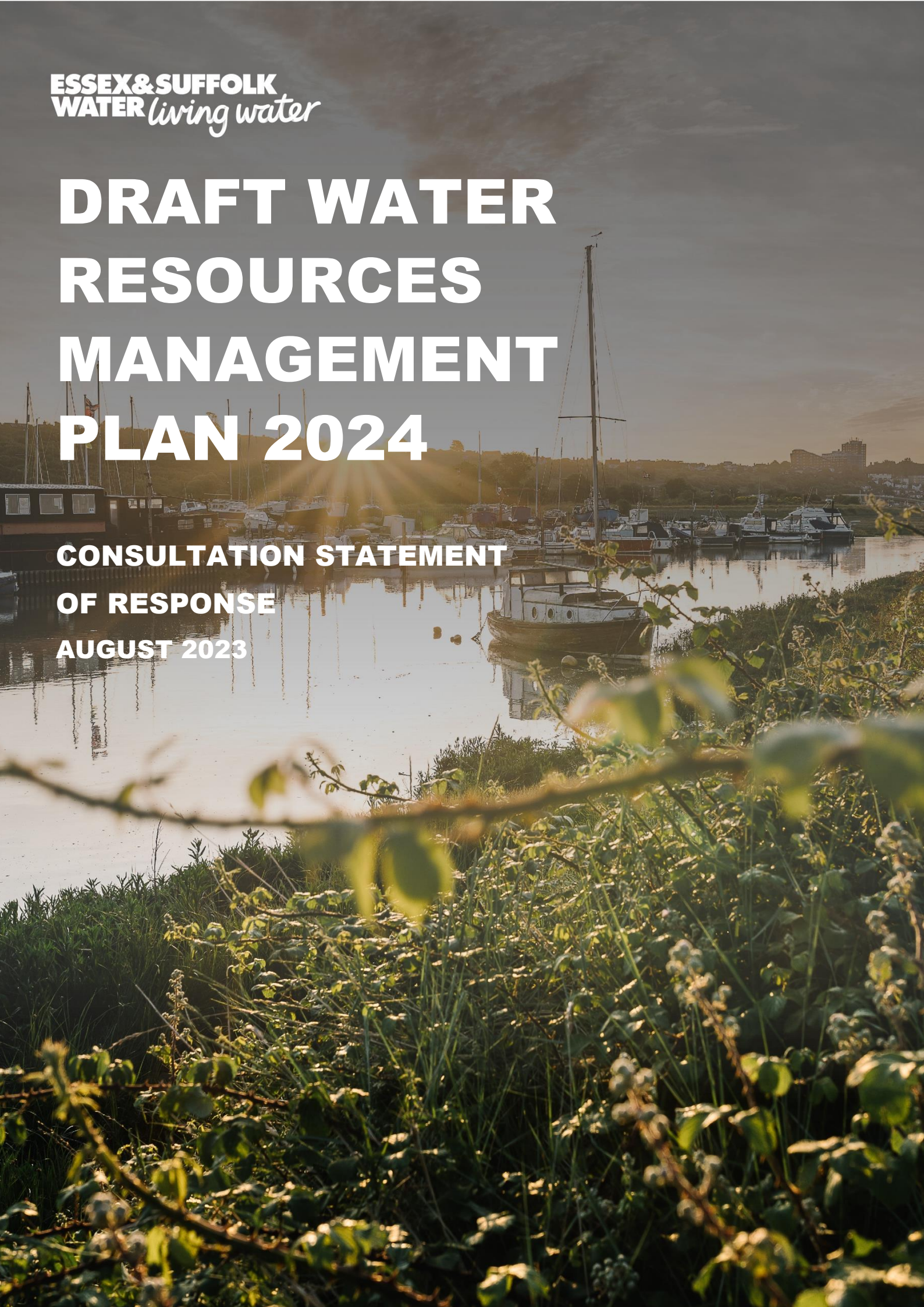
ESSEX&SUFFOLK WATER *living water*

DRAFT WATER RESOURCES MANAGEMENT PLAN 2024

CONSULTATION STATEMENT OF RESPONSE

AUGUST 2023



DOCUMENT CONTROL SHEET

Report Title:	Draft Water Resources Management Plan 2024 – Consultation Statement of Response
Report Author(s):	Will Robinson, Liz Wright, Liz Corbett, Katherine Fuller, Ian Walker, Claire Lorenc, Andrew Blenkharn, Tim Wagstaff, Lucy Deans
Related Reports:	ESW Draft and Revised draft Water Resources Management Plan 2024 Draft and Revised draft WRMP24 Customer Summary Draft and Revised draft WRMP24 Technical Reports ESW Water Resources Management Plan 2019 ESW Drought Plan 2022
Distribution List:	**Internal:** NWL Board, NWL ELT, NWL Water Leadership, other affected departments **Regulators:** Defra, Environment Agency, Ofwat, Natural England, Drinking Water Inspectorate, Water Resources North **Stakeholder:** NWL Stakeholder Register
Published:	www.nwg.co.uk/wrmp

Document Change Record

Release Date	Version	Report Status	Change Details
25/08/2023	1.0	Final	N/A
29/08/2023	2.0	Final	Section 2 – summary of changes added.
06/09/2023	3.0	Final	Amendments highlighted blue.

Document Signoff

Nature of Signoff	Person	Date	Role
Reviewer	Kieran Ingram Andrew Beaver	25/08/23	Water Director Regulation & Assurance Director
Approver	Heidi Mottram	25/08/23	On behalf of Northumbrian Water Board

Essex & Suffolk Water is a trading division of Northumbrian Water Limited which is a group company of Northumbrian Water Group Limited

Registered in England & Wales No. 2366703
Registered Office:
Northumbria House, Abbey Road
Pity Me,
Durham DH1 5FJ

CONTENTS

GLOSSARY

Term / Acronym	Definition
AMP7	Asset Management Period 7 (April 2020 – March 2025)
AMP8	Asset Management Period 8 (April 2025 – March 2030)
ANZP	Average Zonal Night Pressure
APR	Annual Performance Reporting
ASB	Abstraction Sensitivity Band (ASB)
BH	Borehole
BL	Baseline
CACI	Leading specialists in location planning- CACI Ltd
CBA	Cost benefit analysis
CC&B	Our customer billing database
CMOS	Central Market Operating System
CSMG	Common Standards Monitoring Guidance
DEFRA	Department of Environment, Food and Rural Affairs
DI	Distribution Input
DMA/DA	District metering areas / Drainage areas
DMO	Demand Management Option
DO	Deployable Output
DWI	Drinking Water Inspectorate. DWI has responsibilities under the Water Industry Act 1991 relating to the sufficiency and quality of water supplies.
dWRMP	Draft Water Resource Management Plan
DYAA	Dry Year Annual Average
DYCP	Dry Year Critical Period
EA	Environment Agency. The Environment Agency is a statutory consultee for WRMPs. It leads on producing guidance for water companies to use in compiling their WRMP. It has a statutory duty to secure the proper use of water resources in England. The Environment Agency works with water companies as they prepare WRMPs and provide a representation as part of water companies' WRMP consultation. At the statement of response stage, its role changes and it becomes a technical advisor to the Department for Environment, Food & Rural Affairs (Defra) and the Secretary of State.
EBSD	Economic balance of supply and demand
ED	Environmental Destination
EFI	Environmental Flow Indicator
EST	Energy Saving Trust
FL	Full licence
GVA	Gross Value Added
GW	Groundwater
HH	Household (Domestic use customers)
HMWB	Heavily modified waterbody

HOF	Hands off Flow
IROPI	Imperative Reasons of Overriding Public Interest
l/head/day	Litres per head per day (litres per person per day)
l/min / l/hr / l/yr	Litres per minute / litres per hour / litres per year
l/p/d	Litres per property per day (litres per premises per day)
LA	Local Authority
LHN/OAHN	Local Housing Need / Output Area Housing Need
LPA/DPA	Local Planning Authority / District Planning Authority
Max Peak or MP	Maximum Peak abstraction is the maximum volume of water abstracted in any one year during the representative abstraction period.
MCA	Multi Criteria Analysis
MHCLG	Ministry for Housing, Communities and Local Governments
Ml/d	Megalitres per day
MLE	Maximum likelihood estimation
MOSL	Market Operator Service Ltd
MTP	Market Transformation Programme
MUR	Meter under- registration
NAVs	New Appointments and Variations
NE	Natural England
NHH	Non-Household (Business customers whose primary use of water is non-domestic)
NPP	National Population projections
NSERV/SERV1/SERV2	Non-service non-household industries / Service industry group 1 / Service industry group 2
NW	Northumbrian Water
NWG	Northumbrian Water Group
NWL	Northumbrian Water Limited
NYAA/ DYAA/ DYCP	Normal Year Annual Average / Dry Year Annual Average / Dry Year Critical Period
OBR	Office for Budget Responsibility
Ofwat	Ofwat is the economic regulator of the water industry. It is a statutory consultee for WRMPs, has been key stakeholder during the development of our plan and will provide a representation as part of our consultation. Our WRMP will primarily inform the supply demand balance part of our business plans which we will submit to Ofwat. Ofwat determines the extent to, and conditions under which, we can recover the costs of investment through our charges to customers.
ONS	Office for National Statistics
p.a.	Per annum (per year)
PCC	Per capita consumption
PHC	Per household consumption
Planning Horizon	Refers to the forecasted years from 2024/25 until 2079/80.
PR19	Price Periodic Review 2019 – Business Plan 2020-2025

Price Review	Ofwat is the economic regulator of the water industry and every five years it sets the investment and service package that customers receive including the price water companies charge their customers. Ofwat carry out a review of these price limits known as a Price Review (PR) every five years. The current Price Review will be completed in 2024 and so is known as PR24 and will set customer bills for the period 2025 to 2030. As part of the Price Review process, water companies submit a business plan which sets out the investment and outcomes for customers and the environment that they are required to deliver and how this would impact customer bills. The Business Plan will include the investment needed to deliver the WRMP24 Best Value Plan.
RAA	Recent Actual Average abstraction. Defined by the EA as the total volume of water abstracted during the representative recent actual period divided by the number of years in that period. Defined in 'Water resources planning guideline supplementary guidance – actions required to prevent deterioration' (April 2022
RAPID	Regulators' Alliance for Progressing Infrastructure Development (RAPID) RAPID will help accelerate the development of new strategic water infrastructure and inform future regulatory frameworks. It is made up of the 3 water regulators in England: Ofwat, Environment Agency and DWI. It also works closely with Welsh Government and Natural Resources Wales. Find further information on RAPID's website. Some water companies received additional funding to investigate and develop strategic regional water resource options in the 2019 price review (PR19) final determination.
RBMP	River Basin Management Plan
SAM	Small Area Monitor (unmeasured consumption monitor in NW)
SIC	Standard Industry Classification
SPL	Supply Pipe Leakage
SSSI	Site of Special Scientific Interest
SWU	Study of Water Use (individual unmeasured consumption monitor in NW)
UKCP09 / UKCP18	UK Climate Change projections 2009 / 2018
UKWIR	UK Water Industry Research
Void households	Empty (unoccupied) households
WAM	Whole Area Metering
Water Industry National Environment Programme (WINEP)	A programme of actions (investigations, options appraisals, and implementation schemes) water companies are required to take to meet the environmental legislative requirements that apply to water companies in England.
WFD	Water Framework Directive
WFH	Working from home
WRc	Water Research Commission
WRE	Water Resources East
WReN	Water Resources North regional group
WRMP19	Water Resource Management Plan 2019
WRMP24	Water Resource Management Plan 2024

WRPG	Water Resources Planning Guideline
WRZ	Water Resource Zone

1. INTRODUCTION

This document is our draft Water Resources Management Plan 2024 (dWRMP24) consultation Statement of Response. It has been sent to statutory consultees, and all those who submitted consultation responses, and has been published on our website (www.nwg.co.uk/wrmp).

Our dWRMP24 sets out how we intend to achieve a secure, resilient and sustainable supply of water for our customers and a protected and enhanced environment, both now and in the long term.

We developed our draft WRMP24 between April 2020 and October 2022 taking account of:

- pre-consultation feedback from regulators; and
- feedback received during and following a pre-consultation webinar in January 2022 where we shared our initial baseline supply demand balance position, the planning assumptions used in developing the forecasts, and our ambition to reduce leakage and customer demand (Per Capita Consumption or PCC).

We submitted our draft WRMP24 to Defra on 3 October 2022 and then invited statutory consultees, our customers, and other interested stakeholders to comment on it. The consultation took place over a 12-week period between 21 December 2022 and 29 March 2023. Our dWRMP24 was available for review on our website https://www.nwg.co.uk/responsibility/environment/wrmp/esw-draft-water-resources-management-plan-2024-consultation/.

We asked consultees to share their views on our dWRMP24 including those on:

- Our projections of future water needs including those of our customers, businesses and the environment; and
- Our preferred plan including:
  - Our demand management strategies to reduce leakage by 40% by 2049/50, to compulsory meter by 2035, for all meters to be smart meters by 2035, and our water efficiency programmes to reduce per capita consumption to 110l/head/day by 2050; and
  - Our supply side options including our approach to continue with detailed design for both the Lowestoft Water Reuse and North Suffolk Reservoir Options and to have an adaptive pathway which would allow us to develop the North Suffolk Reservoir first if it becomes the Best Value Option.

Consultees were asked to send their written representations on our dWRMP24 to the Secretary of State for Environment Food and Rural Affairs which were then made available to us at the end of the consultation period.

Our regional water resources group, Water Resources East (WRE) has also prepared a regional plan which sets out how it will address the need for resilient and sustainable water supplies at a regional and national level. WRE's Regional Plan has informed our Essex & Suffolk Water draft WRMP24 and was consulted on at the same time as our draft Plan.

We have prepared this consultation Statement of Response which describes:

a. our consideration of the consultation responses;
b. the changes we have made to the dWRMP24 as a result of the consultation responses and the reasons for doing so, and where no change has been made to the dWRMP24 the reasons for this; and
c. how we have taken account of the third round of regional reconciliation planning in which water transfers between companies and regions were agreed.

If our Statement of Response and revised draft WRMP24 are approved by Defra, we envisage that we will be directed to publish our final WRMP24 on our website (www.nwg.co.uk/wrmp) in Autumn 2023.

2. SUMMARY OF WRMP24 BEST VALUE PLAN

The table below provides a summary of our Best Value Plan and confirms the changes made between our draft WRMP24 (which we consulted on) and our subsequent revised draft WRMP24.

WRMP24 Best Value Plan Component		Draft WRMP24 Preferred Final Plan	Revised draft WRMP24 Preferred Final Plan	Change
Demand Reduction	Leakage Reduction	40% reduction by 2050	40% reduction by 2050	Although our plan is to reduce ESW leakage by 40% by 2050, at a Northumbrian Water Group (NWG) level (i.e. Essex & Suffolk Water and Northumbrian Water), we will be reducing leakage by 50% by 2050
	Compulsory Metering	All household and non-household properties to be compulsory metered by 2035	All household and non-household properties to be compulsory metered by 2035	Given the moratorium in our Hartismere water resource zone, we have committed to compulsory meter all Suffolk customers by 2030/31
	Smart Metering	All household and non-household properties to have smart meters by 2035	All household and non-household properties to have smart meters by 2035	No change
	Water Efficiency Programme	Water efficiency programme to support meeting national household water consumption targets	Water efficiency programme to support meeting national household water consumption and business demand reduction targets	Inclusion of new programme to reduce business demand in line with the national non-household demand reduction target
Essex Supply Schemes	Linford WTW and Borehole	Yes - 7Ml/d Scheme	Yes - 10Ml/d scheme	The revised draft WRMP24 includes a 10Ml/d rather than 7Ml/d scheme
	Abberton Raw Water Pumping Station & Langford Clarifiers	Not included	Included	Scheme to allow DO gain from the Abberton to Langford Pipeline
	Langford Nitrate Reduction Scheme	Not included	Included	New scheme to reduce unplanned outage due to elevated raw water nitrate concentrations
	Langford Ultra Violet (UV) Scheme	Not included	Included	New scheme to reduce unplanned outage due to cryptosporidium in raw water
	Langham Nitrate Reduction Scheme	Not included	Included	New scheme to reduce unplanned outage due to elevated raw water nitrate concentrations
Suffolk Supply Schemes	Suffolk Strategic Pipelines including Barsham to	Included	Included	This scheme should now be delivered in 2028/29 instead of 2030/31 as was forecast in our draft WRMP24

WRMP24 Best Value Plan Component		Draft WRMP24 Preferred Final Plan	Revised draft WRMP24 Preferred Final Plan	Change
	Saxmundham Pipeline and Holton to Eye Pipeline			
	Lowestoft Reuse	Included	Included	This scheme could be delivered by 2030/31 instead of 2032/33 as was forecast in our draft WRMP24. However, our preferred final plan delivery date remains 2032/33
	North Suffolk reservoir	Included	Included	No change
	Barsham Nitrate Reduction Scheme	Not included	Included	New scheme to reduce unplanned outage due to elevated raw water nitrate concentrations
	Bungay to Barsham WTW Raw Water Pipeline	Included	Included	Although included in our draft WRMP24, this scheme now extends the main to Barsham WTWs

Our revised draft WRMP24 preferred final plan will enable us to meet national targets for demand reduction including:

- **Per Capita Consumption:** 122litres/head/day by 2038 and 110litres/head/day by 2050; and
- **Non-household demand reduction:** 9% reduction by 2038.

3. CONSULTATION STATEMENT OF RESPONSE

3.1. OVERVIEW

This section describes how we have considered each of the consultation responses, whether or not a change to the dWRMP24has been made and the reasons for either changing or not changing the dWRMP24.

We would like to thank everyone who responded to our dWRMP24 consultation. Each of the consultation responses are reproduced in the table below along with our consideration and confirmation of changes to our revised dWRMP24.

We have responded to Ofwat's formal consultation response in this document. Separately, we received a number of queries from Ofwat prior to, during and after the formal consultation process. While these queries have not been covered in this document, we have updated our revised draft plan and tables accordingly.

3.2. CONSULTATION RESPONSES

SoR Ref	OFWAT Response	NW Response
1	ESW does not plan to reduce leakage by 50% from 2017-18 levels by 2050 and instead proposes to achieve a 40% reduction by 2049-50. The company, along with other companies in the WRE regional group, should test more ambitious reductions up to the 2050 50% leakage reduction target. The company indicates it plans to meet the per capita consumption (PCC) target of 110 l/h/d by 2050 but it should ensure its plan reflects this ambition.	We have tested an option to reduce leakage by 50% by 2050 although have concluded that it is not feasible given our already low, industry leading baseline performance. Consequently, a 50% reduction in leakage was not selected as the preferred plan. However, we are planning to reduce leakage in our Northumbrian Water operating region by 55% by 2050 which means that at a NWL group level, a 50% reduction in leakage by 2050 is achieved. Further details are provided in **Section 7.3.1** of the main WRMP24 report.
2	The company should test a scenario of meeting the per capita consumption target under the dry year scenario for its final WRMP. The company's final WRMP should reference the target to reduce distribution input by 20% by 2037-38 and demonstrate how it plans to deliver this through a combination of reductions in the key demand components, leakage, household consumption and non-household consumption.	In our draft WRMP24, in line with current Ofwat reporting requirements, we reached the 110 l/hd/d target at an NWG group level (i.e. both Northumbrian Water and Essex & Suffolk Water). However, we have updated our revised draft WRMP24 so that we meet the 110 l/hd/d target in our separate Essex & Suffolk Water and Northumbrian Water operating regions under a dry year scenario. We have reached the targets by implementing a combination of demand management options including 40% leakage reduction by 2050, household and non-household water efficiency activity and metering including compulsory smart metering for both household and non-household properties. To enable ESW to reach the PCC target we have included the Government led interventions of water labelling. We also confirm that we meet the Distribution Input reduction in ESW by 20% by 2037/38 in our final preferred plan. For further details, please refer to **Section 8.10** of our revised draft WRMP24.

SoR Ref	OFWAT Response	NW Response
3	As we outlined in November 2021, we expect near-term interventions being identified in WRMPs to deliver long-term targets such as a 50% leakage reduction and 110l/h/d per capita consumption to be set in the context of the optimum long-term strategy. Setting a glidepath to meet long-term targets and outcomes should enable an efficient and deliverable long-term programme to be identified. The company's plan only considers linear leakage reduction profiles, with the 40% leakage reduction by 2049-50 profile selected as the preferred option. The company does not appear to have considered alternative investment profiles such as one that considers non-linear reductions. The company should explain more robustly why a linear profile – rather than doing more or less in the near term – is optimal from a timing of investment perspective. This is particularly important given the near-term supply deficits that the company faces where doing more to reduce leakage may reduce risk and offset the need for more expensive or lower value longer term options. ESW does not provide leakage management cost and benefit information at option level and instead presents the total combined costs for its preferred leakage, metering and water efficiency programmes. The company does not provide specific unit costs for the appraised activities or any quantitative information which explains the choice of a best value plan using efficient costs. We expect the company to provide disaggregated costs, including unit costs, and benefits of individual activities in its final WRMP.	We have considered alternative scenarios for leakage including a profile for reducing leakage faster in AMP8 to hit the interim 2032 target, with the remainder of the planning period to 2050 having a linear delivery profile. We have chosen a linear profile because: - An acceleration towards the start would incur significant additional cost in AMP8 as well as overall cost, even though the end point is the same, a 40% reduction by 2050. - Reflecting a linear delivery profile is important to maximise deliverability in terms of employing and training the right resources to enable and support additional find activity. By adopting a linear profile we are able to train and retain staff to deliver over the profile rather than increasing resources and then needing to reduce later in the profile. Our preferred final plan strategy is to continue with a linear leakage reduction delivery profile. We have updated **Section 7.3.1** of the revised draft WRMP24 main report to provide further justification of our linear delivery profile. Additionally, details of the individual intervention costs and benefits have been added into the leakage technical report which can be downloaded **here**.

SoR Ref	OFWAT Response	NW Response
4	We are concerned that, based on the draft WRMP data tables, the company does not forecast to deliver its PR19 performance commitment levels for leakage and PCC by 2024-25 (albeit the shortfall is only marginal for leakage). We expect the company to deliver its targets for both performance commitments and do not consider it is valid for companies to expect additional customer funding to address deficits resulting from under delivery in the current or previous periods. We expect the company to review its proposals in these areas for its final WRMP.	**Leakage** We would like to reassure Ofwat that we are planning to deliver the AMP7 performance commitment for leakage (i.e. 17.5% reduction by March 2025). These values are slightly different to the ones in WRMP19 because of the final impact of consistent reporting and a change to the baseline position, as explained in the Leakage technical report which can be downloaded here. **PCC** As reported in our 2023 WRMP19 Annual Review, we are forecasting that end of AMP7 PCC will outturn higher than that forecast in our WRMP19. The WRMP24 forecast was rebased for 2021/22 and has a change in population and property forecast, effecting the forecast PCC number for 2024/25. In September 2021, we wrote to Ofwat setting out a comprehensive evidence base of the sustained and material impact of the Covid-19 pandemic on household PCC. We have shared through the APR and EA Annual Updates our comprehensive annual reports which includes evidence around the changes in customer behaviour, changes of where water is used (office to home), the impact on delivery of water efficiency programmes and Met Office modelling to disaggregate the impact of Covid-19. We continue to adapt and innovate our approach to water efficiency through this AMP and will continue at pace to match the regulators' challenge that we should redouble efforts on PCC reduction. The performance commitment holds water companies to account for the outcomes that customers pay for and the PCC performance commitment sets out a mechanism of reward and penalty against PCC performance. We remain committed to long-term targets to reduce PCC to 118 litres per person per day by 2040 and 110 by 2050 which our revised draft WRMP24 plans to deliver.

SoR Ref	OFWAT Response	NW Response
5	ESW does not plan to reduce leakage by 50% from 2017-18 levels by 2050 and instead proposes to achieve a 40% reduction by 2049-50. Three scenarios of 30%, 40% and 50% reductions have been tested. The company states that it has been a frontier company in leakage performance over several years, making a 50% reduction much more difficult to achieve, and more expensive per unit, compared to the industry average. However, the company does not present any evidence of its own leakage reduction unit costs or any justification why delivering the 50% reduction is more expensive, or lower value, than the chosen 40%. The three – 30%, 40% and 50% - leakage reduction scenarios are not sufficiently explained nor disaggregated to understand the cost and benefits of activities to deliver them. The company sets out these high-level leakage reduction programmes considered in addition to baseline. Whilst the document explains that it has looked at all the available options following the PALM process (Prevent, Aware, Locate and Mend) it does not provide cost and benefit information for each of the leakage activities included in the preferred leakage option. The company has not presented enough options to be confident that those selected are optimum and best value. We expect the company to disaggregate the costs and benefits of these activities in its final WRMP. The company should provide sufficient and convincing evidence that the final long term target is optimum and the best value approach to meeting a supply-demand balance or delivering long-term strategic outcomes. If the final WRMP target is less than the 50% reduction the company should also present evidence that the company has secured agreement on a bilateral basis with another company (or companies), within a regional group or at a national level that ensures the national level leakage targets will be delivered. The company is proposing a three-year average leakage reduction of 6.1% across the 2025-30 period which is significantly less ambitious when compared to the 14.1% it plans to deliver for the 2020-25 period. The company should provide an explanation of its decision-making process and a justification for the selected leakage reduction for 2025-30 in its final WRMP. ESW has not discussed its policy with regards to customer supply pipe leakage. We are encouraging companies to evaluate the benefits of a common industry approach	We have updated our Leakage technical report to address each of Ofwat's points. The report, which can be downloaded here includes: - a comparison of high level costs and benefits for the 30%, 40% and 50% scenarios in; - the individual intervention costs and benefits of the preferred plan; and - alternative profiles. For our revised dWRMP24, we have committed to a 55% reduction in leakage by 2050 in the NW region so that we can achieve the national 50% target companywide. We do not consider the current rate of reduction in leakage is sustainable given the current challenges to achieve the AMP7 Performance Commitment and so further reductions will become even more difficult and expensive to deliver from a lower starting position. We currently have no plans to change our supply pipe repair policy although we do expect the roll out of smart meters to increase the number of supply pipe leaks that we find proactively which will therefore reduce the run times.

SoR Ref	OFWAT Response	NW Response
	to addressing leakage on customers own pipes. We expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMPs. We will support companies in the development of a common approach but expect the industry to lead on the development. The Water UK leakage route map to 2050 committed to an informed debate on customer supply pipe strategy by December 2022.	

SoR Ref	OFWAT Response	NW Response
6	The company indicates it plans to meet the per capita consumption (PCC) target of 110 l/h/d by 2050 but it should ensure its plan reflects this ambition. In its final plan we expect the company to set out its approach to achieving the 110 l/h/d consumption target in a dry year. ESW proposes a three-year average PCC reduction of 2.3% across the 2025-30 period which shows a much lower ambition in comparison with the 2020-25 period. We expect the company to justify its chosen glidepath for 2025-30 in comparison to 2020-25 in its final WRMP.	In our draft WRMP, we reached the 110 l/hd/d target at an NWG company wide level (i.e. both Northumbrian Water and Essex & Suffolk Water) which is in line with current Ofwat reporting requirements. For the revised draft we have changed this to meet the 110 l/hd/d target individually in both Essex & Suffolk Water and Northumbrian Water. However, we will continue to report against our PCC ODI at an NWG group level. We confirm that we will meet the PCC target under a dry year scenario. The further reduction was achieved by extending our water efficiency activity up until 2050. In our revised draft the DYAA PCC reduction for ESW between 2025-30 is an 8% reduction (using a three-year average). This averages at a 2% reduction every year during AMP8. We have updated **Section 8.10** of the main report.
7	The draft plan does not include a clear strategy for reducing non-household demand. There is also no reference in the company plan to the ambition to reduce distribution input by 20% by 2037 based on 2019-20 baseline announced by Defra. We expect the company to set out and clearly justify an ambitious strategy for non-household demand reduction in its final WRMP.	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our dWRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy is now outlined in **Section 7.3.2** of our revised dWRMP24 and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHHs by 2038 from a 2019/20 baseline. This has been included in our final plan demand forecast. We will work collaboratively with retailers, local planning authorities and the Environment Agency to achieve this target as we will not be able to deliver this alone. The water demand associated with growth (i.e., new NHHs) has not been accounted for as we do not have the confidence that this can be achieved with the high levels of non-household demand growth in this period. We suggest that Local Planning Authorities and the Environment Agency both have a role to play through development control and environmental permitting to ensure that new development / new permitted processes are water efficient from the start. Interventions associated with our NHH demand reduction strategy include water efficiency solutions for domestic and mixed-use businesses, consultancy support for industry, infrastructure and leak investigation, and information provision. Full details can be found in the Water Efficiency Technical Report. We have added a reference to Defra's ambition to reduce distribution input by 20% by 2037/38 into the main report which states that we will achieve a 22% reduction by 2037 based on the 2019-20 baseline.

SoR Ref	OFWAT Response	NW Response
8	It is unclear how the company has developed its metering strategy and optimised the pace of smart metering delivery. The company explains that one of the objectives in its best value plan is for all of its meters to be smart meters by 2050. However, we note that the company considered six metering options, phased over one or two price control periods depending on the option. It is unclear how the objective and options interact. The company should explain more robustly why its preferred metering option is best value from a timing of investment perspective.	We have updated **Section 7.3.2** of our revised draft WRMP24 main report to address the points in Ofwat's comments. To clarify, the 2050 date mentioned was in error. We confirm that our plan is to have all ESW meters smart by 2035. We considered a range of options with some delivering smart metering by 2035 and others by 2030. Given the large volumes of meters to deliver, we concluded that full smart metering by 2030 was not feasible and would: - be undeliverable from a meter supply and resourcing position; and - also involve a higher proportion of funding that would unnecessarily increase customer bills. Consequently, the option we have chosen is to be fully smart across ESW by 2035. Our Acceptability and Affordability Testing (Qualitative) (2023) found that it was consistently felt amongst respondents that metering (and reducing leakage – they were tested as a package), were an important area of investment. Many respondents opted for the medium phasing option, which was described as a “must do” .

SoR Ref	OFWAT Response	NW Response
9	We expect the company to provide sufficient and convincing evidence in its final WRMP to justify why its selected targets for demand reduction (leakage, PCC and business demand) represent the best value approach to meeting a supply-demand balance or delivering long-term strategic outcomes. This should include evidence of target testing and a clear explanation of the company's decision-making process. As stated in our PR24 final methodology, we expect consistency between final WRMPs, company long-term delivery strategies and business plans at PR24. Any areas of variance between final (and published) planning frameworks and business plan submissions need to be fully explained and supported by compelling evidence. This should also include the reasons for changes and include confirmation that customers and the environment are not, or will not be, worse off.	We have developed low, medium (central most likely) and high scenarios for each of our demand management options including leakage reduction, metering and water efficiency. The options we have chosen are those that enable us to meet the national targets for demand and leakage reduction, namely: - PCC: 122 l/person/day by 2038 and 110 l/person/day by 2050; - non-household demand reduction of 9% reduction by 2038; and - 50% leakage reduction by 2050. For household customers, the central medium scenario was preferred by the majority (56%) of customers. Further detail on PCC and Business demand can be found in **Section 7.3.3** We have concluded that it would not be acceptable to our customers, regulators and stakeholders to plan to reduce leakage by less than 40% by 2050 and for deliverability reasons, we do not consider it feasible to reduce leakage by more than 40% by 2050. However, we plan to reduce leakage by 55% by 2050 in our Northumbrian Water region so that we achieve the national target at a group company level. Our compulsory metering and smart metering strategies are required in order to meet the national targets for PCC and business demand reduction. Consequently, a smaller metering programme is not considered feasible. We confirm that our revised draft WRMP24 and Long-Term delivery Strategies are consistent.

SoR Ref	OFWAT Response	NW Response
10	A robust assessment of current and future water needs is critical as it drives the gap between supply and demand and therefore drives the scale of investment required for the 2025-30 period and beyond. We provided detailed feedback on ESW's assessment of water needs in our pre-consultation feedback in 2022. Some of our previous feedback has not been fully addressed in the draft WRMP and has been raised again below. ESW should provide sufficient and convincing evidence that the feedback has been addressed in the final WRMP. ESW has used methods and data that reflects the outcomes of its problem characterisation. However, it provides limited information and justification for those outcomes of its problem characterisation, given the challenges and risks the company has identified. Further detail justifying the problem characterisation outcomes should be set out in the final plan. The key drivers to the planning problem are clearly described; non-household demand, sustainability reductions and increased drought resilience are the biggest drivers of investment for this plan.	Our Problem Characterisation Report, which provides the justification for our Problem Characterisation outcomes, has been included in the submission with our Revised draft WRMP. This has been referenced in **Section 2.3** of our Revised draft WRMP.
11	ESW has used a 25-year planning horizon. Whilst the company has met the statutory requirement to forecast supply and demand over at least 25 years, the planning period should be appropriate to the risks the company faces. Given the challenges and risks the company has identified and the issues being seen on the ground now such as the moratorium on accepting applications for new supplies for new manufacturing and processing purposes in Essex and Suffolk's Hartismere zone due to a lack of water availability, it may be more appropriate for ESW to plan for the next 50 years. This is to ensure the WRMP identifies the right solutions to meet future pressures.	We have reviewed our preferred plans under both a 25 and 50 year planning horizon and confirm that the same AMP8 and AMP9 schemes are selected. Consequently, we consider that a 25-year planning period remains appropriate. Our preferred final plan supply schemes are primarily being driven by new non-household demand in AMP8 and by sustainability reductions by both 2030 (AMP7 WINEP outcomes) and 2040/2045 in relation to Environmental Destination (ED). **Non-household demand:** The vast majority of new non-household demand is forecast to start in AMP8 and AMP9 with no step changes in NHH demand forecast beyond that. **Environmental Destination:** Our central preferred plan uses the BAU+ ED sustainability reduction scenario which subject to AMP8 WINEP ED Investigations, we plan to implement 50% in 2040 and 50%% in 2045. In Suffolk, this drives the North Suffolk Winter Storage Reservoir in addition to our core plan which includes Suffolk strategic pipelines and Lowestoft Reuse. We also have an alternative plan for the High (Enhanced) ED scenario which for Essex, requires Southend Reuse and Canvey Island Desalination Plant.

SoR Ref	OFWAT Response	NW Response
		There is significant uncertainty as to the size of the ED sustainability reductions although they will be confirmed through both our AMP8 WINEP ED investigations and those undertaken by WRE. Consequently, even if further sustainability reductions were required post-2050, the level of certainty would be extremely low. We confirm that our Essex water resource zone remains in surplus until 2075. However, our Suffolk supply area does now return to a single figure deficit in the mid-2050s. This is because of the recent additional Habitats Regulations sustainability reductions that the EA has asked us to plan for. However, as described above, there is significant uncertainty in the size of the ED sustainability reductions required, particularly in our Northern Central water resource zone. Consequently, we consider it likely that AMP8 WINEP environmental destination sustainability reduction investigations will conclude that smaller reductions than those assumed will be required in this zone and so the supply area may remain in surplus for longer. For example, the BAU+ ED assumption is that there is a 100% reduction (i.e. complete loss of licence) in annual licence for our Ormesby Broad and River Bure abstraction licences. We do not consider this to be realistic although have not been able to justify otherwise for this revised draft WRMP24. There will be significant uncertainty in a demand forecast beyond 25 years. However, we confirm that the Suffolk Strategic Pipelines (Interconnectors) have been sized with spare capacity and can accommodate growth to 2075. However, additional supply options in Northern central water resource zone would be required. Nevertheless, the only feasible schemes available for delivery post-2050 will be desalination as all other non-desalination schemes will already have been delivered as part of our preferred final plan. This is because in terms of the ranking of best value options, desalination provides the worst value given its high opex, carbon costs and brine discharge and this is increasingly the case when considered over a 50 or 75 year planning period. Our supply demand position post 2050 will be considered as part of PR29 and if further schemes are required post-2050, then there will be still 20 years to develop them. Given these are likely to be desalination schemes, we consider that they can still be delivered in a timely manner.
12	ESW has clearly explained its deployable output methodology which appears to be in line with guidance. However, its approach to forecasting demand was not as clear and would benefit from a similar explanation to demonstrate alignment with the guidance.	We have updated **Section 2.4 and 3.3** of our revised draft WRMP24 Demand Technical Report to include further detail on the demand forecast process.

SoR Ref	OFWAT Response	NW Response
13	It appears from the narrative that ESW has had appropriate discussions with Thames Water and Anglian Water around transfers, however, sensitivity runs should be carried out in support of the decisions made. This feedback was provided at pre-consultation and has not been addressed.	Since publishing our draft WRMP24, we have reconfirmed with Thames Water its position on transfers. It has confirmed that it does not have any surplus water to trade with ESW and that it is not possible to terminate our existing 20Ml/d raw water transfer agreement (export to Thames Water) with them until 2035 which is when the agreement ends in any case. Based on our revised draft WRMP24 supply and demand forecasts, once the new Linford WTW and borehole are in supply in AMP8, it is possible that the 20Ml/d raw water trade agreement could be extended. We have illustrated this in a scenario in **Section 8.3.3** of our revised draft WRMP main report. However, there is uncertainty in the supply forecast from 2040 regarding the size of required Environmental Destination sustainability reductions. Consequently, the supply headroom may be needed should higher (Enhanced scenario) environmental destination sustainability reductions be required than under the central BAU+ scenario. Should this turn out to be the case, all our core plan schemes are still required in AMP8 and AMP9. Since publishing our draft WRMP24, we have continued to work closely with Anglian Water and WRE regarding potential inter-company transfers and have undertaken sensitivity modelling at the regional level to aid decision-making. However, this has confirmed that due to planned sustainability reductions, like us, Anglian Water does not have surplus water to share, either currently, or once their planned new resources are in supply. However, we will continue to liaise with Anglian Water, particularly once the Environment Agency has completed its Norfolk Broads Habitats Regulation investigations and confirmed the size of the additional Sustainability Reductions that will be applied to our abstraction licenses that supply Ormesby WTWs. **Section 1.3.2** of our revised draft WRMP24 has been updated to reflect this response.

SoR Ref	OFWAT Response	NW Response
14	The company's supply demand balance starting point for the draft WRMP24 is significantly lower than its forecast for the same point in the final WRMP19. The reduction in available water for 2025-26 is equivalent to 18% of company water demand (distribution input). Although some of the changes are due to supply-demand balance reporting updates, there is still insufficient evidence to understand changes in some areas. In some areas, the evidence suggests that non-delivery or underperformance is the cause.	The differences between the supply demand balance starting point in our draft WRMP24 and the forecast for the same point in our final WRMP19 are due to the following: **- DO:** The Essex water resource zone reduction is due to a move to stochastic modelling along with increasing resilience from 1-200 to 1-500.For details of the changes in DO from WRMP19 to WRMP24 see **Section 3.2** of the main WRMP report, and **Section 5** of the Supply Forecasting technical report. **- Climate Change:** The increased impact of climate change is due to a move from UKCP09 to UKCP18 projections. For details of the changes in climate change assessment from WRMP19 to WRMP24 see **Section 6** of the Supply Forecasting technical report. **- Sustainability Reductions:** The sustainability reductions we are including in our WRMP24 are significantly higher than those included in our WRMP19. For details of the changes in sustainability reductions from WRMP19 to WRMP24 see **Section 2.4** of the Sustainability Reductions Technical Report **- Outage:** The differences are due to planning for a drought period. For details of the changes in DO from WRMP19 to WRMP24 see **Section 4.5** of the Outage Allowance technical report. **- Process losses:** The differences reflect use of the latest process loss data. For details of the changes in process losses from WRMP19 to WRMP24 see **Section 3.8** of the main WRMP report. **- Water exported:** We have used maximum contractual volumes for NAVs in our WRMP24 whereas our WRMP19 forecast actual utilisation. **- DI:** The increase in PCC is mainly due to Covid and an increase in population (~20,000 additional people than forecast in PR19). The pandemic has affected a number of customer behaviours. We have included a summary table in the **Section 6.1** of the WRMP24 main report to quantify these differences.
15	We are concerned about the company not meeting expected WRMP19 leakage and PCC levels, non-delivery of PR19 funded performance, and changes to assumptions around population forecasts. This means that there are concerns whether the overall outcome of the WRMP19 as funded at PR19 has been delivered in the round. The company should fully quantify and justify the reasoning for changes between WRMP19 and the starting point for WRMP24 at a supply-demand balance component level with sufficient and convincing evidence. Where a step change in supply-demand balance between WRMP19 and WRMP24 is not sufficiently justified as being due to changes to scenarios or planning assumptions	We have updated our revised draft WRMP24 to reflect the following positions for leakage, PCC and metering. **Leakage** We confirm that we are forecasting that we will meet our AMP7 Performance Commitment (PC) for leakage which is to reduce leakage by 17.5% by 2025. The PC values are slightly different to those in our WRMP19 because of the final impact of consistency reporting and a change to the baseline position. This is fully explained in our WRMP24 Leakage technical report.

SoR Ref	OFWAT Response	NW Response
	and may instead be as a result of non-delivery or underperformance, this will be taken into account at PR24 in the assessment of enhancement funding.	**PCC** As reported in our 2023 WRMP19 Annual Review, we are forecasting that end of AMP7 PCC will outturn higher than that forecast in our WRMP19. This is largely due to the effects of the pandemic on water use in 2020 and 2021 and the residual effects on behavioural use of water in subsequent years. We have a comprehensive evidence base of the sustained and material impact of the Covid-19 pandemic on household PCC through changes in customer behaviour, changes of where water is used (office to home), the impact on delivery of water efficiency programmes and Met Office modelling to disaggregate the impact of Covid-19. We have presented this information in our Demand report and summarised this in **Section 4.4.3** of our revised draft WRMP24 main report. Our WRMP24 PCC forecast was re-based for 2021/22 when PCC was the highest. This therefore incorporates the impact of Covid and lower activity delivered than planned. Population and property forecasts have also been updated as part of this. We continue to adapt and innovate our approach to water efficiency through the remainder of AMP7 and will continue at pace to meet regulators' challenge that we should redouble efforts to reduce PCC. We remain committed to long-term targets to reduce PCC to 118 litres per person per day by 2040 and 110l/head/day by 2050 which our WRMP24 plans to deliver. We have updated **Sections 8.10.7 and 1.2** of the main report to reflect this response. **Metering** The number of optant meter installations in the first two years of AMP7 were less than forecast in our WRMP19 due to the Covid-19 pandemic. During this time, there were several lockdowns which reduced the number of customers opting for a water meter. However, we are forecasting that we will meet our end of AMP7 target for optant or Whole Area Meter (WAM) installations. However, we are forecasting that we will not achieve the number of proactive replacements that we had forecast in our WRMP19. This is because we have continued to see supply chain constraints driven by Covid and the war in Ukraine which has capped our install opportunity. We delayed procurement of additional meter variants and the enduring smart communications network until we had signals from the market that the supply chain was improving. A further factor constraining deployment is an ongoing issue with recruitment for additional field resource in a challenging labour market. We have updated **Section 7.3.2** of our revised draft WRMP24 to reflect this response.

