accommodate growth and to meet environmental objectives defined by the Environment Agency. OfWAT assesses and compares the plans with the objective of ensuring what are effectively supply monopolies and operating efficiently. The industry is currently in Asset Management Plan 6 (AMP6) which runs from 2015 to 2020.

When considering investment requirements to accommodate growing demand, water companies are required to ensure a high degree of certainty that additional assets will be required before funding them. Longer term growth is, however, considered by the companies in their internal asset planning processes and in their 25-year Strategic Direction Statements and WRMPs.

3.8.3 Water Resource Management Plans

Water Resource Management Plans (WRMPs) are 25-year strategies that water companies are required to prepare, with updates every five years. In reality, water companies prepare internal updates more regularly. WRMPs are required to assess:

- Future demand (due to population and economic growth)
- Future water availability (including the impact of sustainability reductions)
- Demand management and supply-side measures (e.g. water efficiency and leakage reduction, water transfers and new resource development)
- How the company will address changes to abstraction licences
- How the impacts of climate change will be mitigated

Where necessary, they set out the requirements for developing additional water resources to meet growing demand and describe how the balance between water supply and demand will be balanced over the period 2015 to 2040.

- Using cost-effective demand management, transfer, trading and resource development schemes to meet growth in demand from new development and to restore abstraction to sustainable levels.
- In the medium to long term, ensuring that sufficient water continues to be available for growth and that the supply systems are flexible enough to adapt to climate change.

The following WRMPs cover the Mid Suffolk and Babergh regions and are discussed in Section 4:

- Anglian Water - Water Resources Management Plan 2019[33]
- Essex & Suffolk Water - Final Water Resources Management Plan 2019[34]

33 Anglian Water – Water resources management plan 2019 Accessed online at: https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf on 01/06/2020
34 Essex & Suffolk Water – Final Water Resources Management Plan 2019 Accessed online at: https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/ on: 01/06/2020

3.8.4 Regional Water Resource Planning

Water resource planning is taking an increasingly regional focus, recognising the need for collaboration between water companies and sectors in order to address the challenges of climate change, increasing demand for water and protecting the water environment. Five regional groupings having been formed, including the Water Resource East (WRE) group, an alliance of 72 companies. Water Resources East (WRE) was formed in 2014 by Anglian Water, in aim to learn best practice on how to develop a more collaborative approach to water resource management. This group has a four-part strategy, which seeks to:

1 Reduce demand for water across all sectors
2 Retain and store more water in the landscape of the region
3 Move water into and around the region, from areas of surplus to areas of deficit
4 Explore alternative sources of water, including desalination and water re-use

WRE is starting to prepare a regional water resource plan for publication in 2022, which in turn will inform the next round of company WRMPs to be published in 2024. As part of this process, they have published an initial water resource position statement[35] which sets out the water resources challenges and opportunities within the region.

3.8.5 Drainage and Wastewater Management Plans

The UK Water Industry Research (UKWIR) "21st Century Drainage" programme has brought together water companies, governments, regulators, local authorities, academics and environmental groups to consider how planning can help to address the challenges of managing drainage in the future. These challenges include climate change, population growth, urban creep and meeting the Water Framework Directive.

The group recognised that great progress has been made by the water industry in its drainage and wastewater planning over the last few decades, but that, in the future, there needs to be greater transparency and consistency of long-term planning. The Drainage and Wastewater Management Plan (DWMP) framework[36] sets out how the industry intends to approach these goals, with the objective of the water companies publishing plans by the end of 2022, in order to inform their business plans for the 2024 Price Review.

DWMPs will be prepared for wastewater catchments or groups of catchments and will encompass surface water sewers within those areas which do not drain to a treatment works. The framework defines drainage to include all organisations and all assets which have a role to play in drainage, although, as the plans will be water company led, it does not seek to address broader surface water management within catchments.

LPAs and LLFAs are recognised as key stakeholders and will be invited to join, alongside other stakeholders, the Strategic Planning Groups (SPGs) organised broadly along river basin district catchments.

DWMPs cannot inform this study, as process is only just commencing. In the future, however, DWMPs will provide more transparent and consistent information on sewer flooding risks and the capacity of sewerage networks and treatment works, and this should be taken into account in SFRAs, Water Cycle Studies, as well as in site-specific FRAs and Drainage Strategies.

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35 Collaborating to Secure Eastern England's Future Water Needs, Water Resources East (2020). Accessed online at: https://wre.org.uk/wp-content/uploads/2020/04/WRE-Initial-statement-of-resource-need-FINAL.pdf on: 25/08/2020

36 A framework for the production of Drainage and Wastewater Management Plans, UK Water Industry Research (2018). Accessed online at: http://www.water.org.uk/wp-content/uploads/2018/12/Water-UK-DWMP-Framework-Report-Main-Document.pdf on: 30/07/2019.

Anglian Water has recently published a Strategic Context document for consultation which is the first stage of preparing the DWMP[37].

3.8.6 Anglian Water – Water Recycling Long Term Plan

Alongside the Water Resource Management Plan, Anglian Water have also published a Water Recycling Long Term Plan[38] that outlines their strategic direction in managing their assets and meeting the challenges of a growing population over the next 25 years.

A risk-based approach has been taken to develop an investment strategy to prioritise investment across the 1000 catchments that Anglian Water manage. The plan involves the following programmes that are of particular relevance to the Water Cycle Study:

- Strategic sewer
- Increase drainage capacity
- CSO Investigations and improvements
- Investigate urban creep at WRCs
- Increase WRC process capacity
- Increase WRC flow capacity
- WRC – descriptive to numeric permit

3.8.7 Developer Contributions and Utility Companies

Developments with planning permission have a right to connect to the public sewerage systems, however, there is no guarantee that the capacity exists to serve a development.

Developers may requisition a water supply connection or sewerage system or self-build the assets and offer these for adoption by the water company or sewerage undertaker. Self-build and adoption are usually practiced for assets within the site boundary, whereas requisitions are normally used where an extension of upgrading the infrastructure requires construction on third party land. The cost of requisitions is shared between the water company and developer as defined in the Water Industry Act 1991.

Where a water company is concerned that a new development may impact upon their service to customers or the environment (for example by causing foul sewer flooding or pollution) they may request the LPA to impose a Grampian condition, whereby the planning permission cannot be implemented until a third-party secures the necessary upgrading or contributions.

The above arrangements are third party transactions because the Town and Country Planning Act Section 106 agreements and Community Infrastructure Levy agreements may not be used to obtain funding for water or wastewater infrastructure.

3.8.8 Changes to Charging Rules for New Connections

OfWAT, the water industry's economic regulator, has published new rules covering how water and wastewater companies may charge customers for new connections[39]. These rules apply to all companies in England and will commence on 1st April 2018. The key changes include:

- More charges will be fixed and published on water company websites. This will provide greater transparency to developers and will also allow alternative connection providers to offer competitive quotations more easily

37 Drainage and Wastewater Management Plan (DWMP) – Strategic Context, Anglian Water (2020). Accessed online at: https://www.anglianwater.co.uk/siteassets/household/about-us/dwmp-consultation.pdf on 25/08/2020
38 Water Recycling Long Term Plan, Anglian Water (2019). Accessed online at: https://www.anglianwater.co.uk/siteassets/household/in-the-community/water-recycling-long-term-plan.pdf on: 07/07/2020
39 Charging rules for new connection services (English undertakers), OfWAT (2017). Accessed online at: https://www.ofwat.gov.uk/publication/charging-rules-new-connection-services-english-undertakers/ on: 07/07/2020

- There will be a fixed infrastructure charge for water and one for wastewater
- The costs of network reinforcement will no longer be charged directly to the developer in their connection charges. Instead, the combined costs of all of the works required on a company's networks, over a five-year rolling period, will be covered by the infrastructure charges payed for all new connections.
- The definition of network reinforcement has changed and will now apply only to works required as a direct consequence of the increased demand due to a development. Where the water company has not been notified of a specific development, for example when developing long-term strategic growth schemes, the expenditure cannot be recovered through infrastructure charges.
- Essex & Suffolk Water offer a discount in the water infrastructure charge to developers who build housing to achieve a consumption of no more than 105 l/p/d.

Anglian Water[40] and Essex & Suffolk Water[41] have published their specific charges for development services.

3.8.9 Design and Construction Guidance (DCG)

The Design and Construction Guidance contains details of the water sector's approach to the adoption of SuDS, which meet the legal definition of a sewer. This subsumed the work which would have fed into Sewers for Adoption 8 as the government made the decision not to implement Schedule 3 of the Flood and Water Management Act 2010. The new guidance will come into force in April 2020 and will differ from previous sewers for adoption guidance as compliance by water companies in England will be mandatory.

The standards, up to and including Sewers for Adoption version 7, have included a narrow definition of sewers to mean below-ground systems comprising of gravity sewers and manholes, pumping stations and rising mains. This has essentially excluded the adoption of SuDS by water companies, with the exception of below-ground storage comprising of oversized pipes or chambers.

The new guidance provides a mechanism for water companies to secure the adoption of a wide range of SuDS components which are now compliant with the legal definition of a sewer. There are however several non- adoptable components such as green roofs, pervious pavements and filter strips. These components may still form part of a drainage design so long as they remain upstream of the adoptable components.

The Design and Construction Guidance states that the drainage layout of a new development should be considered at the earliest stages of design. It is hoped that the new guidance will lead to better managed and more integrated surface water systems which incorporate amenity, biodiversity and water quality benefits.

40 Anglian Water (2020) Development Services Summary of Charges 2020-2021. Accessed online at: https://www.anglianwater.co.uk/developers/development-services/services-and-charges/ on 07/07/2020.
41 Essex and Suffolk Water (2020) 2020/21 charges. Accessed online at: https://www.eswater.co.uk/services/developers/our-charges/202021-charges/ on: 07/07/2020

4 Water Resources

4.1 Introduction

4.1.1 Objectives

The aim of the water resources assessment is to ensure that sufficient water is available in the region to serve the proposed level of growth, and that it can be abstracted without a detrimental impact on the environment, both during the plan period and into the future. The report will characterise the study area, identifying the key surface water and groundwater bodies, and local geology. It will highlight the pressures on water resources in the region, and what constraints are present on abstract and provide evidence for adopting a tighter water efficiency target allowed under building regulations.

4.1.2 Surface Waters

Table 4.1 shows the main watercourses within the study area, which lie within the Anglian River Basin Management Plan (RBMP) catchment.

The River Dove flows in a north-easterly direction through Eye and Hoxne until it reached the River Waveney which borders the north of the boundary.

The River Deben flows easterly, through Debenham in the north eastern portion of the study area, in the Babergh District, and then continues south easterly outside of the area to Ipswich.

The River Gipping dominates the central portion of the area, and the southern portion of the Mid-Suffolk District. It flows south-easterly through Stowmarket and Claydon and then joins the River Orwell.

The River Brett flows through the majority of the Babergh district. It flows from the north edge of the district beginning north of Lavenham, then flows south to just upstream of Stratford St Mary, where it joins the River Stour and continues to the estuary.

The River Stour borders the southern section of the Babergh district, and flows south from just north of Glemsford, and then easterly from Bures until it is joined by the River Brett and continues to the North Sea.

4.1.3 Groundwaters

Groundwater bodies within and encompassing the study are shown in Figure 4.2 and their corresponding WFD classification is summarised in reported in Table 4.1. These are Cam and Ely Ouse Chalk, Broadland Rivers Chalk and Crag, Essex Gravels, North Essex Chalk, North Essex Lower London Tertiaries and Waveney and East Suffolk Chalk and Crag.

Table 4.1 WFD status of groundwater bodies

Groundwater Bodies	Quantitative Status	Chemical Status	Overall Status
Cam and Ely Ouse Chalk	Poor	Poor	Poor
Broadland Rivers Chalk and Crag	Poor	Poor	Poor
Essex Gravels	Good	Poor	Poor
North Essex Chalk	Poor	Poor	Poor
North Essex Lower London Tertiaries	Good	Good	Good
Waveney and East Suffolk Chalk and Crag	Poor	Poor	Poor

Poor chemical status is associated with agricultural and rural land management point and diffuse sources of pollution. Quantitative status of poor means that the water bodies failed the quantitative groundwater balance test, indicating the total existing abstraction may not be sustainable in the long term. This failure is currently associated with abstraction for agricultural and rural land management, and water industry abstraction

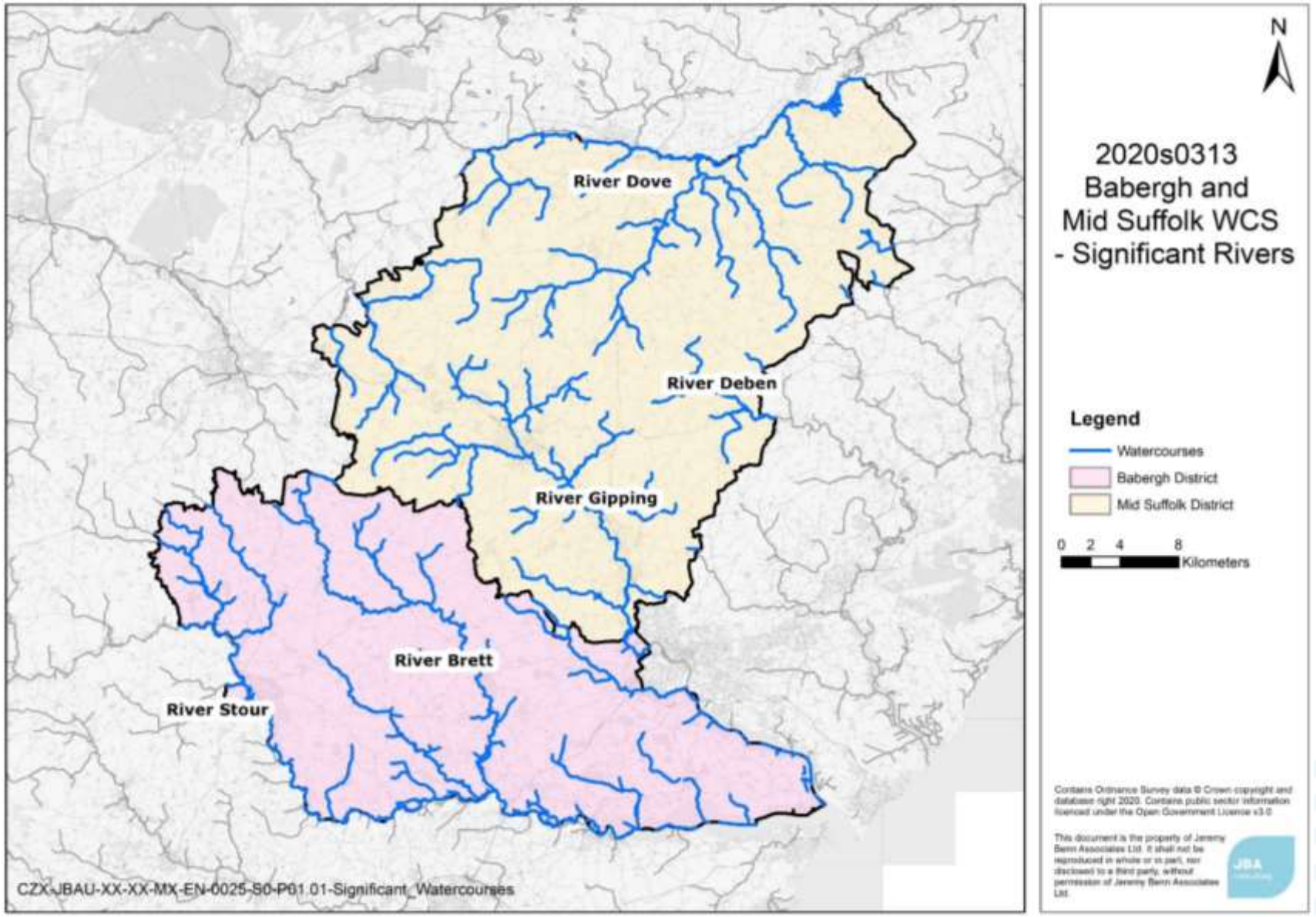

Figure 4.1 Significant watercourses

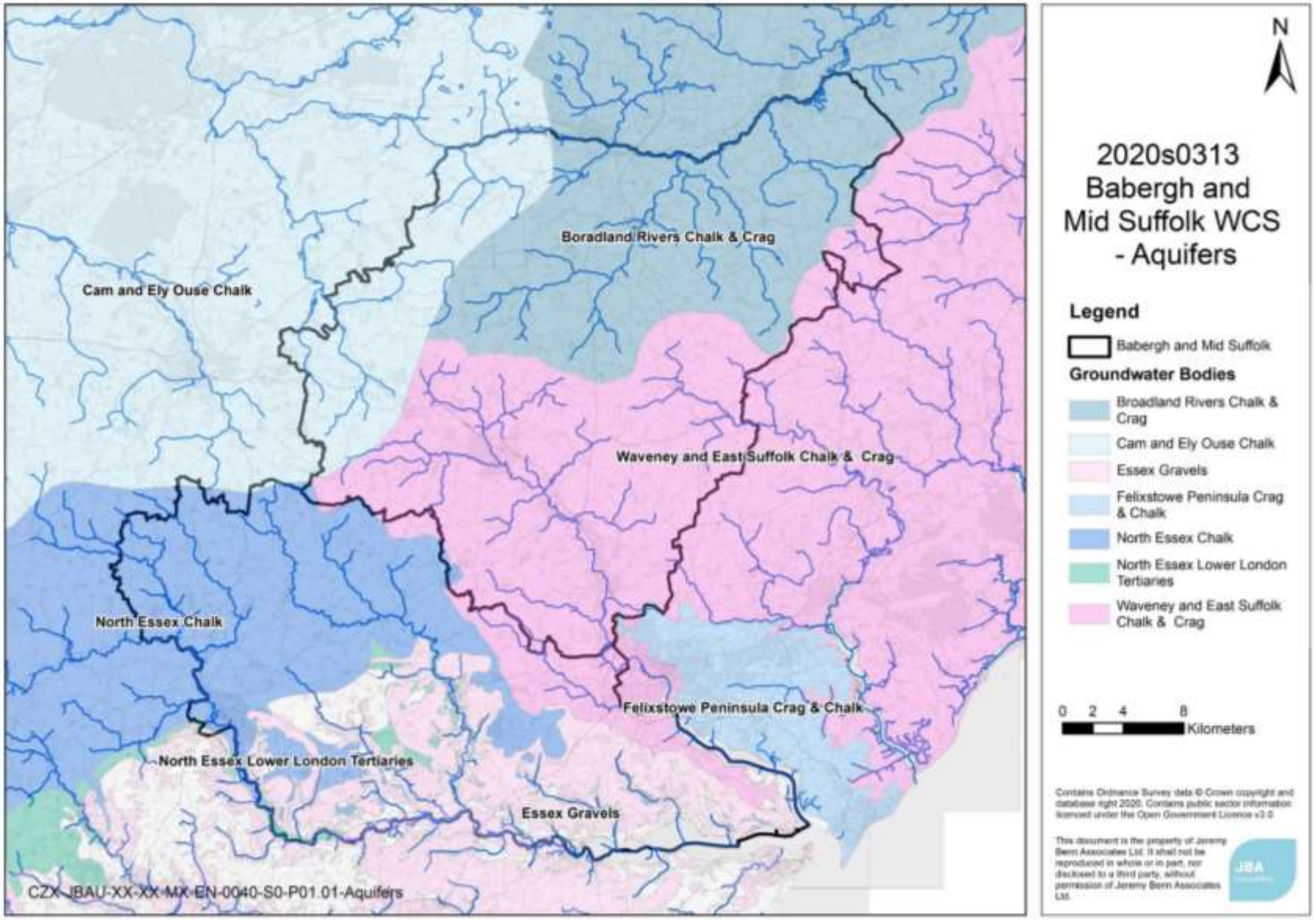

Figure 4.2 Groundwater Bodies

4.1.4 Geology

The geology of the catchment can be an important influencing factor in the way that water runs off the ground surface due to the variations in the permeability of the surface material and bedrock stratigraphy.

Figure 4.3 shows the bedrock geology of the Babergh & Mid Suffolk study area. The geology of Babergh & Mid Suffolk is varied consisting predominantly of Thanet Sand and White Chalk sub-formations through the northern part of the study area, and Thames Group (mudstone, silty clay) to the south.

Figure 4.4 shows superficial (at the surface) deposits of clay, silt, diamicton and sand.

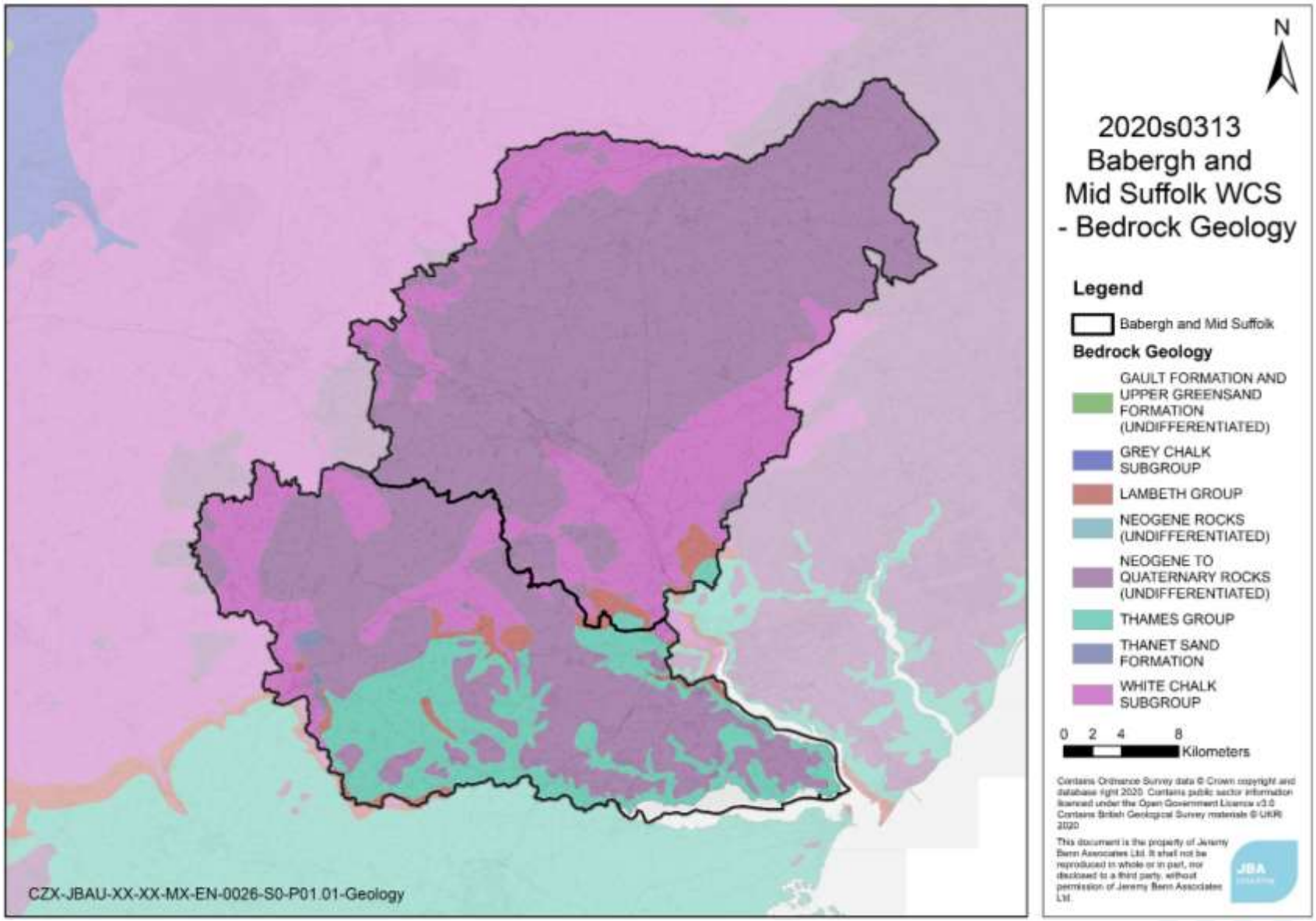

Figure 4.3 Bedrock geology of Babergh & Mid Suffolk

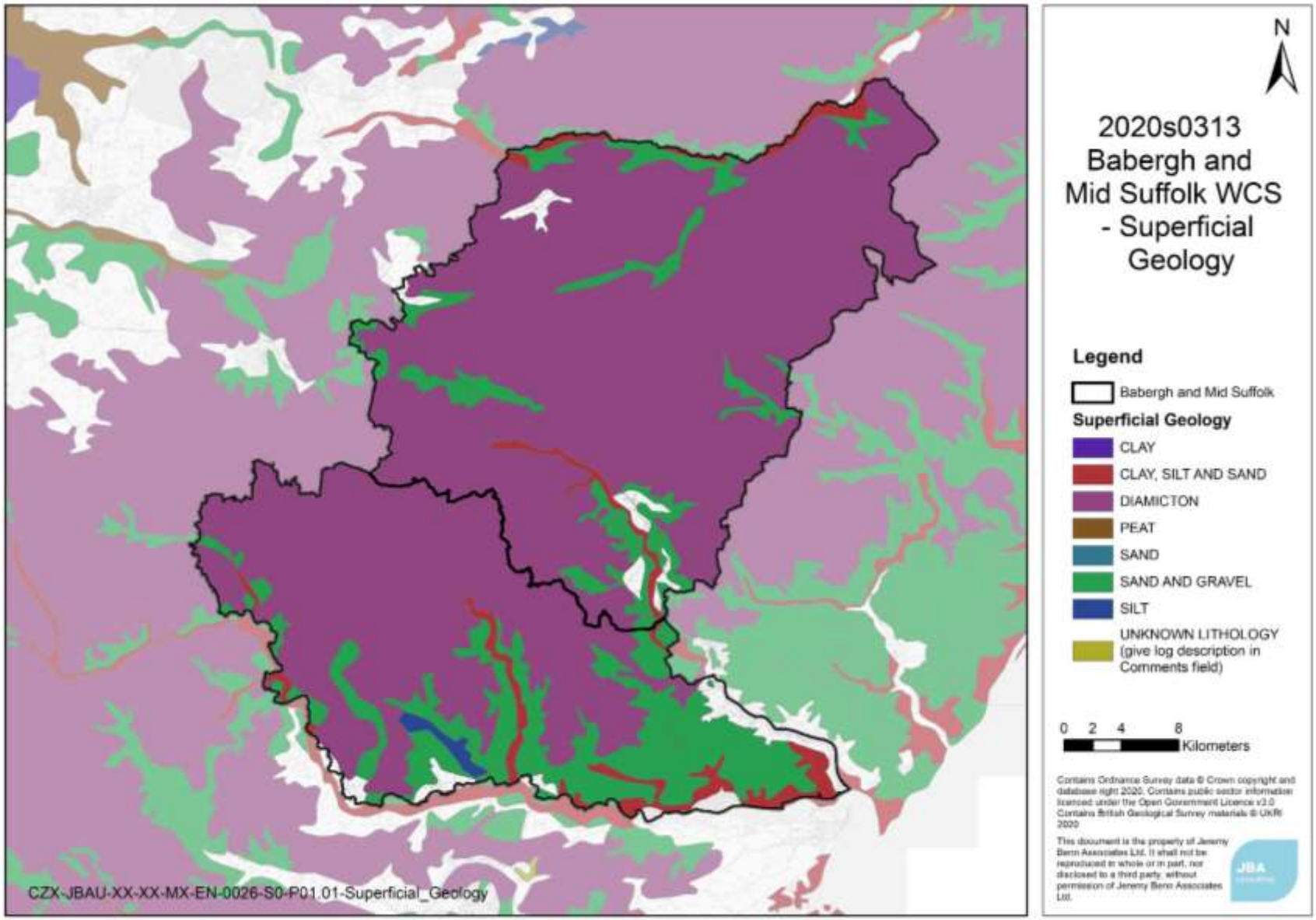

Figure 4.4 Superficial (at surface) geology of Babergh & Mid Suffolk

4.2 Availability of Water Resources

4.2.1 Abstraction Licencing Strategy

The Environment Agency (EA), working through their Resource Assessment Methodology (which replaces the former Catchment Abstraction Management Strategy (CAMS) process), prepare an Abstraction Licensing Strategy (ALS) for each sub-catchment within a river basin. These licensing strategies set out how water resources are managed in different areas of England and contributes to implementing the Water Framework Directive (WFD). The ALS provide information on the resources available and what conditions might apply to new licences. The Surface Water abstraction licences require abstractions to stop or reduce when a flow or water level falls below a specific threshold, as a restriction to protect the environment and the rights of other water users. Thresholds are usually defined by the flow percentiles which can be calculated using gauged daily flow data, where for example Q10 is the flow exceeded or equalled for 10% of the time.

All new licences, and some existing licenses, are time limited to a Common End Date specific to the area they are in. This allows for a periodic review of licences within the specific area as circumstances may have changed since the licences were initially granted. If a licence is considered to pose a risk to the environment it may be granted with a short time limit while monitoring is carried out. If a licence is only required for a short time period, it can be granted either as a temporary licence or with a short time limit. The licences are then replaced with a changed licence, revoked or renewed near to the expiry date.

The ALSs are important in terms of the local water company's Water Resource Management Plan (WRMP) as this helps to determine the current and future pressures on water resources and how the supply and demand will be managed by the relevant water companies[42]. Mid Suffolk and Babergh are covered by four ALS areas: Broadland Rivers, Cam and Ely Ouse (including South Level), Combined Essex and East Suffolk as shown in Figure 4.5 below.

42 Environment Agency (2018) Managing Water Abstraction. Accessed Online at: https://www.gov.uk/government/collections/water-abstraction-licensing-strategies-cams-process on: 07/07/2020

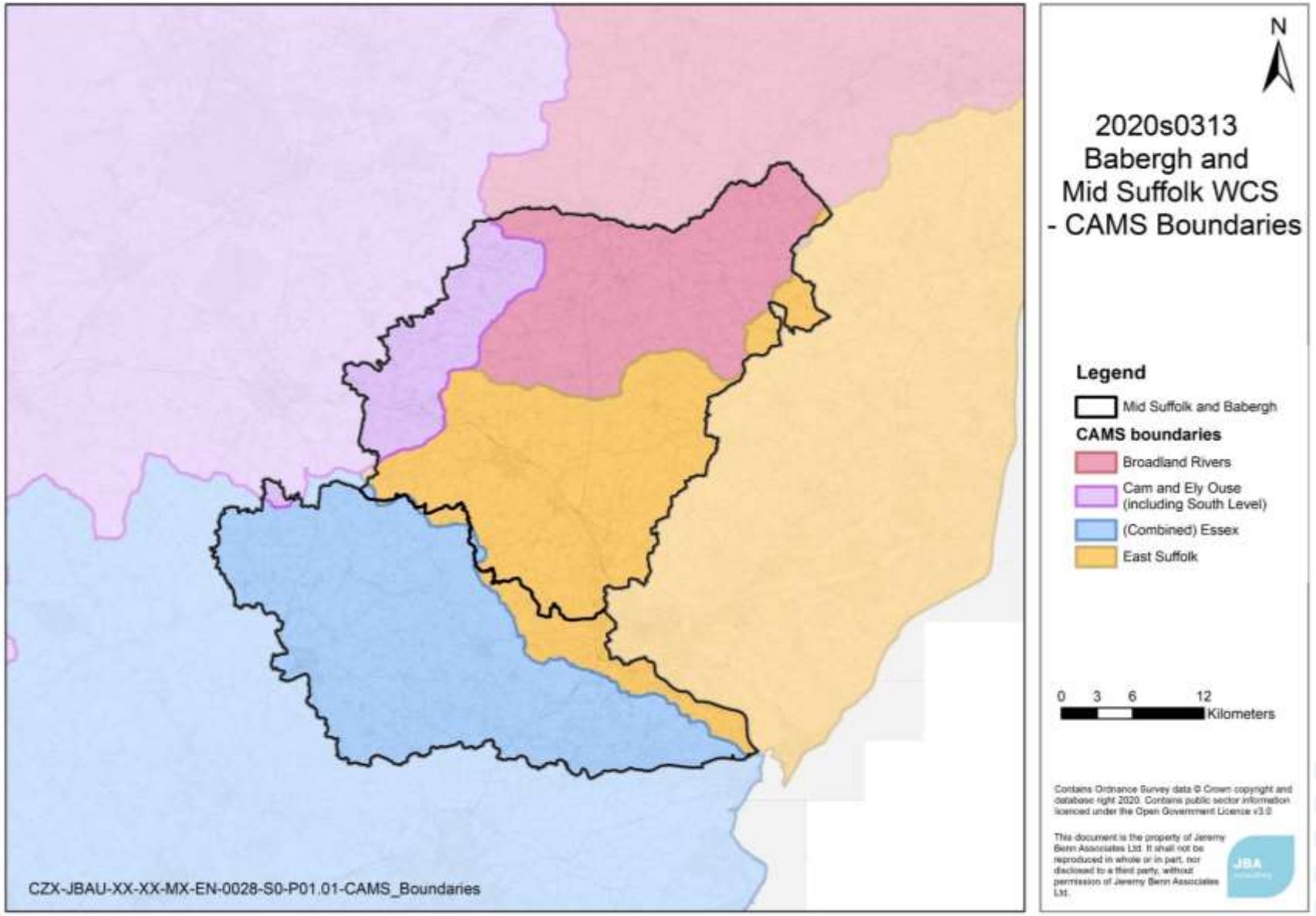

Figure 4.5 ALS (formerly CAMS) Boundaries covering Babergh & Mid Suffolk

4.2.2 Resource Availability Assessment

In order to abstract surface water, it is important to understand what water resources are available within a catchment and where abstraction for consumptive purposes will not pose a risk to resources or the environment. The Environment Agency has developed a classification system which shows:

- The relative balance between the environmental requirements for water and how much has been licensed for abstraction;
- whether there is more water available for abstraction in the area;
- areas where abstraction may need to be reduced.

The availability of water for abstraction is determined by the relationship between the fully licensed (all abstraction licences being used to full capacity) and recent actual flows (amount of water abstracted in the last 6 years) in relation to the Environmental Flow Indicator (EFI). Results are displayed using different water resource availability colours, further explained in Table 4.2. In some cases, water may be scarce at low flows, but available for abstraction at higher flows. Licences can be granted that protect low flows, this usually takes the form of a "Hands-off Flow" (HOF) or Hands-off Level (HOL) condition on a licence, which mean abstractions have to stop when the river flow or level falls below a particular value. This value is known as the HOF or HOL and ensures there is always a minimum flow in the river. Surface Water Flows can be assessed at Assessment Points (APs) which are significant points on the river, often where two main rivers join or at a gauging station.

Groundwater availability as a water resource is assessed similarly, unless better information on principle aquifers is available or if there are local issues that need to be taken into account.

Table 4.2 Implications of Surface Water Resource Availability Colours

Water Resource Availability Colour	Implications for Licensing
High hydrological regime	There is more water than required to meet the needs of the environment. Due to the need to maintain the near pristine nature of the water body, further abstraction is severely restricted.
Water available for licensing	There is more water than required to meet the needs of the environment. Licences can be considered depending on local/downstream impacts.
Restricted water available for licensing	Fully Licensed flows fall below the Environmental Flow Indicator (EFI). If all licensed water is abstracted there will not be enough water left for the needs of the environment. No new consumptive licences would be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available via licence trading.
Water not available for licensing	Recent Actual flows are below the Environmental Flow Indicator (EFI). This scenario highlights water bodies where flows are below the indicative flow requirement to help support Good Ecological Status. No further licences will be granted. Water may be available via licence trading.
HMWBs (and /or discharge rich water bodies)	These water bodies have a modified flow that is influenced by reservoir compensation releases or they have flows that are augmented. There may be water available for abstraction in discharge rich catchments.

Water resource availability is assessed under four different flow conditions:

- Q95 – very low flows which are exceeded 95% of the time
- Q70 – low flows which are exceeded 70% of the time

- Q50 – median flows which are exceeded 50% of the time
- Q30 – high flows which are exceeded 30% of the time

4.2.3 Broadlands ALS

The Broadland catchment ALS[43] encompasses 3,188km^2 of land throughout East Anglia, although only 16% lies within Suffolk.

There are 17 APs within the Broadlands ALS, two of which fall within the Mid-Suffolk region, AP15 and AP16. In Q30 High Flows, there is water available for abstraction, in Q50 Median Flows and Q70 Low Flows there is restricted water available for licensing and no water available in Q95 Very Low Flows. It should be noted that AP15 and AP16 abstraction are dependent on the Anglian Q50 HoF.

The groundwater availability in the Broadlands ALS region is guided by the surface water assessment unless specific information on principal aquifers exists or local issues that need protecting overrule it.

Resource availability for AP15 and AP16, shown below, shows that consumptive abstraction is available at least 30% of the time.

4.2.4 Cam and Ely Ouse ALS

The Cam and Ely Ouse catchment ALS[44] encompasses 3,600km^2 of land. However, only small portion of the study area, the western edge Mid Suffolk, is contained within the basin.

There are 15 APs within the Cam and Ely Ouse ALS, none of which are located in the Mid Suffolk region. In the Mid Suffolk region, there is no water available for abstraction at Q95 and Q70. Restricted water is available only in some of the area at Q50. Water is available at Q30 in some of the area and restricted water is available in the remaining area. Water resources are available less than 30% of the time in this area.

4.2.5 Essex ALS

The Essex ALS[45] catchment encompasses 2,920km^2 of land. The majority of the Babergh district is contained inside this basin.

There are 18 APs within the Essex ALS, none of which are located in the Babergh & Mid Suffolk region, although four APs are along the district border. In the area contained within the Babergh District region, the resource availability here is consumptive abstraction available less than 30% of the time.

4.2.6 East Suffolk ALS

The East Suffolk ALS[46] catchment encompasses 1,364km^2 of land. The south portion of the basin is contained within the central southern and western extend of the Mid Suffolk boundary, and a small portion in the very north of the Babergh boundary.

There are 15 APs within the East Suffolk ALS, two of which are located in the Mid Suffolk and Babergh district, AP13 and AP15. There is no water available in AP13 for Q95, Q70, and Q50. There is restricted water availability in AP15 in Q95, however there is water available for licensing in Q70 and Q50.

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43 Broadland abstraction licensing strategy (2017) Accessed from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/636600/ALS_2017_Broadland.pdf on 02/06/2020

44 Cam and Ely Ouse abstraction licensing strategy (2017) Accessed online from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/637563/ALS_2017_Cam_and_Ely_Ouse.pdf on 02/06/2020

45 Essex abstraction licensing strategy (2017) Accessed from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/636594/ALS_2017_Essex.pdf on 03/06/2020

46 East Suffolk abstraction licensing strategy (2017) accessed from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/636590/ALS_2017_east_Suffolk.pdf on 03/06/2020

The groundwater availability in the East Suffolk ALS region is guided by the surface water assessment unless specific information on principal aquifers exists or local issues that need protecting overrule it. There are no groundwater abstraction sites.

Resource availability for AP15 is at least 70%, however AP13 is less than 30%.

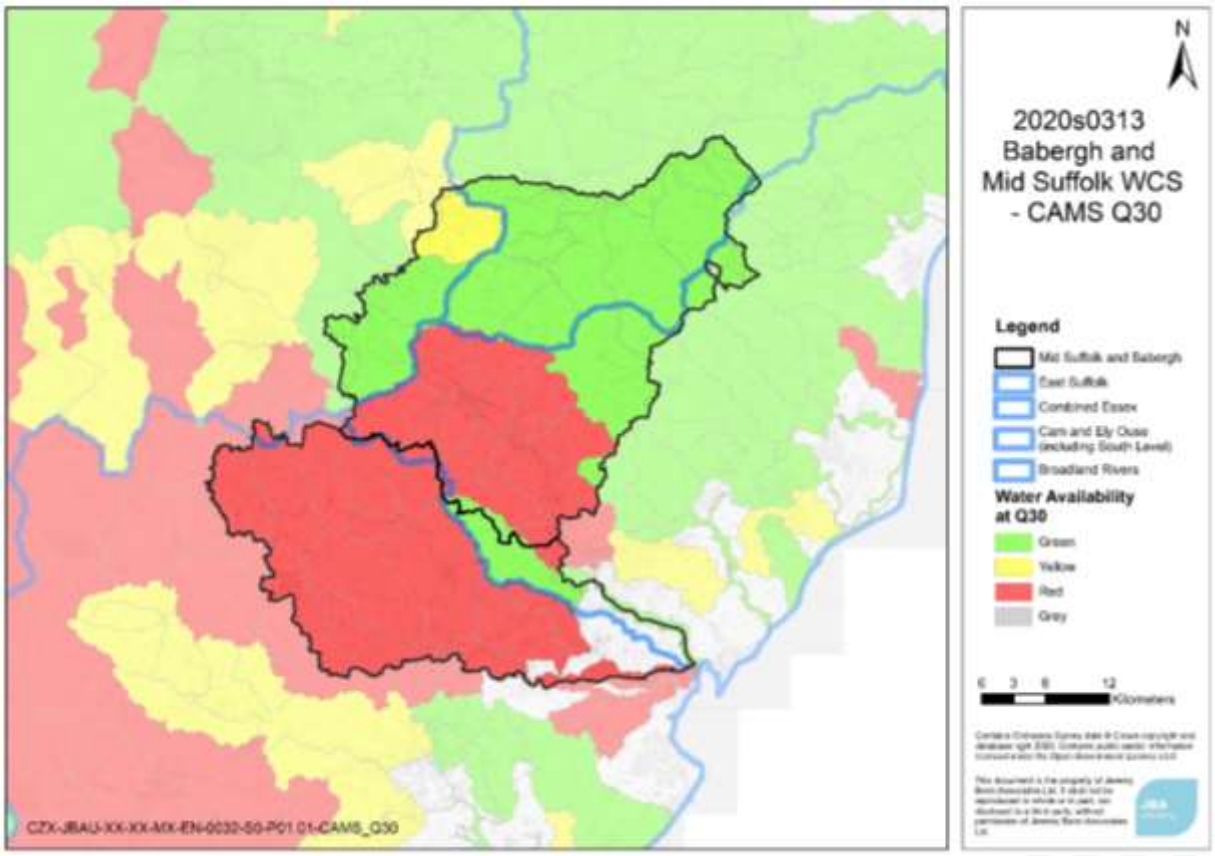

Figure 4.6 Water Availability at Q30

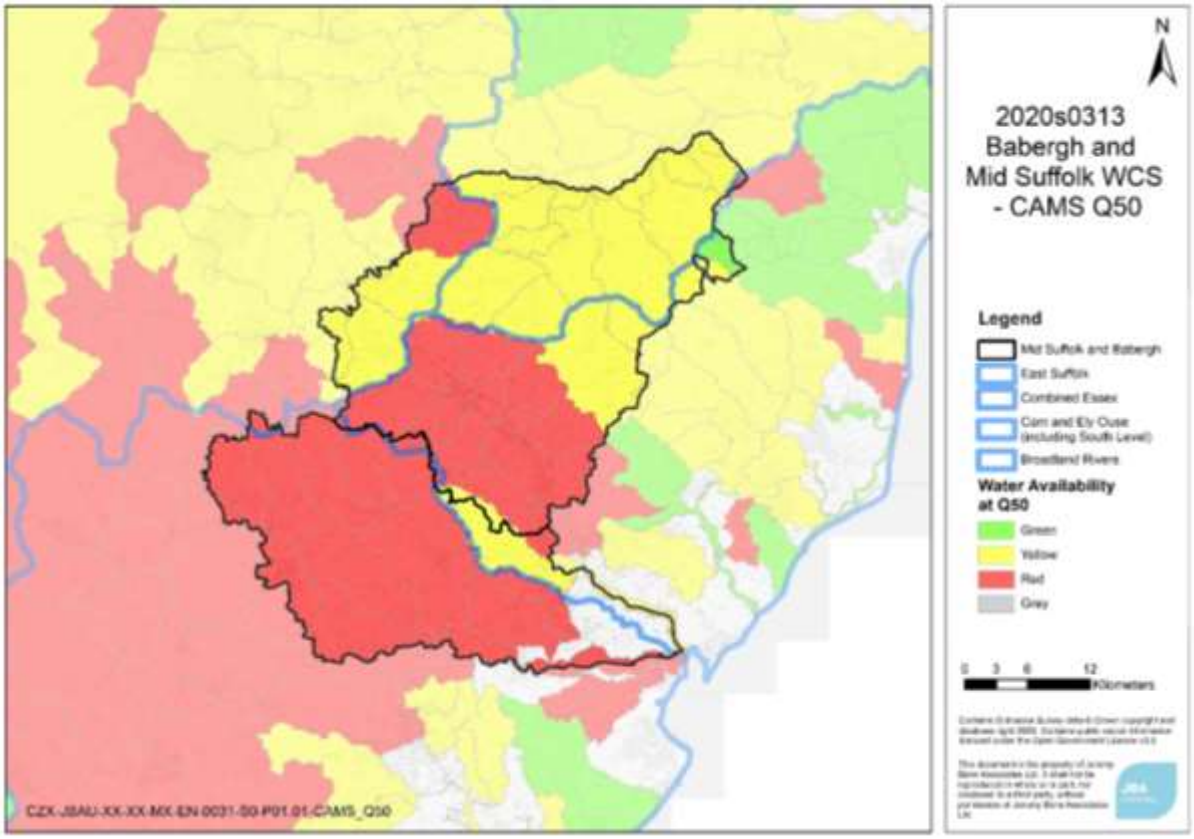

Figure 4.7 Water Availability at Q50

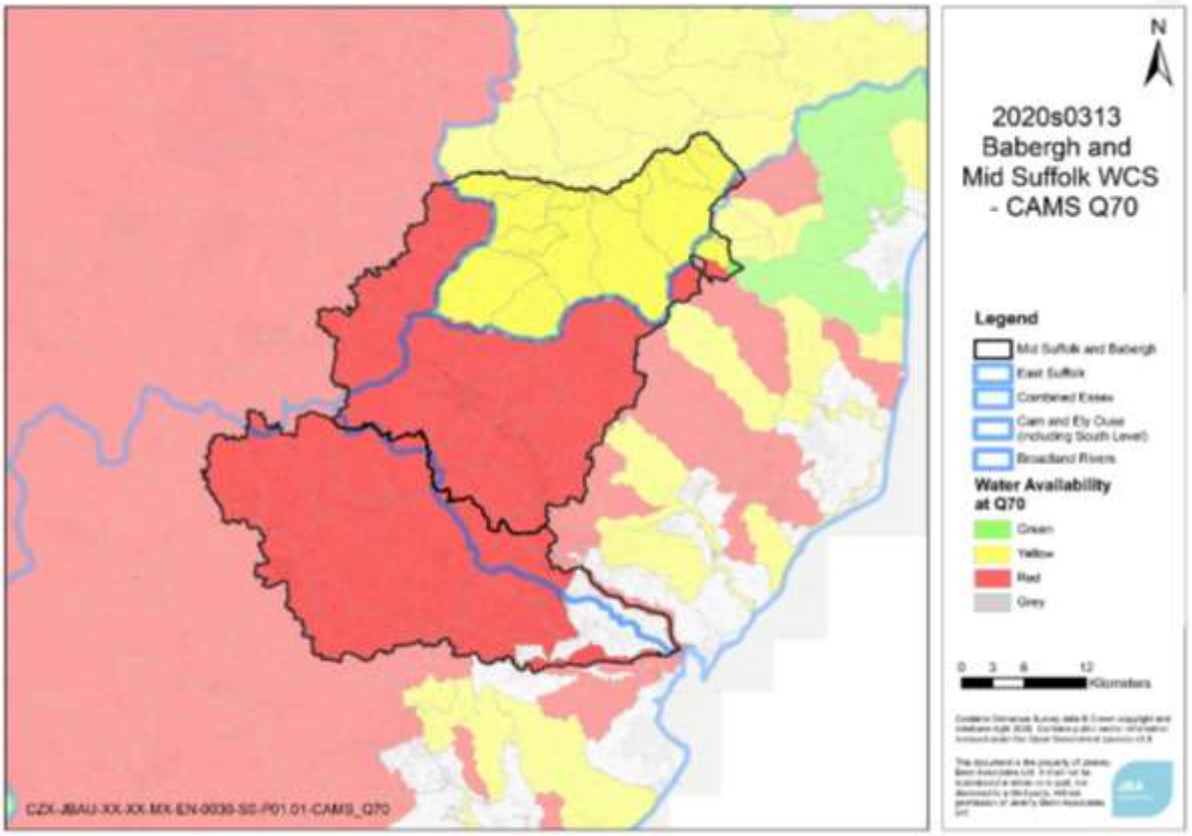

Figure 4.8 Water Availability at Q70

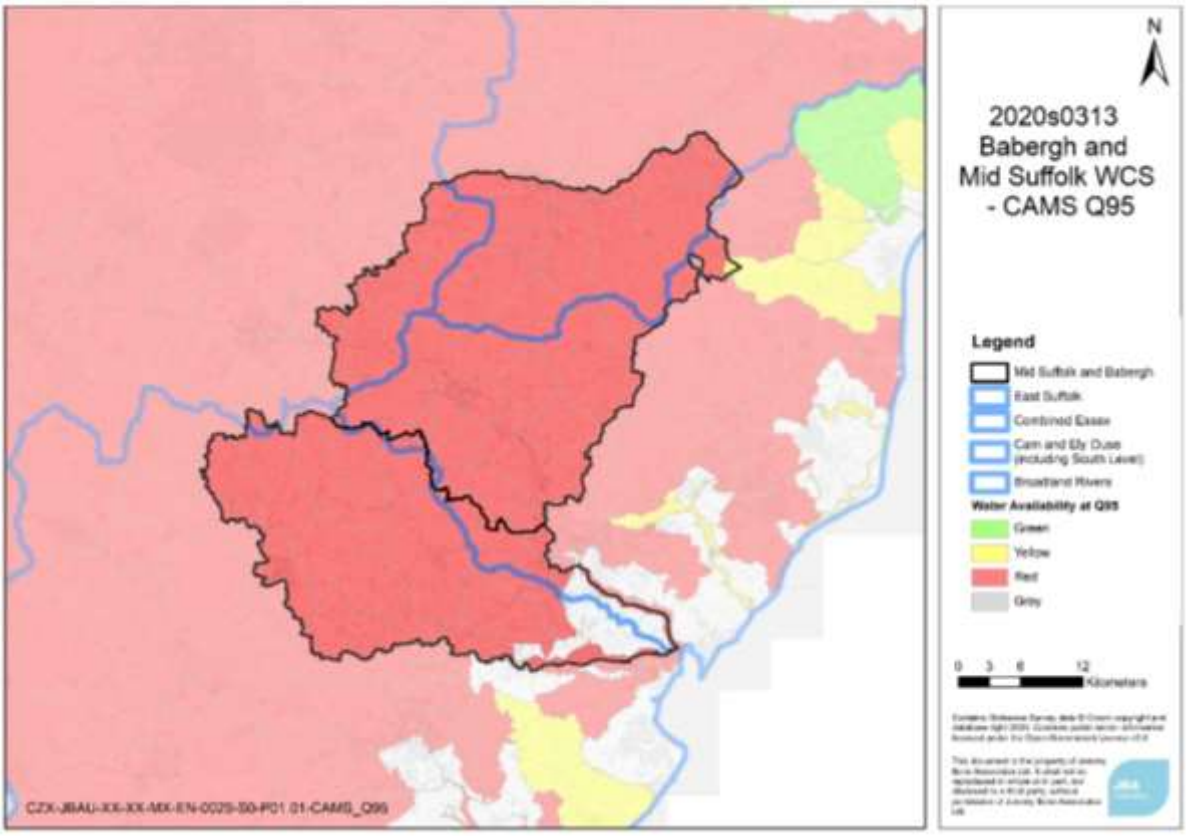

Figure 4.9 Water Availability at Q95

4.3 Water Resource Assessment: Water Resource Management Plans

4.3.1 Introduction

When new development within a Local Planning Authority is being planned, it is important to ensure that there are sufficient water resources in the area to cover the increase in demand without risk of shortages in the future or during periods of high demand, and without causing a negative impact on the waterbodies from which water is abstracted.

The aim of this assessment was to compare the future additional demand as a result of development proposed within the emerging Local Plan, with the demand allowed for by Anglian Water and Essex & Suffolk Water in their Water Resource Management Plans.

The water resources assessment has been carried out utilising two approaches; initially by reviewing the Water Resource Management Plans (WRMPs) of AW and ESW and secondly by providing the water company with a growth estimate allowing them to assess the impact of planned growth on their water resource zone.

4.3.2 Water Companies and Water Resources Zones

Two water companies supply the Mid Suffolk and Babergh District.

- Anglian Water (AW)
- Essex & Suffolk Water (ESW)

Water companies divide their supply areas in Water Resource Zones (WRZ), the WRZ providing water to the study area are shown in Table 4.3 and Figure 4.10.

Table 4.3 Water Resource Zones

Water Company	WRZ
Anglian Water	Bury Haverhill WRZ
	East Suffolk WRZ
	Ixworth WRZ
	Sudbury WRZ
Essex & Suffolk Water	Hartismere WRZ

4.3.3 Methodology

The following Water Resource Management Plans were reviewed:

- Anglian Water - Water Resources Management Plan 2019[47]
- Essex & Suffolk Water - Final Water Resources Management Plan 2019[48]

Attention was mainly focused upon:

- The available water resources and future pressures which may impact upon the supply element of the supply/demand balance
- The allowance within those plans for housing and population growth and its impact upon the demand side of the supply/demand balance

The spatial boundaries for Anglian Water and Essex & Suffolk's water resource zones were used to overlay the local authority boundaries. The Ministry for Housing, Communities and Local Government (MHCLG) 2014-based estimates of household growth up to 2041[49] were collated for the local authorities which lie within each WRZ. The percentage of the current

47 Anglian Water – Water resources management plan 2019 Accessed online at:https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf on 01/06/2020
48 Essex & Suffolk Water – Final Water Resources Management Plan 2019 Accessed online at: https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/ on: 01/06/2020
49 2014-Based Household Projections for England, Office for National Statistics (2018). Accessed online at: https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections#based-live-tables-1 on: 07/07/2020

population of each local authority within the WRZ was estimated from the OS Code Point dataset and the WRZ boundary. The assessment has used MHCLG figures, because they are available for all LPAs within the water resource zone, and over a consistent timescale and methodology. The resulting total number of households in the base year within the WRZ is comparable with the figures quoted in the WRMPs.

The results were assessed using a red/amber/green traffic light definition to score the water resource zone:

Adopted WRMP has planned for the increase in demand, or sufficient time to address supply demand issues in the next WRMP.	Adopted WRMP has planned for the increase in demand, or there is sufficient time to address supply demand issues in the next WRMP.	Adopted WRMP does not take into consideration the planned increase in demand. Additional water resources may be required.