SoR Ref	OFWAT Response	NW Response
16	It is important that the company manages the uncertainty around population growth effectively to make sure its programme delivers secure supplies to meet demands in the short and long term while also not overinvesting in potentially sub-optimal solutions that ultimately may not be necessary or needed to the same scale. The company's population forecast in 2025-26 starts higher than the WRMP19. The company's reasons for the differences, such as impact of Covid-19 and updated ONS forecasts, do not fully explain why population would be higher than forecast from five years ago. This requires further evidence in the final WRMP. In response to a query, ESW confirmed that the ONS growth scenario is 5.1%, 7.1% and 9.5% lower in 2029-30, 2034-35 and 2039-40 respectively than the population planned for by the company in its preferred pathway. This may be driving unnecessary investment in the short term that can be better managed through adaptive planning and more modular solutions. We expect the company to provide sufficient and convincing evidence that uncertain population growth, especially beyond 2030, is not driving significant amounts of uncertain investment in the 2025-30 period.	There are several reasons for the higher population forecast in our WRMP24. While the impact of Covid and ONS forecasts have changed the population forecasts, the Local Authority Housing Plans have had the biggest effect on total population between the years 2025-2035. This is because the housing growth directly impacts our population forecast in these years as the forecast uses this growth combined with an estimated occupancy to drive the forecast. Therefore, the Local Authority updated housing plans have a large influence on our population forecast in these initial years. The ONS forecasts then drive the trend in the population forecast once the housing plans finish, which for most local authorities, is by 2036. We are aware of the great uncertainty surrounding population estimation and therefore to understand this we have tested three population scenarios, a Low, Medium (central / most likely and our preferred) and High scenario, for both our draft and revised draft plans. To have illustrated the uncertainty around the population forecasts in **Section 4.1.4** of the Demand Forecast technical report which shows the forecasted population for the year 2025 from PR04-PR24.

SoR Ref	OFWAT Response	NW Response
17	ESW should provide sufficient and convincing evidence to show that it has robustly tested the sensitivity for the date to meet 1 in 500 year drought resilience. This should include presenting the costs, benefits and impact on the selection of preferred schemes of choosing alternative dates including a test of delivery in 2050. The selected date to achieve 1 in 500 year resilience should be justified based on this testing and optimised based on the costs and benefits. This is important as the scale of impact and importantly the date for achieving it is a key driver for scheduling schemes in the investment programme.	We have updated **Section 8.2** of our revised draft WRMP24 and have: - confirmed that we will provide 1 in 500 year drought resilience in 2031/32. This is earlier than in our draft WRMP24 and is possible due to AMP8 demand savings (including those from our new non-household demand reduction strategy) and increases in supply from our preferred final plan supply schemes. Further savings from our demand management options mean that we can then move to 1 in 500 year drought resilience soon afterwards. - included a sensitivity assessment whereby we have run our Least Cost optimiser model with the 1 in 200 year benefit added to DO until 2040 and 2050. This demonstrates that there are no costs savings to be made from delaying the 1 in 500 level of resilience, because investment is required to meet 1 in 200-year deficits early in the planning horizon. Later investment in our Suffolk area is driven by Environmental Destination, notably under the Enhanced scenario. We have committed to investigate all of our impacted abstractions as part of AMP8 WINEP to ensure we implement the correct changes to achieve the desired outcome for the environment. These investigations will increase our certainty in what is required under Environmental Destination and therefore refine our programme of investment and identifying cost savings where achievable.

SoR Ref	OFWAT Response	NW Response
18	Identifying an appropriate number and range of options to meet water needs is essential to ensure that customers and stakeholders have confidence that the preferred programmes are optimal. We queried how many unique options (removing sub-options) were included in the feasible list, how much water they could provide and what proportion of expected needs at 2050 these could meet. The response shows that the feasible options can meet around 700% of the 84 Ml/d need by 2050, from a range of option types. However, we hold concerns that the water for available use benefit is dominated by desalination, and many of the options are variations of similar options. The company should provide sufficient and convincing evidence in its final WRMP that the number and range of options is appropriate given the presented scale of challenge, including at a zonal level. The final WRMP should provide details of how the scale of options is appropriate for the need in each WRZ.	As described in our response to Ofwat's query (ESK-WRMP-009), a full options appraisal was completed for our draft WRMP24 in line with the WRPG and is presented in **Section 7** of our dWRMP24 and supporting technical reports. We identified a full list of unconstrained options which were then reduced down to a list of feasible options using best practice criteria. At the macro level, there is a limited number of feasible supply option types which reflects the significant challenge in East Anglia which is a serious Water Stressed Area, and which has the highest number of water dependant Sites of Special Scientific Interest in the country. Consequently, there is no groundwater available for abstraction licensing and all our Norfolk and Suffolk groundwater licences are subject to sustainability reductions either on renewal else by 2030. Surface water is available but only at high flows which means new surface water abstractions must be developed with winter storage reservoirs. Aquifer Storage and Recharge (ASR) was discounted as a feasible for the Chalk and given they have similar groundwater sustainability challenges to us, there are no opportunities for importing water from neighbouring Anglian water. Consequently, at a macro level, supply options in our draft WRMP24 were limited to winter storage reservoirs to store high flow water, water reuse and desalination. For our revised draft WRMP24, we have progressed options to reduce unplanned outage and therefore to increase Water Available for Use (WAFU). These options were not sufficiently developed for our draft WRMP24 and at that point in time, were not considered feasible. These options include nitrate reduction schemes for Barsham, Langham and Langford WTWs and a UV scheme for cryptosporidium management at Langford WTWs. These options are now all considered feasible and following least cost modelling and Best Value assessments, are now included in our preferred plan. We confirm that our preferred final plan does not include any full desalination schemes although note that the Lowestoft Water Reuse scheme will use reverse osmosis membranes. This is because Lowestoft Water Recycling Centre is located close to the coast and brackish groundwater ingress into the sewers means that the influent onto the Lowestoft Reuse scheme will also be brackish.

SoR Ref	OFWAT Response	NW Response
19	The final preferred plan for the company's Hartismere WRZ shows a supply demand balance close to zero for most years through the planning period. The final WRMP should include the updated information on the process losses of options as provided to us through the query process. Changes in levels of service have been considered in the feasible options list.	Hartismere WRZ shows a supply demand balance close to zero for most years through the planning period because it's water needs are being met via a new potable strategic pipeline. The volume of water transferred thought the new pipeline, as represented in the planning tables, is to meet the forecast demand and so SDB outturns at zero. However, the pipeline has sufficient capacity for higher transfers should they be required, as does the donor Northern Central water resource zone. Process losses are summarised in **Section 3.8 and 3.9** of the revised draft WRMP24. We confirm that the strategic pipeline option has no associated process losses to take account of in table 3b for the Hartismere WRZ. In our Revised WRMP, we are planning to reduce planned Levels of Service for our Suffolk region, as we feel this is appropriate given the need for the moratorium on new non-domestic use in Hartismere, and the assumption that we will be granted a delay to the imposition of WFD No deterioration sustainability reductions, also in Hartismere.

SoR Ref	OFWAT Response	NW Response
20	The draft WRMP identifies demand and supply options, demonstrating a twin track approach and it presents a long term glidepath within the planning period. The company sets out its options screening methodology, including a description of the criteria that is applied against them for high level and option level screening. ESW's options appear to be evaluated against its best value planning objectives. The company states that it would like time to further investigate whether it can bring forward the North Suffolk Reservoir and deliver this first, ahead of water re-use schemes. The company states that it will make a final decision in 2027. ESW should progress this work, without delay, to provide certainty on the best value option. The final plan should set out any remaining uncertainty, the risk this poses to the plan, and how this will be managed within the preferred and alternative pathways presented. Without this, we have concerns the plan may not present a clear approach at this stage.	Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for Linford WTW and Borehole; Suffolk Strategic Network; Lowestoft Reuse; and North Suffolk Reservoir. We are currently setting up project teams to progress the detailed engineering design for all four options. Our draft WRMP24 already assumed a project start date for Linford WTW of 2023 and so even with the Accelerated Delivery funding, the delivery date will remain at 2027. However, we assumed a project start date of 2025 for the other schemes. This means that they will now be delivered two years earlier as follows: - Suffolk Strategic Network: 2028/29 - Lowestoft Reuse: 2030/31 albeit it is now not needed until 2032/33 - North Suffolk Reservoir: 2033/34 albeit that it currently is not selected until 2040/41 If we moved to the North Suffolk Reservoir adaptive programme, this would mean that the Hartismere WRZ moratorium on new non-household demand may have to be extended by just one year from 2032/33 (under the core plan) to 2033/34 under the adaptive programme. However, we believe that the programme for delivering the reservoir can be shortened although we won't know by how much until the detailed engineering design work has been completed. **Section 8.8** of our draft WRMP24 considered uncertainty of our preferred plan through scenario testing. As well as Ofwat's common reference scenarios for demand, technology, climate change and abstraction reduction, we have also considered a high PCC scenario. In light of the new supply schemes, we have repeated the scenario testing and updated **Section 8.8** of the revised draft Plan. This includes a summary table which confirms which schemes are selected under each scenario. For example, for Suffolk, this confirms that the Suffolk strategic mains and Barsham nitrate reduction schemes are needed under all of Ofwat's benign reference scenarios confirming they are no regret options. Additionally, Lowestoft Reuse is also chosen under the low Climate Change and abstraction reduction scenarios. All our preferred final plan Essex supply schemes are also chosen under the low abstraction reduction scenario.

SoR Ref	OFWAT Response	NW Response
21	ESW has not provided sufficient information regarding option utilisation in its draft WRMP. Extra information was provided to Ofwat on utilisation after querying, however we expect to see more robust evidence on utilisation in the final WRMP. The company should revisit the feedback we gave in our pre-consultation letters requesting that it fully explains and justifies the utilisation rates given and provides evidence that modularity and scalability in optioneering has been fully considered and explored to manage low utilisation situations.	In our revised draft WRMP24, we have: - presented average and maximum utilisation (Ml/d) in Table 4 of our WRMP tables - described in our Least Cost technical report how our supply options (over 10 Ml/d) will be utilised and the impact on operating costs and carbon costs, for both an average year (NYAA) and a theoretical annual maximum utilisation scenario, under our Preferred Plan and Alternative Plans (Least Cost, OFWAT Core, and Best Environment).Least Cost Technical Report. In our draft WRMP Options Appraisal Technical Report, we presented a size range of key options, to account for modularity and scalability. Of the options selected in our plans and sensitivity scenarios, this includes: - Southend Reuse: a 'Phase A' at 20 Ml/d, and the full 40 Ml/d versions - Canvey Island Desalination: Nine different sized options (10 Ml/d to 190 Ml/d) - North Suffolk Reservoir: Three different sized options - Suffolk desalination scheme: Two different sized options for each scheme (California Caister, Corton, and Sizewell).

SoR Ref	OFWAT Response	NW Response
22	We require clearer and detailed evidence in the final WRMP that operational interventions have been considered and will be implemented where appropriate if this is the best value solution. Third party options have been considered and are identified in Table 4. The final plan should draw out additional detail on third party options and how they are considered with equal opportunities in the plan. In particular, ESW has previously discussed with us temporary desalination options to support construction and commissioning Sizewell C nuclear power station. The final plan should set out any updates to this, and whether bringing forward permanent options may instead present best value to the plan.	**Operational Interventions:** For our revised draft WRMP24, we have progressed operational interventions (options) to reduce unplanned outage which increases Water Available for Use (WAFU). These options were not sufficiently developed for our draft WRMP24 and at that point in time, were not considered feasible. However, the options, including nitrate reduction schemes for Barsham, Langham and Langford WTWs and a UV scheme for cryptosporidium management at Langford WTWs, are now all considered feasible and following least cost modelling and Best Value assessments, are now included in our preferred final plan. **Section 8.3** of our revised draft WRMP24 has been updated to reflect the latest position. **Third party options:** Since publishing our draft Plan, we have reconfirmed with both Thames Water and Anglian Water their position with regards to water transfers. Thames Water has reconfirmed that it will not be possible to end the 20Ml/d raw water export trade agreement early as their preferred plan supply schemes will not be in supply until 2035. Anglian Water has also reconfirmed that a potable transfer into our Blyth and Hartismere WRZs is still not feasible as the full available deployable output from their schemes (including the Fens Reservoir) will now be needed by both Anglian Water and Cambridge Water. We have consulted with regard co-development of options although at this point in time, no other water users have expressed interest in co-developing any of the supply side schemes in our preferred plan. However, we will continue to engage with third parties both directly and through WRE. Of all the supply side schemes, the most likely option for co-development is the North Suffolk reservoir which, subject to co-delivery funding, could be made marginally bigger. The agricultural sector is the most likely to co-deliver a marginally larger reservoir and we will work with the East Suffolk Abstractor Group to explore this further as part of the Accelerated Infrastructure Delivery project. We have considered whether any of our demand management options meet the requirements for delivery through the Direct Procurement for Customers (DPC) process but have concluded that they do not. **Section 8** of our revised draft WRMP24 has been updated to reflect the latest position. **Sizewell C:** We are unable to provide any mains water to the Sizewell C site until 2032 which is the delivery date for both the Suffolk Strategic Mains and the Lowestoft Water Reuse schemes. This is because all of our supply headroom in the Blyth WRZ has been removed by sustainability reductions in 2030, earlier for time limited abstraction licences. Therefore, in line with the Environment Agency's no deterioration policy, we must not plan to increase abstraction from our groundwater sources in the meantime. Given our position, as stated by Sizewell C Company (SZC) at the Sizewell C Power Station Hearing, SZC Co will construct and operate a temporary desalination plant to meet their

SoR Ref	OFWAT Response	NW Response
		water needs during the construction phase (to 2032) – this will be located within the immediate SZC site. However, the plant is temporary because it will be located on land which from 2032, will be needed for other purposes. Additionally, a permanent scheme is unlikely to be feasible because of the cumulative environmental effects of the brine discharge from the desalination plant and cooling water discharge from the operational power station. The following options in our preferred final plan are needed to supply SZC: - Pipeline from Barsham to Holton: In addition to meeting SZC mains water needs, this pipeline will also transfer water to Hartismere (a further strategic main T's off to Hartismere at Holton); - Pipeline from Holton to Saxmundham: This main is only needed for Sizewell C albeit it will provide additional resilience to all household customers and businesses in the Blyth WRZ; and - Lowestoft Reuse: 2.8Ml/d of the total output of the Lowestoft Water Reuse scheme will be for Sizewell C.

SoR Ref	OFWAT Response	NW Response
23	ESW has described how its draft WRMP is informed by the relevant regional plan. However, for the final WRMP further detail should be added to describe the regional methods and approaches used, and the narrative should contain a complete and standalone explanation of decision making at the company level. The company has described the decision making approach it has used, however, there is little narrative around company level programme appraisal and decision making. We would like the final plan to provide more narrative of the approach taken to selecting the preferred programme.	We have updated **Section 8.6** of our revised draft WRMP24 to provide: - further detail on the regional methods and approaches used; and - the decision making process at the company level. Company level programme appraisal has been undertaken as part of our Best Value planning process. Alternative scenarios have been developed to enable sensitivity analysis of the central plan, as well as to determine the performance of these alternate plans against best value plan criteria. Our Revised WRMP Best Value Plan Technical Report sets out the methodology and decision making that has driven selection of the central plan as the best value plan.
24a	Best value metrics have a line of sight to the draft WRMP objectives, however, the approach to identifying and selecting the best value metrics has not been clearly described. Essex & Suffolk Water should provide further detail in the final WRMP setting out how the best value metrics were identified and selected. Furthermore, it would be beneficial to clearly identify the line of sight from these metrics to sub-metrics and to outcomes. This would help explain and justify the preferred plan. ESW has considered a range of economic, social and environmental benefits that the options could deliver. However, the company has not referred to Ofwat's public value principles. We would like ESW to use Ofwat's public value principles, and reflect expectations referred to in the PR24 final methodology, within its best value planning process in its final plan and explain how these have been used to inform best value decision making.	Further detail has been added in to our Revised WRMP24 Best Value Planning Technical report which accompanies our revised draft WRMP24 and sets out the derivation of best value plan criteria. These have been developed to align with metrics being used at a regional level by Water Resources East, and a consideration of the best value plan criteria set out in the Water Resources Planning Guideline. We have included **Section 8.10.8** in our revised draft WRMP24 which describes how we have used Ofwat's public value principles in the development of our preferred final plan. We consider that our revised draft WRMP24 is aligned to the principles.

SoR Ref	OFWAT Response	NW Response
25	In combination assessments have been included for the environment but not for deployable output at the programme level as part of the best value plan assessment, and these should be completed for the final WRMP.	We have updated **Section 3.2** of our revised draft WRMP24 to address this response. We have modelled the impact of all of the options selected under the Least Cost and Best Value Plan in the Essex WRZ with our Aquator water resource system model. This enabled us to confirm that the maximum capacity of Linford new WTW of 10 Ml/d, did result in an additional 10 Ml/d of water resource zone Deployable Output (DO), and determined the DO benefit of the Abberton RWPS and Langford WTWs upgrade option, as well as in-combination with each other. With regards to our Blyth and Hartismere WRZs, there is one new option for each, which are potable water transfers via new strategic pipelines (interconnectors) from the Northern Central WRZ, which represent simple transfers of potable water to resolve the deficit in each zone. To support our WRMP24 work, potable water system modelling has been undertaken, which confirmed the additional requirements to upgrade the potable water network to distribute the transferred water to areas of demand. This enabled us to identify the need for, and include the cost of, service reservoirs and network upgrades, which we included in the total cost of each transfer schemes. The situation in the Northern Central WRZ is more complex and requires a system model to include the new options in our Best Value Plan. We currently have an Aquator model that covers the River Waveney system, and also one that has been developed since submission of our draft WRMP for the Ormesby system. Work to bring these together to develop a model which covers all three Suffolk WRZs is already underway and will continue as part of the detailed design of the new options (Lowestoft Reuse and the North Suffolk Reservoir). The new Suffolk Aquator model will support the detailed design phase of each of the preferred final plan supply options.

SoR Ref	OFWAT Response	NW Response
26	The company should clearly present the benefits of the least cost plan against its preferred best value plan and other plans. It should provide the total cost and overall value of each of the programmes. Where investment is proposed beyond least cost, the value of the additional benefit needs to be presented within the WRMP planning tables. The robustness of this valuation data is particularly important for significant areas of investment. The company should also provide sufficient and convincing evidence that the costs to deliver the best value plan are outweighed by the additional value it provides. ESW should further demonstrate in its final WRMP that decision making has not been influenced by artificial constraints and that any constraints that do influence decision making are appropriate. This includes presenting the implications of sensitivity testing of different profiles of 1 in 500 year drought resilience, flexing the use of drought permits and orders, testing different glide paths on water efficiency and leakage as well as use of temporary use bans (TUBs) and non-essential use bans (NEUBs). ESW's plan provides appropriate discussion around assumptions, options, and uncertainties associated with the optimisation process to derive the preferred programme. However, further evidence of the tools and methods applied for the optimisation process should be included in the final WRMP.	We have updated **Section 8.9** of our revised draft WRMP24 to present the benefits of the least cost plan against our preferred best value plan. Our best value planning approach is detailed in our Best Value Plan technical report, which sets out the benefits and costs of the least cost plan against alternative scenarios and plans. Values are presented for both monetised and non-monetised metrics. A portfolio level assessment of the performance of alternative plans has been undertaken with the use of parallel axis plots to enable detailed analysis of plan performance and identify best value options and plans. We have updated **Section 2.5** of our revised draft WRMP24 to confirm that we are now planning to provide 1 in 500 year levels of service for our Level 4 drought action (rota cuts) from 2031/32 in Essex, once the core supply schemes in our preferred final plan are in supply (previously this was 2039 in our draft plan). However, we will retain the reduced Levels of Service proposed in our draft WRMP for our Suffolk region, as we feel this is appropriate given the need for the moratorium on new non-domestic use in Hartismere, and the assumption that we will be granted a delay to the imposition of WFD No deterioration sustainability reductions, also in Hartismere. It is important to note that 1 in 500 year drought resilience is not driving any of our supply schemes. For example, over and above the demand management options that are needed to meet national targets for demand and leakage reduction, we need to develop new supply schemes to address supply deficits caused by sustainability reductions, new non-household demand and in Essex, climate change. As we are building these schemes, they have been sized to provide 1 in 500 year resilience. **Section 7.4.1** of our revised draft WRMP24 describes the tools and methods applied for the optimisation process.

SoR Ref	OFWAT Response	NW Response
27	ESW proposes to invest £52 million improving connectivity within its network over the 2025-30 period. The company has proposed no water available for use (WAFU) benefits to be delivered from interconnectors in this period and should ensure this proposal is sufficiently evidenced, including in the context of justifying need and funding through the WRMP. Additionally, the company may have schemes where interconnectors are necessary to deliver new supplies to areas of demand. In such cases the schemes should be evaluated by combining the costs of developing the new supply with the interconnector costs as a single option to produce an optimised best value plan. We also reiterate our pre-consultation feedback, which aligns with the WRMP guidelines, that sub zonal schemes (not impacting on zonal WAFU) can be discussed within the narrative of the WRMP to provide context but they need to be presented and justified with sufficient and convincing evidence in PR24 business plans rather than the WRMP. When presenting such enhancement schemes companies should clearly identify how they have assessed the degree of overlap with activities it is funded to deliver through base expenditure. Companies should not expect additional customer funding to address risks resulting from under delivery in the current or previous periods.	The final preferred plan in our revised draft WRMP24 includes two interconnector options (ESWTRA001A15 and ESWTRA019) which connect the three Suffolk water resource zones, namely Northern Central, Blyth and Hartismere. The inter-connectors are required because we are forecasting a final plan supply deficit in the Blyth and Hartismere water resource zones after demand savings from our final plan demand management options have been applied. The deficits are caused because: - all of our Blyth and Hartismere groundwater abstraction licences are having statutory abstraction licence sustainability reductions applied in 2030 with some time limited licences being capped on renewal in 2027. The licences are generally being capped to recent levels of utilisation which has removed any available supply headroom; and - forecast growth in non-house demand. While we have not presented Lowestoft Reuse and the Suffolk Strategic Mains (interconnectors) as a single option, both elements are needed to deliver the WAFU gain in both the Blyth and Hartismere water resource zones. The interconnectors will allow the transfer of treated water from our Barsham WTW in the Northern Central Zone to both Blyth and Hartismere zones, but only once Lowestoft Reuse is in supply by 2030. The designed transfer values have been based on the current final plan Distribution Input forecasts and the derived WRZ deficits. Currently, the Hartismere and Blyth WRZs are forecast to have a supply deficit of 8.5 Ml/day and 6.5 Ml/day respectively, thus the transfer from Barsham to Holton (the common element for the Blyth and Hartismere transfers) is notionally 8.5 + 6.5 = 15 Ml/day. As part of scope of the interconnector options, there is a requirement to have two sub-zonal schemes to enable the water transferred into the Hartismere WRZ to be connected into the existing strategic network. The proposal for the transfer scheme is for the imported water from the Northern Central WRZ to be stored in a new Eye Airfield Service Reservoir, which will become a strategic stored volume for the Hartismere WRZ. This is needed to manage the diurnal demand pattern variations in conjunction with the existing WTWS, operate the transfer efficiently, and improve resilience to customers within the WRZ. This was not needed previously and is required given our baseline supply demand balance and to make the transfer scheme work. In order to distribute the water from this structure, two sub-zonal schemes are required. This comprises of ~1 Km of 250mm main and a new pump set to connect into the Redgrave and Syleham supply. The second sub-zonal scheme connects the new service reservoir into the strategic network that supplies Finningham Tower, allowing storage levels to be managed. This scheme will comprise of ~7.7 Km of 250mm main and a pump set. Both options are required as part of the new abstraction and treatment operating philosophy for the full Suffolk supply area which is required due to statutory abstraction licence sustainability reductions described above. They will enable abstraction to be

SoR Ref	OFWAT Response	NW Response
		managed effectively by allowing the strategic storage to support three separate supply zones while individual water treatment works are ramped up and down to meet demand.

SoR Ref	OFWAT Response	NW Response
28	Table 4 (Options Appraisal Summary) includes a column to flag interdependent options. These are options which are dependent on one another to occur. We expect the company to ensure that interdependent options are flagged through this table to ensure clarity when regulators review the company's options appraisal and selection. Options ESW-TRA-001 and ESW-TRA-019 for example, are not flagged as interdependent in Table 4. However, we understand, through a query response, that ESW-TRA-019 is dependent on an element of ESW-TRA-001 (Barsham to Holton transfer). This is not clear in Table 4. The company should review interdependencies between its options and ensure that this is clearly explained in its final plan and that its data tables are also completed in full.	We have now flagged interdependencies for all preferred and feasible options in Table 4.

SoR Ref	OFWAT Response	NW Response
29	The company states that it has conducted sensitivity analysis using the common reference scenarios and that the same portfolio of options is selected in 2025-30 under all scenarios. It states it has also used scenarios to develop alternative pathways. The impact of different scenarios on the options selected is explored in appendices for least cost planning and best value planning. In its final plan, ESW should demonstrate that it has identified low-regret investment beyond 2030. As part of this evidence, the company should clearly set out the impact of the Ofwat common reference scenarios compared to the 'most likely' scenarios on which the preferred plan is based. This should include quantifying the impact on demand of the low and high scenarios for climate change, demand, and abstraction reductions across the planning period. The company should also quantify the estimated impact on costs of: 1) planning based on the high scenarios for climate change, demand, and abstraction reductions, and the slower scenario for technology; and 2) planning based on the low scenarios for climate change, demand, and abstraction reductions, and the faster scenario for technology. This will allow for improved understanding of the drivers of investment, the sensitivity of the plan to future scenarios and confidence in the investments being proposed. The company should use the results of this testing to identify and justify with sufficient and convincing evidence low regret investments, rather than just ones that meet both high and low planning needs in a non-adaptive way.	**Low Regret Investment Beyond 2030** For our draft WRMP24, we conducted sensitivity analysis and tested our preferred plan against Ofwat's common reference scenarios. However, our revised draft WRMP24 includes refreshed supply and demand forecasts, and our final preferred plan includes additional supply schemes, notably those to reduce unplanned outage. Consequently, we have undertaken further scenario testing against each of Ofwat's common reference scenarios. The results of this are presented in **Section 8.7** of our revised draft WRMP24 main report which includes a summary table showing which options are picked under which scenario, including our least cost plan, best value plan, best environment plan, and under the adaptive programmes. Additionally, we have updated our revised technical reports and have: ▪ added charts to show the impact on the SDB under each scenario; and ▪ improved the visual representation of our Best Value Plan assessment with Parallel axis plots. The narrative in both the main report and technical report describes how the scenario testing supports low regret investment. However, low regret investment is limited post 2030 because the main drivers of investment, including sustainability reductions and new non-household demand are largely in AMP8. In the Essex supply area, the AMP8 supply schemes are required to solve the baseline 1 in 200-year supply deficit. However, the deployable output of the new Linford WTW and borehole scheme has increased from 7Ml/d to 10Ml/d and along with demand management option savings, means that we can also provide 1 in 500 year drought resilience from 2031/32. Subsequent demand savings in the remainder of the planning period mean that we do not need any further supply side investment. Consequently, no further low-regret investment post-2030 has been identified. Likewise, in the Suffolk supply area, our AMP8 supply schemes are required to solve the baseline 1 in 200-year supply deficit. Our preferred final plan then includes the North Suffolk Reservoir in 2040 to address a supply deficit caused by Environmental Destination sustainability reductions. However, at this point in time, it is not considered low regret because: ▪ AMP8 WINEP Environmental destination investigations need to be completed to confirm the size of the sustainability reductions - currently, we have assumed a reasonable worst-case scenario; and ▪ further detailed design is required - this is being progressed via an Accelerated Infrastructure Delivery project. Once the AMP8 WINEP ED investigations and the detailed engineering design for the North Suffolk Reservoir have been completed in 2026, we will then decide whether we move to the North Suffolk Reservoir adaptive programme.

SoR Ref	OFWAT Response	NW Response
		Further detail is included in our Least Cost and Best Value Planning technical reports which can be downloaded here.

SoR Ref	OFWAT Response	NW Response
30	ESW has used adaptive planning to manage uncertainty in its draft WRMP. It sets out a core pathway which it states includes no or low regret options. In its final plan, we expect the company to present a core pathway in line with the WRPG definition that includes low-regret investment to meet future uncertainties and additional option value to allow further flexibility in the future. ESW presents three alternative pathways associated with long-term uncertainties, including North Suffolk Reservoir, High PCC and High Environmental Destination. The company has provided additional information on its adaptive plan through the query process. This has included a diagram showing the whole adaptive plan, with a description of the decision and trigger points. The company has also provided justification for the decision points, some of which occur in 2025-30. The company should include this information in its final WRMP.	Please see response above. We have updated our core plan info-graphic in **Section 8.9.3** of our revised draft WRMP to include: - the options from our latest and final WRMP24 best value assessments; - AMP8 WINEP investigations; and - the WRMP24 Accelerate Infrastructure Delivery projects. Our core plan includes the low regret supply side options that are needed to address AMP8 1 in 200 year supply deficits. However, at this stage, it does not include supply side schemes to address longer term Environmental Destination sustainability reductions because this is still considered uncertain, thus why AMP8 WINEP investigations are needed. Once the WINEP ED investigations have been completed, the confirmed sustainability reductions will be fed into our PR29 WRMP baseline supply forecast. We have included all the additional information on our adaptive plan that we provided to Ofwat through the query process into our revised draft WRMP24 main report.
31	We expect ESW to test the Ofwat common reference scenario for low abstraction reductions, which is to 'assume only currently known legal requirements for abstraction reductions up to 2050'. Following the approach agreed between Ofwat, the Environment Agency and the regional water resources planning groups, companies should include agreed WINEP changes and licence capping, and use the agreed BAU+ scenario to form a long-term view but use local reviews to remove licence reductions with significant uncertainty, to form a plausible 'extreme low' scenario.	We have tested our plan against the Ofwat common reference scenario for low abstraction reductions. This scenario includes agreed AMP7 WINEP changes and known WFD No Det licence caps, plus residual licence changes required under the 'BAU' Environmental Destination low scenario from 2040. We feel this represents our minimum planning requirement. We have sought guidance from the EA, who have confirmed that the ED scenarios assessed at the regional level by WRE (BAU = low, BAU+ = medium, and Enhanced = high) should be seen as a range of plausible outcomes informed by local evidence rather than a strict set of legally defined targets; and that given the known risk of further sustainability changes for protected Areas then the BAU scenario (as defined by WRE that tries to account for wetland needs) does appear to be a pragmatic minimum locally, given current evidence and direction of travel. We have avoided double counting sustainability reductions in our Suffolk WRZs, where some licence reductions under Environmental Destination are brought forward as part of WFD No det SRs (included in our Central preferred plan and all adaptive programmes); and Habitats Regulations SRs (as presented in our Habitats Regulations SR Adaptive Programme), and form part of the statutory minimum to be delivered in either 2026 or 2030. This response is reflected in **Section 8** of our revised draft WRMP24 main report.

SoR Ref	OFWAT Response	NW Response
32	The company has proposed £205 million of enhancement expenditure relating to delivery of its draft WRMP24 in the 2025-30 period. Over the 2025-50 period, the company has identified over £1 billion of enhancement expenditure. The final plan should give confidence in the delivery of a plan at this level of investment. ESW plans to deliver 46 Ml/d of supply demand benefit (excluding interconnectors) in 2025-30. During this period, the company proposes to deliver total supply demand benefits at a higher cost compared to other companies. We have some concern over the company's proposed investment for its supply side improvement at a unit cost of around 6.5 £m/Ml/d across the 2025-30 period. This is higher than the industry median rate of 1.4 £m/Ml/d. ESW should demonstrate how its costs are efficient in its final WRMP. The company should ensure that its costs are sufficiently evidenced in its final WRMP and provide convincing evidence that the preferred options being selected, across all areas of its plan, are best value in its final WRMP24 and ensure costs are reliable, efficient and appropriately allocated.	**Deliverability** Whilst our proposed water investment programme driven by the WRMP is larger than the current programme for the 2020-25 period it does not represent such a major step up in investment from where we are now. In preparation for such a large investment programme, we commissioned an external review of the deliverability of that programme from Jacobs in December 2022. The report noted that, 'the scale-up from AMP7 to AMP8 is not spread equally across all areas, with most growth happening in the Wastewater categories (total £2.7bn) and investment in Water maintaining a relatively stable profile'. In order to bring forward supply options, following publication of our draft plan, we applied for early funding through Ofwat's Accelerated Infrastructure Delivery project to allow us to start detailed engineering design. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for four of our supply schemes including Linford WTW and Borehole, Suffolk Strategic Network Enhancements, Lowestoft Reuse and North Suffolk Reservoirs. This means the earliest delivery date for the following schemes will be two years earlier than our draft plan indicated as follows: ▪ Suffolk Strategic Mains: 2028/29 ▪ Lowestoft Reuse: 2030/31 although it is now not selected until 2032/33 given Barsham nitrate reduction scheme is now included in our preferred final plan; and ▪ North Suffolk Reservoir: 2033/34 although it is not selected until 2040/41, when further Environmental destination sustainability reductions are implemented, unless we move to the North Suffolk reservoir adaptive pathway when it would be selected in 2033/34. The delivery date for Linford WTW and Borehole remains at 2027/28 because our draft WRMP assumed detailed engineering design would start in 2023 and not in 2025 as is the case for the other schemes. Additionally, on smart metering, in order to meet AMP8 targets, we: - are currently concluding our smart communication network and meter procurement activity and will rollout our smart communications network across both Essex and Suffolk in 2023/24. We will also increase resilience through contracting with two different smart meter providers from October 2023; - are prioritising the Hartismere water resource zone as the first area to have smart communications and now envisage this will be in place in Q4 of 2023. We are also accelerating smart meter rollout in the water resource zone with the ambition to install or replace smart meters at all domestic and non-domestic premises by the end of AMP7; and - currently exploring opportunities to contract with an install partner across Essex and Suffolk with a view to a long-term increase in install capacity. We now expect this will go live in Q1 2024. In the meantime, we are on-boarding a tactical install partner to support an increase in

SoR Ref	OFWAT Response	NW Response
		install volume over the next 6 months. **Supply Scheme Unit Costs** We note that the unit costs of our schemes are higher than the industry median rate. However, our region is not typical notably because our region: - is located in one of the driest parts of the country and is classified by the Environment Agency as being a serious water stressed area; and - has one of the highest numbers of water dependant Sites of Scientific interest (SSSI) and many are now known to be at risk from water company abstractions. Consequently, as required by the Environment Agency, we are planning to make sustainability reductions to all our sources in Suffolk and Norfolk in AMP8. This means that traditional, lower cost schemes, are no longer available to us. For example, in Suffolk, where the majority of supply scheme investment is required, Environment Agency strategies confirm that there is no further groundwater available to licence and only high river flows are potentially available which will need new, high capital cost winter storage reservoirs. Other options have also been discounted including imports from neighbouring water companies and Aquifer Storage and Recharge (ASR). Consequently, our final plan has necessarily needed to draw on reuse schemes which although less desirable from an environmental and operating cost perspective, are necessary in order to resolve supply deficits as soon as possible. This is important in our Hartismere water resource zone in Suffolk where we have a moratorium on new non-domestic applications for water.

SoR Ref	OFWAT Response	NW Response
33	ESW has carried out a wide-ranging approach to customer participation and stakeholder engagement reflecting the significant challenges included in its draft WRMP. However, there is limited evidence provided to give confidence that customers fully understand and support the approach on areas such as the need for investment and the proposed solutions. We expect to see further clarity on this in the final WRMP. The final WRMP should also explain more specifically how it has been informed by stakeholder engagement and how the company has sought out opportunities for partnership, cofounding and co-delivery.	**Section 8.2** of our revised draft WRMP24 summarises the customer research that we have undertaken and that has help inform our Best Value Plan. Customers strongly support leakage reduction and water efficiency and of the metering options, prefer traditional meters over smart meters. However, smart metering provides the largest demand savings and without it, we would not be able to meet the national PCC targets. Consequently, our smart metering programme remains a core part of our final preferred plan. Customers prefer more traditional source of water such as groundwater, river abstractions and winter storage reservoirs and least prefer water reuse and desalination options. However, given the challenges in our region (see response above), our final plan necessarily also needs to draw on Water Reuse schemes in order to resolve near term supply deficits. **Section 8.10.9** of our revised draft WRMP24 and Section 7.6 of our Executive Summary summarise the performance of our preferred final plan against customer views. A more detailed description of customer's views including those form our Affordability and Acceptability Research, is presented in a technical report entitled PR24 Customer Research Summaries and is available to download **here**.

SoR Ref	OFWAT Response	NW Response
34	A signed statement of assurance from the Board has been provided, as well as a supporting statement, confirming the engagement and support of the Board. A description is given of the governance structure and the assurance process followed to ensure robust decision making. In the final WRMP, we expect to see evidence of assurance on ESW's understanding and acceptance of the approach to licence capping. This is to ensure the risk and impact this imposes on ESW is fully understood, given it is one of the largest drivers of investment in the plan, and may also hold some uncertainty in its application. The draft WRMP programme for 2025-30 represents a significant uplift in expenditure compared to the PR19 programme. For its final WRMP we expect the company to provide sufficient and convincing evidence that the Board has challenged and satisfied itself that the WRMP and the expenditure proposals within them are deliverable in the context of the wider PR24 business plan proposals. The company should also demonstrate that it has put in place measures to ensure that the plans, of which the WRMP forms a key part, can be delivered.	Our Board has been fully involved in the development of draft and revised draft WRMP24 preferred final plans (this can be evidenced in papers and presentations submitted to the Board and their minuted approvals) understands that: - our core plan includes new supply schemes (in addition to demand management options) that are needed to allow abstraction licence sustainability reductions (SR) in 2030. These SRs are an outcome of our AMP7 WINEP abstraction sustainability investigations; and - our preferred final plan includes new supply schemes (in addition to demand management options) that are needed to allow abstraction licence SRs in the 2040's - these being the likely outcome of AMP8 WINEP Environmental Destination Investigations. Since publishing our draft WRMP24, we have been asked by the Environment Agency to allow for further SRs in relation to our abstraction licences in the Norfolk Broads. The size of the SRs will be determined by Environment Agency investigations which will be undertaken over the next 12 months. Given the uncertainty regarding the size of the SRs, they have been included as an adaptive programme. Our Board understands that if we move to this adaptive programme, in addition to our core plan, we will need to: - bring forward and develop the North Suffolk reservoir - this currently required in 2040 - develop a further Water Reuse scheme at Caister near Great Yarmouth. Our Board understands that enhancement funding will be provided to deliver these schemes. For our PR24 programme, we have taken deliverability seriously – and have initiated a transformation programme to deliver the changes we need to make to be confident of delivery, with regular updates directly to our Board. Our Board will discuss further independent assurance on deliverability in its September Board meeting, as it agrees the overall Board assurance statement for PR24. We will provide more information about this assurance in the PR24 business plan. Our assurance statement has been updated to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
35	Recommendation 1: Improve the resilience and reliability of water abstraction and treatment assets to ensure security of supply and reduce carbon emissions.	Issue R1.1: The impact of operational constraints and outages at the company's abstraction and treatment assets is not fully accounted for in the plan and risks security of supply. (See also Improvement 1)	The company should: • ensure its plan reflects known operational constraints and ensure it has sufficient supply options to resolve any deficits • run its Aquator model for the Essex system / resource zone with operational constraints included to establish the impact on deployable output and the supply demand balance and include the results in its plan • set out a fully detailed plan for how it will improve the conditions of its assets to show it can make full use of available native water resources and provide confidence in its outage and headroom assumptions • demonstrate and evidence that the assumptions for assuming low outage and headroom allowances in the plan are valid.	Following discussion with the Environment Agency, we have refreshed our outage assessments for the revised draft WRMP24 to include the most recent full reporting year of raw water, water quality outage, notably in relation to raw water nitrates in the rivers Stour, Chelmer and Blackwater and cryptosporidium in the rivers Chelmer and Blackwater. As described in our response to Issue R1.2 and R2.1 below, we have: - made significant base investment to remove operational constraints and plan further base investment over the next five years; and - considered additional WRMP24 supply options in our revised draft WRMP24 to reduce unplanned outage which following our least cost and best value assessments, have been selected in our preferred final plan.
36		Issue R1.2: Increased reliance on the Environment Agency's (EA) transfer schemes to move water to provide security of supply caused by the company's operational issues is increasing carbon emissions and risks achieving net zero commitments. (See also Recommendation 10)	The company should: • fully account for increased carbon emission from EA assets and pumping in its plan and set out how it will work with the EA to achieve net zero for transfer activities by 2030.	Over the previous 5 years, we have made significant base investment in our Essex supply area raw water and treatment assets. This includes the complete refurbishment of our Stratford St. Mary and Roman River raw water pumping stations as well as significant investment in the upgrade of our slow sand filters. Additionally, we have: - started the feasibility stage to either replace or fully refurbish our Langford to Hanningfield raw water pumping station which we intend to do in the first half of AMP8; and - a further AMP7 enhancement scheme to upgrade our Layer WTW. This involves the installation of a front-end process which will make the WTWs more resilient to algal blooms in Abberton reservoir, thus reducing unplanned outage. Further options to increase resilience are described in our response to the query below (EA Recommendation 2). These options will reduce utilisation of the Ely Ouse Essex Transfer Scheme and therefore the associated carbon emissions. We will work with the EA through the Ely Ouse Operator's Group and EA / ESW Senior Managers Meeting to consider how and by when, net zero can be achieved for transfer activities. We have updated **Section 9.3** of our revised draft WRMP to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
37	Recommendation 2: Ensure that options to address resilience issues are included in the plan.	Issue R2.1: The plan does not include sufficient options to address ongoing operational resilience issues, including mitigating the impact of poor water quality on ability to abstract water and refill its reservoirs.	The company must: • resolve any deficits in the plan that could be caused by asset resilience issues and outage caused by water quality and should include all options required to maintain deployable output and make full and efficient use of available water resources • we expect options to improve resilience to be considered alongside other supply and demand options in the company's options appraisal and for preferred options to be included in the final plan • the company should provide further justification for ruling out some resilience options, such as the connection between the Suffolk and Essex resource zones.	As part of our options appraisal process, we have been considering a number of resilience schemes to reduce water quality driver unplanned outage. However, these were not sufficiently progressed for our draft WRMP24 and at that point, the options were not considered feasible. However, we have continued to progress these. Our revised draft WRMP24 preferred final plan now includes enhancement schemes to reduce unplanned water quality outage. These include: **- Langham WTW:** **-** Nitrate reduction schemes **- Langford WTW:** - Nitrate reduction scheme; - UV scheme for cryptosporidium management; - Additional clarifiers to ensure Langford WTW can treat Abberton Reservoir water as transferred via the new Abberton to Langford raw water pipeline; and - New Abberton Reservoir raw water pump to provide additional raw water pumping capacity. We have updated **Section 7.4 and 8.3** of our revised draft WRMP to reflect this response. We considered a treated water interconnector between our Essex and Hartismere water resource zones. However, this was discounted as a feasible option given the relatively small supply surplus in AMP8 in the Essex water resource zone and for resilience reasons in the event of an Essex WTW outage, particularly during a peak demand period. We have updated **Section 7** the main report to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
38	Recommendation 3: Progress development of new supply options so they are 'shovel ready' as soon as possible to mitigate the risks to security of supply and the environment in the preferred plan	Issue R3.1: The preferred plan has several significant risks that could result in supply-demand deficits.	The company should: • ensure the revised draft plan takes account of any decisions to accelerate its proposed supply schemes and takes steps to progress all supply schemes as quickly as possible to they are ready to be delivered as soon as they are needed	We have included demand management options in our preferred final plan that we are forecasting will reduce PCC, business demand and leakage in-line with national targets. There is a risk that PCC does not reduce in-line with our central forecast. Consequently, we have an adaptive pathway and programme which would require us to construct a Water Reuse Scheme near Southend in Essex should PCC outturn in-line with our high PCC scenario (i.e., above our central, most likely forecast). We will monitor PCC annually and report this in June each year as part of the WRMP Annual Review process. Given the uncertainty in reducing demand, it is important that we progress the detailed engineering stage of our WRMP24 preferred plan. In order to bring forward supply options, following publication of our draft plan, we applied for early funding through Ofwat's Accelerated Infrastructure Delivery project to allow us to start detailed engineering design. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for four of our supply schemes including Linford WTW and Borehole, Suffolk Strategic Network Enhancements, Lowestoft Reuse and North Suffolk Reservoirs. This means the earliest delivery date for the following schemes will be two years earlier than our draft plan indicated as follows: ▪ Suffolk Strategic Mains: 2028/29 ▪ Lowestoft Reuse: 2030/31 although it is now not selected until 2032/33 given Barsham nitrate reduction scheme is now included in our preferred final plan; and ▪ North Suffolk Reservoir: 2033/34 although it is not selected until 2040/41, when further Environmental destination sustainability reductions are implemented, unless we move to the North Suffolk reservoir adaptive pathway when it would be selected in 2033/34. The delivery date for Linford WTW and Borehole remains at 2027/28 because our draft WRMP assumed detailed engineering design would start in 2023 and not in 2025 as is the case for the other schemes. We have updated **Section 8.3.3** of our revised draft WRMP to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
39		Issue R3.2: The company's supply-side options are not well developed, and individual options might not be feasible or yield the assumed supply benefits.	The company should: • set out a detailed programme of work to urgently progress development of its preferred and alternative supply options • review the options decision making to consider if the proposed Lowestoft re-use option and the North Suffolk reservoir option could be used as a conjunctive use system to increase resilience or the deployable output • continue to work with Water Resources East (WRE) and neighbouring water companies to explore whether any new joint options can be progressed and to include new options as required in the revised draft plan	Please refer to our response to Issue R3.1 above. Additionally, we have considered if the proposed Lowestoft re-use option and the North Suffolk reservoir option could be used as a conjunctive use system to increase resilience or the deployable output. While both schemes are selected in both the core plan and the Habitats Regulation adaptive pathway, they are not selected at the same time with Lowestoft Reuse being selected in 2032/33 and North Suffolk Reservoir being selected in 2040/41 (driven by Environmental Destination). Both schemes have an individual WAFU gain although at this stage, we do not consider that there would be a conjunctive use WAFU gain. Once both schemes are in supply, Lowestoft Reuse could discharge into the reservoir as this will dilute nitrate concentrations which are likely to be elevated given the reservoir will be filled with high flow river water predominantly in the autumn and winter. We have continued to work with Water Resources East (WRE) and neighbouring water companies to explore whether any new joint options can be progressed. However, no new schemes have been identified. We have updated **Section 8** of the main report to reflect this response.
40		Issue R3.3: The need to make additional sustainability changes to meet statutory environmental obligations and deliver the company's environment destination are likely to require additional supply options in the medium to long-term.	The company should: • ensure the plan retains a surplus and licences operate sustainably by bringing forward options and if necessary, moving to an alternative programme in a timely way - see also Recommendation 9.	Since consulting on our draft Plan, the EA has asked us to include additional sustainability reductions in our revised draft supply forecast from 2026/27. The additional sustainability reductions only apply to our river, lake and groundwater abstractions within the Norfolk Broads Special Area of Conservation. The sustainability reductions are driven by the Habitats Regulations, are statutory and are an outcome of a judicial review to establish whether habitats and species within the Norfolk Broads Special Area of Conservation (SPA) are sufficiently protected. The EA is now reviewing all of its permitting decisions and will conclude its investigation to confirm the size of any additional sustainability reductions over the next 12 months. We will then update our supply demand balance to confirm the size of any resulting supply deficit. Given the uncertainty over what the additional sustainability reductions should be, we have agreed a worst-case scenario with the EA and presented the required plan to address the larger supply deficits as an adaptive pathway and programme. In addition to our preferred AMP8 plan which includes Lowestoft Water Reuse, the adaptive programme also includes the North Suffolk Reservoir and Caister Reuse scheme. We have updated **Section 3.3** of our revised draft WRMP to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
41		Issue R3.4: Options to reduce large treatment works and operational use losses (TWLOU) were not adequately considered/explai ned in the plan.	The company should: • set out the reason for the change in treatment works losses over the planning period and justification as to why losses cannot be reduced earlier in the planning period.	**Section 3.3** of our Draft WRMP24 Raw water and Process Losses Technical Report outlines where process losses have been recalculated whenever there is a loss of resource across the planning horizon as a result of Sustainability Reductions, including WFD No Det, Environmental Destination, and Habitats Regulations (in our Habitats Regulations Adaptive Programme). We have included these calculations in our Revised WRMP24 Raw Water and Process losses Technical Report to show how the figures, entered into the WRMP planning tables, have been derived. The relatively high process loss in the NCZ is largely driven by Ormesby WTW. All settled wash waters are eventually discharged back into Ormesby Broad and are therefore available for re-abstraction. However, the full deployable output of Ormesby Broad is reliant on this input, as identified from water balance modelling as part of previous WINEP investigations. Therefore, reducing this loss would not increase deployable output. This has been further tested and confirmed from recent modelling with our new Ormesby Aquator system model, which has shown the system to be licence constrained rather than resource constrained under the central scenario. We are therefore satisfied that accounting for this loss in our WRMP tables is appropriate. This explanation will be included in our Revised WRMP Raw Water and Process Losses Technical Report. We are currently developing a new Aquator model to cover all three of our Suffolk WRZ. This will incorporate all process losses and will replace the need to account for these losses in line 8BL of the planning tables.
42	Recommendation 4: Accelerate the delivery of demand options and other measures to manage the risk of deterioration in status of water bodies, including enhancing the pace of delivery of demand management measures and metering.	Issue R4.1: The plan does not demonstrate that it has considered all measures to help manage the risk of deterioration in status of water bodies.	The company should: • ensure the plan sets out how it will manage the risk of deterioration in status of water bodies. This needs to be at a highly granular level down to individual source level where the company is arguing it may want to delay licence changes or has identified it may require an exemption under the Water Framework Directive Regulations (2017) to continue abstraction • we expect the company to accelerate its metering, demand, and leakage proposals where these are needed to manage the risk of deterioration in status of water bodies and maintain abstraction within sustainable limits • given the importance of demand management in helping to hold abstraction to with sustainable limits whilst meeting	We recognise that there is a higher baseline risk of a deterioration in the status of water bodies in our Suffolk supply area and particularly so in our Blyth and Hartismere water resource zones which reply solely on groundwater abstraction. To minimise the risk, for our final plan, we have: - implemented a moratorium on new non-household demand in our Hartismere water resource zone which will remain in place until 2030 when our Suffolk Strategic Main and Lowestoft Reuse schemes are operational; and - applied for Accelerated Infrastructure Delivery funding to progress the detailed engineering design phases of the Suffolk Strategic Mains, Lowestoft Reuse and North Suffolk Reservoir schemes. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding and so we now envisage that this will bring forward the delivery dates of all three schemes by two years although this will be confirmed once the Accelerated Funding projects have refined the programmes. This is particularly helpful for the Hartismere water resource zone as it means the new strategic main will be in supply by 2028/29 and will allow some transfer into the Hartismere zone utilising the small surplus we have in the Northern central Water Resource Zone. This

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			forecast growth, the plan should provide more detail on how demand savings will be monitored, and action taken to stay on track/catch up if savings fall behind assumed targets • include any measures required to mitigate the risk of deterioration in status of water bodies for example catchment-based solutions • with reference to Recommendation 3, ensure all supply options are progressed to confirm feasibility and deliverability accelerated so that alternative sources of supply can reduce the company's reliance on sources that could risk causing deterioration in status of water bodies as soon as practicable.	will increase further once the Barsham Nitrate reduction scheme is in supply. We have reviewed whether there is scope for our preferred demand management options to further reduce the risk of deterioration of a water body as follows: **Smart Metering** Smart metering is an essential part of our strategy to reduce PCC, abstraction and therefore the risk of deterioration of a water body. We: - have prioritised our AMP8 compulsory metering and smart metering strategies in Suffolk so that all household and non-household properties are metered (i.e., billed on a measured supply) with a smart meter by 2030 (2035 for our Essex supply area); - are currently concluding our smart communication network and meter procurement activity and will rollout our smart communications network across both Essex and Suffolk in 2023/24. We will also increase resilience through contracting with 2 different smart meter providers from October 2023. - prioritising the Hartismere WRZ as the first area to have smart communications although we now envisage this will be in place in Q4 of 2023. We are also accelerating smart meter rollout in the WRZ with the ambition to install or replace smart meters at all domestic and Non-domestic premises by the end of AMP7. - currently exploring opportunities to contract with an install partner across Essex and Suffolk with a view to a long-term increase in install capacity. We now expect this will go live in Q1 2024. In the meantime we are on-boarding a tactical install partner to support an increase in install volume over the next 6 months. We have reviewed whether we can further accelerate delivery of our smart metering programme but have concluded that this is not feasible. This is because further accelerating the programme increases deliverability risks in terms of recruitment and meter and smart network procurement risks. For example, in AMP7, the shortage of microchips has slowed delivery of our smart metering programme. Consequently, our medium-term plans remain: - to accelerate the proactive replacement of both domestic and non-domestic traditional meters in the Hartismere water resource zone with smart meters connected to a smart network in 2024. Smaller scale rollout in Blyth and Northern Central will commence in 2024 and ramp up in AMP8; - to smart meter all 453 currently un-metered non-household properties in Suffolk by 31 March 2025; - Focus install activity in Essex on our leakiest DMAs; and - to compulsory smart meter from 2025 as outlined in our revised draft WRMP24.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
				We have updated **Section 7.3.2** of our revised draft WRMP to reflect this response. **Leakage** Leakage reduction will reduce the amount of water we abstract from the environment and therefore the risk of deterioration of a water body. Leakage from our network is lower than that forecast in our WRMP19 and amongst the lowest in the industry. Our preferred strategy in our revised draft WRMP24 remains to reduce leakage by 40% by 2050. We believe that this ambitious target is achievable but from a deliverability perspective, given the wider PR24 investment programme, only as a linear programme. Additionally: - A linear profile reduces deliverability risks, by allowing us to recruit and maintain teams across the full planning period. - Our customers supported our linear investment plan in our qualitative affordability and acceptability research – with a balance between (1) wanting to tackle problems now and (2) affordability. During 2022/23, we implemented several new technologies and techniques to help us achieve our leakage goals. We collaborated with industry experts to develop Digital Twins for ten of our District Metered Areas, which gave us a new digital tool to identify leaks on our network. We have implemented new AI sensor technology that makes our leakage detection surveys more efficient. We use our annual Innovation Festival to explore new concepts, such as "no-dig" repair techniques, and emerging sources of data that can enrich the insights we have now. Finally, we are leading on industry collaboration, as we develop the new National Leakage Research and Test Centre. This will be a 5km buried water pipe network purpose built for developing and testing leakage interventions without disrupting customers' supplies or affecting water quality. We continue to evaluate and optimise how we use Smart Meter data, as we build on the penetration of meters already deployed. We will continue to reduce leakage in line with our action plan. Consequently, we are forecasting that we will meet our leakage target of 15% reduction by 2024/25. **Water Efficiency** Water Efficiency is another important tool in reducing water use, abstraction and therefore the risk of deterioration of a water body. Our Non-Household (NHH) demand reduction strategy was not sufficiently developed to include in our dWRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment, and have included this in **Section 7.3.3** of our revised dWRMP24.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
				Our NHH water efficiency strategy delivers a 9% reduction in the demand of existing NHHs by 2038 from a 2019/20 baseline. The demand savings from our NHH strategy have been included in our final plan demand forecast. The water demand associated growth (new NHHs) is not accounted for as we do not have the confidence that this can be achieved with the high levels of non-household demand growth in this period. Our NHH demand reduction strategy includes options supporting our largest water users. This includes engagement with the new developments mentioned. Given the importance of demand management in helping to hold abstraction to sustainable limits whilst meeting forecast growth, we will monitor demand savings and report these as part of the WRMP Annual Review process. This will include monitoring: - abstraction; - non-household demand, particularly that of large users; and - water resource zone PCC We commit to taking action to stay on track/catch up if savings fall behind assumed targets.
43	Recommendation 5: Incorporate new information on likely sustainability changes in the revised plan.	Issue R5.1: Additional sustainability changes to some of the company's abstraction licences could be required to deliver the requirements of the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations).	The company should: • incorporate the risk and uncertainty posed by further sustainability changes into its revised plan • the company must include the abstraction reductions needed to meet the requirements of protected sites and plan for these changes to be made as soon as practicable once they are confirmed • ensure it has included options to provide replacement water once the sustainably changes are confirmed and for these to be progressed for the earliest feasible delivery date • the company should address this uncertainty in the plan by means of scenarios and adaptive solutions as needed.	The likely need for additional sustainability reductions to meet the requirements of the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations), was advised to us in a letter from the Environment Agency in November 2022, which was too late for their inclusion within our dWRMP24. Despite considerable uncertainty remaining about the scale and timing of potential reductions, following discussion with Environment Agency technical staff, we have added a new section into the Sustainability Reductions Technical Report (**Section 3.6**) covering the potential Habs Regs reductions and also amended **Section 3.3** within the main WRMP to include these potential additional sustainability changes.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
44		Issue R5.2: The plan needs to reflect the most up to date information on sustainability changes and WINEP.	The company should: • work with local EA teams to confirm the latest information on its WINEP and licence changes to prevent deterioration in status of water bodies • update its plan to reflect any changes to required sustainability changes and ensure it has a robust plan to deliver licence changes by the required dates.	We have checked and amended where necessary the Results sections within the Sustainability Reductions Technical Report (**Sections 3.1 - 3.5**) and **Section 3.3** of the main WRMP, to be consistent with the most recent spreadsheet of No Deterioration reductions as provided by the EA in March 2023 and the agreed outcomes of our AMP7 WINEP investigations and options appraisals, as contained within our Agreed AMP8 WINEP (as of 3rd July 2023).
45	Recommendation 6: Ensure the plan's per capita consumption meets the government's target of 110 litres per person per day by 2050.	Issue R6.1: The plan does not meet the government target of per capita consumption (PCC) 110 litres/head/day (l/h/d) by 2050 (dry year annual average scenario).	The company should: • confirm it will or will not achieve the 110 l/h/d target level in the dry year annual average scenario, update the plan to reflect what is likely to be achieved, and provide an explanation for any shortfall • explore whether any options could be included or altered to help it meet the target level and demonstrate the role government interventions has in this • with reference to Recommendation 4, we expect the company to include all measures to manage the risk of deterioration in status of water bodies, including acceleration of proposed demand management and metering options • ensure the plan narrative and tables align.	In our draft WRMP we reached the 110 l/hd/d target at a company wide NWG (both Northumbrian Water and Essex & Suffolk Water) level in line with current Ofwat reporting requirements. For the revised draft we have changed this to meet the 110 l/hd/d target in our separate operating areas of Essex & Suffolk and Northumbrian Water. We have also changed this to meet the target under a dry year scenario as well. We have updated **Section 8.10** of our revised draft WRMP to reflect this response.
46	Recommendation 7: Ensure the plan is meeting government expectations for leakage reduction.	Issue R7.1: The plan does not meet the government target of 50% leakage reduction from 2017/18 levels by 2050.	The company should: • explore whether any options could be included or altered to meet the 50% leakage reduction expectation • review its options to achieve at least a 50% reduction within the adaptive plan • provide further justification for not considering reductions beyond 50% • with reference to Recommendation 4 ensure all demand options are accelerated to manage the risk of deterioration in status of water bodies.	We have appraised various leakage reduction scenarios up to 50%. However, our preferred plan is to reduce leakage by 40% from the 2017/18 performance level by 2050. This is because our current leakage performance is near industry leading and we have already exhausted the cheaper leakage reduction options. To achieve a further 50% reduction we would need to replace significant proportion of our distribution network, placing an unfair cost burden on our customers. We also do not believe that it is technically feasible for us to reduce leakage by 50% by 2050 in some parts of our supply area as leakage would need to be reduced to a level never achieved in the UK or Europe. However, we support the industry target to reduce leakage by 50% by 2050 and so for the revised dWRMP24 we have committed to a 55% reduction in leakage by 2050 in our Northumbrian Water region so that we can achieve the national 50% target at a companywide level.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
				We have updated **Section 7.3.1** of our revised draft WRMP to reflect this response.
47	Recommendation 8: Include additional options to reduce non-household consumption and contribute to the Environment Act 2037/38 water demand target.	Issue R8.1: The plan does not reference the government target to reduce potable non-household demand 9% by 2037/38.	The company should: • review its approach to non-households to ensure it has robust plans to reduce consumption by 2037/38 in contribution to the water demand target • include a NHH efficiency programme in revised plan • consider additional options, in collaboration with retailers, to reduce non-household consumption, including the assessment of smart metering for non-households (if it has not already done so) • by exception, where reduction in non-household consumption is not considered possible this should be clearly justified • with reference to Recommendation 4 ensure all demand options are accelerated to manage the risk of deterioration in status of water bodies.	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This has been included in our final plan demand forecast. We will work collaboratively with retailers, local planning authorities and the Environment Agency to achieve this target as we will not be able to deliver this alone. The water demand associated growth (new NHHs) has not been accounted for as we do not have the confidence that this can be achieved with the high levels of non-household demand growth in this period. We have updated **Section 7.3.3** of our revised draft WRMP to reflect this response.
48	Recommendation 9: The mechanism for implementing the adaptive pathways should be clearly defined and set out in the plan, including details of how the company will decide it needs to move to an adaptive programme and the monitoring	Issue R9.1: The plan provides insufficient information on how it will apply its adaptive plan processes and ensure it will switch to an alternative programme in a Timely way.	The company should: • clarify how decision-making for the adaptive plan will be managed and explain how the move to an alternative programme will be triggered and how this decision will be communicated to customers, regulators, and stakeholders. This should include details of: • monitoring actions to track delivery of the preferred programme and known risks so that a decision to move to an adaptive programme can be made in good time • the actions the company will take to get	Our draft WRMP24 included the following adaptive programmes: - North Suffolk Reservoir (whereby detailed engineering design and further best value assessment conclude that North Suffolk Reservoir should be developed instead of Lowestoft Reuse); - High PCC (where PCC remains significantly above our central / most likely PCC forecast requiring the construction of Southend Water Reuse scheme); and - High Environmental Destination (where by AMP8 WINEP Environmental Destination investigations conclude that further sustainability reductions in line with the High (Enhanced Environmental Destination) scenario are required, thus needing Canvey Island Desalination scheme in addition to Linford (Core) and Southend Reuse (adaptive programme) schemes.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
	and reporting mechanism it will use to achieve this		back on track with its preferred programme • actions to be taken to reduce risk • decision making, reporting and governance processes for determining when to move to an alternative programme • how regulators, customers and stakeholders will be informed on when triggers are met within each adaptive plan and the subsequent decision taken and how they will be involved in the decision-making process.	We have updated **Section 8.8** of our revised draft WRMP and have re-confirmed the adaptive pathways and programmes. In addition to the draft WRMP24 adaptive programmes, we have included the Habitats Regulation Sustainability Reduction Adaptive Programme. This is required because the Environment Agency has asked us to allow for further sustainability reductions in relation to our abstractions from the Norfolk Broads Special Protection Area. This essentially brings forward the North Suffolk reservoir and Caister Reuse schemes that otherwise were not needed until the 2040's when longer term Environmental Destination sustainability reductions are implemented. We have also updated the monitoring plans to more clearly illustrate the review and change dates, as well as the triggers for moving to an adaptive programme.
49	Recommendation 10: Ensure the plan is legally compliant by adhering to the water resources management plan Directions.	Issue R10.1: Failure to comply with Direction 3© The company has not clearly set out what assumptions have been made to calculate annual probability of restrictions.	To resolve this, the company must: • clearly explain the assumptions used to estimate the risk of customer restrictions • explain how the measures in the plan change the levels of service through the planning period	We have updated **Section 2.5** of our revised draft WRMP to: - further explain the assumptions used to estimate the risk of customer restrictions; and - explain how the measures in the plan change the levels of service through the planning period.
50		Issue R10.2: Failure to comply with Direction 3(d) parts i, ii, iii, iv, v	To resolve this, the company must: • describe emissions of greenhouse gases for each current and future measure in the final plan (operational, capital, and total emissions and carbon costs) • describe how those emissions will contribute collectively to overall emissions specifically for Essex and Suffolk Water • confirm the steps the company intends to take to reduce those emissions • clarify how those steps will support the company's and the UK government's net zero targets and commitments	We have updated **Section 9.3** of our dWRMP24 to confirm our baseline greenhouse gas emissions and those of the options in the dWRMP24. We have restructured the section so that there is a sub-section for each of the clauses of the Water Resources Management Plan Direction 2022 as follows: (i) the emissions of greenhouse gases which are likely to arise as a result of each measure; (ii) how those greenhouse gas emissions will contribute individually and collectively to greenhouse gas emissions overall; (iii) steps we intends to take to reduce those greenhouse gas emissions and how they will support the delivery of our net zero greenhouse gas emissions commitment and that of the UK government. We have also signposted to the technical report where demand management option greenhouse gas emission information is presented.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
51		Issue R10.3: Failure to comply with Directions 3(f) part i and 3(h) part I The plan is not compliant with Directions 3(f) part i and 3(h) part i. The company is proposing universal smart metering in its zones as a preferred option. It is important that the impact of the company's metering proposals is clearly set out in the plan.	To resolve this, the company must: • 3(f) - clearly set out proportion of smart meters to other meters • 3(h) - provide a breakdown of the number of domestic premises with smart meters –clarify the description of the meter values provided in the planning tables • provide a breakdown of the number of domestic premises with meters that will not be charged by reference to volume	We have updated **Section 7.3.2** of our revised draft WRMP to: - 3(f) - clearly set out proportion of smart meters to other meters; - 3(h) - provide a breakdown of the number of domestic premises with smart meters – clarify the description of the meter values provided in the planning tables; and - provide a breakdown of the number of domestic premises with meters that will not be charged by reference to volume.
52		Issue R10.4: Failure to comply with Direction 3(m) part I The plan is not complaint with Direction 3(m) part i. The company needs to clarify the basis of the leakage reductions forecast in the plan.	To resolve this, the company must: • calculate leakage reduction based on the correct base year The company should: • clarify throughout the plan any references to base year against which leakage reduction is being assessed	We have updated **Section 7.3.1** of our revised draft WRMP to: - calculate leakage reduction based on the correct base year; and - clarify throughout the plan any references to base year against which leakage reduction is being assessed.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
53	Improvement 1: Improve the assessment of outage and demonstrate that the proposed outage allowance is operationally feasible and does not risk security of supply.	Issue I1.1: The company's outage assessment lacks clarity, including how available sources of data have been used to justify the outage allowances in the plan.	The company should: • document the outages that it has considered as part of its outage assessment, this should include both historical and perceived outage risks and any filtering to remove outages where these would not cause a reduction in deployable output • present its assumptions as to how these outages have been representing in statistical modelling (e.g., duration, magnitude, frequency) including statistical interdependencies between individual outages • report on how it has used its systems model for derivation of outages for inclusion within its statistical modelling • improve its collation of outage data and establish an outage recording database in which outages data such as duration, magnitude and cause are recorded. This will enable the company to document outages and to filter out those which do not contribute to a loss of deployable output • identify perceived risks that might impact deployable output – particularly during periods of drought, for example poor water quality or algal blooms. Identification of such risks might be obtained from workshops including key operational staff • where the company is unsure if an outage would result in a loss of deployable output, the company could use its system model to test plausible impacts of asset outages in order to define input parameters for the statistical model • once the company has compiled robust input data for its outage data (frequency, duration, and magnitude of reduction of deployable output), the company will be able	We confirm that we already have a well-established system for collation outage data which was further developed for the unplanned outage Performance Commitment. As set out in **Section 4.1** our Draft WRMP24 Outage Technical Report, we have conducted a review of our approach to assessing outage allowance, including the data assessment stage, so that we appropriately tailor the allowance to represent the 1 in 200/1 in 500 year DYAA scenario. This has resulted in a change to the way in which we calculate outage magnitude at our groundwater sites, so that for our Revised WRMP we have done this on a site-by-site basis, using the drought deployable outputs of each WTWs, before the data is assessed with the Monte Carlo simulation. These changes are detailed in our Revised WRMP24 Outage Technical Report and summarised in **Section 3.7** our WRMP24 Main report.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			to undertake its outage assessment without using drought year adjustments • ensure consistent methodologies across resource zones or provide a thorough justification for the use of different approaches and explanation of resulting differences in calculated outage allowances • increase the data period used in Suffolk resource zones as suggested in the Outage Allowance technical report	
54		Issue I1.2: The outage allowance applied in the plan is low and there is insufficient evidence to justify this assumption	The company should: • demonstrate that it is operationally feasible to postpone all planned outage during severe drought events and that these will not affect the ability to refill its reservoirs in the lead up to a severe event. This should include identifying any planned works which cannot be safely delayed and reassess outage accordingly. The company should include worked examples to demonstrate how this will be delivered in practice • set out how the company will recognise an emerging 1:500 drought scenario in real time to allow for timely postponement of planned works • assess the risk and impacts of a rise in unplanned outage due to postponement of planned works • reassess the zero unplanned allowance assumption for the 1:500-year drought scenario and explain more clearly why unplanned outage risks will not affect the company's deployable output • consider whether the risk profile should be raised from the 90th percentile to account for greater uncertainty resulting from delaying planned outage during a severe drought event • accelerate supply options to manage the	As set out in **Section 4.1** our Draft WRMP24 Outage Technical Report, we have conducted a review of our approach to assessing outage allowance, including the data assessment stage, so that we appropriately tailor the allowance to represent the 1 in 200/1 in 500 year DYAA scenario. This has resulted in a change to the way in which we calculate outage magnitude at our groundwater sites, so that for our Revised WRMP we have done this on a site-by-site basis, using the drought deployable outputs of each WTWs, before the data is assessed with the Monte Carlo simulation. These changes are detailed in our Revised WRMP24 Outage Technical Report and summarised in **Section 3.7** our WRMP24 Main report. Whilst our revised outage allowance figure for Essex WRZ is still lower than that presented in our WRMP19, we feel this is justified, as we have now accounted for the integrated nature of the raw and potable water networks in this zone, which provides resilience under a drought scenario. Additionally, the base and enhancement investment we have / will be making in AMP7 means that outage will be marginally lower.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			risks in the preferred plan from assuming a very low outage allowance -if operational experience indicates outage at a higher level than forecast, we expect the company to deliver alternative supply schemes to reduce the risk to security of supply using its adaptive plan process (see Recommendation 7) • set out further details of how it will monitor and report its outage performance and how it will trigger delivery of alternative options as part of its adaptive plan	
55	Improvement 2: Provide a clearer explanation of how the company has defined its headroom allowance and how it will manage the risks to security of supply form adopting a very low headroom allowance in the Essex resource zone.	Issue I2.1: The headroom allowance applied in the plan is low and there is insufficient evidence to justify this assumption.	The company should: • demonstrate that the Essex resource zone is highly resilient and that the selection of a lower headroom allowance than for other resource zones is justified • ensure that the plan has a clear, transparent, and robust process for monitoring the success of demand management measures and that a move to an alternative programme will be triggered in a timely way to ensure risks to security of supply are managed	The Essex WRZ has a good degree of interconnectivity and flexibility in supply. The Abberton raw water pipeline will provide an integrated raw water network in which Abberton Reservoir (2-year storage) will be combined with Hanningfield Reservoir (1-year storage) to provide overall storage of more than one year. The treated water network is also very well integrated compared to many other resource zones in the UK. In addition to this, our planned outage reduction resilience schemes, included in our Revised draft WRMP Preferred Plan, including nitrate removal at Langford and Langham WTW, and UV treatment for Cryptosporidium, will further improve resilience. As part of our Least Cost and BVP assessments we have also undergone a high level of sensitivity testing of our plan to determine what changes would be required under several 'adverse' scenarios, including high climate change, high demand, high environmental destination, slow technology development, lower (30%) leakage reduction, high PCC (low Water efficiency), as well as our Has Regs and Best Environment Adaptive Programme, which is an additional Adaptive Programme presented in our revised draft WRMP. We feel that this level of sensitivity assessment ensures that we are planning to adapt to a range of potential futures and compliments our Target Headroom assessment. We will monitor demand savings and report these as part of the WRMP Annual Review process. This will include monitoring: - abstraction; - non-household demand, particularly that of large users; and - water resource zone PCC We commit to taking action to stay on track/catch up if savings fall behind assumed targets.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
				Section 8.8 of the main report has been updated to provide more detail on the monitoring plan and the triggers for moving to the High PCC adaptive programme.
56	Improvement 3: Publish an improved Strategic Environmental Assessment (SEA) that links clearly with the WRMP, showing the environment is protected.	Issue I3.1: The SEA Environmental Report lacks clarity with the result that there are several potential issues regarding its effectiveness and compliance with the SEA Regulations.	The company should update the SEA considering the following points: • clearly outline of the objectives of the WRMP and its content -including specific confirmation as to which 'best value' plan is being taken forward • demonstrate clearly how the SEA has influenced option assessment and selection for its preferred plan • clearly outline the study area for the SEA and describe the characteristics and potential future changes of that area • clearly outline and justify the technical and temporal scope of the SEA, reflecting the full duration of the WRMP period • clarify the cumulative and in combination effects assessment of the draft WRMP – extend the scope of the PPP review to consider the issues arising in the regional plan and other neighbouring water company WRMPs • clarify how significance and the different scales of effect are determined • clarify uncertainty by clearly setting out assumptions and limitations - it is particularly important to recognise that there are significant uncertainties regarding the deliverability of certain options that could entail HRA and WFD compliance issues • evidence more clearly that all feasible alternatives have been considered - a least	We have reviewed and updated the Environmental Report in several key areas to address these comments, including to: - improve the clarity of wording to make it easier to understand, use acronyms sparingly and include more detail about the WRMP and WRE approach to help give context; - add clarity to the methodology section regarding how permanent & temporary effects -and direct & indirect impacts are covered; - add clarity to the IEA Objectives being considered, sign post the objectives where necessary; - review and refine the definition of scope of the SEA in terms of Study Area as well as technical and temporal scope; - review and update the Plan, Policy and Programme review and map them against the SEA objectives more definitively; - add detail to the High-Level Screening process and the methodology section which shows how SEA metrics are fed into the Best Value Planning approach; - give more detailed consideration to mitigation measures; - add clarity to the methodology section of the cumulative assessment, utilising the other WRMP reports where suitable; - update the cumulative assessment to reflect WRE wide considerations; and - review and update the non-technical summary in line with the above. We have updated **our Environment Report** to reflect this response.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			cost and best environment and society alternative should be covered • more detailed consideration should be given to efficacy and feasibility of securing appropriate mitigation	
57	Improvement 4: Ensure that options, including those on adaptive pathways, are clearly described and consistently referenced throughout the plan.	Issue I4.1: The description and referencing of options are unclear and inconsistent in the plan and supporting technical documents. This makes it hard to follow which options are needed under different scenarios.	The company should: • ensure the plan clearly sets out the proposed options and includes information on what each option entails • describe and reference options consistently throughout the plan and supporting technical documents • update the adaptive plan graphics to ensure adaptive pathways clearly show all options that apply when an adaptive path has been triggered • work with WRE and neighbouring companies to ensure that any changes made to the options description or details are reflected in the regional plan and individual company plans	We have updated **Section 7.4** in the revised dWRMP and in the revised WRMP24 Least Cost Technical Report to further describe the options. We have also reviewed option names and reference numbers so that they can be easily cross-checked across all sections of the WRMP24 main report and in the technical reports. All adaptive pathway info-graphs have been updated to reflect the associated programmes.
58	Improvement 5: Provide clarity on leakage data.	Issue I5.1: Some aspects of the leakage forecast, data and reporting used in the plan requires clarification and improvement.	The company should: • clarify the baseline year and data used for the leakage forecast – the information should be easy to locate and consistent throughout the plan • ensure the plan narrative and tables align • ensure USPL has been included correctly in planning table 3b, or provide further explanation to confirm the data has been entered appropriately in the tables and how values can be reconciled	We can confirm that the 2017/18 performance data has been used as the baseline for all leakage targets, this has been updated in all the tables and reports to reflect any changes. We are confident our plan narrative and tables align and that USPL has been included correctly in planning table 3b of our revised draft WRMP24.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
59	Improvement 6: Improve the assessment of carbon costs and emissions in the plan.	Issue I6.1: The assessment of carbon costs and emissions in the plan requires further development. Some aspects have not been considered, or evidence has not been presented.	The company should: • update the total carbon costs calculated for its options and explain how they have been compiled • report that there is a level of uncertainty associated with carbon data in the plan and set out how this will be minimised • clarify if and how carbon cost and emissions have been considered in the company's decision making and consider carbon impact as a criterion for evaluating the best value plan • include carbon emitted by third parties, or reference this more clearly if it is already included in assessments but not separately presented	We have updated **Section 9.3** of our revised draft WRMP to: - update the total carbon costs calculated for its options and explain how they have been compiled; - report that there is a level of uncertainty associated with carbon data in the plan and set out how this will be minimised; - commented on carbon emitted by third parties. **Section 8.2.2** confirms how carbon cost and emissions have been considered in the company's decision making and consider carbon impact as a criterion for evaluating the best value plan
60	Improvement 7: Improve the approach used for accounting for climate change impacts	Issue I7.1: The approach to assessing and presenting information about the climate change impacts on its sources and supply forecast in the plan lacks evidence and justification in places.	The company should: • provide justification for the difference in granularity of DO impact assessments between surface and groundwater • use system response for scenario selection and drought event selection rather than rainfall metrics • evidence the robustness of the approach – for instance, by testing the full timeseries for the central scenario • state the WRZ/area to which climate impacts are presented for • undertake a BVA or reference the use of the BVA outputs from WRMP19 if applicable • provide consistent and correct naming of the climate change scenarios and products used • provide a more detailed description of the assessment of the UKCP18 Probabilistic to demonstrate an understanding of the full range of potential impacts • provide additional detail of the climate change modelling using the probabilistic	We have updated **Section 6** of our revised draft Supply Technical report to: - provide justification for the difference in granularity of DO impact assessments between surface and groundwater - use system response for scenario selection and drought event selection rather than rainfall metrics - evidence the robustness of the approach – for instance, by testing the full timeseries for the central scenario - state the WRZ/area to which climate impacts are presented for - undertake a BVA or reference the use of the BVA outputs from WRMP19 if applicable - provide consistent and correct naming of the climate change scenarios and products used - provide a more detailed description of the assessment of the UKCP18 Probabilistic to

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			projections, including choice of sampled scenario for the RCP2.6 and RCP8.5 scenarios • note how/whether assessments have considered impacts linked to sea level changes – if not assessed, justification should be provided with an indication of what future work will consider this risk	

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
61	Improvement 8: Review resilience in the context of the 2022 drought.	Issue I8.1: The company should learn from any issues the company experienced in the 2022 drought and ensure these are used to inform its plan and investment needed to ensure resilience of supplies	The company should provide a clear narrative on how experiences from 2022 have been considered in the plan where appropriate, including: 1. how could resilience be improved 2. temporary new schemes which could be permanent 3. newly identified drought options 4. if assumed benefits of drought actions reflect latest understanding 5. changes to levels of service 6. updating DO where understanding improves around source responses to drought 7. reviewing dead/emergency storage assumptions accurate 8. demand forecast assumptions including extent/duration of peak demands 9. need for critical period planning 10. schemes to improve connectivity and WRZ integrity 11. investment to remove infrastructural/operational constraints 12. bulk supply agreements & pain share 13. appropriateness of outage forecast • note that the drought plan will require an update if experience has identified issues with the current drought management procedures and measures • review the assumption that non-household use will not be affected by climate change • the company could usefully provide any information available on non-household use or requests for supply because of the drought • the company could usefully provide its assessment of the impact of its drought communications and appeals for restraint on demand.	We have included a review of the 2022 drought and lessons learnt in a separate **Technical Report entitled 'Lessons learned from Drought 2022'**. This will be submitted with our revised draft Plan. We enacted our Drought Plan in 2022 and implemented a number of Level 1 drought actions including making an appeal for constraint. However, we did not need to implement a Temporary Use Ban. We have reviewed the lessons learnt from post-drought industry workshops and will apply these in future dry weather / drought.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
62	Improvement 9: Review Environmental Destination and alignment with any changes to the regional plan considering comments to Water Resources East's draft regional plan.	Issue I9.1: Inclusion of catchment-based options	In addition to sustainability reductions, we expect to see: • complimentary catchment and nature-based SOLUTIONS included in the plan to deliver environmental resilience • pilot schemes implemented to test and understand the potential benefits where there is believed to be insufficient evidence of the benefits of certain types of nature-based solutions	We have reviewed the figures included within our WRMP24 for Environmental Destination. We have updated Table 24 in **Section 3.4** of our revised draft WRMP to reflect this response. In terms of catchment-based options, our deficits are of a size where we need to find significant new sources of water and we need certainty over the deployable output of the schemes identified. We have investigations in our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) to address some of the more holistic water management opportunities that might be available and appropriate, but these are likely to be several relatively small-scale interventions with uncertain outcomes in terms of water gain. As we move from option concept to detailed design, we will look to identify opportunities to build catchment and nature-based elements into some of our bigger schemes.
63		Issue I9.2: Timings for Environmental Destination (ED) implementation should be reviewed and should reflect recommendations made for the regional plan.	The company should: • ensure that its plan reflects the recommendations made in the WRE regional plan and continue to work with WRE, other water companies and the EA to resolve them • ensure that decision-making for the plan accounts for the likely need to make further sustainability changes to deliver the environment destination and ensure the selection, timing, location, and size of options in its preferred programme and adaptive pathways present low regret and good value investments. The plan should demonstrate how selected options will meet both known short-term (e.g., no deterioration in status of water bodies) and likely long-term requirements to reduce abstraction to deliver environmental improvements (e.g. environmental destination)	We recognise that we still have further work to do to refine and increase confidence in the scale, location and timing of abstraction reductions required to meet the agreed Environmental Destination outcomes. We have agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where appropriate. Our intention is that our AMP8 investigations will give us and WRE more confidence around Environmental Destination ahead of PR29. We have updated **Section 3.4** of our revised draft WRMP and our Environmental Destination Technical Report to reflect this response.
64	Improvement 10: Clarify levels of service so that they are clear to customers.	Issue I10.1: Levels of service require clarification in the plan. There are changes in level of service partway through the plan	The company should: • explain the distinction between planned and actual level of service and clearly set out how this will change over time and between different resource zones • confirm how levels of service apply to non-household users and how/if this will change as the moratorium on new non-household	Since our draft WRMP, we have reviewed and revised several inputs to the WRMP tables, including updated DO assessment for the Essex WRZ (detailed in our Revised WRMP24 Supply Forecast Technical report), and our Suffolk groundwaters (detailed in our Revised WRMP24 Groundwater DO Technical Report). We have also included new outage reduction options in Essex and Suffolk and subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding to bring forward the delivery dates of our options so that we can start detailed engineering design in 2023.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
		which are briefly covered but not fully explained or reflected in planning table 2f. (See also Recommendation 10)	use is lifted • include an explanation in the plan of how level of service changes will be communicated to customers • ensure that its drought plan is updated when and if changes to levels of service are confirmed. This includes updating drought triggers so the assumed benefits to supplies will be delivered as planned	Considering our experiences in the 2022 drought, we have also reviewed and amended the assumption in our modelling of the effective period for L1 and L2 demand reduction actions, extending it to include April, May, and November (as detailed in our Revised Supply forecast Technical Report. This has marginally increased the benefit from demand reductions assumed in our SDB for Essex. The culmination of all the revisions to our revised WRMP23 assessments, means that we no longer need to reduce our planned Loss to customers in Essex, and so now are unchanged from WRMP19. However, we will retain the reduced Levels of Service proposed in our draft WRMP for our Suffolk region, as we feel this is appropriate given the need for the moratorium on new non-domestic use in Hartismere, and the assumption that we will be granted a delay to the imposition of WFD No deterioration sustainability reductions, also in Hartismere. We will update **Section 2.5 and 8.2.4** of our revised draft WRMP main report, and our Revised WRMP Supply Forecast Technical Report to reflect this.
65	Improvement 11: Expand the information relating to New Appointees and Variations (NAVS) in the plan.	Issue I11.1: There is limited reference to existing and/or potential New Appointees and Variations (NAVS) within the plan	As part of development of the final plan we suggest that the company: • set out how it will align plans, including working with NAVS to ensure messages on leakage and per capita consumption are aligned • set out the process it will use to negotiate bulk supply contracts with NAVS • work with NAVS to ensure customers fully understand the service levels that can be expected • set out assumptions about future NAV applications and how these are(/not) reflected in supply and demand forecasts	We have updated **Section 6.3** of our Demand Forecast technical report to include further information regarding our NAVs.
66	Improvement 12: Improve the quality of submitted data and documents.	Issue I12.1: Data tables	The company should: • review its data quality assurance processes • update table 1b to include detail of all relevant licences and associated deployable output • update tables 1f and 1g to include details of existing transfers • for all zones, review transfers between ESW resource zones and ensure that they are an exact match, for both existing transfers and transfer options • in table 5, list and itemise all preferred	We confirm that our revised draft WRMP24 planning tables have been populated taking account of all the points in this EA response and that they have been fully audited.

SoR Ref	EA Recommendation	EA Issue	EA Expectations	NW Response
			options that provide supply or demand benefit in the DYAA scenario in table 3b - this includes amendments to existing transfers (provide as a negative figure in table 5 if an export is increased/import is reduced), all drought measures, and level of service adjustments • level of service adjustments should be presented in 6.3FP, and transfer benefit should be presented separately in either 2.1, 3.1, 4.1 or 5.1FP. Please refer to the updated table instructions if needed to ensure option benefits are presented in the correct row in table 3b • take note of the updated tables guidance, and additional guidance provided subsequent to this response, when revising data tables	
67		Issue I13.1: Report and technical documents	The company should: • update the revised plan thoroughly to reflect numerous changes that have been considered since submission of the draft plan • note that this is a consultation document for customers to access - on that basis it is recommended that it is drafted with that audience in mind • reference the relevant technical report(s) or data tables when referring to assessments not fully covered in the main report • proofread documents before submission • provide explanation to support charts and figures	We confirm that we have taken account of each of the points in this EA response in preparing our revised draft WRMP24 reports and planning tables.