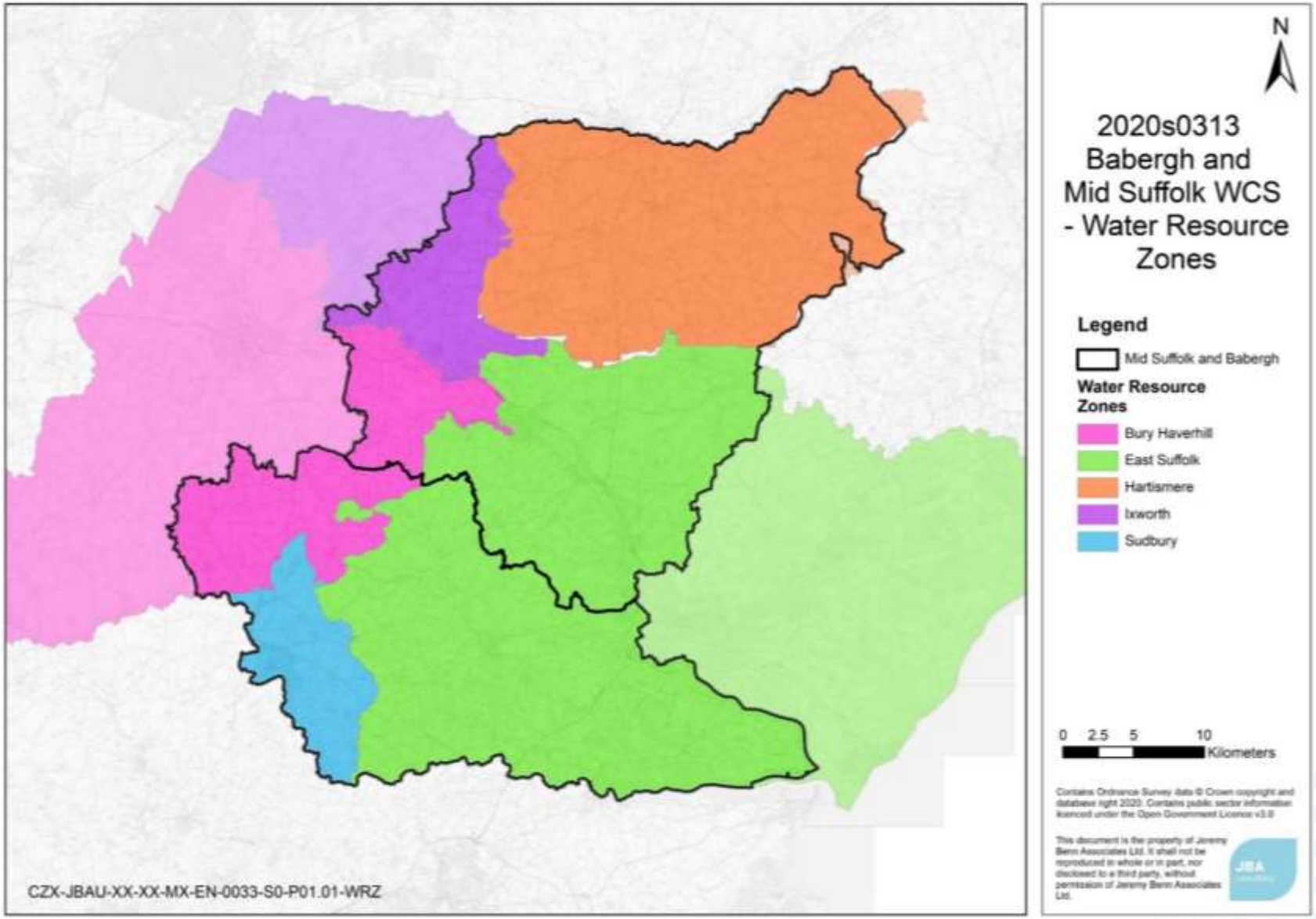

Figure 4.10 Water Resource Zones

4.4 Water Resource Management Plan Reviews

4.4.1 Anglian Water

Anglian Water (AW) is responsible for supplying Babergh and the southern part of Mid Suffolk. The AW supply area is split into 28 different Water Resource Zones (WRZs), although only four are within the Mid Suffolk and Babergh district: Bury Haverhill, East Suffolk, Ixworth and Sudbury.

The Anglian Water WRMP[50] identifies strategies to water supply and demand over the plan period 2020 to 2045. The main problem dominating the next years is supply-demand balance due to population growth, climate change, sustainability reductions and the need to increase resilience to severe drought. Additionally, the area is characterised by low rainfall and conservation interest of wetland sites.

Anglian Water is dependent on groundwater abstraction for 50% of their supply, with the remaining 50% being from eight raw water reservoirs and eight direct supply river intakes.

Supply-Demand Balance

Anglian Water anticipate that the supply-demand balance from a total regional surplus of 150 Ml/d in 2020, to a total regional deficit of -30 Ml/d by 2025 and -144 Ml/d by 2045 should no action be taken. The baseline supply demand balance for the 4 WRZ is shown in the table below:

Table 4.4 Change in water demand by WRZ

WRZ	Regional change in demand (Ml/d)
Bury Haverhill	-5 to -15
East Suffolk	-5 to -15
Ixworth	-5 to 0
Sudbury	0 to 5

Options

Anglian Water assessed a range of options to increase supply and reduce demand. The following options are included with their Preferred Plan:

- Prioritises demand management, which aligns with customers' expectations
- Recognises the environmental benefits of demand management, such as offsetting treatment and pumping costs and carbon
- Challenges us and our customers to push the boundaries of what is achievable, with respect to levels of future consumption
- Maximises the use of existing resources before developing new ones
- Provides future flexibility over the location and type of new water resources
- Delivers significant additional resilience across our region both to drought and non-drought events (e.g. freeze-thaw and hot weather)
- Delivers environmental benefits, by reducing abstraction from the environment and ensuring no deterioration in the ecological status of waterbodies in our region, and

50 Anglian Water – Water resources management plan 2019 Accessed online at:https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf on 01/06/2020

- is consistent with the national water resources policy position, as developed by the Water UK Water Resources Long Term Planning framework and the NIC's 'Preparing for a drier future' report, and the preliminary outputs from the WRE regional strategy.

4.4.2 Essex & Suffolk Water

Essex & Suffolk Water (ESW) is responsible for supplying the northern section of Mid Suffolk district. The ESW supply area is split into four different Water Resource Zones (WRZs), although only Hartismere is within the Mid Suffolk boundary.

The Essex & Suffolk Water WRMP[51] identifies strategies to balance water supply and demand over the plan period 2020 to 2060. They supply 1.65 million customers in the Essex supply area and 0.27 million customers in the Suffolk supply area.

The main challenges include growing demand, uncertainty from climate change and a general lack of new intrinsic water resources.

In the Hartismere WRZ, all the water supplied is sourced from groundwater abstracted from Chalk and Crag boreholes.

Change in demand

It has been predicted that there will be a 34% increase in Essex population over the 40-year planning horizon and a 29% increase in Suffolk population. The population is now forecast to be 2.56M by 2059/60. Overall occupancy in the demand forecast reduces from 2.64 to 2.49 in Essex and reduces from 2.29 to 2.22 in Suffolk.

The average annual number of new homes is forecast at 7,255 in Essex for AMP7 and 1,189 in Suffolk.

The per capita consumption (PCC) in Essex and Suffolk is forecast to reduce annually across the planning horizon as a result of ESW's metering policy and water efficiency initiatives. In Essex, unmeasured PCC is forecast to reduce to 133.97 litres per head per day (l/h/d) by 2059/60, with measured properties reducing to 111.98 l/h/d. In Suffolk, unmeasured PCC is forecast to reduce to 128.15 l/h/d by 2059/60, with measured properties reducing to 106.41 l/h/d.

Table 4.5 below shows the demand across all non-domestic sectors.

Table 4.5 Future demand across all non-domestic sectors

Sector	2016/17 demand (Ml/d)	2059/60 demand (Ml/d)	Change (Ml/d)	% Change
Small customers	8.79	10.17	1.38	16%
Heavy industry	0.13	0.1	-0.03	-23%
General manufacturing	0.12	0.11	-0.01	-8%
Food and drink	4.03	4.03	0	0%
Utility	1.11	0.56	-0.55	-50%
Public Sector	0.31	0.31	0	0%
Retail	0.06	0.04	-0.02	-33%
Hotels/Leisure	2.02	1.97	-0.05	-2%
Agriculture	0.19	0.26	0.07	37%
Services	0.93	0.83	-0.1	-11%
Total	17.69	18.38	0.69	4%

51 Essex & Suffolk Water – Final Water Resources Management Plan 2019 Accessed online at: https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/ on: 01/06/2020

Supply-demand Balance

In the Hartismere WRZ the supply surplus is predicted to be maintained across the full planning period (2020 – 2060). Table 4.6 below shows the final balance of supply.

Table 4.6 Supply demand balance for the Hartismere WRZ

Hartismere WRZ	End of AMP6	End of AMP7	End of AMP8	End of AMP9	End of AMP10	End of 30 Year Planning Horizon	End of 40 Year Planning Horizon
Year	2019/20	2024/25	2029/30	2034/35	2039/40	2044/45	2059/60
Balance of supply (Excluding headroom)	2.16	2.30	2.40	2.49	2.52	2.49	2.15
Balance of supply (Including headroom)	1.35	1.51	1.67	1.83	1.91	1.93	1.69

Although a surplus is shown throughout the WRMP plan period, the baseline vulnerability assessment carried out with Water Resources East highlighted that the resilience of water supplies in Suffolk could be vulnerable to future droughts by 2060, in part due to the reliance on groundwater supplies from Chalk and Crag aquifers and the likelihood that abstraction licences could be subject to reductions in annual licenced quantities to ensure they are sustainable. Under the Water Industry Environment Programme (WINEP), the sustainability of groundwater abstraction licences in Suffolk will be investigated in AMP7 (2020 to 2025).

4.4.3 Comparison of Water Company and Local Authority plans

Approach

This assessment compares the level of growth accounted for within the Water Resource Management Plans to the latest Local Authority plans. A comparison is also made with the MHCLG 2014 based household projections.

Each one of these three forecasts or projections of growth has a different spatial scale, and so percentage growth levels are used to indicate the relative differences between the plans. The OS Open CodePoint dataset is used as a proxy for population density to allow an estimate of household population for each WRZ based on the MHSCLG household projects dataset, with the number of codepoints in each LPA area and WRZ used to divide the number of households between WRZs.

Anglian Water

Table 4.7 shows the household growth forecasts for the four WRZs in the AW supply area, using the Ministry of Housing Communities and Local Government (MHCLG) 2014-based household projections. The MHCLG 2014-based forecast show an 11.2% increase in the number of households across the entirety of the Anglian Water supply area.

Table 4.7 MHCLG 2014-Based Household Growth – Anglian Water

Forecast	2020	2037	% increase during plan period
MHCLG 2014-based forecast – All LPAs in Bury Haverhill WRZ	52,129	58,025	11.3%
MHCLG 2014-based forecast – All LPAs in East Suffolk WRZ	150,030	167,104	11.4%
MHCLG 2014-based forecast – All LPAs in Ixworth WRZ	4,396	5,026	14.3%
MHCLG 2014-based forecast – All LPAs in Sudbury WRZ	11,383	12,671	11.3%
MHCLG 2014-based forecast – **Total**	217,938	242,825	11.4%

Table 4.8 shows the household growth forecast for the Anglian Water supply areas, using the published WRMP Water Resources Market Information. The Water Resources Market Information forecasts a 14.6% increase in the number of houses across the four WRZs between 2020 and 2037.

Table 4.8 Water Resource Market Information - Household Growth - Anglian Water

Forecast	2020	2037	% difference
WRMP Water Resources Market Information – Bury Haverhill WRZ	53,870	63,557	18%
WRMP Water Resources Market Information – East Suffolk WRZ	149,243	169,447	13.5%
WRMP Water Resources Market Information – Ixworth WRZ	10,222	11,853	16%
WRMP Water Resources Market Information – Sudbury WRZ	14,964	16,811	12.3%
WRMP Water Resources Market Information – **Total**	228,299	261,668	14.6%

Essex & Suffolk Water

Table 4.9 shows the household growth forecasts for Hartismere WRZs in the Essex & Suffolk Water supply area, using the Ministry of Housing Communities and Local Government (MHCLG) 2014-based household projections. The MHCLG 2014-based forecast show an 13% increase in the number of households in the Hartismere WRZ.

Table 4.9 MHCLG 2014-Based Household Growth – Essex & Suffolk Water

Forecast	2020	2037	% difference
MHCLG 2014-based forecast – All LPAs in Hartismere WRZ	14,111	16,135	14.3%

Table 4.10 shows the household growth forecast for the Hartismere WRZ, using WRMP Water Resources Market Information. The data tables are based on the revised draft Water Resource Management Plan 2019. The Water Resources Market Information forecasts a 9.1% increase in the number of houses across the WRZ between 2020 and 2037.

Table 4.10 Water Resource Market Information - Household Growth - Essex & Suffolk Water

Forecast	2020	2037	% difference
WRMP Water Resources Market Information – Bury Haverhill WRZ	12,438	13,564	9.1%

4.4.4 Household Growth – Local Authority Boundaries

Babergh District Council – Planned Growth

The Draft Local Plan states that the minimum local housing need is 420 houses per annum from 2018 – 2037, 7,980 dwellings in total.[52]

Table 4.11 uses the MHCLG 2014-Based 2019 housing forecast as a baseline and shows the impact of the proposed growth over the plan period. The forecast percentage increase in dwellings by 2037 is 24%.

Table 4.12 shows the MHCLG 2014-Based housing forecasts for 2018 and 2037. This forecasts a 15% increase in dwellings across the plan period, less than the growth proposed by the Babergh Draft Local Plan.

Table 4.11 Babergh Housing Provision Forecast - Local Plan

MHCLG 2014-Based Household Projections 2018	Babergh Local Plan Housing Need 2018 - 2037	2037 Forecast Household Number	Forecast % Increase
38,628	9,343	47,971	24%

Table 4.12 Babergh Housing Provision Forecast - MHCLG 2014-Based

MHCLG 2014-Based Household Projections 2019	MHCLG 2014-Based Projected growth	MHCLG 2014-Based Household Projections 2037	Forecast % Increase
38,628	5,954	44,582	15%

Using the water resources market information published by AW, it can be seen that over the period covered by Babergh's Local Plan, the Bury Haverhill, East Suffolk, Ixworth and Sudbury WRZ's are predicted to experience 14.6% overall average growth in households, which is considerably less than the predicted increase in growth in Babergh district using the local plans, and slightly less than the MHCLG forecasts.

Mid Suffolk District Council – Planned Growth

The Draft Local Plan states that the minimum local housing need is 535 houses per annum from 2018 – 2037, 10,165 dwellings in total[53]

Table 4.13 uses the MHCLG 2014-Based 2019 housing forecast as a baseline and shows the impact of the Local Plans proposed growth over the plan period. The forecast percentage increase in dwellings by 2037 is 28%.

52 Babergh & Mid Suffolk Joint Local Plan Preferred Options 2019 Accessed online at: https://www.midsuffolk.gov.uk/assets/Strategic-Planning/JLP-Reg18-2019/BMSDC-JLP-2019-Part-1-Objectives-and-Strategic-Policies.pdf on 10/06/2020

53 Babergh & Mid Suffolk Joint Local Plan Preferred Options 2019 Accessed online at: https://www.midsuffolk.gov.uk/assets/Strategic-Planning/JLP-Reg18-2019/BMSDC-JLP-2019-Part-1-Objectives-and-Strategic-Policies.pdf on 10/06/2020

Table 4.14 shows the MHCLG 2014-Based housing forecasts for 2018 and 2037. This forecasts a 16% increase in dwellings across the plan period, less than the growth proposed by the Babergh & Mid Suffolk Draft Local Plan.

Table 4.13 Mid Suffolk Housing Provision Forecast - Local Plan

MHCLG 2014-Based Household Projections 2018	Mid Suffolk Local Plan Housing Need 2018 - 2037	2037 Forecast Household Number	Forecast % Increase
43,749	12,296	56,045	28%

Table 4.14 Mid Suffolk Housing Provision Forecast - MHCLG 2014-Based

MHCLG 2014-Based Household Projections 2019	MHCLG 2014-Based Projected Growth	MHCLG 2014-Based Household Projections 2037	Forecast % Increase
43,749	7,016	50,765	16%

Using the water resources market information published by Essex & Suffolk Water, it can be seen that over the period covered by Babergh & Mid Suffolk's Local Plan, the Hartismere WRZ is predicted to experience 9.1% overall growth in households. Mid Suffolk is also partially covered by Anglian Water's East Suffolk, Ixworth and Bury Haverhill WRZ, which predict a 14.8% overall average growth in households. Both of these predicted growths are less than the predicted increase in growth in the Babergh & Mid Suffolk district using the local plans and the MHCLG forecasts.

4.4.5 WRMP Summary

- The water supply in the Mid Suffolk and Babergh district is manage by Anglian Water and Essex & Suffolk Water
- The study area is divided between five Water Resource Zones
- In the four WRZs in AW's supply area (Bury Haverhill, East Suffolk, Ixworth and Sudbury), covering Babergh District, the 2037 local plan forecast of household growth is 5.4% greater than the Water Resources Market Information forecast, and 0.4% greater than the MHCLG 2014-based forecast.
- In the Essex & Suffolk Hartismere WRZ, the 2037 local plan forecast household growth is 13.9% greater than the Water Resources Market Information forecast, and 7% greater than the MHCLG 2014-based forecast. The Mid Suffolk District also was overlapped by three WRZs from AW: East Suffolk, Ixworth and Bury Haverhill WRZ, which showed the 2036 local plan was 8.2% greater than their average Water Resource Market Information forecast.
- Predicted Growth in Babergh & Mid Suffolk is higher than the overall percentage growth forecast in the Water Resource Zones that cover them.

4.5 Anglian Water's Published Position

Anglian Water stated that "*Growth is a key challenge our WRMP 2019 sets out to meet. We have used the latest local authority growth targets to develop our strategy, ensuring there will be enough water to meet these targets. We have taken this approach because housing growth is regularly cited as a top priority for national and local Government. Of course, targets do not always turn into achieved growth and currently, in some areas, local growth targets are not quite being met*"

anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf

4.6 Essex & Suffolk Water's Position

Essex & Suffolk Water stated that *"This area is fed from groundwater supplies. Under the Environment Agency's (EA's) Water Industry National Environment Programme (WINEP). We are required during the period 2020 – 2025 to investigate all of these sources to determine their sustainability from an environmental point. Whilst the investigations are undertaken, and the conclusions agreed with the EA abstraction must not exceed recent actual abstraction rather than the licensed volume. This means increasing output is restricted. This area, under the 2019 Water Resources Management Plan (WRMP), had sufficient headroom to meet the growth forecast in the Local Plans and ONS population increases. However, much of this headroom has been taken up by new, un-forecast, growth in the non-household sector."* Within the ESW area there is sufficient water treatment capacity to serve the forecast level of growth, but raw water sources will not be available locally.

"In the next planning period for the water industry (2025 -2030) we will need to develop a new scheme to transfer water into this area from either Essex or from our Suffolk Northern/central Water Resource Zone. As such the timing of new development above that planned for in WRMP19 will need to be in the 2025 – 2030 period."

ESW further confirmed[54] that there is sufficient capacity to serve planned growth to 2025. During AMP7 (2020-2025), ESW will assess options for addressing future supply-demand deficit, with a view to implementing these during AMP8 (2025-30) if necessary. ESW and the councils will jointly prepare a Statement of Common Ground addressing this issue. Notwithstanding this, ESW would support the use of water recycling at Eye Airfield, where a growing agglomeration of food processing industries has led to a high growth in water demand.

No requirement to safeguard land for strategic infrastructure was identified by ESW.

https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/

4.7 Water Resources East (WRE) – Initial Water Resource Position Statement

Water Resources East (WRE) was formed in 2014 to create a more collaborative approach to water resource management. Five regional groups, including this one, now exist and are challenged by the National Framework to work collaboratively to develop ambitious regional water resources plans. Water Resource East's focus, according to the National Framework, is on reducing the demand for water by all users and increasing the amount of water available through new water resource options and transfers. The initial Water Resource Position Statement released in March 2020 recognises that there is little surplus water available in the region. The main areas this will affect are:

- Public Water Supply – Demand is assessed every five years in water companies Water Resource Management Plans. The region as a whole across all Water Companies has a Net Supply Demand balance of -204 Ml/d.
- Power – To achieve UK net zero carbon. Decarbonisation of gas and electricity systems in the UK will be needed, at the expense to the sector of 0.5l H_2O per Kilowatt Hours (KWh) for electrolysis, and/or 0.1l to 0.3l H_2O per KWh for gas-reforming. The Humber region, a significant part of Eastern England, is identified in the 2019 Future energy scenarios (FES) notes as a possible location for these activities.

54 Stakeholder meeting, 22/09/2020

- Agriculture – The base year demand for spray irrigation is 190 Ml/d, and according to the "Irrigation water strategy for UK agriculture and horticulture", published in 2020, the East of England is an area of high intensity.

Water Resources East (WRE) then highlights that more effective integrated water management is absolutely pivotal, and the goals for the future.

4.8 Water efficiency and water neutrality

4.8.1 Introduction

Babergh & Mid Suffolk has been identified in an area of serious water stress and there are actions under the Water Industry National Environment Programme (WINEP) to investigate sustainability of water resources in the study area, an assess ground water abstraction.

It is widely recognised that the climate is changing and in response Mid Suffolk and Babergh Council declared a climate emergency in 2019[55]. Climate change is predicted to increase pressure on water resources, increasing the potential for a supply-demand deficit in the future, and making environmental damage from over abstraction of water resources more likely. Furthermore, the delivery of water and wastewater services and the heating of water in the home require high energy inputs, and therefore contribute directly to emissions of greenhouse gases. Water efficiency therefore reduces energy use and carbon emissions.

It is important therefore that new development does not result in an unsustainable increase in water abstraction. This can be done in a number of ways from reducing the water demand from new houses through to achieving "water neutrality" in a region by offsetting a new developments water demand by improving efficiency in existing buildings.

4.8.2 Required evidence

It is for Local Authorities to establish a clear need to adopt the tighter water efficiency target through the building regulations. This should be based on:

- Existing sources of evidence such as:
    - The Environment Agency classification of water stress
    - Water resource management plans produced by water companies
    - River Basin Management Plans which describe the river basin district and the pressure that the water environment faces. These include information on where water resources are contributing to a water body being classified as 'at risk' or 'probably at risk' of failing to achieve good ecological status, due to low flows or reduced water availability.
- Consultations with the local water and sewerage company, the Environment Agency and catchment partnerships
- Consideration of the impact on viability and housing supply of such a requirement

4.8.3 Water Stress

Water stress is a measure of the level of demand for water (from domestic, business and agricultural users) compared to the available freshwater resources, whether surface or groundwater. Water stress causes deterioration of the water environment in both the quality and quantity of water, and consequently restricts the ability of a waterbody to achieve a "Good" status under the WFD.

55 Climate Change, Babergh Council, 2019. Accessed online at: https://www.babergh.gov.uk/environment/climate-change/ on: 05/06/2020

The Environment Agency has undertaken an assessment of water stress across the UK. This defines a water stressed area as where:

- "The current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or
- The future household demand for water is likely to be a high proportion of the effective rainfall available to meet that demand."

In the 2013 Environment Agency and Natural Resources Wales water stress assessment, the supply regions serving the Mid Suffolk and Babergh region (Anglian Water and Essex & Suffolk Water) are both classified as areas of serious water stress.

4.8.4 River Basin Management Plans

One of the challenges identified in the River Basin Management Plan (RBMP) for the Anglian River Basin[56] is "changes to natural flow and levels of water". The management recommendations from the RBMP are listed below:

- **All sectors** take up or encourage water efficiency measures, including water industry work on metering, leakage, audits, providing water efficient products, promoting water efficiency and education.
- **Local Government** sets out local plan policies requiring new homes to meet the tighter water efficiency standard of 110 litres per person per day as described in Part G of Schedule 1 to the Building Regulations 2010.
- **Industry manufacturing and other business** implement tighter levels of water efficiency, as proposed by changes to the Building Regulations.
- **Agriculture and rural land management** manage demand for water and use water more efficiently to have a sustainable water supply for the future.
- **Local government** commissions water cycle studies to inform spatial planning decisions around local water resources.

The RBMP goes on to state that "dealing with unsustainable abstraction and implementing water efficiency measures is essential to prepare and be able to adapt to climate change and increased water demand in the future."

4.8.5 National Water Resources Framework

A new National Framework for Water Resources was published by the Government in March 2020. This outlines the water resources challenges facing England and sets out the strategic direction for the work being carried out by regional water resource groups.

A range of options were explored, and the most ambitious scenarios rely on policy change to introduce mandatory labelling of water using fittings and associated standards. The Government is currently reviewing policy on water efficiency following a recent consultation. The framework proposes that regional groups plan to help customers reduce their water use to around 110 l/p/d. This is achievable without policy interventions.

This aligns with the tighter standard of 110 l/p/d per day as described in building regulations. A water efficiency target higher than 110 l/p/d would make the overall target for the UK harder to achieve.

56 Part1: Anglian river basin district River basin management plan (LIT 10311), Environment Agency 2015. Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718327/Anglian_RBD_Part_1_river_basin_management_plan.pdf on: 07/07/2020

4.8.6 Water company positions on water efficiency

Anglian Water provided the following comments on water efficiency:

> Anglian Water support the adoption of the (current) optional higher water efficiency standard in Local Plans within our water supply boundary.
>
> We have issues joint advice with the Environment Agency to Local Planning Authorities on this topic (which has been endorsed by Natural England).
>
> https://www.anglianwater.co.uk/siteassets/household/about-us/aw-ea-natural-england-water-efficiency-advice-note-final.pdf
>
> It is important to emphasise that we see the above standard as the minimum that should be achieved and are supportive of policy changes at the national level to increase water efficiency within homes as well as increased water re-use as part of an integrated approach to water management.
>
> We are also supporting the wider uptake of increased water re-use on development sites as part of our Green Water Programme.

Essex & Suffolk Water outlined their water efficiency in their WRMP:

> The Agency and Defra accepted our water efficiency proposals to annually reduce per capita consumption (PCC) by 0.26 l/h/d (equating to 0.49 Ml/d) by delivering water efficiency activities in AMP6; a target that we are on track to meet. Water savings have been achieved primarily through the delivery of household water efficiency activity, applied equally to unmeasured and measured customers. Water efficiency programmes were delivered to non-households prior to retail separation in April 2017, following which it has been deemed the responsibility of retailers.
>
> Every Drop Counts offers water savings schemes, initiatives and solutions to households and schools within the targeted town. A key component of the campaign is the offer to householders of a free plumber-led home retrofit visit worth over £130. Participating customers that have received an "Every Drop Counts" water efficiency retrofit visit are each saving on average 21.3 litres per day. This equates to an annual saving of 7,775 litres which in turn results in monetary savings of approximately £21 on each participating customer's water and sewerage bills.

ESW stated in their responses that they would support the more stringent level of 110 litres per person per day. This is lower than their business plan goal of achieving 118l/p/d by 2040.

4.8.7 Impact on viability

As outlined in section 3.2.4 the cost of installing water-efficient fittings to target a per capita consumption of 110l/d has been estimated as a one-off cost of £9 for a four-bedroom house. Research undertaken for the devolved Scottish and Welsh

governments indicated potential annual savings on water and energy bills for householders of £24-£64 per year as a result of such water efficiency measures[57]. Water efficiency is therefore not only viable but of positive economic benefit to both private homeowners and tenants.

4.8.8 Summary of evidence for tighter efficiency standard

The strategic direction in the UK set out in the new National Water Resources Framework is to attain an average household water efficiency of 110 l/p/d by 2050. This also aligns with the recommendation in the River Basin Management Plan aimed at reducing the impact of abstraction. There would also be a positive economic impact for residents in terms of reduced energy and water bills.

It is therefore recommended that the tighter water efficiency standard of 110 litres per person per day as described in Part G of Schedule 1 to the Building Regulations 2010 is adopted for Babergh & Mid Suffolk.

4.8.9 Water neutrality concept

Water neutrality is a relatively new concept for managing water resources, but one that is receiving increased interest as deficits in future water supply/demand are identified. The definition adopted by the Government and the Environment Agency[58] is:

> ***"For every development, total water use in the wider area after the development must be equal to or less than total water use in the wider area before development".***

It is useful to also refer to the refined definition developed by Ashton:

"For every new significant development, the predicted increase in total water demand in the region due to the development should be offset by reducing demand in the existing community, where practical to do so, and these water savings must be sustained over time" (V Ashton, 2014)[59]

This definition states the need to sustain water saving measures over time, and the wording "predicted increase in total water demand" reflects the need for water neutrality to be designed in at the planning stage.

Both definitions refer to water use in the region or "wider area", and the extent of this area should be appropriate to local authority boundaries, water resource zones, or water abstraction boundaries depending on what is appropriate for that particular location. For instance, if a development site is in an area of water stress relating to a particular abstraction source, offsetting water use in a neighbouring town that is served by a different water source will not help to achieve water neutrality.

In essence water neutrality is about accommodating growth in a region without increasing overall water demand.

Water neutrality can be achieved in a number of ways:

- Reducing leakage from the water supply networks
- Making new developments more water-efficient

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[57] Waterwise (2018) Advice on water efficient new homes in England. Accessed online at: https://waterwise.org.uk/wp-content/uploads/2019/10/Advice-on-water-efficient-homes-for-England061118.pdf on 06/04/2020

58 Water Neutrality: An improved and expanded water resources management definition (SC080033/SR1), Environment Agency, 2009. Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291675/scho1009bqzr-e-e.pdf on: 07/07/2020

59 Water Resources in the Built Environment, edited by Booth and Charlesworth (2014). Published by Wiley.

- "Offsetting" new demand by retrofitting existing homes with water-efficient devices
- Encouraging existing commercial premises to use less water
- Implementing metering and tariffs to encourage the wise use of water
- Education and awareness-raising amongst individuals

Suggestions for water-efficiency measures are listed in Figure 4.11 below.

4.8.10 Consumer water efficiency measures

Education and promotional campaigns	•Encourage community establishments (e.g. schools, hospitals) to carry out self audits on their water use •Deliver water conservation message to schools and provide visual material for schools •Building awareness with homeowners/tenants
Water-efficient measures for toilets	•Cistern displacement devices to reduce volume of water in cistern •Retro-fit or replacement dual flush devices •Retro-fit interuptable flush devices •Replacement low-flush toilets
Water-efficient measures for taps	•Tap inserts, such as aerators •Low flow restrictors •Push taps •Infrared taps
Water-efficient measures for showers and baths	•Low-flow shower heads •Aerated shower heads •Low-flow restrictors •Shower timers •Reduced volume baths (e.g. 60 litres) •Bath measures
Rainwater harvesting and water reuse	•Large-scale rainwater harvesting •Small-scale rainwater harvesting for example with a water butt, or rainwater tank for toilet flushing •Grey water recycling
Water-efficient measures addressing outdoor use	•Hosepipe flow restrictors •Hosepipe siphons •Hose guns (trigger hoses) •Drip irrigation systems •Mulches and composting

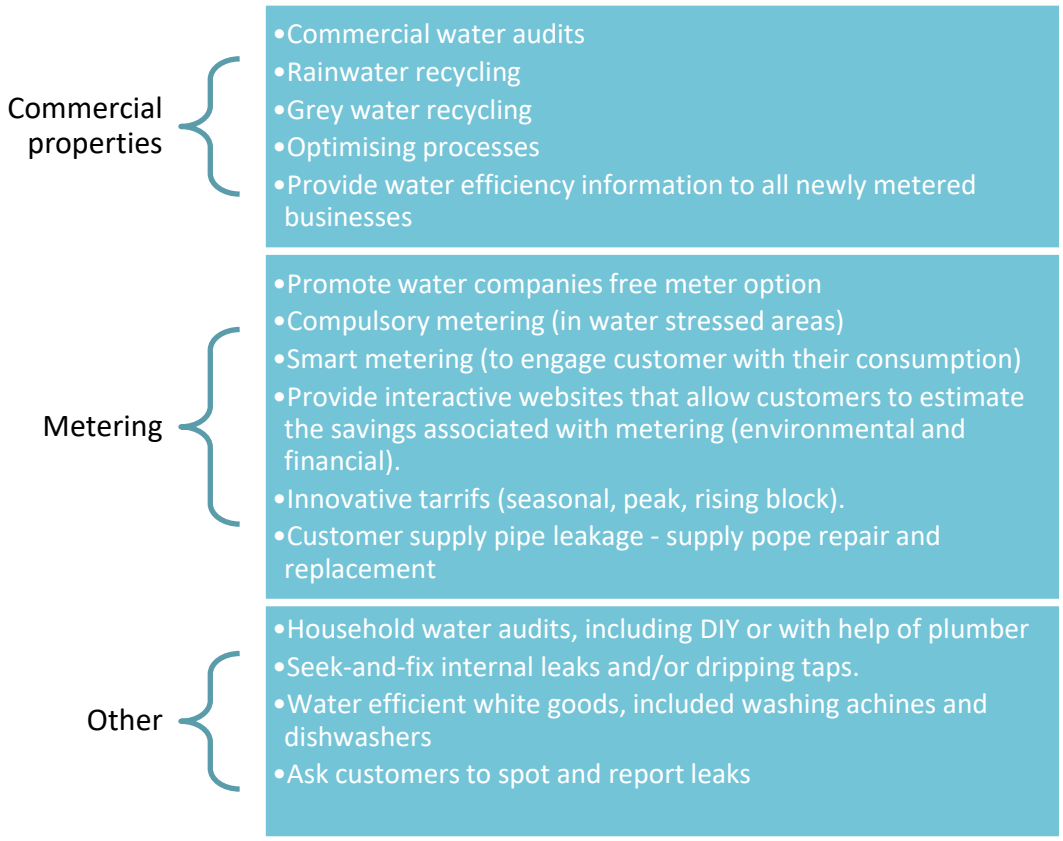


Figure 4.11 Consumer water-efficiency measures

Source: Adapted from Booth and Charleswell 2014

Many interventions are designed to reduce water use if operated in a particular way, and so rely on the user being aware and engaged with their water use. The educational aspect is therefore important to ensure that homeowners are aware of their role in improving water efficiency.

4.8.11 Rainwater Harvesting and Greywater Recycling

Rainwater harvesting

Rainwater recycling or rainwater harvesting (RwH) is the capture of water falling on buildings, roads or pathways that would normally be drained via a surface water sewer, infiltrate into the ground or evaporate. In the UK this water cannot currently be used as a drinking water supply as there are strict guidelines on potable water, but it can be used in other systems within domestic or commercial premises.

Systems for collection of rainwater can be simple water butts attached to a drainpipe on a house, or it could be a complex underground storage system, with pumps to supply water for use in toilet flushing and washing machines. By utilising rainwater in this way there is a reduced dependence on mains water supply for a large proportion of the water use in a domestic property.

Benefits of RwH

- **RwH reduces the dependence on mains water supply – reducing bills for homeowners and businesses**
- **Less water needs to be abstracted from river, lakes and groundwater**
- **Stormwater is stored in a RwH system reducing the peak runoff leaving a site providing a flood risk benefit (for smaller storms)**
- **By reducing surface water flow, RwH can reduce the first flush effect whereby polluted materials adhering to pavement surfaces during dry periods are removed by the first flush of water from a storm and can cause pollution in receiving watercourses.**

Challenges of RwH

- **Dependency on rainfall can limit availability of harvested rainwater during drought and hot weather events.**
- **Increased capital (construction) costs to build rainwater harvesting infrastructure into new housing (£2,674 for a 3/4bed detached home)**
- **Payback periods are long as the cost of water is low so there is little incentive for homeowners to invest. For further information see:** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/353387/021c_Cost_Report_11th_Sept_2014_FINAL.pdf

Greywater Recycling

Greywater refers to water that has been "used" in the home in appliances such as washing machines, showers and hand basins. Greywater recycling (GwR) is the treatment and re-use of this water in other systems such as for toilet flushing. By their nature, GwR systems require more treatment and are more complex than RwH systems, and there are limited examples of their use in the UK.

Greywater re-use refers to systems where wastewater is taken from source and used without further treatment. An example of this would be water from a bath or shower being used on plants in the garden. This sort of system is easy to install and maintain, however as mentioned above the lack of treatment to remove organic matter means the water cannot be stored for extended periods.

Greywater recycling refers to systems where wastewater undergoes some treatment before it is used again. These systems are complex and require a much higher level of maintenance than RwH or greywater re-use systems.

Domestic water demand can be significantly reduced by using GwR, and unlike with a RwH system where the availability of water is dependent on the weather, the source of water is usually constant (for instance if it is from bathing and showering). However, the payback period for a GwR system is usually long, as the initial outlay is large, and the cost of water relatively low. Viability of greywater systems for domestic applications is therefore currently limited. Communal systems may offer more opportunities where the cost can be shared between multiple households.

4.8.12 Energy and water use

According to EU statistics (Eurostat 2017), 17% of the UK's domestic energy usage is for water heating. If less water was being used within the home, for instance through more water efficient showers, less water would need to be heated, and overall domestic energy usage would be reduced.

The Government is currently analysing the results of a 2019 consultation on a Future Homes Standard that will involve changes to Part L (conservation of fuel and power) of the Building Regulations for new dwellings. Whilst there is no direct mention of water efficiency in this consultation, there is an important link between water use and energy use, and therefore between water use and carbon footprint.

4.8.13 Funding for water neutrality

Water neutrality is unlikely to be achieved by just one type of measure, and likewise it is unlikely to be achieved by just one funding source. Funding mechanisms that may be available could be divided into the following categories:

- Infrastructure-related funding (generally from developer payments)
- Fiscal incentives at a national or local level to influence buying decisions of households and businesses
- Water company activities, either directly funded by the five-year price review or as a consequence of competition and individual company strategies
- Joint funding through energy efficiency schemes (and possibly to integrate with the heat and energy saving strategy).

Currently in the UK, the main funding resource for the delivery of water efficiency measures is the water companies, with some discretionary spending by property owners or landlords. For water neutrality to be achieved, policy shifts may be required in order to increase investment in water efficiency. Possible measures could include:

- Further incentivisation of water companies to reduce leakage and work with customers to reduce demand
- Require water efficient design in new development
- Developer funding to contribute towards encouraging water efficiency measures
- Require water efficient design in refurbishments, when a planning application is made
- Tighter standards on water using fittings and appliances.

4.9 Conclusions

- The WRMPs of Anglian Water and Essex & Suffolk Water shows a supply-demand deficit if no action is taken. It goes on to define a number of actions that will address this.
- In Essex & Suffolk Water's Hartismere WRZ, much of the modelled headroom for AMP7 (2020-25) has been used already by recent non-residential developments. ESW have confirmed that current supplies will be sufficient to serve the planned growth to 2025.
- In order to serve growth beyond 2025, a transfer of water into the ESW water resource zone from Essex or elsewhere is likely to be required. During AMP7 (2020-2025), ESW will assess options for addressing future supply-demand deficit, with a view to implementing these during AMP8 (2025-30) if necessary. ESW and the councils will jointly prepare a Statement of Common Ground addressing this issue.
- There is sufficient evidence to support the adoption of the tighter water efficiency target of 110 l/p/d allowed for in building regulations.
- Policies to reduce water demand from new developments, or to go further and achieve water neutrality in certain areas, could be defined to reduce the potential environmental impact of additional water abstractions in Babergh & Mid Suffolk, and also help to achieve reductions in carbon emissions.

4.10 Recommendations

The recommendations for water resources are provided in Table 4.15 below.

Table 4.15 Recommendations for water resources for BMSDC

Action	Responsibility	Timescale
Continue to regularly review forecast and actual household growth across the supply region through WRMP Annual Update reports, and where significant change is predicted, engage with Local Planning Authorities.	AW, ESW	Ongoing
Develop and Statement of Common Ground to address the approach to supplying water to planned growth up to and beyond 2025 in the Hartismere Water Resource Zone.	BMSDC, ESW	Ongoing
Provide yearly profiles of projected housing growth to water companies to inform the WRMP update.	BMSDC	Ongoing
Use planning policy to require the 110l/person/day water consumption target permitted by National Planning Policy Guidance in water-stressed areas.	BMSDC	In Local Plan Review
The concept of water neutrality has potentially a lot of benefit in terms of resilience to climate change and enabling all waterbodies to be brought up to Good status. Explore further with AW and ESW and the Environment Agency how the Council's planning and climate change policies can encourage this approach.	BMSDC, EA, AW, ESW	In Local Plan Review and Climate Change Action Plan
Water companies should advise BMSDC of any strategic water resource infrastructure developments within the Authority, where these may require safeguarding of land to prevent other type of development occurring.	AW, ESW, BMSDC	In Local Plan Review

5 Water Supply Infrastructure

5.1 Introduction

An increase in water demand due to growth can exceed the hydraulic capacity of the existing supply infrastructure. This is likely to manifest itself as low pressure at times of high demand. An assessment is required to identify whether the existing infrastructure is adequate or whether upgrades will be required. The time required to plan, obtain funding and construct major pipeline works can be considerable and therefore water companies and planners need to work closely together to ensure that the infrastructure is able to meet growing demand.

Water supply companies make a distinction between supply infrastructure, the major pipelines, reservoirs, and pumps that transfer water around a WRZ, and distribution systems, smaller scale assets which convey water around settlements to customers. This outline study is focused on the supply infrastructure. It is expected that developers should fund water company impact assessments and modelling of the distribution systems to determine requirements for local capacity upgrades to the distribution systems.

In addition to the work undertaken by water companies, there are opportunities for the local authority and other stakeholders to relieve pressure on the existing water supply system by increasing water efficiency in existing properties. This can contribute to reducing water consumption targets and help to deliver wider aims of achieving water neutrality.

A cost-effective solution can be for local authorities to co-ordinate with water supply companies and "piggyback" on planned leakage or metering schemes, to survey and retrofit water efficient fittings into homes[60]. This is particularly feasible within property owned or managed by the local authorities, such as social housing.

5.2 Methodology

Anglian Water and Essex & Suffolk Water were provided with a complete list of sites and the potential/equivalent housing numbers. Using this information, the water companies were asked to comment on the impact of the proposed growth on water supply infrastructure in BMSDC. Part of this assessment was carried out in 2019 on an early list of potential development sites. An updated list was sent to them as part of this study.

5.3 Results and conclusion

5.3.1 Anglian Water

The assessment conducted in 2019 identified a need for improvements to the existing water supply network to accommodate the planned growth. As part of this a RAG rating was provided, with the majority of sites given an amber rating for both water resources and supply infrastructure indicating that *"Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required".* An updated assessment was provided by Anglian Water covering the additional sites.

5.3.2 Essex & Suffolk Water

ESW provided an assessment of water infrastructure based on the presence of existing water infrastructure within the development site boundary that would require adaptation. No comments were provided on the ability of the water supply network to accommodate additional demand, but it can be assumed that larger sites and those on

60 Water Efficiency Retrofitting: A Best Practice Guide, Waterwise (2009). Accessed online at: http://www.waterwise.org.uk/wp-content/uploads/2018/01/Waterwise-2009_Water-efficiency-Retrofitting_Best-practice.pdf on: 06/07/2020

the periphery of the network may require some network reinforcement, and developers should liaise with ESW early to ensure that this is in planned in.

ESW stated a particular concern on employment sites where they require process water or have a demand for water in addition to that used by employees (kitchens and toilets).

5.3.3 Summary

The full listing of site RAG scores can be found in Appendix A and shown graphically in Appendix B. 312 potential allocations were assessed by the water companies, of these 58 sites were given a "green" assessment indicating there was sufficient capacity to accommodate growth, this represents approximately 2,400 houses. The remaining sites were given an "amber" assessment indicating that some infrastructure upgrades are required in order to serve growth, but no significant constraints to the provision of these upgrades have been identified. In these cases, upgrades could consist of network reinforcement to ensure that a pressure drop isn't experienced by existing customers once new development is connected. This is summarised in Table 5.1 below.

Table 5.1 Summary of water company RAG assessments

RAG score	Babergh			Mid Suffolk		
	Number of Sites	Number of Houses	Employment land (m^2)	Number of sites	Number of Houses	Employment land (m^2)
Green	14	1,174	44,000	43	1,226	0
Amber	107	6,465	952,000	147	8,994	1,512,000
Red	0	0	0	0	0	0

Where upgrades are required it is essential that the water companies are engaged early so upgrade work can be planned and completed prior to occupation of new developments.

The assessments completed in this WCS by the water companies are desktop studies. More detailed network modelling may be required during the planning process in order to better understand the impact on the water supply network. This is usually best conducted once there is greater certainty on the delivery of development sites.

5.3.4 Recommendations

Table 5.2 Recommendations for water supply infrastructure

Action	Responsibility	Timescale
Undertake network modelling where appropriate to ensure adequate provision of water supply is feasible	AW, ESW BMSDC	As part of the planning process
BMSDC and Developers should engage early with AW and ESW to ensure infrastructure is in place prior to occupation.	BMSDC AW, ESW Developers	Ongoing

6 Wastewater Collection

6.1 Sewerage undertakers

Anglian Water is the Sewerage Undertaker (SU) for the study area. The role of the sewerage undertaker includes the collection and treatment of wastewater from domestic and commercial premises, and in some areas, it also includes the drainage of surface water from building curtilages to combined or surface water sewers. It excludes, unless adopted by the SU, systems that do not connect directly to the wastewater network, e.g. Sustainable Drainage Systems (SuDS) or highway drainage.

Increased wastewater flows into collection systems due to growth in populations or per-capita consumption can lead to an overloading of the infrastructure, increasing the risk of sewer flooding and, where present, increasing the frequency of discharges from Combined Sewer Overflows (CSOs).

Likewise, headroom at Water Recycling Centres (WRC) can be eroded by growth in population or per-capita consumption, requiring investment in additional treatment capacity. As the volumes of treated effluent rises, even if the effluent quality is maintained, the pollutant load discharged to the receiving watercourse will increase. In such circumstances the Environment Agency as the environmental regulator, may tighten the permit limits of effluent consents to achieve a "load standstill", i.e. ensuring that as effluent volume increases, the pollutant discharged does not increase. Again, this would require investment by the water company to improve the quality of the treated effluent.

In combined sewerage systems, or foul systems with surface water misconnections, there is potential to create headroom in the system, thus enabling additional growth, by the removal of surface water connections. This can most readily be achieved during the redevelopment of brownfield sites which have combined sewerage systems, where there is potential to discharge surface waters via sustainable drainage systems (SuDS) to groundwater, watercourses or surface water sewers. In some areas of Babergh & Mid Suffolk, there are known issues of surface water causing localised flooding. Strategic schemes to provide improved local surface water drainage may be required in such areas, rather than solely relying upon on-site soakaways on brownfield or infill plots.

AW are supportive of the use of SuDS and SuDS principles to manage surface water run-off. They recommend that the Drainage Hierarchy is used to direct surface water to natural outfall routes such as infiltration to the ground or into watercourses, before utilising sewers, as supported by paragraph 80 of the NPPG. Surface water should also not be permitted to connect to a foul sewer.

6.2 Sewerage System Capacity Assessment

New residential developments and new employment land add pressure to the existing sewerage systems. An assessment is required to identify the available capacity within the existing systems, and the potential to upgrade overloaded systems to accommodate future growth. The scale and cost of upgrading works may vary significantly depending upon the location of the development in relation to the network itself and the receiving WRC.

It may be the case that an existing sewerage system is already working at its full capacity and further investigations have to be carried out to define which solution is necessary to implement an increase in its capacity. New infrastructure may be required if, for example, a site is not served by an existing system. Such new infrastructure will normally be secured through private third-party agreements between the developer and utility provider.

Sewerage Undertakers must consider the growth in demand for wastewater services when preparing their five-yearly Strategic Business Plans (SBPs) which set out investment for the next Asset Management Plan (AMP) period. Typically, investment is committed to provide new or upgraded sewerage capacity to support allocated growth

with a high certainty of being delivered. Additional sewerage capacity to service windfall sites, smaller infill development or to connect a site to the sewerage network across third party land is normally funded via developer contributions, as third-party arrangements between the developer and utility provider.

6.3 Methodology

Anglian Water were provided with a list of potential allocations in 2019 and provided a red/amber/green assessment of these sites with additional comments. As part of this WCS AW were provided an updated list of sites and asked to extend their assessment to include these additional sites using the range of datasets they hold.

The following red/amber/green traffic light definition was used to score each site:

Capacity available to serve the proposed growth	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified	Infrastructure and/or treatment upgrades will be required to serve proposed growth. Major constraints have been identified.

A red RAG score given by the water companies reflects the presence of sewer flooding, CSO spills or pollution events in the vicinity of the site, on the assumption that an increase in wastewater flows from development would make those occurrences more likely in the future. It also takes into account the size of the site, with larger sites more likely to exacerbate existing issues in the network.

A red assessment does not reflect a "showstopper" and it should be remembered that the water companies have a statutory duty to serve new development under the Water Industry Act 1991 – but the rating shows where the most amount of new infrastructure or network reinforcement will be required.

An amber assessment indicates where further modelling may be required to understand local capacity in the network, and a green assessment indicates that no constraints have been identified.

It should be noted that this assessment does not replace appropriate assessments or modelling as part of developer engagement with the sewerage undertaker, evidence of which should be demonstrated to the LPA as an application progresses through the planning process.

6.4 Data collection

The following datasets were used to assess the sewerage system capacity:

- Locations of preferred and strategic sites in GIS format (provided by BMSDC)
- Site tracker spreadsheet (see Appendix A)
- Wastewater catchments (provided by AW)

6.5 Results

6.5.1 Foul sewer network assessment

A site by site assessment on an earlier list of development sites provided was carried out by Anglian Water in 2019 and RAG score given to each site based on their impact on the wastewater network. This was updated for this study with additional sites and summarised in Table 6.1 and shown graphically in Appendix C.

109 sites were given a "green" assessment by Anglian Water, however as these tend to be smaller sites, they only deliver 630 houses.

One site, SS0536 – a large employment site in Mendlesham was given a "Red" score by Anglian Water indicating that significant infrastructure may be required in order to accommodate this. They provided an additional comment that the "Site is remote from nearest sewer, connecting FW may not be viable" (FW = Foul water). In this case significant investment may be required in order to pump wastewater to the nearest sewer, or a bespoke treatment solution may be required.

The remaining sites were given an "amber" assessment indicating that some upgrades to infrastructure may be required in order to accommodate these sites. As with the water supply assessment, where upgrades are required it is essential that Anglian Water is engaged early so upgrade work can be planned and completed prior to occupation of new developments.

The assessments completed in this WCS by the water companies are desktop studies. More detailed network modelling may be required during the planning process in order to better understand the impact on the foul sewer network. This is usually best conducted once there is greater certainty on the delivery of development sites.

Table 6.1 RAG ratings for Foul Sewerage Network Capacity

RAG score	Babergh			Mid Suffolk		
	Number of Sites	Number of Houses	Employment land (m^2)	Number of sites	Number of Houses	Employment land (m^2)
Green	46	233	696,000	63	397	1,036,000
Amber	75	7,406	300,000	127	9,823	408,000
Red	0	0	0	1	0	68,000

The Water Recycling Long Term Plan (WRLTP) document identifies three areas where there is a plan to increase drainage capacity (Ipswich-Cliff Quay, Stowmarket and Brantham). Investigations and improvements to Combined Sewer Overflows are also planned in Ipswich and Stowmarket. This may also help improve water quality downstream. The WRLTP is currently being reviewed by AW against current information and will be updated as part of the preparation of the Drainage and Wastewater Management Plan.

6.6 Conclusions

Development in areas where there is limited wastewater network capacity will increase pressure on the network, increasing the risk of a detrimental impact on existing customers, and increasing the likelihood of CSO operation (where present). Early engagement with developers, Anglian Water is required, and further modelling of the network may be required at the planning application stage. Furthermore, in AW networks, there are areas where the current network is a combined sewer system, and further separation of foul and surface water may be required, as well as suitably design SuDS.

The results in section 6.5.1 show that in order to serve the proposed growth in a number of settlements in Babergh & Mid Suffolk, wastewater infrastructure and/or treatment upgrades would be required. Early engagement between developers, Babergh & Mid Suffolk District Councils and AW is recommended to allow time for the strategic infrastructure required to serve these developments to be planned.

6.7 Recommendations

Table 6.2 Recommendations from wastewater network assessment

Action	Responsibility	Timescale
Early engagement between BMSDC and AW is required to ensure that where strategic infrastructure is required, it can be planned in by AW.	BMSDC AW	Ongoing
Take into account wastewater infrastructure constraints in phasing development in partnership with the sewerage undertaker	BMSDC AW	Ongoing
Developers will be expected to work with the sewerage undertaker closely and early in the planning promotion process to develop an outline Drainage Strategy for sites. The Outline Drainage strategy should set out the following: What – What is required to serve the site Where – Where are the assets / upgrades to be located When – When are the assets to be delivered (phasing) Which – Which delivery route is the developer going to use s104 s98 s106 etc. The Outline Drainage Strategy should be submitted as part of the planning application submission, and where required, used as a basis for a drainage planning condition to be set.	AW and Developers	Ongoing
Developers will be expected to demonstrate to the Lead Local Flood Authority (LLFA) that surface water from a site will be disposed using a sustainable drainage system (SuDS) with connection to surface water sewers seen as the last option. New connections for surface water to foul sewers will be resisted by the LLFA.	Developers LLFA	Ongoing

7 Wastewater Treatment

7.1 Water Recycling Centres in Babergh & Mid Suffolk

Anglian Water operate all of the WRCs serving growth within Babergh & Mid Suffolk, some of which are outside the study area (Halesworth, Hawstead and Stanningfield WRCs). The location of the WRCs in and around Babergh & Mid Suffolk are shown in Figure 7.1 below.

Babergh & Mid Suffolk is a relatively rural area, and extant planning permissions are widespread throughout the study area. As such, many of the potential sites do not fall within an existing wastewater catchment. In general, these sites are small-scale (one or two dwellings) and are distributed widely throughout the study area. Very small developments in rural areas may be suitable for on-site treatment and discharge, however the Environment Agency will not usually permit this where there is a public sewerage system within a distance calculated as 30m per dwelling.

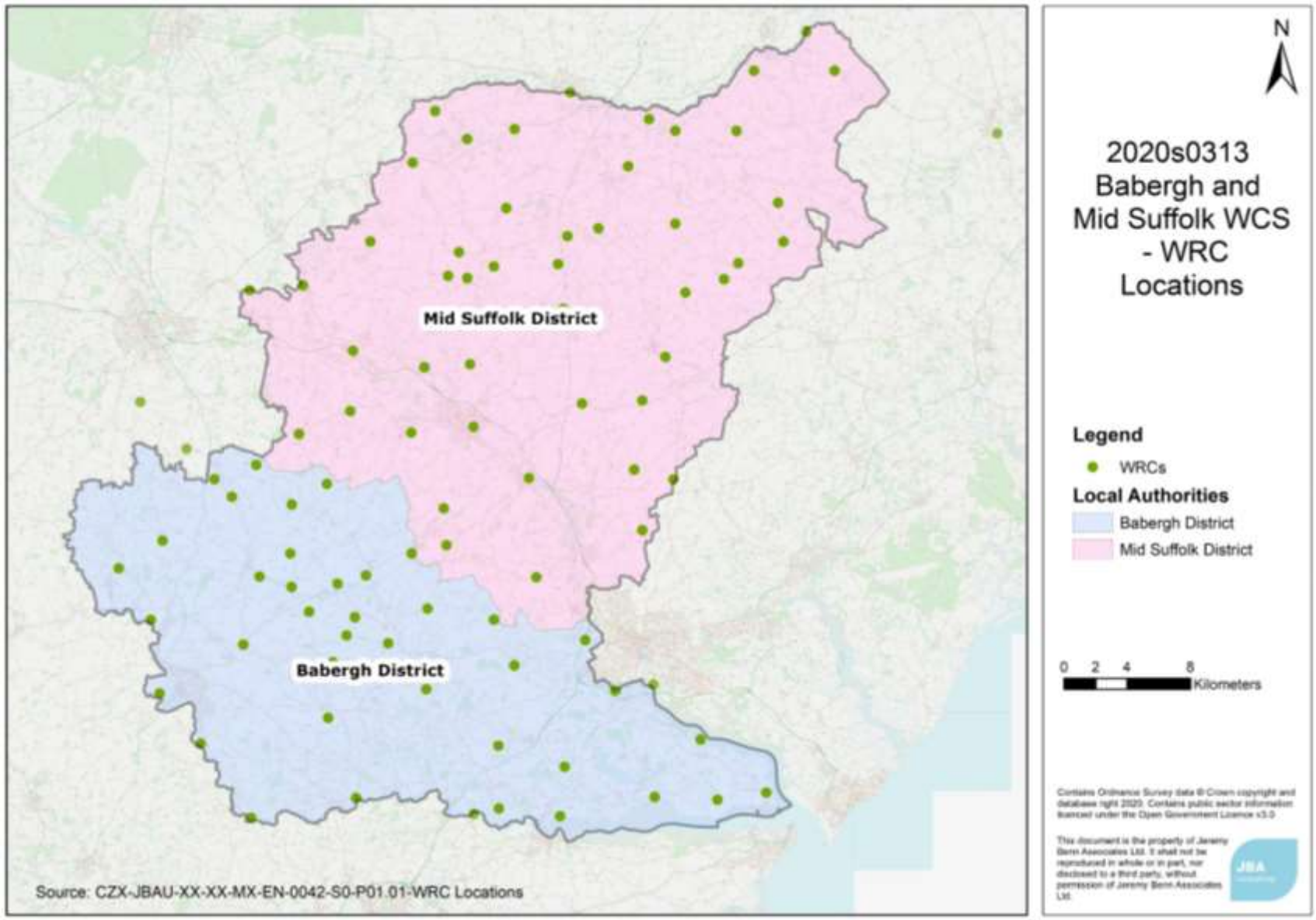


Figure 7.1 Location of WRCs in and around Babergh & Mid Suffolk

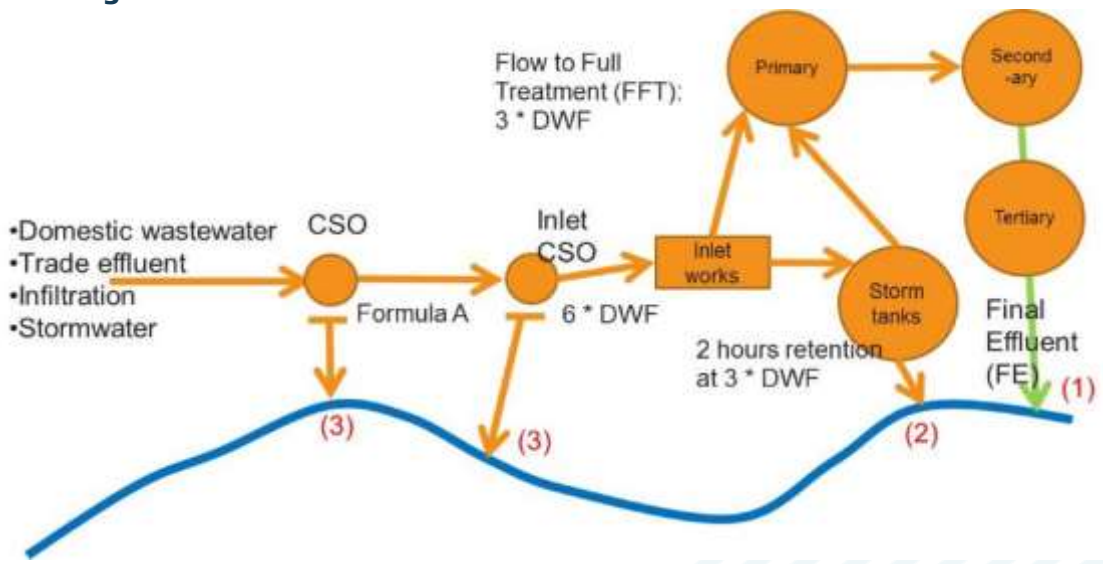
7.2 Water Recycling Centres Flow Permit Assessment

7.2.1 Introduction

The Environment Agency is responsible for regulating sewage discharge releases via a system of Environmental Permits (EPs). Monitoring for compliance with these permits is the responsibility of both the EA and the plant operators. Figure 7.2 summarises the different types of wastewater releases that might take place, although precise details vary from works to works depending on the design.