SoR Ref	Consultee	Consultee Response	ESW Response
68	P. Layzell	I am a customer of yours and am concerned about the impact of water overuse on the rivers in our area, and beyond across the region. Your draft Water Resources Management Plan recognises these threats but does not go far enough towards resolving them. The plan must commit to greater action to tackle excess use and its causes. This is vital to ensure that future water supplies are sustainable in the face of a changing climate and growing population, and are secured with minimal impact upon local rivers, lakes, wetlands and wildlife. I add my voice to the calls for more sustainable water use. I want to see your plan: Prioritise nature: Ensuring that having enough water in our rivers to support healthy and abundant wildlife is a top organisational priority, Reduce water use: Helping households and businesses save water and supporting vulnerable customers, and significantly reducing leakage, Use win-win natural solutions: Prioritising nature-based solutions - like wetland creation - to help tackle flooding, pollution, and replenish water supplies, making sure every project improves wildlife.	Our WRMP24 sets out how we intend to maintain a secure supply of water for our customers and businesses while protecting and enhancing the environment. Our preferred final plan takes a twin track approach and includes ambitious demand management options to: - reduce leakage from our network by 40% by 2050; - reduce household per capita consumption to 122l/head/day by 2038 and to 110l/head/day by 2050; and - reduce business demand by 9% by 2038 (excluding growth) It also includes new supply schemes which will provide additional water supplies. The demand savings and new supply schemes will allow us to reduce the annual licensed quantities on our existing abstraction licences to ensure abstraction remains sustainable. Behavioural change is an important part of reducing water use and therefore reducing abstraction from the environment. Our preferred final plan includes the compulsory metering of all household customers (~70% of our customers are already metered) by 2030 in Suffolk and 2035 in Essex and that all meters will be smart meters by 2035. Smart meters will provide customers with more detailed data on their water consumption and will allow them to make more informed decisions about how they use water and ultimately reduce their consumption. We will also use the data to focus our water efficiency programmes on "high user" customers and will support them in reducing their water use. Our revised draft WRMP24 also includes a water efficiency programme to support non-household customers in reducing their existing demand.
69	Thurrock Council	We agree wholeheartedly with the statement that Essex is likely to become more stressed because of climate change but also because of increases to the population. However, we feel that the demand projections set out relating to population growth/number of households are very conservative estimates and do not properly reflect the likely levels of growth that will come forward within the plan area to 2050. The South Essex Housing Needs Assessment 2020 (Published in February 2022) indicates that there is a need for 4,621 additional homes per year (this study covers Basildon, Brentwood, Castle Point, Rochford, Southend on Sea, and Thurrock). Yet your plan only assumes 8,638 across the whole of your supply area. Housing need in planning terms is calculated using the Government's standard method we would recommend that the household growth projections used in your plan reflect these figures rather than ONS projections.	As per the Water resource planning guidelines we are directed to use the Local Authority Housing Plan (LA) projections rather than Housing Need (HN). However, we have included in our scenario testing a projection using Local Authority Housing Need to ensure our plan can reflect these figures as well. On average, for Essex, the LA and HN projections have both resulted in a 22.0% increase in total population to 2049/50. Please refer to **Section 4** of the Demand Forecast technical report for more information regarding our population forecasting and where comparisons have been made against the ONS growth projections.

SoR Ref	Consultee	Consultee Response	ESW Response
70	Thurrock Council	We are unsure as to how the increase in non-household water demand has been calculated and whether it fully factors in opportunities for emerging technologies i.e., hydrogen energy – which would require approximately 5 metric tonnes of water a day per megawatt of electrolyser capacity. Thurrock has a very buoyant local economy with 3 international ports, as well many businesses specialising in advanced manufacturing, logistics and energy – lots of these businesses are nationally significant and depend upon adequate water being made available to support their functioning. We are not sure whether or not anchor institutions such as the Ports have been contacted directly but we would recommend reaching out to them to get a market view of the non-household growth projections – if needed we can facilitate this conversation as we will be engaging with them on various bits of technical evidence supporting our emerging Local Plan.	To understand our current and future NHH demand we began by analysing our current NHH demand at an industry sector level. We contacted all Local Authorities located within our operating areas to request information they hold on new NHH developments and growth. In addition, we also contacted all our large users (customers that use >20,000m3 per year) requesting the provision of expected changes to demand in the short and medium term. Specialist consultant Ovarro DA Ltd (Ovarro) were employed to provide a non-household demand forecast for each water resource zone using the Local Authority and Large User data we provided, together with our non-household consumption data from the last five years and our population and property forecasts. In addition to the data we provided, Ovarro used employment and Gross Value Added (GVA) ONS data along with large scale commercial project search data to create the demand forecasts. Ovarro used the consumption data for each water resource zone, and this was split into three segments in order to analyse underlying trends in different industry sectors. Large known new demands likely to start in the next few years, such as the construction and operation of power generation plants have also been applied on top of the base forecast derived from historical consumption. Please refer to **Section 6** of the demand forecast technical report for more information on our NHH forecasting.
71	Thurrock Council	We feel that the assumptions being made about behavioural change to water use are overly optimistic and should be reduced for this version of the plan and reviewed in 5 years' time when there is more detailed trend information regarding the impact that mandatory water metres and other water efficiency measures.	Consumption savings resulting from compulsory metering have been treated like savings for selective metering (change of occupier), using data from historically selective metered customers in our Essex region. With regards to behaviour change saving assumptions related to water efficiency interventions, we have used the UKWIR Project WR25: Cost Benefit of Baseline Water Efficiency Activities, which provides industry-agreed assumptions. As part of our Water Efficiency Strategy, (see **Section 7.3**) we continue to actively focus on measurement and assessment of behaviour change which, whilst we acknowledge is difficult, will continue to refine our understanding. We also use data from Thames and Anglian who have mature smart rollout programmes and therefore provide confidence in our assumptions.
72	Thurrock Council	Within the last year there have been several quite considerable leaks occurring within the borough because of aging infrastructure. Leaks appear to relate to both pipes and drains owned by either yourselves or Anglia Water. This leads us to believe again that the reduction in demand from this area is somewhat optimistic.	The forecast leakage reductions are challenging but we have made good progress in AMP7 and we will continue to learn and improve as we move towards our long-term targets.
73	Thurrock Council	In Thurrock we have large areas that are affected by surface water flooding at certain points of the year and drought conditions at other points. We are commissioning a new water cycle study for the	We will be pleased to input into Thurrock's Water Cycle Study and will arrange a meeting in the Autumn. However, in the meantime, please do contact us via waterresources@nwl.co.uk to arrange an earlier meeting.

SoR Ref	Consultee	Consultee Response	ESW Response
		borough one of the things we will be exploring as part of this is whether there any opportunities to store water to help manage flood risk. Some of these locations may be appropriate for more formalised water management solutions and we would welcome the opportunity to talk to yourself about whether or not you would be supportive of our approach.	
74	Thurrock Council	Over the last few years Members of Planning Committee and other elected Members have indicated that they would like more engagement from yourselves and Anglian Water in local planning processes (determining planning applications and plan making). We would ask that the draft WRMP makes specific reference to the need for ongoing meaningful engagement between yourselves and local planning authorities.	We have updated **Section 1.4** of our revised draft WRMP24 to confirm that we support meaningful engagement with local planning authorities.
75	Arqiva	The importance of advanced smart metering in water resource management. We welcome Essex and Suffolk Water's focus on smart metering and encourage an ambitious approach to the rollout of AMI from AMP8. AMI provides water companies with hourly data on the amount of water delivered to a property, 24 hours a day, 7 days a week, with data transmitted securely from water meters to water company data centres. This level of insight enables water companies to deliver a range of benefits such as AMI enables companies to detect more leaks across their network and respond quickly, AMI helps empower consumers to reduce PCC and household bills, AMI could prevent 1 billion litres of water a day from being wasted by the mid-2030s, lowering carbon emissions, AMI delivers wider economic benefits through improving operational efficiency.	Our current strategy is to install only smart meters in our optant, Whole Area Metering (WAM), selective and replacement programmes. These meters can be read in AMR mode or AMI mode (where a Smart Communications Network (SCN) is installed). All meters installed are therefore classified as 'smart' based on the definition outlined by Ofwat. However, until a meter is covered by a SCN it remains in AMR mode and is read manually. We have a smart network in one area of Essex and further smart networks will be rolled out across the entire Essex & Suffolk water region over the remainder of AMP 7 and into AMP 8. **Section 7.3.2 updated**
76	Babergh Mid Suffolk Council	Q2 & Q5 - Through a Statement of Common Ground with Essex and Suffolk Water dated October 2020 to support the Babergh and Mid Suffolk Joint Local Plan, Essex and Suffolk Water commented that the supply headroom in its Hartismere Water Resource Zone (WRZ) had now been exhausted by new non-household demand and so this would affect future non-household development. Draft Policies in the Joint Local Plan were subsequently published to reflect this position. Since this date, the period for when new strategic infrastructure will be delivered has changed to 2032 and a moratorium for new non-household water supply has been	We have updated **Section 8.5** of our revised draft WRMP24 to clarify what is meant by a moratorium. In summary, this means that: - businesses should not plan to increase their water use if it is for non-domestic purposes; and - we are unable to approve applications for a new mains water connection where the water will be used for non-domestic purposes. There are a large number of non-domestic uses of water although we have specifically singled out water that will be used for: - manufacturing or processing;

SoR Ref	Consultee	Consultee Response	ESW Response
		introduced. However, in response to a recent planning application, Essex and Suffolk Water suggested a Grampian condition could be used to enable non-household development to take place, as long as the applicant could supply their own water or they could abstract a de minimis amount daily from groundwater. This adopted a different position to the one first understood and questions the use of the term moratorium, as non-household development can still occur, albeit a new connection or increased quantity of water from Essex and Suffolk Water is not possible. Therefore, it is requested that the draft WRMP is clearer in **Section 8.5** of the main report on what the moratorium means for new planning applications. The draft WRMP states 'we have introduced a limited moratorium on new non-domestic supplies in the Hartismere area until 2032' and earlier in the report says this is for 'non-domestic purposes such as manufacturing and processing'. Much greater clarity is required on the non-domestic purposes that are affected and the potential solutions that can be delivered through these developments to reduce the need to use water from Essex and Suffolk Water. This can be done through a detailed guidance note and greater clarification in the draft WRMP.	- irrigation of plants - livestock production - cooling However, it is easier to confirm what domestic use is and to assume that all other uses is non-domestic. Domestic use is water that is used in a residential dwelling or in a business or public place (e.g. school, hospital, library) for welfare including but not limited to for staff / public toilets, staff / public bath / showers and staff kitchens / canteens. We will continue to work with Mid-Suffolk on this definition over the coming months. Since the publication of our draft plan, Ofwat has allowed, subject to review of our progress on our AMP 7 enhancement programme, PR24 transition expenditure funding for schemes in its Accelerated Infrastructure Delivery project. The funding is available from 2023 which means we can start detailed engineering design on our new Suffolk supply schemes two years earlier than otherwise would have been the case. Consequently, it is possible that Lowestoft Reuse can be delivered by 2030 in which case we would lift the moratorium in 2030 and not 2032. From 2025, we plan to support existing business to reduce their water use by 9% by 2038 through the provision of water efficiency advice. However, in terms of new development between now and 2030 when our new supply schemes come on line, it is the developer's responsibility to identify solutions for ensuring that they are mains water neutral.
77	Babergh Mid Suffolk Council	Q6 - In **Section 8.5** of the main report, a commitment is made to making all reasonable endeavours to meet the non-domestic demand in Hartismere earlier than 2032, through potentially accelerating 'delivery of new strategic treated water pipelines that connect the Hartismere WRZ to Northern Central WRZ (currently 2030)' and if the Lowestoft Water Reuse scheme can be delivered earlier than 2032. We would request that there is a commitment to review these activities annually to maximise opportunities for these to be delivered earlier and to explore funding opportunities to ensure that economic development can take place in a sustainable manner, to support job creation and retention in the area affected by the moratorium.	Since the publication of our draft plan, Ofwat has allowed PR24 transition expenditure funding for schemes in its Accelerated Infrastructure Delivery project. This includes the following schemes in our Preferred final plan: - Suffolk Strategic Mains - Lowestoft Reuse - North Suffolk reservoir The funding means we can start detailed engineering design for these schemes two years earlier than otherwise would have been the case which means their delivery dates have also been brought forward. We are now forecasting that the strategic mains will now be in supply in 2028/29 which could allow some water to be transferred into the Hartismere water resource zone, thus allowing some of the unmet demand to be met - this would be done on a first come first served basis with those applications already received being supplied first. The Lowestoft Reuse scheme is now forecast to be in supply in 2032/33 and this will allow a full lifting of the moratorium on new non-domestic supply applications. The programmes for these schemes will be kept under continual review and it is

SoR Ref	Consultee	Consultee Response	ESW Response
			possible that there could be some movement as detailed engineering design progresses. We will formally report this in our WRMP Annual review report which is submitted to the Environment Agency every June. **Section 8** of our revised plan has been updated to reflect this response.
78	Wave Utilities	It is acknowledged that the NHH customer base accounts for a significant percentage of total water demand. We do not feel that your WRMP fully recognises this significance or the opportunities that it affords. We believe a greater emphasis within the WRMP on NHH demand is required.	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy (see **Section 7.3**), having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This has been included in our final plan demand forecast. The water demand associated with new growth (new NHHs) has not been accounted for in this strategy as we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period. Whilst we do not have full control over efforts to ensure options for national delivery, we will actively engage retailers (and others) to work towards this.
79	Wave Utilities	We believe the stated ambitions around smart metering do not go far enough. As stated above NHH demand makes up a significant proportion of overall water demand and we believe targeting these customers with smart metering will both improve market data, ensure correct revenues and also crucially deliver significant water demand reductions. We would as a minimum hope to see a clear commitment to: only use smart meters to replace broken ones, review largest consuming meters and replace with smart meters, target long unread meters.	We have taken onboard comments to include NHH premises in our smart metering strategy and confirm a change from the dWRMP to the revised dWRMP and are now including NHH metering in our plan. We are proposing to meter the remaining NHH premises that are still unmeasured and will replace existing NHH basic/AMR meters with smart ones. See **Section 7.3.2** for this update.
80	Wave Utilities	Industrial decarbonisation and the impact this will have on future industrial water demand (potentially from 2026 / 27). We believe development in this area may have a significant impact on water resources in the ESW operating area. We would like to seek greater focus and engagement on this critical subject.	We have engaged on this subject at regional level through WRE and also directly with developers. Where non-household businesses have identified a new demand, this has been included in our non-household demand forecast. Wave Utilities kindly helped us contact our largest users in Autumn 2021 requesting information on changes in future demand. It would be beneficial to repeat this exercise regularly and ensure we have a good response rate from large users of Wave Utilities.

SoR Ref	Consultee	Consultee Response	ESW Response
			We will be pleased to meet with Wave to discuss decarbonisation further and will be in contact in autumn 2023 to arrange a meeting.
81	Wave Utilities	We believe it is important that ESW work with Wave to raise awareness of future water resource concerns with NHH customers. This will both educate and influence behaviours.	Comment noted and welcomed. We have engaged with Wave as part of the creation of our NHH options as shared in **Section 7.3.** We have also delivered a Sprint at the Innovation Festival led by Wave. We will continue to engage with all retailers.
82	Wave Utilities	It is essential that ESW and Wave work together on water efficiency and other demand reduction projects. Assisting Retailers in understanding key geographical areas that have particular demand concerns will help concentrate efforts to target customer behaviour in those areas. Wave is well placed to assist with activities having developed a successful suite of value-added services specifically for NHH customers.	Comment noted. Our revised draft WRMP **(Section 7.3)** outlines the key areas where concentrated efforts would leverage greater benefit with regard to demand reduction. We have engaged Wave (and other retailers) in developing our NHH water efficiency strategy and would seek to continue this collective engagement.
83	Waterwise	We agree with the statement in the plan that the company has been a leader in water efficiency delivering and sharing insights from its water saving programmes across the sector. The company has also strongly supported the development of the new UK Water Efficiency Strategy to 2030 which should be referenced in the plan.	Comment noted and welcomed. We fully support the Waterwise Water Efficiency Strategy 2030 (published in September 2022) and played an active role in its creation. The national strategy clearly outlines the need for demand management and the important roles of various stakeholders including wholesale water companies, retail water companies, Government, regulators, environmental charities and other sectors. Our household and non-household water efficiency strategies align to the national strategy across several of the Strategic Objectives. We lead the working group for Strategic Objective 7 (water efficiency measures are included in building retrofit programmes) and are actively involved in working groups supporting delivery of other Strategic Objectives. This is noted in **Section 7.3.**
84	Waterwise	The draft plan is relatively very light on detail when it comes to the water efficiency options being proposed for AMP8. We would like to see a lot more information in **Section 7.3.3** or cross referenced to an annex that should set out what each of the options and component activities comprises; their anticipated water (and energy) savings; the scale of activity planned and how that compares with AMP7. The savings metric used of 0.97 l/hd/d is also confusing and we haven't seen it used in other dWRMPs. It is also not clear from p119 why the medium ambition option has been chosen compared to the high ambition option and whether the potential savings to customers on their water and energy bills are factored into the decision-making process.	Our main WRMP document provided a detailed summary of the demand, supply, and options assessments on which our baseline and final plan supply demand balances were based. Our WRMP is supported by a suite of Technical Reports which contain further detail of the assessments. We felt that our main WRMP document gave the right level of detail for our stakeholders and customers, but recognised that in some cases, stakeholders might want to see the more detailed reports. For the draft WRMP these were available upon request as stated on our website. However, for the revised draft we will be publishing our technical reports on our website alongside the main report to make it easier for our stakeholders. We will also review the level of detail in our main WRMP document to ensure it is appropriate, in light of our consultation feedback.

SoR Ref	Consultee	Consultee Response	ESW Response
85	Waterwise	**Section 8.2.1** in the draft plan refers to an objective to reach 110 lppd by 2050 and this is also referred to in **Section 8.3.1**. We strongly support this level of ambition however, analysis of the supporting data tables provided to us by the Environment Agency and included on the consultation website indicates a PCC of 119 lppd in 2049-50 (see table detailed in document).	In our draft WRMP we reached the 110 l/hd/d target at a company wide NWG (both Northumbrian Water and Essex & Suffolk Water) level in line with current Ofwat reporting requirements. For the revised draft we have changed this to meet the 110 l/hd/d target in our separate operating areas of Essex & Suffolk and Northumbrian Water. We have also changed this to meet the target under a dry year scenario as well. Please see **Section 8.3** of the WRMP report.
86	Waterwise	We strongly support the company in continuing its free leaky loo fix which is a sector leading scheme and Waterwise to help promote this initiative and to work on a collaborative campaign on leaky loos with other water companies, the BMA as recommended in our position statement.	Comment noted and welcomed. We will continue to offer support to customers to identify and repair their toilets as noted in **Section 7.3**
87	Waterwise	We are pleased to see the home visit programme continuing and we welcome the statement that every customer will be offered a visit but would like to see more information in the final plan on the scale of the programme compared to what was delivered in AMP6 and AMP7. The offer to all customers does seem to be at odds with the comment elsewhere that visits will be targeted at high water users. Whilst we understand the principle of targeting home visits at high water users we don't believe the company should fully discount a programme for more average water users, particularly those who may be financially vulnerable given the cost-of-living crisis and the potential for water and energy bill savings.	Our revised draft plan (see **Section 7.3**) includes further detail on our approach to delivering water efficiency interventions to 'more average users' and those that may be more financially vulnerable. They are tied into our plans for delivery of water efficiency activity incorporated within the smart metering programme.
88	Waterwise	A number of water sector trials across the UK (Sussex, Affinity, NWL, UU) are finding that flow controllers can reduce consumption by around 30-64 litres per property per day with further larger scale programmes being planned by several companies in AMP8. This might be what is meant by home flow restrictions in the water efficiency options Table 54 but it would be useful to confirm that in the final plan and to provide more detail on what is proposed (see earlier comments). Waterwise would support Essex and Suffolk Water including a programme to fit these devices alongside the meter as part of the smart metering roll-out or alternatively in all new build homes/on change of occupancy. As well as targeting new build homes ESW could also work with local authorities and housing associations to install them in social housing.	"Home flow restrictions" does refer to the use of flow controllers as described. We will provide more detail on the programme in the revised draft plan (**Section 7.3**), including how we propose to utilise the devices as part of the smart metering installation programme.
89	Waterwise	The company needs to include NHH customers in the smart meter roll-out given that around 30% of water used is outside the home	We have taken onboard comments to include NHH premises in our smart metering strategy and confirm a change from the dWRMP to the revised dWRMP and are now

SoR Ref	Consultee	Consultee Response	ESW Response
		and there are significant opportunities to reduce NHH demand and help meet the company's supply demand balance requirements.	including NHH metering in our plan. We are proposing to meter the remaining NHH premises that are still unmeasured and will replace existing NHH basic/AMR meters with smart ones. **Section 7.3.2 updated**
90	Waterwise	Linked to the smart meter roll-out we would like to see the company include specific investment in AMP8 to launch an app, platform or portal to share smart meter consumption information and targeted insights with customers.	In AMP7 we have enhanced our existing customer facing digital capability (APP and Web) to give customers access to their consumption data along with leakage alarms, high consumption alarms, consumption comparison and water saving tips.
91	Waterwise	We are pleased to see that ESW recognises the potential contributions to demand reduction from government policies such as water labelling of products and improved efficiency standards for new development. However, it is unclear from the plan what the scale of the assumed contribution to PCC reduction due to policy measures is when compared to what can be achieved without these policy measures. On water labelling the plan on p119 should not refer to this as applying just to white goods as the proposed government scheme is broader than that and includes taps for example. We are asking all companies to include a budget in their final plans to support/promote the roll-out of water labelling in AMP8 helping to explain to their customers why it is important and how they can use the label. The trial of an incentive scheme could also be considered. We welcome the company's ongoing support in working with Waterwise to advocate for more supportive policies for example on new build and retrofit.	We have noted use of the term "white goods" and updated **Section 4.6.2**. We have aligned to the lower estimate saving for water labelling with no minimum standards. For building regulations for new builds we have aligned to the current optional level of 110, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100. There is a lack of clarity on exactly when and how labelling will be delivered and so detailing plans of how ESW would support a roll out is not feasible at this stage. A collaborative national direction and action would enable the greatest benefit, not wholesaler-only led action, but of course we will play an active role in engaging our customers around water labelling. Our developer incentive has been in place this AMP. We await to see the results and impact of the Thames Water work on new development incentive (water neutrality).
92	Waterwise	The dWRMP24 plan is very weak in terms of both the understanding of future non-household PWS needs and any options or plans to reduce NHH water demand (business water saving visits, incentive schemes). This is a major omission especially in light of the government's Environment Act target (which includes NHH demand reduction) and Ofwat's performance commitment for NHH demand reduction. Indeed the plan includes a significant increase in NHH demand (see table in document below). The lack of a NHH demand reduction programme is something that Waterwise has highlighted to water companies in WRE over the last 12 months. It is a significant gap in the draft plan and will need to be addressed in the final plan.	Our Non-Household (NHH) demand reduction strategy (see **Section 7.3**) was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance.

SoR Ref	Consultee	Consultee Response	ESW Response
93	Waterwise	A portion of the potential deficit in the ESW area is driven by future decisions on the type and location of future development. We believe that developments in a region with such a large water deficit and especially in areas where the companies' abstraction licences are being capped or reduced to protect the environment, should be water demand neutral….in much the same way as regulators require new developments in flood prone areas to be flood neutral. This could be achieved through proactive collaborative work with planners and developers at a WRZ or catchment level in these sensitive areas. The company should also consider how its developer incentives can be refreshed to help minimise the water demand footprint of new development and Thames Water have a good existing example of this.	Significant non-household development in the previous five years in our Hartismere water resource zone in Suffolk along with planned sustainability reductions means we only have sufficient headroom for forecast household growth. Consequently, in order to protect supplies to existing household customers and businesses in our supply area, we have needed to implement a moratorium on new non-domestic demand applications until 2030 which is when we now forecast our new supply schemes will be in supply. Unfortunately, this means that we have necessarily needed to object to planning applications where there is an assumption that mains water is available for that development. However, we will remove our objection subject to the permission being granted on the basis that the development will be mains water neutral. Our developer incentive has been in place this AMP. We await to see the results and impact of the Thames Water and Affinity water work on new development incentive (water neutrality).
94	Waterwise	At Waterwise, we're committed to driving equity and preventing discrimination at work and in the work we do. A great deal of our impact is delivered through challenging others through consultations such as this to ensure equity, diversity and inclusion others through consultations such as this to ensure equity, diversity and inclusion develop the final plan to consider the impacts on social wellbeing and how you will understand impacts of decisions, including in the long-term following trade-offs, on the diverse members of the Essex and Suffolk Water customer base.	We have developed our strategy to support customers as the metering programme progresses, focusing on providing 'on the ground' help. For example, we will engage with customers in the community to offer free water-saving advice, water-saving kits, and home audits, provide information and guidance on support tariffs, and advise and educate customers on accessing digital resources such as our mobile app and website. Additionally, we will proactively communicate information where we suspect leakage and support customers with free supply-pipe repairs where relevant. To support the elderly and those with visible and non-visible disabilities, we will offer alternative meter placement if the location would result in the customer being otherwise unable to access and read a meter for themselves and targeted financial support will be given to customers in financial hardship through schemes like social tariffs and Bill-Cap WaterSure, which is a scheme intended to assist customers who may use higher than average amounts of water and are claiming means-tested benefits. Water pricing is an important tool for improving water efficiency and enhancing social equity and the continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. We want to use this opportunity to fully engage with the customers to increase what we

SoR Ref	Consultee	Consultee Response	ESW Response
			know about our customers, so we can provide personalised and tailored advice and support on the best tariff for them alongside signposting to additional support, Priority Services registration, and water efficiency advice.
95	Everflow	From our review of WRMPs, many wholesalers are intending to roll out smart meters from 2025 or have already started. However, there are no set dates for when every business will have one. Wholesalers that have already rolled out smart meters identified around 25% of the water being used by NHH customers is continuous flow – a large proportion of this could be leakage and/or wastage. Smart meters enable leaks to be detected much quicker so that wasted water can be minimised. One million smaller NHH customers use water in a very similar way to households (toilets, sinks, etc.) and have similar meter sizes and usage. We would like clarity on how many smart meters (AMI not AMR) you intend to deploy in AMP8 and beyond, including visibility for retailers on when and where they will be rolled out, to avoid duplication of effort or customers paying for loggers when they don't need to.	A change from our dWRMP to our revised dWRMP is that we are proposing to meter all currently unmeasured NHH premises with a smart meter and replace all existing NHH basic/AMR meters with smart meters across AMP 8 & AMP 9. Further smart networks will be rolled out across our Essex & Suffolk region over the remainder of AMP 7 and into AMP8. We plan to install/replace NHH meters where the network is switched on first. See **Section 7.3.2.**
96	Everflow	We would like wholesalers to align with the national NHH metering strategy position on data sharing. Proactive logging and continuous flow/high usage alerts for customers via retailers are also key to obtaining 'in the moment' conversations about water efficiency which NHH customers are more likely to engage with, so smart data should be shared with the customers' retailer. We would also urge wholesalers to pool their NHH benchmarking data (ideally nationally) and share this with retailers operating in their area, so that the benefits of big data can be realised and result in better targeting of water efficiency and leakage services by retailers.	We support the National Meter Strategy on data sharing and will continue to be involved in industry discussions around this. **Section 7.3.2**
97	Everflow	There is low demand for water efficiency services among businesses1 - even when they are offered for 'free' to the non-household customer. Retailers' relationships with their customers are key to improving this and communications by wholesalers and retailers must be coordinated. We would like more detail on how water efficiency services will be offered to different categories of NHH customers. We want to be able to offer water efficiency services consistently nationwide so that water saving is simpler for NHHs to engage with. We would prefer a nation-wide approach to demand reduction so that multi-site customers have clarity about	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This will be included in our final plan demand forecast. The water demand associated with new growth (new NHHs) will not be accounted for as we do not have the confidence that this can be achieved with the high

SoR Ref	Consultee	Consultee Response	ESW Response
		the services and funding and/or incentives available to them. This is another reason why wholesalers need to focus their efforts on incentivising and collaborating with retailers.	levels of Non-household demand growth in this period. Whilst we do not have full control over efforts to ensure options for national delivery, we will actively engage retailers (and others) to work towards this.
98	Everflow	We would like to see true collaboration between wholesalers and business retailers that delivers value for customers, as well as environmental and water security benefits. Funding also needs to reflect actual costs of engaging and delivering such services. Wholesaler water efficiency incentive schemes for retailers to date have been based on per litre usage reductions, and there are inadequate commercial retailer incentives. Due to low business engagement and willingness to pay for leakage and water efficiency services, retailers therefore have not been able to cover the costs of water efficiency services and delivering them. We would echo Waterwise's request last year for a wholesaler commitment to greater collaboration with retailers in the plan, and a more detailed plan for how they will deliver demand reduction in the NHH sector. This could involve: • Technical support with abstraction options • Providing a sterner 'police' type function when customers don't respond to retailers about potential leaks and over consumption (e.g., issuing leak notices and showing local connections with water deficits/risks to supply or the environment) • Sharing smart meter and logger data • Sharing plans for smart meter/logger roll outs • Offering white label services (as most wholesalers already do for meter reading) for leak detection and repair, water efficiency site surveys and installing water efficiency products. However, we believe a competitive market for these services would serve customers best, so do not think that wholesalers should offer these directly to NHH customers.	A change from the dWRMP to the revised dWRMP is that we are now including NHH metering in our plan. We are proposing to meter those NHH premises that are still unmeasured and replace existing basic/AMR meters with smart ones. We support the National Meter Strategy on data sharing and will continue to be involved in industry discussions around this. Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance (see **Section 7.3**) We have engaged Retailers including Everflow in developing our NHH water efficiency strategy and would seek to continue this collective engagement.
99	Everflow	Retaining TUBs and NEUBs for peak demand or droughts is regrettable for our customers, but if they must be used, we ask that the plan details how retailers will be involved in customer communications around these. Ideally communication protocols should be agreed in advance so that they can be sent out in a timely and organised way.	A Retailer/Wholesaler group has been set up to cover drought communications. A workshop will be held on 12/09/2023 in relation to standardising Wholesalers communication to NHH Retailers/Customers regarding drought and the status of drought measures. We will be pleased to meet with Everflow in autumn 2023 should this still be required. No changes have been made to our revised draft WRMP24.

SoR Ref	Consultee	Consultee Response	ESW Response
100	National Trust	The Trust expects that the final WRMP would incorporate: • An environmentally responsible and sustainable approach to development, with clear SMART aims and objectives; • The use of the mitigation hierarchy in all aspects of planning and programming – e.g. leakages of water resources to be addressed prior to new development of assets; • The development of strategic/regional level drought resilience measures in parallel with the new infrastructure programme; • A clear communication and education strategy on management of demand; • A commitment to full and effective engagement and communication with all stakeholders that may be affected.	In developing our final preferred plan, we have taken a twin track approach, first confirming our demand management options to reduce leakage from our network and household and non-household demand and then the identification of new sustainable supply schemes. We are forecasting that our preferred demand management options will enable us to meet the following ambitious targets: - 40% reduction in leakage by 2050 - Reduce per capita consumption to 122litres/head/day by 2038 and 110litres/head/day by 2050 - Reduce non-household demand by 9% by 2038. We have a well establish drought plan (www.nwg.co.uk/droughtplan) which sets out the actions we will take to ensure we maintain resilient supplies during a drought while protecting the environment. Drought communications is a big part of this and we are a core member of Water Resources East's regional drought group which among other aspects, aims to ensure consistency in messaging across the region. No changes have been made to our revised draft plan as a result of this response.
101	National Trust	We would recommend that any developer of water resource assets which may directly affect National Trust land should discuss their proposals with the Trust at an early stage. It is difficult to understand the exact nature and location of any proposed new infrastructure. The plan covers part of the National Trust's Midlands and East of England Region. There may be areas of National Trust land (or land subject to covenants) potentially affected by any stage of the overarching dWRMP options that have not been specifically identified, due to the absence of specific asset details and locations in the dWRMP, and/or due to the necessary optionality that such a long-term plan necessitates. The Trust would welcome further engagement on Essex and Suffolk Water's draft WRMP24 prior to its finalisation.	We thank the National Trust for consulting on our draft plan. As part of the detail design process of each of our proposed new resources, we will engage with all stakeholders including the National Trust. Site-specific information was redacted from our WRMP supporting reports for security reasons. However, we will ensure we provide this information to the National Trust when we publish our revised WRMP.
102	RSPB	Q1 - Projections of future water needs are based largely on PWS and agricultural requirements. Environmental needs have not been adequately covered despite being essential as they underpin a healthy food sector, wellbeing and the range of ecosystem benefits that society depends upon. It is disappointing that more work on environmental water requirements has not been completed. We would also like to state that the highly technical and acronym-rich style of presentation makes it extremely challenging to decipher the	We have amended text in the main WRMP to make it more explicit that environmental water needs are covered by the planned sustainability reductions to prevent deterioration (Water Framework Directive driver) and WINEP schemes in the short to medium term (by 2030) and Environmental Destination sustainability reductions over the longer term (to 2050). The implications of the Judicial Review into the EA's handling of abstraction in the Ant Broads and Marshes were not known when the draft WRMP and associated Technical Reports were being prepared. In the light of the expansion of the investigation to cover the whole Broads SAC, and despite considerable uncertainty

SoR Ref	Consultee	Consultee Response	ESW Response
		plan and intent. Graphical representations are clear and describe the challenge for future AMP cycles. Only by inference to WRE and neighbouring water company plans is the combined approach for the wider area explained. More detail should be provided to show how each zone is linked. It is disconcerting to see raw water is being taken from the Bure valley to support Ormesby given the current, ongoing RSA process has now widened to cover all SAC designated areas in the Broads.	remaining about the scale and timing of any reductions, we have added a new **Section 4.3** covering the potential Habs Regs reductions into the Sustainability Reductions Technical Report and also added a new text within **Section 3.4** in the main WRMP, based on discussion with Environment Agency staff. Through the tightening of hands off flow conditions on our Bure abstraction, sustainability reductions for 'No Deterioration' on our Bure groundwater sources and Environmental Destination sustainability reductions on both our Bure and Ormesby Broad abstractions, we are proposing to considerably reduce the amount of water we take from the Bure valley. We have updated **Section 3.4** of our revised draft WRMP24 to reflect this response.
103	RSPB	Q2 - We welcome the consideration of water storage and demand management options but consider that a significantly greater focus should be placed on nature-based solutions to help improve water quality and maintain water within the environment that can support other sectors. We note that over the long-term (under the 2100 scenario) desalination at Corton and Canvey Island is proposed as an option. This is a concern as the environmental impact of such a scheme could be significant (including from disposal of the effluent/brine).	**Nature Based Solutions** We have developed and agreed with the Environment Agency our part of the Water Industry National Environment Programme (WINEP). This includes catchment schemes to improve water quality in the rivers from which we abstract. We also support nature-based solutions and will seek opportunities to develop these, potentially in partnership with other stakeholders, as part of our WINEP schemes. We confirm that there are no desalination options selected in our preferred Best Value Plan. In Essex, the selection of desalination is only made in the scenarios which include the very high Enhanced Environmental Destination abstraction reductions. These are currently indicative and will be confirmed by AMP8 WINEP investigations. Desalination options in the Northern Central WRZ appear in a number of the sensitivity scenarios based on our revised Least Cost modelling. Desalination is generally selected in addition to a reuse scheme, and instead of the North Suffolk Reservoir, where the timing of the deficit means that desal is deemed favourable to the North Suffolk Reservoir because of either the longer lead-in time or high CAPEX cost of building the reservoir. However, our BVP assessment shows the higher performance of the reservoir for the environment and society. Hence, we have included our North Suffolk Reservoir Adaptive Programme which plans to bring forward the delivery of the reservoir as the more sustainable long-term solution.
104	RSPB	Q3 - Too much emphasis is placed on supply-side options, and not enough on demand-side options. Whilst effort is clearly being made to strike the right balance, it does seem light on the use of nature-based approaches to address the water supply and management issues. Also, the focus on behaviour change seems limited and should be strengthened; reducing demand will be essential and should be front-loaded to help get ahead of the predicted deficits by 2050.	Our main WRMP document provided a detailed summary of the demand, supply, and options assessments on which our baseline and final plan supply demand balances were based. Our WRMP is supported by a suite of Technical Reports which contain further detail of the assessments. Our Best Value Plan ensures a secure supply of wholesome drinking water for customers and will protect and enhance the environment. It has been developed to address any deficits, ensure we meet government expectations and national targets for

SoR Ref	Consultee	Consultee Response	ESW Response
		Whilst the plan aims to achieve 110l/head/day by 2050 the national targets for 2050, as set out by Defra, this is only with government policy support. We encourage greater ambition, with a target of 100l/head/day by 2040, particularly given that this plan covers water stressed areas, facing big water supply deficits. Denmark has already achieved 104l/head/day so the plan should provide a clear cross-sector pathway to using all available and emerging technologies and incentives to drive aggressive reductions in consumption. Stronger reference needs to be made to the WRE documentation and approach and making links between ALL users of which PWS is one element.	PCC: 122 l/person/day by 2038 and 110 l/person/day by 2050 and Non-household demand reduction: 9% reduction by 2038 and support other water companies through exports of water to address their supply deficits. Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. See **Section 7.3.** An additional saving on consumption can be attributed to the installation of a smart meter compared to a dumb meter. This is because customers can view their consumption data in real-time and therefore make behavioural changes from an informed choice to reduce their consumption and water bill. There is only information available of this saving from other water companies who have installed smart meters already. Thames Water and Anglian Water have attributed an average saving of 3% specifically to the extra insights into consumption that is received by customers from smart meters compared to dumb meters. Using these results, we have chosen an additional 3% saving for smart meters compared to dumb meters. As smart meters are a relatively new introduction the longevity of smart meter behavioural change savings has yet to be confirmed. Therefore, this percentage saving of 3% remains constant across the planning horizon. All sectors should be looking to make reductions in use, and indeed all stakeholders need to play an active role in delivering water efficiency campaigns and interventions. Doing so is key in supporting delivery of the long-term household and non-household demand reduction targets outlined in the revised dWRMP **Section 7.3**. An overview of how WRE's plan has informed our dWRMP24 is presented in **Section 1.3.2** of our draft WRMP. Links to the WRE documentation has been added to our Revised WRMP24, in the same section.
105	RSPB	Q4 - We agree that the focus on water storage is appropriate for the medium term, however, more nature-based solutions and smaller scale options should be developed in the shorter term with the aim to avoid the need for desalination in the long-term. More emphasis should be placed on enhancing infiltration to replenish groundwater supplies, especially in light of predicted impacts of climate change.	We are not aware of any Nature Based Solutions capable of providing sufficient, reliable, predictable yields to make any significant contribution to meeting our forecasted deficits. If our stakeholders have suggestions of approaches they'd like to see us trial, we would welcome their input on any specific options they think we have currently overlooked.