During dry weather, the final effluent from the Water Recycling Centres (WRC) should be the only discharge (1). With rainfall, the storm tanks fill and eventually start discharging to the watercourse (2) and where present, Combined Sewer Overflows (CSOs) upstream of the storm tanks start to operate (3). The discharge of storm sewage from treatment works is allowed only under conditions of heavy rain or snow melt, and therefore the flow capacity of treatment systems is required to be sufficient to treat all flows arising in dry weather and the increased flow from smaller rainfall events. After rainfall, storm tanks should be emptied back to full treatment, freeing their capacity for the next rainfall event.

Figure 7.2 Overview of typical combined sewerage system and WRC discharges



Environmental permits control the pollutant load discharged from a water recycling centre to a receiving watercourse and set out the concentration of substances and the volume for each effluent. Sewage flow rates must be monitored for all WRCs where the permitted discharge rate is greater than 50 m^3/day in dry weather.

Permitted discharges use a statistic known as the Dry Weather Flow (DWF). As well as being used in the setting and enforcement of effluent discharge permits, the DWF is used for WRC design, as a means of estimating the 'base flow' in sewerage modelling and for determining the flow at which discharges to storm tanks will be permitted by the permit (Flow to Full Treatment, FFT).

WRC Environmental Permits consent for maximum concentrations of pollutants, in most cases Suspended Solids (SS), Biochemical Oxygen Demand (BOD) and Ammonia (NH4). These may be expressed as annual average concentrations or 95 percentiles etc depending on the substance. Some works (usually the larger works) also have permits for Phosphorous (P). These are determined by the Environment Agency with the objective of ensuring that the receiving watercourse is not prevented from meeting its environmental objectives, with specific regard to the physico-chemical Status element of the Water Framework Directive (WFD) classification.

Increased domestic population and/or employment activity can lead to increased wastewater flows arriving at a WRC. Where there is insufficient headroom at the works to treat these flows, this could lead to failures in flow consents.

7.3 Methodology

An assessment of WRC capacity was carried out by JBA using measured flow data supplied by the water companies. The process was as follows:

- AW provided their Dry Weather Flow (DWF) statistics, and from this the 20th percentile (80% exceedance flow) for 2016-2019 was calculated. The flow data was processed to remove zero values and low outlier values which would artificially reduce the measured DWF.
- Potential allocations, windfall and existing commitments were assigned to a WRC using the sewerage drainage area boundaries provided by AW.
- For each residential site, the future DWF was calculated using the occupancy rates and per-capita consumption values obtained from the Water Resource Management Plans (Table 7.1), and the assumption that 95% of water used is returned to sewer. Permitted headroom was used as a substitute for actual designed hydraulic capacity for each WRC being assessed.
- For employment sites, the net floorspace provided by BMSDC was used to estimate the number of employees using the employment use class, and standard densities from the Employment Density Guide 3rd Edition (Homes & Communities Agency, 2015). A standard figure of 0.1m^3/employee/day was then used to estimate water demand on each site.
- For this study it is assumed that every development site identified in a wastewater catchment is developed. This represents a "worse-case" scenario for capacity at each WRC.

Table 7.1 Per capita consumption values used in water demand calculations

Water Company	Water Resource Zone	Occupancy rate (persons per dwelling)	Per capita consumption (m^3/person/day)
Anglian Water	Bury Haverhill	2.21	0.129
	East Suffolk	2.15	0.146
	Ixworth	2.2	0.149
	Sudbury	2.18	0.135
	South Norfolk Rural	2.14	0.126
Essex & Suffolk Water	Hartismere	1.93	0.131
	Blyth	1.93	0.131

- The current and estimated future flow was then compared to the permitted flow obtained from the Environment Agency "Consented Discharges to Controlled Waters with Conditions" database.
- Headroom (expressed the number of homes that could be accommodated before the permit is exceeded) was estimated by calculating the difference between the current and permitted flow, and using the occupancy and per capita consumption for the WRZ the sewer catchment is in to provide an estimate for the number of houses.
- A red/amber/green score was then assigned to each WRC based on whether it was likely to exceed its permitted flow.
- Anglian Water were also asked to comment on specific issues in any of the WRCs.

The following red/amber/green traffic light definition was used to score each WRC:

Capacity available to serve the proposed growth	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Major Constraints to Provision of infrastructure and/or treatment to serve proposed growth

7.4 Results

The RAG scores based on a comparison of available headroom vs potential growth for each WRC serving growth in the study area are summarised for potential allocations in Table 7.2 and for all growth by WRC in Table 7.3. It must be noted that this assessment assumes that every potential allocation within a WRC catchment is developed, and therefore represents a "worst-case" scenario in each catchment.

Where a WRC has sufficient headroom to accommodate all of the potential growth during the plan period it has been given a "Green" RAG rating indicating that the WRC is likely to operate within its permit. It does not take into account the impact on downstream water quality of using available headroom.

Of the 91 WRCs serving growth in the study area, 48 are predicted to be close to or exceeding their flow permit by the end of the plan period should all potential development in their catchment come forward, and no capacity upgrades delivered. These WRCs have been given an "Amber" RAG rating reflecting the likelihood that capacity upgrades may be required in order to accommodate growth.

Development in a catchment scored as "amber" will need to be carefully planned and engagement with Anglian Water is required to ensure that upgrades to capacity are delivered ahead of connection of a development site.

The RAG scores for each WRC catchment are in Figure 7.3. Where a WRC is expected to be close to or exceeding its permit during the plan period a graph showing the indicative trajectory is shown in Appendix D.

Many of the WRCs within rural areas are small, serving populations of (or population equivalents) of less than 250 people. In these cases, a descriptive permit may be in place that requires discharges from these sites to be of "good visual quality". Where population is likely to increase above 250 in a catchment with a descriptive permit, this is reviewed and a programme of monitoring and sampling initiated, before a numeric permit may be issued.

The BMSDC growth plan uses many smaller works with descriptive permits that may require conversion to numeric permits during the plan period. These WRCs, and ones where there is no flow data available to estimate headroom have been given an Amber RAG score.

The Water Recycling Long Term Plan (WRLTP) defines a programme of conversion of descriptive permits covering 37 WRCs across the Anglian Water area, three of which serve growth in BMSDC (Bedfield, Metfield and Wyverstone).

The WRLTP also identifies a number of WRCs where works to increase flow capacity are planned (Gislingham, Monks Eleigh, Norton, and Oakley Dross Lane). The WRLTP will be developed further as part of the emerging Drainage and Wastewater Management Plan.

Table 7.2 Summary of WRC RAG scores (all potential allocations)

RAG score	Babergh			Mid Suffolk		
	Number of Sites	Number of Houses	Employment land (m^2)	Number of sites	Number of Houses	Employment land (m^2)
Green	94	4,473	588,000	89	4,030	100,000
Amber	27	3,166	408,000	102	6,190	1,212,000
Red	0	0	0	0	0	0

Table 7.3 Summary of WRC flow assessment

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Ashbocking-Mill Field	Ashbocking	No flow measurement	20 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Yes
Bacton-Finingham Lane	Bacton	191	449 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Badwell Ash	Badwell Ash, Walsham-le-Willows, Hunston	729	281 houses	Green		No
Bedfield	Bedfield, Tannington	No flow measurement	7 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Bentley	Bentley	70	132 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Bildeston	Bidleston, Hitcham	391	153 houses	Green		No
Botesdale	Botesdale, Rickinghall	278	317 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP9 (2035)
Boxford	Boxford	391	83 houses	Green		No
Brantham	Brantham, Stutton, Tattingttone	1305	556 houses	Green		No
Brent Eleigh	Brent Eleigh	No flow data	2 houses (Extant planning permissions)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	N/A

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Brettenham	Brettenham	No flow data	6 houses (Extant planning permissions)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	N/A
Brundish-Crown Corner	Brundish, Wilby	No flow data	2 houses (Extant planning permissions)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	N/A
Bures-Wissington Rd	Bures St Mary	239	16 houses	Green		No
Chantry	Belstead, Copdock and Washbrook, Sproughton, Wherstead	8,684	1,139 houses 412,000m^2 employment space	Green		No
Chelmondiston	Woolverstone, Chelmondiston	120	85 houses	Green		No
Cockfield (Great Green)	Cockfield	Descriptive permit – no flow data	10 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Cockfield-Green Lane	Cockfield	Descriptive permit – no flow data	31 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Cockfield-McKenzie Place	Cockfield	Descriptive permit – no flow data	51 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Cockfield-Windsor Grn	Cockfield, Hinderclay	Descriptive permit – no flow data	2 houses	Amber	No flow measurement at this WRC so headroom unknown.	Unknown

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
			(extant planning permissions only)		Enhancement to treatment capacity may be required.	
Cotton	Cotton, Finningham, Wickham Skeith	328	66 houses	Green		No
Debenham	Debenham	294	670 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Dedham	Stratford St Mary	224	5 houses (extant planning permissions only)	Green		No
Diss	Diss, Palgrave	11,778	43 houses (extant planning permissions only)	Green		No
East Bergholt	East Bergholt	529	236 houses	Green		No
Elmsett	Aldham, Elmsett	177	112 houses	Green		No
Elmswell	Tostock, Woolpit, Drinkstone	718	1,716 houses 336,000m^2 employment space	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Erwarton	Erwarton	Descriptive permit – no flow data	11 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Eye-Hoxne Rd	Wilby, Eye, Stradbroke, Mellis, Yaxley	4,008	999 houses 40,000m^2 employment space	Green		No

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Gedding	Gedding	70	4 houses (extant planning permissions only)	Green		No
Gislingham	Gislingham	378	50 houses (extant planning permissions only)	Green		No
Glemsford	Glemsford, Stanstead	1,558	247 houses	Green		No
Gosbeck-White Gate Cottages	Gosbeck	Descriptive permit – no flow data	1 house (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Great Bricett	Great Bricett	Descriptive permit – no flow data	60 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Great Cornard	Great Cornard, Chilton	3,985	1,019 houses 44,000m^2 employment space	Green		No
Great Finborough	Onehouse, great Finborough	201	70 houses	Green		No
Great Wenham	Capel St Mary, Wenham Magna, Holton St Mary, Raydon	1,097	864 houses	Green		No
Groton-Castlings Heath	Groton	Descriptive permit – no flow data	1 house	Amber	No flow measurement at this WRC so headroom unknown.	Unknown

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
			(extant planning permissions only)		Enhancement to treatment capacity may be required.	
Gt Waldingfield	Great Waldingfield, Little Waldingfield, Chilton	361	146 houses 32,000m^2 employment space	Green		Yes – exceeds in AMP7 (2025)
Hadleigh	Hadleigh	488	1,199 houses 44,000m^2 employment space	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Halesworth	Laxfield	1,499	90 houses	Green		No
Haughley-Old St	Haughley, Wetherden	782	208 houses 20,000m^2 employment space	Green		No
Hawstead	Hartest	410	1 house (extant planning permissions only)	Green		No
Henley	Henley	80	66 houses	Green		No
Hintlesham-Wilderness H	Hintlesham	288	39 houses	Green		No
Holbrook	Holbrook, Harkstead	840	81 houses	Green		No
Hoxne	Hoxne	108	44 houses	Green		No
Ipswich-Cliff Quay Raeburn	Whitton, Barham, Claydon, Bramford,	23,532	2,465 houses	Green		No

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
	Great Blakenham, Wherstead		32,000m^2 employment space			
Kenton-Garneys Cls	Kenton	Descriptive permit – no flow data	5 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Kersey	Kersey	Descriptive permit – no flow data	1 house (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Lavenham	Lavenham, Brent Eleigh	Already exceeding permit	119 houses 4,000m^2 employment space	Amber	Enhancement to treatment capacity likely to be required	Yes – already exceeds
Lindsey-Frogs Hall	Lindsey	Descriptive permit – no flow data	7 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Long Melford	Acton, Long Melford	2,911	613 houses 72,000m^2 employment space	Green		No
Mendham	Mendham	No flow data	9 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Mendlesham	Mendlesham, Wetheringsett	154	250 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
			360,000m^2 employment space			
Metfield	Metfield	No flow data	33 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Milden-Powny Street	Milden	Descriptive permit – no flow data	1 house (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Monks Eleigh	Milden, Monk Eleigh	134	33 houses (extant planning permissions only)	Amber	Enhancement to treatment capacity likely to be required	No
Nayland	Stoke by Nayland, Leavenheath	261	92 houses	Green		No
Nedging-Crowcroft Rd	Nedging-with-Naughton	No flow data	21 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Needham Market	Creeting St Mary, Needham Market, Barking, Coddenham	2,161	1,294 houses 8,000m^2 employment space	Green		No
Norton (Suffolk)	Norton	38	62 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Oakley-Dross Ln	Brome & Oakley	129	15 houses	Green		No
Old Newton	Old Newton	288	141 houses	Green		No
Pettaugh-Debenham Wy	Pettaugh	Descriptive permit – no flow data	11 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Preston St Mary	Preston St Mary	No flow data	13 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Redgrave-Crackthorn Bridge	Redgrave	237	30 houses	Green		No
Redlingfield	Redlingfield	No flow data	1 house (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Ringshall	Ringshall	No flow data	51	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Shimpling	Lawshall	486	74 houses	Green		No
Shotley-Overhall Fm	Shotley	1,281	372 houses	Green		No
Somersham (Suffolk)	Somersham	368	36 houses	Green		No
Sproughton-Church L	Bramford, Sproughton	17	2,092 houses 404,000m^2 employment space	Amber	Development in this catchment may drain to Ipswich Cliff Quay which has capacity.	Yes – exceeds in AMP6 (2020)
Stanningfield	Cockfield	195	24 houses	Green		No

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Stoke Ash-Roman Wy	Stoke Ash, Thwaite	No flow data	21 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Stonham Aspal	Stonham Aspal, Stonham Parva, Stonham Earl	241	98 houses 20,000m^2 employment space	Amber	Although there is sufficient headroom for potential housing growth, employment growth could cause headroom to be exceeded.	Yes – exceeds in AMP9 (2035)
Stowmarket	Battisford, Stowmarket, Stowupland, Combs	130	3,252 houses 572,000m^2 employment space	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP6 (2020)
Sudbury	Sudbury, Long Melford, Great Cornard, Chilton	4,042	924 houses	Green		No
Thorndon-Catbridge	Thorndon, Occold	257	81 houses	Green		No
Thorpe Morieux-Post Office	Thorpe Morieux	Descriptive permit – no flow data	4 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Thurston	Thurston, Hessett, Beyton	1,150	1,599 houses	Amber	Enhancement to treatment capacity likely to be required	Yes – exceeds in AMP7 (2025)
Thwaite-Wickham Rd (Sufk)	Thwaite	Descriptive permit – no flow data	5 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
Wattisfield	Wattisfield, Botesdale, Rickinghall	167	15 houses 68,000m^2 employment space	Amber	Although there is sufficient headroom for potential housing growth, employment growth could cause headroom to be exceeded.	Yes – exceeds in AMP7 (2025)
Westhorpe	Westhorpe	No flow data	21 houses	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Weybread	Weybread, Fressingfield	162	76 houses	Green		No
Whatfield	Elmsett	224	1 house 28,000m^2 employment space	Green		No
Wilby-Barley View	Wilby	Descriptive permit – no flow data	2 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Wingfield	Wingfield	Descriptive permit – no flow data	8 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Worlingworth	Worlingworth	77	31 houses	Green		No
Wortham-Mellis Rd	Wortham	Descriptive permit – no flow data	4 houses (extant planning permissions only)	Amber	No flow measurement at this WRC so headroom unknown. Enhancement to treatment capacity may be required.	Unknown
Wyverstone	Wyverstone	Descriptive permit – no flow data	9 houses	Amber	No flow measurement at this WRC so headroom unknown.	Unknown

WRC	Areas served by WRC	Estimated Headroom (Housing units)	Potential growth over Local Plan period*	RAG (JBA assessment)	Comments	Is DWF predicted to exceed permitted flow before 2045? (JBA assessment)
			(extant planning permissions only)		Enhancement to treatment capacity may be required.	

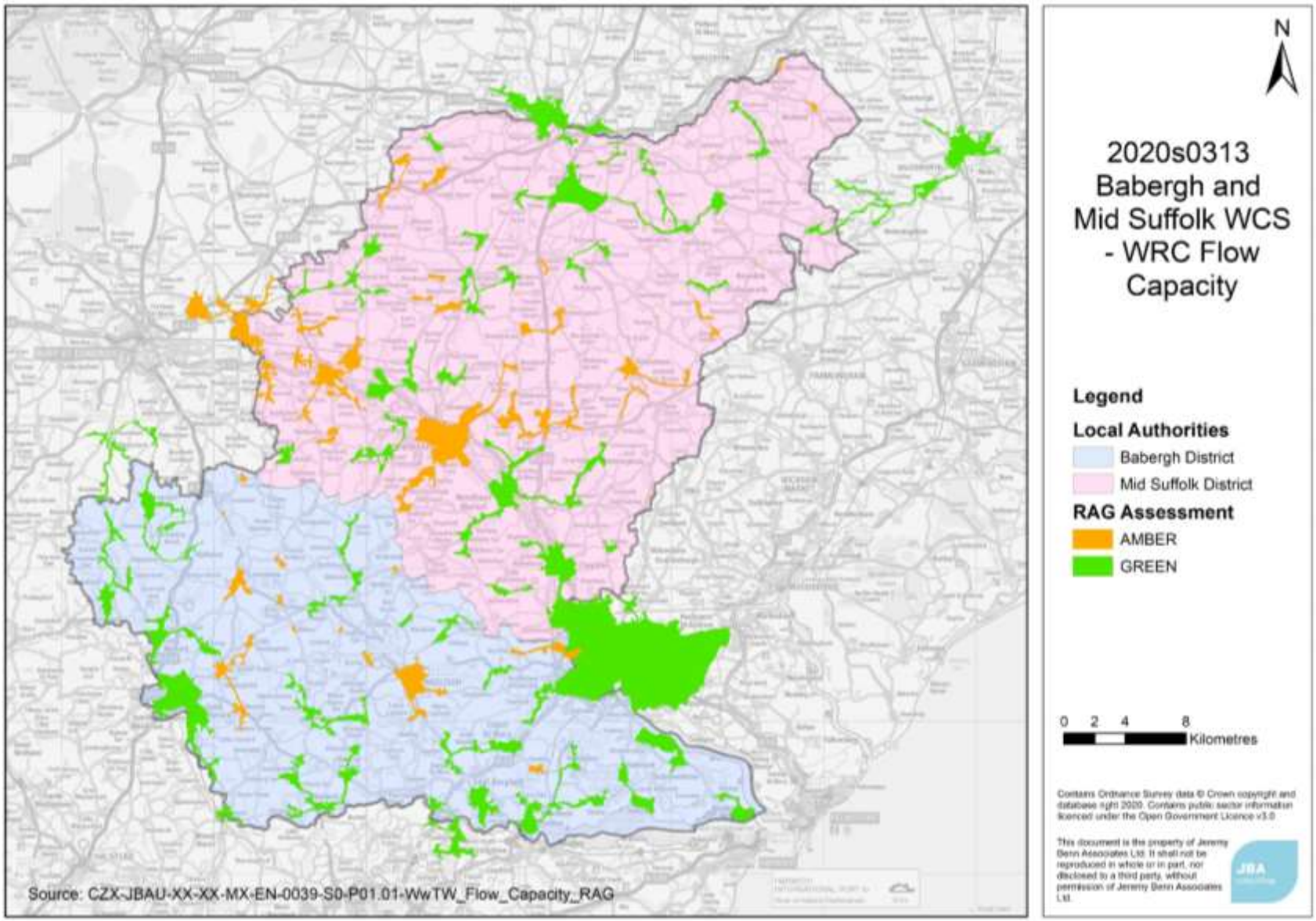


Figure 7.3 WRC flow capacity RAG results

7.5 Conclusions

There are 91 WRCs that may serve growth during the plan period. Of these, 48 may require a change to their permit and / or an upgrade to capacity in order to accommodate growth. It should be remembered that this assessment is based on every identified potential development site coming forward during the plan period.

At many of these WRCs, upgrades are currently planned which may alleviate some capacity issues. Early engagement between the Council and Anglian Water is required to ensure that opportunities to accommodate this growth within existing upgrade schemes can be realised., and where upgrades / improvements at WRCs are required in order to accommodate growth, that they are in place ahead of occupation of development sites.

Opportunities should also be taken to focus growth in the catchments where there is capacity within a WRCs environmental permit, taking into account the water quality considerations contained in section 9.

7.6 Recommendations

Table 7.4 Recommendations for wastewater treatment

Action	Responsibility	Timescale
Consider the available WRC capacity when phasing development going to the same WRC.	BMSDC AW	Ongoing
Provide Annual Monitoring Reports to AW detailing projected housing growth.	BMSDC	Ongoing
AW to assess growth demands as part of their wastewater asset planning activities and feedback to the Council if concerns arise.	AW BMSDC	Ongoing
Repeat the WRC capacity assessment using a forecast based on the Reg. 19 allocations.	BMSDC	As part of JLP evidence base

8 Odour Assessment

8.1 Introduction

Where new developments encroach upon an existing Water Recycling Centres (WRC), odour from that site may become a cause for nuisance and complaints from residents. Managing odour at WRCs can add considerable capital and operational costs, particularly when retro fitted to existing WRCs. National Planning Policy Guidance recommends that plan-makers consider whether new development is appropriate near to sites used (or proposed) for water and wastewater infrastructure, due to the risk of odour nuisance. An assessment was carried out based on the Anglian Water Asset Encroachment Risk Assessment Methodology[61].

8.2 Methodology

Sewerage undertakers recommend that an odour assessment may be required if the site of a proposed development is close to a WRC and is encroaching closer to the WRC than existing urban areas. The general principle is that allocated sites should not be located where a suitable standard of amenity cannot be achieved, or the continuous operation of an existing WRC would be prejudiced.

The closest WRC to each site is determined, along with the distance and direction of the WRC to that site. The actual odour experienced is dependent on the size of the works, the type of treatment processes present, and the age and condition of the site. There is also significant variation due to current weather conditions.

To take into account the size of the works, the dry weather flow (DWF) was used to calculate an approximate population served by each WRC and this was used to assign a "trigger" distance. Where the distance between the site and the WRC is less than the trigger distance, an odour assessment is recommended. The trigger distances used are outlined in Table 8.1.

This is an adaptation of the Anglian Water asset encroachment methodology and uses the same categorisation by population served to identify sites that may be at risk. Application of the full methodology involves knowledge of the treatment processes at individual WRCs and is best performed by Anglian Water on a site by site basis.

Table 8.1 Trigger distance assignment

Population served by WRC	Trigger distance (m)
0-1,000	0
1,001-2,500	50
2,501-5,000	100
5,001-10,000	150
10,001-50,000	300
50,001-100,000	400
>100,000	800

Another important aspect is the location of the site in respect to the WRC. Historic wind direction records for sites around Babergh & Mid Suffolk indicate that the prevailing wind is from north-west, as recorded at the Wattisham Airfield weather station[62].

A red/amber/green assessment was applied by JBA:

Site is unlikely to be impacted by odour from WRC	Site location is such that an odour impact assessment is recommended	Site is in an area with confirmed WRC odour issues

61 Asset Encroachment Risk Assessment Methodology: Guidance Document, Anglian Water (2012). Accessed online at: https://www.anglianwater.co.uk/siteassets/developers/development-services/asset-encroachment-risk-assessment-methodology.pdf on: 06/07/2020

62 RenSMART website http://www.rensmart.com/Weather/WindArchive#monthlyLayer accessed on: 18/06/2020

8.3 Data Collection

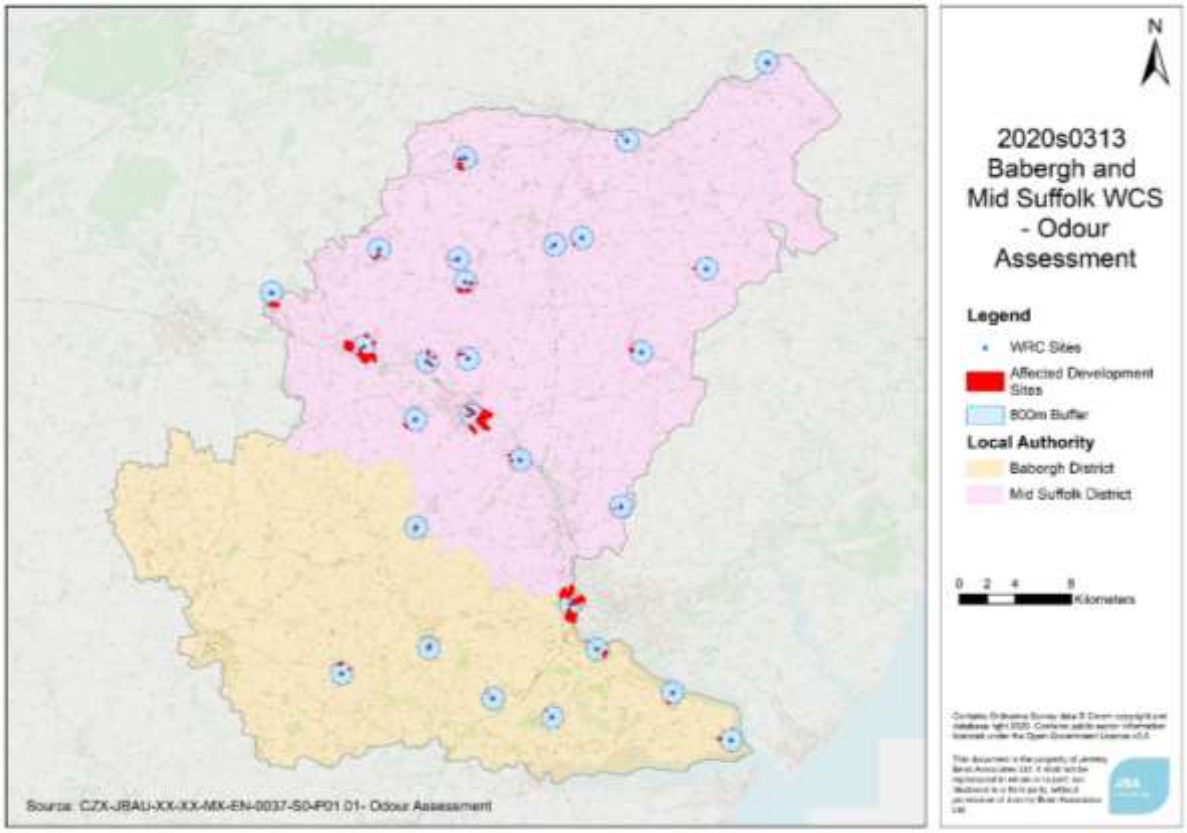
The datasets used to assess the impact of odour from a WRC were:

- Site location in GIS format (provided by BMSDC)
- WRC locations (from "Consented discharges to controlled waters with conditions" database)
- Site tracker spreadsheet (see Appendix A)

8.4 Results

There are 63 potential preferred option sites that may require an odour assessment. The sites are spread across 27 WRC, as shown in Figure 8-1

Figure 8.1 Odour Assessment



8.5 Conclusions

63 sites have been identified that are close enough to a WRC for nuisance odour to be a risk. At these sites it is recommended that an odour assessment is carried out to investigate it further. This should be undertaken as part of the planning process, paid for by developers. These sites have been given an amber assessment. The remaining sites have been given a rating of green.

8.6 Recommendations

Table 8.2 Recommendations from the odour assessment

Action	Responsibility	Timescale
Consider odour risk in the sites identified to be potentially at risk from nuisance odour	BMSDC	Ongoing
Carry out an odour assessment for sites identified as being at risk of nuisance odour	Site Developers	Ongoing

9 Water Quality

9.1 Introduction

An increase in the discharge of effluent from Water Recycling Centres (WRC) as a result of development and growth in the area in which they serve can lead to a negative impact on the quality of the receiving watercourse. Under the Water Framework Directive (WFD), a watercourse is not allowed to deteriorate from its current WFD classification (either as an overall watercourse or for individual elements assessed).

It is Environment Agency (EA) policy to model the impact of increasing effluent volumes on the receiving watercourses. Where the scale of development is such that a deterioration is predicted, a variation to the Environmental Permit (EP) may be required for the WRC to improve the quality of the final effluent, so that the increased pollution load will not result in a deterioration in the water quality of the watercourse. This is known as "no deterioration" or "load standstill". The need to meet river quality targets is also taken into consideration when setting or varying a permit.

The Environment Agency operational instructions on water quality planning and no-deterioration are currently being reviewed. Previous operational instructions[63] (now withdrawn) set out a hierarchy for how the no-deterioration requirements of the WFD should be implemented on inland waters. The potential impact of development should be assessed in relation to the following objectives:

- **Could the development cause a greater than 10% deterioration in water quality?** This objective is to ensure that all the environmental capacity is not taken up by one stage of development and there is sufficient capacity for future growth.
- **Could the development cause a deterioration in WFD class of any element assessed?** This is a requirement of the Water Framework Directive to prevent a deterioration in class of individual contaminants. The "Weser Ruling"[64] by the European Court of Justice in 2015 specified that individual projects should not be permitted where they may cause a deterioration of the status of a water body. If a water body is already at the lowest status ("bad"), any impairment of a quality element was considered to be a deterioration. Emerging practice is that a 3% limit of deterioration is applied.
- **Could the development alone prevent the receiving watercourse from reaching Good Ecological Status (GES) or Potential?** Is GES possible with current technology or is GES technically possible after development with any potential WRC upgrades.

The overall WFD classification of a water body is based on a wide range of ecological and chemical classifications. This assessment focuses on three physico-chemical quality elements; Biochemical Oxygen Demand (BOD), Ammonia, and Phosphate as set out in the EA guidance[65].

BOD – Biochemical Oxygen Demand

BOD is a measure of how much organic material – sewage, sewage effluent or industrial effluent – is present in a river. It is defined as the amount of oxygen taken up by micro-organisms (principally bacteria) in decomposing the organic material in a water sample stored in darkness for 5 days at 20°C. Water with a high BOD has a low level of dissolved oxygen. A low oxygen content can have an adverse impact on aquatic life.

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63 Water Quality Planning: no deterioration and the Water Framework Directive, Environment Agency (2012). Accessed online at: http://www.fwr.org/WQreg/Appendices/No_deterioration_and_the_WFD_50_12.pdf on: 07/07/02020
64 PRESS RELEASE No 74/15, European Court of Justice (2015). Accessed online at: https://curia.europa.eu/jcms/upload/docs/application/pdf/2015-07/cp150074en.pdf on: 07/07/2020
65 H1 Annex D2 - Assessment of sanitary and other pollutants within Surface Water Discharges, Environment Agency (2014).

Ammonia

Nitrogen is an essential nutrient required by all plants and animals for the formation of amino acids. In its molecular form nitrogen cannot be used by most aquatic plants, and so it is converted into other forms. One such form is ammonia (NH_3). This may then be oxidized by bacteria into nitrate (NO_3) or nitrite (NO_2). Ammonia may be present in water in either the unionized form NH_3 or the ionized form NH_4. Taken together these forms care called Total Ammonia Nitrogen.

Although ammonia is a nutrient, in high concentrations it can be toxic to aquatic life, in particular fish, affecting hatching and growth rates.

The main sources in rivers include agricultural sources, (fertilizer and livestock waste), residential sources (ammonia containing cleaning products and septic tank leakages), industrial processes and Water Recycling Centres.

Phosphate

Phosphorus is a plant nutrient and elevated concentrations in rivers can lead to accelerated plant growth of algae and other plants. Its impact on the composition and abundance of plant species can have adverse implications for other aspects of water quality, such as oxygen levels. These changes can cause undesirable disturbances to other aquatic life such as invertebrates and fish.

Phosphorus (P) occurs in rivers mainly as Phosphate (PO_4), which are divided into Orthophosphates (reactive phosphates), and organic Phosphates.

Orthophosphates are the main constituent in fertilizers used in agriculture and domestic gardens and provide a good estimation of the amount of phosphorus available for algae and plant growth and is the form of phosphorus that is most readily utilized by plants.

Organic phosphates are formed primarily by biological processes and enter sewage via human waste and food residues. Organic phosphates can be formed from orthophosphates in biological treatment processes or by receiving water biota.

Although it is phosphorus in the form of phosphates that is measured as a pollutant, the term phosphorus is often used in water quality work to represent the total phosphorus containing pollutants.

9.2 Methodology

9.2.1 General Approach

SIMCAT is used by the Environment Agency to model water bodies and identify where permit changes are needed to prevent deterioration or improve water quality as well as supporting decision making to guide development to locations where environmental deterioration will be reduced. SIMCAT is a 1D stochastic, steady state, deterministic model which represents inputs from point-score effluent discharges and the behaviour of solutes in the river.[66]

SIMCAT can simulate inputs of discharge and water quality data and statistically distribute them from multiple effluent sources along the river reach. It uses the Monte Carlo method for distribution that randomly models up to 2,500 boundary conditions. The simulation calculates the resultant water quality as the calculations cascade further downstream.

Once the distribution results have been produced, an assessment can be undertaken on the predicted mean and ninety percentile concentrations or loads.

The study area is covered by two SIMCAT models. The majority of the area is within the East Anglia model, but three WRCs (Badwell Ash, Elmswell and Thurston) in the west

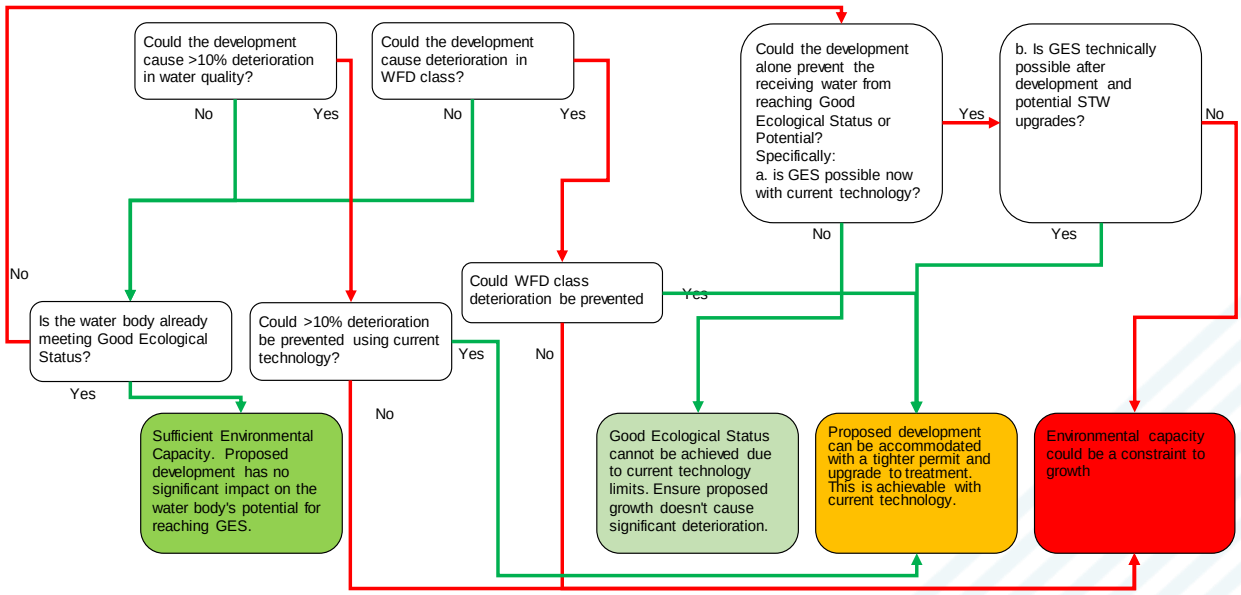
66 Cox. B. A. (2003) A Review of Currently Available in-Stream Water-quality models their applicability for simulating dissolved oxygen in lowland rivers. The Science of the Total Environment. 314 -316, 355 -377. Elsevier

and three in the north (Botesdale, Crackthorn Bridge and Wattisfield) are within the Wash model. In river waterbodies, phosphate is usually the limiting nutrient for algal growth. However, in marine environments, nitrogen is considered to the limiting nutrient. The five WRCs discharging to tidal waterbodies (Brantham, Holbrook, Chelmondiston, Shotley and Ipswich-Cliff Quay), are not included in the SIMCAT models, and so additional nitrate load (expressed as Total Oxidised Nitrogen) was therefore calculated manually.

Within SIMCAT, the determinands modelled were Biochemical Oxygen Demand (BOD), Ammonia (NH_4) and Phosphorus (P).

The methodology followed in summarised in Figure 9.1 below. In this flow chart, all of the questions in the top row must be answered.

Figure 9.1 water quality impact assessment following EA guidance



Where modelling indicated growth may lead to a deterioration in the watercourse, or where the watercourse is not currently meeting at least a 'Good' class for each determinand, the models were used to test whether this could be addressed by applying stricter discharge limits. In such cases, a Technically Achievable Limit (TAL) was considered.

The EA advised that the following permit values are achievable using treatment at TAL, and that these values should be used for modelling all WRC potential capacity irrespective of the existing treatment technology and size of the works:

- Ammonia (90%ile): 1 mg/l
- BOD (90%ile): 5 mg/l
- Phosphorus (mean): 0.25 mg/l

This assessment did not take into consideration whether it is feasible to upgrade each existing WRC to TAL due to constraints of costs, timing, space, carbon costs etc.

9.3 Data Sets

The datasets used to assess the water quality impact were as follows:

- Water quality, river and effluent flow data from within the Environment Agency SIMCAT model
- Current effluent flow data from Anglian Water

- Future wastewater demand calculated from site information provided by Babergh & Mid Suffolk District Councils and a mean occupancy rate and per capita consumption provided by Anglian Water
- Current reach specific WFD class limits for each determinand
- TAL limits for each contaminant

9.4 SIMCAT Modelling approach

The study area is covered by two existing SIMCAT models developed by the Environment Agency. The East Anglia model covers the majority of Babergh & Mid Suffolk, and the Wash model covers WRCs in the north and west. In both cases separate model files are used to represent Ammonia and BOD in one model, and Phosphate in the other. The models have been largely based on observed flow and quality data for the period 2010 to 2012. A widespread update of the models, and the resultant recalibration were not within scope of this project. It was therefore agreed with the EA to update just the effluent flow at WRCs receiving growth in the study area. Consequently, the modelling work presented should be used to identify areas at risk of water quality deterioration, but not for permit setting.

Flow data from the last three years for each WRC in the study area was supplied by AW and used to update the model. Many of the WRCs in the study area already had upgrades planned in AMP6 and AMP7, which would be expected to improve water quality at those locations. These were therefore factored into the model. The two models were then run in their updated form to set a 2019 baseline.

Additional effluent flow from growth during the Local Plan period was added to current flow at WRCs receiving growth and the model re-run as a future scenario.

Some smaller WRCs within the model have descriptive permits which do not set specific numerical limits for DWF and effluent quality, and do not have flow monitoring in place. The models are calibrated to observed water quality measurements and represent the overall water quality in the catchment well, however at a local scale some of these smaller WRCs are not well represented and do not have discharge data, or have pollutant discharges modelled as a load in kgs rather than an effluent flow and concentration. Additional assumptions were therefore needed to account for growth served by these WRCs. At these works additional BOD and Ammonia load was calculated for the future scenario based on the existing permit, or an assumed permit of 20mg/l for BOD and 5mg/l for Ammonia. When subsequent versions of the model were run with WRCs set to treat at the technically achievable limit, just this additional load was reduced as the flow and concentration used to calculate the existing load are unknown. This is therefore a conservative approach as it is likely to overstate the pollutant load/concentration in the TAL scenario.

In order to assess whether a deterioration in WFD class would be predicted, targets for BOD, Ammonia and Phosphate were provided by the EA.

Where treatment at TAL and reductions in diffuse sources in the present day could improve water quality to meet Good class, it is important to understand whether this could be compromised as a result of future growth within the catchment.

Guidance from the EA suggests breaking this down in to two questions:

a) Is GES possible now with current technology?

b) Is GES technically possible after development and any potential WRC upgrades?

If the answer to questions a) and b) are both 'Yes' or 'No' then the development can be assessed as having no significant impact on the water bodies potential for reaching GES, i.e. the development alone is not preventing GES from being achieved. However, if the answer to a) is 'Yes' and the answer for b) is 'No' then development is having a significant impact, i.e. before development GES could be achieved with upstream improvements, and after growth the additional effluent from growth prevents GES being achieved. This process is shown visually in Figure 9.1.

Run type 9 within SIMCAT was then used which assumes that upstream flow at each treatment works is at good ecological status. This simulates improvements being made in upstream water quality. The permit value required to achieve GES is then calculated by the model.

Within the study area the same WFD targets for Ammonia and BOD apply throughout. However, each river reach has an individual phosphate target. The approach was therefore taken to use the maximum and minimum targets found within the study area. If GES could be achieved using both the minimum and maximum target, GES is likely to be achieved regardless of the reach specific target. If it can be achieved in only one scenario, then there is a risk that the reach specific phosphate target for GES may not be met.

In the Wash SIMCAT model it was not possible to carry out the GES assessment due to the setup of the existing model. These WRCs have been noted as "unable to assess" in the results table below.

9.5 Results

9.5.1 Water Framework Directive Overview

Figure 9.2 shows the Cycle 2 Water Framework Directive overall waterbody classifications for watercourses in the study area, and the location of all WRC in Babergh & Mid Suffolk. The majority of the waterbodies have a moderate or poor ecological status, and in all of the waterbodies that contain a WRC serving growth, sewage discharge was cited as one of the "reasons for not achieving good status". The only waterbody within the catchment which has a bad ecological status is the Little Ouse (US Thelnetham) (Waterbody ID GB105033043060). The waterbody received bad ecological status for fish and dissolved oxygen. Also contributing to the good status not being achieved are diffuse sources of phosphate from agriculture (livestock and poor nutrient management), and in some cases from urban and transport sources. The RBMP for the Anglian River Basin[67] estimates that pollution from wastewater affects 50% of water bodies within this river basin district.

67 Anglian river basin district River basin management plan (LIT 10315), Environment Agency (2015). Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718327/Anglian_RBD_Part_1_river_basin_management_plan.pdf on: 07/07/2020

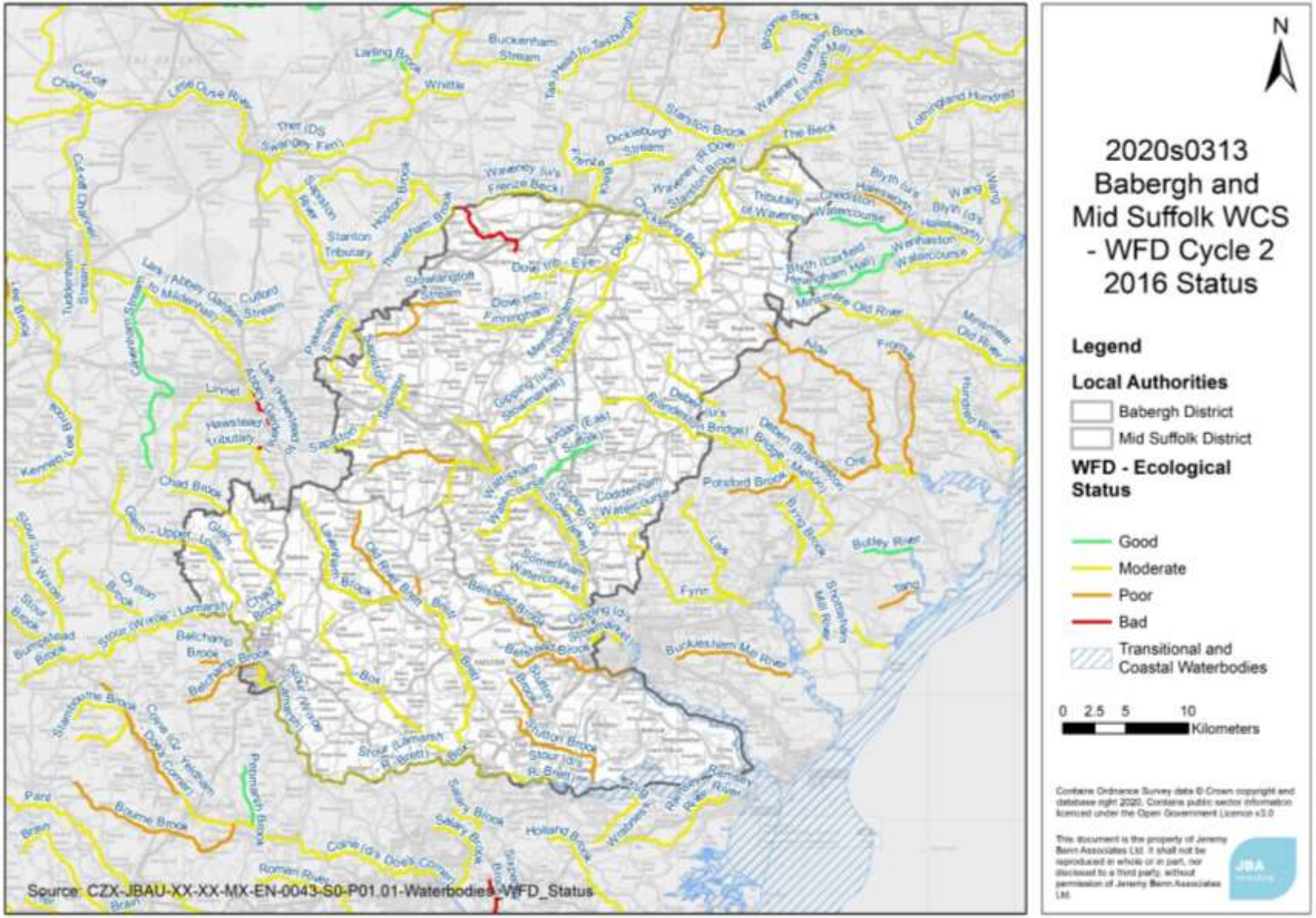


Figure 9.2 WFD Cycle 2 2016 status of waterbodies in Babergh & Mid Suffolk

9.6 Summary of Modelling Results

Table 9.2 below summarises the results of the water quality assessments that have been performed in the study area. As in the WRC capacity assessment, all of the development sites identified within each wastewater catchment are assumed to come forward. This is therefore a "worst-case" scenario for each WRC catchment.

The growth scenario assessed has development sites widely distributed in the study area and many smaller rural WRCs are therefore being used. At many of these WRCs, the additional dwellings served would make up a significant percentage of the total volume of wastewater treated. For this reason, the majority of the WRCs a 10% or greater deterioration in water quality is predicted particularly for phosphate and ammonia.

Smaller WRCs in general do not treat wastewater to the same standards as larger WRCs, as it is more cost effective to provide treatment improvements at larger WRCs. In the majority of cases, where a deterioration in water quality is predicted, this can be prevented by treatment at the technically achievable limit (TAL).

At five WRCs, deterioration could not be prevented through treatment at TAL. These are identified in Table 9.1 below. At Mendlesham WRC, whilst deterioration in water quality could be prevented through treatment at TAL, growth could prevent good ecological status being achieved in the future for phosphate, i.e. once water quality upstream has been improved, the discharge quality required for good ecological status to be achieved is beyond the technically achievable limit. This could impact development on the fringes of Ipswich (Chantry WRC), and in the settlements of Diss, Hadleigh and Halesworth. In the case of Diss and Halesworth WRCs, the majority of new growth in these catchments is from neighbouring authorities and so coordination between councils is recommended.

Table 9.1 WRCs where TAL cannot mitigate deterioration

WRC	Comment	Housing growth over plan period (dwellings)	Employment growth over plan period (m^2)
Chantry WRC	Deterioration in BOD is predicted to be >10% but remains at High WFD status	1,139	412,000
Diss WRC	Deterioration in Ammonia is predicted to be >10% but remains at High WFD status	1,156 (43 from BMSDC)	43,200 (0 from BMSDC)
Hadleigh WRC	Deterioration in Ammonia is predicted to be >10% but remains at High WFD status	1,199	44,000
Halesworth WRC	Deterioration in Ammonia is predicted to be >10% but remains at High WFD status	811 (90 from BMSDC)	11,565 (0 from BMSDC)
Thurston WRC	Deterioration in Ammonia is predicted to be >10% but remains at Good WFD status	1,599	0
Mendlesham WRC	Growth could prevent good ecological status being achieved for phosphate.	250	360,000

Table 9.2 Water quality modelling results

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Bacton (Suffolk) WRC	449 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	Risk that reach specific phosphate target may not be met
Badwell Ash WRC	281 houses	Predicted deterioration is >10% for Ammonia	No	Yes	Unable to assess
Bedfield WRC	7 houses	No	No	N/A	No
Bentley WRC	132 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	Risk that reach specific phosphate target may not be met
Bildesdon WRC	153 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Botesdale WRC	317 houses	Predicted deterioration is >10% for Phosphate	No	Yes	Unable to assess
Boxford WRC	83 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Brent Eleigh WRC	2 houses	No	No	N/A	No
Brettenham WRC	6 houses	Predicted deterioration is >10% for Phosphate and Ammonia	No	Yes	Risk that reach specific phosphate target may not be met
Bures WRC	16 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Chantry WRC	1,139 houses 412,000m^2 employment space	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	No	Deterioration in BOD after treatment at TAL is >10% but WFD status remains "High"	No
Cockfield Great Green WRC	10 houses	No	No	N/A	No
Cotton WRC	66 houses	No	Ammonia may deteriorate from Good to Moderate	Yes	Risk that reach specific phosphate target may not be met
Crackthorn Bridge WRC (Redgrave)	30 houses	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	Ammonia may deteriorate from High to Good	Yes	Unable to assess
Debenham WRC	670 houses	Predicted deterioration is >10% for Ammonia and Phosphate	Ammonia may deteriorate from High to Good	Yes	Risk that reach specific phosphate target may not be met
Dedham WRC	5 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Diss WRC	43 houses	Predicted deterioration is >10% for Ammonia	No	No - Ammonia deterioration remains >10% within High class	No
East Bergholt WRC	236 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Elmsett WRC	112 houses	Predicted deterioration is <10% for Ammonia and Phosphate	No	Yes	No
Elmswell WRC	1,716 houses 336,000m^2 employment land	Predicted deterioration is <10% for Ammonia and Phosphate	Predicted class deterioration from Good to Moderate for BOD	Yes	Unable to assess
Eye WRC	999 houses 40,000m^2 employment space	Predicted deterioration is >10% for Phosphate	No	Yes	No
Gedding WRC	4 houses	No	No	N/A	No
Gislingham WRC	50 houses	No	No	N/A	No
Glemsford WRC	247 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Gosbeck WRC	1 house	No	No	N/A	No
Great Bricett WRC	60 houses	Predicted deterioration is >10% for Ammonia and Phosphate	Predicted class deterioration from Good to Moderate for Phosphate	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Great Cornard WRC	1,019 houses 44,000m^2 employment space	Predicted deterioration is >10% for Phosphate	Predicted class deterioration from Moderate to Poor for Phosphate	Yes	No
Great Finborough WRC	70 houses	No	No	N/A	No
Great Waldingfield WRC	146 houses 32,000m^2 employment space	Predicted deterioration is >10% for Phosphate	No	Yes	No
Great Wenham WRC	864 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	Risk that reach specific phosphate target may not be met
Groton-Castlings Heath WRC	1 house	Predicted deterioration is >10% for Phosphate	No	Yes	No
Hadleigh WRC	1,199 houses 55,000m^2 employment space	Predicted deterioration is >10% for Ammonia and Phosphate	No	No - Ammonia deterioration remains >10% within High class	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Halesworth WRC	90 houses	Predicted deterioration is >10% for Ammonia	No	No - Ammonia deterioration remains >10% within High class	No
Haughley WRC	208 houses 20,000m^2 employment space	Predicted deterioration is >10% for Ammonia and Phosphate	Ammonia may deteriorate in class from Good to Moderate	Yes	No
Henley WRC	66 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Hoxne WRC	44 houses	No	No	N/A	No
Kenton WRC	5 houses	Predicted deterioration is >10% for Ammonia	No	Yes	No
Kersey WRC	1 house	No	No	N/A	No
Lavenham WRC	119 houses 4,000m^2 employment space	Predicted deterioration is >10% for Phosphate	No	Yes	No
Lindsey Frogs Hall WRC	7 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Long Melford WRC	613 houses 72,000m^2 employment space	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Mendham WRC	9 houses	No	No	N/A	No
Mendlesham WRC	250 houses 360,000m^2 employment space	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	Ammonia may deteriorate in class from Good to Poor, BOD from Good to Poor and Phosphate from Poor to Bad	Yes	Development could prevent GES being achieved for Phosphate in the future
Metfield	33 houses	No	No	N/A	No
Milden Powney Street WRC	1 house	No	No	N/A	No
Monks Eleigh WRC	33 houses	No	No	N/A	No
Nayland WRC	92 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Nedging Crowcroft Rd WRC	21 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Needham Market WRC	1,294 houses	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	Ammonia may deteriorate in class from High to Good	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
	8,000m^2 employment space				
Oakley-Dr WRC	15 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Old Newton WRC	141 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Pettaugh WRC	11 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Preston St Mary WRC	13 houses	No	No	N/A	No
Redlingfield WRC	1 house	No	No	N/A	No
Ringshall WRC	51 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Shimpling WRC	74 houses	Predicted deterioration is >10% for Phosphate	No	Yes	No
Somersham WRC	36 houses	No	No	N/A	No
Sproughton WRC	2,092 houses 404,000m^2 employment space	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	No	Yes	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Stoke Ash WRC	21 houses	No	No	N/A	No
Stonham Aspal WRC	98 houses 20,000m^2 employment land	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	Ammonia may deteriorate in class from Moderate to Poor and BOD from High to Good	Yes	Risk that reach specific phosphate target may not be met
Stowmarket WRC	3,252 houses 572,000m^2 employment space	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	No	Yes	Risk that reach specific phosphate target may not be met
Hintlesham WRC	39 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Sudbury WRC	924 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	Yes	No
Thorndon WRC	81 houses	No	No	N/A	No
Thorpe Morieux	4 houses	No	No	N/A	No
Thurston WRC	1,599 houses	Predicted deterioration is >10% for Ammonia and Phosphate	No	No - Ammonia deterioration remains >10% within Good class	Unable to assess
Thwaite WRC	5 houses	No	No	N/A	No

WRC	Potential growth over the plan period	Could the development cause a greater than 10% deterioration in WQ for one or more determinands?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?	Could the development alone prevent the water body from reaching Good class?
Wattisfield WRC	15 houses 68,000m^2 employment space	Predicted deterioration is >10% for Ammonia, BOD and Phosphate	Ammonia may deteriorate in class from High to Good	Yes	Unable to assess
Westthorpe WRC	21 houses	No	No	N/A	No
Weybread	76 houses	No	No	N/A	No
Whatfield WRC	1 house 28,000m^2 employment space	Predicted deterioration is >10% for Phosphate	No	Yes	No
Wilby WRC	2 houses	No	No	N/A	No
Windsor Green WRC	2 houses	No	No	N/A	No
Wingfield WRC	8 houses	No	No	N/A	No
Worlingworth WRC	31 houses	Predicted deterioration is >10% for Ammonia	No	Yes	No
Wortham Mellis Rd WRC	4 houses	No	No	N/A	No
Wyverstone WRC	9 houses	No	No	N/A	No

9.6.1 Tidal discharges

Five of the WRCs that may receive growth in this study discharge to transitional (tidally influenced) waterbodies and so are not modelled in SIMCAT. Generally, for marine environments, nitrate is the limiting nutrient and so the increase in nitrate load has been calculated for each WRC. In water quality monitoring Total Oxidized Nitrogen (TON) is used as a proxy for nitrate as this measurement is more easily performed. TON is the sum of nitrate and nitrite, but generally nitrite makes up a small percentage of TON in rivers, so the TON value is taken to be equivalent to the nitrate concentration. As there is no Nitrogen permit at these WRCs an assumed discharge concentration of 27mg/l was applied. This is in line with recent Natural England guidance on applying nutrient neutrality on the Solent[68]. The additional Nitrogen load for each WRC is reported in Table 9.3.

Table 9.3 Estimated additional annual Nitrogen load from WRCs discharging to transitional waters

WRC	Receiving Waters	Additional Annual Total Oxidized Nitrogen (kgN/yr)
Brantham WRC	River Stour Estuary	1,857
Holbrook WRC		267
Chelmondiston WRC	Orwell Estuary	1,136
Ipswich-Cliff Quay WRC		41,482
Shotley-Overhall Fm		330

9.6.2 Priority substances

As well as the physico-chemical water quality elements (BOD, Ammonia, Phosphate etc.) addressed above, a watercourse can fail to achieve Good Ecological Status due to exceeding permissible concentrations of hazardous substances. Currently 33 substances are defined as hazardous or priority hazardous substances, with others under review. Such substances may pose risks both to humans (when contained in drinking water) and to aquatic life and animals feeding in aquatic life. These substances are managed by a range of different approaches, including EU and international bans on manufacturing and use, targeted bans, selection of safer alternatives and end-of-pipe treatment solutions. There is considerable concern within the UK water industry that regulation of these substances by setting permit values which require their removal at Water Recycling Centres will place a huge cost burden upon the industry and its customers, and that this approach would be out of keeping with the "polluter pays" principle.

We also consider how the planning system might be used to manage priority substances:

- Industrial sources – whilst this report covers potential employment sites, it doesn't consider the type of industry and therefore likely sources of priority substances are unknown. It is recommended that developers should discuss potential uses which may be sources of priority substances from planned industrial facilities at an early stage with the EA and, where they are seeking a trade effluent consent, with the sewerage undertaker.

68 Advice on Achieving Nutrient Neutrality for New Development in the Solent Region, Natural England (2020). Accessed online at: https://www.push.gov.uk/wp-content/uploads/2020/03/Advice-on-Achieving-Nutrient-Neutrality-for-New-Deveopment-in-the-Solent-Region-March-2020.pdf on: 06/07/2020

- Agricultural sources - There is limited scope for the planning system to change or regulate agricultural practices. UK water companies are involved in a range of "Catchment-based Approach" schemes aimed at reducing diffuse sources of pollutants, including agricultural pesticides.
- Surface water runoff sources - some priority substances e.g. heavy metals, are present in urban surface water runoff. It is recommended that future developments would manage these sources by using SuDS that provide water quality treatment, designed following the CIRIA SuDS Manual. This is covered in more detail in section 11.7.2.
- Domestic wastewater sources - some priority substances are found in domestic wastewater as a result of domestic cleaning chemicals, detergents, pharmaceuticals, pesticides or materials used within the home. Whilst an increase in the population due to housing growth could increase the total volumes of such substances being discharged to the environment, it would be more appropriate to manage these substances through regulation at source, rather than through restricting housing growth through the planning system.

No further analysis of priority substances will be undertaken as part of this study.

9.7 Conclusions

The water quality modelling undertaken in this study uses a model calibrated with water quality data and assumptions from 2010-12, and updated with the latest effluent flows at WRCs within the study area, and incorporating AMP6 and AMP7 improvements provided by the EA. It should therefore be used to identify areas at risk of deterioration and cannot be used to set permit limits or definitively rule-out growth in particular catchments.

At five WRCs (Chantry, Diss, Hadleigh Halesworth and Thurston), water quality modelling identified a risk that planned growth could cause a deterioration in water quality, and that it may not be possible to mitigate this with treatment at the technically achievable limit. At Mendlesham WRC, there is a risk that growth may prevent good ecological status being achieved in the future.

At these works, further mitigation may need to be taken to accommodate growth and options include pumping wastewater to a different WRC or changing the point of discharge to a less sensitive waterbody. Detailed optioneering is beyond the scope of this study and is best undertaken by Anglian Water who have a detailed knowledge of their assets, and the range of options and constraints at each.

Where a WRC is shared with a neighbouring authority, coordination of growth plans in collaboration with Anglian Water is essential to ensure that infrastructure is in place prior to development to prevent a breach of the environmental permit.

The modelling indicates that treatment upgrades would be required at the majority of WRCs in order to accommodate growth without deterioration in water quality downstream. Extensive engagement with Anglian Water is required in order to understand the phasing of growth with WRC upgrades to ensure capacity and upgrades to treatment processes are aligned. The growth scenario assessed assumes that every development site identified comes forward and so represents a worst case for each wastewater catchment. There may be options to consolidate growth within catchments that have more environmental capacity, and this should be considered alongside the capacity assessment in section 7. It is also recommended that the modelling is repeated with a growth forecast based on the Reg. 19 JLP allocations which may provide a more accurate representation of the water quality impact of the JLP.

Anglian Water provided the following additional comments on WRC upgrades:

"AW is currently reviewing the assumptions around growth (used for the WRLTP) and the location and amount of investment as part of the DWMP. We would only look to bring forward investment where there was a reasonable degree of certainty that growth

was to happen in a specific catchment taking account of both its scale and timing. This would normally be funded from customers' bills based upon our Business Plan which is subject to the approval of Ofwat as our economic regulator."

9.8 Recommendations

Table 9.4 Table of recommendations for water quality

Action	Responsibility	Timescale
Provide annual monitoring reports to AW detailing projected housing growth in the Local Authority	BMSDC	Ongoing
Take into account the full volume of growth (from BMSDC and neighbouring authorities) within the catchment when considering WINEP schemes or upgrades at WRC	AW	Ongoing
Identify options to accommodate growth at Chantry, Diss, Hadleigh, Halesworth and Mendlesham WRCs	AW	Aligned with projected growth plan
Repeat the water quality modelling using a growth forecast based on the Reg. 19 JLP allocations.	BMSDC	As part of the JLP evidence base

10 Flood Risk Management

10.1 Assessment of additional flood risk from increased WRC discharges

In catchments with a large planned growth in population and which discharge effluent to a small watercourse, the increase in the discharged effluent might have a negative effect on the risk of flooding. An assessment has been carried out to quantify such an effect.

10.2 Methodology

The following process has been used to assess the potential increased risk of flooding due to the extra flow reaching a specific WRC:

- Calculate the increase in DWF attributable to planned growth;
- Identify the point of discharge of these WRCs;
- At each outfall point, identify the FEH v1.0 catchment descriptors associated with the WRC;
- Use FEH Statistical method to calculate peak 1 in 30 (Q30) and 1 in 100 (Q100) year fluvial flows;
- Calculate the additional foul flow as a percentage of the Q30 and Q100 flow.

A red/amber/green rating was applied to score the associated risk as follows:

Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk	Additional flow ≥5% of Q30. Moderate risk that increased discharges will increase fluvial flood risk	Additional flow ≥5% of Q100. High risk that increased discharges will increase fluvial flood risk

The following datasets were used to assess the risk of flooding:

- Current and predicted future DWF for each WRC
- Location of WRC outfalls
- Catchment descriptors from FEH CD-ROM v1.0

The hydrological assessment of river flows was applied using a simplified approach, appropriate to this type of screening assessment. The Q30 and Q100 flows quoted should not be used for other purposes, e.g. flood modelling or flood risk assessments.

10.3 Results

Table 10.21 reports the additional flow from each WRC as a percentage of the Q30 and Q100 peak flow. This shows that additional flows from the WRC post development would have a negligible effect on the predicted peak flow events with return periods of 30 and 100 years. Ipswich – Cliff Quay WRC discharges into the Orwell Estuary. Due to the high flows in the Q30 and Q100 expected here, the flood risk is negligible.

Table 10.1 Summary of DWF as a % of Q30 and Q100 peak flows

WRC	FEH Stat Q30 (m^3/s)	FEH Stat Q100 (m^3/s)	Additional Flow (m3/s)	Flow increase as % of Q30	Flow increase as % of Q100
ASHBOCKING STW	3.86	5.29	0.00	0.00%	0.00%
BACTON (SUFFOLK) WRC	5.94	8.14	0.00	0.05%	0.04%
BADWELL ASH WATER RECYCLING CENTRE	61.94	81.50	0.01	0.01%	0.01%
BEDFIELD STW	8.81	11.99	0.00	0.00%	0.00%

WRC	FEH Stat Q30 (m^3/s)	FEH Stat Q100 (m^3/s)	Additional Flow (m3/s)	Flow increase as % of Q30	Flow increase as % of Q100
BENTLEY WATER RECYCLING CENTRE	74.52	96.06	0.00	0.00%	0.00%
BILDESTON WATER RECYCLING CENTRE	3.49	4.78	0.00	0.08%	0.06%
BOTESDALE WATER RECYCLING CENTRE	72.19	93.06	0.00	0.01%	0.00%
BOXFORD WATER RECYCLING CENTRE	5.97	8.16	0.00	0.06%	0.05%
BRANTHAM WATER RECYCLING CENTRE	6.59	8.93	0.01	0.12%	0.09%
BRENT ELEIGH STW	0.11	0.14	0.00	0.01%	0.00%
BRETTENHAM STW	0.71	0.97	0.00	0.00%	0.00%
BRUNDISH WRC	75.72	100.63	0.00	0.00%	0.00%
BURES WATER RECYCLING CENTRE	1.75	2.41	0.00	0.12%	0.09%
CHANTRY STW	10.79	13.91	0.05	0.43%	0.33%
CHELMONDISTON STW	11.45	14.75	0.00	0.02%	0.02%
CLIFF QUAY STW	Drains to the Orwell Estuary – flood risk assumed to be negligible				
COCKFIELD(GREAT GREEN) STW	1.01	1.37	0.00	0.00%	0.00%
COTTON STW	5.81	7.51	0.00	0.04%	0.03%
CRACKTHORN BRIDGE WRC	2.64	3.62	0.00	0.03%	0.02%
DEBENHAM WATER RECYCLING CENTRE	5.38	7.26	0.01	0.10%	0.07%
DEDHAM WATER RECYCLING CENTRE	13.18	17.20	0.01	0.05%	0.04%
DISS WATER RECYCLING CENTRE	8.65	11.21	0.02	0.21%	0.17%
EAST BERGHOLT WRC	7.71	10.38	0.01	0.08%	0.06%
ELMSETT WATER RECYCLING CENTRE	1.10	1.49	0.00	0.16%	0.12%
ELMSWELL WATER RECYCLING CENTRE	5.09	7.00	0.03	0.53%	0.39%
ERWARTON(WRINCHES) STW	0.84	1.16	0.00	0.00%	0.00%
EYE WATER RECYCLING CENTRE	1.81	2.49	0.02	1.10%	0.79%
GEDDING WRC	77.95	104.86	0.00	0.00%	0.00%
GISLINGHAM STW	6.10	8.30	0.00	0.02%	0.02%
GLEMSFORD STW	5.46	7.37	0.01	0.14%	0.11%
GOSBECK-WHITE GATE COTTAGS"	1.16	1.58	0.00	0.00%	0.00%
GREAT BRICETT STW	3.40	4.71	0.00	0.01%	0.00%
GREAT CORNARD STW	4.59	6.36	0.02	0.44%	0.31%
GREAT FINBOROUGH STW	2.56	3.52	0.00	0.13%	0.10%
GREAT WALDINGFIELD STW	6.35	8.57	0.01	0.09%	0.07%
GREAT WENHAM STW	36.02	48.56	0.01	0.02%	0.01%
GROTON CASTLINGS HTH	1.69	2.33	0.00	0.00%	0.00%

WRC	FEH Stat Q30 (m^3/s)	FEH Stat Q100 (m^3/s)	Additional Flow (m3/s)	Flow increase as % of Q30	Flow increase as % of Q100
HADLEIGH WATER RECYCLING CENTRE	7.04	9.07	0.02	0.33%	0.26%
HALESWORTH WRC	1.53	2.09	0.02	1.18%	0.87%
HAUGHLEY WATER RECYCLING CENTRE	2.45	3.36	0.00	0.11%	0.08%
HAWSTEAD STW	0.77	1.07	0.00	0.16%	0.12%
HENLEY WRC	1.41	1.92	0.00	0.06%	0.04%
HINTLESHAM STW	2.85	3.91	0.00	0.03%	0.02%
HOLBROOK STW	2.91	3.98	0.00	0.11%	0.08%
HOXNE WRC	2.37	3.27	0.00	0.04%	0.03%
KENTON STW	30.93	40.05	0.00	0.00%	0.00%
KERSEY STW	105.47	140.86	0.00	0.00%	0.00%
LAVENHAM WATER RECYCLING CENTRE	2.06	2.85	0.00	0.20%	0.15%
LINDSEY(FROGS HALL) STW	3.49	4.79	0.00	0.00%	0.00%
LONG MELFORD STW	0.25	0.35	0.01	4.99%	3.67%
MCKENZIE PLACE STW	0.13	0.17	0.00	0.00%	0.00%
MENDHAM STW	2.38	3.29	0.00	0.00%	0.00%
MENDLESHAM STW	1.15	1.57	0.01	1.06%	0.78%
METFIELD	44.26	57.65	0.00	0.00%	0.00%
MILDEN POWNEY STREET STW	1.32	1.82	0.00	0.00%	0.00%
MONKS ELEIGH WRC	4.73	6.38	0.00	0.02%	0.01%
NAYLAND WATER RECYCLING CENTRE	1.49	2.03	0.01	0.61%	0.45%
NEDGING CROWCROFT RD STW	1.24	1.72	0.00	0.01%	0.00%
NEEDHAM MARKET WATER RECYCLING CNTR	10.31	13.96	0.02	0.16%	0.12%
NORTON(SUFFOLK) STW	1.43	1.96	0.00	0.13%	0.10%
OAKLEY (SUFFOLK) WRC	13.81	17.91	0.00	0.01%	0.01%
OLD NEWTON STW	7.90	10.19	0.00	0.02%	0.01%
PETTAUGH STW	2.18	3.01	0.00	0.00%	0.00%
PRESTON ST MARY STW	48.30	64.54	0.00	0.00%	0.00%
RATTLESDEN STW	3.80	5.20	0.00	0.03%	0.03%
REDLINGFIELD STW	0.20	0.28	0.00	0.00%	0.00%
RINGSHALL STW	1.40	1.92	0.00	0.00%	0.00%
SHIMPLING STW	7.67	9.95	0.00	0.02%	0.02%
SHOTLEY STW	1.58	2.15	0.00	0.29%	0.21%
SOMERSHAM WATER RECYCLING CENTRE	1.72	2.34	0.00	0.07%	0.05%
SPROUGHTON STW	2.00	2.76	0.02	1.04%	0.75%
STANNINGFIELD WATER RECYCLING CENTR	37.71	48.65	0.00	0.00%	0.00%
STOKE ASH STW	3.35	4.52	0.00	0.00%	0.00%

WRC	FEH Stat Q30 (m^3/s)	FEH Stat Q100 (m^3/s)	Additional Flow (m3/s)	Flow increase as % of Q30	Flow increase as % of Q100
STONHAM ASPAL STW	12.26	15.94	0.00	0.02%	0.02%
STOWMARKET STW	11.75	15.13	0.08	0.69%	0.54%
SUDBURY WATER RECYCLING CENTRE	1.61	2.19	0.03	2.11%	1.55%
THORNDON WATER RECYCLING CENTRE	1.49	2.03	0.00	0.13%	0.10%
THORPE MORIEUX P.O. STW	1.57	2.14	0.00	0.00%	0.00%
THURSTON WATER RECYCLING CENTRE	1.14	1.59	0.02	1.82%	1.31%
THWAITE STW	0.40	0.55	0.00	0.00%	0.00%
WATTISFIELD STW	6.58	8.88	0.00	0.04%	0.03%
WESTHORPE	1.82	2.48	0.00	0.00%	0.00%
WEYBREAD WATER RECYCLING CENTRE	1.82	2.48	0.00	0.21%	0.15%
WHATFIELD STW	13.95	18.09	0.00	0.01%	0.01%
WILBY STW	1.37	1.89	0.00	0.00%	0.00%
WINDSOR GREEN STW	0.58	0.81	0.00	0.00%	0.00%
WINGFIELD STW	73.55	94.81	0.00	0.00%	0.00%
WORLINGWORTH STW	1.25	1.72	0.00	0.08%	0.05%
WORTHAM(MELLIS RD) STW	3.97	5.44	0.00	0.00%	0.00%
WYVERSTONE STW	18.89	24.49	0.00	0.00%	0.00%

10.4 Conclusions

A joint Strategic Flood Risk Assessment is being produced for Babergh & Mid Suffolk District Councils and contains a more detailed assessment of flood risk. At each of the estimated point of discharge for WRCs, the additional flow from growth makes up less than 5% of the Q30 flow and less than 5% of the Q100 flow. **The impact of increased effluent flows is not predicted to have a significant impact upon flood risk in any of the receiving watercourses.**

10.5 Recommendations

Table 10.2 Recommendations from the flood risk assessment

Action	Responsibility	Timescale
Proposals to increase discharges to a watercourse may also require a flood risk activities environmental permit from the EA (in the case of discharges to Main River), or a land drainage consent from the Lead Local Flood Authority (in the case of discharges to an Ordinary Watercourse).	AW	During design of WRC upgrades

11 Environmental Opportunities and Constraints

11.1 Introduction

Development has the potential to cause an adverse impact on the environment through a number of routes such as worsening of air quality, pollution to the aquatic environment, or disturbance to wildlife. Of relevance in the context of a Water Cycle Study is the impact of development on the aquatic environment.

A source-pathway-receptor approach can be taken to investigate the risk and identify where further assessment or action is required.

11.2 Sources of pollution

Water pollution is usually categorised as either diffuse or point source. Point source sources come from a single well-defined point, an example being the discharge from a WRC. Section 9 models the WRCs serving growth within BMSDC as point sources of pollution and predicts the likely concentration of pollutants downstream.

Diffuse pollution is defined as "unplanned and unlicensed pollution from farming, old mine workings, homes and roads. It includes urban and rural activity and arises from industry, commerce, agriculture and civil functions and the way we live our lives."

Examples of diffuse sources of water pollution include:

- Contaminated runoff from roads – this can include metals and chemicals
- Drainage from housing estates
- Misconnected sewers (foul drains to surface water drains)
- Accidental chemical/oil spills from commercial sites
- Surplus nutrients, pesticides and eroded soils from farmland
- Septic tanks and non-mains sewer systems

The most likely sources of diffuse pollution from new developments include drainage from housing estates, runoff from roads and discharges from commercial and industrial premises. The pollution risk posed by a site will depend on the sensitivity of the receiving environment, the pathway between the source of the runoff and the receiving waters, and the level of dilution available. After or during heavy rainfall, the first flush of water carrying accumulated dust and dirt is often highly polluting.

Whilst the threat posed by an individual site may be low, a number of sites together may pose a cumulative impact within the catchment.

Runoff from development sites should be managed by a suitably designed SuDS scheme, more information on SuDS can be found in section 11.7.2.

Potential impacts on receiving surface waters include the blanketing of riverbeds with sediment, a reduction in light penetration from suspended solids, and a reduction in natural oxygen levels, all of which can lead to a loss in biodiversity.

11.3 Pathways

Pollutants can take a number of different pathways from their source to a "receptor" – a habitat or species that can be impacted. This could be overland via surface water flow paths, via the river system, or via groundwater or a combination of all three.

11.4 Receptors

A receptor in this case is a habitat or species that is adversely impacted by a pollutant. Both the rivers and groundwater as well as being pathways, can also be considered to be receptors, and the impact on the ecological status of rivers as defined within the Water Framework Directive is the subject of Section 9. Groundwater bodies are also given a status under the WFD which is reported in Section 4.1.3 for the groundwater bodies with BMSDC.

Within the study area and downstream are many sites with environmental designations such as:

- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Sites of Special Scientific Interest (SSSI)
- Ramsar sites (Wetlands of International Importance)
- Priority Habitats and Priority Headwaters

A description of these, and the relevant legislation that defines and protects them, can be found in section 3.5 and 3.6.

The locations of these protected sites can be found in Figure 11.1 and Figure 11.2 and shown in more detail in Figure 11.3 to Figure 11.9.

11.5 Assessment of impact risk

11.5.1 Methodology

Due to the large number of sources (91 WRCs) and receptors, the study was divided into river catchments for further analysis.

In each catchment, the WRCs that discharge to the catchment are defined, alongside the protected sites that are within 10km downstream (or the coast in most catchments).

Section 9presents an analysis of water quality downstream of each WRC serving growth in the study area. Whilst deterioration in water quality may not always lead to a significant impact at a protected site such as a SSSI, modelled deterioration can be used to highlight areas of risk for further analysis in the Habitats Regulations Assessment.

In order to identify protected sites that may be at risk, Flood Zone 2 from the Risk of Flooding from Rivers and the Sea mapping was used to define an area that was either by a river or could be reasonable expected to receive surface water from a river. Where a WRC was present in the catchment upstream of the protected site, the predicted phosphate concentration in the adjacent waterbody was taken from the SIMCAT water quality model. Where there were no WRCs serving growth upstream, these sites were discounted as no deterioration would be predicted by the model, and the impact would be minimal. However, in these cases the overall catchment water quality should be considered where for example they are designated for migratory fish species that may spend part of their lifecycle elsewhere in the catchment.

Protected sites close to the coast are in transitional waters that are outside the SIMCAT model. The nearest upstream modelled watercourse is therefore used as a proxy for downstream water quality.

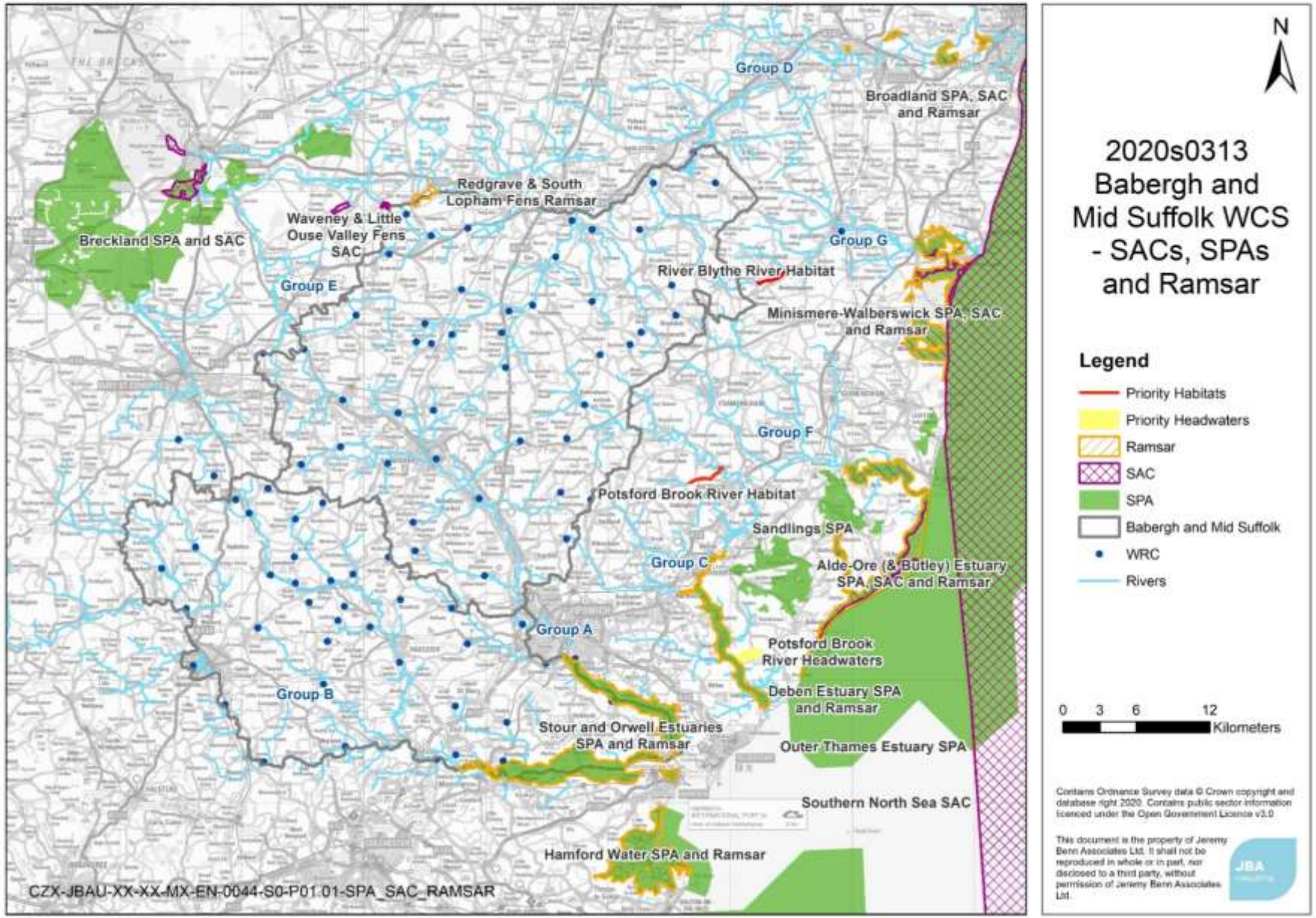


Figure 11.1 Location of SACs, SPAs and Ramsar sites

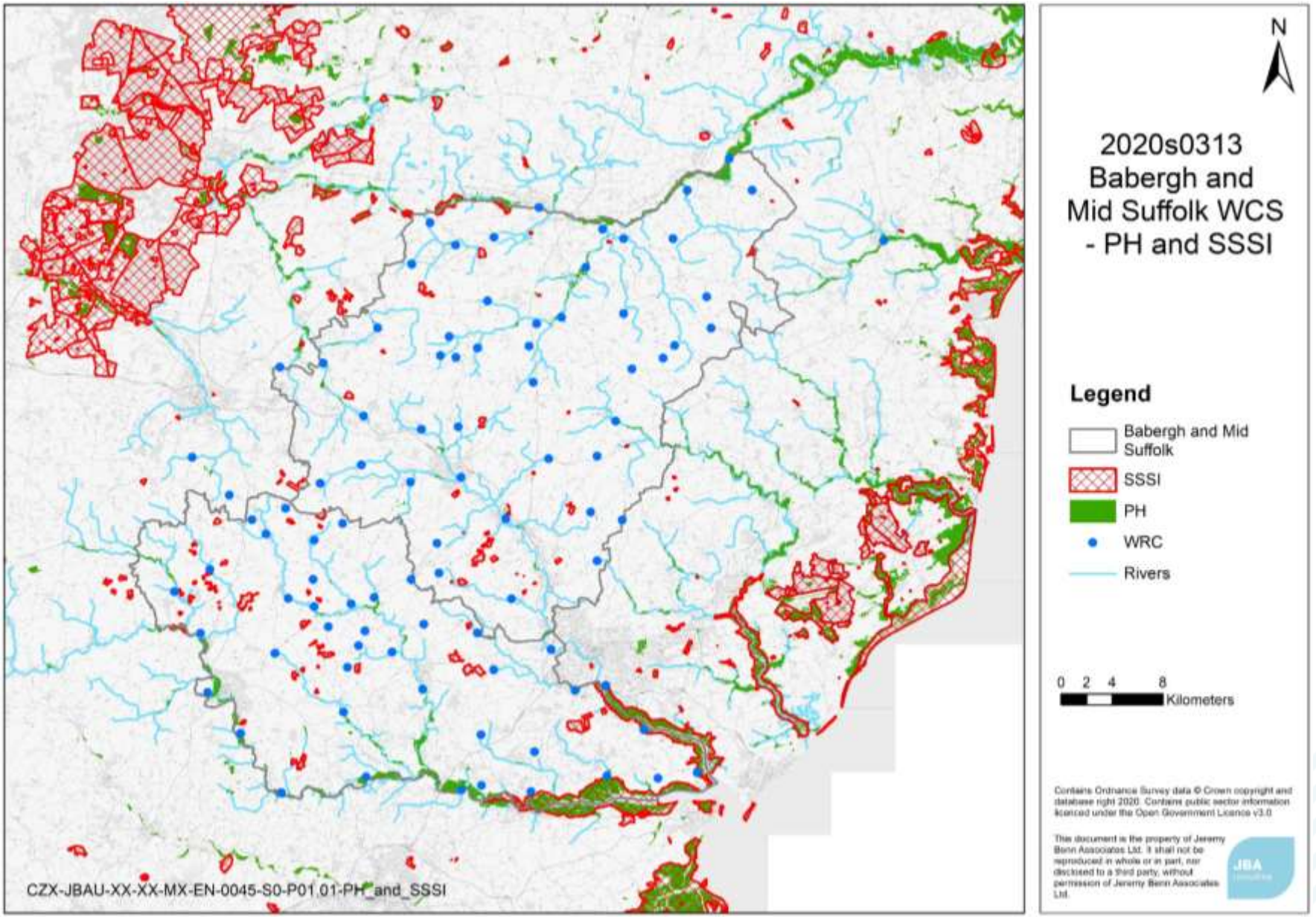


Figure 11.2 Location of SSSIs and Priority Habitats

11.5.2 Catchment A

Catchment A includes the River Gipping and Belstead Brook which discharge to the Orwell Estuary as shown in Figure 11.3. There are four SSSIs that could receive surface water from adjacent rivers, one these – the Orwell Estuary, is also designated as a Ramsar site, SAC and SPA. Bobbitshole SSSI and the Orwell Estuary both have WRCs upstream serving growth in the Local Plan period and so further analysis of water quality deterioration was undertaken. The downstream extent of the River Gipping and Belstead Brook were used as a proxy for water quality in the Orwell Estuary. A significant deterioration in Phosphate could be expected within these two rivers as a result of additional effluent, however in both cases, improvement in treatment processes could prevent this.

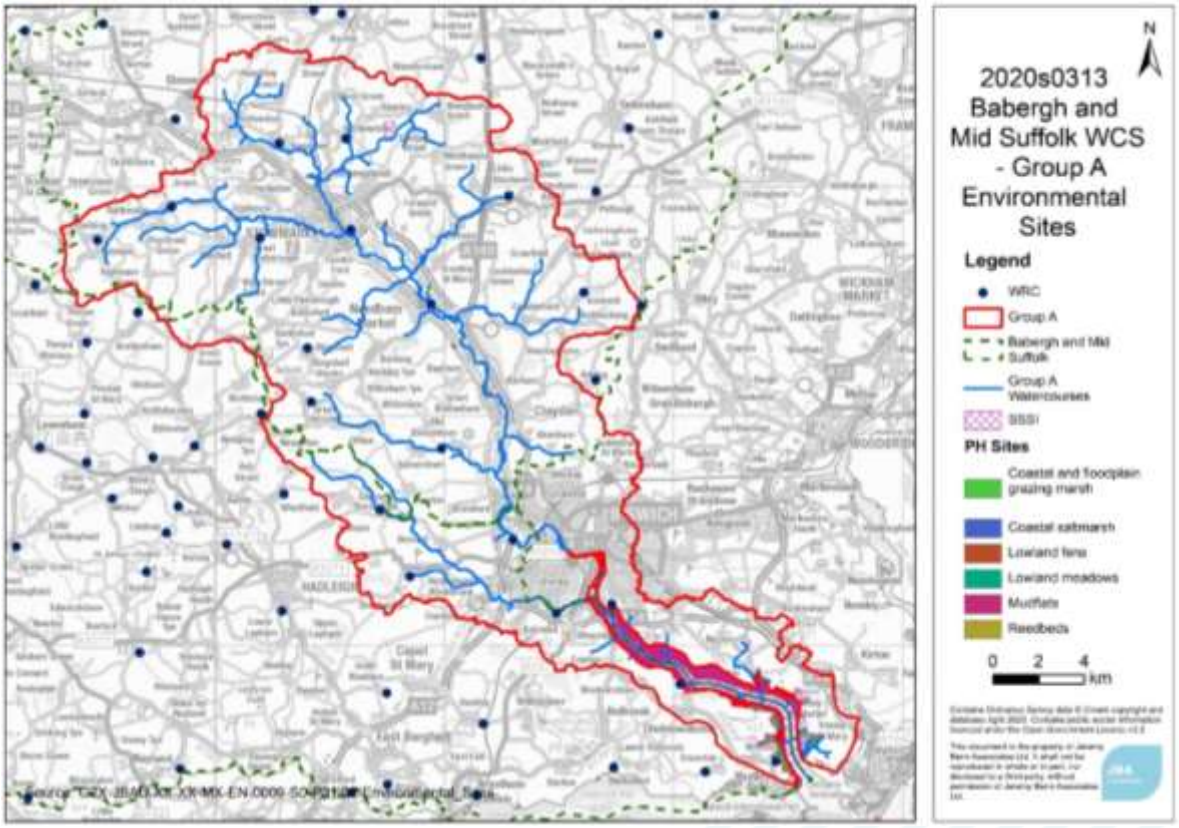


Figure 11.3 Protected sites in catchment A

Table 11.1 Protected sites within catchment A adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Chantry Chelmondiston Elmsett Gedding Gosbeck-White Gate Cottags	Gipping (u/s Stowmarket) - GB105035046180	Gipping Great Wood SSSI (TM075624)	Low – Gipping WRC is upstream but not serving growth
	The Cut (Transitional WB)	Nacton Meadows SSSI (TM231399)	Low – no upstream WRC
	Belstead Brook (GB105035040440)	Bobbitshole, Belstead SSSI (TM149414)	Impact possible

Great Bricett Great Finborough Haughley Old St Hintlesham Wilderness H Ipswich-Cliff Quay Raeburn Needham Market Old Newton Shotley-Overhall Fm Somersham (Suffolk) Sproughton Church L Stonham Aspal Stowmarket	River Gipping Belstead Brook	Orwell Estuary SSSI (TM221380) Stour and Orwell Estuaries SPA (UK9009121 Stour and Orwell Estuaries Ramsar (UK11067)	Impact possible

Table 11.2 Catchment A WQ Impact assessment

Protected site	Adjacent Waterbody	Predicted Impact	
Bobbitshole, Belstead SSSI (TM149414)	Belstead Brook	Baseline Phosphate Conc. (mg/l)	1.52
		Future Phosphate Conc. (mg/l)	2.05
		% Deterioration	35
		Phosphate Conc. After treatment at TAL (mg/l)	0.25
		Can deterioration be prevented?	Yes
Orwell Estuary SSSI (TM221380) Stour and Orwell Estuaries SPA (UK9009121 Stour and Orwell Estuaries Ramsar (UK11067)	River Gipping	Baseline Phosphate Conc. (mg/l)	0.27
		Future Phosphate Conc. (mg/l)	0.53
		% Deterioration	96%
		Phosphate Conc. After treatment at TAL (mg/l)	0.15
		Can deterioration be prevented?	Yes
	Belstead Brook	Baseline Phosphate Conc. (mg/l)	1.38
		Future Phosphate Conc. (mg/l)	1.87
		% Deterioration	36%
		Phosphate Conc. After treatment at TAL (mg/l)	0.24
		Can deterioration be prevented?	Yes

11.5.3 Catchment B

The River Stour, with its tributaries (Chad Brook, River Brett, and Stutton Brook) forms catchment B, discharging downstream to the Stour Estuary. Eight SSSIs are present within this catchment adjacent to one of the waterbodies, one of which (Stour Estuary) is also designated at a Ramsar site, SAC and SPA. At six of these, there are WRCs serving growth upstream and so further analysis of water quality is required.

The water quality model predicts a significant deterioration in phosphate concentration in the river adjacent to all six protected sites. However, in all cases, improvements in treatment technology in upstream WRCs could prevent this deterioration.

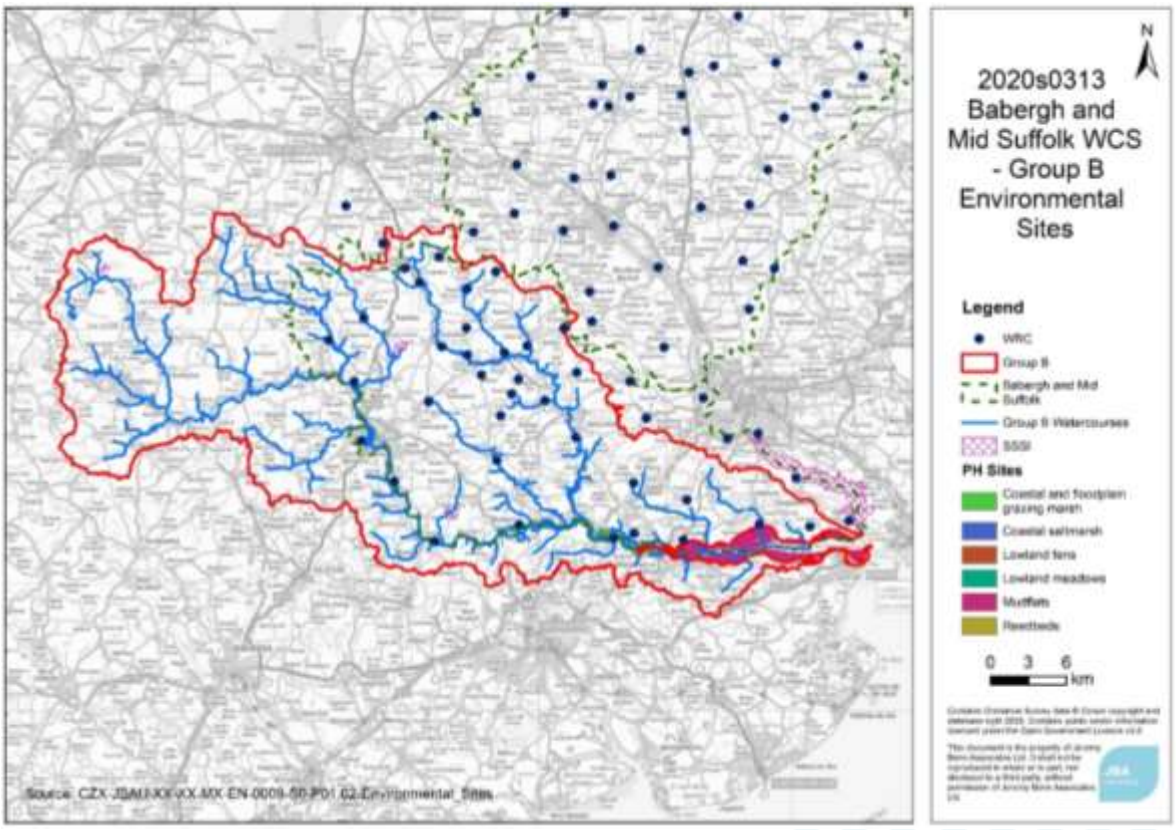


Figure 11.4 Protected sites in catchment B

Table 11.3 Protected sites within catchment B adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Bentley Bildeston Boxford Brantham Brent Eleigh Brettenham Bures-Wissington Rd Cockfield-Mckenzie Place Dedham	Tributary of River Stour	Arger Fen SSSI (TN932357)	Low – No upstream WRCs
	Stour (d/s R. Brett) GB105036041000 Stutton Brook GB105036040890	Cattawade Marshes SSSI (TN090329) Stour Estuary SSSI (TN173327) Stour and Orwell Estuaries SPA (UK9009121) Stour and Orwell Estuaries Ramsar (UK11067)	Impact possible

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
East Bergholt Erwarton Glemsford Great Cornard Groton-Castlings Heath Gt Waldingfield Hadleigh Kersey Lavenham Lindsey-Frogs Hall Long Melford Milden-Powny Street Monks Eleigh Nayland Nedging-Crowcroft Rd Preston St Mary Shimpling Sudbury Thorpe Morieux-Post Office Whatfield	Stour (d/s R. Brett) GB105036041000	Stour and Copperas Woods SSSI, Ramsey (TM193313)	Impact possible
	Stour (u/s Wixoe) GB105036040980	Out and Plunder Woods SSSI (TL658547)	Low – No upstream WRCs
	Stour (Wixoe - Lamarsh) GB105036040941 Glem – Lower GB105036040970	Glemsford Pits SSSI (TL838463)	Impact possible
	Chad Brook GB105036040990	Kentwell Woods SSSI (TL846486)	Impact possible
	Chad Brook GB105036040990	Lineage Wood & Railway Track, Long Melford SSSI (TL889484)	Impact possible

Table 11.4 Catchment B WQ impact assessment

Protected site	Adjacent Waterbody	Predicted impact	
Cattawade Marshes SSSI (TN090329) Stour Estuary SSSI (TN173327) Stour and Orwell Estuaries SPA (UK9009121) Stour and Orwell Estuaries Ramsar (UK11067)	Stour (d/s R. Brett) GB105036041000	Baseline Phosphate Conc. (mg/l)	0.20
		Future Phosphate Conc. (mg/l)	0.25
		% Deterioration	25%
		Phosphate Conc. After treatment at TAL (mg/l)	0.12
		Can deterioration be prevented?	Yes
	Stutton Brook	Baseline Phosphate Conc. (mg/l)	0.34
		Future Phosphate Conc. (mg/l)	0.46
		% Deterioration	35%
		Phosphate Conc. After treatment at TAL (mg/l)	0.18
		Can deterioration be prevented?	Yes
Stour and Copperas Woods,	Stour (d/s R. Brett) GB105036041000	Baseline Phosphate Conc. (mg/l)	0.20
		Future Phosphate Conc. (mg/l)	0.25
		% Deterioration	25%

Protected site	Adjacent Waterbody	Predicted impact	
Ramsey (TM193313)		Phosphate Conc. After treatment at TAL (mg/l)	0.12
		Can deterioration be prevented?	Yes
Glemsford Pits SSSI (TL838463)	Stour (Wixoe - Lamarsh)	Baseline Phosphate Conc. (mg/l)	0.21
		Future Phosphate Conc. (mg/l)	0.31
		% Deterioration	48%
		Phosphate Conc. After treatment at TAL (mg/l)	0.12
		Can deterioration be prevented?	Yes
	Glem - Lower	Baseline Phosphate Conc. (mg/l)	0.19
		Future Phosphate Conc. (mg/l)	0.43
		% Deterioration	126%
		Phosphate Conc. After treatment at TAL (mg/l)	0.15
		Can deterioration be prevented?	Yes
Kentwell Woods SSSI (TL846486)	Chad Brook	Baseline Phosphate Conc. (mg/l)	0.19
		Future Phosphate Conc. (mg/l)	0.41
		% Deterioration	116%
		Phosphate Conc. After treatment at TAL (mg/l)	0.15
		Can deterioration be prevented?	Yes
Lineage Wood & Railway Track, Long Melford SSSI (TL889484)	Chad Brook	Baseline Phosphate Conc. (mg/l)	0.19
		Future Phosphate Conc. (mg/l)	0.28
		% Deterioration	47%
		Phosphate Conc. After treatment at TAL (mg/l)	0.13
		Can deterioration be prevented?	Yes

11.5.4 Catchment C

The River Deben is the dominant river in catchment C, with significant tributaries the Lark and Fynn (Figure 11.5). Within this catchment there are six SSSIs, one of which (the Deben Estuary) is also designated as a Ramsar site, SPA and SAC. Also present is an area of priority river habitat (Potsford Brook) and an area of priority headwaters above the Deben Estuary. Five of the SSSIs (including Deben Estuary) have WRCs serving growth discharging upstream and so may experience a deterioration in water quality. There is one WRC discharging to the Potsford Brook priority river habitat, however it is not serving growth within BMSDC and so has been screened out. No WRCs discharge to the priority headwaters. This is summarised in Table 11.5.

A small deterioration (6%) in phosphate concentration is predicted in the watercourse adjacent to Fox Fritillary Meadow SSSI, and 0-2% deterioration predicted in watercourses discharging to the Deben Estuary. In both cases, this deterioration could be prevented through improvements in upstream treatment processes at WRCs.

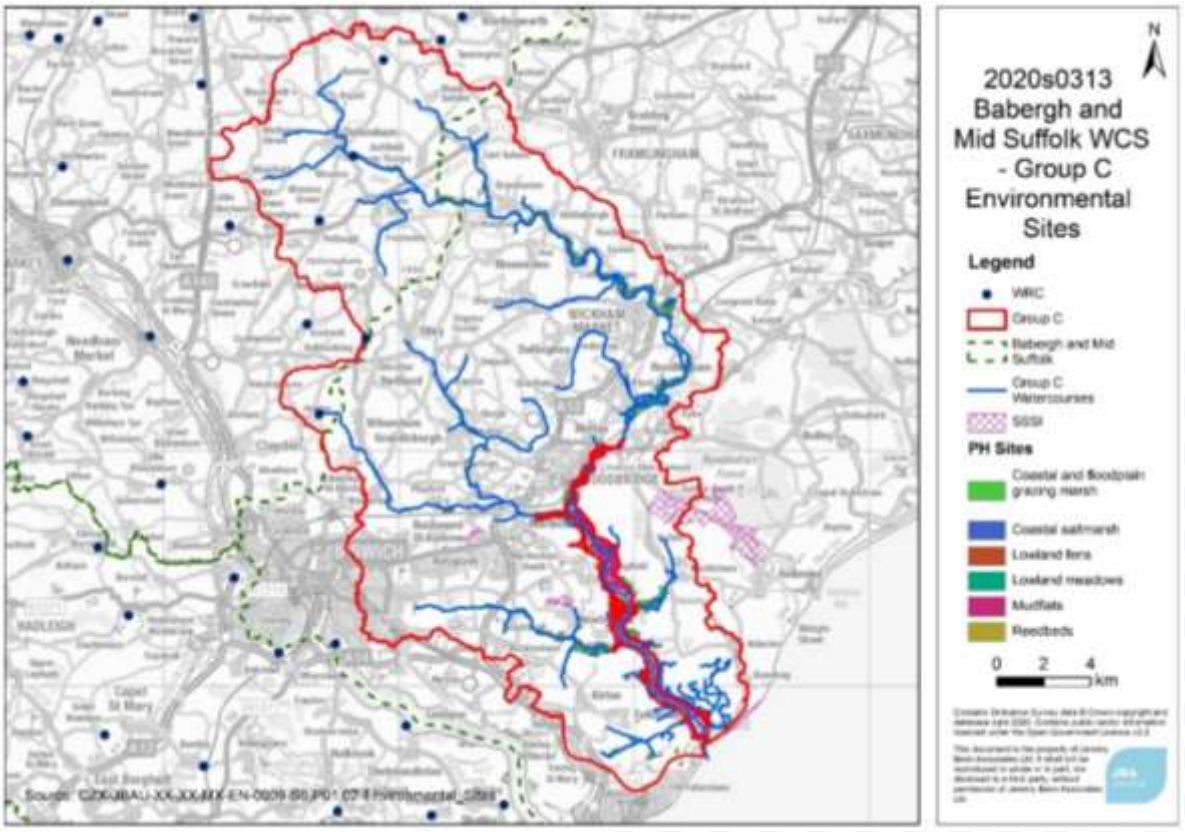


Figure 11.5 Protected sites in catchment C

Table 11.5 Protected sites within catchment C adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Ashbocking-Mill Field Debenham Henley Kenton Pettaugh-Debenham Wy	Tributary of Bucklesham Mill river	Newbourn Springs SSSI (TM269435)	Low – no upstream WRC
	Lark - Fynn (d/s confluence) GB105035040300	Ramsholt Cliff SSSI (TM297427) Deben Estuary SSSI (TM296434)	Impact possible

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
	Deben (Brandeston Bridge - Melton) GB105035046310	Deben Estuary SPA (UK9009261) Deben Estuary (UK11017) Ferry Cliff SSSI (TM278486)	
	Shottisham Mill River GB105035040290	Sutton and Hollesley Heaths SSSI (TM330471)	Low – no upstream WRC
	Tributary of Deben (u/s Brandeston Bridge) GB105035046200	Fox Fritillary Meadow, Framsden SSSI (TM189606)	Impact possible
	Tributary of Lark - Fynn (d/s confluence)	Sinks Valley, Kesgrave SSSI (TM224462)	Low – no upstream WRC
	Potsford Brook	Potsford Brook Priority River Habitat (GB105035040370)	Low – no upstream WRC serving growth
	Deben Estuary	Priority Headwaters (GB105035040260)	Low – no upstream WRC

Table 11.6 Catchment C WQ impact assessment

Protected site	Adjacent Waterbody	Predicted Impact	
Ramsholt Cliff SSSI (TM297427) Deben Estuary SSSI (TM296434) Deben Estuary SPA (UK9009261) Deben Estuary (UK11017) Ferry Cliff SSSI (TM278486)	Lark - Fynn (d/s confluence) GB105035040300	Baseline Phosphate Conc. (mg/l)	0.30
		Future Phosphate Conc. (mg/l)	0.30
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.12
		Can deterioration be prevented?	Yes
	Deben (Brandeston Bridge - Melton) GB105035046310	Baseline Phosphate Conc. (mg/l)	0.48
		Future Phosphate Conc. (mg/l)	0.49
		% Deterioration	2%
		Phosphate Conc. After treatment at TAL (mg/l)	0.23
		Can deterioration be prevented?	Yes
Fox Fritillary Meadow, Framsden SSSI (TM189606)	Tributary of Deben (u/s Brandeston Bridge) GB105035046200	Baseline Phosphate Conc. (mg/l)	0.18
		Future Phosphate Conc. (mg/l)	0.19
		% Deterioration	6%
		Phosphate Conc. after treatment at TAL (mg/l)	0.17
		Can deterioration be prevented?	Yes

11.5.5 Catchment D

Catchment D contains the River Waveney and River Dove. Eleven SSSIs are adjacent to watercourses in the catchment. Also present in the catchment are the Broads SAC and Broadlands Ramsar and SPA which extend over multiple sites in the area, Breydon Water SSSI is also designated as a Ramsar site and SPA, as is Redgrave and South Lopham Fens SSSI. At five sites (three of which have additional designations) WRCs serving growth in the Local Plan period are present upstream. At four of these sites, no deterioration in Phosphate concentration is predicted, but at Barnby Broad & Marshes SSSI a 3% deterioration is predicted. This could be prevented by improvements in upstream treatment processes at WRCs.

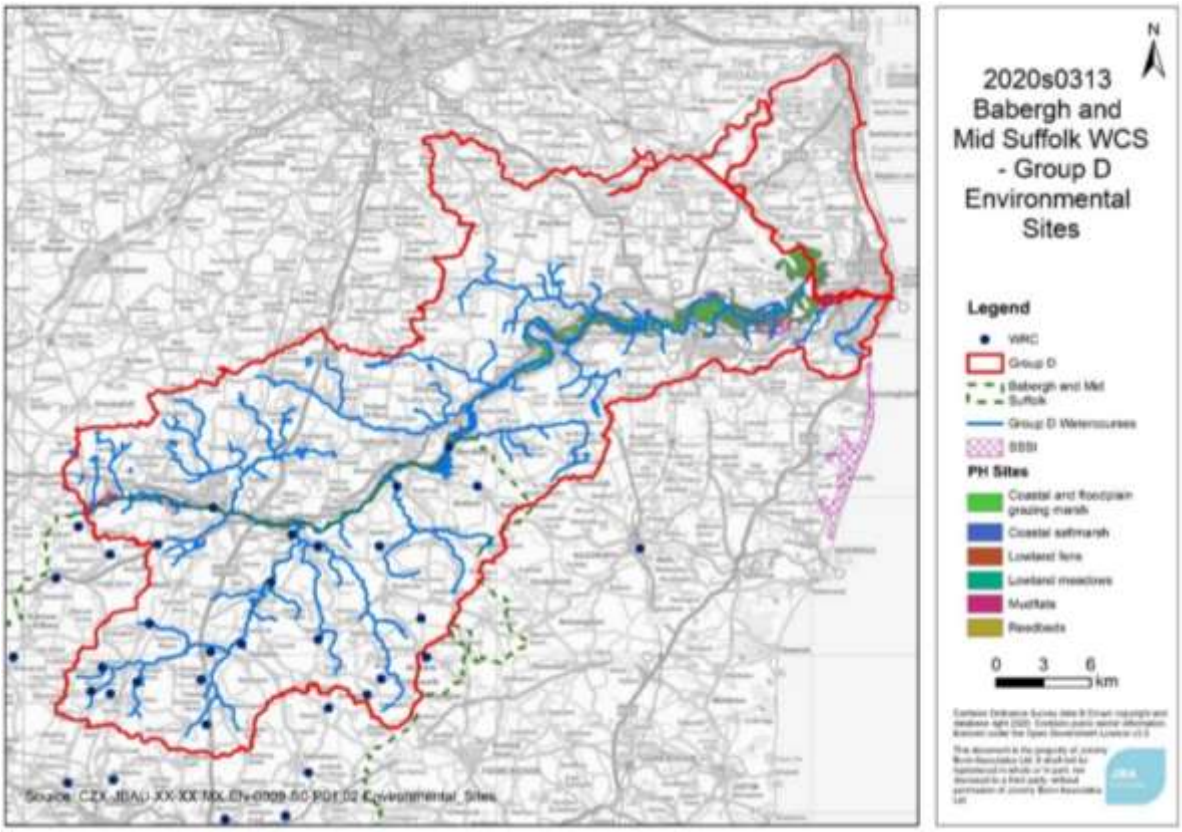


Figure 11.6 Protected sites in catchment D

Table 11.7 Protected sites within catchment D adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Bacton-Finingham La Bedfield Cotton Diss Eye-Hoxne Rd Gislingham Hoxne Mendham	Waveney (Elingham Mill - Burgh St. Peter) GB105034045903	Stanley and Alder Carrs, Aldeby SSSI (TM433927)	Impact possible
	Tributary of Upper Waveney GB105034045750	Gypsy Camp Meadows, Thrandeston SSSI (TM113773)	Low – no upstream WRC serving growth
	Gold Brook	Hoxne Brick Pit SSSI (TM175766)	Impact possible

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Mendlesham Metfield Oakley-Dross Ln Redlingfield Stoke Ash-Roman Wy Thorndon-Catbridge Thwaite-Wickham Rd (Sufk) Westhorpe Weybread Wilby-Barley View Wingfield Worlingworth Wortham-Mellis Rd Wyverstone	Waveney (Elingham Mill - Burgh St. Peter) GB105034045903	Geldeston Meadows SSSI (TM396916) Broadland Ramsar (UK11010) The Broads SAC (UK0013577) Broadlands SPA (UK9009253)	Impact possible
	Frenze Beck GB105034045840	Shelfanger Meadows SSSI (TM109828)	Low – no upstream WRC serving growth
	Waveney (Elingham Mill - Burgh St. Peter) GB105034045903	Barnby Broad & Marshes SSSI (TM477910)	Impact possible
	Chet GB105034051190	Hardley Flood SSSI (TM380996) Broadland Ramsar (UK11010) The Broads SAC (UK0013577) Broadlands SPA (UK9009253)	Low – no upstream WRC
	Breydon Water	Breydon Water SSSI (TG493072) Breydon Water Ramsar (UK11008) Breydon Water SPA (UK9009181)	Low – no upstream WRC
	Waveney (Elingham Mill - Burgh St. Peter) GB105034045903	Sprat's Water and Marshes, Carlton Colville SSSI (TM506922) Broadland Ramsar (UK11010) The Broads SAC (UK0013577) Broadlands SPA (UK9009253)	Impact possible
	Waveney (u/s Frenze Beck) GB105034045820	Wortham Ling SSSI (TM092795)	Low – no upstream WRC
	Waveney (u/s Frenze Beck) GB105034045820	Redgrave and Lopham Fens SSSI (TM049796)	Low – no upstream WRC

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
		Redgrave and Lopham Fens Ramsar (UK11056) Waveney and Little Ouse Valley Fens SAC (UK0012882)	

Table 11.8 Catchment D WQ impact assessment

Protected site	Adjacent Waterbody	Predicted Impact	
Stanley and Alder Carrs, Aldeby SSSI (TM433927)	Waveney (Elingham Mill - Burgh St. Peter)	Baseline Phosphate Conc. (mg/l)	0.32
		Future Phosphate Conc. (mg/l)	0.32
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.25
		Can deterioration be prevented?	Yes
Hoxne Brick Pit SSSI (TM175766)	Gold Brook	Baseline Phosphate Conc. (mg/l)	0.60
		Future Phosphate Conc. (mg/l)	0.60
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.59
		Can deterioration be prevented?	Yes
Geldeston Meadows SSSI (TM396916) Broadland Ramsar (UK11010) The Broads SAC (UK0013577) Broadlands SPA (UK9009253)	Waveney (Elingham Mill - Burgh St. Peter)	Baseline Phosphate Conc. (mg/l)	0.36
		Future Phosphate Conc. (mg/l)	0.36
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.25
		Can deterioration be prevented?	Yes
Barnby Broad & Marshes SSSI (TM477910)	Waveney (Elingham Mill - Burgh St. Peter)	Baseline Phosphate Conc. (mg/l)	0.39
		Future Phosphate Conc. (mg/l)	0.40
		% Deterioration	3%
		Phosphate Conc. After treatment at TAL (mg/l)	0.21
		Can deterioration be prevented?	Yes
Sprat's Water and Marshes, Carlton Colville SSSI (TM506922)	Waveney (Elingham Mill - Burgh St. Peter)	Baseline Phosphate Conc. (mg/l)	0.37
		Future Phosphate Conc. (mg/l)	0.37
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.20

Protected site	Adjacent Waterbody	Predicted Impact	
Broadland Ramsar (UK11010) The Broads SAC (UK0013577) Broadlands SPA (UK9009253)		Can deterioration be prevented?	Yes

11.5.6 Catchment E

Catchment E contains the headwaters of the Ely Ouse, the River Lark and Little Ouse. Within this catchment there are sixteen SSSIs adjacent to watercourses. Many of these also within the Breckland SPA and SAC, and Waveney and Little Ouse Valley Fens SAC. Eleven sites including the Breckland SPA and SAC have WRCs serving growth in the study area upstream. At sites adjacent to the River Lark, no deterioration is predicted in phosphate concentration, however elsewhere in the catchment a 10-20% deterioration is predicted, but this could be predicted by improvements in treatment processes at upstream WRCs.