SoR Ref	Consultee	Consultee Response	ESW Response
106	RSPB	Q5 - The plan appears to have been developed with a broad group of stakeholders. The language and presentation style as mentioned above in our answer to Q1 make significant parts of the plan impenetrable and require a high level of technical understanding. This also limits the ability to access and interpret intent. We query whether the environment has received the appropriate attention. A significant amount of work has been undertaken to understand the Public Water Supply and agricultural requirements for water, however, the environmental requirements should have received much greater attention. The current plan risks furthering the expectation that all sectors will continue to have the water they need to operate in the future using a business-as-usual approach. This is not the case, and more focus should be placed on recognising that fact and considering how to address conflict. There are now considerable drivers to improve the environment through targets set in the 25 Year Environment Plan and the focus on peat restoration etc. We do not feel that the plan is sufficiently explicit about the need to enhance the environment and ensure that there is suitable water available for habitats and species. This is a serious concern.	Alongside our main WRMP report, we also published an Executive Summary and a Customer Summary to ensure we were communicating our plan effectively to a range of stakeholders. We also publish a separate Environment Report which details the environmental impact assessment conducted on options and plans individually and in-combination. Our plan presents a range of potential future outcomes, several of which deviate significantly from Business as Usual, including how WFD No Deterioration and Environmental Destination sustainability reductions impact our plan. In our Revised WRMP, we also include an additional Adaptive Programme which sets out the impact of further sustainability reductions under Habitats Regulations. In summary, our preferred final plan has been developed using supply forecasts which assume that the vast majority of our groundwater abstraction licences will have the annual licensed quantity (the amount of water we are authorised by the Environment Agency to abstract each year) reduced to recent actual levels of utilisation, or lower. These sustainability reductions will take place in 2030 (potentially earlier for time limited licences). Between now and 2030, the Environment Agency's Precautionary Principle applies which means we must not plan to increase abstraction from these sources. We confirm that our plan complies with the precautionary principle. Our preferred final plan also includes further abstraction sustainability reductions in the 2040s. Known as Environment Destination sustainability reductions, these will reduce annual licenced quantities to below current utilisation levels.
107	RSPB	Q6 - Greater understanding of the environmental water requirements will be critical. This is a significant uncertainty in the draft plan and impacts on the predicted deficits. More information is needed to address this gap and provide greater certainty about the challenge facing different environmental receptors. Some issues we are aware of with regard environmental water needs and current issues are: Changing water availability as a result of climate change – the difficulties of keeping habitat for breeding wading birds wet during the breeding season to enable birds to forage effectively • Water quality effects on biodiversity (including designated sites), with potential for consideration of nature-based solutions to help address impacts (e.g. reedbed filtration) • Invasive non-native species can be difficult to manage in many areas, for example, the spread of Crassula helmsii affecting wetland sites. Further trials of	We acknowledge that there was significant uncertainty in our draft WRMP regarding the scale, location and timing of sustainability reductions to prevent deterioration under the Water Framework Directive and to achieve the objectives around Environmental Destination. With the addition of potentially significant further abstraction licence reductions under the Habitats Directive driver, as a result of the EA's investigation into abstraction across the Broads SAC, the outcomes of which will not be confirmed until late 2024, some of this uncertainty will remain in our revised draft WRMP. We have included a new adaptive programme within our revised draft WRMP to manage the uncertainty specifically around the potential Habitats Regs abstraction reductions. We have also agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where

SoR Ref	Consultee	Consultee Response	ESW Response
		control methods may help address this • The need to look for water management solutions with multi-sector benefits, for example through re-using water which would otherwise be pumped out to sea • The interaction across water company boundaries especially where crag and chalk interfaces are common to allow assessment of impact from one zone on another, neighbouring zone. As an example, as stated above the Belaugh raw water transfer bolsters the WAFU at Ormesby but could be depleting the availability for biodiversity within the extremely rich fens in the northern Broads. We also recommend that consideration is given to developing concrete proposals as part of an ambitious biodiversity net gain strategy. Potential options to consider could include the following: Wetland enhancements including creation and rejuvenation of reedbeds on the Suffolk Coast for bittern, marsh harrier and other charismatic East Anglian species; “remeandering” of channelised water courses, such as the New Cut in the Minsmere area; pond creation for Natterjack toads; creation of saline lagoons; habitat creation for breeding wading birds, including through the Suffolk Wader Strategy1 and Greater Thames Breeding Wader Project2. • Habitat enhancements around water company assets for example, the creation of habitat for turtle dove, nightingale and dormice through scrub and hedgerow planting and management around reservoirs • Working with relevant Internal Drainage Boards to better manage the water resource within floodplains to recharge aquifers and promote infiltration to maintain a sustainable resource for public, nature and agriculture purposes. • The re-establishment of under-managed and/or ghost ponds in the landscape would be an incredibly positive step for nature’s recovery in the farmed landscape. A study2 in Essex that covered 283.43km2 identified that 55% of ponds present in 1870 had disappeared by 1960. • Climate change resilience – RSPB are currently engaged with Natural England and the Environment Agency on a project which looks at a programme of measures aimed at increasing the climate resilience of freshwater habitat around the Thames Estuary. We would be happy to discuss any of the issues and opportunities listed above to aid the further development of the Plan.	appropriate and we also have investigations planned to address some of the more holistic water management opportunities identified by the consultee. We have an existing environmental grant scheme called Branch Out which supports partner organisations to deliver the kinds of opportunities identified by the consultee. We have updated **Sections 3.3** and **3.4** of our revised draft WRMP24 to reflect this response.
108	RSPB	Q7 - We consider that the key areas for consideration are reflected in the plan, but as mentioned above, the environmental water demands need to be better reflected in the evidence base. We also	We have included consideration of Biodiversity Net Gain within our environmental assessments. The outcomes of these assessments are summarised in the SEA Appendix and detailed more fully in the BNG Appendix to our Environmental Report. We

SoR Ref	Consultee	Consultee Response	ESW Response
		recommend that greater consideration is given to potential environmental enhancements which could be incorporated into the projects in the plan, as discussed above.	have updated the BNG information provided within **Section 9.2.5** of our revised draft WRMP24. The option designs are currently at concept stage and as the detailed design of the options progresses the environmental assessments and potential mitigations, as well as opportunities to incorporate additional environmental enhancements, will be revisited. We have updated **Section 9.2.5** of our revised draft WRMP24 to reflect this response.
109	RSPB	Q8 - We support the adaptive pathway approach, subject to rigorous assessment of potential environmental impacts, including through Habitats Regulations Assessment where necessary. These assessments should be used to refine and develop options which minimise impacts on the environment and maximise opportunities to provide environmental enhancements.	Comment acknowledged. The outputs of the environmental assessments, including HRA, are used to identify our Best Value Plan. No change proposed.
110	RSPB	Q9 - Only achieving 40% seems to underplay the severity of the issue and aiming for 50% as an absolute minimum with an aim of ultimately resolving all leaks has to an aspiration. Creating new supply-side component is not the answer to resolve all problems.	Our preferred plan for leakage reduction is to reduce leakage by 40% from the 2017/18 performance level by 2050. This is because the 50% reduction is a target for the industry as a whole and not for individual water companies. Our current leakage performance is near industry leading and we have already exhausted the cheaper leakage reduction options. To achieve a further 50% reduction we would need to replace significant proportion of our distribution network, placing an unfair cost burden on our customers. We also do not believe that it is technically feasible for us to reduce leakage by 50% by 2050 in some parts of our supply area as leakage would need to be reduced to a level never achieved in the UK or Europe. For the revised dWRMP24 we have committed to a 55% reduction in leakage by 2050 in the NW region so that we can achieve the national 50% target companywide.
111	RSPB	Q10 - We agree that metering is likely to help to reduce water use overall but note that for demand management to be successful, significant investment in behaviour change will be needed for all water users. The roll out of smart meters may help to identify where efforts need to be targeted, but behaviour change takes time and considerable resource. It needs dedicated teams to be out working in communities and support individuals to understand why making changes to their water use is so important. It also needs water companies to take a leading role in proactively taking steps to protect water reserves over multiple years, even if decisions may not be popular with water users and shareholders.	An additional saving on consumption can be attributed to the installation of a smart meter compared to a dumb meter. This is because customers can view their consumption data in real-time and therefore make behavioural changes from an informed choice to reduce their consumption and water bill. There is only information available of this saving from other water companies who have installed smart meters already. Thames Water and Anglian Water have attributed an average saving of 3% specifically to the extra insights into consumption that is received by customers from smart meters compared to dumb meters. Using these results, we have chosen an additional 3% saving for smart meters compared to dumb meters. As smart meters are a relatively new introduction the longevity of smart meter behavioural change savings has yet to be confirmed. Therefore, this percentage saving of 3% remains constant across the planning horizon. Please refer to **Section 5.3** of our demand forecast technical report for more information on the impact of smart metering on behaviour change in

SoR Ref	Consultee	Consultee Response	ESW Response
			customers. For demand management to succeed, we must invest in activities supporting behaviour change. To support the rollout of smart and compulsory metering, we need to have holistic conversations with customers covering the practicalities, affordability, water efficiency, and how to use and make the most of our digital services. These conversations need to take place before, during, and after the meter installation and we need to be available in person, in communities, and online. Customers need to understand what's changing, how it affects them, what they can do to save money, and what financial support is available. In our demand management enhancement case, we are seeking funding to provide an all-encompassing customer engagement campaign and in-person community engagement aligned to the smart meter installation programme. With the smart rollout, the community presence will move area by area, providing information and affordability support for customers. Our programme will also require new processes to ensure we can maximise benefits and positively manage customer expectations and satisfaction. We have identified activities and costs for key activities, including research to gain better customer insight, enhancing our customer-facing processes, and educating and upskilling our staff to deliver the desired experiences. **Section 7.3.2 updated.**
112	RSPB	Q11 - We acknowledge that the 'BAU+' scenario has been chosen as the destination for the plan period but are disappointed that no commitment to work towards the 'enhance' scenario is made, in line with the WRE Regional Plan. Actions are required that deliver improved water quality, develop more resilient water management, which boosts biodiversity, enhances community wellbeing and ultimately helps tackle the nature and climate emergencies. Anything less than having the 'enhance' environmental destination as an ambition, risks purely maintaining the status quo. Maintaining water-dependent nature sites will be difficult or impossible without having the highest ambition for the environment, yet alone contemplating being able to restore and enhance water-dependent habitats and species.	Although we have assessed what our plan would look like whilst incorporating the annual licence reductions in the Enhanced Environmental Destination scenario, as assessed at the regional level by WRE, this scenario contains a significant amount of uncertainty. It represents a reduction of almost 70% of the Essex WRZ deployable output. We believe that alternative tools, such as Hands off Flows and Minimum Residual Flows etc. are more effective at protecting aquatic habitats at low flows, than annual licence reductions. To ensure that the enhanced ED licence changes are locally verified, appropriate and effective at meeting environmental objectives, we have included all our abstractions in AMP8 WINEP as investigations. Once these have concluded, we will be better placed to incorporate the enhanced ambition into our WRMP for PR29.
113	RSPB	Licence capping to avoid environmental deterioration - **Section 3.3** - Caps are a response to helping reduce loss and are an important tool in controlling water abstraction, but consideration is needed into how this will be monitored and enforced and sources of funding to enable this. We consider that in addition to caps, encouraging	Our catchment team continue to work with the farming community in all our catchment areas to deliver improvements to water management on farm and to improve the water quality reaching our rivers. Within our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have investigations planned to address some of the more holistic water management

SoR Ref	Consultee	Consultee Response	ESW Response
		environmental initiatives, such as nature friendly farming would help reduce the need for irrigation of large field areas. The fields could also be managed better for water, i.e., cropped in a way to reduce water runoff and with crop varieties chosen which are more drought resilient. Again, this is where an integrated approach to water management will be key.	opportunities identified by the consultee and ongoing catchment implementation schemes to provide advice and funding for on farm improvements, including water management. We have amended **Section 9.4.3** in our revised draft WRMP24 to reflect this response.
114	RSPB	Preferred Environmental Destination - **Section 3.4** - We are disappointed that the BAU+ destination has been chosen for the Plan period with no commitment to work towards the 'enhance' destination, which would be in line with the WRE Regional Plan. The RSPB favours the use of the 'enhance' environmental destination as it would support restoration and creation of new wetland habitats to meet nature and climate targets. We consider this essential to meet the requirements to maintain habitats sites in favourable condition and deliver 'Good' ecological status. Anything less will simply maintain water-dependent protected sites in a degraded state.	Although we have assessed what our plan would look like whilst incorporating the annual licence reductions in the Enhanced Environmental Destination scenario, as assessed at the regional level by WRE, this scenario contains a significant amount of uncertainty. It represents a reduction of almost 70% of the Essex WRZ deployable output. We believe that alternative tools, such as Hands off Flows and Minimum Residual Flows etc. are more effective at protecting aquatic habitats at low flows, than annual licence reductions. To ensure that the enhanced ED licence changes are locally verified, appropriate and effective at meeting environmental objectives, we have included all our abstractions in AMP8 WINEP as investigations. Once these have concluded, we will be better placed to incorporate the enhanced ambition into our WRMP for PR29.
115	RSPB	Investigations relating to environmental destination - **Section 3.4** - Further investigation is also needed into future water needs of wetland habitat creation aspirations. These are being driven by the Government's 25-Year Environment Plan and CBD commitments and will be reflected in LNRSs.	Within our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have investigations planned to investigate the future freshwater needs of rivers and estuaries.
116	RSPB	Environmental water need data - **Section 4** - No detailed information about the level of environmental water need is provided within the Plan. This is a fundamental requirement to ensure that the National Site Network and SSSI network is maintained and that urgent actions to tackle the nature and climate emergencies are delivered.	We have amended text in **Section 3.3** of the main WRMP to make it more explicit that environmental water needs are determined by our regulators outside of the WRMP process and covered by the planned sustainability reductions to prevent deterioration (Water Framework Directive driver), delivering WINEP outcomes, and Habitats Regulation sustainability reductions in the Broads SAC area, in the short to medium term (by 2030) and Environmental Destination sustainability reductions over the longer term (to 2050).
117	RSPB	Reductions in water use required - **Section 6** - The scale of potential reductions in water use required means all sectors should be looking to make appropriate reductions in use. The need to change is clearly set out and businesses should not simply wait until changes are forced upon them. We support the need to understand change requirements and development of a suitable evidence base to identify the most appropriate options for reducing	We agree that all sectors should be looking to make reductions in use, and indeed all stakeholders need to play an active role in delivering water efficiency campaigns and interventions. Doing so is key in supporting delivery of the long-term household and non-household demand reduction targets outlined in the revised dWRMP **Section 7.3.**

SoR Ref	Consultee	Consultee Response	ESW Response
		water use. However, this should not limit actions being taken now to reduce water use and return more water to the environment.	
118	RSPB	Water Efficiency - **Section 7.3.3** - We welcome the discussion of demand management, including water saving options. We query how the measures identified will be implemented and what additional action will be taken to incentivise households and businesses to make such changes.	Our main WRMP document provided a detailed summary of the demand, supply, and options assessments on which our baseline and final plan supply demand balances were based. Our WRMP is supported by a suite of Technical Reports which contain further detail of the assessments. We felt that our main WRMP document gave the right level of detail for our stakeholders and customers, but recognised that in some cases, stakeholders might want to see the more detailed reports. For the draft WRMP these were available upon request as stated on our website. However, for the revised draft we will be publishing our technical reports on our website alongside the main report to make it easier for our stakeholders. We will also review the level of detail in our main WRMP document to ensure it is appropriate, in light of our consultation feedback.
119	RSPB	Approach to Demand Management – Agriculture - **Section 7.3** - The demand management section focuses on PWS issues. It would be helpful to cover how demand might be managed for other sectors more specifically. For example, within the agricultural sector, keeping water on farm, slowing flows to help recharge aquatic systems including rivers, streams and aquifers, could be key approaches to include. Making better use of water evacuated from the floodplain by IDB's to in effect 'reverse-feed' storage reservoirs would significantly reduce agricultural demand from groundwater sources.	We engage with farmers on a range of issues in our operational areas. Our primary focus is to ensure good water quality at our abstractions, which saves on water treatment (chemicals and power) and reduces unplanned outage (saving water). We also engage farmers, and offer grants, for rainwater harvesting equipment, which can support them to reduce their own abstracted water demands. However, we have no powers to impose changes to other abstractors, and while the example given to reverse feed storage reservoirs is a pertinent one, this is not something that a water company has powers to implement.
120	RSPB	High environmental destination adaptive pathway - **Section 8.7.3** - This appears to defer decisions on best environmental outcomes until at least 2040, meaning that remaining options available should the 'enhance' option then be chosen will primarily be desalination, which is expensive, has negative environmental effects and is generally unpopular with consumers. Separating out these 'bolt on' additions appears to be a risk to delivery of best environmental outcomes – noting that it is stated that the additional of a desalination plant on Canvey Island would be at an additional cost of £1bn. It would be better to take a more holistic and precautionary approach by building the plan around this aim from the start rather than the initial stated aim of working to the 'resilience' scenario and then upping this to 'enhance' later.	We acknowledge that there was significant uncertainty in our draft WRMP regarding the scale, location and timing of sustainability reductions to achieve the objectives around Environmental Destination. We have agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We are at the early stages of working with other water companies and with WRE on a joint Environmental Destination Options Development study to explore the range of options that may be available to address environmental destination, so that there is more clarity on the schemes required by PR29. We have updated **Section 3.4** of our revised draft WRMP24 and the Environmental Destination Technical Report to reflect this comment.
121	RSPB	Environmental Assessments - **Section 9.2** - We are happy to continue to provide our thoughts on impacts and actions needed to	With the supply demand balance position that ESW has going forwards it is clear that there will need to be some difficult decisions taken over the relative impacts of providing

SoR Ref	Consultee	Consultee Response	ESW Response
		mitigate impacts. We have identified several deficiencies in the evidence base and HRA with some issues which may be challenging to mitigate. We urgently encourage discussions with NE on this issue.	water to our customers over both the near and longer term. All the options included within our best value plan and adaptive pathways have been assessed at their current 'concept' stage for their environmental impacts and benefits. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme. We welcome the offer of continued discussion with the consultee. We have updated **Section 9.2.1** in our revised draft WRMP24 to reflect this response.
122	RSPB	Biodiversity Net Gain - **Section 9.2.5** - We are disappointed that the ambition around Biodiversity Net Gain is limited to a 10% 'do-minimum' target and consider that if natural processes were put at the heart of the plan a net gain greater than 10% could be achieved. Whilst we acknowledge that the 10% target derives from the legislative requirement, we would expect water companies to aim to achieve a much greater gain for biodiversity.	The Environment Act 2021 requires all new developments which are subject to Planning to deliver a minimum of 10% BNG, and therefore, all new options delivered as part of the WRMP24, which require planning permission, will be required to demonstrate at least 10% BNG, subject to the requirements of individual local planning authorities that may exceed the minimum 10% BNG. Some of the mechanisms for delivering BNG, such as the purchase of biodiversity credits, as well as the individual requirements set by various local planning authorities (LPAs) are still being developed. Furthermore, the WRMP24 options are at the concept stage of design and are not supported by survey data, and therefore it is not possible to develop detailed mitigation and enhancement proposals for delivering 10% BNG (or more than 10%) at this stage. Any decisions regarding over-delivering against statutory requirements, where this will add costs to our overall programme or to individual schemes, need to be balanced against the additional environmental benefit gained and the impact on bills to our customers. We have amended **Section 9.2.5** of our revised draft WRMP to reflect this response.
123	RSPB	Resilient Water Supplies - climate change - **Section 9.3.1** - Building capacity now and managing for loss will be key, but this is not explicitly stated here. Resource management through use of natural processes, i.e., wetland creation, on farm water storage using nature friendly reservoirs/wetlands, investing in research to develop more drought resilient and efficient crops, working with partners to develop more water friendly farm systems, working with industry to develop on-site water reuse capacity are all viable solutions and should be committed to here.	Our catchment team continue to work with the farming community in all our catchment areas to deliver improvements to water management on farm and to improve the water quality reaching our rivers. Within our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have investigations planned to address some of the more holistic water management opportunities identified by the consultee. Since the draft WRMP was published we also have a new commitment to reducing non-household demand by 9% by 2037/8, which will include a variety of measures, including working with industry (including agriculture) to reduce their potable water use. We have updated **Section 7.3.3** of our revised draft WRMP24 to reflect this response.
124	RSPB	Mitigation and enhancements - **Section 8.1** - The scope of mitigation for biodiversity in the table appears limited to basic construction control measures at this stage and a requirement for further assessment to inform mitigation in future. As a high-level overview, this is not sufficient to give confidence that impacts on biodiversity can be adequately mitigated. Project design along with	Regarding mitigation and enhancement to achieve at least 10% BNG, many of the WRMP24 options are at the concept stage of design and are not supported by survey data, and therefore it is not possible to develop detailed mitigation and enhancement proposals for delivering 10% BNG at this stage. The BNG assessments undertaken for each option have been used to inform the WRMP24 Best Value Plan, and thus have contributed to the overall reduction in potential impact on biodiversity units. As more

SoR Ref	Consultee	Consultee Response	ESW Response
		mitigation and enhancement plans should be developed together to ensure biodiversity is properly protected and that ambitious biodiversity net gain can be achieved.	detailed design progresses for each option, we will look to identify BNG opportunity areas associated with each option and develop BNG mitigation and enhancement opportunities that link those opportunities with local strategic priorities. We have amended the Appendix to the Environment Report detailing the HRA assessments to include a timescale for further work and information gathering regarding design and mitigation needed to finalise a HRA for the relevant option.
125	RSPB	Options Description - **Section 2** - The description of each option set out in Table 2.1 is entirely inadequate to allow any assessment of the accuracy or robustness of the information provided for HRA. At this stage, we would expect to see detailed descriptions and maps to allow readers to understand the locations and designs proposed and the construction and operational processes for each option. Without these, it is not possible to comment fully on whether all necessary sites have been screened in, whether all potential impact pathways have been identified or the significance of any impacts. (We note that Appendix A should contain location maps but these have not been provided in the consultation copy). We therefore cannot agree that the HRA is adequate or the WRMP itself is sound at this stage. We recommend therefore that the HRA requires revision and further consultation.	Maps with specific locations of our water resource options cannot be published on our website for security reasons. We do have an unredacted version of our Environment Report, which we submit to DEFRA and EA, that includes detailed maps, and we will ensure this version is provided to RSPB. It may also be available on request to other consultees. We have amended text in **Section 9.2.1** of the revised draft WRMP24 to explain this.
126	RSPB	**Section 4** Linford WTW, **Section 5** Barsham WTW to Blyth Transfer, **Section 6** Transfer from Holton WTW to EYE Airfield, **Section 8** Southend-on-Sea water re-use, **Section 11** North Suffolk Winter reservoir, **Section 12** Canvey Island Desalination Terrestrial - We may wish to comment once further details are available.	We note RSPB's comment.
127	RSPB	Transfer from Bungay Wells to Broome WTW **Section 7** - Without additional schematics showing the pipeline route further comment isn't possible. In combination with the Lowestoft to Ellingham Mill transfer there will be an additional number of locations where a river will be crossed, which may interrupt flow of water and sediment.	Maps with specific locations of our water resource options cannot be published on our website for security reasons. We do have an unredacted version of our Environment Report that includes detailed maps, which we submit to DEFRA and EA, and we will ensure this version is provided to RSPB and may be available on request to other consultees. It has been assumed that directional drilling will be undertaken where water courses are crossed.
128	RSPB	Lowestoft Water Reuse to Ellingham Mill - **Section 9** - Without additional schematics showing the pipeline route further comment isn't possible. In combination with the Bungay Wells to Broome WTW transfer there will be an additional number of locations where a river will be crossed, which may interrupt flow of water and sediment.	Maps with specific locations of our water resource options cannot be published on our website for security reasons. We do have an unredacted version of our Environment Report that includes detailed maps, which we submit to DEFRA and EA, and we will ensure this version is provided to RSPB. It may also be available on request to other consultees. It has been assumed that directional drilling will be undertaken where water courses are crossed.

SoR Ref	Consultee	Consultee Response	ESW Response
129	RSPB	Effluent Reuse at Caister and Transfer to Ormesby - **Section 10** - We are pleased to see consideration of water reuse following treatment and proximity of Ormesby to Caister and lack of river crossing should have minimal impact. We are concerned with the need to transfer raw water from Belaugh in the Bure valley and outside of the E and SW catchment. This seems at odds with the recent RSA review carried out by EA.	The RSA review mentioned by the consultee was out for consultation between March and April 2023 and therefore was not available when options were assessed in 2022. The implications of the Judicial Review into the EA's handling of abstraction in the Ant Broads and Marshes were not known when the draft WRMP and associated Technical Reports were being prepared. In the light of the expansion of the investigation to cover the whole Broads SAC, and despite considerable uncertainty remaining about the scale and timing of any reductions, we have added a new **Section 4.3** covering potential Habs Regs licence reductions into the Sustainability Reductions Technical Report and also added new text to **Section 3.3** within the main WRMP, based on discussion with Environment Agency staff. Water made available by the Effluent Re-use at Caister option and discharged into the Bure will only be re-abstracted on a 'put and take' basis. It does not represent additional abstraction from the Bure valley. Through the likely tightening of hands-off flow conditions on our Bure abstraction, sustainability reductions for 'No Deterioration' on our Bure groundwater sources and Environmental Destination sustainability reductions on both our Bure and Ormesby Broad abstractions, we are proposing to considerably reduce the amount of water we take from the Bure valley in the future.
130	RSPB	In-combination Effects - **Section 13** - The evidence base for a robust in-combination assessment is currently limited due to the concerns raised above about the information available for each option and this does not provide any confidence that the full impact of proposed options put forward in the WRMP has been assessed. It is also acknowledged that further work is required to assess impacts in-combination with other plans and projects. We draw attention in particular to the need for a robust assessment of impacts in-combination with major energy developments proposed in the area. Due to its long construction period and broad range of effects, in-combination impacts with Sizewell C will need detailed consideration.	Locations of water resource options are confidential for security reasons. Maps with specific locations of our water resource options cannot be published on our website for security reasons. We do have an unredacted version of our Environment Report that includes detailed maps, which we submit to DEFRA and EA, and we will ensure this version is provided to RSPB. It may also be available on request to other consultees. It has been assumed that directional drilling will be undertaken where water courses are crossed. Sizewell C was included in cumulative effects assessments for all environmental assessments. For a number of disciplines, it was unlikely to lead to in-combination effects, but further investigation is needed. All the options included within our best value plan, alternative plans and adaptive programmes have been assessed at their current 'concept' stage for their environmental impacts and benefits, including cumulative and in-combination effects. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme.
131	CCWater	Q1 - We have noted that the main causes of the baseline Essex projected supply deficits are predicted to be due to: climate change, household (HH) and non-household (NHH) growth, abstraction licence sustainability reductions and a move to 1 in 500 year resilience from 2040. Whilst we agree that these are the areas that are required to be included, we consider that all of these projections are uncertain and will require continuous review over the life of the	To understand our current and future NHH demand we began by analysing our current NHH demand at an industry sector level. We contacted all Local Authorities located within our operating areas to request information they hold on new NHH developments and growth. In addition, we also contacted all our large users (customers that use >20,000m3 per year) requesting the provision of expected changes to demand in the short and medium term. Specialist consultant Ovarro DA Ltd (Ovarro) were employed to provide a non-

SoR Ref	Consultee	Consultee Response	ESW Response
		plan to ensure the plans are adapted as necessary. In the last planning cycle, the projections of NHH usage in certain water resource zones proved inadequate, we are keen to understand how the company are ensuring that this is not the case in this plan and what engagement has taken place with the business communities in each area.	household demand forecast for each water resource zone using the Local Authority and Large User data we provided, together with our non-household consumption data from the last five years and our population and property forecasts. In addition to the data we provided, Ovarro used employment and Gross Value Added (GVA) ONS data along with large scale commercial project search data to create the demand forecasts. Ovarro used the consumption data for each WRZ, and this was split into three segments in order to analyse underlying trends in different industry sectors. Large known new demands likely to start in the next few years, such as the construction and operation of power generation plants have also been applied on top of the base forecast derived from historical consumption. Please refer to **Section 6** of the demand forecast technical report for more information on our NHH demand forecast. We continually review our plans through the WRMP Annual Review process and plans will therefore be adapted should it be required.
132	CCWater	Q2 - The company have looked at both demand reduction options and plans to increase available supply, and they have been part of the Strategic Regional Planning conducted by Water Resources East (WRE). The Customer Summary document fails to demonstrate that a range of options were considered, with some being discarded to reach the best value plan that is proposed. Other than a brief reference to being part of Water Resources East Group (WRE) there is no discussion about strategic collaborative approaches to water resilience or water importation to the region and why these options have not been pursued. We encourage the company to expand on the collaborative work that they have done and explain what has been considered and rejected and why (e.g. why is there no use of the Anglian Fens reservoir and strategic main) in order to demonstrate that this work has been done. There is no reference to any collaborative work with other neighbouring water companies outside of WRE, for example Affinity Water. One significant omission is the lack of any water efficiency plans to work with retailers and non-household (NHH) users in the Essex and Suffolk region to reduce NHH water use. This needs to be addressed in the final plan.	Our customer summary has been updated to: - confirm how we have worked Water Resource East and its water company members as well as Water Resources South East in the development of our WRMP24; - reflect that a range of options have been considered including inter-company transfers. Further detail is included in our Executive Summary and of course in our WRMP24 main report; and - why inter-company transfers have not been pursued including those supported by the Fens Reservoir. Since the draft WRMP was published we also have a new commitment to reducing non-household demand by 9% by 2037/8, which will include a variety of measures, including working with industry (including agriculture) to reduce their potable water use. We have updated **Section 7.3.3** of our revised draft WRMP24 to reflect this response.
133	CCWater	Q4 - The plan does include practical adaptive pathways for increased supply options, however as discussed above we would encourage an accelerated programme of demand management in	Since the draft WRMP we have agreed to accelerate our smart metering programme in Suffolk.

SoR Ref	Consultee	Consultee Response	ESW Response
		both household and non-household usage, and leakage reduction, so that decisions on these options do not have to be taken too quickly and some of them may not be required at all.	We: - are currently concluding our smart communication network and meter procurement activity and will rollout our smart communications network across both Essex and Suffolk in 2023/24. We will also increase resilience through contracting with two different smart meter providers from October 2023; - are prioritising the Hartismere water resource zone as the first area to have smart communications and now envisage this will be in place in Q4 of 2023. We are also accelerating smart meter rollout in the water resource zone with the ambition to install or replace smart meters at all domestic and Non-domestic premises by the end of AMP7; and - currently exploring opportunities to contract with an install partner across Essex and Suffolk with a view to a long-term increase in install capacity. We now expect this will go live in Q1 2024. In the meantime we are on-boarding a tactical install partner to support an increase in install volume over the next 6 months.
134	CCWater	Q5 - It is very disappointing that we are unable to comment on whether the plan has taken into consideration the views of customers as the link to the research on page 10 of the non-technical customer summary document does not work. It is vital that Essex and Suffolk Water can clearly demonstrate a golden thread between customer engagement, research, customer priorities and views on bill impacts in its plan.	We apologise for the link not working. A technical report summarising our customer research is available for download from our WRMP webpage here: https://www.nwg.co.uk/responsibility/environment/wrmp/esw-draft-water-resources-management-plan-2024-consultation/
135	CCWater	Q6 - The NHH demand management plan needs to be developed urgently. Options for accelerating household demand reduction should also be considered. The company could do further work to resolve the modelling issues that have eliminated the “put and take” arrangement with Anglian Water from the plan analysis.	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This has been included in our final plan demand forecast. The water demand associated growth (new NHHs) has not been accounted for as we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period. With regards to the 'put and take' arrangement with Anglian Water via their SPA main, we have included further justification for discounting this option in our WRMP24 in **Section 1.3.2**. However, we will continue to work closely with Anglian Water as factors that cause uncertainty in both ours, and Anglian Water's plans, such as sustainability

SoR Ref	Consultee	Consultee Response	ESW Response
			reductions, are confirmed, to identify if there is scope to co-develop or share new resource in the future.
136	CCWater	Q7 - Yes – something that appears to be missing is the affordability of the plan. The bill impact of the 'best value plan' that the company is proposing would be around an 11% impact on charges in the region. This price increase will be in addition to the bill impacts from other regulatory requirements and investment needs and the company has acknowledged in the dWRMP that it is aware that this is a concern for customers. We welcome the affordability support that the company is currently offering. In addition to the support from the company, we consider that a more consistent water affordability scheme for England and Wales is needed to make sure that those most in need are protected from higher bills due to increasing environmental investment pressures. Making sure people are supplied with water in the future is the most important factor to consider in the best value plan. All the four factors mentioned in this section of the document complement each other. In addition to being 'cost efficient' we would expect the plan to be affordable.	Our Business Plan will increase water bills, mostly because of the big increases in statutory investment we must make before 2030. While most customers tell us that although they do not welcome bill increases, they understand the need for investment in the future. However, for some customers, this is more difficult. Some customers told us they could not afford the bill increases that would come from meeting our statutory requirements – even after we had challenged the requirements and ourselves to bring bills down. To help support our broader objective to eradicate water poverty and to mitigate the impact of bill increases on customers who experience water poverty, as part of our plans for PR24 we will be increasing the support available to customers from £40m during the current period to £170m in the 2025-30 period - a four-fold increase. We expect these changes will enable us to help around 300,000 customers – double the number of customers we will support up to 2025. In addition, we also support the introduction of a sustainable, single social tariff to eliminate water poverty and we have worked closely with Defra, CCWater and others to support further analysis of how such a single social tariff might be implemented. We are disappointed that work to explore a single water affordability scheme is no longer progressing.
137	CCWater	Q8 - We are supportive of identifying the best long term sustainable, best value options and would be supportive of the use of Ofwat's adaptive pathway. Therefore, in principle, we would prefer the use of the more sustainable option of the North Suffolk Reservoir, so we agree that continuing with the detailed design of both options is a sensible approach. We would like the company to advise if accelerated demand management in the area could delay the need for the Lowestoft Water Reuse scheme long enough for the reservoir to become the preferred option, (assuming costs are similar).	We thank CCWater on their feedback on our North Suffolk Reservoir Adaptive Programme. We will be progressing the detailed engineering design stage of the reservoir over the next three years and will then decide whether we progress the reservoir instead of Lowestoft Reuse. We are already fast tracking our Suffolk metering programme. We: - are currently concluding our smart communication network and meter procurement activity and will rollout our smart communications network across both Essex and Suffolk in 2023/24. We will also increase resilience through contracting with two different smart meter providers from October 2023;

SoR Ref	Consultee	Consultee Response	ESW Response
			- are prioritising the Hartismere water resource zone as the first area to have smart communications and now envisage this will be in place in Q4 of 2023. We are also accelerating smart meter rollout in the water resource zone with the ambition to install or replace smart meters at all domestic and Non-domestic premises by the end of AMP7; and - currently exploring opportunities to contract with an install partner across Essex and Suffolk with a view to a long-term increase in install capacity. We now expect this will go live in Q1 2024. In the meantime we are on-boarding a tactical install partner to support an increase in install volume over the next 6 months. For deliverability reasons, we confirm that it is not possible to accelerate the demand management options in our final preferred plan any faster than we already have. Additionally, our revised draft plan also include a new strategy to reduce non-household demand by 9% by 2038. However, we confirm that it is not possible to accelerate our demand management programmes any further and even with the accelerated metering programme and the new non-household demand strategy, Lowestoft Reuse is still required in 2032/33.
138	CCWater	Q9 - The WRMP states that ESW expects to make a fair and equitable contribution towards the target of reducing leakage, taking account of the fact that it has one of the lowest levels of leakage in the country and has already done a lot. To this effect, the company is expecting to reduce its leakage by 40%. The industry target for leakage is 50%. However, ESW feels it would not be able to achieve this without undertaking a programme of mains replacement at a significant cost, which would be disproportionate, especially in relation to projected cost of £1 billion for the desalination plant in Essex and the Southend Reuse scheme. We agree that a proportionate approach to leakage is reasonable, especially if this avoids costly work that delivers only limited benefits. However, it is not clear to us what, if any, discussions ESW has had with other water companies in England and Wales to ensure that the target of reducing the overall leakage across the country by 50% can still be met if ESW reduces its leakage by 40%. We would like ESW to clarify this. The reductions in leakage will be achieved through a combination of asking customers to address customer supply pipe leakage (alongside compulsory smart metering) and active leakage and control activities. These proposals seem to be more or less of the same actions the	For the revised dWRMP24 we have committed to a 55% reduction in leakage by 2050 in the NW region so that we can achieve the national 50% target companywide. Our approach in AMP7 has delivered some good reductions to date so we are confident that doing more of the same things will deliver the expected results in the short term. We also continue to assess innovative new techniques, like satellites and no dig repairs, which can help us to be more efficient in future. We currently have no plans to change our supply pipe repair policy although we do expect the roll out of smart meters to increase the number of supply pipe leaks that we find proactively so we can inform customers.

SoR Ref	Consultee	Consultee Response	ESW Response
		company has been taking to date. Therefore, we want to see an explanation that gives us confidence that a continuation of this strategy will enable the company to meet its stated targets. Whilst the company has discussed its work with the top 5% highest water users, and fixing leaking customer toilets, it is unclear what ESW's policy is for customer supply pipe leakage. Ofwat are encouraging companies to evaluate the benefits of a common industry approach to addressing leakage on customers' own pipes. Ofwat expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMPs and CCW supports this. This is particularly important as the WRE research revealed that ESW customers accept responsibility for customer side leaks but want more support from their water company in order to fully support this solution, mainly due to financial worries. Addressing leakage, is a top priority for customers. Leakage is an emotive subject; it is seen as being wasteful and can affect companies' efforts to encourage customers to reduce their own water use. Customers also need to be educated on what to do when they spot a leak. Companies should make it easy for customers to report a leak and also have a transparent process for keeping customers updated on the progress of the actions the company is taking in response to the report. This plan should be a detailed timeline explaining the steps you plan to take to make the improvements to your website and to how you communicate with customers. For example, the steps you take to repair a leak, indicative timescales, the way customers report a leak and how they receive information about the progress of the repair. This will build trust and provide confidence to customers that ESW are acting on customer efforts to help tackle leakage on its network	
139	CCWater	Q10 - We support metering as the fairest way to charge customers for their water use. However, there will always be a proportion of customers who will struggle financially, as well as customers who are worse off after having a meter installed, due to usage that cannot be avoided, for example for medical reasons. It is vital that ESW supports these customers at every stage of the metering journey by providing relevant information and advice. This should include clear explanations of the potential benefits of installing a	As part of the development of our business plan for AMP8, we are exploring a range of innovative tariff options including support for efficient water usage and higher occupancy households, incentivising reduced demand at peak times, and capping bills for customers with medical requirements. Water pricing is an important tool for improving water efficiency and enhancing social equity. Increasing block tariffs are by far the most common charges for water services and they are used in countries where water has been historically scarce such as Spain and the Middle East and key questions we will explore through customer research and trials include developing our understanding of the optimum number of blocks, the

SoR Ref	Consultee	Consultee Response	ESW Response
		meter, advice on how to save water and information about financial help for those customers who may be struggling financially.	volume of water use associated with each block, and the prices to be charged for water use within these blocks. The continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. This has been successfully used in the energy sector with a quarter of eligible customers taking part to reduce their consumption. From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature. We are also working in partnership with Scope, the disability equality charity, to understand opportunities to support customers on low incomes, but not in receipt of benefits, who need to use more water for medical reasons, to develop a bespoke bill cap that encourages efficient water use without penalising for water used for medical purposes. This is similar to WaterSure but could expand eligibility. We plan to support customers during the compulsory transition to smart meters by deploying water efficiency tips, household retrofits, and leakage detection repair to reduce customer bills. In addition, we want to use this opportunity to fully engage with the customers to increase what we know about our customers, so we can provide personalised and tailored advice and support on the best tariff for them alongside signposting to additional support, Priority Services registration, and water efficiency advice. This will focus on those in water poverty and any worse off after the switch. We will also raise digital awareness by encouraging customers to sign up for our app to monitor usage. This will allow us to communicate more regularly with customers about their use of supporting water efficiency and affordability. **Section 7.3.2 updated**
140	CCWater	Q11 - At this stage it appears to be the most sensible approach, however the work with the EA over the next AMP to establish truly sustainable levels of river abstraction is critical to the longer-term approach. If abstraction reductions as outlined in the Best Environment plan are proved to be necessary there is a massive	We note CCWater's comment.

SoR Ref	Consultee	Consultee Response	ESW Response
		impact on later stages of the plan, and future costs for ESW customers.	
141	CCWater	Other Comments - The Non-technical summary document should be accessible and informative to the public as a helpful document for setting the scene of the WRMP. At present, we feel it should be improved in order to engage those readers who are new to the subject. It would be helpful to provide customers with guidance, in the non-technical version, on what you would like them to comment on as you have done on the Executive Summary version. The research from WRE also revealed that customers felt that "a focus on education was something that was felt to be potentially missing". Improving the draft plan will benefit the company and consumers by providing material and tools to better engage on water resource issues in the future. We feel the non-technical summary could be improved. It would benefit from the use of more infographics to help to enhance comprehension and understanding within all sections of the document. We would also recommend the use of video clips for engagement with a much wider audience. This is particularly important when it comes to issues that both directly impact on customers such as smart metering and water saving or their priorities such as leakage reduction. For those readers who choose to take a deeper look into the plan, it would be helpful to include footnotes, page numbers or preferably direct links directly within the Non-technical summary highlighting where in the technical documents they can find the underlying information.	We thank CCWater for its comments on our non-technical customer summary which we have subsequently updated.
142	CCWater	Q3 - We are unable to give a definitive answer at present as we consider that more detail is needed on the following: **Demand -** We seek reassurance that the PCC reductions planned in this dWRMP will enable the EIP interim PCC target of reducing household water use to 122 litres per person per day by 31 March 2038 to be achieved. In the plan, there is significant reliance on demand side options and whilst the dWRMP outlines that this will be gained through compulsory smart metering, behaviour change programmes and leak detection technology, we felt that the document lacked detail on how this might be achieved. Greater detail is required on how these will be implemented and the expected impact of each measure. The dWRMP plans for a compulsory smart enabled metering scheme which will be fully	**PCC** We confirm that the PCC reductions planned in our dWRMP24 should enable the EIP interim PCC target of reducing household water use to 122 litres per person per day by 31 March 2038 to be achieved. Our Non-Household (NHH) demand reduction strategy (See **Section 7.3**) was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Pilots are happening in this AMP to reduce household water use at time and after

SoR Ref	Consultee	Consultee Response	ESW Response
		smart by 2035. We would like to see more detail on the timeline of the roll out. The dWRMP assumes that a reduction in demand will occur for households upgrading to smart meters. We want the final document to detail how the assumption has been arrived at. It is not the fitting of smart meters that will achieve this reduction, it is a behaviour change of customers to use less water that is required. We have yet to see firm evidence that your customers will make the behaviour changes that you require. What pilots do you have to draw upon now to demonstrate this can be achieved? With Ofwat's updated charges scheme rules coming into effect from April 2023, we want the company to explore how innovative tariffs (linked to smart meters) could help to encourage people to reduce water use (households and non-household). We would be interested to hear the results of any pilots you conduct on this. There is a clearly articulated need to help customers use less water and the experience over recent years has demonstrated how challenging this can be. We believe there is a need for a real step change in the way we engage with the public on these issues, particularly in the areas facing the biggest supply challenges. Companies and other stakeholders need to do more to raise awareness and to persuade people of the need to value water and use it more wisely. This needs to be a key priority as it will also help customers to control their bills. We have seen good practice in this area from Wessex Water Community Connectors initiative. We would also like to challenge the over reliance on the Government's initiatives (labelling and modified building regulations for new builds). Although these measures are likely to help to reduce water demand, they will still rely on behaviour change, and understanding of the label and the most efficient way to use the relevant white goods. The company needs to build in more thinking on what action it can take to address behaviour change. We note that the company will be providing enhanced support to change water use behaviour to the top 5% highest HH water users, this is welcomed, but the document should detail the expected impact of this action. Demand management for businesses should be an integral part of any strategy to address risks to future water supplies and meet the EIP's ambition to reduce non-household (for example, business) water use by 9% by 31st March 2038.	installation of a smart meter. These will continue to evolve and enhance our understanding of the effect water efficiency activity can have in tandem with smart metering. Our main WRMP document provided a detailed summary of the demand, supply, and options assessments on which our baseline and final plan supply demand balances were based. Our WRMP is supported by a suite of Technical Reports which contain further detail of the assessments. We felt that our main WRMP document gave the right level of detail for our stakeholders and customers, but recognised that in some cases, stakeholders might want to see the more detailed reports. For the draft WRMP these were available upon request as stated on our website. However, for the revised draft we will be publishing our technical reports on our website alongside the main report to make it easier for our stakeholders. We will also review the level of detail in our main WRMP document to ensure it is appropriate, in light of our consultation feedback. We have aligned to the lower estimate saving for water labelling with no minimum standards. For building regulations for new builds we have aligned to the current optional level of 110, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100. There is a lack of clarity on exactly when and how labelling will be delivered and so detailing plans of how ESW would support a roll out is not feasible at this stage. A collaborative national direction and action would enable the greatest benefit, not wholesaler-only led action, but of course we will play an active role in engaging our customers around water labelling. Our developer incentive has been in place this AMP. We await to see the results and impact of the Thames Water work on new development incentive (water neutrality). Metering Consumption savings resulting from compulsory metering have been treated like savings for selective metering (change of occupier), using data from historically selective metered customers in our Essex region. With regards to behaviour change saving assumptions related to water efficiency interventions, we have used the UKWIR Project WR25: Cost Benefit of Baseline Water Efficiency Activities, which provides

SoR Ref	Consultee	Consultee Response	ESW Response
			industry-agreed assumptions. As part of our Water Efficiency Strategy, we continue to actively focus on measurement and assessment of behaviour change which, whilst we acknowledge is difficult, will continue to refine our understanding. In preparation for compulsory metering we are reviewing all of our customer communications and supporting online guidance to ensure the remit for metering and the benefit for the customer, wider society and environment are clear. As part of the development of our business plan for AMP8, we are exploring a range of innovative tariff options including support for efficient water usage and higher occupancy households, incentivising reduced demand at peak times, and capping bills for customers with medical requirements. Water pricing is an important tool for improving water efficiency and enhancing social equity. Increasing block tariffs are by far the most common charges for water services and they are used in countries where water has been historically scarce such as Spain and the Middle East and key questions we will explore through customer research and trials include developing our understanding of the optimum number of blocks, the volume of water use associated with each block, and the prices to be charged for water use within these blocks. The continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. This has been successfully used in the energy sector with a quarter of eligible customers taking part to reduce their consumption. From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature. We are also working in partnership with Scope, the disability equality charity, to understand opportunities to support customers on low incomes, but not in receipt of benefits, who need to use more water for medical reasons, to develop a bespoke bill cap that encourages efficient water use without penalising for water used for medical purposes. This is similar to WaterSure but could expand eligibility.