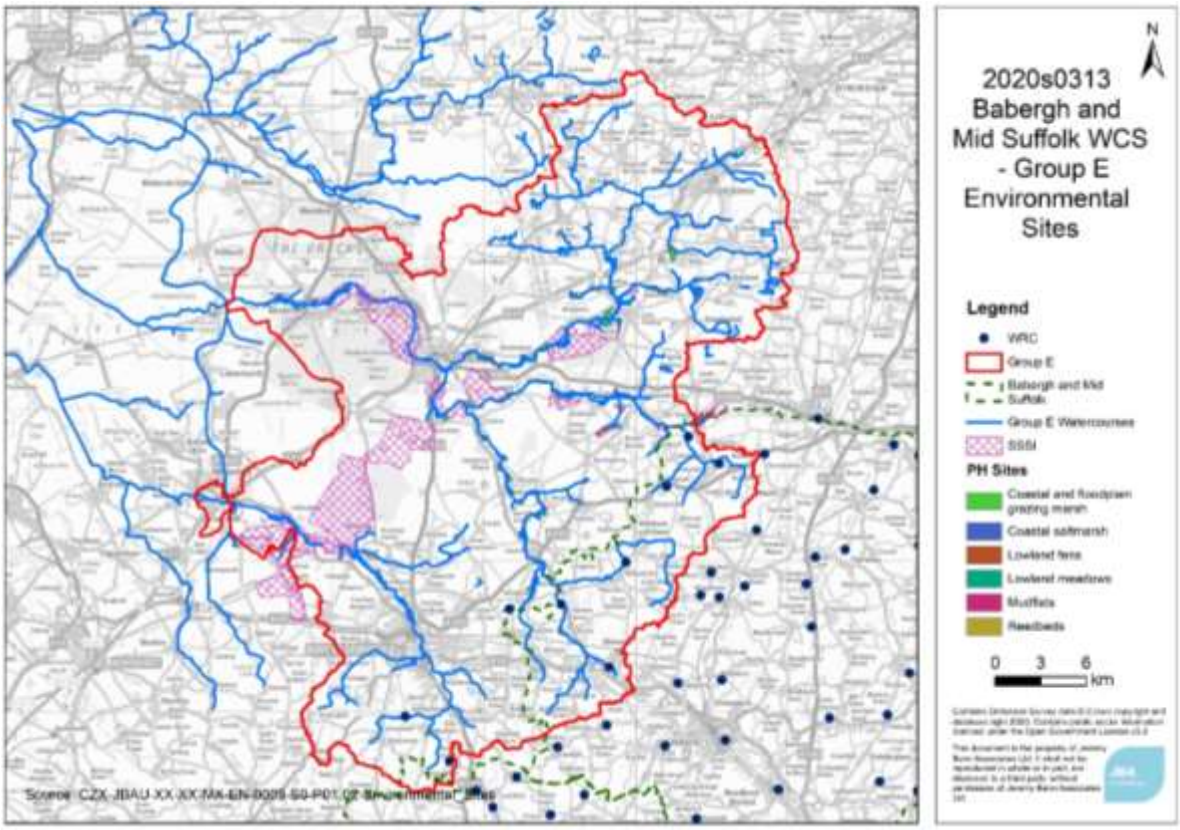


Figure 11.7 Protected sites in catchment E

Table 11.9 Protected sites within catchment E adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Botesdale Elmswell Hawstead Norton (Suffolk) Redgrave-Crackthorn Bridge Thurston Wattisfield	Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Knettishall Heath SSSI (TL951804)	Impact possible
	Sapiston River GB105033043070 Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Barnham Heath SSSI (TL882798)	Impact possible

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
	Little Ouse River GB105033043400	Thetford Golf Course & Marsh SSSI (TL845873)	Impact possible
	Little Ouse River GB105033043400	Weeting Heath SSSI (TL758877)	Impact possible
	Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Barnham Cross Common SSSI (TL865813)	Impact possible
	Lark (Abbey Gardens to Mildenhall) GB105033043051	Cavenham - Icklingham Heaths SSSI (TL751732)	Impact possible
	Upstream of River Whittle	Kenninghall & Barnham Fens with Quidenham Mere SSSI (TM040876)	Low – no upstream WRC serving growth
	Lark (Abbey Gardens to Mildenhall) GB105033043051	Lackford Lakes SSSI (TL809705)	Impact possible
	Hopton Brook GB105033043080	Hopton Fen SSSI (TL990800)	Low – no upstream WRC serving growth
	Hopton Brook GB105033043080	Weston Fen SSSI (TL980786) Waveney & Little Ouse Valley Fens SAC (UK0012882)	Low – no upstream WRC serving growth
	Tributary of Thet (DS Swangey Fen) GB105033043190	Middle Harling Fen SSSI (TL988852)	Low – no upstream WRC serving growth
	Pakenham Stream GB105033043300	Pakenham Meadows SSSI (TL934686)	Impact possible
	Lark (Abbey Gardens to Mildenhall) GB105033043051	West Stow Heath SSSI (TL792714)	Impact possible
	Lark (Abbey Gardens to Mildenhall) GB105033043051 Little Ouse River GB105033043400	Breckland Forest SSSI (TL819835) Breckland Farmland SSSI (TL760783) Breckland SPA (UK9009201) Breckland SAC (UK0019865)	Impact possible

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
	Little Ouse (Thelnetham to Hopton Common) GB105033043110	Blo' Norton and Thelntham Fens SSSI (TM019788) Waveney & Little Ouse Valley Fens SAC (UK0012882)	Impact possible
	Tributary of Thet (DS Swangey Fen) GB105033043190	East Harling Common SSSI (TL998879)	Low – no upstream WRC serving growth

Table 11.10 Catchment E WQ Impact assessment

Protected site	Adjacent Waterbody	Predicted Impact	
Knettishall Heath SSSI (TL951804)	Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Baseline Phosphate Conc. (mg/l)	0.29
		Future Phosphate Conc. (mg/l)	0.33
		% Deterioration	14%
		Phosphate Conc. After treatment at TAL (mg/l)	0.23
		Can deterioration be prevented?	Yes
Barnham Heath SSSI (TL882798)	Sapiston River GB105033043070	Baseline Phosphate Conc. (mg/l)	0.76
		Future Phosphate Conc. (mg/l)	0.91
		% Deterioration	20%
		Phosphate Conc. After treatment at TAL (mg/l)	0.42
		Can deterioration be prevented?	Yes
	Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Baseline Phosphate Conc. (mg/l)	0.19
		Future Phosphate Conc. (mg/l)	0.21
		% Deterioration	11%
		Phosphate Conc. After treatment at TAL (mg/l)	0.16
		Can deterioration be prevented?	Yes
Thetford Golf Course & Marsh SSSI (TL845873)	Little Ouse River GB105033043400	Baseline Phosphate Conc. (mg/l)	0.25
		Future Phosphate Conc. (mg/l)	0.28
		% Deterioration	12%
		Phosphate Conc. After treatment at TAL (mg/l)	0.21
		Can deterioration be prevented?	Yes
Weeting Heath SSSI (TL758877)	Little Ouse River GB105033043400	Baseline Phosphate Conc. (mg/l)	0.19
		Future Phosphate Conc. (mg/l)	0.22
		% Deterioration	16%
		Phosphate Conc. After treatment at TAL (mg/l)	0.16
		Can deterioration be prevented?	Yes
		Baseline Phosphate Conc. (mg/l)	0.36

Protected site	Adjacent Waterbody	Predicted Impact	
Barnham Cross Common SSSI (TL865813)	Little Ouse (Hopton Common to Sapiston Confl) GB105033043100	Future Phosphate Conc. (mg/l)	0.43
		% Deterioration	19%
		Phosphate Conc. After treatment at TAL (mg/l)	0.24
		Can deterioration be prevented?	Yes
Cavenham - Icklingham Heaths SSSI (TL751732)	Lark (Abbey Gardens to Mildenhall) GB105033043051	Baseline Phosphate Conc. (mg/l)	0.22
		Future Phosphate Conc. (mg/l)	0.22
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.22
		Can deterioration be prevented?	N/A
Lackford Lakes SSSI (TL809705)	Lark (Abbey Gardens to Mildenhall) GB105033043051	Baseline Phosphate Conc. (mg/l)	0.29
		Future Phosphate Conc. (mg/l)	0.29
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.29
		Can deterioration be prevented?	N/A
	Culford Stream GB105033043030	Baseline Phosphate Conc. (mg/l)	0.60
		Future Phosphate Conc. (mg/l)	0.60
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.60
		Can deterioration be prevented?	N/A
Pakenham Meadows SSSI (TL934686)	Pakenham Stream GB105033043300	Baseline Phosphate Conc. (mg/l)	1.39
		Future Phosphate Conc. (mg/l)	1.75
		% Deterioration	26%
		Phosphate Conc. After treatment at TAL (mg/l)	0.18
		Can deterioration be prevented?	Yes
West Stow Heath SSSI (TL792714)	Lark (Abbey Gardens to Mildenhall) GB105033043051	Baseline Phosphate Conc. (mg/l)	0.29
		Future Phosphate Conc. (mg/l)	0.29
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.29
		Can deterioration be prevented?	N/A
Breckland Forest SSSI (TL819835) Breckland Farmland SSSI (TL760783) Breckland SPA (UK9009201) Breckland SAC (UK0019865)	Lark (Abbey Gardens to Mildenhall) GB105033043051	Baseline Phosphate Conc. (mg/l)	0.22
		Future Phosphate Conc. (mg/l)	0.22
		% Deterioration	0%
		Phosphate Conc. After treatment at TAL (mg/l)	0.22
		Can deterioration be prevented?	N/A
	Little Ouse River GB105033043400	Baseline Phosphate Conc. (mg/l)	0.25
		Future Phosphate Conc. (mg/l)	0.28
		% Deterioration	12%

Protected site	Adjacent Waterbody	Predicted Impact	
		Phosphate Conc. After treatment at TAL (mg/l)	0.21
		Can deterioration be prevented?	Yes
Blo' Norton and Thelntham Fens SSSI (TM019788) Waveney & Little Ouse Valley Fens SAC (UK0012882)	Little Ouse (Thelnetham to Hopton Common) GB105033043110	Baseline Phosphate Conc. (mg/l)	0.36
		Future Phosphate Conc. (mg/l)	0.43
		% Deterioration	19%
		Phosphate Conc. After treatment at TAL (mg/l)	0.24
		Can deterioration be prevented?	Yes

11.5.7 Catchment F

Catchment F contains the Alde, Ore and Fromus Rivers, and discharges to the Alde-Ore Estuary, designated as a SSSI, Ramsar site, SAC and SPA. There are also four other SSSIs adjacent to watercourses in the catchment. There are no upstream WRCs serving growth in the plan period, so no further analysis of water quality was undertaken.

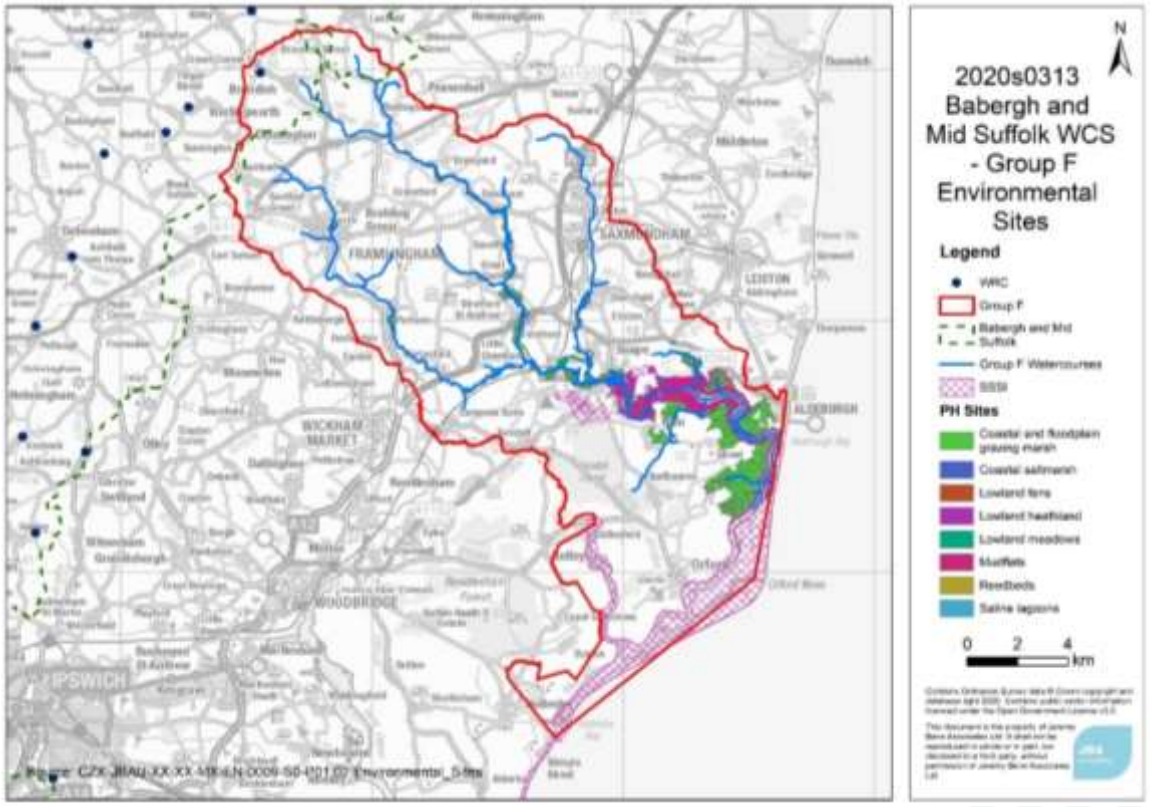


Figure 11.8 Protected sites in catchment F

Table 11.11 Protected sites within catchment F adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Brundish	Alde - Ore (d/s confluence) GB1050350045950	Blaxhall Heath SSSI (TM380565)	Low – no upstream WRC
	Tidal	Round Pit, Aldeburgh SSSI (TM444573)	Low – no upstream WRC
	Fromus GB105035045980	Gromford Meadow SSSI (TM386587)	Low – no upstream WRC
	Alde - Ore Estuary	Alde-Ore Estuary SSSI (TM437490) Snape Warren SSSI (TM410580) Alde-Ore Estuary Ramsar (UK11002) Alde-Ore & Butley Estuaries SAC (UK0030076) Alde-Ore Estuary SPA (UK9009112)	Low – no upstream WRC

11.5.8 Catchment G

Catchment G contains the River Blyth and River Wang which discharge to the Minsmere-Walberswick Ramsar site and SPA. Also, within the catchment and adjacent to the watercourses are a further two SSSIs and Benacre to Easton Bavents Lagoons SAC and SPA. There are no upstream WRCs serving growth within this catchment and so no further analysis of water quality was carried out.

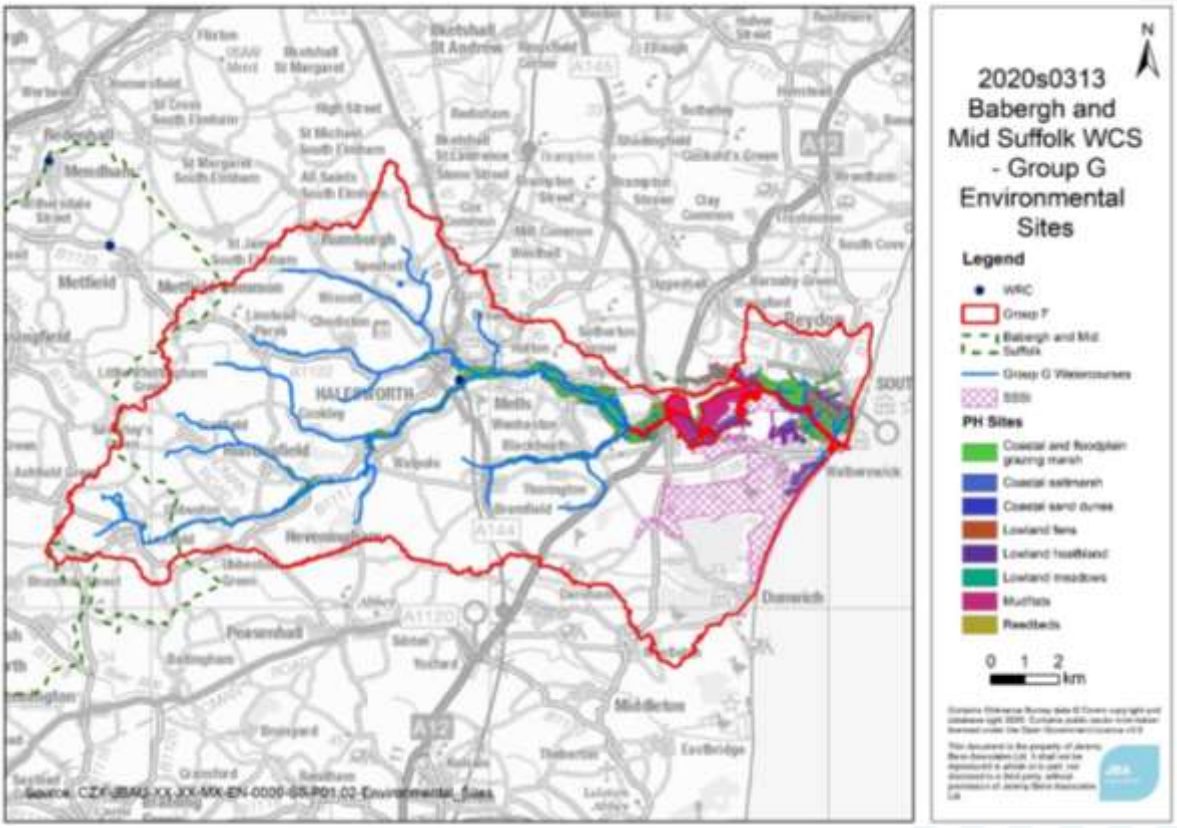


Figure 11.9 Protected sites in catchment G

Table 11.12 Protected sites within the catchment G adjacent to watercourses

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
Halesworth	Lothingland Hundred GB105035046251 Easton Broad GB105035046220	Pakefield to Easton Bavents SSSI (TM523823) Benacre to Easton Bavents Lagoons SAC (UK0013104) Benacre to Easton Bavents SPA (UK9009291)	Low – no upstream WRC
	Blyth (d/s Halesworth) GB105035046290 Wang GB105035046300	Minsmere-Walberswick Heaths and Marshes SSSI (TM471733) Minsmere-Walberswick Ramsar (UK11044)	Low – no upstream WRC

WRC in catchment (Sources)	Adjacent watercourse (pathway)	Protected site(s) (Receptor)	Likely impact
		Minsmere-Walberswick SPA (UK9009101)	

11.6 Summary

Section 11.5 presents the predicted water quality impact on predicted sites within or downstream of Babergh & Mid Suffolk. In a number of cases, a deterioration in water quality – presented here as a deterioration in Phosphate concentration is predicted to in the watercourses adjacent to protected sites (SACs, SPAs, Ramsar sites and SSSIs). This deterioration could have a significant impact on designated species or habitats, but this would need to be assessed further in a Habitats Regulations Assessment. In each case it was found that improvements at WRCs upstream (simulated by modelling the effect of each WRC treating at the Technically Achievable Limit) could prevent this deterioration. Other options for improving water quality are outlined in section 11.7 below.

It is notable that all six of the WRC catchments where modelling predicts that a WFD deterioration cannot be prevented at the point of discharge (Chantry, Diss, Hadleigh, Halesworth, Thurston and Mendlesham) have pathways to designated sites (either an SAC, SPA, SSSI or Ramsar), however downstream this deterioration can be prevented. The potential for development within these catchments to detriment one or more designated sites should be considered in the HRA for the Local Plan.

Note that most of the priority habitats assessed in catchments D,E,F and G are outside of the study area. Whilst growth in neighbouring authorities within the catchments of WRCs which also serve planned growth in BMSDC has been assessed, these priority habitats may also be impacted by growth in the catchments of other WRCs outside of the study area.

11.7 Protection and mitigation

11.7.1 Groundwater Protection

Groundwater is an important source of water in England and Wales.

The Environment Agency is responsible for the protection of "controlled waters" from pollution under the Water Resources Act 1991. These controlled waters include all watercourses and groundwater contained in underground strata.

The zones are based on an estimate of the time it would take for a pollutant which enters the saturated zone of an aquifer to reach the source of abstraction or discharge point (Zone 1 = 50 days, Zone 2 = 400 days, Zone 3 is the total catchment area). The Environment Agency will use SPZs (alongside other datasets such as the Drinking Water Protected Areas (DrWPAs) and aquifer designations as a screening tool to show:

- areas where is would object in principle to certain potentially polluting activities, or other activities that could damage groundwater,
- areas where additional controls or restrictions on activities may be needed to protect water intended for human consumption,
- how it prioritises responses to incidents.

The EA have published a position paper[69] outlining its approach to groundwater protection which includes direct discharges to groundwater, discharges of effluents to

69 The Environment Agency's approach to groundwater protection, Environment Agency (2018). Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf on: 07/07/2020

ground and surface water runoff. This is of relevance to this water cycle study where a development may manage surface water through SuDS.

Sewage and trade effluent

Discharge of treated sewage of $2m^3$ per day or less to ground are called small sewage discharges (SSDs). The majority of SSDs do not require an environmental permit if they comply with certain qualifying conditions. A permit will be required for all SSDs in source protection zone 1 (SPZ1).

For treated sewage effluent discharges, the EA encourages the use of shallow infiltration systems, which maximise the attenuation within the drainage blanket and the underlying unsaturated zone. Whilst some sewage effluent discharges may not pose a risk to groundwater quality individually, the cumulative risk of pollution from aggregations of discharges can be significant. Improvement or pre-operational conditions may be imposed before granting an environmental permit. The EA will only agree to developments where the addition of new sewage effluent discharges to ground in an area of existing discharges is unlikely to lead to an unacceptable cumulative impact.

Generally, the Environment Agency will only agree to developments involving release of sewage effluent, trade effluent or other contaminated discharges to ground if it is satisfied that it is not reasonable to make a connection to the public foul sewer. The EA would normally expect to only permit new private discharges where the distance to connect to the nearest public sewer exceeds the number of dwellings * 30m. So, for example, a development of 100 dwellings would need to be more than 3km from a public sewer. The developer would have to provide evidence of why the proposed development cannot connect to the foul sewer in the planning application. This position will not normally apply to surface water run-off via sustainable drainage systems and discharges from sewage treatment works operated by sewerage undertakers with appropriate treatment and discharge controls.

Deep infiltration systems (such as boreholes and shafts) are not generally accepted by the EA for discharge of sewage effluent as they bypass soil layers and reduce the opportunity for attenuation of pollutants.

Discharges of surface water run-off to ground at sites affected by land contamination, or from sites for the storage of potential pollutants are likely to require an environmental permit. This could include sites such as garage forecourts and coach and lorry parks. These sites would be subject to a risk assessment with acceptable effluent treatment provided.

Discharge of clean water

"Clean water" discharges such as runoff from roofs or from roads, may not require a permit. However, they are still a potential source of groundwater pollution if they are not appropriately designed and maintained.

Where infiltration SuDS schemes are proposed to manage surface runoff they should:

- be suitably designed;
- meet Government non-statutory technical standards[70] for sustainable drainage systems – these should be used in conjunction with the NPPF and PPG; and
- use a SuDS management treatment train

A hydrogeological risk assessment is required where infiltration SuDS is proposed for anything other than clean roof drainage in a SPZ1.

70 Sustainable Drainage Systems: non-statutory technical standards, Department for Environment, Food & Rural Affairs (2015). Accessed online at: https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards on: 06/07/2020

Deep infiltration systems (such as boreholes and shafts) could be accepted by the EA for discharge of clean roof water via sealed system. Separation of clean roof water and other runoff should be considered early stage of design in a project.

Source Protection Zones in Babergh & Mid Suffolk

Much of the BMSDC area is covered by a Source Protection Zone, and these are shown in Figure 11.10. The appropriate EA guidance for development in these zones contained in Table 11.13 should be followed.

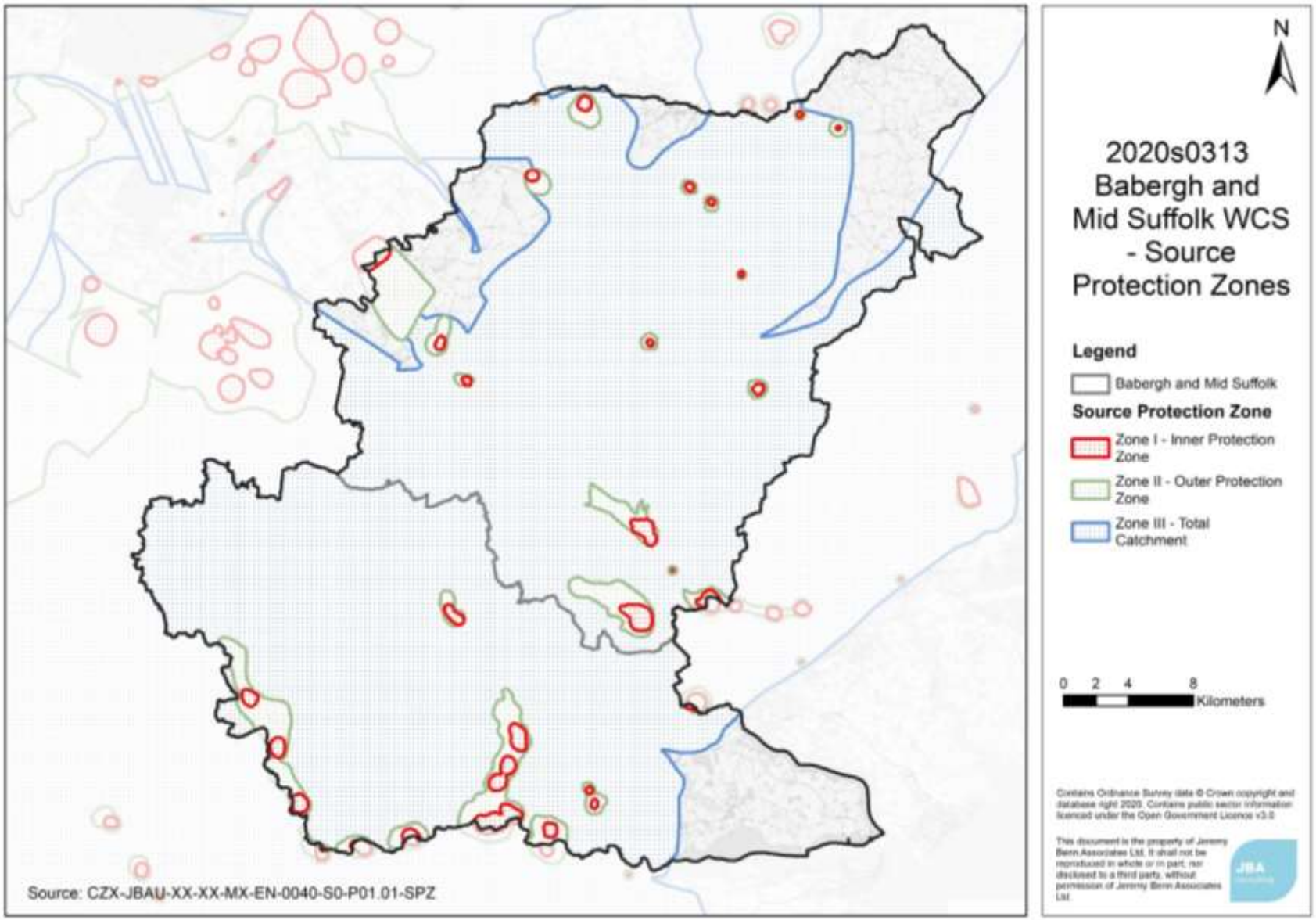


Figure 11.10 Source protection zones in the study area

Table 11.13 Preferred and strategic sites within Source Protection Zones

Source Protection Zone	Sites	Management advice / EA position statement
Zone 1 – Inner Protection Zone	SS1118	G2 – Inside SPZ1 all sewage effluent discharges to ground must have an environmental permit. G4 – Inside SPZ1 the EA will object to any new trade effluent, storm overflow from sewage system or other significantly contaminated discharges to ground where the risk of groundwater pollution is high and cannot be adequately mitigated. G12 – Discharge of clean roof water to ground is acceptable both within and outside SPZ1, provided all roof water down-pipes are sealed against pollutants entering the system from surface runoff, effluent disposal or other forms of discharge. The method of discharge must not create new pathways for pollutants to groundwater or mobilise contaminant already in the ground. No permit is required if these criteria are met. G13 – Where infiltration SuDS are proposed for anything other than clean roof drainage in a SPZ1, a hydrogeological risk assessment should be undertaken, to ensure that the system does not pose an unacceptable risk to the source of supply. SuDS schemes must be suitably designed.
Zone 2 – Outer Protection Zone	SS1088, SS0039, SS1034, SS0132, SS1005, SS0418, SS0745, SS0509, SS0815, SS0107, SS0333, SSS0145, SS1082, SS0750, SS0669, SS0433, SS0812, SS0105, SS1118	A hydrogeological risk assessment is not a requirement for SuDS schemes, however they should still be "suitably designed", for instance following best practice guidance in the CIRIA SuDS Design Manual.
Zone 3 – Total Catchment	275 of 312 sites	A hydrogeological risk assessment is not a requirement for SuDS schemes, however they should still be "suitably designed", for instance following best practice guidance in the CIRIA SuDS Design Manual.

11.7.2 Surface Water Drainage and SuDS

Since April 2015[71], management of the rate and volume of surface water has been a requirement for all major development sites, through the use of Sustainable Drainage Systems (SuDS).

Suffolk County Council as Lead Local Flood Authority (LLFA), is statutory consultees to the planning system for surface water management within major development, which covers the following development scenarios:

- 10 or more dwellings
- a site larger than 0.5 hectares, where the number of dwellings is unknown
- a building greater than 1,000 square metres
- a site larger than 1 hectare

SuDS are drainage features which attempt to replicate natural drainage patterns, through capturing rainwater at source, and releasing it slowly into the ground or a water body. They can help to manage flooding through controlling the quantity of surface water generated by a development, improve water quality by treating urban runoff and provide a useful function in aquifer recharge. SuDS can also deliver multiple benefits, through creating habitats for wildlife and green spaces for the community. SuDS also have the advantage of providing effective Blue and Green infrastructure and ecological and public amenity benefits when designed and maintained properly.

National standards on the management of surface water are outlined within the Defra Non-statutory Standards for Sustainable Drainage Systems[72], with local guidance specified by Suffolk County Council[73]. The CIRIA C753 SuDS Manual[74] and Guidance for the Construction of SuDS[75] provide the industry best practice guidance for design and management of SuDS.

11.7.3 Use of SuDS in Water Quality Management

SuDS allow the management of diffuse pollution generated by urban areas through the sequential treatment of surface water reducing the pollutants entering lakes and rivers, resulting in lower levels of water supply and wastewater treatment being required. This treatment of diffuse pollution at source can contribute to meeting WFD water quality targets, as well as national objectives for sustainable development.

This is usually facilitated via a SuDS Management Train of a number of components in series that provide a range of treatment processes delivering gradual improvement in water quality and providing an environmental buffer for accidental spills or unexpected high pollutant loadings from the site. Considerations for SuDS design for water quality are summarised in Figure 11.11 below.

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71 Department for Communities and Local Government (2014) House of Commons: Written Statement (HCWS161) Written Statement made by: The Secretary of State for Communities and Local Government (Mr Eric Pickles) on 18 Dec 2014. Available at: https://www.parliament.uk/documents/commons-vote-office/December%202014/18%20December/6.%20DCLG-sustainable-drainage-systems.pdf on: 07/07/2020

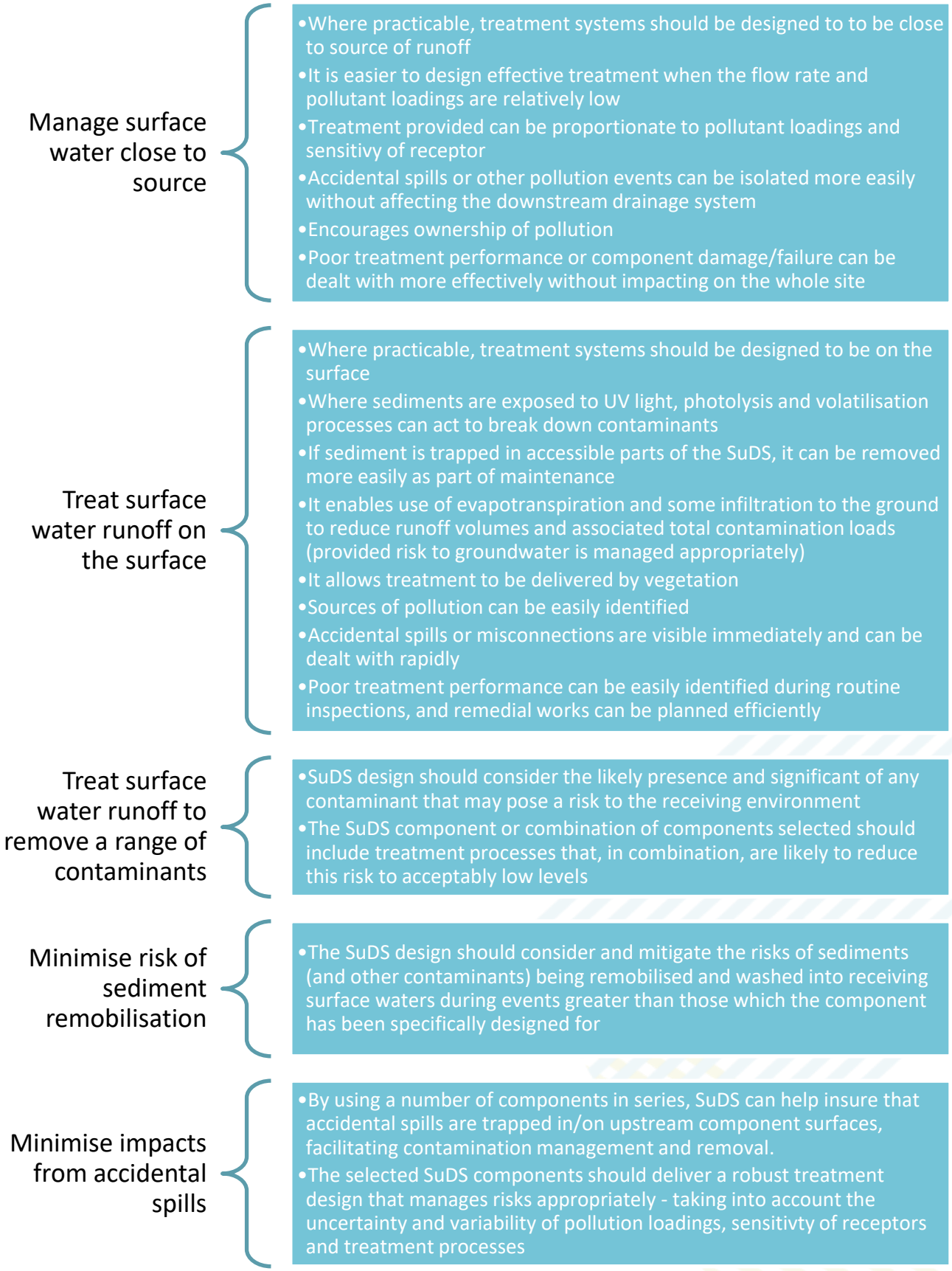
72 Sustainable Drainage Systems, Non-statutory technical standards for sustainable drainage systems, DEFRA (2015) Accessed online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf on: 07/07/2020

73 Sustainable Drainage Systems (SuDS) a Local Design Guide. Accessed online at: https://www.suffolk.gov.uk/assets/Roads-and-transport/Flooding-and-drainage/Strategy-Apendicies/2018-10-01-SFRMS-SuDS-Guidance-Appendix-A-.pdf on: 07/07/2020

74 CIRIA Report C753 The SuDS Manual, CIRIA (2015). Accessed online at: https://www.ciria.org/Memberships/The_SuDs_Manual_C753_Chapters.aspx on: 07/07/2020

75 Guidance on the Construction of SuDS (C768), CIRIA (2017), Accessed online at: https://www.ciria.org/ItemDetail?iProductcode=C768&Category=BOOK on: 07/07/2020

Figure 11.11 Considerations for SuDS design for water quality



Managing pollution close to its source can help keep pollutant levels and accumulation rates low, allowing natural processes to be more effective. Treatment can often be delivered within the same components that are delivering water quantity design criteria, requiring no additional cost or land-take.

SuDS designs should control the 'first flush' of pollutants (usually mobilised by the first 5mm of rainfall) at source, to ensure contaminants are not released from the site. Best practise is that no runoff should be discharged from the site to receiving watercourses or sewers for the majority of small (e.g. less than 5mm) rainfall events.

Infiltration techniques will need to consider Groundwater Source Protection Zones (GSPZs) and are likely to require consultation with the Environment Agency. Other than roof water via a sealed system, deep bore and other deep soakaway systems are not appropriate in areas where groundwater constitutes a significant resource (that is where an aquifer yield may support or already supports abstraction). Deep infiltration should only be considered where all other methods of surface water disposal are exhausted and will require an enhanced treatment train. The maximum acceptable depth for "shallow infiltration SuDS is 2.0m below ground level, below this is considered "deep" as it bypasses the soil zone. A minimum of 1.2m clearance between the base of infiltration SuDS and peak seasonal groundwater levels is required.

Early consideration of SuDS within master planning will typically allow a more effective scheme to be designed.

11.7.4 Additional benefits

Flood Risk

The Strategic Flood Risk Assessment contains recommendations for SuDS to manage surface water on development sites, with the primary aim of reducing flood risk.

SuDS are most effective at reducing flood risk for relatively high intensity, short and medium duration events, and are particularly important in mitigating potential increases in surface water flooding, sewer flooding and flooding from small and medium sized watercourses resulting from development.

Water Resources

A central principle of SuDS is the use of surface water as a resource. Traditionally, surface water drainage involved the rapid disposal of rainwater, by conveying it directly into a sewer or Water Recycling Centres.

SuDS techniques such as rainwater harvesting, allow rainwater to be collected and re-used as non-potable water supply within homes and gardens, reducing the demand on water resources and supply infrastructure.

Climate Resilience

Climate projections for the UK suggest that winters may become milder and wetter and summers may become warmer, but with more frequent higher intensity rainfall events, particularly in the south east. This would be expected to increase the volume of runoff, and therefore the risk of flooding from surface water, and diffuse pollution, and reduce water availability.

SuDS offer a more adaptable way of draining surfaces, controlling the rate and volume of runoff leaving urban areas during high intensity rainfall, and reducing flood risk to downstream communities through storage and controlled release of rainwater from development sites.

Through allowing rainwater to soak into the ground, SuDS are effective at retaining soil moisture and groundwater levels, which allows the recharge of the watercourses and underlying aquifers. This is particularly important where water resource availability is limited, and likely to become increasingly scare under future drier climates.

Biodiversity

The water within a SuDS component is an essential resource for the growth and development of plants and animals, and biodiversity benefits can be delivered even by very small, isolated schemes. The greatest value can be achieved where SuDS are planned as part of a wider green landscape, providing important habitat, and wildlife connectivity. With careful design, SuDS can provide shelter, food, foraging and breeding opportunities for a variety of species including plants, amphibians, invertebrates, birds, bats and other animals.

Amenity

Designs using surface water management systems to help structure the urban landscape can enrich its aesthetic and recreational value, promoting health and well-being and supporting green infrastructure. Water managed on the surface rather than underground can help reduce summer temperatures, provide habitat for flora and fauna and act a resource for local environmental education programmes and working groups and directly influence the sense of community in an area.

11.8 Nutrient reduction options

11.8.1 Natural flood management

Natural Flood Management (NFM) is used to protect, restore and re-naturalise the function of catchments and rivers to reduce flood risk. A wide range of techniques can be used that aim to reduce flooding by working with natural features and processes in order to store or slow down flood waters before they can damage flood risk receptors (e.g. people, property, infrastructure, etc.). NFM involves taking action to manage flood and coastal erosion risk by protecting, restoring and emulating the natural regulating functions of catchments, rivers, floodplains and coasts. Techniques and measures, which could be applied include:

- Offline storage areas
- Re-meandering streams
- Targeted woodland planting
- Reconnection and restoration of functional floodplains
- Restoration of rivers and removal of redundant structures
- Installation or retainment of large woody material in river channels
- Improvements in management of soil and land use
- Creation of rural and urban SuDS

In 2017, the Environment Agency published on online evidence base[76] to support the implementation of NFM and with JBA produced maps showing locations with the potential for NFM measures[77]. These maps are intended to be used alongside the evidence directory to help practitioners think about the types of measure that may work in a catchment and the best places in which to locate them. There are limitations with the maps; however, it is a useful tool to help start dialogue with key partners.

11.8.2 Multiple benefits of NFM

In addition to flood risk benefits, there are also significant benefits in other areas such as habitat provision, air quality, climate regulation and of particular note for the water cycle study - Water Quality.

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76 Working with natural processes to reduce flood risk, Environment Agency (2018). Accessed online at: https://www.gov.uk/government/publications/working-with-natural-processes-to-reduce-flood-risk on: 03/10/2019

77 Mapping the potential for working with natural process, Environment Agency and JBA. Accessed online at: http://wwnp.jbahosting.com/ on: 07/07/2020

Many NFM measures have the ability to reduce nutrient and sediment sources by reducing surface runoff flows from higher ground, reducing soil erosion, trapping sediment at the edge of agricultural land, or encouraging deposition of sediments behind natural dams upstream in watercourses.

Suitable techniques may include:

- Leaky dams
- Woodland planting
- Buffer strips
- Runoff retention ponds
- Land management techniques (soil aeration, cover crops etc)

Case Study – Black Brook Slow the Flow

Four engineered log dams were installed on Black Brook at an estimated cost of £2,000, funded by Natural England and the Environment Agency to restore Stanley Bank SSSI. The scheme aimed to improve habitat and reduce the risk of flooding. However, the scheme also resulted in reduced levels of phosphate and nitrate in Black Brook, with phosphate concentrations falling by 3.6mg/l. By 2035, it is predicted that 792m^3 of sediment will be stored in three ponds retained by the jams.

Reproduced from Case study 17. Black Brook Slow the Flow, St Helens, Norbury, Rogers and Brown, EA WwNP Evidence Base 2017. Photograph taken on 8 May 2015; courtesy of Matthew Catherall

11.8.3 Integrated Constructed Wetlands

An integrated constructed wetland (ICW) is an artificial wetland created for the purpose of treating polluted water, whether this is municipal wastewater, grey water from residential properties, or agricultural runoff.

They are usually unlined, free surface flow wetlands, designed to contain and treat influents within emergent vegetated areas.

Defra carried out a systematic review of the effectiveness of various wetland types, including ICWs for mitigating agricultural pollution such as phosphate and nitrate. The overall conclusion was that all wetland types are very effective at reducing major nutrients and suspended sediments, with the exception of nitrite in ICWs. Nitrate is only reduced when passing through overland buffer strips and through constructed wetlands with vegetation, where the systematic review showed a mean reduction of 29% across the evidence included in the study.

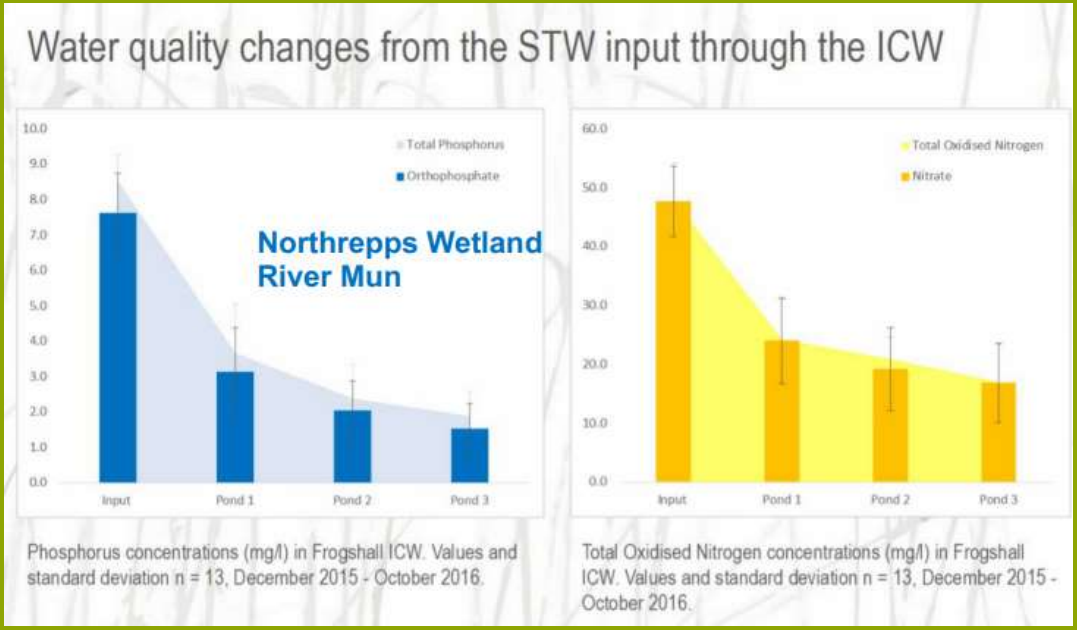
The mean reduction in Total Phosphorus across the evidence base was 78%.

Case Study – Frogshall ICW

The Upper River Mun in Norfolk was experiencing chronic pollution, and a loss in biodiversity in the river. Investigation found that nutrients from a Sewage Treatment Works upstream were contributing to this issue.

A pilot ICW was created consisting of three shallow ponds, filled with 18,000 emergent aquatic plants, and the outfall from the treatment works was diverted to pass through the wetland.

Early monitoring has shown that 90% of the phosphate is being removed by the wetland, and a large increase in biodiversity downstream observed.



Reproduced from "Stripping the Phosphate" a presentation by the Norfolk Rivers Trust (2018).
https://www.theriverstrust.org/media/2018/08/2.-Stripping-the-phosphate-David-Diggens-Norfolk-Rivers-Trust.pdf

11.8.4 Agricultural Management

There is a big potential to improve water quality by interventions aimed at agricultural sources, especially considering the measures already taken by AW to reduce their contribution to phosphate load.

Potential schemes could include:

- Buffer strips
- Cross slope tree planting
- Runoff retention basins
- Contour ploughing
- Cover crops

There is considerable overlap with NFM measures, and the challenges are also very similar. Exact impacts are difficult to measure, although modelling tools such as Farmscoper[78] exist to help with this. Once a scheme is implemented it relies on the landowner to continue to maintain it in order to maintain the mitigation benefit.

Funding for agricultural interventions could come from Catchment Sensitive Farming or a Payment for Ecosystem Services approach.

Wessex Water and United Utilities have both recently used a reverse auction approach[79], which enables farmers to bid for funding to plant cover crops in winter to manage runoff from agricultural land.

Case Study – Wessex Water - EnTrade

Wessex Water catchment team used EnTrade to invite farmers to bid to grow cover crops over winter to reduce the nitrogen leaching into the watercourse.

This avoided the need to upgrade Dorchester WwTW to provide the same nitrogen removal capacity.

A trial auction was held in 2015, and two further auctions have since taken place attracting 557 bids from 63 farmers to save 153 tonnes of nitrogen.

"Using EnTrade to create a market in measures to deliver reductions in nitrogen has delivered a 30% saving for Wessex Water compared to traditional catchment approaches."

Ruth Barden, Director of Environmental Strategy, Wessex Water

78 Farmscoper webpage, ADAS (2020). https://www.adas.uk/Service/farmscoper Accessed on 22/01/2020
79 EnTrade webpage, EnTrade (2020). https://www.entrade.co.uk/ Accessed on 22/01/2020

11.9 Conclusions

- A number of protected sites such as SSSIs and Priority Habitats are found within or downstream of the study area that should be carefully considered in future plan making. This is particularly significant for Chantry, Diss, Hadleigh, Halesworth and Mendlesham, where the water quality impact assessment has identified that it would not be possible to mitigate the water quality impacts of the proposed growth.
- WRCs serving growth within Babergh & Mid Suffolk are point sources of pollution in the study area.
- There is potential for additional discharge from WRC to impact sites with environmental designations (see Section 9). The Water Quality model used in section 9 was used to predict the water quality in rivers adjacent to protected sites. A significant deterioration was predicted adjacent to many sites, however in every case this could be completely prevented by improvements in treatment processes at WRCs upstream.
- Development sites within Babergh & Mid Suffolk could also be sources of diffuse pollution from surface runoff.
- SuDS are required on all sites and their design must consider water quality as well as quantity.
- Runoff from these sites should be managed through implementation of a SuDS scheme with a focus on treating water quality of surface runoff from roads and development sites
- Opportunities exist for these SuDS schemes to offer multiple benefits of flood risk reduction, amenity value and biodiversity, as well as opportunities for groundwater recharge to provide a water resources benefit.
- Suffolk County Council as LLFA should be consulted at an early stage to ensure SuDS are implemented and designed in response to site characteristics and policy factors
- In the wider area, opportunities exist to implement natural flood management techniques to achieve multiple benefits of flood risk, water quality and habitat creation.

11.10 Recommendations

Table 11.14 Recommendations from environmental constraints and opportunities section

Action	Responsibility	Timescale
The Local Plan should include policies that require development sites to adopt SuDS to manage water quality of surface runoff.	BMSDC	Ongoing
The local plan should include policies that require all development proposals with the potential to impact on areas with environmental designations to be considered in consultation with Natural England (for national designations)	BMSDC	Ongoing
All five of the WRC catchments where modelling predicts that a WFD deterioration cannot be prevented (Chantry, Diss, Hadleigh, Halesworth and Mendlesham) have pathways to designated sites (SAC. SPA, SSSI or Ramsar). The potential for development within	BMSDC	Ongoing

Action	Responsibility	Timescale
these catchments to detriment one or more designated sites should be considered in the HRA for the Local Plan.		
In partnership, identify opportunities for incorporating SuDS into open spaces and green infrastructure, to deliver strategic flood risk management and meet WFD water quality targets.	BMSDC AW EA	Ongoing
Developers should include the design of SuDS at an early stage to maximise the benefits of the scheme	Developers	Ongoing
Work with developers to discourage connection of new developments into existing surface water and combined sewer networks. Prevent connections into the foul network, as this is a significant cause of sewer flooding.	BMSDC AW Developers	Ongoing
Opportunities for Natural Flood Management that include schemes aimed at reducing / managing runoff should be considered to reduce nutrient and sediment pollution alongside reducing flood risk within Babergh & Mid Suffolk.	BMSDC, EA, NE	Ongoing

12 Climate change impact assessment

12.1 Approach

A qualitative assessment was undertaken to assess the potential impacts of climate change on the assessments made in this water cycle study. This was done using a matrix which considered both the potential impact of climate change on the assessment in question, and also the degree to which climate change has been considered in the information used to make the assessment.

The impacts have been assessed on a Babergh & Mid Suffolk area wide basis; the available climate models are generally insufficiently refined to draw different conclusions for different parts of Babergh & Mid Suffolk or doing so would require a degree of detail beyond the scope of this study.

Table 12.1 Climate change pressures scoring matrix

		Impact of pressure		
		Low	**Medium**	**High**
Have climate change pressures been considered in the assessment?	Yes - quantitative consideration			
	Some consideration but qualitative only			
	Not considered			

12.2 Water company infrastructure

Anglian Water recognise the threat of climate change in their WRMP and publish a Climate Change Adaption Report[80] outlining the risks to their infrastructure and required actions. The following climate risks of relevance to the WCS were identified:

- Water resources and supply
    - It is predicted that the impact of climate change is already causing a reduction of 38 Ml/d in the volume of water available to meet demand in the area served by Anglian Water. This is expected to increase to 58Ml/d by the 2045. The East Suffolk WRZ that covers part of Babergh & Mid Suffolk has been assessed by Anglian Water as already being impacted by climate change (Figure 12.1).
- Sewer flooding
- Risk to infrastructure from flooding
- Risk to natural capital

80 Climate change Adaptation Report 2020, Anglian Water (2020). Accessed online at: https://www.anglianwater.co.uk/contentassets/1d0c1e625aa44278aca963058cfc262d/aws-adaptation-report-for-consultation-final-2web.pdf on: 07/07/2020

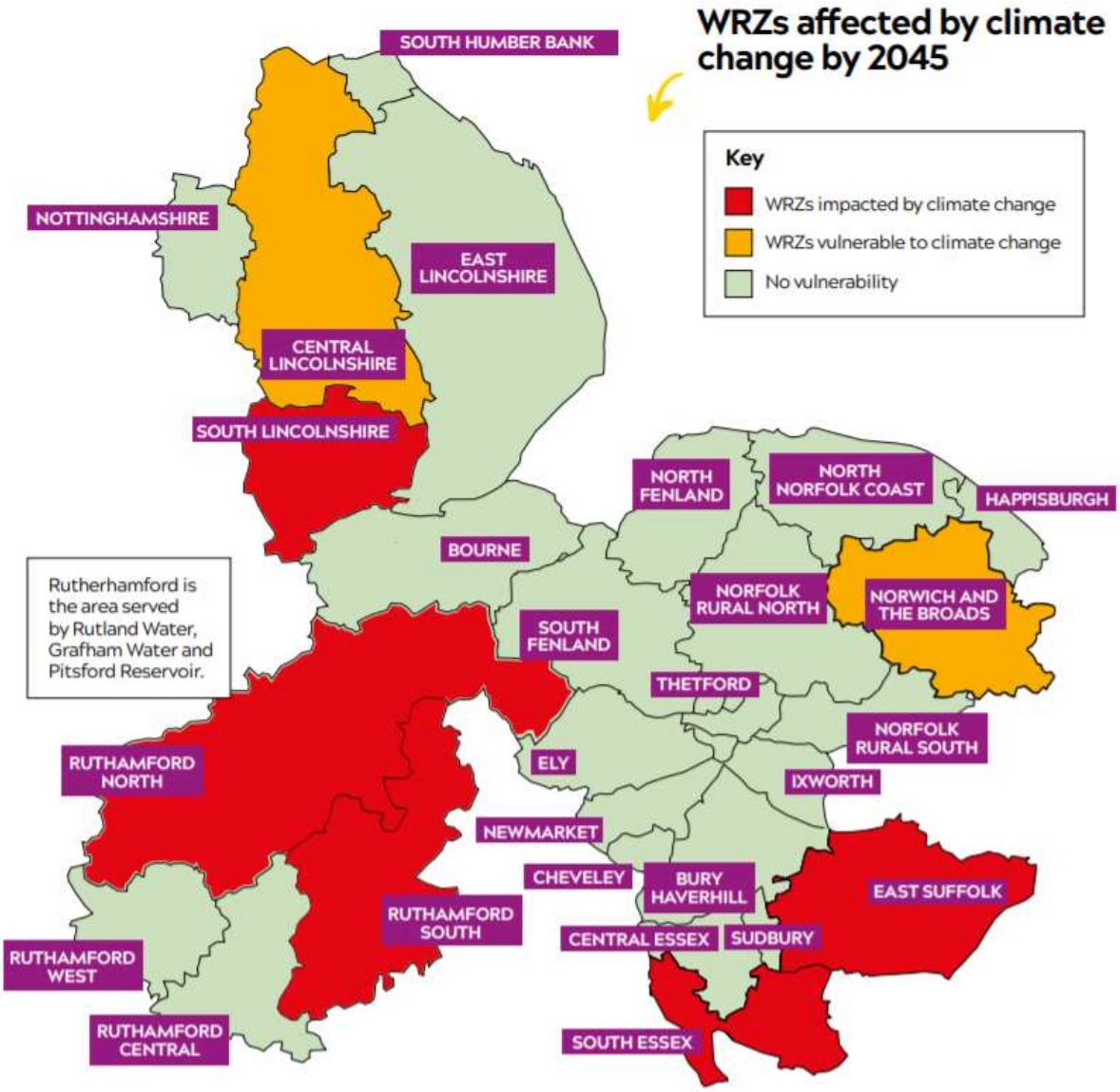


Figure 12.1 Anglian Water WRZs most affected by climate change
Source: Anglian Water (2020) Climate change Adaption Report

Essex & Suffolk Water discuss the impact of climate change on water resources in their WRMP, but do not have a published Climate Change Adaptation Report.