SoR Ref	Consultee	Consultee Response	ESW Response
			We plan to support customers during the compulsory transition to smart meters by deploying water efficiency tips, household retrofits, and leakage detection repair to reduce customer bills. In addition, we want to use this opportunity to fully engage with the customers to increase what we know about our customers, so we can provide personalised and tailored advice and support on the best tariff for them alongside signposting to additional support, Priority Services registration, and water efficiency advice. This will focus on those in water poverty and any worse off after the switch. We will also raise digital awareness by encouraging customers to sign up for our app to monitor usage. This will allow us to communicate more regularly with customers about their use of supporting water efficiency and affordability.
143	CCWater	Q3 -**Demand** § We note that the NHH demand forecast includes new demand from new free ports and power stations in Essex and new food processing and cosmetic factories, and a nuclear power station in Suffolk. We'd like to hear more about how you will be reaching out to these developments to help them to make their sites as water efficient as possible, for example by the use of grey water systems, including rain water harvesting, waterless toilets, and having consideration of water use and reuse at the centre of their designs. § The dWRMP needs to have more detail on how the wholesale company will work with business customers and retailers, in the short and long term, to reduce demand and increase water efficiency and the possible impact on figures this could have. The NHH retail market has so far failed to deliver a market for water efficiency assistance for business customers in England to the extent that was envisioned when the non-household retail market opened for all businesses in 2017. While the introduction of a new business demand Performance Commitment by Ofwat in the PR24 final methodology means there will be greater transparency and an opportunity set challenging targets, this is not a regulatory measure that can deliver demand reduction by itself. Wholesale companies' plans need to be clearer on how they will work with stakeholders to manage business demand. We would like to see greater innovation	**Non-household demand reduction** Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. This will allow us to meet the national target to reduce NHH demand by 9% by 2038 (excluding growth). Our new NHH water efficiency strategy has been developed with input from WRE, water companies, retailers and water demand consultants. This has ensured development of what we believe will be an effective strategy aligned to other water company strategies in the respective regions. As stipulated in Ofwat's Business Demand definition, we will continue to engage retail water companies (and others) in delivery of the strategy. See **Section 7.3.** In terms of new NHH demand, we suggest that where feasible, Local Planning Authorities and the Environment Agency use development control and environmental permitting process to ensure that all new non-household development and permitted processes are water efficient from the outset. **Customer Summary and non-household demand** We have updated our Customer Summary to clarify NHH demand.

SoR Ref	Consultee	Consultee Response	ESW Response
		and ambition in demand management, with the wholesale company showing how it will engage with business customers and retailers on joined up strategies to help reduce demand. § In the non-technical document, it states that average megalitres used per day for all NHH's in 2050 forecast, if we don't take any action now, is 89ML/d and after you implement your plan is 89.ML/d. We'd like for it to be made clear in the plan how much reduction in ML/d is needed to reach the neutral position. § We are concerned that the dWRMP currently continues to restrict growth in the company's Hartismere Water Resource Zone by having a moratorium on supplying new non-domestic demand for manufacturing and processing until 2032. The EA gave permission to the company to publish its dWRMP with the condition that it presents a plan that does not constrain NHH growth. We consider that the published plan does constrain NHH growth in Hartismere. § We are concerned that the review point for the Southend Water Re-use scheme is only 4 years away in 2027 and the decision point is 2030. The time plans shown in the document show the enhanced Demand Management plan including compulsory metering as only starting in 2027 so there is inadequate time to measure the impact of these before having to commit to an expensive capital investment solution. § We would like to see the company pull forward and accelerate its demand management programmes particularly in the areas that would have the potentially the most beneficial impact on the plan, e.g. south Essex and Hartismere. Could accelerated demand management also delay the need to progress the Lowestoft water reuse scheme, so that the North Suffolk winter storage reservoir could be pursued instead? We want the company to respond to this.	**Hartismere water resource zone moratorium** We met with the Environment Agency prior to publishing our draft WRMP24 and confirmed that we could not put forward a legally compliant plan unless the Hartismere water resource zone moratorium on new non-domestic demand was in place. Without the moratorium, we would need to include new non-domestic demand in AMP8 and this would cause: - a supply deficit that could not be solved; - an increase in abstraction above recent actual utilisation levels which could cause a deterioration int he environment; and - an exceedance of authorised abstraction licence quantities. Consequently, we were directed by Defra to publish our draft plan for consultation. **Adaptive pathways** We have updated the monitoring plan for the High PCC adaptive programme which includes Southend Reuse. **Acceleration of Demand Management** We confirm that while we do not consider it possible to accelerate our leakage reduction programme, we are accelerating our smart metering programme. However, this will not be sufficient to avoid construction of Water Reuse schemes. Our WRMP24 preferred final plan is based on us accelerating our smart metering programme. In order to meet AMP8 targets, we: - are currently concluding our smart communication network and meter procurement activity and will rollout our smart communications network across both Essex and Suffolk in 2023/24. We will also increase resilience through contracting with two different smart meter providers from October 2023; - are prioritising the Hartismere water resource zone as the first area to have smart communications and now envisage this will be in place in Q4 of 2023. We are also accelerating smart meter rollout in the water resource zone with the ambition to install or replace smart meters at all domestic and Non-domestic premises by the end of AMP7; and - currently exploring opportunities to contract with an install partner across Essex and Suffolk with a view to a long-term increase in install capacity. We now expect this will go live in Q1 2024. In the meantime we are on-boarding a tactical install partner to support an increase in install volume over the next 6 months.

SoR Ref	Consultee	Consultee Response	ESW Response
144	CCWater	Q3 **Supply** In Essex there are two schemes in the plan: 1: Linford Water Treatment Works – using an existing and creating a new borehole by 2030 & 2: Southend Water Reuse Scheme- only needed if PCC is not reducing as quickly as forecast. (See point above re Demand Management plans). In Suffolk there are 5 schemes in the plan: 1: Improving transfers between Water Resource Zone's – building new pipelines to move water around the company's network by 2030. 2: Build new treated water storage reservoirs at treatment works in Hartismere and Northern Central. 3: New pipeline from an existing well in Bungay to a nearby water treatment works by 2030. 4: Lowestoft and Caister water reuse schemes – buying wastewater off Anglian Water to recycle. Lowestoft by 2032 and Caister by 2045 & 5: North Suffolk winter storage reservoir – could be ready by 2035 if the company does not implement Lowestoft water reuse scheme. If it does, then it will be delivered by 2041. Raw Water Transfers considered: Given that some water companies find the scale of the water resources needed cannot be met with solutions within their own supply areas, it is encouraging to see that potential raw water transfers have been explored through the regional water resources groups. The opportunity for inter-regional transfers has been assessed by the regional water resources groups. It was agreed at national reconciliation workshops that these would not provide best value for WRE, however Essex and Suffolk Water have considered intra- and inter-regional transfers with both Thames Water and Anglian Water. The company asked Thames Water for an early termination of the Abberton reservoir raw water transfer agreement, Thames was unable to agree to this request due to it not having alternative supplies in place until 2035. The company has considered regional North Essex to Central Suffolk Transfers with Anglian Water, including a "put and take" arrangement where one company transfers water into one part of the system and then takes the same amount out in another location. The complexity of this meant the company did not include it in the modelling.	We have carefully considered the potential for put and take options across our borders with Anglian Water, where one company transfers water into one part of the system and then takes same amount out in another location. However, there are several challenges that have led us to discount this option, at this time. One challenge is the configuration of our respective neighbouring networks, and the ability to balance an equitable trade between the two companies, as the demand for water varies throughout the day and the year, due to behaviour and weather. The donor company must provide the necessary volumes while maintaining system pressures. The potential impact of these factors on the resilience of our Essex WRZ was unacceptable. Another challenge is the risk of water quality issues where water is imported into a less constrained zone. Fluctuations in supply and demand, as well as potential pressure differentials, would increase the risk of unsatisfactory water quality in the receiving zone. These complexities mean it is not currently possible to model the arrangement using supply and demand or economic modelling tools. As a result, these options cannot be fairly tested against other options. Furthermore, both we and Anglian Water face considerable uncertainty with regards to the Habitats Regulations sustainability reductions that will restrict our abstractions within the Broads SAC, and elsewhere, which are not yet confirmed. This uncertainty makes it impossible to commit to new long-term water trade agreements. Therefore, we have discounted any new inter-company transfers in the planning horizon. Although, as new resource options become available, we will reassess potential opportunities in the future, and continue to work closely with Anglian Water directly and through Water Resources East.

SoR Ref	Consultee	Consultee Response	ESW Response
		Difficulty in modelling a potential cost effective and viable solution appears to be poor reason for excluding it entirely from consideration, further work should be carried out to resolve the modelling issues. It is unclear if any collaborative work with other neighbouring water companies, such as Affinity Water has been carried out when looking at supply options. We would like this clarified in the final plan.	
145	WRE	Demonstrate that our plan represents best value for all sectors and the environment, even though some reductions in licenced abstraction volumes may not be achievable as quickly as some stakeholders would like. We will also need to justify very clearly any cost differential between the 'least cost' and 'best value' pathway, as part of a strengthened assessment of the costs and benefits, taking full account of the often uncosted externalities and wider benefits, and sensitivity analysis for both the demand and supply-side aspects of the plan.	We have presented both a Least Cost and Best Value Plan in **Sections 8.9.2 and 8.3** of our revised draft WRMP24. The costs difference between these plans are presented in **Table 84** and summarised in **Section 8.9.5** of the main report. Our WRMP24 sets out how we will provide a secure supply of water to our customers whist protecting and enhancing the environment. Both current (base) and forecast household and non-household mains water demand are included in our distribution input (demand) forecast. The mains drivers for the new supply schemes in our preferred plan are: - protecting and enhancing the environment; and - growth in demand for mains water from non-household businesses including those in the food processing and energy sectors. In terms of protecting the environment, our preferred final plan includes all statutory sustainability reductions needed between 2025 and 2030 and further sustainability reduction that may be required in the 2040s as part of Environmental Destination (ED). The ED sustainability reductions will be refined and agreed in 2026 following AMP8 WINEP investigations. Additionally, some of the ED sustainability reductions may be brought forward if we move to the **Habitats Regulation Sustainability Reduction a**daptive pathway and plan. This will be confirmed once the Environment Agency has completed its own investigation in 2023/24. Our revised draft WRMP24 includes our NHH water efficiency strategy which will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This has been included in our final plan demand forecast. The water demand associated with new growth (new NHHs) will not be accounted for as we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period. However, we believe there is a role for Local Planning Authorities development control processed the Environment Agency's environmental permitting process to ensure that all new development / process are water efficient from the outset.

SoR Ref	Consultee	Consultee Response	ESW Response
			Our Best Value planning process has considered the costed and uncosted externalities of each option. Indeed, we have an adaptive pathway which will allow us to develop the North Suffolk reservoir instead of Lowestoft Reuse as we believe the reservoir option's wider environmental and social benefits are significantly greater than those of the Reuse scheme which has high energy and carbon costs.
146	WRE	Whilst the statutory timetable for finalising WRMPs is short and improvements will need to be prioritised, we look forward to working with our member water companies to: - Reconsider the case for further demand-side action, in the context of clear expectations that the national targets for leakage, per capita consumption, and public water supply consumption per capita will be achieved by all companies, together with the new interim targets for 2027 and 2032 included within the government's Environmental Improvement Plan 2023. In particular, we recognise the potential to go further with non-household options even though requests for new non-household connections including for green hydrogen production could make a net 9% reduction by 2038 difficult to achieve. We also need to explain how we can be confident in our demand-side ambitions and show the further compensatory action that would be taken if savings fall short. - Exhaust the potential to bring forward further, cost-effective supply-side options to help meet the forecast deficits in the short to medium term, without straying from or undermining the long-term best value pathway. We will also need to be able to satisfy stakeholders that the significant growth projections in the region can be accommodated at the same time as making progress on improving environmental outcomes. - Explain the role that drought management strategies and levels of service play in managing the risk of water supply shortfalls. This should factor in the lessons from last year's agricultural and environmental drought. - In all of the above, work collectively to make sure the suite of regional plan documentation does justice to the huge amount of engagement and cutting-edge modelling and analysis that	We would like to thank WRE for their comments and for developing the Water Resources East regional plan which has inform our ESW WRMP24. We confirm that the demand management options in our revised draft WRMP24 preferred final plan will allow us to meet national targets for PCC and non-household demand reduction. We have undertaken further analysis and reviewed whether we can reduce leakage by more than 40% by 2050. However, given our excellent baseline performance, we have concluded that this is not possible for deliverability and affordability reasons. We have a "High PCC" adaptive programme should PCC not reduce as we forecast it too. In order to bring forward supply options, following publication of our draft plan, we applied for early funding through Ofwat's Accelerated Infrastructure Delivery project. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for four of our supply schemes including Linford WTW and Borehole, Suffolk Strategic Network Enhancements, Lowestoft Reuse and North Suffolk Reservoirs. This means the earliest delivery date for the following schemes will be two years earlier than our draft plan indicated as follows: - Suffolk Strategic Mains: 2028/29 - Lowestoft Reuse: 2030/31 although it's now not selected until 2032/33 given Barsham nitrate reduction scheme is now included in our preferred final plan; and - North Suffolk Reservoir: 2033/34 although it is not selected until 2040/41 when further Environmental destination sustainability reductions are implemented. The delivery date for Linford WTW and Borehole remains at 2027/28 because our draft WRMP assumed detailed engineering design would start in 2023 and not in 2025 as is the case for the other schemes. We have included a 'Lessons learnt from 2022 Drought' document with our Revised WRMP report, which sets out our experiences of demand management from last year. These experiences have led us to review and extend the period over which we assume L1 and L2 restrictions on customer water use is effective in our deployable output

SoR Ref	Consultee	Consultee Response	ESW Response
		underpins our respective plans – including the multi-sector dimensions.	modelling. We commit to continue working collaboratively as we have during the development of the regional plan. We have found the weekly WRE Alignment Group meetings to be essential both in the development of the regional plan but also our own ESW WRMP24.
148	WRE	Show that the environmental improvements promised by the plan are real and significant, have been prioritised to achieve early benefits for sensitive waterbodies (including but not limited to chalk streams), and with the potential for abstraction reductions to be complemented by nature-based approaches and river restorative action once more detailed investigations and optioneering are undertaken.	Improvements resulting from the plan are considered as part of the SEA and are reported separately in the Environmental Report which accompanies the WRMP. Nature-based approaches form a key part of the proposed mitigation for HRA/BNG/NCA assessments. In the Environment Report accompanying the revised draft WRMP we have included more detail on recommended next steps as we move from concept stage into detailed design in the Appendices which detail each of the Environmental Assessments (HRA, BNG/ NCA etc.)
150	WRE	Maximise the potential for significant additional public benefits from the two major new reservoirs proposed in our plan. For example, exploiting open channel transfers rather than underground pipelines to bring water to the reservoir sites will be a key enabler of wider benefits for agriculture, flood risk and water level management, for biodiversity improvement and potentially for navigation	In order to bring forward supply options, following publication of our draft plan, we applied for early funding through Ofwat's Accelerated Infrastructure Delivery project. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for four of our supply schemes including for the North Suffolk Reservoirs scheme. This will allow us to undertake further detailed engineering design two years earlier than planned. During this process, we will consider options for maximising the potential for additional public and environmental benefit.
152	East Suffolk	Q1 - The dWRMP explains that ESW have engaged with local planning authorities to inform the household and population growth forecasts and household demand forecasts, and to understand future non-household growth to inform the non-household demand forecast. The plan sets out low, medium and high population growth scenarios to account for uncertainty. The 'medium' scenario is stated to reflect current Local Plan housing growth trajectories, and therefore we take it that the growth planned for in the Council's two Local Plans (Suffolk Coastal Local Plan, 2020, and the Waveney Local Plan, 2019) has informed this. The Local Plans collectively plan to deliver at least 916 dwellings per year over the period to 2036 (across both the ESW and AW supply areas), however include allocations and policies to exceed this requirement. Both plans were underpinned by Water Cycle Studies undertaken at the time the plans were prepared. Including a 'high' scenario, as set out, is considered sensible noting that the housing requirements in the Local Plans are a minimum and to provide flexibility in relation to growth that may be planned through future Local Plans. The	We can confirm that the growth from Local Authorities Housing Plan projections has been used in our Final preferred plan. And our Housing Need scenario should incorporate additional housing growth on top of our medium central scenario. It is important to note that we also apply a level of uncertainty to our forecasts through our target headroom process which should account for the adjustments you have noted. We are aware that Local Authority Plans are refreshed every five years and as a result update our population forecasts on an annual basis. Please refer to **Section 4** of the demand forecast technical report for more information on population forecasting.

SoR Ref	Consultee	Consultee Response	ESW Response
		'high' scenario looks to reflect current national policy around planning for housing growth, using the Government's Local Housing Need calculations. ESW should be aware that Local Housing Need figures are not always higher than current Local Plan housing requirements. For example, the Local Housing Need figure for the Suffolk Coastal area as at 1.4.21 was 528 dwellings per year, compared to a housing requirement in the Local Plan of 542 dwellings per year. It is noted that following the final year of data, under both scenarios ONS projections are then applied up to 2050. As an adjustment to account for affordability is applied to household projections under the Government's Local Housing Need calculations (and in 20 specified urban areas of England an urban centres uplift is applied), growth forecasts for the latter years should also reflect that an uplift above household projections may be necessary. Furthermore, there is a requirement for all local planning authorities to review their local plans every five years and consider whether they need to be revised. Future Local Plan reviews could present new growth in the period prior to 2036, which would depend on the evidence produced at the time.	
153	East Suffolk	Q1 - NHH - In relation to NHH, it is noted that data from local authorities has been used to inform projections, which is supported as an approach. It is expected therefore that the employment growth planned for to 2036 in our two Local Plans has been captured in the forecasting. It is also noted, in paragraph 1.4, that non-household demand also includes demand from Sizewell C and from hydrogen production – this is supported as it is important to factor in the potential future water demand from these specific sectors. It will be important for ESW to work with the Council on an ongoing basis, during both the preparation and implementation of local plans, in order that there is an early understanding of how potential future growth plans could impact on the projections for demand for water, to ensure that water planning is responsive to wider economic and growth objectives and also that Local Plans can be developed based on an understanding of up to date water supply positions. Growth planned for in Local Plans (both current and future plans) will influence the future demand. It should be noted that East Suffolk Council's two Local Plans (Suffolk Coastal Local Plan and Waveney Local Plan) cover planning to 2036, and there will of course be a greater level of uncertainty over both scale	We will always endeavour to work closely with all local authorities when developing our plans and have contacted all Local Authorities on several occasions to ensure up to date information on business growth, housing growth and new build planning standards. To understand our current and future NHH demand we began by analysing our current NHH demand at an industry sector level. We contacted all Local Authorities located within our operating areas to request information they hold on new NHH developments and growth. In addition, we also contacted all our large users (customers that use >20,000m3 per year) requesting the provision of expected changes to demand in the short and medium term. Specialist consultant Ovarro DA Ltd (Ovarro) were employed to provide a non-household demand forecast for each water resource zone using the Local Authority and Large User data we provided, together with our non-household consumption data from the last five years and our population and property forecasts. In addition to the data we provided, Ovarro used employment and Gross Value Added (GVA) ONS data along with large scale commercial project search data to create the demand forecasts. Ovarro used the consumption data for each WRZ, and this was split into three segments in order to analyse underlying trends in different industry sectors. Large known new demands likely to start in the next few years, such as the construction and operation of power generation plants have also been applied on top of the base

SoR Ref	Consultee	Consultee Response	ESW Response
		and location of growth over the period beyond this. The Council supports that the demand forecasting has also taken account of demand scenarios and also climate change projections. It will be important for Essex and Suffolk Water to work with local planning authorities on an ongoing basis, during both the preparation and implementation of local plans, in order that there is an early understanding of how potential future growth plans could impact on the projections for demand for water, to ensure that water planning is responsive to wider economic and growth objectives and also that Local Plans can be developed based on an understanding of up to date water supply positions. In relation to non-household forecasts, the Council would expect ESW to work closely with LAs to understand the employment growth (quantum and location) planned for in current and future Local Plans. Clearly there is a greater deal of uncertainty in relation to water demand associated with planned employment growth, where end users are not known, however scenarios could potentially be applied to the data. Other factors that will have an influence on the demand for water include Nationally Significant Infrastructure Projects, in particular energy infrastructure, such as accommodating the potential water requirements associated with the now consented Sizewell C nuclear power station as referenced in the ESW WRMP does so. The consideration of other factors such as increasing demand from agriculture and changes in manufacturing processes should be kept under review. The ambitions to place the environment at the heart of the plan are supported to ensure the best outcomes for the natural environment in the ESW area and in particular protected habitats. It is important that shorter term constraints should not hold back the delivery of the wider, longer-term benefits of investing in natural water systems, especially in light of future climate change impacts. here may also be opportunities to bring about greater environmental benefits through aligning with other environmental enhancement objectives, for example integration of enhancements to the water environment within future Local Nature Recovery Strategies.	forecast derived from historical consumption. Please refer to **Section 6** of the demand forecast technical report for further detail on the NHH forecast.
154	East Suffolk	Q2 - Overall, the approach of a combination of both demand and supply side options is acknowledged and it is expected that a range of measures should provide resilience in planning for water supply over future years.	We thank East Suffolk Council for their comments. We acknowledge the concerns around the impact of major infrastructure development on the East Suffolk area. Engagement with all relevant stakeholders will be conducted

SoR Ref	Consultee	Consultee Response	ESW Response
		It is noted that there are significant supply side options proposed within the plan, including the proposed Lowestoft Reuse and north Suffolk reservoir in East Suffolk. These are significant infrastructure projects, both individually and, for East Suffolk, cumulatively and engagement with the Council at an early stage is essential to ensure that the Council is well-informed and can properly plan for its role in the consideration of such schemes. Engagement with communities, who may not be familiar with schemes of such a scale or nature, will also need to be carefully planned for at appropriate times. Major infrastructure projects typically involve large direct / indirect CO2 emissions during construction and operation, so the climate change impacts should be given serious consideration in the cost benefit calculation compared to other potential solutions outlined in the draft plan. Whilst not applying in the Blyth or Northern Central Water Resource Zones in East Suffolk, the Council notes the moratorium to 2032 on non-household demand in the Hartismere Water Resource Zone which largely covers parts of northern Mid Suffolk but just extends into some very small rural parts of western East Suffolk. Clearly a moratorium is not an ideal position, and we note that the plan explains that options have been investigated to address this. The statement that Essex and Suffolk Water will make all reasonable endeavours to meet the non-domestic demand earlier than 2032 is supported in principle however this should of course be alongside ensuring that other areas retain a sufficient level of supply. The draft WRMP refers to a strategic pipeline to transfer water from the Northern Central zone to the Hartismere zone from 2030/31 – given headroom is also understood to be limited in the Northern Central zone it should be ensured that this does not present further challenges in that zone. The Council would also welcome further discussions around any proposals for the pipeline at an early stage.	as our plan progresses and during detailed design of each new resource option. As part of the water resources management plan process, we are ensuring that we have plans in place for a secure and resilient supply for water in all our water resources zones. We have experienced in delivering large scale infrastructure projects and have well establish processes in place including those for engagement with communities. We will ensure we start this in a timely manner. Carbon emissions have been calculated for each of demand management and supply side options and are presented in **Section 9.3** of our revised draft WRMP24 main report. This section also describes our net zero strategy. We confirm that the Hartismere water resource zone moratorium on new non-domestic supply applications can only be fully lifted once the Lowestoft Reuse scheme is operational. We now forecast that the moratorium can be fully removed in 2032/33 albeit that we will be able to supply some new non-domestic demand from 2028/29 once the new Suffolk Strategic Mains are in supply. Our project group for the strategic pipelines is currently being established. An early priority for the project group is to engage with East Suffolk Council.
155	East Suffolk	Q3 - The approach to demand management in **Section 8.3.1** of the draft WRMP is supported, however it isn't clear whether demand	**Non-household demand reduction strategy** Our Non-Household (NHH) demand reduction strategy was not developed in time for

SoR Ref	Consultee	Consultee Response	ESW Response
		management measures will extend to non-household customers. Measures and incentives to reduce water use in non-household customers should form part of the plan and it is noted that the draft AW WRMP sets out specific ways in which demand reductions could be encouraged in the non-household sector. The ESW WRMP could follow a similar approach. In particular as a moratorium is proposed on non-household uses in the Hartismere Water Resource Zone and due to tight headroom elsewhere, consideration should be given to whether anything additional can or should be done in relation to demand management in this sector. The Blyth WRZ and Northern Central Suffolk WRZ cover the northern part of East Suffolk. It is noted that headroom in water supply is tight for non-domestic uses. Whilst it is understood that a moratorium on future non-domestic uses is not proposed for these WRZs in East Suffolk (unlike that for Hartismere to the west), there is limited clarity on what the headroom is, and what kind of land uses or sectors will need particular focus. Whilst we understand that planned growth (including in the Local Plans) has been accounted for we would expect to maintain a dialogue with ESW to understand in advance any specific issues for new development coming forward, and for solutions to be investigated. It is noted that meeting forecast demand alongside achieving environmental outcomes and acknowledging the impacts of climate change will involve both supply and demand side options. The Council supports that demand side measures have been considered 'first' however these should be continually reviewed should further opportunities to increase the impact of managing demand become available or more feasible. The timeline for implementation of the plan shows a focus on demand management measures in the short term, which is welcome however looking to reduce demand should feature across the timeline of the plan, with regular reviews providing an opportunity to review behaviours, opportunities and new technologies that could further reduce demand in the latter years of the plan. It should also incorporate the implications of the latest climate change projections as new data emerges.	inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This will be included in our final plan demand forecast. The water demand associated growth (new NHHs) has not been accounted for as we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period. See **Section 7.3**. **Ongoing Dialogue with East Suffolk Council** We are keen to maintain an ongoing dialogue with East Suffolk Council both directly and through the Suffolk Water Forum of which we regularly present and contribute. **Supply Headroom** The supply headroom in each of our water resource zones is presented in **Section 8.4** of our WRMP24 main report. Regardless of the size of the supply headroom, we highly recommend developers contact ESW as early as possible to discuss new connections and the time frame within which they can be made. **Demand Management over the full Planning Period** We confirm that our leakage reduction and water efficiency strategies cover the full 25-year planning period. However, our metering strategy, to compulsory meter all properties in Suffolk by 2030 and for all properties to have a smart meter by 2035, is fully delivered by 2035. We will use the data from our smart meters to prioritise our water efficiency programmes which will cover the full planning period. **Climate Change** Our demand forecasts have been updated to include the latest UKCP18 climate projections. Please see **Section 4.10** of the WRMP24 main report.

SoR Ref	Consultee	Consultee Response	ESW Response
		Consideration should be given to whether more could be done to either strongly encourage or enforce sustainable water use practices within the non-household sector. National planning policy and guidance does not set out detailed provisions in relation to specifically reducing water demand in new non-household uses and, whilst the Council's two Local Plans expect BREEAM 'very good' (which includes water efficiency measures) for some non-household uses, any role that ESW can play in seeking to strengthen national policy and regulation in this regard would be supported.	
156	East Suffolk	Q4 - The lack of drawings or indicative plans in relation to the supply side solutions has made reviewing and assessing the proposals in the consultation and their interaction with other projects in the district more challenging. Even if sites or routes could not be accurately identified at this stage, the use of indicative site areas and swathes would have been helpful. There are a number of Nationally Significant Infrastructure Projects (NSIPs) and other large scale infrastructure projects which are either consented or proposed within the district, a number of these are spatially concentrated. By virtue of the likely geographical route of the new pipeline between Barsham and Saxmundham and timing of its delivery, the proposal may interact with these projects, which include Sizewell C. It is essential that early engagement and pre-application advice is gained from East Suffolk Council to ensure that the potential cumulative effects resulting from the works are minimised. For example, the highway network is likely to be under significant pressure from the movements associated with the construction phase of Sizewell C and other NSIPs at the time the pipeline is proposed to be delivered, therefore the introduction of further disruption would be a challenge. It is important developers and promotors working within East Suffolk, plan and work collaboratively to minimise disruption and adverse impacts of projects. We would welcome early communications with ESW on their proposals and would be happy to facilitate engagement with other project promotors and developers.	In order to bring forward supply options, following publication of our draft plan, we applied for early funding through Ofwat's Accelerated Infrastructure Delivery project. Subject to review of our progress on our AMP 7 enhancement programme, Ofwat has allowed PR24 transition expenditure funding for four of our supply schemes including Linford WTW and Borehole, Suffolk Strategic Network Enhancements, Lowestoft Reuse and North Suffolk Reservoirs. This means the earliest delivery date for the following schemes will be two years earlier than our draft plan indicated as follows: - Suffolk Strategic Mains: 2028/29 - Lowestoft Reuse: 2030/31 although it's now not selected until 2032/33 given Barsham nitrate reduction scheme is now included in our preferred final plan; and - North Suffolk Reservoir: 2033/34 although it is not selected until 2040/41 when further Environmental destination sustainability reductions are implemented. The delivery date for Linford WTW and Borehole remains at 2027/28 because our draft WRMP assumed detailed engineering design would start in 2023 and not in 2025 as is the case for the other schemes. The project teams will be in place by September 2023 and it will be a priority for the project teams to liaise with East Suffolk Council to ensure that the potential cumulative effects resulting from the works are minimised.

SoR Ref	Consultee	Consultee Response	ESW Response
		In addition to the related comments in previous answers, the Council considers that planning for a range of solutions under a 'low regret' scenario is an appropriate approach and that significant new supply measures will be inevitable. We note that some of the 'low regret' options such as reservoirs in particular have the potential to deliver wider benefits such as environmental enhancement. The proposed supply side options in East Suffolk represent significant infrastructure and the Council is not able to comment specifically on whether these are the 'right solutions' pending further engagement and greater understanding of the projects proposed.	
157	East Suffolk	Q5 - The Council has welcomed the opportunity to comment at this stage. Given the scale and nature of the supply side proposals contained in the draft plan, the Council would expect early direct engagement with ESW	We commit to meaningful engagement with all relevant stakeholders as our plan progresses and during the detailed design of each new resource option.
158	East Suffolk	Q6 - There is limited clarity on what the headroom is in the Blyth and Northern Central WRZs, and what kind of land uses or sectors will need particular focus. Most Local Plans in the region already adopt the 'optional' water efficiency standard of 110 litres per person per day. This includes both of East Suffolk Council's Local Plans. As currently written, the Planning Practice Guidance on Housing: Optional Technical Standards does not support local authorities in setting more ambitious planning policies than this. The Government has proposed a roadmap towards tighter Building Regulations for water efficiency - the Council would support ESW's support in bringing forward changes in a timely manner.	The supply headroom in each of our water resource zones is presented in **Section 8.4** of our WRMP24 main report. Regardless of the size of the supply headroom, we highly recommend developers contact ESW as early as possible to discuss new connections and the time frame within which they can be made. For building regulations for new builds, we have aligned to the current optional level of 110 litres/person/day, which from surveys to local authorities has been adopted in some areas already as the standard as you state. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100 which we would support if evidence showed it was deliverable and sustainable.
159	East Suffolk	Q7 - The Environment Act 2021 requires responsible authorities to prepare local nature recovery strategies, the purpose of which is to identify priorities for the recovery and enhancement of biodiversity. The Environment Agency's Water Resources Planning Guidance states at **Section 2.3** that consideration should be given to the priorities set out in local nature recovery strategies in the preparation of WRMPs. There isn't yet a local nature recovery strategy covering East Suffolk however, it is recommended that early and ongoing engagement takes places between East Suffolk Council, Essex and Suffolk Water, and other relevant authorities engaged in the preparation of the relevant local nature recovery strategy to ensure that opportunities to support the recovery and	As part of the development of our WRMP to date we have had open and transparent conversations with the local councils in Suffolk regarding various aspects of our supply demand balance and the new supply options within our WRMP. This engagement will be ongoing through the detailed design and delivery phase to ensure that opportunities to enhance biodiversity and to support the emerging local nature recovery strategies are realised. **Section 1.3 and 1.4** of our revised draft WRMP24 has been updated to reflect this response.

SoR Ref	Consultee	Consultee Response	ESW Response
		enhancement of biodiversity are considered and taken in the preparation of the WRMP24 and the detailed development of any supply side options. Given the quantity and scale of water treatment / network related infrastructure on the coast and estuaries, consideration should be given to the potential impacts of climate change accelerating rates of erosion plus frequency and severity of flooding events. Collaboration with Coastal Protection Authorities conducting modelling of these impacts would be beneficial.	
160	East Suffolk	Q8 - The Council would support & expect early engagement with ourselves in relation to these proposals – see response to Q2 & comments in response to Q4.	Since the publication of our draft plan, Ofwat has allowed, subject to review of our progress on our AMP 7 enhancement programme, PR24 transition expenditure funding for schemes in its Accelerated Infrastructure Delivery project. This includes funding which will allow us to progress the detailed engineering design phase of the Suffolk Strategic Pipelines, Lowestoft Reuse and the North Suffolk winter storage reservoir. The project teams will be in place by September 2023 and it will be a priority for that team to liaise with East Suffolk Council to ensure that the potential cumulative effects resulting from the works are minimised.
161	East Suffolk	Q9 - We acknowledge the reasons given for not aiming for 50% but suggest that this should be kept under review should there be future opportunities to address leakage further.	The WRMP is submitted every 5 years so we will continue to review our future leakage strategy as we progress towards 2050 and learn more about leakage and the interventions we can apply.
162	East Suffolk	Q11 - We support this approach in principle, subject to further investigations as proposed. The further investigations should include considering how the ambitions can be delivered alongside planned growth.	We have noted East Suffolk Council's comment.
163	GLA	The Best Value Plan for ESW is based on a combination of demand management followed by schemes to create a new water treatment works and initiate a water reuse scheme (only if required) in Essex, and further new infrastructure and reuse schemes proposed for the Suffolk region. It takes an adaptive pathways approach and sets out a variety of pathways which allows ESW to adjust investment depending on the changing conditions. Monitoring progress in the area over the coming years will be essential, to trigger changes to take an alternative pathway, at the right time. Clarity is required on how the plan will be monitored to respond to changes in a timely manner and how customers and stakeholders will be informed of these changes and their cost and environmental implications – for instance, in the alternative high environmental	We have updated our revised draft WRMP24 to provide further on the monitoring plan and the trigger and change points for each of our adaptive programmes. We will continue to assess and review our demand management performance as part of routine Annual Reviews of Supply Demand Balance Index and Annual Performance Reviews, in addition to the trigger points for our adaptive programmes. In Essex, our plans include no-regret options in AMP8 and 9, with the desalination scheme only being selected in the 2040s under the high (Enhanced) Environmental Destination sustainability reduction scenario. These are currently indicative and will be investigated as part of our AMP8 WINP, the outcomes of which will inform our WRMP29.

SoR Ref	Consultee	Consultee Response	ESW Response
		destination scenario noted in the WRMP which would require a new 190Ml/d desalination plant costing £1bn to be constructed in Essex. As you note in the WRMP, this measure would have a poor outcome for the environment and customers, so it will be key to keep the Mayor and other stakeholders informed as early as possible if this alternative pathway (or others) is being proposed. We would welcome further information in due course on intended use of this plant to ensure there is not an overreliance on desalination for water supply in the long-term.	
164	GLA	Demand Management - Your proposed demand management measures include a mix of leakage reduction, smart water meter roll-out, helping households and businesses to use less water, working with the wider water industry to campaign for wider water efficiency standards and taking measures to deal with drought if needed. Leakage reduction measures include active leakage control with permanent hydrophones and targeted mains renewal/rehabilitation, with an aim of achieving at 40% leakage reduction from 2017/18 levels by 2050. While the WRMP indicates that ESW's leakage performance is near industry leading and that the cheaper leakage reduction options have been exhausted, more assurance is needed that reducing leakage beyond the cheapest options will be a priority in this WRMP period. Further detail is required on how ESW will continue to invest in improving infrastructure without placing significant burdens on customers. We note and support the proposed compulsory smart metering scheme by 2035. Apart from metering, we would be interested to understand if ESW are planning to test ways to reduce consumption, e.g. through new tariffs incentivising less wastage for highest water users that we note some other water companies are considering in their WRMPs. To maximise efficiencies we recommend coordinating smart meter visits with wider retrofit programmes (e.g. energy efficiency, home water efficiency visits) and assume that smart meter installation will be combined with home visits. We strongly support your intention to fit smart meters as the default in the meter replacement programme, with priority given to properties where the largest savings can be made (which should include particularly high users). Where meters are being installed, their use must not unfairly penalise customers with	We have developed a plan of all the interventions that we believe are required to deliver our long-term leakage targets, including a significant programme of mains renewal which is very expensive. In preparation for compulsory metering we are reviewing all of our customer communications and supporting online guidance to ensure the remit for metering and the benefit for the customer, wider society and environment are clear. As part of the development of our business plan for AMP8, we are exploring a range of innovative tariff options including support for efficient water usage and higher occupancy households, incentivising reduced demand at peak times, and capping bills for customers with medical requirements. Water pricing is an important tool for improving water efficiency and enhancing social equity. Increasing block tariffs are by far the most common charges for water services and they are used in countries where water has been historically scarce such as Spain and the Middle East and key questions we will explore through customer research and trials include developing our understanding of the optimum number of blocks, the volume of water use associated with each block, and the prices to be charged for water use within these blocks. The continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. This has been successfully used in the energy sector with a quarter of eligible customers taking part to reduce their consumption.

SoR Ref	Consultee	Consultee Response	ESW Response
		genuine high use requirements, for example those with medical conditions, nor increase the financial burden on households generally given the cost-of-living crisis. While the WRMP plan notes that water usage for household customers is expected to decrease, it also indicates that usage for non-household customers is expected to increase from 61 Ml/day at present to 89.2Ml/day in 2050. It is unclear what specific actions and measures will be taken to mitigate this and encourage non-household users to manage their water usage as efficiently as possible. Further clarity is required – it is essential that measures to reduce water demand are addressed by non-households as well as everyday householders. Any smart meter programme and wider water efficiency measures for non-households should be in line with what is planned for domestic users.	From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature. We are also working in partnership with Scope, the disability equality charity, to understand opportunities to support customers on low incomes, but not in receipt of benefits, who need to use more water for medical reasons, to develop a bespoke bill cap that encourages efficient water use without penalising for water used for medical purposes. This is similar to WaterSure but could expand eligibility. We plan to support customers during the compulsory transition to smart meters by deploying water efficiency tips, household retrofits, and leakage detection repair to reduce customer bills. In addition, we want to use this opportunity to fully engage with the customers to increase what we know about our customers, so we can provide personalised and tailored advice and support on the best tariff for them alongside signposting to additional support, Priority Services registration, and water efficiency advice. This will focus on those in water poverty and any worse off after the switch. We will also raise digital awareness by encouraging customers to sign up for our app to monitor usage. This will allow us to communicate more regularly with customers about their use of supporting water efficiency and affordability. **Section 7.3.2 updated+E102** Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. **See Section 7.3.** Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This will be included in our final plan demand forecast. The water demand associated growth (new NHHs) will not be accounted for as

SoR Ref	Consultee	Consultee Response	ESW Response
			we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period.
165	GLA	Government Action - The WRMP acknowledges that it partly relies on Government taking action to reduce demand for water for the long-term, e.g. improved water-efficiency standards for new homes. The Mayor expects continued work with industry groups such as the Water Efficiency Strategy Steering Group and the NGO Waterwise to encourage ongoing progress (per capita consumption is currently around 165 litres per person per day above the national average of around 142). We note that ESW has a target to reduce per capita consumption to 118 l/p/d by 2050 and to 110 l/p/d by 2050 in line with Government targets. We recommend you include further demand measures within your draft WRMP to reduce per capita use even further rather than relying solely on Government action to get you there. The Mayor strongly supports plans for Government action on water efficiency as set out in the recently published Environmental Improvement Plan which considers a new standard for new homes in England of 100 litres per person per day where there is a clear local need, such as in areas of serious water stress as is the case in your water area. We are keen to support you and other water companies with wider advocacy to Government. For example, supporting Government to deliver the mandatory water efficiency labelling scheme and the Review of the Building Regulations linked to the water labelling and to implement a fittings-based approach as set out in the Government Environmental Improvement Plan published this year. These proposals must happen as early as possible.	Our plan incorporates our own action across a range of demand measures including metering and water efficiency. On government interventions, we have aligned to the lower estimate saving for water labelling with no minimum standards in order not to over rely. For building regulations for new builds we have aligned to the current optional level of 110, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100, again lowering the risk. Currently there is a lack of clarity on exactly when and how labelling will be delivered and so detailing plans of how ESW would support a roll out is not feasible at this stage. A collaborative national direction and action would enable the greatest benefit, not wholesaler-only led action, but of course we will play an active role in engaging our customers around water labelling. Our developer incentive has been in place this AMP. We await to see the results and impact of the Thames Water work on new development incentive (water neutrality).
166	GLA	Catchment management / Nature based solutions / Sustainable drainage - We note that ESW are currently developing a 2025-30 Water Industry National Environment Programme (WINEP) including new integrated catchment schemes that will support the delivery of outcomes for the Environment Plan and for Local Nature Recovery Strategies. We look forward to seeing the outcome of this reflected in the revised draft WRMP. Across all water companies WRMPs, we would like to see best value plans that prioritise and include more significant investment in catchment management measures / nature-based solutions (NBS) and sustainable drainage	We have updated **Section 9.4** of our revised draft WRMP24 to reflect the latest position with regard to our WINEP.

SoR Ref	Consultee	Consultee Response	ESW Response
		systems (SuDs). We recognise that ESW is a water supply company, however, there are also clear benefits from NBS and catchment management measures for water resources which you should seek to capture.	
167	GLA	Cost of Plan - The cost of the plan is indicated to be £782 million to 2050 – and you have noted that this will have an 11% impact on charges in the region. We note the intention to consider the impacts on financially vulnerable customers and those with additional water use needs such as a medical condition – this is imperative given the financial pressures Londoners are already facing due to the cost-of-living crisis. This should include, offering more customers a social tariff and making it easier to apply for these, making eligible customers on a water meter aware of the WaterSure scheme (which allows bills to be capped) and ensuring all eligible customers are signed up to your free Priority Services service to receive extra help.	Our Business Plan will increase bills, mostly because of the big increases in statutory investment we must make before 2030. While most customers tell us that although they do not welcome bill increases, they understand the need for investment in the future. However, for some customers, this is more difficult. Some customers told us they could not afford the bill increases that would come from meeting our statutory requirements – even after we had challenged the requirements and ourselves to bring bills down. To help support our broader objective to eradicate water poverty and to mitigate the impact of bill increases on customers who experience water poverty, as part of our plans for PR24 we will be increasing the support available to customers across our wider group from £40m during the current period to £170m in the 2025-30 period - a four-fold increase. We expect these changes will enable us to help around 300,000 customers – double the number of customers we will support up to 2025. In addition, we also support the introduction of a sustainable, single social tariff to eliminate water poverty and we have worked closely with Defra, CCWater and others to support further analysis of how such a single social tariff might be implemented. We are disappointed that work to explore a single water affordability scheme is no longer progressing.
168	GLA	Data Sharing - The Mayor has made it repeatedly clear in responses to the Water Companies that more should be done to share data and information with the GLA and TfL (or indeed other local or statutory authorities) to better plan infrastructure maintenance and delivery. It is disappointing that the plans do not adequately commit to improving data sharing with us, other utilities or highways operators. The GLA hosts a number of forums and data sharing platforms such as the Mayor's Infrastructure and Water Advisory Groups for water companies across London to do more sharing of future plans and data, to improve coordination and minimise disruption. Better data sharing also enables better targeting of vulnerable customers for Priority Services Register (PSR)/emergency response, improves London-wide efficiency/drought and emergency communications, enables better understanding of London-wide consumption patterns to inform	We thank GLA for their comment. We will organise a meeting with you to discuss this further.