Table 12.2 Scoring of climate change consequences for the water cycle study

Assessment	Impact of Pressure (source of information)	Have climate change pressures been considered in the Water Cycle Study?	RAG
Water resources	High	Yes – quantitative assessment within the WRMP. Climate change impacts on consumption have been calculated in accordance with UKWIR report "Impact of Climate Change on Water Demand" (2013).	
Water supply infrastructure	Medium - some increased demand in hot weather	Yes - quantitative assessment within the WRMP.	
Wastewater Collection	High - Intense summer rainfall and higher winter rainfall increases flood risk	Yes – qualitative assessment in climate change adaptation report by Anglian Water. This has not been considered in site by site assessments.	
Wastewater treatment	Medium - Increased winter flows and more extreme weather events reduces flow headroom	Yes – qualitative assessment in the Anglian Water climate change adaptation reports. This has not been considered in site by site assessments.	
WRC odour	Medium – higher temperatures will exacerbate existing odour control issues.	Anglian Water have not considered odour in their climate adaptation plan.	
Water quality	Nutrients: High Sanitary determinands: Medium to High	Qualitative assessments have been included in the climate change adaptation policy papers from Anglian Water.	
Flooding from increased WRC discharge	Low	No - not considered	

(1) River Basin Management Plan

(2) AW and ESW WRMPs

12.3 Conclusions and Recommendations

The impact of Climate Change on water resources and water infrastructure are receiving increasing levels of attention by water companies and sewerage undertakers at a strategic level. This has not been included in assessments at a site level as detailed modelling has not been carried out. Consideration of changes in water and wastewater demand should be considered when carrying out detailed site assessments in the future.

There is a risk that lower river flows in the future could exacerbate water quality issues as there would be less opportunity for dilution of pollutants.

Table 12.3 Conclusions and recommendations from climate change assessment

Action	Responsibility	Timescale
When undertaking detailed assessments of environmental or asset capacity, consider how the latest climate change guidance can be included.	EA, AW, ESW, BMSDC	As required
Take "no regrets"* decisions in the design of developments which will contribute to mitigation and adaptation to climate change impacts. For example, consider surface water exceedance pathways when designing the layout of developments.	BMSDC and Developers	As required

* "No-Regrets" Approach: "No-regrets" actions are actions by households, communities, and local/national/international institutions that can be justified from economic, and social, and environmental perspectives whether natural hazard events or climate change (or other hazards) take place or not. "No-regrets" actions increase resilience, which is the ability of a "system" to deal with different types of hazards in a timely, efficient, and equitable manner. Increasing resilience is the basis for sustainable growth in a world of multiple hazards (Heltberg, Siegel, Jorgensen, 2009; UNDP, 2010).

13 Summary and overall conclusions

13.1 Summary

Babergh & Mid Suffolk District Councils' preferred development strategy proposes 17,828 dwellings and a significant area of employment land over the Local Plan Period 2016-2037. The aim of this water cycle study is to provide the evidence to inform the selection of sites, taking into account the constraints in the water environment and in water and wastewater infrastructure.

Anglian Water and Essex & Suffolk Water provide water supply to the study area, and Anglian Water provide wastewater services.

Babergh & Mid Suffolk is an area with limited water resources. The north east of Mid Suffolk is within the Hartismere Water Resource Zone, and Essex & Suffolk Water have advised that there is insufficient headroom to serve additional growth above the level planned for in their published WRMP. As a result, a threshold needs to be applied to growth within this WRZ until 2025 at the earliest when additional water resource options are developed by ESW.

A number of WRCs have limited headroom in their environmental permit, additional growth may require changes to their flow permit and accompanying changes to their environmental permit and/or upgrades to treatment performance.

The water cycle study has also assessed the impact of additional wastewater discharge on water quality in Babergh & Mid Suffolk. Downstream of many WRCs that are expected to serve growth a deterioration in water quality is predicted, but in most cases, this could be prevented by improvements in treatment processes at those works. In four cases (Chantry, Diss, Hadleigh and Halesworth WRCs), prevention of this deterioration may not be possible. and alternative solutions may be required in order to accommodate growth.

At Mendlesham WRC, whilst deterioration is not significant, should work elsewhere in the catchment improve upstream water quality, there is a risk that additional growth served by this WRC may prevent good ecological status being achieved in the watercourse downstream in the future.

The impact of additional discharges from WRCs at environmentally sensitive sites (such as SSSIs) was assessed by using the water quality model to predict the deterioration in phosphate concentration in the watercourses adjacent to protected sites. Significant deterioration was predicted during the local plan period; however, this could be prevented by improvements in treatment processes at WRCs upstream.

The recommendations outlined in the below table should be considered and early engagement between the Council and the water companies is key to ensure the required growth can be realised.

The conclusions from each topic area are summarised in Table 13.1, alongside the recommendations in Table 13.2.

Table 13.1 Summary of conclusions from the study

Assessment	Conclusion
Water resources	• Anglian Water's WRMP predicts a supply-demand deficit if no action is taken. It goes on to define a number of actions that will address this. • Essex & Suffolk Water's WRMP predicts that the Hartismere WRZ will remain in surplus, however potential sustainability reductions will reduce the volume of water available. Much of the modelled headroom for AMP 7 (2020-25) has already been used already by recent non-residential developments. ESW have confirmed that current supplies will be sufficient to serve the planned growth to 2025. • In order to serve growth beyond 2025, a transfer of water into the ESW water resource zone from Essex or elsewhere is likely to be required. During AMP7 (2020-2025), ESW will assess options for addressing future supply-demand deficit, with a view to implementing

Assessment	Conclusion
	these during AMP8 (2025-30) if necessary. ESW and the councils will jointly prepare a Statement of Common Ground addressing this issue. • There is sufficient evidence to support the adoption of the tighter water efficiency target of 110 l/p/d allowed for in building regulations. • Policies to reduce water demand from new developments, or to go further and achieve water neutrality in certain areas, could be defined to reduce the potential environmental impact of additional water abstractions in Babergh & Mid Suffolk, and also help to achieve reductions in carbon emissions.
Water supply infrastructure	• At many of the development sites, network reinforcement may be required in order to serve proposed growth. These are shown in Appendix A. • Early developer engagement is required to ensure that, as development occurs within the study area, detailed modelling of water supply infrastructure will allow any upgrades to be completed without restricting the timing, location or scale of the planned development.
Wastewater collection	• Development in areas where there is limited wastewater network capacity will increase pressure on the network, increasing the risk of a detrimental impact on existing customers, and increasing the likelihood of CSO operation where present. • Wastewater infrastructure upgrades would be required for many of the development sites, particularly in more remote areas. These are shown in Appendix A. • Early engagement with Anglian Water is required, and further modelling of the network may be required at the planning application stage.
Water Recycling Centres Flow Permit assessment	• JBA performed a flow permit assessment based on a comparison of predicted future discharge by the end of the Local Plan period, and the current flow permit. This assessment was based on every identified potential allocation being developed and so represents a "worst-case" within each wastewater catchment. • There are 91 WRCs that may serve growth during the plan period. Of these, 48 may require a change to their permit and / or an upgrade to capacity in order to accommodate growth. At many of these WRCs, upgrades are currently planned which may alleviate some capacity issues. • Early engagement between the Council Anglian Water is required to ensure that opportunities to accommodate this growth within existing upgrade schemes can be realised, and where upgrades / improvements at WRCs are required, that they are in place prior to occupation of development sites. • Opportunities should also be taken to focus growth in the catchments where there is capacity within a WRCs environmental permit, taking into account the water quality considerations contained in section 9 and 11.
Odour Assessment	• 63 sites have been identified that are close enough to a WRC for nuisance odour to be a risk. At these sites it is recommended that an odour assessment is carried out to investigate it further. This should be undertaken as part of the planning process, paid for by developers. These sites have been given an amber assessment. • The remaining sites have been given a rating of green. • A full list of these sites can be found in Appendix A.

Assessment	Conclusion
Water quality impact assessment	• At five WRCs (Chantry, Diss, Hadleigh, Halesworth and Thurston), water quality modelling identified a risk that planned growth could cause a deterioration in water quality, and that it may not be possible to mitigate this with treatment at the technically achievable limit. • At Mendlesham WRC, there is a risk that growth may prevent good ecological status being achieved in the future. At these works, further mitigation may need to be taken to accommodate growth and options include pumping wastewater to a different WRC or changing the point of discharge to a less sensitive waterbody. Detailed optioneering is beyond the scope of this study and is best undertaken by Anglian Water who have a detailed knowledge of their assets, and the range of options and constraints at each. • The modelling indicates that treatment upgrades would be required at the majority of WRCs in order to accommodate growth without deterioration in water quality downstream. Extensive engagement with Anglian Water is required in order to understand the phasing of growth with WRC upgrades to ensure capacity and upgrades to treatment processes are aligned, and to ensure that required improvements are in place before occupation of any developments. The growth scenario assessed assumes that every development site identified comes forward and so represents a worst case for each wastewater catchment. There may be options to consolidate growth within catchments that have more environmental capacity, and this should be considered alongside the capacity assessment in section 7. • Sites within catchments requiring upgrades can be found in Appendix A.
Flood risk from additional WRC flow	• The impact of increased effluent flows at WRC from any of the proposed development is not predicted to have a significant impact upon flood risk in any of the receiving watercourses.
Environmental Constraints and Opportunities	• A number of protected sites such as SSSIs and Priority Habitats are found within or downstream of the study area that should be carefully considered in future plan making. This is particularly significant for Chantry, Diss, Hadleigh, Halesworth and Mendlesham, where the water quality impact assessment has identified that it would not be possible to mitigate the water quality impacts of the proposed growth. • WRCs serving growth within Babergh & Mid Suffolk are point sources of pollution in the study area. • There is potential for additional discharge from WRC to impact sites with environmental designations (see Section 9). The Water Quality model used in section 9 was used to predict the water quality in rivers adjacent to protected sites. A significant deterioration was predicted adjacent to many sites, however in every case this could be completely prevented by improvements in treatment processes at WRCs upstream. • Development sites within Babergh & Mid Suffolk could also be sources of diffuse pollution from surface runoff. • SuDS are required on all sites and their design must consider water quality as well as quantity. • Runoff from these sites should be managed through implementation of a SuDS scheme with a focus on treating water quality of surface runoff from roads and development sites • Opportunities exist for these SuDS schemes to offer multiple benefits of flood risk reduction, amenity value and biodiversity. • Suffolk County Council as LLFA should be consulted at an early stage to ensure SuDS are implemented and designed in response to site characteristics and policy factors

Assessment	Conclusion
	• In the wider area, opportunities exist to implement natural flood management techniques to achieve multiple benefits of flood risk reduction, water quality and habitat creation.
Climate Change	• The impact of Climate Change on water resources and water infrastructure are receiving increasing levels of attention by water companies and sewerage undertakers at a strategic level. This has not been included in assessments at a site level as detailed modelling has not been carried out by Anglian. Consideration of changes in water and wastewater demand should be considered when carrying out detailed site assessments in the future. • There is a risk that lower river flows in the future could exacerbate water quality issues as there would be less opportunity for dilution of pollutants.

13.2 Recommendations

Table 13.2 below summarises the recommendations from each section of the report.

Table 13.2 Summary of recommendations

Aspect	Action	Responsibility	Timescale
Water resources	Continue to regularly review forecast and actual household growth across the supply region through WRMP Annual Update reports, and where significant change is predicted, engage with Local Planning Authorities.	AW, ESW	Ongoing
	Provide yearly profiles of projected housing growth to water companies to inform the WRMP.	BMSDC	Annually
	Use planning policy to require the 110l/person/day water consumption target permitted by National Planning Policy Guidance in water-stressed areas.	BMSDC	In Local Plan
	The concept of water neutrality has potentially a lot of benefit in terms of resilience to climate change and enabling all waterbodies to be brought up to Good status. Explore further with Anglian Water, Essex & Suffolk Water and the Environment Agency how the Council's planning and climate change policies can encourage this approach.	BMSDC, EA, AW	In Local Plan and Climate Change Action Plan
	Water companies should advise BMSDC of any strategic water resource infrastructure developments within the Authority, where these may require safeguarding of land to prevent other type of development occurring.	AW, ESW, BMSDC	In Local Plan
Water supply	Undertake network modelling where appropriate to ensure adequate provision of water supply is feasible for the preferred options and strategic sites.	AW, ESW BMSDC	As part of the planning process
	BMSDC and Developers should engage early with AW and ESW to ensure infrastructure is in place prior to occupation.	BMSDC AW, ESW Developers	Ongoing
Wastewater collection	Early engagement between BMSDC and AW is required to ensure that where strategic infrastructure is required, it can be planned in by AW.	BMSDC AW	Ongoing
	Take into account wastewater infrastructure constraints in phasing development in partnership with the sewerage undertaker	BMSDC AW	Ongoing

Aspect	Action	Responsibility	Timescale
	Developers will be expected to work with the sewerage undertaker closely and early in the planning promotion process to develop an outline Drainage Strategy for sites. The Outline Drainage strategy should set out the following: What – What is required to serve the site Where – Where are the assets / upgrades to be located When – When are the assets to be delivered (phasing) Which – Which delivery route is the developer going to use s104 s98 s106 etc. The Outline Drainage Strategy should be submitted as part of the planning application submission, and where required, used as a basis for a drainage planning condition to be set.	AW and Developers	Ongoing
	Developers will be expected to demonstrate to the Lead Local Flood Authority (LLFA) that surface water from a site will be disposed using a sustainable drainage system (SuDS) with connection to surface water sewers seen as the last option. New connections for surface water to foul sewers will be resisted by the LLFA. Where a surface water connection is proposed to the public sewerage network, it must be demonstrated to Anglian Water that there is no other technically feasible option by selecting options as high as possible within the surface water hierarchy.	Developers LLFA AW	Ongoing
Wastewater treatment	Consider the available WRC capacity when phasing development going to the same WRC.	BMSDC AW	Ongoing
	Provide Annual Monitoring Reports to AW detailing projected housing growth.	BMSDC	Ongoing
	AW to assess growth demands as part of their wastewater asset planning activities and feedback to the Council if concerns arise.	AW BMSDC	Ongoing
	Repeat the WRC capacity assessment using a growth forecast based on the Reg. 19 JLP allocations.	BMSDC	As part of the JLP evidence base
Odour	Consider odour risk at sites identified to be potentially at risk from nuisance odour	BMSDC	Ongoing

Aspect	Action	Responsibility	Timescale
	Carry out an odour assessment for sites identified as being at risk of nuisance odour	Site Developers	Ongoing
Water Quality	Take into account the full volume of growth (from BMSDC and neighbouring authorities) within the catchment when considering WINEP schemes or upgrades at WRCs	AW	Ongoing
	Identify options to accommodate growth at Chantry, Diss, Hadleigh, Halesworth, Thurston and Mendlesham WRCs	AW	Aligned with projected growth plan
	Repeat the water quality modelling using a growth forecast based on the Reg. 19 JLP allocations	BMSDC	As part of the LP evidence base
Flood Risk Management	Proposals to increase discharges to a watercourse may also require a flood risk activities environmental permit from the EA (in the case of discharges to Main River), or a land drainage consent from the Lead Local Flood Authority (in the case of discharges to an Ordinary Watercourse).	AW	During design of WRC upgrades
Environment	The Local Plan should include policies that require development sites to adopt SuDS to manage water quality of surface runoff.	BMSDC	Ongoing
	The local plan should include policies that require all development proposals with the potential to impact on areas with environmental designations to be considered in consultation with Natural England (for national designations	BMSDC	Ongoing
	All six of the WRC catchments where modelling predicts that a WFD deterioration cannot be prevented (Chantry, Diss, Hadleigh, Halesworth and Mendlesham) have pathways to designated sites (SAC. SPA, SSSI or Ramsar). The potential for development within these catchments to detriment one or more designated sites should be considered in the HRA for the Local Plan.	BMSDC	Ongoing
	In partnership, identify opportunities for incorporating SuDS into open spaces and green infrastructure, to deliver strategic flood risk management and meet WFD water quality targets.	BMSDC AW EA	Ongoing

Aspect	Action	Responsibility	Timescale
	Developers should include the design of SuDS at an early stage to maximise the benefits of the scheme	Developers	Ongoing
	Work with developers to discourage connection of new developments into existing surface water and combined sewer networks. Prevent connections into the foul network, as this is a significant cause of sewer flooding.	BMSDC Developers	Ongoing
	Opportunities for Natural Flood Management that include schemes aimed at reducing / managing runoff should be considered to reduce nutrient and sediment pollution alongside reducing flood risk within Babergh & Mid Suffolk.	BMSDC, EA, NE	Ongoing
Climate change	When undertaking detailed assessments of environmental or asset capacity, consider how the latest climate change guidance can be included.	EA, AW, ESW, BMSDC	As required
	Take "no regrets"* decisions in the design of developments which will contribute to mitigation and adaptation to climate change impacts. For example, consider surface water exceedance pathways when designing the layout of developments.	BMSDC and Developers	As required

Appendices

A Site tracker spreadsheet

See accompanying appendix document

B Water supply assessments

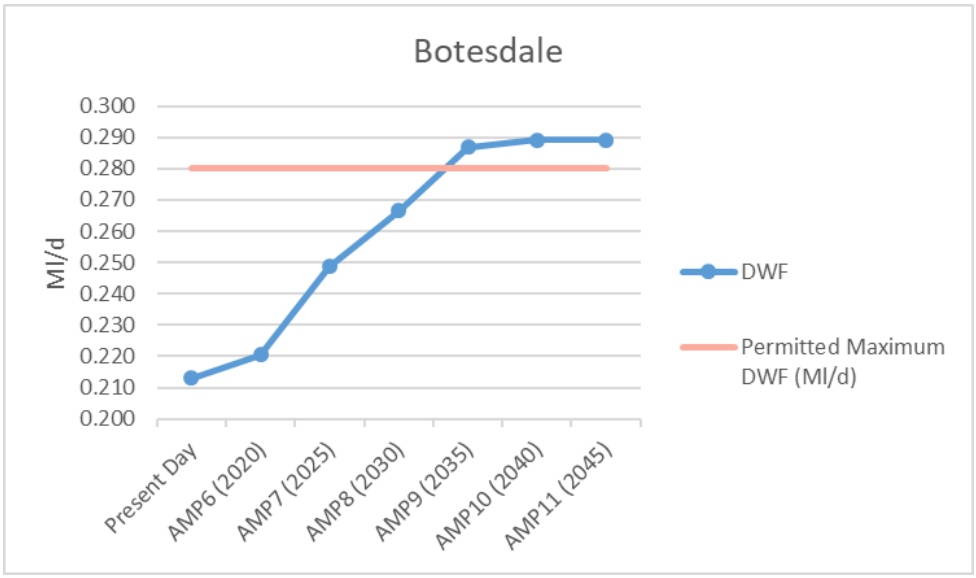
See accompanying appendix document

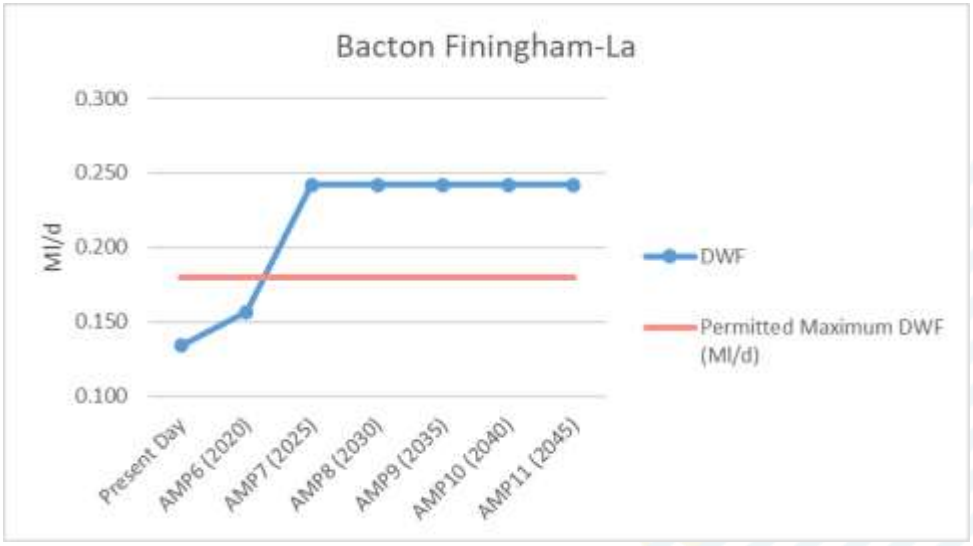
C Wastewater network assessments

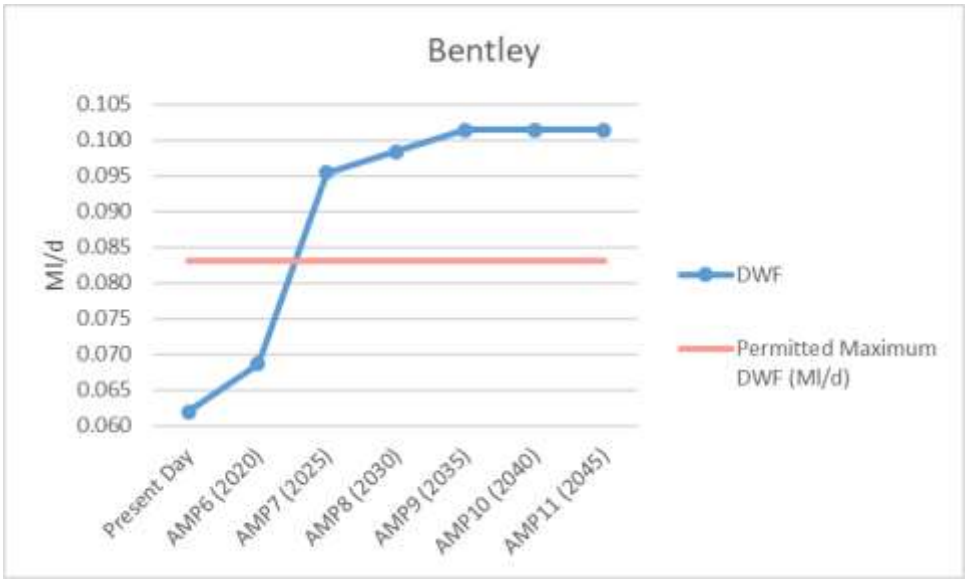
See accompanying appendix document

D WRC Flow Capacity Assessments (Where exceedance predicted)

Based on 80th percentile exceedance flow vs permitted flow (DWF). Trajectory is indicative and assumes allocations are delivered evenly through the plan period. Actual completion of development sites – and therefore the point of exceedance may be earlier or later than shown here.



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0.095
0.090
0.085
0.080
0.075
0.070
0.065
0.060
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AMP6 (2020)
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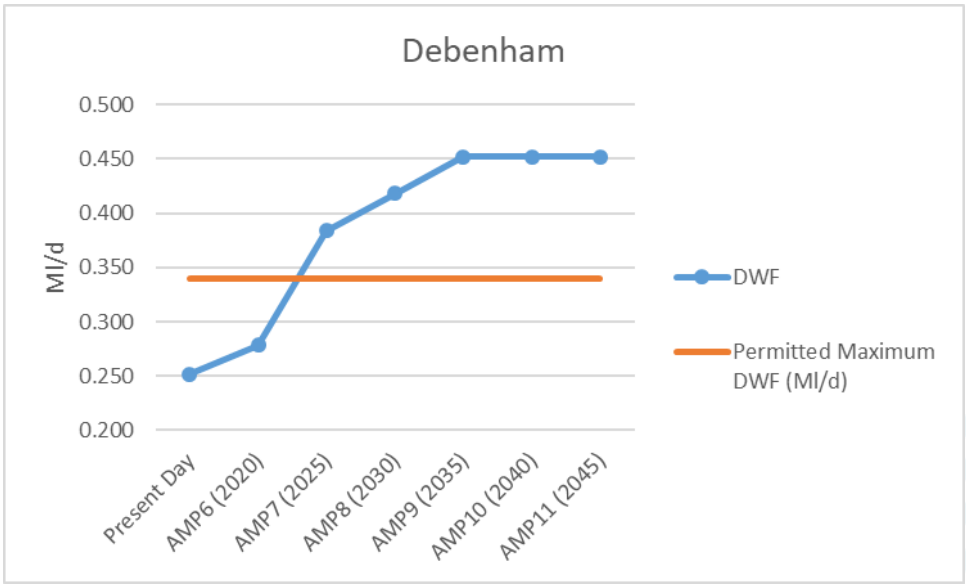
AMP8 (2030)
AMP9 (2035)
AMP10 (2040)
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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Ml/d
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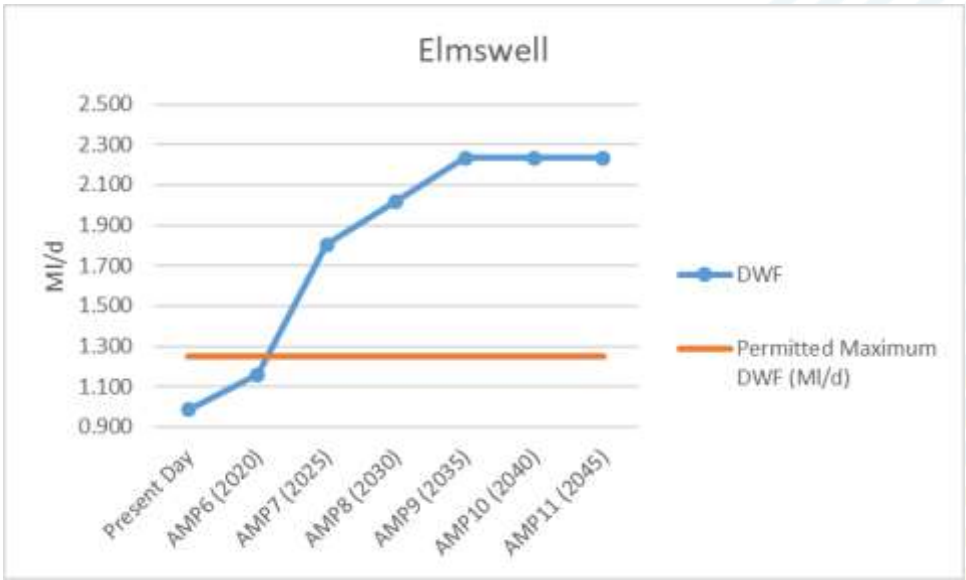
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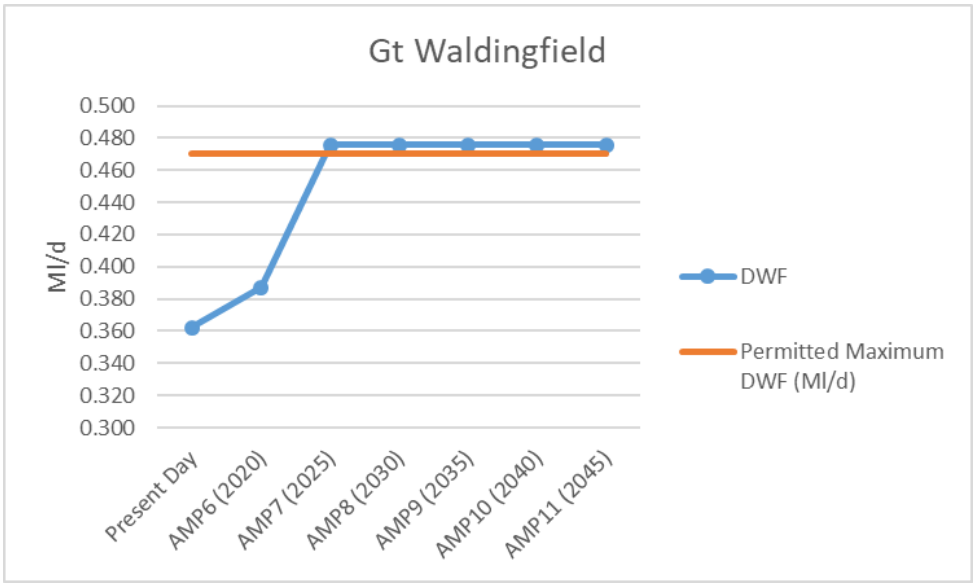
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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0.340
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0.300
Ml/d
Present Day
AMP6 (2020)
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AMP11 (2045)
DWF
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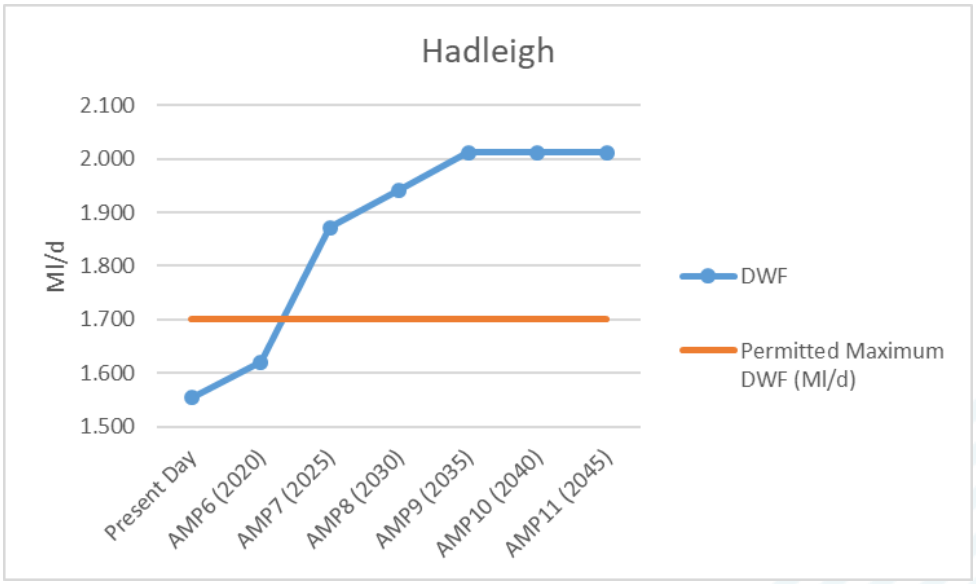
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1.500
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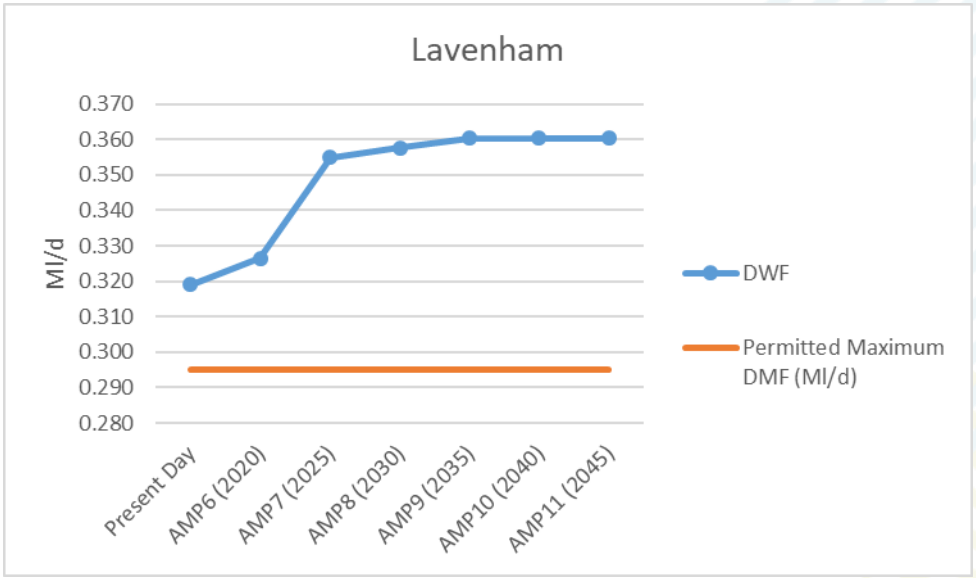
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AMP8 (2030)
AMP9 (2035)
AMP10 (2040)
AMP11 (2045)
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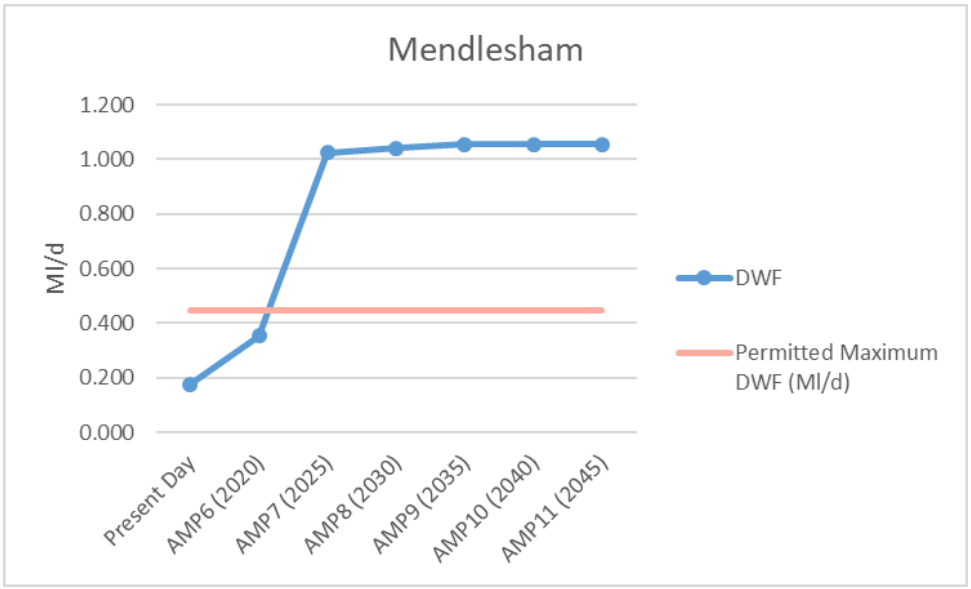
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0.200
0.000
Ml/d
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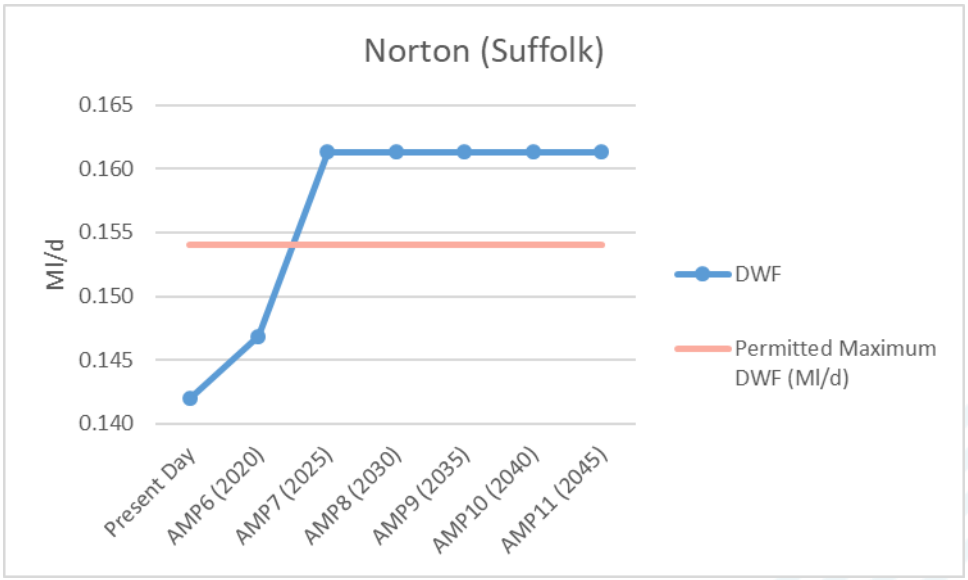
AMP9 (2035)
AMP10 (2040)
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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0.150
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0.140
Ml/d
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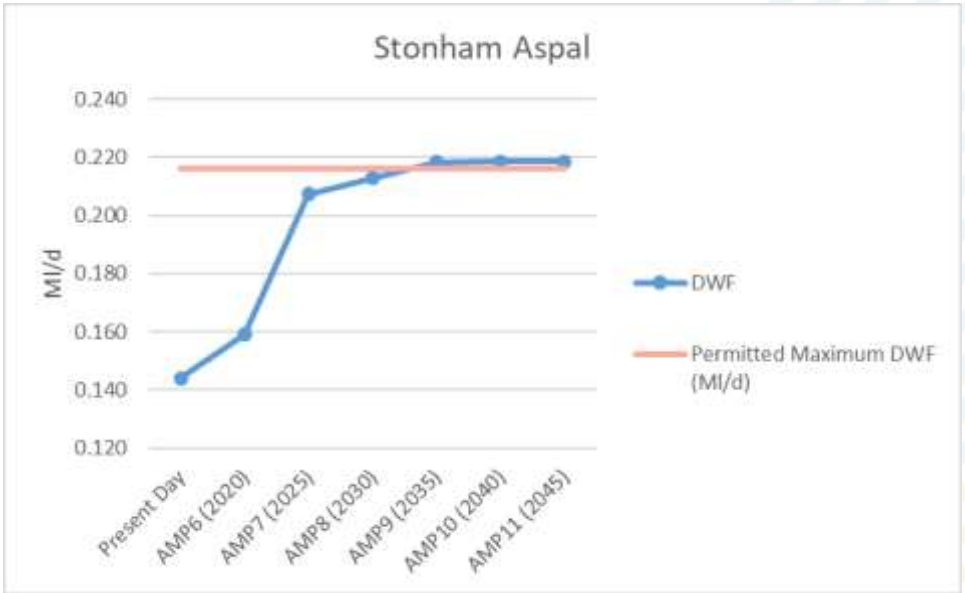
AMP8 (2030)
AMP9 (2035)
AMP10 (2040)
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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Ml/d
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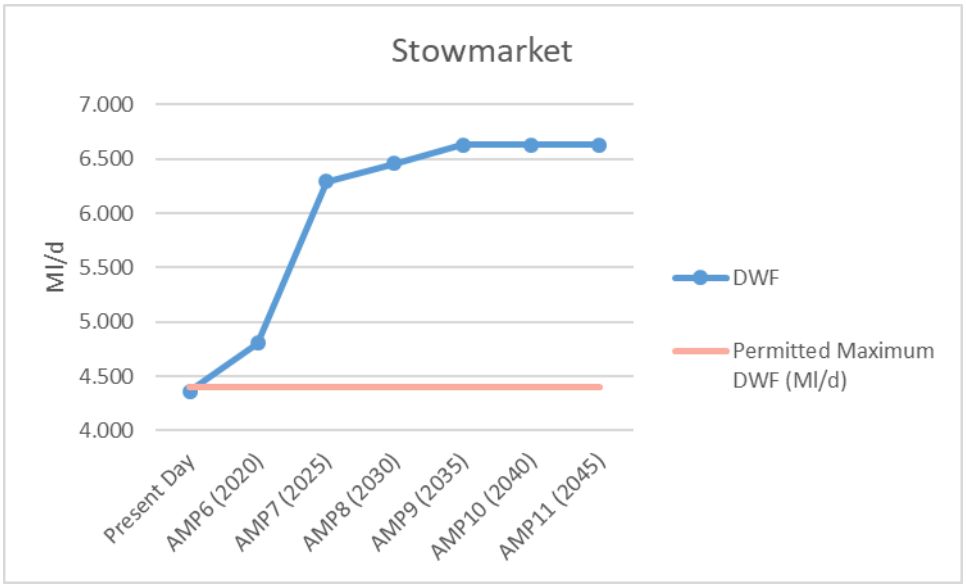
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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Ml/d
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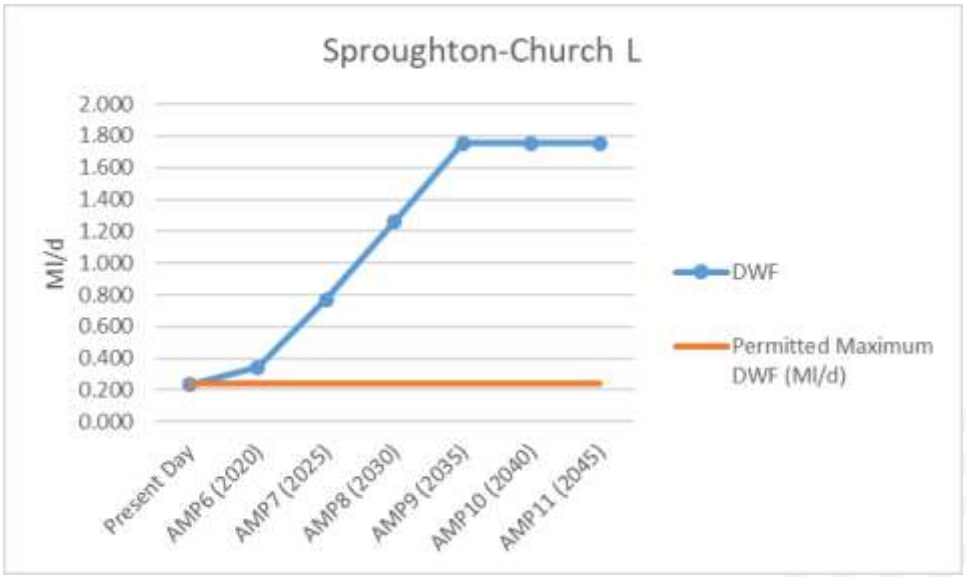
DWF
Permitted Maximum DWF (Ml/d)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0.600
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0.000
Ml/d
Present Day
AMP6 (2020)
AMP7 (2025)
AMP8 (2030)
AMP9 (2035)
AMP10 (2040)
AMP11 (2045)
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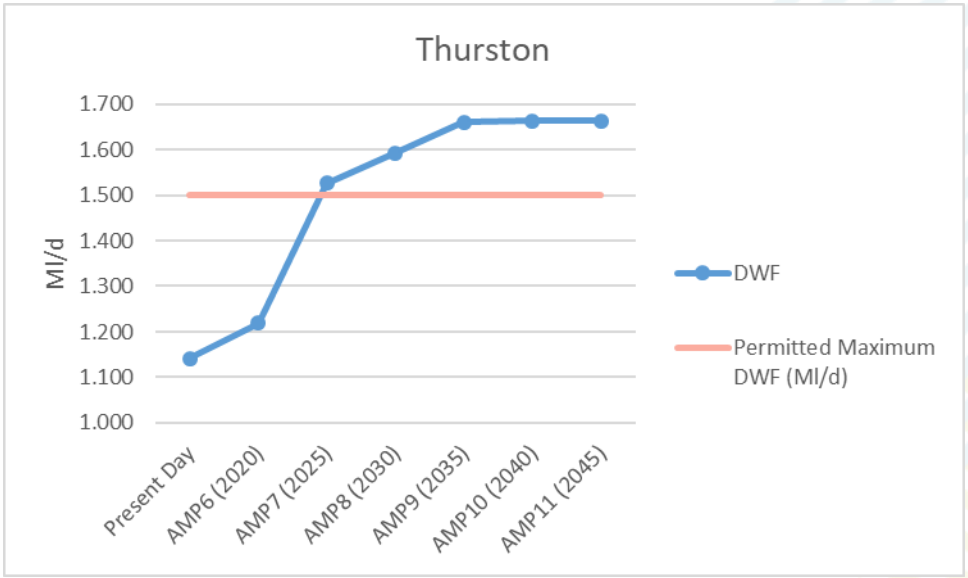
Permitted Maximum DWF (Ml/d)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1.100
1.000
Ml/d
Present Day
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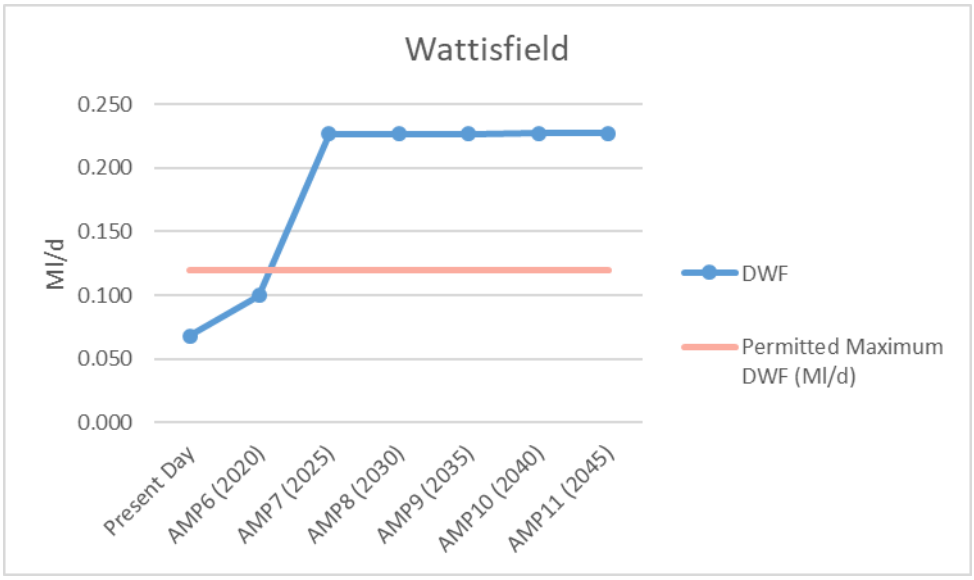
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)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Ml/d
Present Day
AMP6 (2020)
AMP7 (2025)
AMP8 (2030)
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AMP10 (2040)
AMP11 (2045)
DWF
Permitted Maximum DWF (Ml/d)

Offices at

Coleshill
Doncaster
Dublin
Edinburgh
Exeter
Glasgow
Haywards Heath
Isle of Man
Limerick
Newcastle upon Tyne
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Appendix A

Babergh and Mid Suffolk Water Cycle Study

CZX-JBAU-XX-XX-RE-EN-0001-A1-C04-BMSDC_WCS_Site_Tracker

16/10/2020

Water Resources RAG descriptions	Water Supply RAG descriptions
Adopted WRMP has planned for the increase in demand, or sufficient time to address supply demand issues in the next WRMP.	Capacity available to serve the proposed growth
Insufficient evidence in adopted WRMP to confirm that the planned increase in demand can be met	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified .
Adopted WRMP does not take into consideration the planned increase in demand. Additional water resources may be required.	Infrastructure and/or treatment upgrades will be required to serve proposed growth. Major constraints have been identified.

WwTW Flow Capacity RAG descriptions	Foul Sewerage RAG descriptions
Capacity available to serve the proposed growth	Capacity available to serve the proposed growth
Infrastructure and/or treatment work upgrades are requ	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified .
Infrastructure and/or treatment upgrades will be required to serve proposed growth. Major constraints have been identified.	Infrastructure and/or treatment upgrades will be required to serve proposed growth. Major constraints have been identified.

Odour Screening RAG descriptions	Effluent flood risk RAG descriptions
Site is unlikely to be impacted by odour from WwTW	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
Site location is such that an odour impact assessment is recommended	Additional flow ≥5% of Q30. Moderate risk that increased discharges will increase fluvial flood risk.
Site is in an area with confirmed WwTW odour issues.	Additional flow ≥5% of Q100. High risk that increased discharges will increase fluvial flood risk.