SoR Ref	Consultee	Consultee Response	ESW Response
		future policies and programmes, better targets retrofit activities and allows sharing of results of water company pilot programmes (such as those on water efficiency). The Mayor strongly recommends this issue is addressed, and that data should be shared publicly through open data portals, similar to the Mayor's London Datastore or the Government's Open Data initiative.	
169	GLA	Water Transfers - We note that ESW have a baseline supply deficit and as such, have not been considered as a donor water company. We also note that ESW currently have an agreement in place to export 20Ml/d of raw water to Thames Water from 2015-2035, and that you have asked Thames Water if this could be terminated early. We understand that Thames Water have not agreed given that they will not have alternative supplies in place before 2035. We are supportive of this approach subject to Thames Water's confirmation they have a secure supply in place as replacement, as the water provider for the majority of Londoners. You will see this in our response to their draft WRMP in Annex 3. We also note that no transfer options have yet been agreed between ESW and Anglian Water. Sharing more water with neighbouring companies to make water supplies across the region more resilient is positive and needed.	We note GLA's comment with regard to Thames Water. Along with Anglian Water, for our revised draft plan, we have reviewed whether inter-company transfers, over and above those we already have, are possible. Both companies have concluded that no further transfers are possible at this stage although we will always keep that position under review.
170	Suffolk Wildlife Trust	The WRMP's chosen Environmental Destination (BAU+) though does not meet the level of ambition and urgency we believe is needed in the pursuit of achieving this goal and ensuring freshwater ecosystems are making a positive contribution to Government policy commitments to halt biodiversity declines by 2030. At the same time, we recognise that meeting predicted future demand while reducing abstractions can have its own environmental costs. We are especially concerned about the potential for significant adverse ecological impacts from water reuse and desalination supply side options in the Plan, not only on National Site Network sites but on non-statutory County Wildlife Sites and priority habitats and species. We support the WRMP's prioritisation of demand management options to reduce future supply-demand deficits but would like to see these options expanded and extended – for example by setting more ambitious targets for reducing per head water consumption – to maximise their proportionate contribution compared with more environmentally costly supply side options. We	We acknowledge the wide-ranging comments made by the consultee. We recognise that we still have further work to do to refine and increase confidence in the abstraction reductions required to meet the agreed Environmental Destination outcomes. We have agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where appropriate. We have updated **Section 3.4** of our revised draft WRMP24 and the Environmental Destination Technical Report to reflect this comment. We recognise that given the supply demand balance position that ESW has going forwards it is clear that there will need to be some difficult decisions taken over the relative impacts of providing water to our customers over both the near and longer term. All the options included within our best value plan and adaptive pathways have been assessed at their current 'concept' stage for their environmental impacts and benefits. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme. All new options delivered as

SoR Ref	Consultee	Consultee Response	ESW Response
		note that all but one of the supply side options in the Plan would result in significant biodiversity losses according to the Biodiversity Net Gain (BNG) assessment. Suffolk Wildlife Trust's position is that all development should aim to achieve a 20% net gain for biodiversity (double the minimum of 10% that will become a mandatory requirement under the Environment Act 2021). There is great potential for Nature-Based Solutions (NBS), Catchment Based Approaches (CaBA), and cross-sectoral collaboration to significantly amplify the water quality improvements and ecological (and societal) benefits of abstraction reductions at the same time as helping to offset these reductions, for example by helping to recharge aquifers or providing storage reservoirs. We support the need for further investigation at AMP8 of the potential for NBS and catchment wide approaches to contribute to the achievement of the WRMP and WINEP objectives. We would welcome further engagement with ESW & other stakeholders as part of this process.	part of the WRMP24, which require planning permission, will be required to demonstrate at least 10% BNG, subject to the requirements of individual local planning authorities that may exceed the minimum 10% BNG. Some of the mechanisms for delivering BNG, such as the purchase of biodiversity credits, as well as the individual requirements set by various local planning authorities (LPAs) are still being developed. Furthermore, the WRMP24 options are at the concept stage of design and are not supported by survey data, and therefore it is not possible to develop detailed mitigation and enhancement proposals for delivering 10% BNG (or more than 10%) at this stage. Any decisions regarding over-delivering against statutory requirements, where this will add costs to our overall programme or to individual schemes, need to be balanced against the additional environmental benefit gained and the impact on bills to our customers. In our Suffolk area in particular we are fast-tracking our Demand Management Options to deliver the benefits of these more quickly. We welcome the offer of continued engagement with the consultee as our plan is delivered. We have amended **Section 9.2.5** of our revised draft WRMP to reflect this response.
171	Suffolk Wildlife Trust	The WRMP should commit to exploring the potential to work towards the more ambitious 'Enhance' Environmental Destination while avoiding the need for more environmentally costly supply side options like desalination.	We recognise that we still have further work to do to refine and increase confidence in the abstraction reductions required to meet the agreed Environmental Destination outcomes. We have agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where appropriate. We recognise that given the supply demand balance position that ESW has going forwards it is clear that there will need to be some difficult decisions taken over the relative impacts of providing water to our customers over both the near and longer term. We have updated **Section 3.4** of our revised draft WRMP24 and the Environmental Destination Technical Report to reflect this comment.
172	Suffolk Wildlife Trust	The WRMP should recognise the importance of County Wildlife Sites – especially those that comprise riverine and wetland habitats – both as receptors for environmental impacts of the different options identified in the WRMP and as important steppingstones in the wider ecological networks and building blocks of a future Nature Recovery Network.	All the options included within our best value plan and adaptive pathways have been assessed at their current 'concept' stage for their environmental impacts and benefits, with a focus on statutory designations and obligations. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme and will include consideration of County Wildlife Sites and opportunities to support Local Nature Recovery Networks.

SoR Ref	Consultee	Consultee Response	ESW Response
173	Suffolk Wildlife Trust	The WRMP should expand and extend demand management options to maximise their proportionate contribution to offsetting future supply-demand deficits compared with more environmentally costly supply side options like desalination.	We confirm that our central preferred final plan does not include seawater desalination schemes. Nevertheless, we understand the importance of taking a twin track approach to water resources planning and have put forward ambitious demand management schemes. In our Suffolk area in particular, we are fast-tracking our Demand Management Options to deliver the benefits of these more quickly. **Metering** We are putting forward very ambitious metering programmes into our AMP 8 and AMP 9 plans and aim to have our meter stock all smart by 2035 by means of compulsory metering and a proactive meter replacement programme. Our metering programmes will be rolled out in the areas that are most water stressed first to maximise the benefits realised from smart meters. Furthermore, we have brought forward metering activity into AMP 7 for our Hartismere WRZ in Suffolk which is seriously water stressed. In preparation for compulsory metering, we are reviewing all of our customer communications and supporting online guidance to ensure the remit for metering and the benefit for the customer, wider society and environment are clear. As part of the development of our business plan for AMP8, we are exploring a range of innovative tariff options including support for efficient water usage and higher occupancy households, incentivising reduced demand at peak times, and capping bills for customers with medical requirements. Water pricing is an important tool for improving water efficiency and enhancing social equity. Increasing block tariffs are by far the most common charges for water services and they are used in countries where water has been historically scarce such as Spain and the Middle East and key questions we will explore through customer research and trials include developing our understanding of the optimum number of blocks, the volume of water use associated with each block, and the prices to be charged for water use within these blocks. The continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. This has been successfully used in the energy sector with a quarter of eligible customers taking part to reduce their consumption. From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature.

SoR Ref	Consultee	Consultee Response	ESW Response
			Water Efficiency Water efficiency activity over the planning period commits to a long term target with clear steps to achieve it It combines known ways deliver reduced water use and new innovation balancing the risk overall. The smart metering roll out up to 2035 will be utilised to maximise the savings by continuing the engagement with customers on their water use. Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. See **Section 7.3.**
174	Suffolk Wildlife Trust	The WRMP should place greater emphasis on the need to prioritise Nature-Based Solutions and catchment-wide approaches to restoring and enhancing the ecological condition of our rivers, streams, and wetland habitats, to make the best use of the water left in the environment by abstraction reductions.	As part of our agreed AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have an ambitious programme of river enhancement and restoration schemes planned, which will complement the planned abstraction reductions. We also have investigations planned to explore opportunities to take a more holistic approach to water management in key catchments. We have amended text in **Section 9.4.3** of our revised draft WRMP to reflect this response.
175	Suffolk Wildlife Trust	The WRMP should adopt the ambition to achieve a 20% net gain in biodiversity for all new water supply and treatment infrastructure and for BNG to contribute to strategic nature recovery including species and habitat conservation priorities. This would help to ensure biodiversity net gain results in significant and meaningful ecological improvement and biodiversity uplift.	All new options delivered as part of the WRMP24, which require planning permission, will be required to demonstrate at least 10% BNG, subject to the requirements of individual local planning authorities that may exceed the minimum 10% BNG. Some of the mechanisms for delivering BNG, such as the purchase of biodiversity credits, as well as the individual requirements set by various local planning authorities (LPAs) are still being developed. Furthermore, the WRMP24 options are at the concept stage of design and are not supported by survey data, and therefore it is not possible to develop detailed mitigation and enhancement proposals for delivering 10% BNG (or more than 10%) at this stage. The BNG assessments undertaken for each option have been used to inform the WRMP24 Best Value Plan, and thus have contributed to the overall reduction in potential impact on biodiversity units. Essex & Suffolk can look to identify BNG opportunity areas associated with each option and develop BNG mitigation and enhancement opportunities that link those opportunities with local strategic priorities. We have amended **Section 9.2.5** of our revised draft WRMP to reflect this response.
176	Suffolk Wildlife Trust	The BAU+ Environmental Destination selected in the WRMP is only marginally more ambitious than BAU and does not adequately reflect the level of ambition and urgency needed to repair the	We recognise that we still have further work to do to refine and increase confidence in the abstraction reductions required to meet the agreed Environmental Destination outcomes. We have agreed with the Environment Agency, through our AMP8 (2025-

SoR Ref	Consultee	Consultee Response	ESW Response
		ecological damage that has been done to our waterbodies and wider water environment by unsustainable use, including unsustainable levels of abstraction for PWS. We urge ESW to consider how abstraction reductions and water returned to the environment under the BAU+ Environmental Destination can be increased closer to the levels required by the Enhance Environmental Destination at the lowest cost to the environment and consumers, so that the objectives of the Enhance Environmental to increase protection and enhancement of SSSIs, chalk streams, and sensitive headwaters can be achieved. Making the best use of the water that reduced abstraction leaves in the environment to improve the ecological condition of waterbodies and wetland habitats, including through NBS and catchment-based approaches, is essential to achieving the best outcomes for the environment and best value for consumers and society from abstraction reductions.	2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where appropriate. We recognise that given the supply demand balance position that ESW has going forwards it is clear that there will need to be some difficult decisions taken over the relative impacts of providing water to our customers over both the near and longer term. We have updated **Section 3.4** of our revised draft WRMP24 and the Environmental Destination Technical Report to reflect this comment.
177	Suffolk Wildlife Trust	We support the comments made by the RSPB in their response to this consultation on the need for better evidence to inform our understanding of water requirements and pressures on different environmental receptors, and how these are likely to be affected by the different options proposed in the WRMP. In addition to the issues identified by the RSPB in their response, we wish to highlight some further specific examples of sensitive environmental receptors and interactions with the proposals and options in the WRMP that need further consideration: **Fen habitats -** The condition of many of Suffolk's fen wetlands has been suffering because of a combination of lack of water leading to drying out of these habitats together with nutrient enrichment of the riverine element of the water feeding these wetlands. Increasing flows in rivers feeding fen habitats without addressing the level of nutrients in these waterbodies has the potential to exacerbate the deterioration in the condition of these sensitive ecosystems. The complex interactions between groundwater and surface water (riverine) sources feeding fenlands must be carefully considered to understand the likely ecological effects of any options that would alter the balance between ground and surface water inputs to these habitats, which include European and National designated sites, such as the Waveney and Little Ouse Valley Fens Special Area of Conservation (SAC). **Intertidal saltmarsh** - Saltmarsh is sensitive to nutrient	All the options included within our best value plan, adaptive programmes and alternative plans have been assessed at their current 'concept' stage for their environmental impacts and benefits, with a focus on statutory designations and obligations. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme and will include consideration of fen and saltmarsh habitats. Within the Environment Report for the revised draft WRMP we have reviewed and updated the HRAs in line with the information provided about impacts to designated sites in fen and estuarine saltmarsh habitats.

SoR Ref	Consultee	Consultee Response	ESW Response
		loads in the water that periodically inundates these important intertidal habitats. Nitrogen-enriched conditions have been found to negatively affect below ground plant growth, which is critical for the physical stability of saltmarsh habitats. Like the fenland example above, the interactions between riverine and (in this case) seawater sources and nutrient enrichment effects on saltmarsh condition and stability are complex, but any increase in nutrient-enriched riverine water reaching sensitive saltmarsh habitats in Suffolk's Internationally Important estuaries has the potential to do significant damage to these already fragile systems, affecting not only biodiversity but carbon sequestration and storage. Additional effort is needed to assess and mitigate any potential adverse effects from the implementation of the WMRP on estuarine saltmarsh habitats.	
178	Suffolk Wildlife Trust	Maximising the environmental benefits of abstraction reductions - Reducing abstraction impact on flows is just one of the measures (albeit an important one) needed to help restore the ecological condition and biodiversity of our waterways and wetlands. The projects and cross sector initiatives identified in AMP7 and AMP8 to restore and enhance the water environment will be vital to ensuring the water we leave in the environment by reducing abstractions for PWS is put to the best possible use to support ecological recovery. NBS should be central to plans and working with landowners and other stakeholders to improve land and water management and restore ecological function to our rivers and streams, for example by reconnecting them to their floodplains, must be a priority. We need much clearer proposals for how water not abstracted will be used most effectively to improve habitats, with more emphasis on reconnecting floodplains and restoring wetlands, slowing the flow by planting the right trees in the right places in catchments, and supporting cross sector initiatives to improve the condition of rivers and water environment. CBA of different NBS options for enhancing the ecological benefits of leaving water in the environment should form part of the further investigation due to take place in AMP8.	We note Suffolk Wildlife Trust's comments. If any sustainability reductions applied to water company abstraction licences result in actual returns of water to the environment, we are not aware that there is a guarantee currently that this water would not be abstracted by other abstractors. Alongside the planned groundwater sustainability reductions we are also planning a significant programme of river enhancement schemes during AMP8 (2025-2030) which will include in-river, riparian and floodplain restoration measures, where appropriate.
179	Suffolk Wildlife Trust	Lowestoft Water Reuse and North Suffolk Winter Storage Reservoir - We support an adaptive pathway approach to allow the North Suffolk Reservoir to be developed ahead of the Lowestoft Water Reuse scheme. Subject to detailed environmental and ecological	We thank SWT for confirming that it supports our approach to continue to develop the North Suffolk Reservoir option subject to all necessary environmental assessments.

SoR Ref	Consultee	Consultee Response	ESW Response
		impact assessments of these and other options in the Plan – including HRA – we believe the reservoir option should be preferred in principle due to the greater potential to deliver ecological benefits and the biodiversity gain this option is predicted to achieve	
180	Suffolk Wildlife Trust	Desalination - While we support the need to work towards the more ambitious 'Enhance' Environmental Destination, we believe this should be done while minimising the need to resort to supply side options that themselves will have significant adverse environmental impacts, including on ecology and biodiversity. We believe there should be a greater emphasis in the WRMP and WINEP on exploring and developing alternative demand and supply side options to reduce the need to rely on desalination to make up any future supply-demand deficits.	We note SWTs comment, and at this point in time we confirm that under our preferred final plan, we are not proposing any full desalination plants. No further feasible demand management options at the macros scale have been identified for this revised plan although we have significantly increased the pace of our AMP8 metering programme with elements of it now underway and being completed in AMP7 between now and March 2025. We will be undertaking AMP8 WINEP Environmental Destination investigations and options appraisals and once completed in 2026 / 27, will undertake both a full review of our latest supply demand balance position and pre-consultation with all stakeholders to identify options, which will include catchment and nature-based solutions.
181	Suffolk Wildlife Trust	Biodiversity Net Gain - We note that initial assessments of the unmitigated BNG Metric outputs for the Best Value Plan (BVP) suggests a significant loss of biodiversity for all but one of the Plan's supply side options and for all the options combined. Only the North Suffolk Reservoir option is predicted to result in a net gain. Due to differences in the timing of delivery, locations, and habitats affected by the different options, it may not be appropriate for the biodiversity gains resulting from the North Suffolk Reservoir option to be used to offset biodiversity losses resulting from other options, and we suggest that BNG should be achieved for each option at a project level. We do however support strategic approaches to delivering BNG that could contribute to landscape scale nature habitat creation and/or enhancement for priority species and habitats as part of the Local Nature Recovery Strategy and would welcome discussion with Essex & Suffolk Water and other stakeholders about how this could best be achieved for the options implemented through the WRMP. We support a more aspirational target for achieving BNG of 20%, which we believe should be achievable at both a project level and across the programme of options implemented through the WRMP. NBS provide a significant opportunity to realise this more ambitious level of BNG and support many of the other environmental objectives of	The options for the Best Value Plan Biodiversity Net Gain assessment have been assessed in accordance with the BNG guidance around master planning, considering the WRMP as a whole and the resulting likely cumulative impacts should the WRMP options be delivered together. We agree that ultimately options are likely to be delivered separately and may be subject to varying requirements by the local planning authority, in addition to the mandatory trading rules set out by the BNG metric. We also agree that a strategic approach is required to both consider the overall impact and how the individual options will contribute to a wider strategy for delivering gains in biodiversity across the WRMP operational area. Any decisions regarding over-delivering against statutory requirements, where this will add costs to our overall programme or to individual schemes, need to be balanced against the additional environmental benefit gained and the impact on bills to our customers. For the revised draft WRMP we will incorporate text around the timing of delivery of each option and explanation that these will need to be further developed later in the planning stage to accommodate the phase-by-phase process that the construction of the options is likely to follow, as well as a reference to NBS.

SoR Ref	Consultee	Consultee Response	ESW Response
		the Plan, while at the same time improving the resilience of regional water resources and even potentially providing alternative supply-side options that could be less costly to the environment and consumers than some of those currently proposed in the draft WRMP.	
182	Suffolk Wildlife Trust	The Waveney and Little Ouse Headwaters (WaLOR) Landscape Recovery project is a pilot landscape scale nature recovery scheme with improving water quality and sustainable water management at its heart. Working with landowners and other stakeholders the project is taking a catchment level approach to delivering nature-based land management that accommodates farming and other uses such as public access, while restoring and managing flows, reducing sediment and nutrient loss and run-off, and improving the chemical and ecological condition of the River Waveney, River Little Ouse, and their tributaries. We would welcome further discussion with ESW about the potential for this project and others like it to help deliver on the objectives of the WRMP and wider sustainable management, protection, and restoration of the water environment.	We are keen to work with Suffolk Wildlife Trust and contribute to projects such as the Waveney and Little Ouse Headwaters (WaLOR) Landscape Recovery project. In April 2023 we met with staff from Suffolk Wildlife Trust to start engagement on the potential opportunities around the Upper Little Ouse and Waveney, given our planned AMP8 river restoration schemes within this geographical area. We look forward to developing our partnership going forwards. No amendment required to WRMP or Technical Reports.
183	NFU	Q1 - While the plan includes currently available information and projections, we question the source and validity of these data for the agriculture sector. At page 14 of the draft WRMP it states that 'baseline supply demand balance forecasts covering the planning period 2025 – 2100 have been prepared at a regional level for public water supply as well as for the energy and agriculture sectors….". We are committed to working with Water Resources East (WRE) to increase the level of confidence in these forecasts. The plan must remain sufficiently flexible so that it can adapt and react to any given situation moving forward.	We note NFU's comment and understand that they are working directly with WRE to update an agricultural sector water demand forecast (i.e. a non-mains water demand forecast). We are keen to work with the agricultural sector to continue to refine our non-household demand forecast and to ensure that the sector fully understands our position between now and 2030 when our new supply schemes comes on line. In our Hartismere water resource zone, this means that we are unable to agree to: - increase supplies of water from an existing connection where that water will be used for non-domestic purposes; and - new connections where that water will be used for non-domestic purposes. Until new supply schemes are developed in AMP8, the supply headroom in our Blyth and Northern Central water resource zones is limited and so again, there should not be a presumption that we can meet any new non-domestic demand. It is therefore essential that any agricultural business requiring more mains water or a new connection contact us as soon as possible.
184	NFU	Q2 - The plan has focused on demand management options and supply options. With regard to the implementation of the reservoir, the NFU acknowledges that the expansion of strategic water supply	We understand the common challenges that both public water supply and agricultural sectors face including from climate change and population growth and we will continue to work on them with the sector and WRE.

SoR Ref	Consultee	Consultee Response	ESW Response
		infrastructure is a vital component of improving long-term, multi-sector water management as a critical response to climate change, environmental protection, and population growth. Collaboration for long term water resources resilience is consistent with principles embedded in the NFU Integrated Water Management Strategy (IWMS). Water and agriculture share common challenges. Both need to deal with the impacts of climate change, be that drought, flood or extreme heat. Both face challenges through population growth, which in turn drives water supply and food supply needs. Water, whether as public water supply or to grow the nation's food, is of paramount consideration. As such, while the NFU acknowledges that the expansion of strategic water supply infrastructure is a vital to improving long-term, multi-sector water management in response to these challenges, the NFU believes that all new public water supply infrastructure must be designed and built to deliver multi-sector benefits (specifically including to the agriculture sector). As such, agriculture's water needs must be recognised as an explicit part of resource use plans to ensure access to water for food production, food security and elements associated with this, such as employment and economic value. In addition, the UK must acknowledge the global water scarcity challenge and the impacts of this on UK food security. When agricultural/food producing land is being lost, agriculture must benefit either directly or indirectly. For example, this could be through direct access to water from new reservoirs or access to water through open water transfers. Water companies should be explicit in how Strategic Reservoir Options (SROs) can benefit water availability and this should be agreed in advance of construction to provide credibility and justification for the siting of the SROs. The potential availability of water for irrigation (either potable mains water or raw water) will help the agriculture sector where current abstraction licence constraints limit water availability, impacting on quality and yields of irrigated crops. Better consistency of supply and the future resilience of the agriculture sector are not only important factors in terms of future sector growth and sustainability,	As always is the case, a twin track approach must be taken. In the first instance, it is important that existing mains water demand is reduced and a national non-household target has been set which is to reduce demand by 9% by 2038. We intend to provide support and advice to businesses to help them reduce their own mains water demand. We understand that in common with ourselves, farm businesses will also have the annual licensed quantities in some of their abstraction licences reduced with some even being revoked. However, as described in our above response, given we are in a similar position, those businesses should not assume a mains water supply will be available to make up for lost abstraction licence and should contact us as soon as possible to discuss if and how much mains water is available. Our final preferred plan does not include any strategic resource options. However, it does include the North Suffolk Reservoir option which could be in supply by: - 2033/34 under the North Suffolk Reservoir adaptive programme; else - 2040/41 in our preferred plan. This will be an enhancement scheme and therefore funded through the Price Review process. While the reservoir storage capacity could be marginally increased to supply farm businesses (e.g. for irrigation), the marginal increase in cost would need to be funded by the beneficiaries. We will be pleased to continue this discussion at future agri-sector WRE meetings and will work with local abstractor groups to understand whether there are opportunities for it to provide multi-sector benefits.

SoR Ref	Consultee	Consultee Response	ESW Response
		but also in achieving social and environmental outcomes for which the NFU asks for collaboration with the agriculture sector to ensure environmental opportunities are maximised. Further, the NFU believes that both the design and implementation during construction of any SRO must be carried out in a way that minimises impact on land ownership and agricultural operations. This will mean proper and open consultation with landowners and land managers during the development process of SROs. This protects the needs of landowners and land managers and ensures that they are actively involved in the decision-making process at all stages; and that decision making process is timely and transparent.	
185	NFU	Q2 - To ensure the best outcome for everyone involved, the NFU asks that the following principles are applied to the design, development and construction of SROs. • Compulsory purchase powers to take land should be used as a last resort and voluntary agreements should be reached where possible • Developers should promptly pay enhanced compensation reflecting the dislocation, distress, income lost and loss of land as a result of a project • Habitat mitigation should be carried out to achieve 'no net loss' of biodiversity • Food production be mitigated to no net loss • Land take should be kept to a minimum and only the land needed for the scheme itself should be taken • Land should be taken on a temporary basis where possible and returned to agricultural use at the end of construction. • The developer should communicate and consult at an early stage with affected landowners and occupiers in regard to the proposed and final design of projects • Any necessary accommodation works should be incorporated within the design and implemented to minimise the impact on farm businesses • An aftercare programme for soils and field drainage should be planned, funded and implemented • An 'Agricultural Liaison Officer' should be engaged at an early stage from pre-construction works	Our final plan does not include any strategic resource options although does include the North Suffolk Reservoir. We will consider NFU's principles as part of the detailed engineering design stage of that project which commences this year.

SoR Ref	Consultee	Consultee Response	ESW Response
		• The developer/contractor should show a duty of care at all times to claimants.	
186	NFU	Q3 - The plan states that improving leakage alone would not address the deficit and therefore additional supply options would need to be brought online. The NFU feels that a key element of the approach to the WRMP that is omitted is the multi-sector, collaborative work. If added, this would enhance the best value planning as options mentioned could involve the agriculture and horticulture sectors as landowners and land managers to realise and maximise potential opportunities. Food production could be included as a best value measure alongside the indicators already reviewed. The NFU feels that agriculture's relationship with the water sector is critical to building our water resilience. We continue to believe that there could be significant opportunities to develop multi-sector benefits by working collaboratively on projects, particularly in locations where summer supplies and availability may be an issue. With regard to desalination, the WRMP states that time is required to gain further insight into the scale of need and to investigate the option further, in order to mitigate against potential negative impacts. We agree that this level of detail is required to enable an informed decision to be made on the suitability of desalination.	As part of Water Resources East we are committed to working with non-potable water users including the agricultural sector, so that we consider and optimise our future plans and development of our new resources schemes with non-potable water demands in mind. We feel that the development of our proposed North Suffolk Reservoir, in particular, presents an opportunity to provide multi-sector benefits, including for agriculture, if the sector is able contribute a fair share in the development of the new assets. There are no desalination options selected in our preferred BVP plan. In Essex, the selection of desalination is only made in the scenarios which include the very high Enhanced Environmental Destination abstraction reductions. These are currently indicative and will be confirmed by AMP8 WINEP investigations. Desalination options in the Northern Central WRZ appear in a number of the sensitivity scenarios based on Least Cost modelling. Desalination is generally selected in addition to a reuse scheme, and instead of the North Suffolk Reservoir, where the timing of the deficit means that desal deemed favourable to the North Suffolk Reservoir because of either the longer lead-in time or high CAPEX cost of building the reservoir. However, our BVP assessment shows the higher performance of the reservoir for the environment and society. Hence, we have included our North Suffolk Reservoir Adaptive Programme which plans to bring forward the delivery of the reservoir as the more sustainable long-term solution.
187	NFU	Q4 - Please refer to comments in Q2 and Q3 above. The question that has to be addressed is, what is the level of confidence in the ability to deliver the supply options in the timescales specified, whilst also ensuring the suitability of such options in delivering on a multi sector level.	Please see our responses to Q2 and Q3 above. The delivery dates for all our preferred final plan supply schemes are based on the best available programmes we have at this point in time We are now moving to the detailed engineering design stage for each of these schemes and so will, at various points in that process, review and update the programme.
188	NFU	Q5 - The WRMP states that ESW has engaged with a range of stakeholders. However, this work feeds into the WRE Regional Group which is predominately funded by the public water supply and lacks the detailed inclusion of non-public water supply sectors. In the future, there must be a better way to be open, transparent and fair in the regional plan co-creation. For example, data; water companies undertake detailed analysis of data, which could be	Neither WRE nor Essex & Suffolk Water are funded to support options development for non-public water supply sectors. However, we understand that discussions are underway with government and regulators on how this funding gap can be resolved in time for the next round of regional planning, and to ensure other sectors have the structures and funding in place to develop solutions and plans that can feed into the regional planning process.

SoR Ref	Consultee	Consultee Response	ESW Response
		used by other water users and avoid complication, duplication or contradiction. There needs to be a properly funded technical programme for the agriculture sector and other water users to ensure multi-sector regional planning is effective. The NFU continues discussions with Defra, the Environment Agency and water companies to progress a properly funded technical programme. The regional planning process is an opportunity to co-create, steer and influence based on solid evidence, sound science and good will.	Our ESW preferred final plan does contain a new winter storage reservoir (North Suffolk Reservoir). As we continue to develop this option over the next three years, we will be pleased to work with NFU and local abstractor groups to understand whether there is a requirement to consider a marginally larger reservoir which can be co-developed. Importantly though, any additional reservoir storage capacity created for non-public water supply purposes would need to be funded by the beneficiary and not the water company and its bill paying customers.
189	NFU	Q7 - Yes. Collaborative work should be a key element of the WRMP. If added, this would enhance the best value planning. The WINEP programme looks to deliver an integrated approach to water management as well as environmental protection and benefits. The NFU feels this programme must involve the agriculture and horticulture sector as landowners and land managers. The WRMP states the best value objectives were developed by engagement with stakeholders and as the agriculture sector is a key stakeholder and essential in supporting the deliverables mentioned, the NFU feels further collaboration is required to maximise opportunities.	Our catchment team continue to work with the farming community in all our catchment areas to deliver improvements to water management on farm and to improve the water quality reaching our rivers. Within our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have investigations planned to address some of the more holistic water management opportunities identified by the consultee sand ongoing catchment implementation schemes to provide advice and funding for on farm improvements, including water management. We have amended **Section 9.4.3** in our revised draft WRMP24 to reflect this response.
190	NFU	Q10 - The NFU is not in a position to agree or disagree but welcomes further conversations. It is important that the messaging around compulsory metering is clear and concise and outlines the remit for the metering and the benefits to the customer. It is essential that there are robust data security and data governance mechanisms to ensure that data are used only with the consent of those who supply it. Any large-scale data should be aggregated and anonymised to protect landowners and land managers. The NFU asks that the messaging encompasses best practice use of water and particularly looks at an integrated approach that supports the multi-sector approach which can be used in times of stressed/limited water availability e.g., droughts.	In preparation for compulsory metering we are reviewing all of our customer communications and supporting online guidance to ensure the remit for metering and the benefit for the customer, wider society and environment are clear. Support will be provided to ensure the transition from an un-metered to a metered bill is fair to all and to allow time for customers to adjust to any difference it will make to their bill. Data security and supporting governance is a key priority for us and something we take seriously as an organisation. Hourly smart data will only be utilised for legitimate business use cases including proactive leakage detection, water balance calculation, accurate billing and helping our customers understand and take control of their consumption. Granular data will only be available to the registered bill payer. Smart meter data will not be used for other purposes without being subject to suitable aggregation and anonymisation to ensure no individual customer can be identified from, this is something that is governed tightly within NWL. **Section 7.3.2 updated.**
191	NFU	Q11 - The NFU supports the work to safeguard the local environment. BAU status would be to meet existing targets and prevent further deterioration, BAU+ would be as BAU with extra protection for European protected sites and Enhance is additional to the above looking to protect chalk streams, sensitive headwaters	We confirm that our WRMP24 has been developed to maintain a secure supply of water for our customers and businesses AND to protect and enhance the environment. Our plan presents a range of potential future outcomes, several of which deviate significantly from Business as Usual, including how WFD No Deterioration and

SoR Ref	Consultee	Consultee Response	ESW Response
		and SSSI's. In terms of meeting this level of environmental destination, it represents a larger volume of water returning to the environment by 2050 across all sectors and this is challenging. This is also relevant to the agriculture and horticulture sectors. Clear and timely communication and engagement must occur for sectors to respond and adapt. We would like to see continued activity in protecting the water environment from water companies. Our members are very aware of the impacts of the activities of water companies as well as agriculture, on the water environment. Farmers are continually asked to improve and change practices to improve their environmental performance and to reduce impacts on water. We must all continue to work together at the catchment level to deliver continual improvements. It is also important that these joint improvements are communicated to local communities. There must be a co-ordinated and collaborative approach to protecting and enhancing the environment. Landowners and land managers can be key in providing catchment based and nature-based solutions. Therefore, we urge ESW to engage the sector in discussions about future work to ensure all opportunities are explored at a multi-sector level.	Environmental Destination sustainability reductions impact our plan. In our Revised WRMP, we also include an additional Adaptive Programme which sets out the impact of further sustainability reductions under Habitats Regulations. In summary, our preferred final plan has been developed using supply forecasts which assume that the vast majority of our groundwater abstraction licences will have the annual licensed quantity (the amount of water we are authorised by the Environment Agency to abstract each year) reduced to recent actual levels of utilisation, or lower. These sustainability reductions will take place in 2030 (potentially earlier for time limited licences). Between now and 2030, the Environment Agency's Precautionary Principle applies which means we must not plan to increase abstraction from these sources. We confirm that our plan complies with the precautionary principle. Our preferred final plan also includes further abstraction sustainability reductions in the 2040s. Known as Environment Destination sustainability reductions, these will reduce annual licenced quantities to below current utilisation levels. We will continue to work with NFU and the wider agricultural sector both directly and through WRE. Given NFU is key member of WRE, we suggest it is also well placed to communicate joint improvements to its members and the wider sector. However, we will also do the same through our various Catchment Partnerships including via their quarterly newsletters.
192	Natural England	Decisions, as opposed to physical options, in the plan haven't had an environmental assessment: a. Environmental assessments must be for the plan as a whole, and so decisions and risks should not be excluded from assessment (see Annex 2) b. Key decisions with potential environmental impacts are around demand management and option delivery risks c. There is no clear description within the plan of what, if any, water will be returned to the environment or whether there will be any increased abstraction, even within current licenced volumes and hence we cannot reach a view on the plan without greater clarity on this issue	a) The Environmental Report accompanying our revised draft WRMP24 includes a cumulative and in-combination effects assessment as part of the SEA. This assesses the impacts of our plan as a whole, alongside the impacts of other known plans and programmes. In addition the outputs from our SEA and the other discipline specific environmental assessments (HRA, WFD, NCA, BNG, INNS) have fed into our best value planning process and thus been used to shape our Best Value Plan. We have also put forward a Best Environment & Society Alternative Plan. b) Within our revised draft WRMP we have put forward four Adaptive Programmes, one of which considers a 'High PCC' scenario in which demand management does not deliver the water savings anticipated within the core plan, to accommodate this risk. c) In our core plan and the Habs Regs Adaptive Programme we include significant abstraction licence reductions for delivery within AMP8 to meet WFD and Habs Regs expectations. If any sustainability reductions applied to water company abstraction licences result in actual returns of water to the environment, we are not aware that there is a guarantee currently that this water would not be abstracted by other abstractors within their existing licences. We recognise that there is still further work to do to understand the scale, timing and environmental benefits that will be realised from the

SoR Ref	Consultee	Consultee Response	ESW Response
			proposed licence and abstraction reductions associated with Environmental Destination, and how much water this will actually return to the environment. We have agreed with the Environment Agency, through our AMP8 WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions and the benefits to the water environment that they will deliver. We have already started working with other water companies and with WRE to scope out joint investigations where appropriate. We have updated **Sections 3.3, 3.4 and 9.2** of our revised draft WRMP24, the Sustainability Reductions Technical Report, the Environmental Destination Technical Report and our Environment Report to address these issues.
193	Natural England	It is unclear how growth and demand management align in time and space and there's no assessment of the environmental implications of this and hence we cannot reach a view on the plan without greater clarity on this issue: a. The Supply Demand Balance (SDB) in a WRZ depends in part on demand management. However, if this does not happen as planned in a WRZ there will be a negative SDB and risk of over abstraction in that WRZ and so there is a critical need to assess this risk and implications. b. We would be encouraged if a clear link were made to the information provided by NE for WINEP of the protected sites most at risk from hydrological change and the decisions around which licence caps to delay or limit to max historic	We have undertaken sensitivity testing of our preferred final plan using Ofwat's common reference scenarios as well as a number of our own. The outcomes of this testing is presented in **Section 8.7** of our WRMP24 main report. We have used this testing to understand which aspects of our supply and demand forecasts our final preferred plan is sensitive too. We have identified that our plan for the Essex water resource zone is sensitive to per capita consumption and if it were to outturn higher than our central (most likely) forecast and in line with our high PCC forecast, then this could cause a supply deficit. However, we have identified an adaptive programme to cover this which would require the construction of a Water Reuse scheme at Southend in Essex.
194	Natural England	There appears to be no "what if" scenario testing for lower demand management or delays or changes to option delivery times or volumes. With most WRZs having a zero SDB there appears little room for any deviation from the planned numbers Page 4 of 15 a. Sensitivity testing and how this plays into the timelines for delivering options would increase confidence in the plan to achieve its objectives b. A clearer plan B and a description and timeline of the actions that will be taken to identify and address unplanned delays or reductions is needed to have confidence in the plan c. We note that changes to levels of service or nitrate treatment for surface water are not in the plan to optimise use of existing licenced volumes and do not appear to have been assessed as an option	Hartismere and Blyth WRZs shows supply demand balances at zero from 2030 in our draft plan, but now from 2028/29 in our Revised draft where Accelerated Delivery Funding has brought forward, the construction of the two new potable water transfers from the Northern Central WRZ to these each of these two zones. Only the volume of water necessary to resolve the deficits in Blyth and Hartismere (which includes an allowance for uncertainty in the form of Target Headroom) has been shown as being transferred in the tables and charts in our WRMP report. The Northern Central WRZ final plan shows the remaining surplus available for Suffolk, which is on average 12 Ml/d, until 2045.We have also assessed what changes there would need to be to our plan under several 'adverse' scenarios, including high climate change, high demand, high environmental destination, slow technology development, lower (30%) leakage reduction, high PCC (low Water efficiency), as well as our Habs Regs and Best Environment Adaptive Programmes. In our Revised WRMP, we are planning to reduce

SoR Ref	Consultee	Consultee Response	ESW Response
		prior to delaying licence caps or as a “plan B” should demand management not deliver as planned.	planned Levels of Service for our Suffolk region, as we feel this is appropriate given the need for the moratorium on new non-domestic use in Hartismere, and the assumption that we will be granted a delay to the imposition of WFD No deterioration sustainability reductions, also in Hartismere.
195	Natural England	The approach to water use in licences capped to maximum peak and headroom isn’t clear and how these licences will be operated is needed to determine any environmental effects. a. We would expect this to be in line with Figure 1 of the Water Resources Planning Guideline Supplementary Guidance, and no increase in average use and a commitment to this would be valuable. b. Clarity on how this will be managed and monitored is needed c. This is critical as any plans to increase abstraction where there is a risk to the integrity of a European Site, even within licence, must be assessed under Habitats regulations. d. It would be beneficial to clarify which, if any, licence caps will result in actual returns of water to the environment and the source and location of this and so potentially contribute to environmental improvement	The Environment Agency has produced guidance around different scenarios under which they intend to apply the various licence caps (Recent Actual, Max Peak Operational and Max Peak Original) to prevent deterioration under the WFD. They have also provided a view to us on which cap they deem appropriate for each of our abstraction licences. It should be noted that under a Max Peak Original cap an increase in average use is permitted. Monitoring of abstraction against licence conditions will continue as now and be reported in our Annual Returns to the Environment Agency, as now. If any sustainability reductions applied to water company abstraction licences result in actual returns of water to the environment, there is no guarantee currently that this water would not be abstracted by other abstractors downstream. We suggest you seek further clarification from the Environment Agency on these points.
196	Natural England	**Desalination** 1. There are no long term scenarios that don’t ultimately require desalination and it appears the fastest deployable new supply mechanism a. We recognise and welcome that ESW have an adaptive planning program. However, “adaptive” should mean that action can be taken promptly in response to changes in circumstance, notably demand management and delays to option delivery. This means pathways and options in an adaptive plan must be developed in parallel with the preferred plan. A clearer commitment to this development in the plan would be helpful to increase confidence around the unavoidable uncertainty. 2. We recognise the concerns around desalination with regard to energy consumption, and hence carbon, and the environmental implications from brine discharge. We also recognise that the levels of reduction in demand that would be needed to eliminate the need for this as a supply option are significantly greater than existing policy of 110l/h/d and so agree desalination is likely to have to be part of the supply mix. a. We believe that with good planning and design the carbon and discharge impacts of desalination should be possible to reduce and mitigate adequately. b. We would be interested to see what level of demand management would be necessary to eliminate the need for desalination and risks outlined	In our draft WRMP the Best Value Plan Alternative 1 (Adaptive Pathway 1) did not include a desalination option. All of the environmental assessments flag the risk and need for mitigation regarding desalination options. In the Environment Report and its HRA Appendix (Appendix F) accompanying our revised draft WRMP we have added additional enhancement to text to draw out the tie in with HRA and the protected areas impacts. Also, we have added more detail to the next steps section to be clear what is needed to reduce uncertainty and investigate mitigation. Demand Management scenarios are included in the supply-demand balance.