Site information																Water Supply						Wastewater												
Site Ref.	JLP Site Ref.	JLP Classification . Settlement Hierachy	JLP Site (Y/N)	Planning Permission? (Y/N)	Type	Conclusion Status	Parish / Settlement	Location	Proposed Use	Potential housing number (2015-35)	Employment Yield (ha)	Potential employment space (m²) (2015-2035)	Employment land class	Indicative Number of employees	Matching Commitment	Water Company	Water Resource Zone	Water Resources RAG	Water Resources Comments	Water Supply Networks RAG	Water Supply Networks Comments	Company Treating Wastewater	WwTW	WwTW Flow Capacity RAG	WwTW Flow Capacity Comments	Foul Sewerage Network Capacity RAG	Foul Sewerage Network Capacity Comments	Overall wastewater comments	Site boundary distance from WwTW (m)	Location of WRC relative to site	JBA Odour Screening	Odour screening comments	Effluent discharge flood risk RAG	Effluent discharge flood risk Comments
SS0004	LA067	Core Villages	Y	Y	Allocation	Deliverable 0-5	Haughley	Land south of Bacton Road, Haughley	Residential	98	0	0		#N/A	DC/17/04113	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Haughley-Old St	Green	Capacity available to serve the proposed growth	Amber			384	S	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0006	LA090	Core Villages	Y	Y	Allocation	Deliverable 0-5	Thurston	Land west of Barton Road, Thurston	Residential	129	0	0		#N/A	DC/17/02232	Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			958	N/NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0008	LA103	Core Villages	Y	Y	Allocation	Deliverable 0-5	Thurston	Land south of Barrells Road, Thurston	Residential	6	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			2412	N/W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0009	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Creeting St Mary	Land between Jack's Green Road and A14, Creeting St Mary	Residential	43	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber			1083	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0012	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Old Newton	Land north of Falconer Avenue, Old Newton	Residential	56	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Old Newton	Green	Capacity available to serve the proposed growth	Amber			980	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0014	LA022	Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Eye	Land north of Maple Way, Eye	Residential	150	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1002	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0019	LA084	Core Villages	Y	Y	Allocation	Deliverable 0-5	Thurston	Land west of Meadow Lane, Thurston	Residential	64	0	0		#N/A	4942/16	Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	1172	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0020	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Badwell Ash	Land south of The Broadway, Badwell Ash	Residential	13	0	0		#N/A	DC/17/04849	Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			476	N/NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0028		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Needham Market	Land north of Barking Road, Needham Market	Residential	300	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber		Sewers & water mains crossing site	891	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0029	LA036	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Stowmarket	Land south of Union Road, Stowmarket	Residential	300	0	0		#N/A	4455/16	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1430	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0031	LA057	Core Villages	Y	N	Allocation	Developable 6-15	Debenham	Land north of Ipswich Road, Debenham	Residential	140	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Debenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			554	E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0033	LA102	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Whitton	Land west of Old Norwich Road, Whitton	Residential	190	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			3338	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0037	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Badwell Ash	Land west of The Street, Badwell Ash	Residential	21	0	0		#N/A		Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			647	N/NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0038	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Yaxley	Land east of Old Ipswich Road,	Residential	15	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment	Green	Capacity available to serve the	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the	Amber			3538	E	Green	Site is unlikely to be impacted by	Green	Additional flow ≤5% of Q30. Low
SS0039	LA064	Core Villages	Y	N	Allocation	Deliverable 0-5	Elmswell	Land north of Church Road, Elmswell	Residential	60	0	0		#N/A		Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	N/A Outside boundary of water supply and / or service for sewerage treatment purposes	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	667	SSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0040	LA091	Core Villages	Y	Y	Allocation	Deliverable 0-5	Walsham-le-Willows	Land west of Wattisfield Road, Walsham le Willows	Residential	60	0	0		#N/A	1352/17	Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			2310	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0042	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Yaxley	Land west of Old Ipswich Road, Yaxley	Residential	20	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green			3527	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0047	LA104	Core Villages	Y	Y	Allocation	Deliverable 0-5	Haughley	Land west of Fishponds Way, Haughley	Residential	65	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Haughley-Old St	Green	Capacity available to serve the proposed growth	Amber		Sewers & water mains crossing site	187	NW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0054	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Weybread	Land north-east of The Street, Weybread	Residential	15	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Weybread	Green		Green			1139	WNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0058	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Fressingfield	Land between Ostfields and Stradbroke Road, Fressingfield	Residential	18	0	0		#N/A	3872/16	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Weybread	Green		Amber			3161	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0064	LA033	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Stowmarket	Land south of Gun Cotton Way, Stowmarket	Residential	68	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			120	SW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0065	LA073	Core Villages	Y	N	Allocation	Deliverable 0-5	Mendlesham	Land south of Glebe Way, Mendlesham	Residential	75	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement. (Main runs along northern border of site - to east of existing houses only)	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	976	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0069	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Laxfield	Land south of Framlingham Road, Laxfield	Residential	49	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Halesworth	Green	Capacity available to serve the proposed growth	Amber			3686	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0073	LA100	Core Villages	Y	Y	Allocation	Deliverable 0-5	Stowupland	Land north of B1115, Stowupland	Residential	143	0	0		#N/A	0195/16 5024/16	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1398	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0075	LA089	Core Villages	Y	N	Allocation	Developable 6-15	Thurston	Land east of Isworth Road, Thurston	Residential	200	0	0		#N/A		Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			745	NNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0076	LA002	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Barham	Land north of Church Lane, Barham	Residential	270	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	3086	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0078	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Badwell Ash	Land south-east of Hunston Road, Badwell Ash	Residential	52	0	0		#N/A		Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			1329	N/E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0079	LA080	Core Villages	Y	N	Allocation	Deliverable 0-5	Stradbroke	Land west of Queen Street, Stradbroke	Residential	75	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2575	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0080		Core Villages	N	N	Allocation	Deliverable 0-5	Stradbroke	Land east of Queen Street, Stradbroke	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green			2113	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0083	LA074	Core Villages	N	N	Allocation	Deliverable 0-5	Mendlesham	Land north-east of Chapel Road, Mendlesham	Residential	50	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1208	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0084	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Westhorpe	Land north of The Street, Westhorpe	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Westhorpe	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			111	N/E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0085	LA062	Core Villages	Y	Y	Allocation	Deliverable 0-5	Elmswell	Land east of Ashfield Road, Elmswell	Residential	106	0	0		#N/A	0210/17	Anglian Water	Isworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1828	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0087		Core Villages	N	N	Allocation	Deliverable 0-5	Stradbroke	Land south of Ash Plough and west of Queen Street, Stradbroke	Residential	20	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2385	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0088	LA046	Core Villages	Y	Y	Allocation	Deliverable 0-5	Bacton	Former Bacton Middle School, Bacton	Residential	50	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve	Green	Capacity available to serve the proposed growth	Anglian Water	Bacton-Finningham La	Amber	Infrastructure and/or treatment work upgrades are required to serve	Amber			397	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0090	LA085	Core Villages	Y	N	Allocation	Deliverable 0-5	Thurston	Land east of Church Road and south of Old Post Office Lane, Thurston	Residential	25	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			2235	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0091	LA051	Core Villages	Y	N	Allocation	Developable 6-15	Botesdale & Rickinghall	Land between The Street and A143, Botesdale and Rickinghall	Residential	100	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1583	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0093	LA093	Core Villages	Y	Y	Allocation	Deliverable 0-5	Woolpit	Land east of Green Road, Woolpit	Residential	49	0	0		#N/A	2112/16	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1133	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0096	LA063	Core Villages	Y	Y	Allocation	Deliverable 0-5	Elmswell	Land south of Church Road, Elmswell	Residential	38	0	0		#N/A	4909/16	Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			622	WSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0099	LA047	Core Villages	Y	Y	Allocation	Deliverable 0-5	Bacton	Land north-east of Turkey Hall Lane, Bacton	Residential	51	0	0		#N/A	DC/18/00723	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve	Green	Capacity available to serve the proposed growth	Anglian Water	Bacton-Finingham La	Amber	Infrastructure and/or treatment work upgrades are required to serve	Amber			280	WNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0101	LA037	Urban Areas and Market Towns	Y	N	Allocation	Developable 6-15	Stowmarket	Former Stowmarket Middle School, Stowmarket	Residential	40	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	1548	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0105		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Norton	Land between Ixworth Road and Hawes Lane, Norton	Residential	12	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Norton (Suffolk)	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			967	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0107	LA065	Core Villages	Y	N	Allocation	Deliverable 0-5	Elmswell	Land north-west of School Road, Elmswell	Residential	50	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	992	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0110	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Wattisfield	Land east of The Street, Wattisfield	Residential	8	0	0		#N/A	DC/17/04520	Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Wattisfield	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			1339	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0119		Ipswich Policy Area	N	N	Allocation	Not Currently Developable	Claydon	Land west of Old Ipswich Road, Claydon	Residential	21	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	3272	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0121	LA006	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Bramford	Land south of Fitzgerald Road, Bramford	Residential	100	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber		Water mains crossing site	1532	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0127	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Creeting St Mary	Land west of Jacks Green Road, Creeting St Mary	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	1292	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0129	LA049	Core Villages	Y	Y	Allocation	Deliverable 0-5	Botesdale & Rickinghall	Land south of Back Hills, Botesdale and Rickinghall	Residential	40	0	0		#N/A	0460/17	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			264	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0131	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Old Newton	Land south of Stowmarket Road, Old Newton	Residential	64	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Old Newton	Green	Capacity available to serve the proposed growth	Green			463	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0132	LA066	Core Villages	Y	N	Allocation	Developable 6-15	Elmswell	Land west of Station Road, Elmswell	Residential	100	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1465	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0141	LA076	Core Villages	Y	N	Allocation	Developable 6-15	Stonham Aspal	Land south of The Street, Stonham Aspal	Residential	35	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stonham Aspal	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1167	WNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0145	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Somersham	Land west of Main Road, Somersham	Residential	30	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Somersham (Suffolk)	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1350	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0151	LA077	Core Villages	Y	Y	Allocation	Deliverable 0-5	Stowupland	Land south of Church Road, Stowupland	Residential	18	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site. Sewage pumping stn (STUPSP)	2149	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0157	LA036*	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Stowmarket	Land south of Union Road, Stowmarket	Residential	100	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1287	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0163	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Stonham Parva	Land east of Norwich Road, Little Stonham	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stonham Aspal	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			976	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0171	LS01	Hinterland Villages	N	N	Allocation	Deliverable 0-5	Henley	Land south of Ashbocking Road, Henley	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Henley	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	428	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0177	LA045	Core Villages	Y	N	Allocation	Deliverable 0-5	Acton	Land south of Tamage Road, Acton	Residential	100	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Long Melford	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	2015	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0179	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Stutton	Land east of Church Road, Stutton	Residential	34	0	0		#N/A	B/17/00950	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Amber			2090	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0181	LA060	Core Villages	Y	Y	Allocation	Deliverable 0-5	East Bergholt	Land north-west of Moores Lane, East Bergholt	Residential	144	0	0		#N/A	B/15/00673	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	East Bergholt	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1527	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0182	LA061	Core Villages	Y	Y	Allocation	Deliverable 0-5	East Bergholt	Land south of Heath Road, East Bergholt	Residential	75	0	0		#N/A	B/16/01092	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	East Bergholt	Green	Capacity available to serve the proposed growth	Amber			1149	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0185	LA053	Core Villages	Y	N	Allocation	Deliverable 0-5	Brantham	Land south of Ipswich Road, Brantham	Residential	70	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	925	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0191	LA013	Ipswich Policy Area	Y	N	Allocation	Developable 6-15	Sproughton	Land north of the A1071, Sproughton	Residential	475	0	0		#N/A	B/15/0093	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber		Water mains crossing site	671	NNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0194		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Great Waldingfield	Land north of Folly Road, Great Waldingfield	Residential	50	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Gt Waldingfield	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	818	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0200	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Great Waldingfield	Land east of Valley Road, Great Waldingfield	Residential	32	0	0		#N/A	DC/18/04309	Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Gt Waldingfield	Green	Capacity available to serve the proposed growth	Amber			1542	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0203	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Woolverstone	Land south of Main Road, Woolverstone	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chelmondiston	Green	Capacity available to serve the proposed growth	Green			1828	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0204	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Chelmondiston	Land south of B1456, Chelmondiston	Residential	15	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chelmondiston	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1110	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0208	LA075	Core Villages	Y	N	Allocation	Deliverable 0-5	Shotley	Land south of The Street, Shotley	Residential	50	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shotley-Overhall Fm	Green	Capacity available to serve the proposed growth	Amber			730	E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0211		Core Villages	N	N	Allocation	Not Currently Developable	Brantham	Land west of Brantham Hill, Brantham	Residential	50	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	995	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0212	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Elmsett	Land west of Hadleigh Road, Elmsett	Residential	42	0	0		#N/A	B/17/01009	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Amber			1573	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0220		Core Villages	N	N	Allocation	Deliverable 0-5	Great Cornard	Land south of Davidson Close, Sudbury	Residential	120	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Cornard	Green	Capacity available to serve the proposed growth	Amber			1843	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0222	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Hitcham	Land west of The Causeway, Hitcham	Residential	12	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bildeston	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	3152	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0223	LA012	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Sproughton	Land north of Burstall Lane and West of B1113, Sproughton	Residential	75	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber			868	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0226		Core Villages	N	N	Allocation	Deliverable 0-5	Glemsford	Land south-east of George Lane, Glemsford	Residential	50	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Glemsford	Green	Capacity available to serve the proposed growth	Amber			1804	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0227		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land between London Road and A12, Copdock and Washbrook	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green			3225	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0232		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Elmsett	Land south of Whatfield Road, Elmsett	Residential	20	0	0		#N/A	DC/17/05204	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Amber			1966	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0233		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Elmsett	Land north-east of Ipswich Road, Elmsett	Residential	15	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1384	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0237		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Lawshall	Land west of Bury Road, Lawshall	Residential	10	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shimpling	Green	Capacity available to serve the proposed growth	Amber			2582	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0242	LA042	Urban Areas and Market Towns	Y	N	Allocation	Developable 6-15	Great Cornard	Land at Tye Farm, Great Cornard	Residential	500	0	0		RN/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Cornard	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	2676	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0251	LA054	Core Villages	Y	Y	Allocation	Deliverable 0-5	Capel St Mary	Land east of Longfield Road, Capel St Mary	Residential	100	0	0		RN/A	DC/17/06318	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Amber				2278	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0255	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Woolverstone	Land north of Glebe Lane and west of Main Road, Woolverstone	Residential	5	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chelmondiston	Green	Capacity available to serve the proposed growth	Green				1530	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0258	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Aldham	Land north of The Street, Aldham	Residential	5	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Green			Water mains crossing site	2147	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0259	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Aldham	Land west of Hadleigh Road, Aldham	Residential	7	0	0		RN/A	DC/18/00799	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Green				2084	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0264	LA035	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Stowmarket	Ashes Farm, Stowmarket	Residential	575	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site		1229	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0266	LA105	Core Villages	Y	Y	Allocation	Deliverable 0-5	Bacton	Land north of Church Road and east of Wyverstone Road, Bacton	Residential	81	0	0		RN/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Bacton-Finingham La	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified .	Amber				587	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0267		Core Villages	N	N	Allocation	Deliverable 0-5	Debenham	Land north of Gracechurch Street, Debenham	Residential	150	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Debenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Water mains crossing site	1274	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0268	LA058	Core Villages	Y	N	Allocation	Developable 6-15	Debenham	Land east of Aspall Road, Debenham	Residential	87	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Debenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				1204	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0270	LA117	Core Villages	Y	Y	Allocation	Developable 6-15	Haughley	Land north of Station Road, Haughley	Residential	29	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Haughley-Old St	Green	Capacity available to serve the proposed growth	Amber				465	WSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0278	LA048	Core Villages	Y	N	Allocation	Developable 6-15	Bildeston	Land south of Wattisham Road, Bildeston	Residential	75	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bildeston	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	1155	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0286		Core Villages	N	N	Allocation	Deliverable 0-5	Glemsford	Land south of Kings Road, Glemsford	Residential	100	0	0		RN/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Glemsford	Green	Capacity available to serve the proposed growth	Amber				1077	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0288	LA069	Core Villages	Y	N	Allocation	Developable 6-15	Lavenham	Land north-west of Melford Road, Lavenham	Residential	20	0	0		RN/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Lavenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				1190	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0292		Core Villages	N	N	Allocation	Deliverable 0-5	Boxford	Land west of Sand Hill, Boxford	Residential	60	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Boxford	Green	Will require enhancement to treatment capacity.	Amber				581	S	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0295	LA008	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land south-east of Back Lane, Copdock and Washbrook	Residential	226	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	3008	N/NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0298	LA028	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Hadleigh	Land north-east of Frog Hall Lane, Hadleigh	Residential	600	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				1158	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0299	LA014	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Sproughton	Land at Poplar Lane, Sproughton	Residential	475	0	0		RN/A	B/15/00993	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	1128	N/NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0303		Urban Areas and Market Towns	N	N	Allocation	Developable 6-15	Hadleigh	Land east of Frog Hall Lane, Hadleigh	Residential	300	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Water mains crossing site	1111	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0319	LA086	Core Villages	Y	N	Allocation	Developable 6-15	Thurston	Land south of Heath Road, Thurston	Residential	110	0	0		RN/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				1533	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0324		Urban Areas and Market Towns	N	N	Allocation	Not Currently Developable	Stowmarket	Land north of Spikes Lane, Stowmarket	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site		1808	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0325		Core Villages	N	N	Allocation	Deliverable 0-5	Mendlesham	Land at Mendlesham Airfield, Mendlesham	Employment	0	70	280000	Mixed B	6693		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green				1093	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0327		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Claydon	Land at Hill View Farm, Claydon	Employment	0	3	12000	Mixed B	287		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Green			Water mains crossing site	3623	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0328		Core Villages	N	N	Allocation	Deliverable 0-5	Woolpit	Goldstar Transport Ltd, Elmswell Road, Woolpit	Employment	0	4	16000	Mixed B	382		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			Water mains crossing site	260	NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0330		Core Villages	N	N	Allocation	Deliverable 0-5	Elmswell	Land at Grove Lane, Elmswell	Employment	0	14	56000	Mixed B	1339		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site		2435	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0333		Core Villages	N	N	Allocation	Developable 6-15	Mendlesham	Land at Tower Farm, Mendlesham	Employment	0	3	12000	Mixed B	287		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable			975	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0343	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Onehouse	Land south of Forest Road, Onehouse	Residential	10	0	0		RN/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Finborough	Green	Capacity available to serve the proposed growth	Green				1744	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0358	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Rattlesden	Land north of Top Road, Rattlesden	Residential	8	0	0		RN/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green				1107	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0369	LA092	Core Villages	Y	Y	Allocation	Developable 6-15	Walsham-le-Willows	Land east of Wattisfield Road, Walsham le Willows	Residential	22	0	0		RN/A	DC/17/02783	Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			Sewers & water mains crossing site	2404	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0380	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Finningham	Land south of Wickham Road, Finningham	Residential	10	0	0		RN/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Green				959	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0392	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Tattingstone	Land west of A137, The Heath, Tattingstone	Residential	5	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Green			Water mains crossing site	997	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0395		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Bentley	Land south of Station Road and west of Bergholt Road, Bentley	Residential	60	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bentley	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Water mains crossing site	1021	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0403	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Boxford	Land south of Hadleigh Road, Calais Street, Boxford	Residential	5	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Boxford	Green	Will require enhancement to treatment capacity.	Green			Water mains crossing site	575	WSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0418		Urban Areas and Market Towns	N	N	Allocation	Developable 6-15	Hadleigh	Land south-east of Benton Street, Hadleigh	Residential	15	0	0		RN/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Sewers & water mains crossing site	107	SSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0433	LA040	Core Villages	Y	Y	Allocation	Deliverable 0-5	Great Cornard	Land west of Bures Road, Great Cornard	Residential	46	0	0		RN/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Cornard	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	1428	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0436		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Stowmarket	Land south-west of Needham Road, Stowmarket	Employment	0	12	48000	Mixed B	1147		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			Water mains crossing site	756	N	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0453	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Thorndon	Land north of Stoke Road and west of Clint Road, Thorndon	Residential	20	0	0		RN/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement. Proposed main to be constructed down western border.	Anglian Water	Thorndon-Cattbridge	Green	Capacity available to serve the proposed growth	Amber				616	NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0465	LS01	Hinterland Villages	Y	N	Allocation	Not Currently Developable	Stoke by Nayland	Land north of B1068 and east of Sudbury Road, Stoke by Nayland	Residential	8	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Nayland	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	1943	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0478	LA007	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Bramford	Land east of The Street, Bramford	Residential	190	0	0		#N/A	0156/17	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	2289	WNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0500	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Rattlesden	Land east of Mitchery Lane, Rattlesden	Residential	22	0	0		#N/A	DC/18/00229	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			738	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0502	LA115	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Hadleigh	Angel Court, Angel Street, Hadleigh	Residential	21	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Water mains crossing site	1216	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0503		Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Stanstead	Land north-east of Valley View, Stanstead	Residential	5	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Glemsford	Green	Capacity available to serve the proposed growth	Green			1167	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0507	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Wenham Magna	Council Depot, Wenham Magna	Residential	6	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Green			476	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0509		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Sudbury	Land north of Newton Road, Sudbury	Residential	12	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	2196	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0512	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Stanstead	Land east of Upper Street, Stanstead	Residential	8	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Glemsford	Green	Capacity available to serve the proposed growth	Green			1269	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0513	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Tostock	Land between New Road and Leys Road, Tostock	Residential	5	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			2628	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0517	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Hintlesham	Land south-east of Duke Street, Hintlesham	Residential	6	0	0		#N/A	DC/18/01527	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Hintlesham-Wilderness H	Green	Capacity available to serve the proposed growth	Green			811	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0518	LA106	Core Villages	Y	Y	Allocation	Deliverable 0-5	Bacton	Land south of Pretyman Avenue, Bacton	Residential	85	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Bacton-Finingham La	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			515	N	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0530	LA032	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Needham Market	Former Mid Suffolk District Council Offices and Car Park, Needham Market	Residential	64	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber			784	ESE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0536		Core Villages	N	N	Allocation	Deliverable 0-5	Mendlesham	Land east of Norwich Road, Mendlesham	Employment	0	17	68000	Mixed B	1625		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Red	Site is remote from nearest sewer, connecting FW may not be viable		2169	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0537	LA027	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Hadleigh	Former Babergh District Council Offices, Hadleigh	Residential	50	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1541	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0542	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Brome & Oakley	Land south of the B1118, Brome and Oakley	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Oakley-Dross Ln	Green	Capacity available to serve the proposed growth	Green			460	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0547	LA094	Core Villages	Y	Y	Allocation	Deliverable 0-5	Woolpit	Land south of Old Stowmarket Road, Woolpit	Residential	120	0	0		#N/A	1636/16	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			491	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0550	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Mendham	Land east of Withersdale Road, opposite Mendham Primary School, Mendham	Residential	6	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Mendham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			228	WNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0551	LA001	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Barham	Land east of Norwich Road, Barham	Residential	325	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			3133	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0558	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Badwell Ash	Land to the south of Long Thurlow Road, Long Thurlow	Residential	10	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Green			2178	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0570	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Wetheringsett	Land east of A140 The Street, Wetheringsett	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable		1376	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0573	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Worlingworth	Land south of Church Road, Worlingworth	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Worlingworth	Green	Capacity available to serve the proposed growth	Amber			113	N	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0575		Core Villages	N	N	Allocation	Deliverable 0-5	Stradbroke	Land east of Queen Street, Stradbroke	Residential	30	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2625	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0584	LA114	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Hadleigh	Land north of Red Hill Road/ Malyon Road, Hadleigh	Residential	75	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	2168	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0587	LA098	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Leavenheath	Land south of High Road, Leavenheath	Residential	40	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Nayland	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	3428	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0590		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Chilton	Land east of Waldringfield Road and north of Church Field Road, Sudbury	Residential	25	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Great Cornard	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	2883	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0591	LA005	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Belstead	6 Acre Field, Belstead	Residential	14	0	0		#N/A	DC/18/00403	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1422	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0593	LA009	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land south-west of London Road, Copdock and Washbrook	Residential	12	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			3561	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0599	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Wetheringsett	Land to the north-east of the junction between The Street and Cedars Hill, Wetheringsett	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Mendlesham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1115	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0603	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Barking	Land north of Barking Road and west of Hascot Hill, Barking	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Green			2889	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0612	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Battisford	Land east of Bowl Road and north-west of Cobbold Close, Battisford	Residential	9	0	0		#N/A	DC/18/05259	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			2146	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0614	LA110	Core Villages	Y	N	Allocation	Deliverable 0-5	Eye	Land north of Millfield, Eye	Residential	34				#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1851	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0615	LA111	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Eye	Land at allotments north of Millfield, Eye	Residential	72				#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1829	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0616	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Laxfield	Land east of Mill Road, Laxfield	Residential	13	0	0		#N/A	DC/17/04375	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Haleseworth	Green	Capacity available to serve the proposed growth	Amber			4099	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0620		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land west of London Road, Copdock and Washbrook	Residential	25	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			3367	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0628	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Nedging-with-Naughton	Land to north of Ipswich Road, Nedging-with-Naughton	Residential	9	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Nedging-Crowcroft Rd	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			110	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0636	LA107	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Bramford	Land between Bramford Road and the A14, Bramford	Residential	14	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			1413	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0637	LA055	Core Villages	Y	N	Allocation	Deliverable 0-5	Capel St Mary	Land south-west of Rembrow Road, Capel St Mary	Residential	30	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Amber			1442	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0642		Core Villages	N	N	Allocation	Deliverable 0-5	Debenham	Land to the north of Low Road, Debenham	Residential	250	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Debenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			997	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0644		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Elmsett	Land south of Hadleigh Road, Elmsett	Residential	8	0	0		#N/A	DC/18/03100	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmsett	Green	Capacity available to serve the proposed growth	Green			1747	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0654	LA010	Ipswich Policy Area	Y	N	Allocation	Not Currently Developable	Great Blakenham	Land south of Chalk Hill Lane and West of Hood Drive, Great Blakenham	Residential	8	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Green			2627	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0655		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Combs	Land to the east of Tannery Road, Combs	Employment	0	38	152000	Mixed B	3633		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Sewers & water mains crossing site	2054	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0668	LA038	Urban Areas and Market Towns	Y	N	Allocation	Developable 6-15	Stowmarket	Land south of Creeting Road West, Stowmarket	Residential	25	0	0		#N/A	2028/15	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers crossing site	855	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0669	LA031	Urban Areas and Market Towns	Y	Y	Allocation	Developable 6-15	Needham Market	Former Needham Market Middle School, Needham Market	Residential	41	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber			530	E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0670	LA095	Core Villages	Y	N	Allocation	Deliverable 0-5	Woolpit	Land north-east of The Street, Woolpit	Residential	500	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site	651	E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0672	LA021	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Eye	Land north of Church Street, Eye	Residential	12	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1228	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0673	LA096	Core Villages	N	N	Allocation	Deliverable 0-5	Woolpit	Land north-east of Heath Road, Woolpit	Residential	10	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			898	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0678	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Hessett	Land south of Hubbard's Lane and east of The Green, Hessett	Residential	5	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			3646	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0681	LA083	Core Villages	Y	N	Allocation	Developable 6-15	Stradbroke	Land east of Farriers Close, Stradbroke	Residential	35	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2288	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0682	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Lawshall	Land east of Bury Road, Lawshall	Residential	15	0	0		#N/A	DC/18/02563	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shimpling	Green	Capacity available to serve the proposed growth	Green			2740	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0683	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Lawshall	Land to the south-west of Harrow Green, Lawshall	Residential	5	0	0		#N/A	DC/17/06174	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shimpling	Green	Capacity available to serve the proposed growth	Green			2771	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0685	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Lawshall	Land west of Melford Road, Lawshall	Residential	5	0	0		#N/A	DC/17/05458	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shimpling	Green	Capacity available to serve the proposed growth	Green			3137	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0690		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Lawshall	Land south of Lambs Lane, Lawshall	Residential	10	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Shimpling	Green	Capacity available to serve the proposed growth	Green			2983	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0696	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Stutton	Land north of Holbrook Road, Stutton	Residential	6	0	0		#N/A	B/17/00406	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	2260	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0698	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Mellis	Land to the south-west of Yaxley Road, Mellis	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green			3061	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0706	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Pettaugh	Land to the west of Debenham Way, Pettaugh	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Pettaugh-Debenham Wy	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			190	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0709	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Stoke by Nayland	Land to the south-east of Butt Road, Stoke-by-Nayland	Residential	8	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Nayland	Green	Capacity available to serve the proposed growth	Green			1727	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0711	LA116	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Sproughton	Land east of Loraine Way, Sproughton	Residential	50	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber		Water mains crossing site	733	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0716	LA088	Core Villages	Y	Y	Allocation	Deliverable 0-5	Thurston	Land west of Ixworth Road, Thurston	Residential	250	0	0		#N/A	4963/16	Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	687	N	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0717	LA068	Core Villages	Y	Y	Allocation	Deliverable 0-5	Holbrook	Land east of Ipswich Road, Holbrook	Residential	7	0	0		#N/A	DC/18/05228	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Holbrook	Green	Capacity available to serve the proposed growth	Amber			1978	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0721	LA018	Ipswich Policy Area	Y	N	Allocation	Developable 6-15	Sproughton	Sproughton Enterprise Park / Former Sugar Beet Factory Site, Sproughton	Employment	0	50	200000	Mixed B	4781		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber			196	WSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0723	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Stoke Ash	Land to the west of The Street, Stoke Ash	Residential	8	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Stoke Ash-Roman Wy	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			297	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0726		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Elmsett	Land to the south of Corn Hatches Lane, Elmsett	Employment	0	7	28000	Mixed B	669		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Whatfield	Green	Capacity available to serve the proposed growth	Green			854	WNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0728	LS01	Hinterland Villages	Y	N	Allocation	Developable 6-15	Hoxne	Land to the south of Denham Road, Hoxne	Residential	30	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Hoxne	Green	Capacity available to serve the proposed growth	Amber			921	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0729	LA087	Core Villages	Y	N	Allocation	Deliverable 0-5	Thurston	Land south of Beyton Road, Thurston	Residential	200	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1896	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0735	LS01	Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Westhorpe	Land south of Church Road, Westhorpe	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Westhorpe	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			312	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0736	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Beyton	Land north of Tostock Road, Beyton	Residential	9	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			3988	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0745		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Sudbury	Elm Road/Chilton Lodge Road, Sudbury	Residential	5	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	2085	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0750		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Sudbury	Second Avenue (Garages), Sudbury	Residential	5	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Green		Sewers & water mains crossing site	2384	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0752	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Holton St Mary	Land Adjacent to the B1070, Holton St Mary Suffolk	Residential	12	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site	1884	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0754		Core Villages	Y	N	Allocation	Deliverable 0-5	Bures St Mary	Claypits Avenue (Garages), Bures	Residential	5	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bures-Wissington Rd	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	1027	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0765	L118	Core Villages	Y	Y	Allocation	Deliverable 0-5	Thurston	Land to the West of Church Road, Thurston	Residential	15	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			2054	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0773	LA120	Core Villages	Y	Y	Allocation	Deliverable 0-5	Woolpit	Lawn Farm, Woolpit	Employment	0	17	68000	Mixed B	1625		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Water mains crossing site	613	NW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0782		Hamlets and Countryside	N	N	Allocation	Developable 6-15	Wetherden	Land north of New Haughley Street, Wetherden	Employment	0	5	20000	Mixed B	478		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Haughley-Old St	Green	Capacity available to serve the proposed growth	Green			1636	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0783	LA097	Core Villages	Y	N	Allocation	Deliverable 0-5	Woolpit	Land west of Heath Road, Woolpit	Residential	30	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	946	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0786	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Thwaite	Land to the south of Wickham Road and west of A140, Thwaite	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Stoke Ash-Roman Wy	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable		307	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0787		Core Villages	N	N	Allocation	Developable 6-15	Woolpit	Land south of A14, Woolpit	Employment	0	4	16000	Mixed B	382		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Water mains crossing site	1785	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0791		Hamlets and Countryside	N	N	Allocation	Developable 6-15	Drinkstone	Land west of Tostock Road and south of A14, Drinkstone	Employment	0	9	36000	Mixed B	B61		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			2996	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0792		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Stonham Earl	Land north of A1120 and east of Church Lane, Stonham Earl	Employment	0	5	20000	Mixed B	478		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stonham Aspal	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			Water mains crossing site	2066	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0796	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Ashbocking	Land to the west of B1077, Ashbocking	Residential	15	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ashbocking-Mill Field	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.		658	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0806	LS01	Hamlets and Countryside	N	N	Allocation	Developable 6-15	Cotton	Land north-east of Mill Hill, Cotton	Residential	15	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Amber				1030	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0809	LS01	Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Badwell Ash	Land north of Long Thurlow Road, Long Thurlow	Residential	10	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Green				2028	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0810	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Stonham Parva	Land west of Norwich Road, Stonham Parva	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stonham Aspal	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			Water mains crossing site	1086	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0811		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Long Melford	Land to the north of Springlands Way (A134), Part Long Melford / Part Sudbury Parish	Employment	0	0	0	Mixed B	0		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	1971	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0812	LA113	Core Villages	Y	Y	Allocation	Deliverable 0-5	Long Melford	Land east of the B1064, long melford Long Melford	Residential	150				#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Long Melford	Green	Capacity available to serve the proposed growth	Amber				1415	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0814	LS01	Hamlets and Countryside	Y	N	Allocation	Developable 6-15	Badwell Ash	Land north of Long Thurlow Road, Badwell Ash	Residential	5	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Green				2168	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0815	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Hunston	Land south of The Street, Hunston	Residential	5	0	0		#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Green			Water mains crossing site	2455	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0818	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Redgrave	Land south of B1113 Hall Lane, opposite junction with Half Moon Lane, Redgrave	Residential	9	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Redgrave-Crackthorn Bridge	Green	Capacity available to serve the proposed growth	Amber				1181	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0820	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Bentley	Land west of Church Lane, Bentley	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bentley	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				569	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0825	LS01	Hinterland Villages	N	N	Allocation	Developable 6-15	Wilby	Land west of B1118, Wilby	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber	Site is remote from nearest sewer, connecting FW may not be viable			1195	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0832	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Henley	Land west of Main Road, Henley	Residential	45	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Henley	Green	Capacity available to serve the proposed growth	Amber				898	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0849	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Finningham	Land west Gislingham Road, Finningham	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Green				1396	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0859		Core Villages	N	N	Allocation	Deliverable 0-5	Bacton	Land south of Church Road, Bacton	Residential	50	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Bacton-Finingham La	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				562	NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0860	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Great Finborough	Land to the east of Pear Tree Place, Great Finborough	Residential	21	0	0		#N/A	DC/17/04968 DC/18/03710	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Finborough	Green	Capacity available to serve the proposed growth	Amber		Sewers & water mains crossing site		742	NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0861	LA003	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Claydon	Land south of Church Lane, Claydon	Residential	75	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			Water mains crossing site	3056	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0863	LS01	Hinterland Villages	Y	N	Allocation	Not Currently Developable	Metfield	Land north of B1123, Metfield	Residential	25	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Metfield	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Sewers & water mains crossing site		909	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0864	LA011	Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Great Blakenham	Land north of Gipping Road, Great Blakenham	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber				2980	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0867		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Hadleigh	Land to the north-east of Pond Hall Lane, Hadleigh	Residential	30	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Water mains crossing site	1112	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0869	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Combs	Land west of Bildeston Road, Combs	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			Water mains crossing site	2177	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0872	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Chelmondiston	Land east of Richardson Lane, Chelmondiston	Residential	24	0	0		#N/A	DC/18/00236	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chelmondiston	Green	Capacity available to serve the proposed growth	Amber				720	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0874	LS01	Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Little Waldingfield	Land to the south-east of The Street, Little Waldingfield	Residential	12	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Gt Waldingfield	Green	Capacity available to serve the proposed growth	Amber				1454	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0877	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Raydon	Land north of Woodlands Road, Raydon	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site		2364	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0880	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Raydon	Land east of The Street, Raydon	Residential	24	0	0		#N/A	DC/17/06289	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Amber				2095	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0902	LA056	Core Villages	Y	N	Allocation	Deliverable 0-5	Debenham	Land south of Low Road, Debenham	Residential	18	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Debenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber				770	ESE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0909		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Hadleigh	Land west of Aldham Mill Hill and east of Gallows Hill, Hadleigh	Residential	80	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			Water mains crossing site	1713	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0910	LA055*	Core Villages	Y	N	Allocation	Deliverable 0-5	Capel St Mary	Land south-west of Rembrow Road, Capel St Mary	Residential	520	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Amber				1228	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0916		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Claydon	Land to the west of A14, Claydon	Employment	0	4	16000	Mixed B	382		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site		3008	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0918		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land east of London Road, Copdock and Washbrook	Employment	0	30	120000	Mixed B	2869		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site. Sewage pumping stn (COMASP)		3066	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0919		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Lane west of London Road and south of Folly Lane, Copdock and Washbrook	Employment	0	7	28000	Mixed B	669		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green				3241	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0924		Hinterland Villages	N	N	Allocation	Developable 6-15	Tostock	Land south of New Road and north of A14, Tostock	Employment	0	1	4000	Mixed B	96		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green				2552	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0926		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Claydon	Land west of Old Ipswich Road, Claydon	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site		3272	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0928	LA099	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Eye	Land at Eye Airfield, Eye	Employment	0	10	40000	Mixed B	956		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green		Sewers & water mains crossing site. Sewage pumping stn (EYEASM, BRAMWSP,EYASSP)		1780	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0930		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Stowmarket	Land north-east of Tot Hill, Stowmarket	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site		1593	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0934		Core Villages	N	N	Allocation	Developable 6-15	Long Melford	Land east of High Street & Harefield Rd and west of A134, Long Melford	Employment	0	15	60000	Mixed B	1434		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Long Melford	Green	Capacity available to serve the proposed growth	Green				1819	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0937		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Bramford	Land east of Bramford Road / B1067, Bramford	Employment	0	11	44000	Mixed B	1052		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Green		Sewers & water mains crossing site		1647	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0939		Core Villages	N	N	Allocation	Deliverable 0-5	Botesdale & Rickinghall	Land east of Rectory Hill and south of The Street, Rickinghall	Employment	0	17	68000	Mixed B	1625		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Wattisfield	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green				1573	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS0942		Core Villages	N	N	Allocation	Deliverable 0-5	Chilton	Land north of Newton Road / A134, Great Cornard	Employment	0	11	44000	Mixed B	1052		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Cornard	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	2816	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0944		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land north of Elm lane, Copdock and Washbrook	Employment	0	9	36000	Mixed B	861		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	3152	N/NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0945		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock and Washbrook	Land south of Mill Lane and west of London Road, Copdock and Washbrook	Employment	0	20	80000	Mixed B	1912		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	2745	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0948		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Chilton	The Hollies, Chilton Airfield, Chilton	Employment	0	8	32000	Mixed B	765		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Gt Waldingfield	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	1595	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0949	LA052	Core Villages	Y	Y	Allocation	Developable 6-15	Botesdale & Rickinghall	Land north of Mill Road, Botesdale and Rickinghall	Residential	69	0	0		#N/A	DC/17/02760	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			424	NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0952		Ipswich Policy Area	N	N	Allocation	Developable 6-15	Great Blakenham	Land south of Gipping Road, Great Blakenham	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Green			2955	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0954	LA013	Ipswich Policy Area	Y	N	Allocation	Developable 6-15	Sproughton	Land to the west of Hadleigh Road, Sproughton	Residential	25	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	953	N/NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS0968		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Sudbury	Highfield Mill, Sudbury	Residential	5	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	1671	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1005	LA032*	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Needham Market	Former Mid Suffolk District Council Offices and Car Park, Needham Market	Residential	30	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber			928	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1011	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Brome & Oakley	Land north of B1118, Oakley	Residential	10	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Oakley-Dross Ln	Green	Capacity available to serve the proposed growth	Amber			474	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1018		Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Cockfield	Land to the west of A1141, Cockfield	Residential	10	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stanningfield	Green	Capacity available to serve the proposed growth	Amber	Site is remote from nearest sewer, connecting FW may not be viable	Water mains crossing site	671	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1019		Urban Areas and Market Towns	N	N	Allocation	Not Currently Developable	Sudbury	Land west of Ballingdon Hill and south of Sandy Lane, Sudbury	Residential	60	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	534	NNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1020	LA016	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Wherstead	Land west of Bourne Hill, Wherstead	Residential	75	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	982	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1021	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Old Newton	Land south of Church Road, Old Newton	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Old Newton	Green	Capacity available to serve the proposed growth	Green			405	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1022	LA034	Urban Areas and Market Towns	Y	Y	Allocation	Developable 6-15	Stowmarket	Chilton Leys, Stowmarket	Residential	600	0	0		#N/A	5007/16 DC/18/0311	Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	1760	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1024	LA013*	Ipswich Policy Area	Y	N	Allocation	Developable 6-15	Sproughton	Land north of the A1071, Sproughton	Residential	300	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber		Water mains crossing site	278	N/NE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1027	LA101	Ipswich Policy Area	N	N	Allocation	Developable 6-15	Wherstead	Land north of The Street, Wherstead	Employment	0	3	12000	Mixed B	287		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	852	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1031		Urban Areas and Market Towns	N	N	Allocation	Developable 6-15	Hadleigh	Land south of Ipswich Road, Hadleigh	Employment	0	5	20000	Mixed B	478		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Sewers & water mains crossing site	1804	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1032	LA108	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Stowmarket	Land south of Gun Cotton Way, Stowmarket	Employment	0	11	44000	Mixed B	1052		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Sewers & water mains crossing site	217	SSW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1033		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Needham Market	Council Offices, Needham Market	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Green		Sewers & water mains crossing site	784	ESE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1034		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Needham Market	Council Offices Car Park, Needham Market	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Green			928	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1035	LA028	Urban Areas and Market Towns	Y	N	Allocation	Deliverable 0-5	Hadleigh	Land to the east of Frog Hall Lane, Hadleigh	Employment	0	6	24000	Mixed B	574		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			1158	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1043	LA082	Core Villages	Y	Y	Allocation	Deliverable 0-5	Stradbroke	Land south of New Street, Stradbroke	Residential	60	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2748	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1044		Hinterland Villages	N	N	Allocation	Developable 6-15	Bentley	Land east of Bergholt Road, Bentley	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Bentley	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			921	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1055	LS01	Hinterland Villages	N	N	Allocation	Deliverable 0-5	Great Finborough	Land west of High Road, Great Finborough	Residential	25	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Finborough	Green	Capacity available to serve the proposed growth	Amber			773	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1056	LA119	Ipswich Policy Area	Y	Y	Allocation	Deliverable 0-5	Barham	Land north of Posthouse Lane, Barham	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			3642	SW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1058	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Stonham Earl	Land north east of Haggars Mead, Earl Stonham	Residential	20	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stonham Aspal	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Sewers crossing site	2840	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1060		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Raydon	Land west of Noaks Road, Raydon	Residential	6	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Great Wenham	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	2463	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1065	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Beyton	Land west of Church Road, Beyton	Residential	10	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Thurston	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			4063	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1068	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Chilton	Land south of Waldingfield Road, Great Waldingfield	Residential	20	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Gt Waldingfield	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1729	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1070		Urban Areas and Market Towns	N	N	Allocation	Developable 6-15	Needham Market	Land east of Barking Road, Needham Market	Residential	120	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	882	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1071	LA078	Core Villages	Y	N	Allocation	Developable 6-15	Stowupland	Land south of Stowmarket Road, Stowupland	Residential	300	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber		Water mains crossing site	956	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1082	LA039	Core Villages	Y	Y	Allocation	Deliverable 0-5	Great Cornard	Land east of Kings Hill, Great Cornard	Residential	8	0	0		#N/A	DC/18/00117	Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Green			2212	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1088	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Norton	Land north of Ashfield Road, Norton	Residential	8	0	0		#N/A	DC/18/01681	Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Norton (Suffolk)	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			1895	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1092		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Hadleigh	Land south of Stone Street, Hadleigh	Employment	0	0	0	Mixed B	0		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Hadleigh	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1234	WNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1106	LA079	Core Villages	N	N	Allocation	Developable 6-15	Stowupland	Land south of Gipping Road, Stowupland	Residential	100	0	0		#N/A	DC/17/00097	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			2006	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1110		Core Villages	N	N	Allocation	Developable 6-15	Glemsford	Land west of Duffs Hill, Glemsford	Residential	25	0	0		#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Glemsford	Green	Capacity available to serve the proposed growth	Amber			565	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1118	LA020	Urban Areas and Market Towns	Y	N	Allocation	Developable 6-15	Eye	Land north of Magdalen Street, Eye	Residential	80	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1558	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1121	LA041	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Chilton	Land north-west of Waldingfield Road, Chilton	Residential	130	0	0		#N/A	DC/17/04052	Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Amber			2890	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1125	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Stutton	Land north of Manningtree Road, Stutton	Residential	14	0	0		#N/A	DC/17/02111	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Brantham	Green	Capacity available to serve the proposed growth	Amber			2986	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

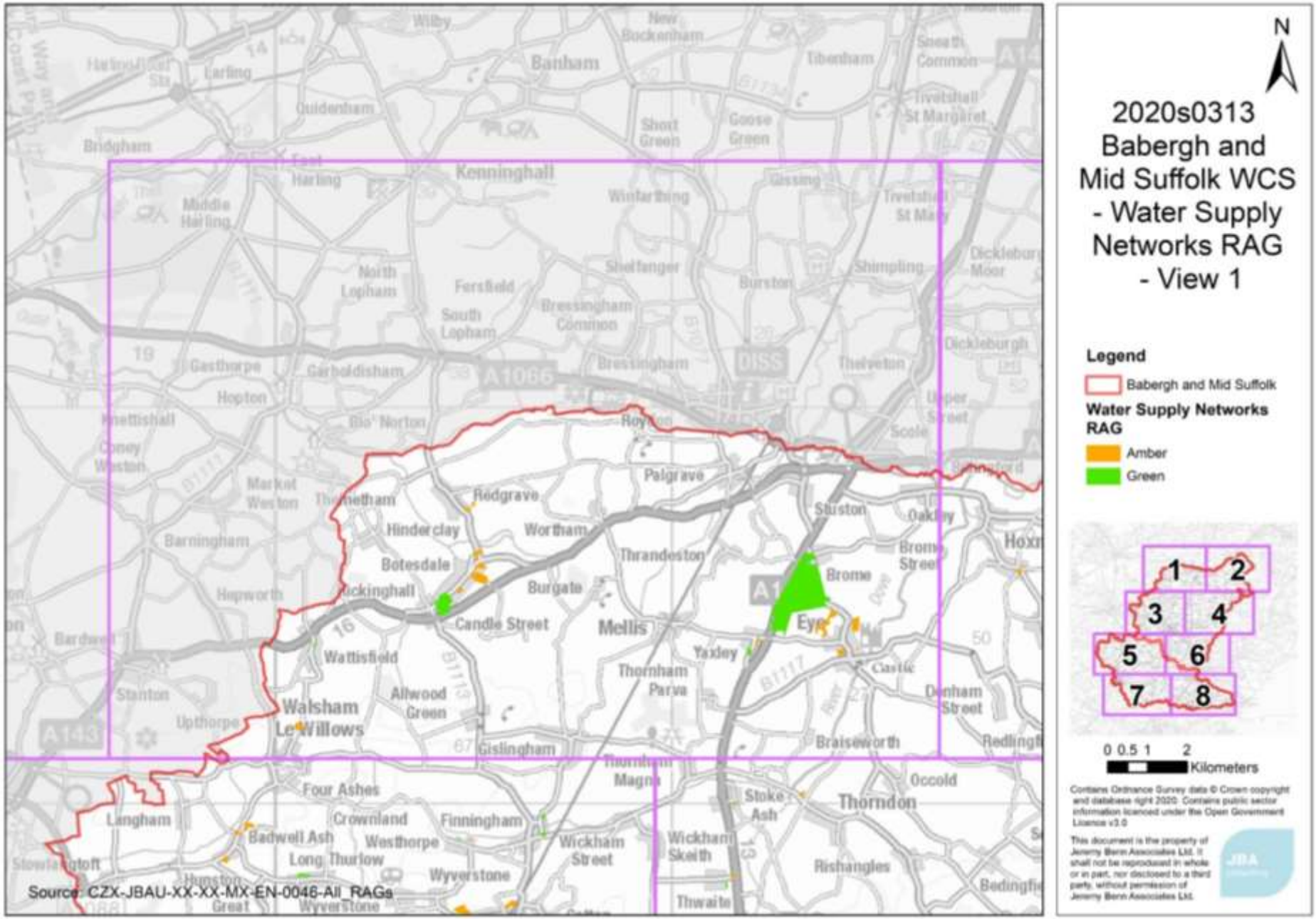
SS1144		Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Brent Eleigh	Land south of Lavenham Road, Brent Eleigh	Employment	0	1	4000	Mixed B	96	B/16/01537	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Lavenham	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			1022	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1148	LS01	Hamlets and Countryside	Y	N	Allocation	Not Currently Developable	Lindsey	Land east of The Tye, Lindsey	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Lindsey-Frogs Hall	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			379	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1153		Urban Areas and Market Towns	N	N	Allocation	Developable 6-15	Needham Market	Land south-west of Stowmarket Road, Needham Market	Residential	134	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1402	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1154		Core Villages	N	N	Allocation	Deliverable 0-5	Woolpit	Land to the south of the A14, Woolpit	Employment	0	3	12000	Mixed B	287		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green		Water mains crossing site	1567	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1155	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Stoke By Nayland	Land north of Goldenlond, Stoke By Nayland	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Nayland	Green	Capacity available to serve the proposed growth	Green			1903	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1156		Core Villages	N	N	Allocation	Developable 6-15	Woolpit	Land south of Old Stowmarket Road, Woolpit	Employment	0	30	120000	Mixed B	2869		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			477	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1158		Core Villages	N	N	Allocation	Deliverable 0-5	Woolpit	Land south-west of Wood Road, Woolpit	Employment	0	2	8000	Mixed B	191		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Elmswell	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			1315	NW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1166	LS01	Hamlets and Countryside	Y	N	Allocation	Deliverable 0-5	Wickham Skeith	Land west of Grange Road, Wickham Skeith	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Green			1660	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1168		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Wherstead	Land west of the A137, Wherstead	Employment	0	11	44000	Mixed B	1052		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Green		Water mains crossing site	504	WNW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1177		Ipswich Policy Area	N	N	Allocation	Developable 6-15	Sproughton	Land north of Sproughton Road, Sproughton	Residential	1000	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Amber		Water mains crossing site	431	S	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1178		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Sproughton	Land north of Sproughton Road, Sproughton	Employment	0	40	160000	Mixed B	3825		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sproughton-Church L	Amber	Development may drain to Cliff Quay WRC	Green		Water mains crossing site	431	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1185		Ipswich Policy Area	N	N	Allocation	Developable 6-15	Sproughton	Land to the south of Poplar Lane, Sproughton	Residential	150	0	0		#N/A	B/15/00993	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber		Water mains crossing site	1454	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1187		Hamlets and Countryside	N	N	Allocation	Not Currently Developable	Cotton	Land east of Stonham Road, Cotton	Residential	0	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Amber			1460	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1188	LS01	Hamlets and Countryside	Y	N	Allocation	Not Currently Developable	Cotton	Land north of Mendlesham Road, Cotton	Residential	5	0	0		#N/A	DC/18/03558	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Cotton	Green	Capacity available to serve the proposed growth	Green			1355	N	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1189		Hamlets and Countryside	N	N	Allocation	Not Currently Developable	Kenton	Land east of Eye Road and north of Church Close, Kenton	Residential	0	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Kenton-Garneys Cls	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			550	NNE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1190	LA050	Core Villages	Y	Y	Allocation	Deliverable 0-5	Botesdale & Rickinghall	Land north of Gardenhouse Lane, Botesdale and Rickinghall	Residential	42	0	0		#N/A	3858/16	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			1234	NE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1197	LA059	Core Villages	Y	Y	Allocation	Deliverable 0-5	East Bergholt	Land west of Hadleigh Road, East Bergholt	Residential	10	0	0		#N/A	B/15/01678	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	East Bergholt	Green	Capacity available to serve the proposed growth	Amber			1080	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1198	LA081	Core Villages	Y	N	Allocation	Developable 6-15	Stradbroke	Land north of Laxfield Road, Stradbroke	Residential	45	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement. (Along southern boundary)	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			2309	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1199	LA030	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Needham Market	Land west of Stowmarket Road, Needham Market	Residential	66	0	0		#N/A	DC/17/05549	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Amber			1390	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1202	LA109	Urban Areas and Market Towns	Y	N	Allocation	Developable 6-15	Eye	Land south of Eye Airfield, Eye	Residential	174	0	0		#N/A	3563/15	Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Amber			1564	E	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1205		Core Villages	N	N	Allocation	Developable 6-15	Long Melford	Land west of Rodbridge Hill, Long Melford	Residential	30	0	0		#N/A		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Long Melford	Green	Capacity available to serve the proposed growth	Amber			1788	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1223	LA044*	Ipswich Policy Area	Y	N	Allocation	Deliverable 0-5	Stowmarket	Land at Mill Lane, Stowmarket	Employment	0	79	316000	Mixed B	7554		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			537	NW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1225		Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Acton	Land West of Bull Lane, Acton Industrial Estate	Employment	0	3	12000	Mixed B	287		Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Long Melford	Green	Capacity available to serve the proposed growth	Amber			2898	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1228	LS01	Hinterland Villages	Y	N	Allocation	Deliverable 0-5	Thwaite	Land west of Church Lane, Thwaite	Residential	5	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Thwaite-Wickham Rd (Suffk)	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Green			435	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1238		Hamlets and Countryside	N	N	Allocation	Deliverable 0-5	Harkstead	Land south of The Street, Harkstead	Residential	10	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Holbrook	Green	Capacity available to serve the proposed growth	Amber			1414	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1239		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Claydon	Land east of Old Ipswich Road, Claydon	Residential	250	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ipswich-Cliff Quay Raeburn	Green	Capacity available to serve the proposed growth	Amber			3408	W	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1248		Core Villages	N	N	Allocation	Deliverable 0-5	Botesdale	Land south of Mill Road, Botesdale	Residential	25	0	0		#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement.	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			651	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1249		Core Villages	N	N	Allocation	Deliverable 0-5	Botesdale	Land south of Mill Road, Botesdale	Employment	0	0	0	Mixed B	0		Essex and Suffolk Water	Hartismere	Not assessed	N/A	Not assessed	N/A	Anglian Water	Botesdale	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			651	NNE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1257		Core Villages	N	N	Allocation	Deliverable 0-5	Boxford	Land south of Hadleigh Road, Boxford	Residential	5	0	0		#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Boxford	Green	Will require enhancement to treatment capacity.	Green			962	WSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1260		Ipswich Policy Area	N	N	Allocation	Deliverable 0-5	Copdock	Land south east of A12, Copdock	Employment	0	12	48000	Mixed B	1147		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			2879	S	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1266		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Redgrave	Land south of Half Moon Lane, Redgrave	Residential	15	0			#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required. A Water Main crosses the site and Essex and Suffolk Water Ltd (NWG) would require it to be diverted or placed within a suitable easement. (Along northern boundary)	Anglian Water	Redgrave-Crackthorn Bridge	Green	Capacity available to serve the proposed growth	Amber			1212	SSE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1268		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Coddenham	Land east of School Lane, Coddenham	Residential	8	0			#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Needham Market	Green	Capacity available to serve the proposed growth	Green			2539	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1273		Ipswich Policy Area	N	N	Allocation	Developable 6-15	Wherstead	Park Farm Barns and land west of Vicarage Land, Wherstead	Employment	0	10	40000	Mixed B	956		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Chantry	Green	Capacity available to serve the proposed growth	Amber			947	NNW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1278		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Wilby	Land to the south of Willow Farm, Wilby, IP21 5LE	Residential	5	0			#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green			1150	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1279		Hinterland Villages	N	N	Allocation	Deliverable 0-5	Wilby	Land to the west of Brundish Road, Wilby, IP21 5LP	Residential	5	0			#N/A		Essex and Suffolk Water	Hartismere	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Green	Capacity available to serve the proposed growth	Anglian Water	Eye-Hoxne Rd	Green	Capacity available to serve the proposed growth	Green			1031	ENE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1282		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Stowmarket	Land off Gipping Way, Stowmarket Site D	Employment	0	1	4000	Mixed B	96		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			263	ENE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1283		Core Villages	N	N	Allocation	Developable 6-15	Long Melford	Land to the north of St Bartholomews Chapel Sudbury	Residential	350	0			#N/A	B/15/01718	Anglian Water	Sudbury	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Sudbury	Green	Capacity available to serve the proposed growth	Amber			2011	SSW	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

SS1286		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Stowmarket	Land Opposite Linnet Drive, Stowmarket	Employment	0	3	12000	Mixed B	287		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			120	SW	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1287		Urban Areas and Market Towns	N	N	Allocation	Deliverable 0-5	Stowmarket	Land East of Tomo Business Park, Stowmarket	Employment	0	0	0	Mixed B	0		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			319	SE	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1288	LA112	Urban Areas and Market Towns	Y	Y	Allocation	Deliverable 0-5	Stowmarket	Land east and west of Prentice Road, Stowmarket	Residential	60	0			#N/A	3668/13	Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Stowmarket	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			912	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1289	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Cockfield	Land north of Mackenzie Place, Cockfield	Residential	51				#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Cockfield-Mckenzie Place	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			27	ESE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1290	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Cockfield	Land east of Bury Road, Cockfield	Residential	10				#N/A		Anglian Water	Bury Haverhill	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Cockfield (Great Green)	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			663	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1292	LS01	Hinterland Villages	Y	Y	Allocation	Deliverable 0-5	Badwell Ash	Land north of the broadway, Badwell Ash	Residential	33				#N/A		Anglian Water	Ixworth	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Badwell Ash	Green	Capacity available to serve the proposed growth	Amber			355	N	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1293	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Great Bricett	Land south of Great Bricett Business Park, Great Bricett	Residential	51				#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Ringshall	Amber	Infrastructure and/or treatment work upgrades are required to serve proposed growth, but no significant constraints to the provision of this infrastructure have been identified.	Amber			605	SE	Green	Site is unlikely to be impacted by odour from WwTW	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.
SS1294	LS01	Hamlets and Countryside	Y	Y	Allocation	Deliverable 0-5	Worlingworth	Land south of Shop Street, Worlingworth	Residential	26				#N/A		Anglian Water	East Suffolk	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Amber	Infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required	Anglian Water	Worlingworth	Green	Capacity available to serve the proposed growth	Amber			760	E	Amber	Site location is such that an odour impact assessment is recommended	Green	Additional flow ≤5% of Q30. Low risk that increased discharges will increase fluvial flood risk.

Appendices B and C to Babergh & Mid Suffolk Water Cycle Study:

CZX-JBAU-XX-XX-RP-EN-0001-A1-C03-Babergh_and_MidSuffolk_WCS

Appendix B - Water Supply Network Assessments


2020s0313
Babergh and Mid Suffolk WCS - Water Supply Networks RAG - View 1
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Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
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8
0 0.5 1 2
Kilometers
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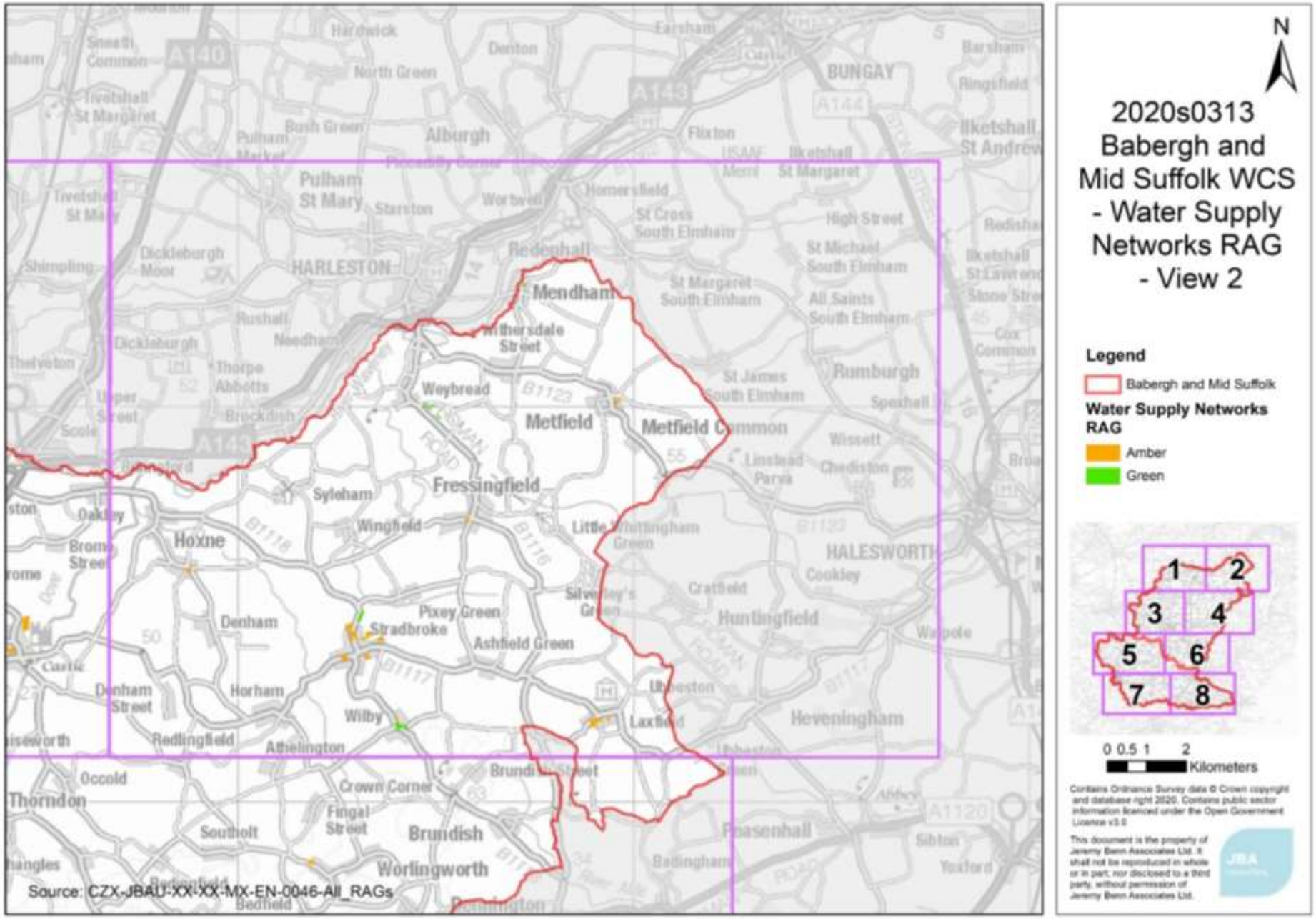
2020s0313
Babergh and Mid Suffolk WCS - Water Supply Networks RAG - View 2
N
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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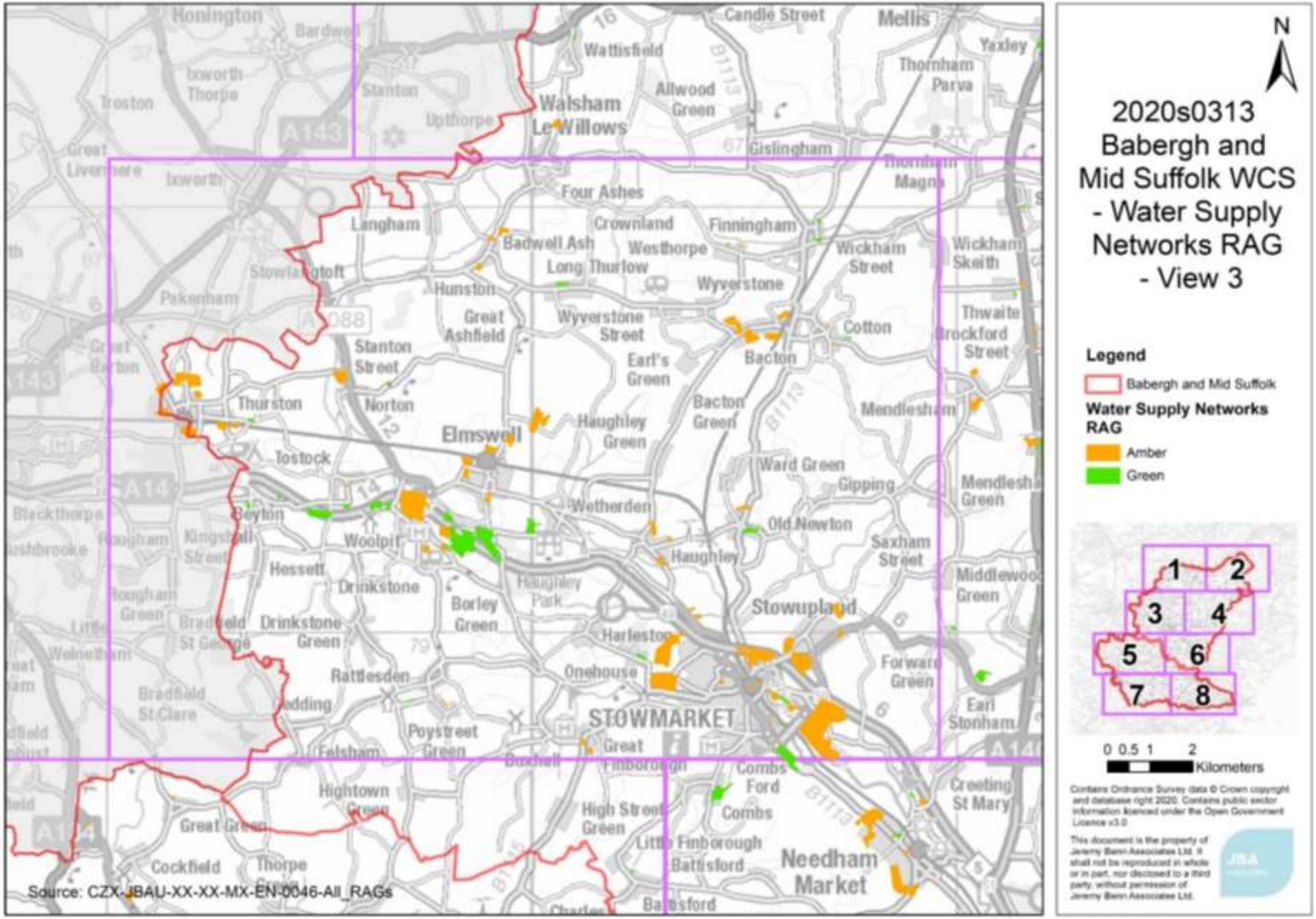

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2020s0313
Babergh and
Mid Suffolk WCS
- Water Supply
Networks RAG
- View 3
Legend
Babergh and Mid Suffolk
Water Supply Networks
RAG
Amber
Green
1
2
3
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5
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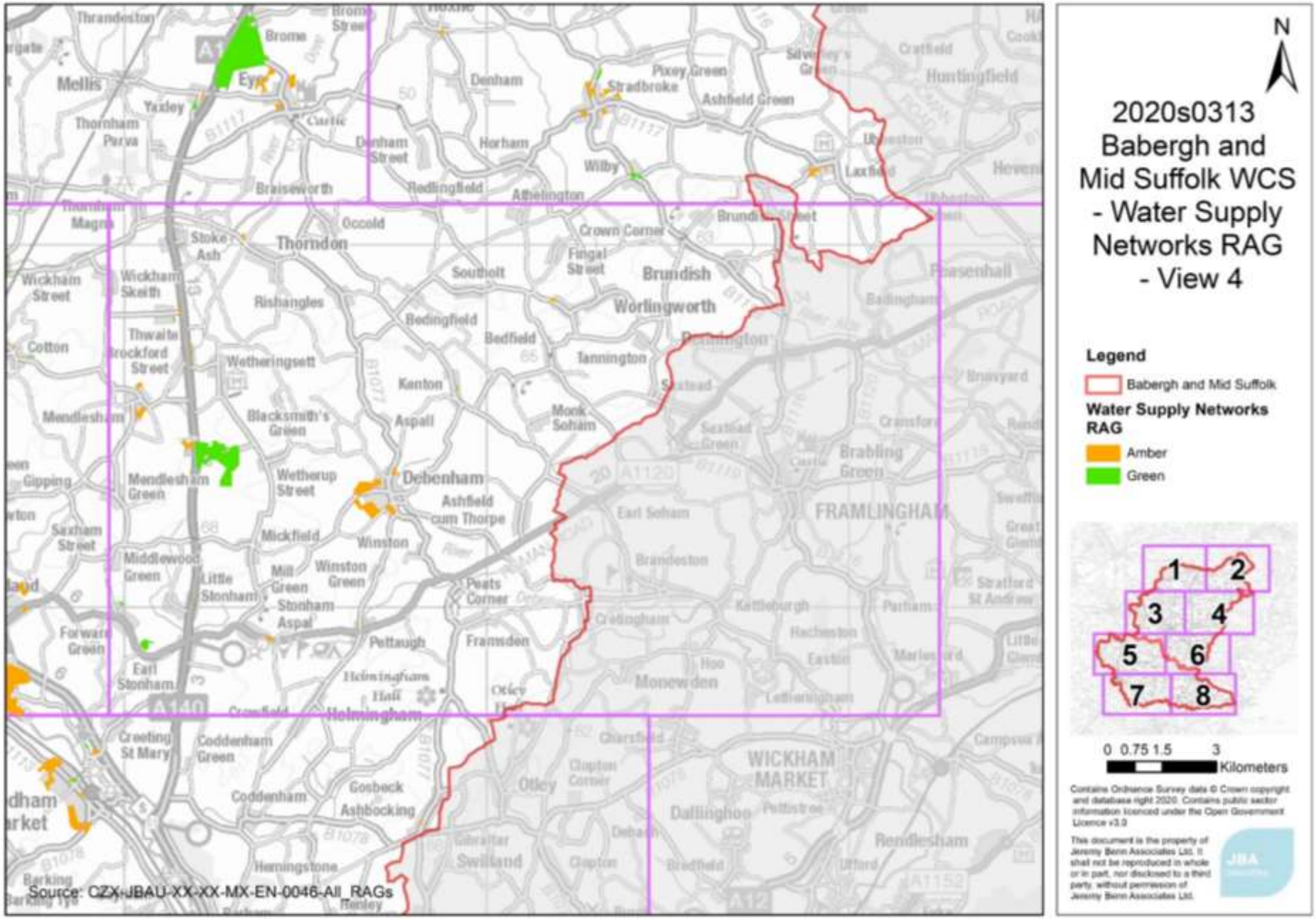
0 0.5 1 2
Kilometers
STOWMARKET
Needham Market
Elmswell
Stowupland
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs
N
2020s0313 Babergh and Mid Suffolk WCS - Water Supply Networks RAG - View 4
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
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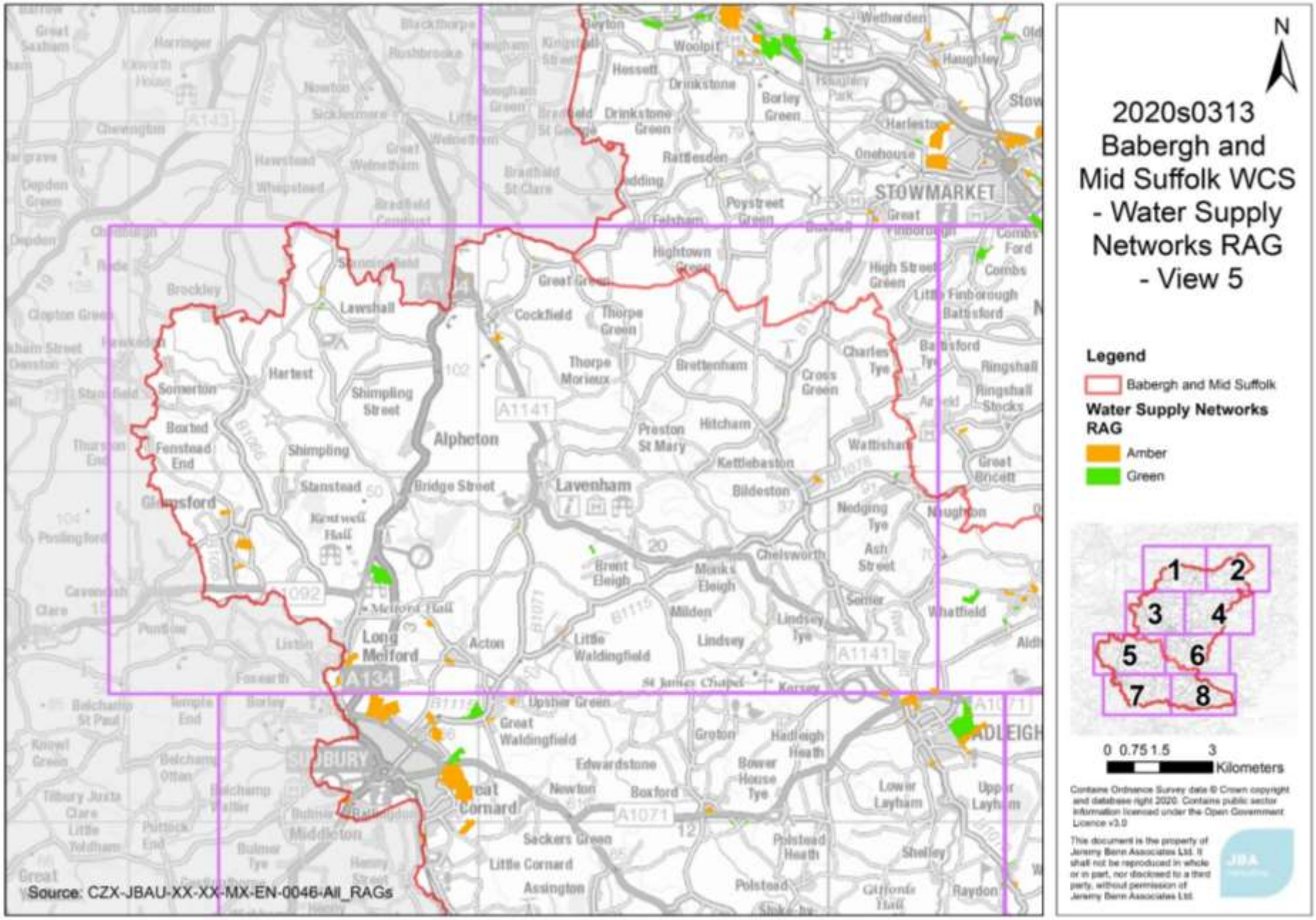
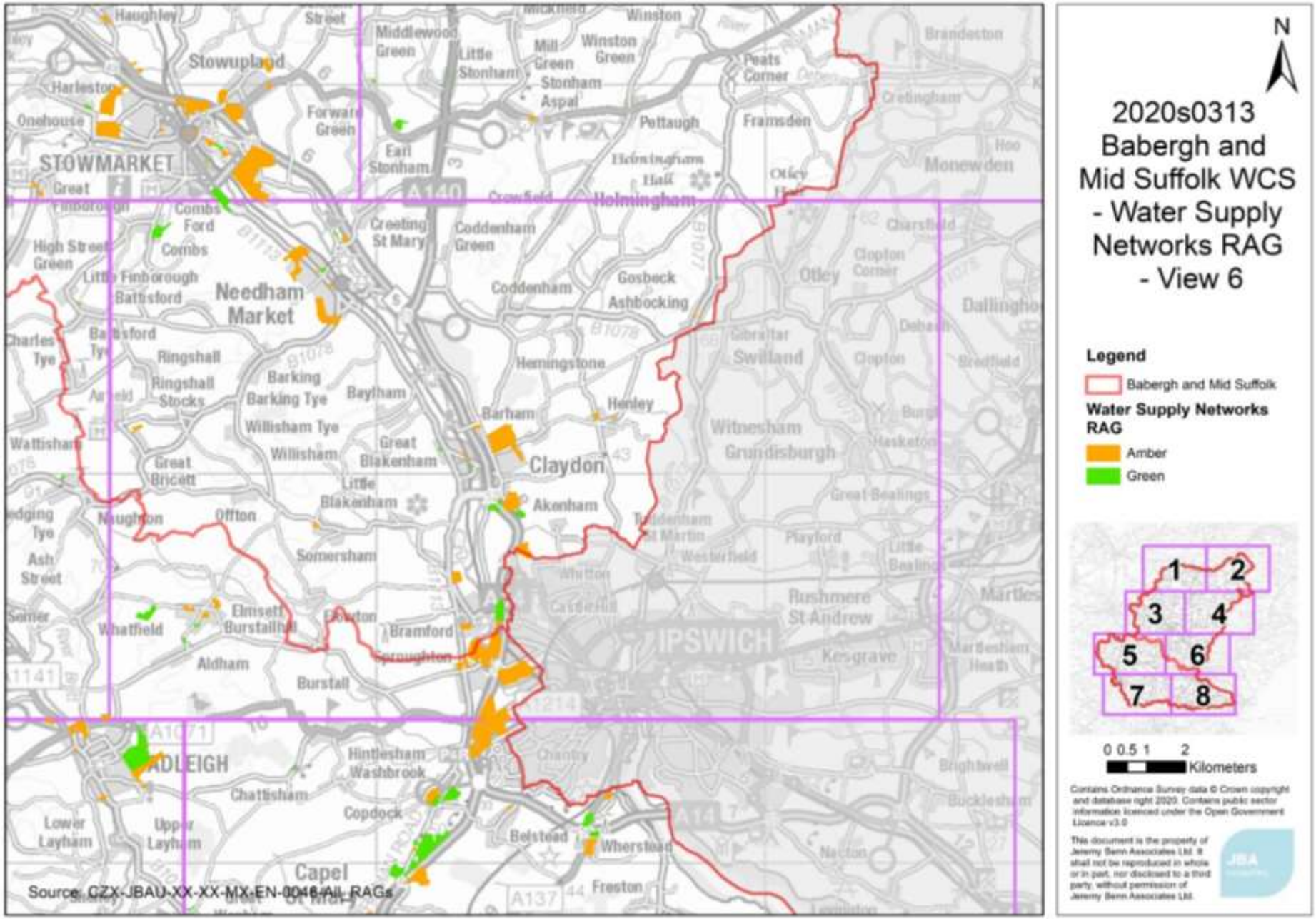
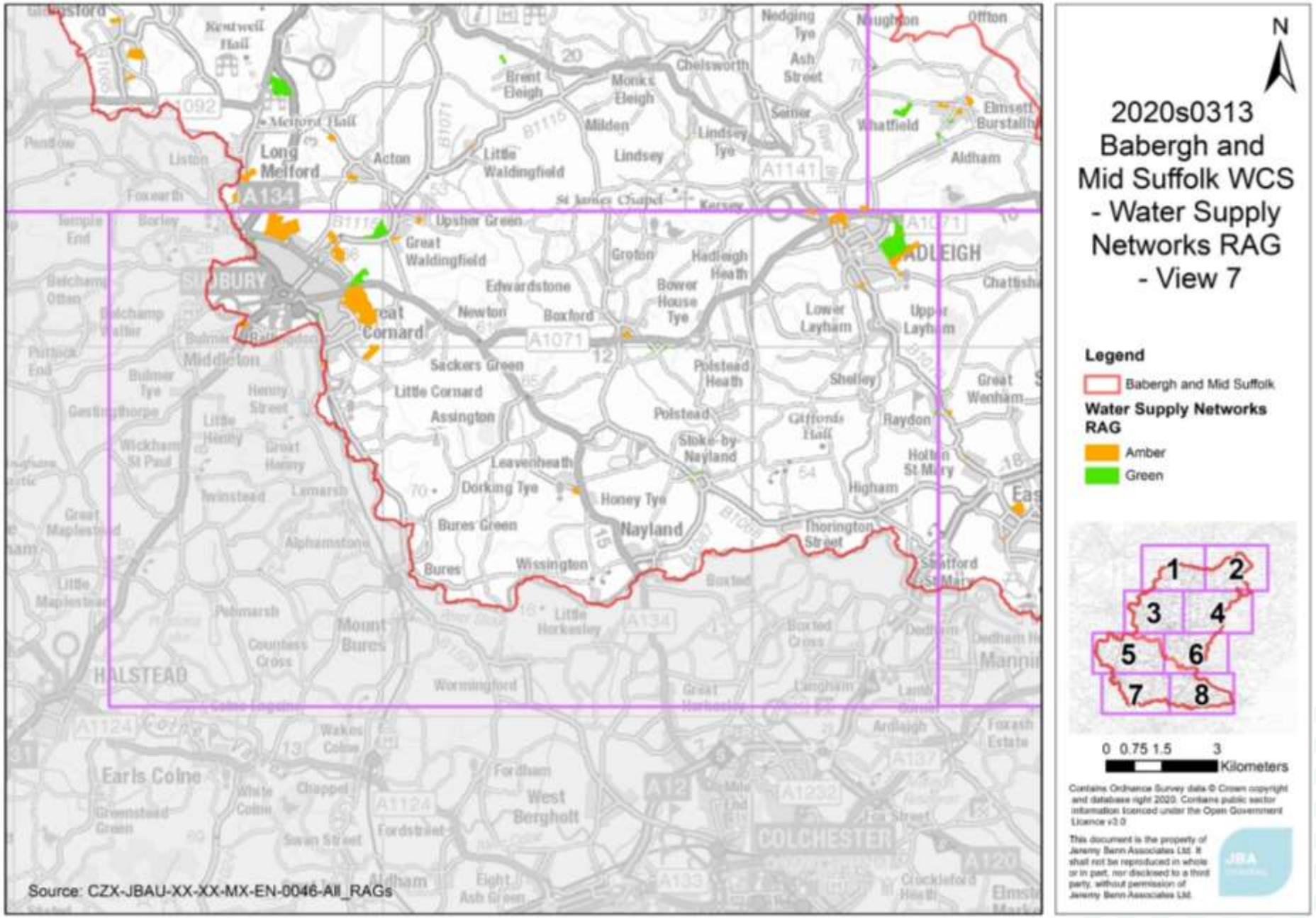
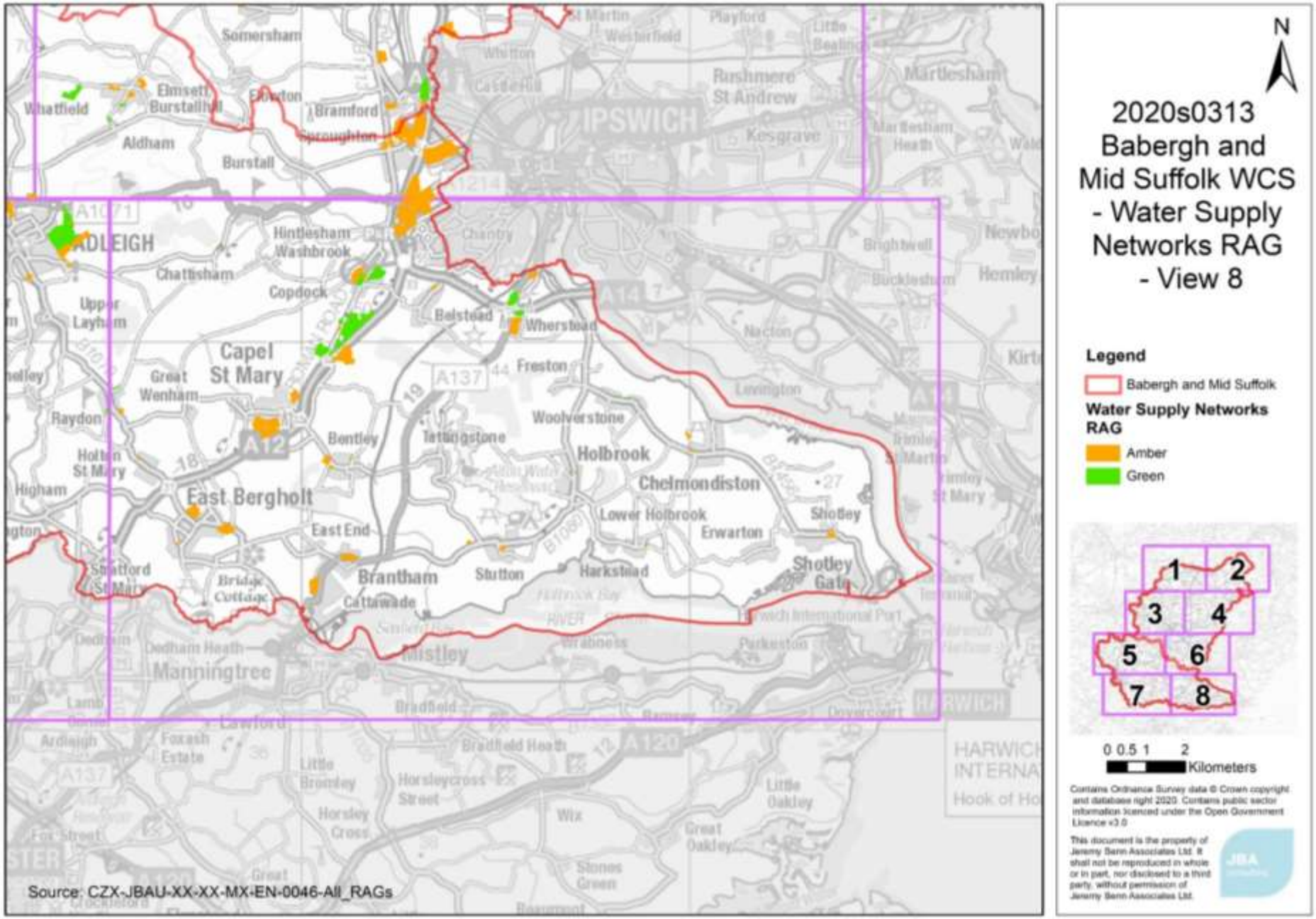
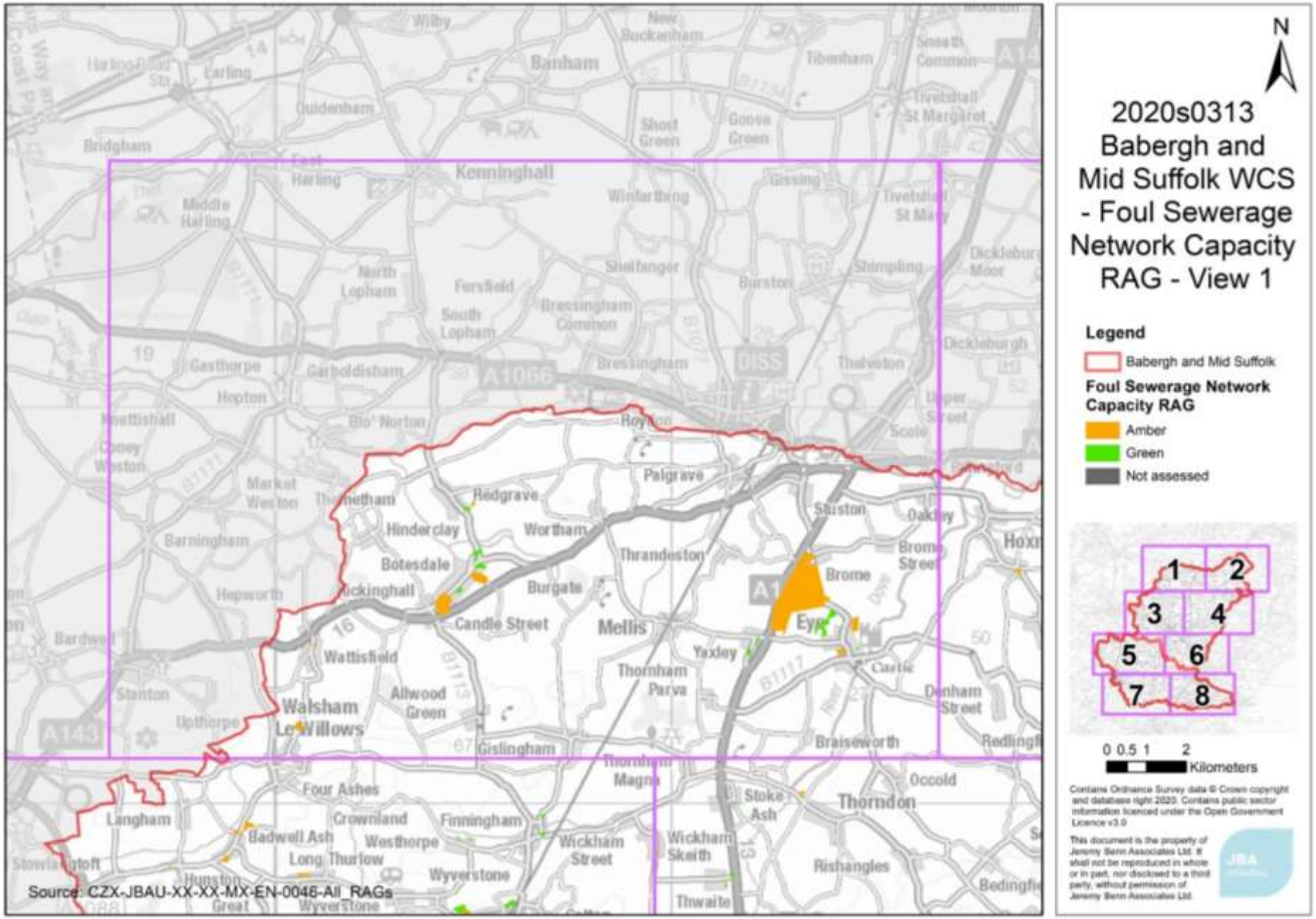

2020s0313
Babergh and
Mid Suffolk WCS
- Water Supply
Networks RAG
- View 5
N
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


2020s0313
Babergh and
Mid Suffolk WCS
- Water Supply
Networks RAG
- View 6
N
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


2020s0313
Babergh and
Mid Suffolk WCS
- Water Supply
Networks RAG
- View 7
N
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


2020s0313
Babergh and
Mid Suffolk WCS
- Water Supply
Networks RAG
- View 8
N
Legend
Babergh and Mid Suffolk
Water Supply Networks RAG
Amber
Green
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs

Appendix C - Foul Sewer Network Assessments


N
2020s0313
Babergh and
Mid Suffolk WCS
- Foul Sewerage
Network Capacity
RAG - View 1
Legend
Babergh and Mid Suffolk
Foul Sewerage Network Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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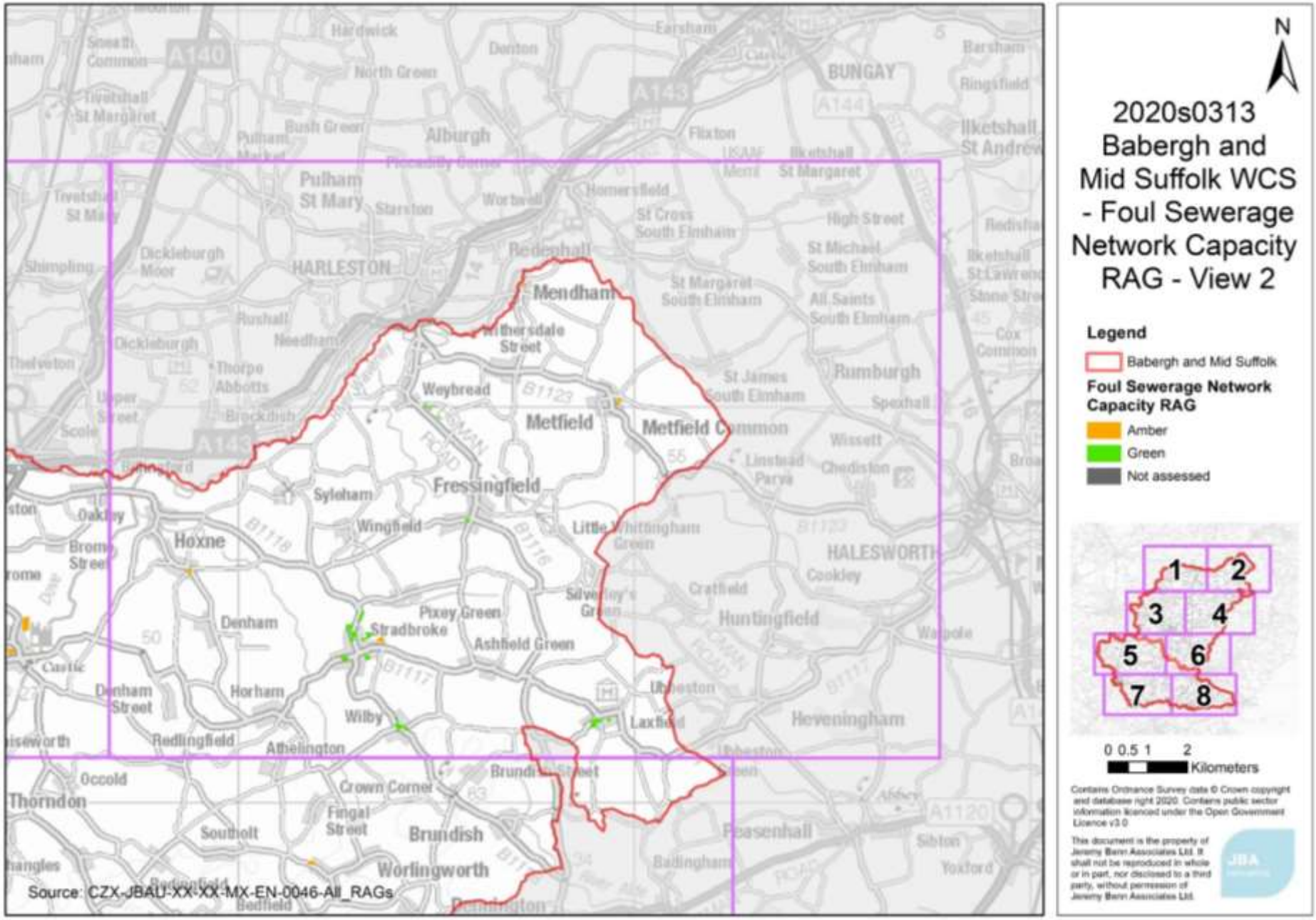
N
2020s0313
Babergh and
Mid Suffolk WCS
- Foul Sewerage
Network Capacity
RAG - View 2
Legend
Babergh and Mid Suffolk
Foul Sewerage Network
Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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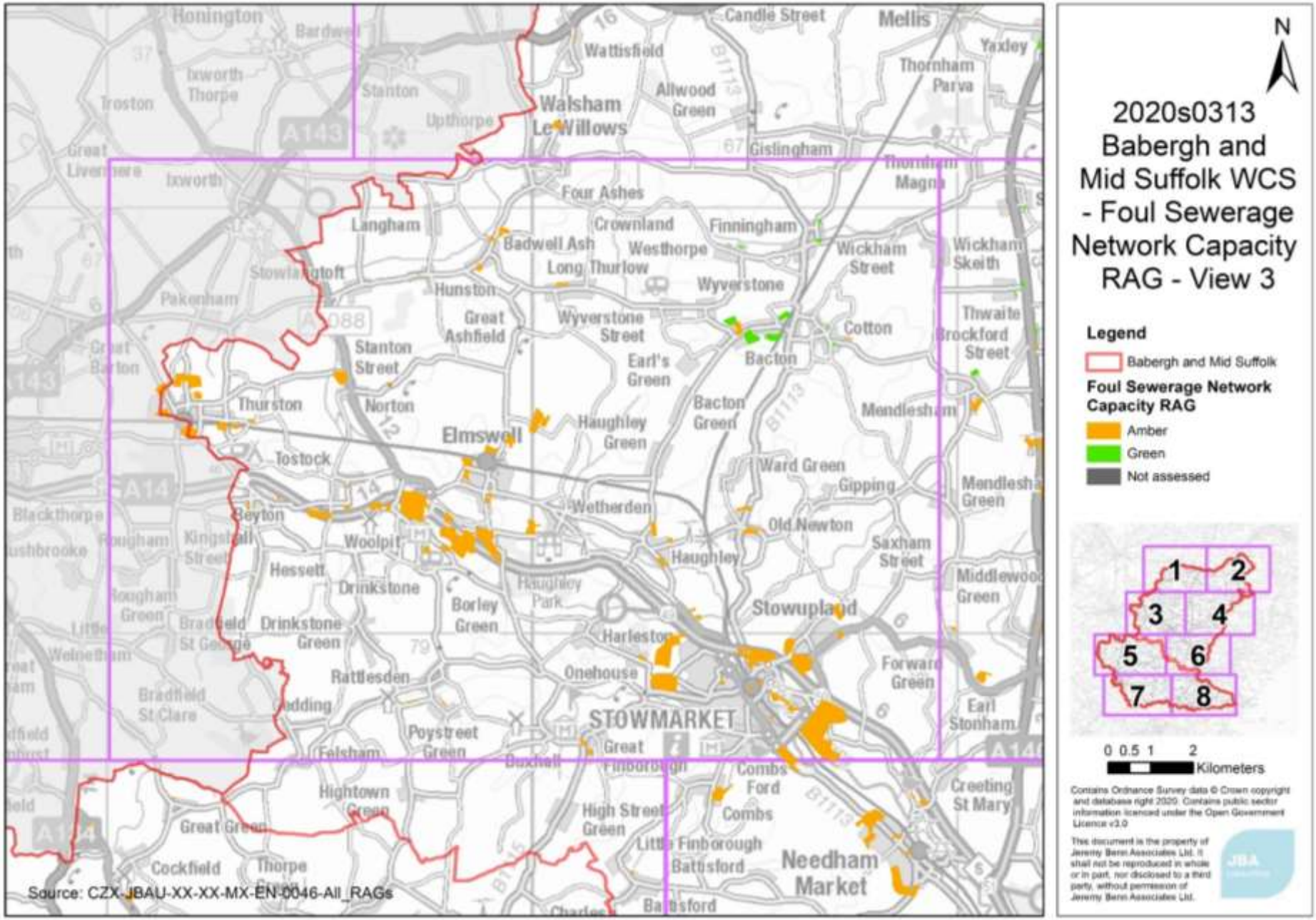
2020s0313
Babergh and Mid Suffolk WCS - Foul Sewerage Network Capacity RAG - View 3
N
Legend
Babergh and Mid Suffolk
Foul Sewerage Network Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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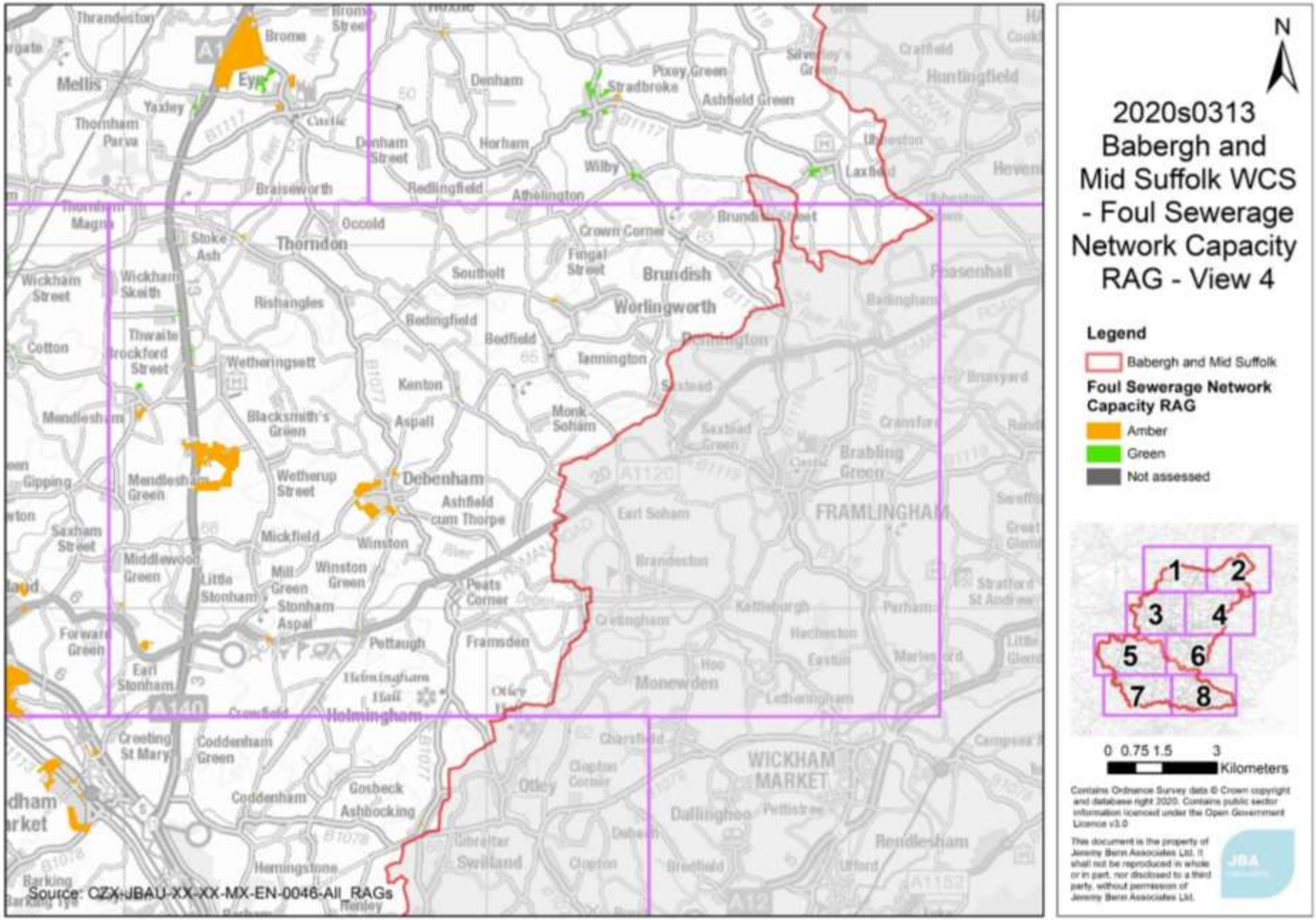
STOWMARKET
Needham Market
Stowupland
Elmswell
Thurston
Stanton Street
Great Ashfield
Wyverstone
Wyverstone Street
Cotton
Bacton
Haughley
Wetherden
Woolpit
Drinkstone
Rattlesden
Onehouse
Harleston
Forward Green
Creeting St Mary
Combs
Combs Ford
Finningham
Wickham Street
Thornham Magna
Thornham Parva
Mellis
Yaxley
Walsham Le Willows
Wattisfield
Gislingham
Four Ashes
Langham
Badwell Ash
Long Thurlow
Westhorpe
Crownland
Hunston
Norton
Tostock
Beyton
Hessett
Borley Green
Haughley Park
Old Newton
Saxham Street
Gipping
Ward Green
Mendlesham
Bacton Green
Earl's Green
Haughley Green
Finborough
Battisford
Little Finborough
High Street Green
Hightown Green
Great Green
Cockfield
Thorpe
Felsham
Poystreet Green
Bradfield St Clare
Bradfield St George
Drinkstone Green
Rougham Green
Kingshall Street
Blackthorpe
Ixworth
Ixworth Thorpe
Troston
Honington
Bardwell
Stanton
Upthorpe
Great Livermere
Pakenham
Great Barton
Stowlangtoft
Candle Street
Allwood Green
Wickham Skeith
Thwaite
Brockford Street
Mendlesham Green
Middlewood Green
Earl Stonham
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


2020s0313
Babergh and
Mid Suffolk WCS
- Foul Sewerage
Network Capacity
RAG - View 4
N
Legend
Babergh and Mid Suffolk
Foul Sewerage Network
Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
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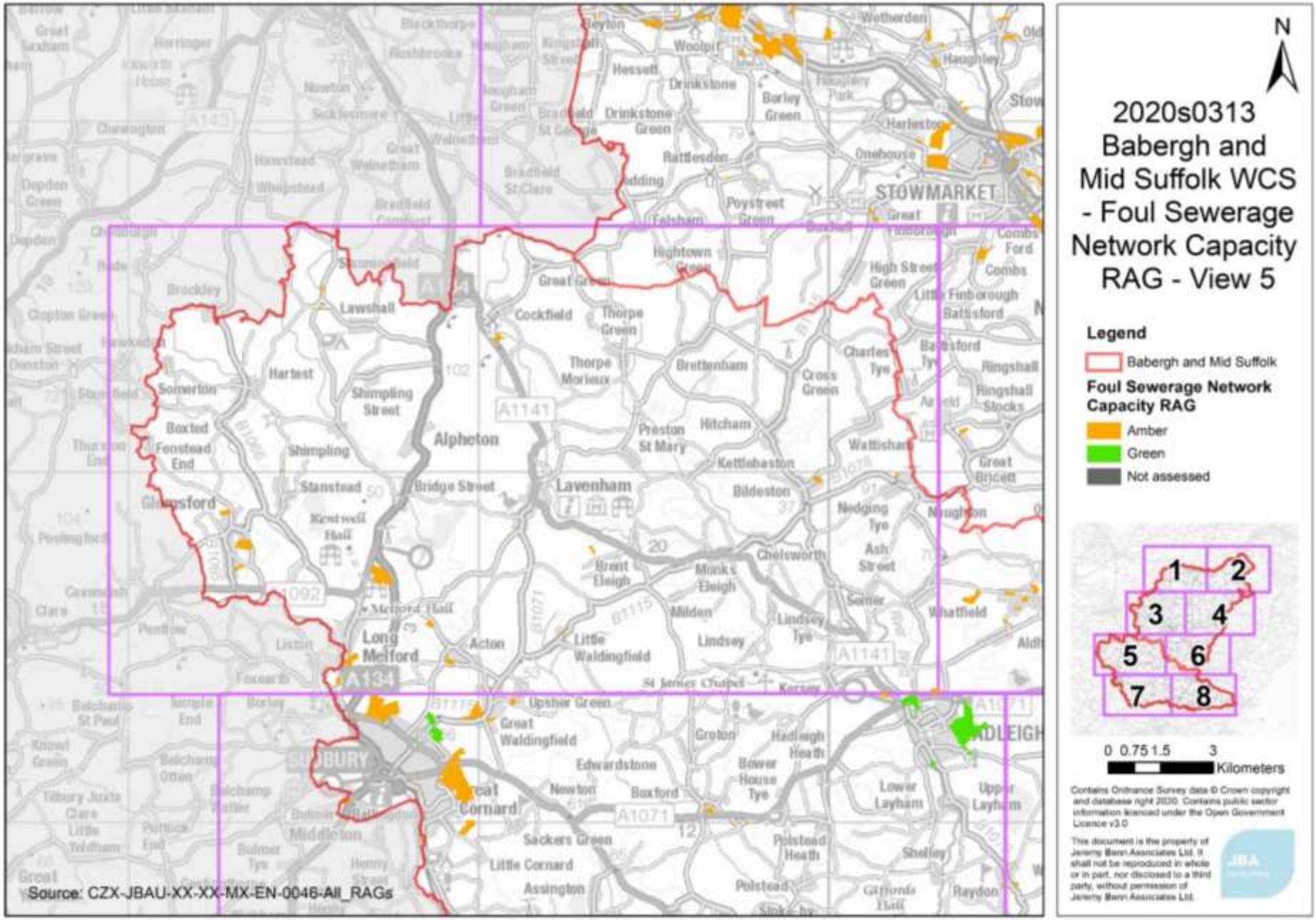
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


N
2020s0313
Babergh and
Mid Suffolk WCS
- Foul Sewerage
Network Capacity
RAG - View 5
Legend
Babergh and Mid Suffolk
Foul Sewerage Network
Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
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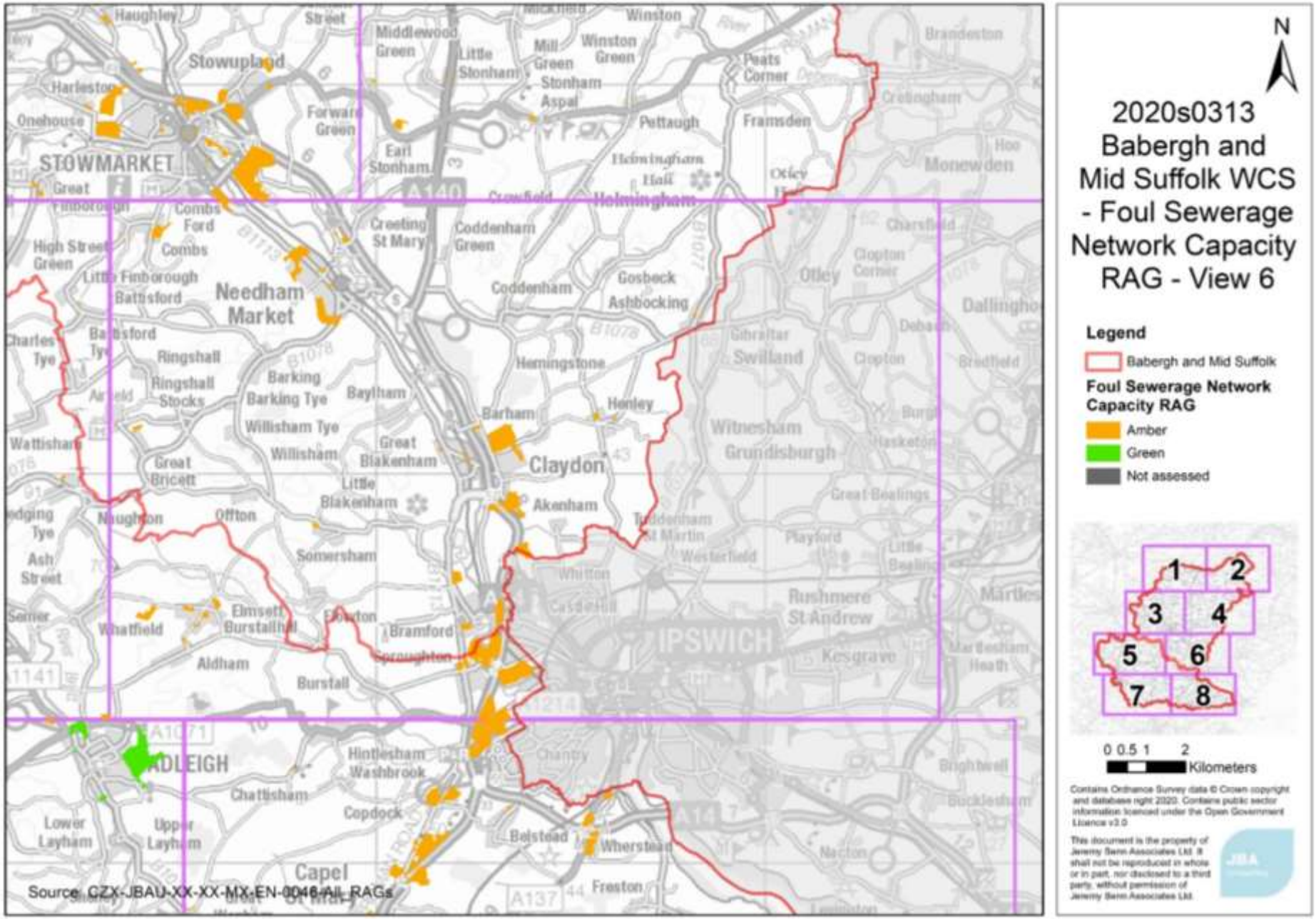
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs
N
2020s0313
Babergh and
Mid Suffolk WCS
- Foul Sewerage
Network Capacity
RAG - View 6
Legend
Babergh and Mid Suffolk
Foul Sewerage Network
Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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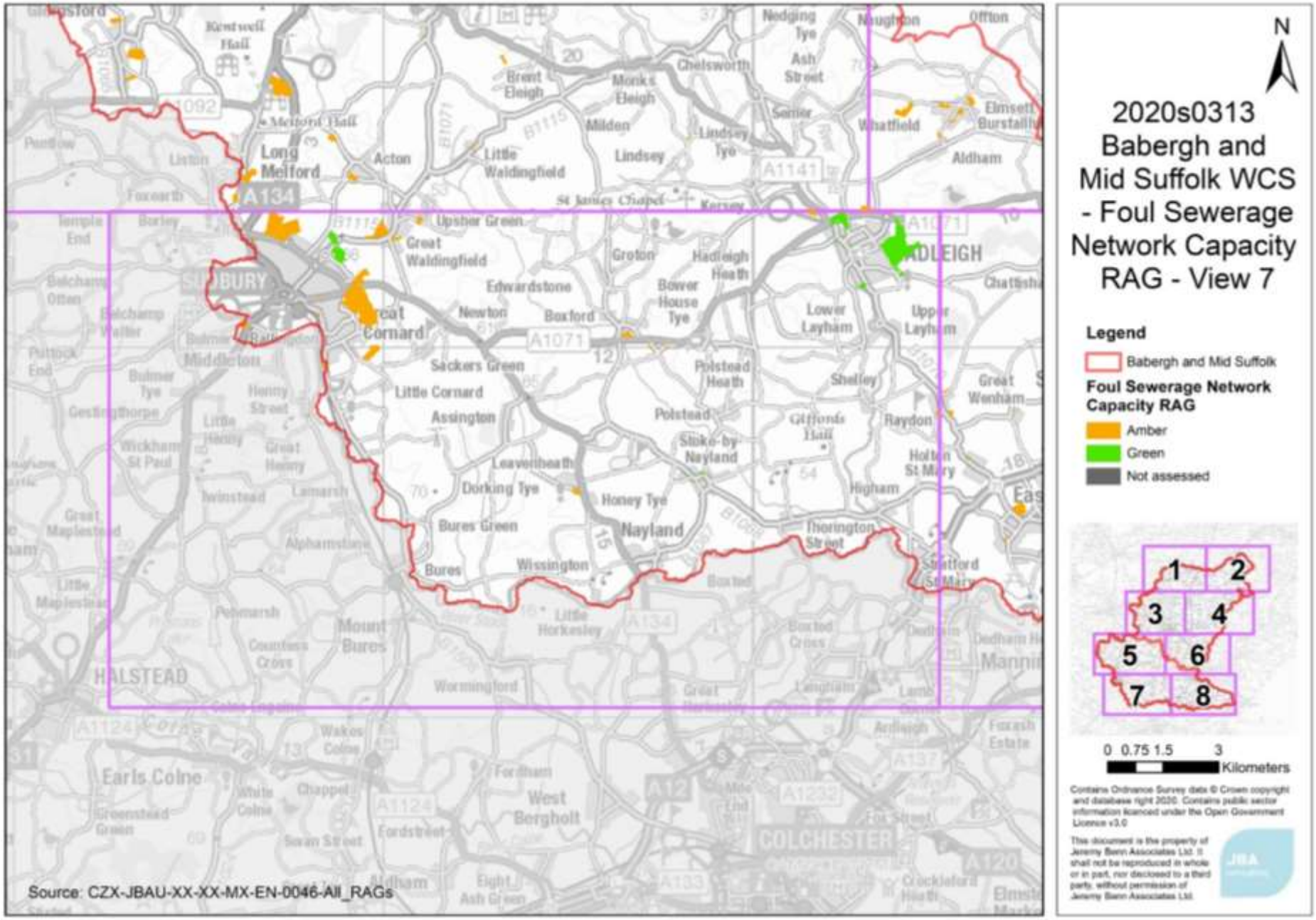
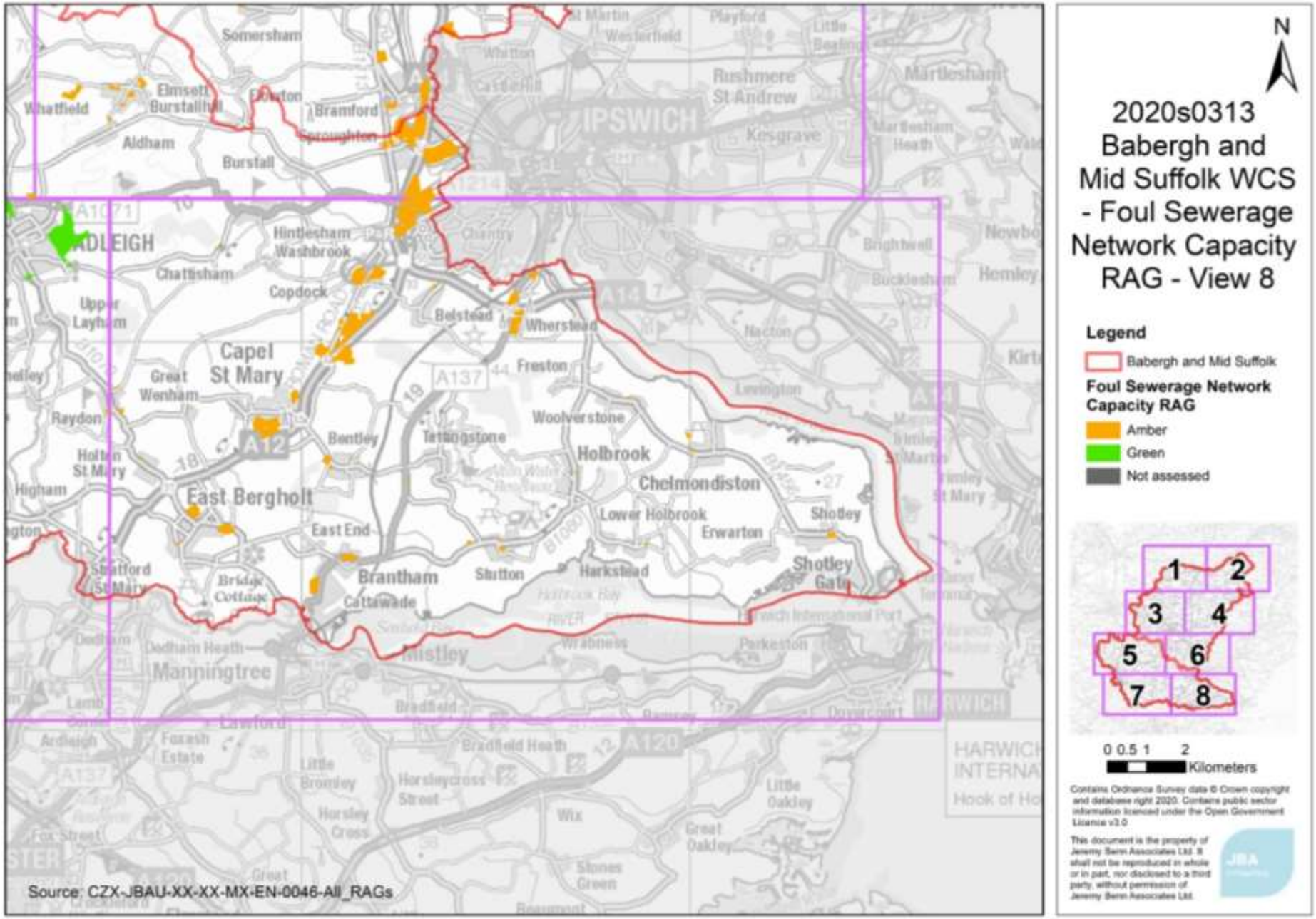

2020s0313
Babergh and Mid Suffolk WCS - Foul Sewerage Network Capacity RAG - View 7
N
Legend
Babergh and Mid Suffolk
Foul Sewerage Network Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.75 1.5 3
Kilometers
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs


Somersham
Elmsett
Burstall Hill
Bramford
Sproughton
Aldham
Burstall
IPSWICH
Rushmere St Andrew
Martlesham
Whatfield
Hintlesham
Washbrook
Chattisham
Copdock
Belstead
Wherstead
Upper Layham
Capel St Mary
Great Wenham
Freston
Raydon
Bentley
Tattingstone
Woolverstone
Holbrook
Holton St Mary
Higham
East Bergholt
Chelmondiston
Lower Holbrook
Erwarton
Shotley
East End
Shotley Gate
Stratford St Mary
Bridge Cottage
Brantham
Cattawade
Sutton
Harkstead
Manningtree
Mistley
Parkeston
Bradfield
Bradfield Heath
Little Bromley
Horsley Cross
Wix
Little Oakley
Great Oakley
Stones Green
Source: CZX-JBAU-XX-XX-MX-EN-0046-All_RAGs
N
2020s0313 Babergh and Mid Suffolk WCS - Foul Sewerage Network Capacity RAG - View 8
Legend
Babergh and Mid Suffolk
Foul Sewerage Network Capacity RAG
Amber
Green
Not assessed
1
2
3
4
5
6
7
8
0 0.5 1 2
Kilometers
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