SoR Ref	Consultee	Consultee Response	ESW Response
		above. c. This may become relevant for project stage HRA for desalination if adverse effects can't be sufficiently ruled out	
197	Natural England	1. Whilst recognising current leakage performance the proposed approach ensures the national targets will not be met unless delivery of over 50% has been secured by other water companies Page 5 of 15 a. A clearer explanation demonstrating how the suggested approach offers the best outcome is needed to support this approach. Demonstration that additional demand management and other measures such as reduced run time can more effectively deliver equivalent savings b. We note the objective to reduce consumption to just 110l/h/d is the minimum reduction and reductions beyond this should be considered c. A comparison with the cost of other measures to save or sustainably source equivalent volumes would be beneficial to understand this decision	Our preferred plan for leakage reduction is to reduce leakage by 40% from the 2017/18 performance level by 2050. This is because the 50% reduction is a target for the industry as a whole and not for individual water companies. Our current leakage performance is near industry leading and we have already exhausted the cheaper leakage reduction options. To achieve a further 50% reduction we would need to replace significant proportion of our distribution network, placing an unfair cost burden on our customers. We also do not believe that it is technically feasible for us to reduce leakage by 50% by 2050 in some parts of our supply area as leakage would need to be reduced to a level never achieved in the UK or Europe. For the revised dWRMP24 we have committed to a 55% reduction in leakage by 2050 in the NW region so that we can achieve the national 50% target companywide. We have updated **Section 7.3.1** of our WRMP24 main report to confirm our leakage reduction strategy. A final plan still includes a leakage reduction strategy to achieve a 40% reduction by 2050. However, our Northumbrian Water WRMP24 plans to reduce leakage by 55% by 2050. This means that at a NWG group level, we will reduce overall leakage by 50% by 2050 and in line with the national target. Our plan incorporates our own action across a range of demand measures including metering and water efficiency contributing significantly to the demand reduction to reach 110 l/h/d. On government interventions, we have aligned to the lower estimate saving for water labelling with no minimum standards in order not to over rely. For building regulations for new builds we have aligned to the current optional level of 110, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100. Water labelling will be a new opportunity. Currently there is a lack of clarity on exactly when and how labelling will be delivered and so detailing plans of how ESW would support is not feasible at this stage. A collaborative national direction and action would enable the greatest benefit, not wholesaler-only led action, but of course we will play an active role in engaging our customers around water labelling.
198	Natural England	Allowance for outcomes of the Judicial Review in The Broads 1. No allowance or contingency appears to be in the plan for any changes that may arise from the current work under the Judicial Review	The implications of the Judicial Review into the EA's handling of abstraction in the Ant Broads and Marshes were not known when the draft WRMP and associated Technical Reports were being prepared. In the light of the expansion of the investigation to cover the whole Broads SAC, and despite considerable uncertainty remaining about the scale and timing of any reductions, we have added a new section covering the potential Habs

SoR Ref	Consultee	Consultee Response	ESW Response
		Order for the Broads. We would recommend this risk is incorporated into the plan.	Regs abstraction licence reductions into the Sustainability Reductions Technical Report and also added a new section within the main WRMP, based on discussion with Environment Agency staff.
199	Natural England	Habitats Regulations Assessment (HRA) Water Companies have a statutory duty to prepare Water Resource Management Plans (WRMPs) and are the Competent Authority for Habitats Regulations Assessment (HRA) of the draft WRMP. Natural England has reviewed the HRA submitted with this dWRMP, and wishes to provide the following advice: 1. We recognise and support the approach in the HRA for options for delivery in subsequent WRMPs of being clear where a conclusion that no Adverse Effect On Integrity (AEOI) can be reached due to current lack of scheme detail and investigation as this is in accordance with our advice. We however wish to make it clear that: a. This conclusion is not final and does not at this stage preclude the option being developed further. Final decision on Habitats Regulations conclusions will depend on timely, satisfactory scheme investigation and assessment b. The work needed to inform the options is vital and must continue at pace. c. A clear plan and timeline on the steps to be taken to gain the necessary information and design and mitigation detail should be included in the plan. Without this the credibility of delivery of future options on time is weakened. 2. Options for delivery this AMP must have Habitats Regulations Assessment completed and conclude no-AEOI for the final plan. a. These options are TRA-001 and TRA-019 b. Note Broadland SPA includes breeding and overwinter bird populations so the mitigation to avoid disturbance to wintering populations isn't alone sufficient to address impacts on breeding birds	We note Natural England's comments. For the revised draft WRMP we will amend the HRA report to include timescales for further work and information gathering regarding design and mitigation needed to finalise an HRA. Any options for delivery during AMP8 will be reviewed and further mitigation recommended if needed. We will also review any options with the potential to affect the Broadlands SPA and add further mitigation to deal with potential impacts to breeding birds, if required.
200	Natural England	Strategic Environmental Assessment (SEA) WRMPs are prepared for water management and set the framework for future development consents of projects listed in Annex II of the EIA Directive, including groundwater abstractions and impoundments. As such, WRMPs meet the requirements set out in the SEA Regulations requiring SEA to be completed. Natural England's advice on the documents submitted as part of the SEA for this dWRMP are as follows: 1. ESW-EFR-007 doesn't appear to have an SEA assessment but is in the preferred plan. Whilst we recognise this is for delivery in 2040 its inclusion in the plan means	1) ESW-EFR-007 was not part of the draft WRMP Best Value Plan or in the Adaptive Pathways. 2) The Best Value Planning methodology considered environmental metrics as part of selecting the best value plan and therefore, when balancing the need to meet demand for water in the region, cost and environmental impact, ESW-EFR-002B performs better as part of the plan than ESW-EFR-002. 3) Additional abstraction is assessed as part of the plan, and assessed in combination with other options (including RES-002). No increase in abstraction is proposed other than within the options also assessed and included in the plans. 4) Comments noted regarding mitigation. All the options included within our best value

SoR Ref	Consultee	Consultee Response	ESW Response
		it must have an assessment on information currently available. A plan and timescale to conclude this early enough to satisfactorily resolve any issues would give sufficient levels of confidence. Page 6 of 15 2. ESW-EFR-002B retains impacts on SSSIs which will need to be resolved ideally at final plan stage, or as a minimum final plan will include a clear commitment to resolving outstanding impacts prior to. It is unclear why this option which includes greater impacts is taken forward rather than EWS-EFR-002 which appears to have lower environmental impact 3. ESW-RES-002 a full assessment of the impacts of the additional abstraction needed to supply this reservoir is needed and should be investigated within this plan particularly as this option forms part of the adaptive plan, and has potential for accelerated delivery 4. Mitigation in SEA will need to be fully delivered with any project and location specific actions in addition to standard best practice currently in SEA and HRA and agreed with regulators at project stage to avoid impacts on SSSIs.	plan and adaptive pathways have been assessed at their current 'concept' stage for their environmental impacts and benefits. As the detailed design of the options progresses the environmental assessments and potential mitigations will be revisited as more detail is worked through for each scheme.
201	Natural England	Water Framework Directive Comments on WFD are a matter for the Environment Agency however Natural England notes: 1. Natural England's view is that failure of or increasing an existing failure of monitoring specifications (formerly called FCTS) for groundwater dependant SSSIs related to abstraction induced drying even if this is in combination with climatic drying would constitute a deterioration. 2. We would expect this to be considered in the WINEP investigation	We note Natural England's comments.
202	Natural England	We would like to remind AW that although Environmental Destination has a final delivery date of 2050 there are other obligations that must be met before then (see Annex 2 for more information). a. Environment Act targets halt species decline by 2030 and increase species by >10% by 2042) b. The "30 by 30" commitment c. 25 Year Environment Plan target for 75% of SSSI to be in Favourable Condition by 2042 with mechanisms in place to achieve favourable condition by 2028	Our WRMP sets out that we are intending to deliver some Environmental Destination abstraction reductions before 2050 and that we have also agreed with the Environment Agency, through our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) several investigations to address the current uncertainty around the scale and location of the Environmental Destination sustainability reductions. We have already started working with other water companies and with WRE on joint investigations where appropriate
203	Natural England	The WINEP investigations are very welcome step to achieving these and we would like to stress that they need to include achieving all statutory and policy drivers and objectives as above as well as the core Environmental Destination a. These timelines	We note Natural England's comments and will take them on board as we progress our AMP8 WINEP investigations.

SoR Ref	Consultee	Consultee Response	ESW Response
		highlight the importance of the investigations and that action needs to follow at pace, particularly in light of the high proportion of water dependent habitats supporting priority species in the region (there are over 1000 priority species in the Broads for example (Broads Biodiversity Audit) b. We are very happy to continue to work with ESW to ensure investigations inform all statutory environmental requirements	
204	Natural England	We note the ESW/Water Resources East intention is to meet the outcomes of the Enhanced scenario rather than the defined water returns in the scenario. Page 7 of 15 a. This approach is a risk that must be carefully managed to ensure all statutory and policy outcomes are met within their respective timelines in the right place and scales. b. Environmental Destination must deliver at appropriate ecological scales and catchments which may be different to WRZs c. The pace of this investigation and delivery on its outcomes is important to achieve the requirements above so we'd encourage action within AMP period and not delay delivery until subsequent AMP	We have used the outcomes of the regional assessment of Environmental Ambition to inform our WRMP24, using three scenarios represent medium (BAU+), Low (BAU) and High (Enhanced) scenarios to sensitivity test our assumptions. However, these assessment, conducted on a regional scale must now be investigated in greater detail, on a site by site basis, using appropriate ecological scales and catchments to ensure environmental objectives are met. We will do this as part of our AMP8 WINEP and incorporate the outcomes in our WRMP29. However, in some cases, we know that Environmental Destination Ambitions will be brought forward with the need for us to make WFD No Det and Habitat Regulations Sustainability Reductions sooner that we currently plan to meet Environmental Destination ambitions. These changes are represented in our Habs Regs SR Adaptive Programme.
205	Natural England	In light of the most likely future climate change supply patterns, i.e. high volume infrequent rainfall events rather than continual availability we would encourage a greater consideration of non-traditional supply options such as flood capture, storage and treatment and Nature Based Solutions. a. These types of solution provide good opportunities for integrated delivery of environmental policy and targets and wider objectives for communities and growth.	We are not aware of any Nature Based Solutions capable of providing sufficient, reliable, predictable yields to make any significant contribution to meeting our forecasted deficits. If our stakeholders have suggestions of approaches they'd like to see us trial, we would welcome their input on any specific options they think we have currently over looked. We included our North Suffolk Reservoir Adaptive Programme in our draft WRMP for consultation to get feedback from our stakeholders and customers if they support this approach to prioritise our proposed North Suffolk Reservoir. There is no additional groundwater available in our Suffolk area, and we are reducing the volume we take from our existing sources to protect and enhance the environment and mitigate climate change. Therefore, we feel capturing available high flow river water, and storing it, is a sustainable approach to increase our resilience under a changing climate, along with additional biodiversity gains, at a scale appropriate for the deficit in supplies we face over the planning horizon.
206	Natural England	Demand management 1. The plan relies on demand management to meet growth in the short and medium term until new options and transfers are in place a. ESW should be seeking significant demand management measures if possible, to remove impacts and allow nature to	Our final preferred plan includes what we consider to be ambitious demand management programmes which will allow us to meet all national targets for leakage and demand reduction. **Leakage**

SoR Ref	Consultee	Consultee Response	ESW Response
		recover as soon as possible and not waiting until new supplies come on-line. The demand management interventions should be timetabled from as early as possible in the plan to meet the objectives, policies and timetables for nature recovery set out in Annex 2. b. Whilst recognising ESW's demand management to date ultimately significant aspects of this are out of ESW's control; Government led interventions and consumer behaviour including "decay rates" and so reliance on them adds uncertainty and risk to the environment. c. A clearer "plan B" that can be implemented is needed should demand management fail to deliver as expected. d. We do note however that short term measures must not compromise the delivery of strategic requirements for the long term. e. We would recommend that developing both North Suffolk Reservoir and Lowestoft Re-use would help mitigate this risk and provide greater resilience and ability to supply growth	We are still planning to reduce leakage by 40% by 2050 in our ESW region although at a NWG group level, we will reduce leakage by 50% by 2050 in line with the national target. Our ESW plans to reduce PCC to 110litres/head/day by 2050 and to reduce non-household demand by 9% by 2038. **Metering** We are putting forward ambitious metering programmes into our AMP 8 and AMP 9 plans and aim to have our meter stock all smart by 2035 by means of compulsory metering and a proactive meter replacement programme. Our metering programmes will be rolled out in the areas that are most water stressed first to maximise the benefits realised from smart meters. Furthermore, we have brought forward metering activity into AMP 7 for our Hartismere WRZ in Suffolk which is seriously water stressed. In preparation for compulsory metering we are reviewing all of our customer communications and supporting online guidance to ensure the remit for metering and the benefit for the customer, wider society and environment are clear. As part of the development of our business plan for AMP8, we are exploring a range of innovative tariff options including support for efficient water usage and higher occupancy households, incentivising reduced demand at peak times, and capping bills for customers with medical requirements. Water pricing is an important tool for improving water efficiency and enhancing social equity. Increasing block tariffs are by far the most common charges for water services and they are used in countries where water has been historically scarce such as Spain and the Middle East and key questions we will explore through customer research and trials include developing our understanding of the optimum number of blocks, the volume of water use associated with each block, and the prices to be charged for water use within these blocks. The continued rollout of smart meter technology will provide applications to identify and reward customers for cutting down on their water usage at certain periods or times of day. This could help customers save money off their bills by helping to balance peaks and troughs in water demand during periods of increased usage or warmer weather. This has been successfully used in the energy sector with a quarter of eligible customers taking part to reduce their consumption. From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household

SoR Ref	Consultee	Consultee Response	ESW Response
			where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature. **PCC** With regards to point b, we agree that there are significant elements associated with household and non-household consumption - and indeed the reduction of - that remain largely out of our control. There is a reliance of delivery on supportive policy change from Government and delivery from a wide range of partners and stakeholders all responsible for protecting the environment. In detail, we have aligned to the lower estimate saving for water labelling with no minimum standards rather than a higher level so reducing the risk. For building regulations for new builds we have aligned to the current optional level of 110 litres/person/day, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100, again taking a lower risk approach. **North Suffolk Reservoir & Lowestoft Reuse** We note Natural England's support for developing both Lowestoft Reuse and North Suffolk Reservoir. Both schemes are includes in our preferred final plan albeit that North Suffolk reservoir is not needed until 2040/41 when Environmental destination sustainability reductions are implemented. However, both schemes are needed in AMP8/9 under the Habitats Regulations Sustainability Reduction adaptive programme. We will decide whether to move to that programme once the Environment Agency has completed its investigation in 2024 to confirm the size of the sustainability reductions for each of our abstractions from within the Norfolk Broads Special Area of Conservation.
207	Waterlevel	Water level submitted a response regarding its proposed option to Sea Tankering water from Norway.	We have since met with Waterlevel to have further discussions regarding the Sea tankering of water from Norway. The option was still not considered feasible for our revised draft plan given what we consider to be ongoing uncertainties regarding the risk of spreading invasive non-native species, DWi approval and uncertainties regarding the lead in times for triggering tankering. However, we will continue to discuss the option with Waterlevel to understand whether this could be a drought option rather than a permanent WRMP scheme and one which could be investigated further at a regional level, possibly through Water Resources East.

SoR Ref	Consultee	Consultee Response	ESW Response
208	Essex County Council	We would like to see more detailed and innovative delivery plans for immediate options such as water efficiency and leakage reduction.	Water efficiency has remained a key strand of our demand management undertakings throughout AMP7 and will continue to do so in AMP8. Having initiated the first water efficiency retrofit programme in 1997, we are able to demonstrate the successful delivery of industry-leading projects, schemes and initiatives spanning over twenty-five years. These activities have resulted in quantifiable water savings, unrivalled customer experiences and a significant contribution to the water efficiency evidence base. The strategy has, and continues to be, designed to create water efficiency programmes that make sustainable long-term savings in water, as cost effectively as possible. A critical part of the programme is the monitoring of results to find out what the actual savings in water are and how sustainable they are, while using customer surveys to gauge the effectiveness of the engagement approach. This benefits our water efficiency planning and ultimately the high levels of demonstrable water savings achieved. It has and will continue to contribute significantly to the industry's water efficiency evidence base, in turn aiding others in developing demand management and water efficiency strategies. The water efficiency technical appendix accompanying the revised draft WRMP provides detail on each water efficiency option. We can demonstrate innovation and a sector-leading approach. We already have one of the lowest levels of leakage in the industry and met our leakage target for the reporting year 2022/23. Nevertheless, we realise that there is more to do and we plan to reduce leakage by a further 40% by 2050. We have considered whether we can reduce leakage more quickly in the short term but have concluded that this is currently not possible.
209	Essex County Council	We would like to see more funding and resources for collaboration on immediate options such as water efficiency and leakage reduction.	We will continue to engage with stakeholders who can support a move to lower water use for both households and non-households and are always looking for opportunities for future partnerships. Existing Household Water efficiency delivery in the current AMP already covers the Essex area. Any opportunities for collaboration are welcomed. We have considered alternative scenarios for leakage including a profile for reducing leakage faster in AMP8 to hit the interim 2032 target, with the remainder of the planning period to 2050 having a linear delivery profile. We do not consider this feasible because: • There is a significant additional cost in AMP8 and up to 2050, even though the end point is the same, a 40% reduction by 2050. • Reflecting a linear delivery profile is important to maximise efficiency in terms of employing and training resources to enable and support additional find activity.

SoR Ref	Consultee	Consultee Response	ESW Response
			Consequently, our preferred final plan strategy is to continue with a linear leakage reduction delivery profile.
210	Essex County Council	We would like to see more open partnerships and collaboration on WINEP programmes and delivery of catchment scale Nature Based solutions.	Within our AMP8 (2025-2030) WINEP (programme of schemes and investigations to deliver environmental improvements) we have included a scheme to work across our area to contribute to delivering the Strategic Plans for water resources and nature conservation through participation in partnership projects. This is in addition to our existing Branch Out grant scheme which funds delivery of a wide range of environmental improvement schemes via grants to third parties. We have amended **Section 9.4.3** in our revised draft WRMP24 to reflect this response.
211	Essex County Council	We would like to see more investment in monitoring and evaluation of CSOs, WTW discharges and on the benefits of NbS at local and catchment scale.	ESW is a water only company and so do not have any responsibilities with regard to CSOs. However, we are keen to work collaboratively at a catchment scale and already work closely with our neighbouring water companies. We expect catchment level work to increase in AMP8. No changes have been made to our revised draft WRMP24.
212	Essex County Council	We would like to see more detail on incentives and opportunities for business and industry, better advice and information to support the economic growth sector.	Our Non-Household (NHH) demand reduction strategy was not developed in time for inclusion in our draft WRMP24. However, we have now formed a comprehensive strategy, having liaised with other water companies to learn from their experience and ensure regional alignment. The NHH demand reduction strategy has been outlined in our revised draft Plan and allowed for in our final plan supply demand balance. See **Section 7.3**. Various interventions will be targeted to sectors/customer segments accordingly to drive greatest benefit. These include Water Efficiency Solutions for Domestic and Mixed-type Use and Consultancy for Industry. Our NHH water efficiency strategy will deliver a 9% reduction in the demand of existing NHH's by 2038 from a 2019/20 baseline. This will be included in our final plan demand forecast. The water demand associated growth (new NHHs) will not be accounted for as we do not have the confidence that this can be achieved with the high levels of Non-household demand growth in this period.
213	Essex County Council	We would like to see more education and policy support for planning and development sector.	For new builds, we have aligned our PCC target to the current optional Building Regulations PCC of 110l/head/day. We have completed a survey of local planning authorities and confirm that this is increasingly being adopted as the standard. However, this does not reflect the potential enhanced standards recently shared by Defra of 105l/head/day and 100l/head/day. We will continue to engage with developers as one of our stakeholders and are always looking for opportunities for future partnerships. We welcome the Government's Roadmap to Water Efficiency, in particular its

SoR Ref	Consultee	Consultee Response	ESW Response
			commitment to deliver the mandatory water efficiency labelling scheme by 2025, the review of the Building Regulations 2010 and the desire to work across government to integrate water efficiency into energy efficiency advice and retrofit programmes. Other regulators and stakeholders also have a key role to play. The public need to receive the water efficiency message via awareness campaigns and interventions led and delivered by a wide variety of 'players'. This will ensure broader engagement and realise the step-change needed. Doing so will also support and endorse the programmes delivered by water companies.
214	Essex County Council	We would like to see more recognition of opportunities to work collaboratively across the system to improve water, nature and the environment.	We have updated **Section 1.3 and 1.4** of our revised draft WRMP24 to restate our desire to work collaboratively across the system, to improve nature and the environment. We will be pleased to continue to work collaboratively with Essex County Council and particularly in relation to the Essex Water Strategy. We will arrange a meeting in Autumn 2023 to discuss this further. We have well established catchment and conservation management programmes and already work collaboratively across the catchments within which we operate. A good example of this is our AMP7 WINEP River Blackwater project which takes a more holistic approach to catchment management.
215	Historic England	We support the approach to planning that identifies the 'best value' option, whereby decisions are made based not on cost alone but with consideration of other factors such as benefits to customers, the environment and society.	We note Historic England's support for the Best Value planning approach.
216	Historic England	We observe generally a lack of suitable references to the historic environment in the dWRMP24. In our response we explain why the historic environment is important in relation to water plans.	Within our Environmental Report, which was provided as a separate document to the main draft WRMP, the historic environment is considered as part of the Strategic Environmental Assessment (SEA) under the topic: "To conserve/protect and enhance the historic environment including the significance of designated and non-designated cultural heritage (including archaeology and built heritage), including any contribution made to that significance by setting." In the tables in **Section 9.2.1** of our Revised Draft WRMP24 the summary SEA outcomes (during construction and operation) for each DMO package and supply side option are indicated against the 'Historic' column header. Historic Environment is considered as part of the Baseline in **Appendix E** of the separate Environmental Report.
217	Historic England	There is a need for more information on the location of proposed development and for heritage impact assessment of proposed sites.	Site-specific information was redacted from our WRMP supporting reports for security reasons. However, we will ensure we provide this information to Historic England when

SoR Ref	Consultee	Consultee Response	ESW Response
		The dWRMP24 and its supporting documents include very little clear information about the precise location of proposals. This makes it very hard for us to consider potential impacts. While in some cases, a spatial expression is impractical or currently unknown, we would greatly appreciate more clarity about the location of proposals where they are known, so that we and indeed all parties can consider the potential impacts of proposed development. We offer initial comments on specified proposals below and will comment as appropriate as more details are made clear. Whilst we appreciate that at this stage some of these proposals are in their infancy, we provide some advice, in relation to designated heritage assets in the broad locations of the proposals and the need for early consideration of the potential impact on heritage assets and their settings and the need to avoid harm to heritage assets in the first instance. Supporting the proposed allocations needs to be heritage impact assessment (HIA), at a level of detail proportionate to the proposal and local environment. Paragraph 1.7.3. of the Draft National Policy Statement for Water Resources Infrastructure (2018) states that: “Schemes that are included in a final published WRMP will have been assessed to inform suitability and ensure they do not have any unacceptable environmental impacts that cannot be overcome.” Paragraph 2.5.6 in the draft NPS states that “Any option included in a final WRMP will need to consider feasibility and reliability as well as taking account of potential environmental and social impacts”. We have yet to see evidence that would meet the above requirements relating to the historic environment.	we publish our revised WRMP. We will engage Historic England during the detailed design stage of all our new resources options. We would welcome meeting with Historic England to discuss their feedback and receive further support in the development of our plans and will make contact to arrange this.
218	Historic England	Lack of reference to historic environment throughout Plan. In view of the relevance of the historic environment in Plan making for water as outlined above, we are disappointed to see that there is almost no reference to the historic environment in the Draft WRMP. Our overall impression of the Plan is that it is very focused on the natural environment with almost no reference to the historic environment. This imbalance needs to be addressed. It is essential that Plan is provides an integrated approach and specifically considers the historic environment. In the final draft of the Plan we would recommend the addition of some paragraphs relating to the historic environment. The Plan should also include a few paragraphs summarising why the historic environment is important	Within our Environmental Report, which was provided as a separate document to the main draft WRMP, the historic environment is considered as part of the Strategic Environmental Assessment (SEA) under the topic: "To conserve/protect and enhance the historic environment including the significance of designated and non-designated cultural heritage (including archaeology and built heritage), including any contribution made to that significance by setting." In the tables in **Section 9.2.1** of our Revised Draft WRMP24 the summary SEA outcomes (during construction and operation) for each DMO package and supply side option are indicated against the 'Historic' column header. Historic Environment is considered as part of the Baseline in **Appendix E** of the separate Environmental Report.

SoR Ref	Consultee	Consultee Response	ESW Response
		in the context of water resource planning and management, what steps have been taken so far to consider the historic environment and how proposals will need to take the historic environment into account going forward. We would recommend that the following Historic England documents are referred to: Fluck, H., and Holyoak, V. (2017) Ecosystem Services, Natural Capital and the Historic Environment. Historic England Research Department Report No. 19/2017 (https://historicengland.org.uk/research/results/reports/19-2017). Historic England (2020) Heritage Counts: Heritage and the Environment (https://historicengland.org.uk/research/heritage-counts/heritage-and-environment/).	
219	Historic England	Evidence: Site Selection and Heritage Impact Assessment including assessment of archaeology. The plan outlines a number of projects and proposals for the period to 2050. We set out general comments below in relation to historic environment considerations for evidence, site selection and assessment of impact on significance. We also offer some project and location specific comments on the proposals included in the Plan. Paragraph 2.5.6 of the Draft National Policy Statement for Water Resources Infrastructure (2018) states that 'Any option included in a final WRMP will need to consider feasibility and reliability as well as taking account of potential environmental and social impacts'. Many of the proposals outlined in the Plan require a degree of site selection. It is important that the historic environment is an early consideration in this process, not an afterthought simply to be mitigated after the selection of a site. Any site-specific proposals would need an appropriate level of historic environment evidence to inform site selection. Early engagement with the regional Historic England office is recommended. To inform site selection generally, we would draw attention to Historic England's guidance 'The Historic Environment and Site Allocations in Local Plans', which has advice which can be of assistance in relation to site selection of all types of developments. This sets out a suggested approach to assessing sites and their impact on heritage assets, known as heritage impact assessment. It advocates a number of steps (see page 5 of the Site Allocations advice note), including understanding what contribution a site, in its current form, makes to the significance of the heritage assets, and identifying what impact the development might have on	We welcome the signposting to Historic England's guidance and indication of support regarding site selection and assessment of heritage impact. A high level site selection process for our proposed new supply options has been conducted as part of our WRMP options appraisal. As part of the detailed design of the options, all relevant stakeholders will be consulted, include Historic England, and appropriate heritage impact assessments will be undertaken for the proposals set out in this plan.

SoR Ref	Consultee	Consultee Response	ESW Response
		their significance. The assessment should be a holistic process, informed by heritage expertise, which seeks to understand the contribution that setting makes to the significance of an asset. We recommend referring to our advice notes on managing significance in decision-taking taking and the setting of heritage assets. Please note we do not recommend distance-based methodology for assessment of sites. We are not aware of any heritage impact assessment work having been undertaken for the proposals set out in this plan. This is a concern and something we recommend is addressed. We would be happy work with promoters of these schemes to help support impact assessment and provide expertise. It is important that a degree of heritage impact assessment is undertaken at Plan-making stage, (i.e. now) in line with the advice in our site allocations document referenced above. Please ensure that there is sufficient heritage impact assessment and an appropriate evidence base to inform the site selections including the selection of broad locations (e.g. for Water Re-use Plant, transfers and desalination etc). It is also important that archaeology is given consideration at an early stage in site assessment selection in both in Plan making but also for specific schemes. In order to take account of unrecorded and non-designated archaeology, the relevant Historic Environment Record should be referred to, and the views of local authority archaeological advisers sought. Historic England can provide further advice in relation to what archaeological assessments may be proportionate and appropriate both now to inform the Plan and in the future at each stage of the process. Please contact us to arrange a meeting if this would be helpful. Provision should also be made for early archaeological investigations on the ground. Archaeological investigations take time and making an early start helps to de-risk the project and reduces delays to construction. Historic England has also produced a technical advice note relation to Lakes and Water Features | Historic England which you may also find useful.	
220	Historic England	PROJECT AND LOCATION SPECIFIC COMMENTS ON PROPOSALS IN PLAN - We focus on the areas of activity where the historic environment is a key consideration, based on the information available, and the need for further evidence to ensure that potential impacts inform the choices made. We have made our best efforts to identify proposals where their location is known,	We will engage all relevant stakeholders, including Historic England, as our proposed new supply options are progressed. We thank Historic England for taking the time to review our proposals and their location specific comments.

SoR Ref	Consultee	Consultee Response	ESW Response
		either specifically or more broadly. However, we can only comment where there is clear information available. Consequently, we request further engagement as the different proposals are progressed. For each of the proposals in the Plan, we set out some brief location specific comments. These should be read alongside the more general comments on site selection and heritage impact assessment above which apply to all the schemes.	
221	Historic England	Water Re-use - In common with our comments above, we emphasise the importance of further work to identify potential impacts on designated and non-designated heritage assets as well as proposed mitigation measures with more certainty and clarity. a) Lowestoft Reuse – Lowestoft has two linear Conservation Areas (North Lowestoft and South Lowestoft with Kirkley, each containing a large number of listed buildings. These include a couple of grade I listed churches, a few grade II listed buildings and numerous grade II listed buildings. Bellevue Park, a grade II Registered Park and Garden lies to the north of the town. b) Caister-on-Sea – There are a number of designated heritage assets in and around Caister. Within Caister there us the Roman Fort and Saxon settlement which is a scheduled monument, the grade II* Church of Holy Trinity and a number of grade II listed buildings. To the north of the town there are several grade II listed buildings along Yarmouth Road. Caister Castle, a scheduled monument and Grade I listed building, lies to the west of the town, close to the grade II * Caister Hall. The Grade II St Edmunds Church and ruins of St Edmunds Church also lie to the west of the town. The Halvergate Marshes Conservation Area lies to the south west of Caister. Finally, to the south of the town lies a grade II listed building. c) Southend - Like Lowestoft, Southend on Sea has several Conservation Areas along the coast including Eastern Esplanade, The Kursaal, Clifftown, The Leas and Leigh Cliff. There is a scattering of mainly grade II listed buildings, including the Pleasure Pier. There are a few scheduled monuments including Southchurch Hall moated site, Prittlewell Priory and Prittlewell Camp. There is a scattering of listed buildings to the north of the urban area, again mainly grade II with the occasional grade II* listed building.	We will engage all relevant stakeholders, including Historic England, as our proposed new supply options are progressed. We thank Historic England for taking the time to review our proposals and their location specific comments. We will ensure these are considered as part of the detailed design stage.

SoR Ref	Consultee	Consultee Response	ESW Response
222	Historic England	Reservoirs a) North Suffolk Winter Storage Reservoir – In common with other proposals in this Plan it is difficult to provide comments without knowing precisely where development is proposed, and the current lack of contextual information and heritage assessment means that the historic environment would be vulnerable to inappropriate development. Negative impacts on heritage assets will depend on the proximity, design and mitigation of development. As set out above, we would expect any proposed development in this area to be based on evidence including a heritage impact assessment. b) New treated water storage reservoirs at existing treatment works in Hartismere and Northern Central WRZ – In common with other proposals in this Plan it is difficult to provide comments without knowing precisely where development is proposed, and the current lack of contextual information and heritage assessment means that the historic environment would be vulnerable to inappropriate development. Negative impacts on heritage assets will depend on the proximity, design and mitigation of development. As set out above, we would expect any proposed development in this area to be based on evidence including a heritage impact assessment.	We note Historic England's feedback and acknowledge the need for robust heritage impact assessment and engagement regarding the historic environment as part of our detailed option design.
223	Historic England	New transfers / pipelines linking WRZs - In common with other proposals in this Plan it is difficult to provide comments without knowing precisely where development is proposed / the route of any pipeline, and the current lack of contextual information and heritage assessment means that the historic environment would be vulnerable to inappropriate development. Negative impacts on heritage assets will depend on the proximity, design and mitigation of development. As set out above, we would expect any proposed development in this area to be based on evidence including a heritage impact assessment. We take the opportunity to emphasise that, when laying new pipelines, known archaeological remains and unknown potential for archaeological remains represent both a constraint and consideration to factor into decision-making, informed by liaison with heritage professionals (in such circumstances case, archaeological advisers).	We note Historic England's feedback and acknowledge the need for robust heritage impact assessment and engagement regarding the historic environment as part of our detailed option design.

SoR Ref	Consultee	Consultee Response	ESW Response
224	Historic England	Upgrades - Linford Water Treatment works upgrade, Essex – As with other proposals in this Plan it is difficult to provide comments without knowing precisely where development is proposed, and the current lack of contextual information and heritage assessment means that the historic environment is vulnerable to inappropriate development. There are a large number of designated heritage assets in and around Linford and East Tilbury. These include numerous grade II listed buildings and three Scheduled Monuments; East Tilbury Battery, the Second World War anti-aircraft battery at Bowaters Farm, and Coalhouse Fort battery and artillery defences. Negative impacts on these highly designated heritage assets will depend on the proximity, design, and mitigation of built development. As set out above, we would expect any proposed development in this area to be based on evidence including a heritage impact assessment.	We note Historic England's feedback and acknowledge the need for robust heritage impact assessment and engagement regarding the historic environment as part of our detailed option design.
225	Historic England	CONCLUSIONS - Whilst we welcome the focus on the environment in the Plan, we consider this should be widened beyond the natural environment to also include the historic environment. It is our view that the impacts on the historic environment are not currently properly reflected in the Plan and supporting documents. We have highlighted some of the designated heritage that may be impacted by proposals in the Plan. However, the lack of site-specific information has made this very difficult in some cases. We would welcome more detailed discussion in relation to sites and potential impacts. Historic England strongly advises that the local authority conservation teams and archaeological advisors are closely involved throughout the preparation of the assessment of this Plan. They are best placed to advise on; local historic environment issues and priorities, including access to data held in the Historic Environment Record (HER- formerly Sites and Monuments Record); how the proposal can be tailored to minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets. This opinion is based on the information provided by you and, for the avoidance of doubt, does not affect our obligation to advise you on, and potentially object to any specific development proposal which may subsequently arise from this or	We thank Historic England for highlighting some of the designated heritage that we must include in our heritage impact assessments, as part of the detail design of our proposed new resources. As mentioned previously site-specific information was redacted from our WRMP supporting reports for security reasons. However, we will ensure we provide this information to Historic England when we publish our revised WRMP. We will engage Historic England during the detailed design stage of all our new resources options. We would welcome meeting with Historic England to discuss their feedback and receive further support in the development of our plans and will make contact to arrange this.

SoR Ref	Consultee	Consultee Response	ESW Response
		later versions of the strategy which is the subject to consultation, and which may, despite the assessment, have adverse effects on the historic environment. If you have any queries about any of the matters raised above or would like to discuss anything further, please do not hesitate to contact me. Once you have had chance to review our comments, we suggest it would be helpful to have a meeting to discuss next steps and ways in which our concerns could be addressed through the next draft of the Plan.	
226	Basildon Council	The ESW consultation document advises that population forecasting used was based on household projections and trend derived occupancy rates. This approach falls short of the standard method. Whilst the figure identified by ESW for the Basildon Borough has not been specifically detailed, Basildon Council would encourage that the figure be reviewed to ensure sufficient consideration is given to the forecasted population increase in the Borough. 1.9. Whilst Basildon Council is unable to advise on the potential development locations at this stage of our own plan making, we want to ensure that growth in the area is appropriately considered by ESW and we are keen to work together to plan for growth accordingly.	We have followed Water Resource Planning Guidelines when developing our population forecast. Our final plan population forecast using Local Authority Housing Plan projections plus, historical and base-year demographic statistics on population, births, deaths, migration, and properties. We have updated all our population forecasts for the revised draft plan to incorporate the latest Local Authority information and Census results. We are keen to work with all Local Authorities with regards to our plan. Please refer to **Section 4.3** of the WRMP report and **Section 4** of the demand forecast technical report for more information on our population forecast.
227	Basildon Council	The draft Water Resources Management Plan 2024 (WRMP24) outlines that it proposes to have a plan period of 75 years, from 2025 to 2100 due to the length of time it takes to design, cost, and deliver the right schemes. The Water Resources Planning Guideline (2021) requires plans to have a minimum 25 year period, to be reviewed annually and prepare a new plan every 5 years. Basildon Council are of the opinion that 75 years is an excessive length of time to plan for. Local Plans identify population growth for at least 15 years and would not be able to forecast growth for such a lengthy plan period to feed into the WRMP. Without suitable population figures it is unclear how the WRMP could ensure it reflects an accurate supply and demand trajectory. The WRMP 2019 covered a 40 year period and this seems a more achievable timescale to plan for that Basildon Council would support.	We agree that a 75 year plan is a long time and there is a lot of uncertainty in regards to the later years of the forecast. With regards to population forecasting, we have commissioned Edge Analytics to generate the total population base year and forecast of population, split between household and non-household population. Edge Analytics is a data science specialist and has a particular expertise in demographic modelling and forecasting. Edge Analytics' VICUS model has been used to configure and deliver housing and population growth evidence to the new regional planning framework for WReN and informing our individual company population and property forecasts. The VICUS model combines all these data inputs within best practice forecasting methodologies, enabling macro- and micro-level population and property growth scenarios to be derived for the regional group (WRE) and us, under a wide range of assumptions, for scenario horizons that stretch to 2100. The forecasting framework integrates key housing-led scenarios, alongside complementary evidence produced by the Office for National Statistics (ONS), the Greater London Authority (GLA) and the Welsh Government (WG). In each of the long-term outcomes (2050-2100), fertility and mortality rates trends are consistent with the NPP (National Population Projection) Principal scenario. For international migration, the Principal scenario is based on an

SoR Ref	Consultee	Consultee Response	ESW Response
			assumption of +190k annual net growth through international migration, with the High and Low variants assuming +290k and +90k per year respectively.
228	Basildon Council	It is noted that the national industry water target is to reduce water leakage by 50% from 2017/2018 levels by 2050 and that ESW are proposing to only reach a 40% reduction. However, ESW have clearly set out that the target is for all water companies, and amongst other reasons, ESW currently have industry leading performance at water reduction and that by striving for the 50% target it would result in higher costs to customers. Basildon Council therefore support the 40% target and the proposed approach that leakage targets will remain adaptive and will be reassessed for every WRMP so ESW can quickly respond to new innovative technology.	Thank you
229	Basildon Council	ESW have set a target that all properties will have a smart meter by 2035, currently 64% of all properties in Essex have a smart meter. Smart meters are free to the customer to be installed in a recommended location. Smart meters use a secured network to send data automatically on an hourly basis to ESW which can then be viewed by the customer on an app with daily, hourly, weekly and monthly views. There are many positives associated with the target such as reducing leakage and plumbing loss rate through being able to identify leaks sooner, as well as tracking water usage and encouraging water efficiency, thus reducing the carbon footprint. However there are also negatives in terms of actual usage costs being potentially higher than non-metered costs which could cause affordability issues, especially in higher deprived areas, of which there are in the Basildon Borough. ESW have advised they would be able to help in this situation through payment breaks, low-income discounts and advice on saving water which can help lower energy bills too. ESW also allow customers to return to non-metered usage within two years if they don't find it suitable. Basildon Council understand the need for smart meters and support the approach which has been set out to support those on lower incomes.	To clarify, whilst 64% of our household properties in Essex are metered, only 4% are smart meters and we aim to replace all existing basic/AMR meters to smart meters by 2035 and all newly installed meters are now smart meters. The option to revert to non-metred charges is only applicable on the optant metering scheme and, in AMP 8 we are proposing compulsory metering, which customers do not have the option to revert. However, we will have in place support schemes to help those on lower incomes. We plan to support customers during the compulsory transition to smart meters by deploying water efficiency tips, household retrofits, and leakage detection repair to reduce customer bills. In addition, we want to use this opportunity to fully engage with the customers to increase what we know about our customers, so we can provide personalised and tailored advice and support on the best tariff for them alongside signposting to additional support, Priority Services registration, and water efficiency advice. This will focus on those in water poverty and any worse off after the switch. We will also raise digital awareness by encouraging customers to sign up for our app to monitor usage. This will allow us to communicate more regularly with customers about their use of supporting water efficiency and affordability. From our current data, we have also identified higher occupancy households as being particularly susceptible to bill increases after having a meter installed. Options may include offering to cap household bills to the average bill of a four-person household where individual usage is within our target 110 per capita consumption level and we will explore the potential to work with the DWP to share and maintain occupancy data for the purposes of reducing the complexity and overheads associated with operating a dynamic and bespoke scheme of this nature. We are also working in partnership with Scope, the disability equality charity, to

SoR Ref	Consultee	Consultee Response	ESW Response
			understand opportunities to support customers on low incomes, but not in receipt of benefits, who need to use more water for medical reasons, to develop a bespoke bill cap that encourages efficient water use without penalising for water used for medical purposes. This is similar to WaterSure, but could expand eligibility. **Section 7.3.2** updated**.**
230	Basildon Council	There are a number of strategic developments that have been permitted within close proximity to the Basildon Borough which may raise some concern in relation to the amount of water needed in key areas. These include a new garden community to the west of Basildon in Dunton, as well as growth options north east of Wickford in Rochford. There is also expected to be significant employment growth along the A127 and Basildon Council feels that it is very important to consider these matters in terms of supply and demand.	We have used the latest Local Authority projections in our draft and revised draft plans for population and housing growth (which includes Basildon Council). When developing our plans we have contacted all Local Authorities on several occasions to ensure up to date information on business growth, housing growth and new build planning standards. To understand our current and future NHH demand we began by analysing our current NHH demand at an industry sector level. We contacted all Local Authorities located within our operating areas to request information they hold on new NHH developments and growth. In addition, we also contacted all our large users (customers that use >20,000m3 per year) requesting the provision of expected changes to demand in the short and medium term. Specialist consultant Ovarro DA Ltd (Ovarro) were employed to provide a non-household demand forecast for each water resource zone using the Local Authority and Large User data we provided, together with our non-household consumption data from the last five years and our population and property forecasts. In addition to the data we provided, Ovarro used employment and Gross Value Added (GVA) ONS data along with large scale commercial project search data to create the demand forecasts. Ovarro used the consumption data for each WRZ, and this was split into three segments in order to analyse underlying trends in different industry sectors. Large known new demands likely to start in the next few years, such as the construction and operation of power generation plants have also been applied on top of the base forecast derived from historical consumption. Please refer to **Section 6** of the demand forecast technical report for further detail on the NHH forecast.
231	Basildon Council	The Council is currently in the process of finalising its Issues and Options (I&O) Document and Consultation. The I&O document addresses the long-term vision of the new Local Plan for the Basildon Borough, the key issues and broad spatial options. The Consultation on the I&O Document is expected to take place in June 2023. The Council wishes to reiterate that it is in the early stages of its plan production and is not possible to advise on locations of growth within the Borough, however, once these are known the Council would seek to work with Essex and Suffolk Water to ensure that sufficient supply and demand can be accommodated in the areas of growth accordingly.	Comment noted and welcomed.

SoR Ref	Consultee	Consultee Response	ESW Response
232	Southend Council	The role of Local Planning Authorities and LLFA's-it is important to explicitly enhance the relationship between the Water Supply agencies and Local Authorities. We welcome the establishment of Water Resources East within the sector but it would be great if there was a more effective communications channel with Local Authorities who also have important responsibilities in this sector. Also it would be helpful to understand how much you have incorporated draft Local Plans in your projections?	We have also welcomed the establishment of WRE and agree it has helped develop good communications between water companies, businesses and local authorities within the area. However we take on board that communication between WRE, water companies and local authorities needs to be more effective and we have fed this back to WRE. We have incorporated the most up to date and available information in our population and property forecasts. Edge Analytics who provide these forecasts developed the Consilium database to enable the collection, processing, organisation and delivery of Local Plan evidence, for all LPAs across the UK (including National Parks and Development Corporations). Data is collected at a macro level, providing Local Plan evidence for individual LPAs, and at micro level, providing site-specific housing growth locations. For each LPA that falls within WRZ boundaries, Consilium provides a summary of all Local Plan housing evidence, presenting information on: Plan status; historical and planned housing growth trajectories; housing need; housing requirements and targets; plus housing growth locations. Also included within Consilium is the MHCLG's Housing Delivery Test and the latest LPA 5-year land supply calculations. A 'Status Log' indicating the date at which Local Plan information is provided. In summary the draft plan information is included to an extent but it is the final plans that have the most direct impact on the forecast. Please refer to **Section 4** of the demand forecast technical report for more information on our population forecasting.
233	Southend Council	There is a planned reduction to 110 litres limit per household. This figure reflects the Optional Building Regulations Standard that Local Authorities can impose in Local Plans on new developments provided we have adequate evidence. It will be very important that Local Authorities have the evidence from ESW to support this standard (or even tighter standards but this is more challenging to persuade Planning Inspectors about). I recognise that reducing usage of all households down to this figure is challenging.	Comment noted. For new builds, we have aligned our PCC target to the current optional Building Regulations PCC of 110l/head/day. We have completed a survey of local planning authorities and confirm that this is increasingly being adopted as the standard. However, this does not reflect the potential enhanced standards recently shared by Defra of 105l/head/day and 100l/head/day. We will continue to engage with developers as one of our stakeholders and are always looking for opportunities for future partnerships. This plan outlines the current water resource and demand situation, providing evidence both in our action and direction of the need for lower water use in all homes.
234	Southend Council	There is scope, especially within larger developments to take a holistic approach to water management, including recycling of grey water for non-potable uses as well as use of green infrastructure, etc to manage flood risk. This could help reduce water use. The Government is emphasising design quality so it would be good to see this feature a bit more in the document.	Comment noted. For building regulations for new builds we have aligned to the current optional level of 110, which from surveys to local authorities has been adopted in some areas already as the standard. This does not reflect the potential enhanced standards recently shared by Defra of 105 and 100. Retrofitting existing buildings is part of our water efficiency delivery. Re-use schemes are currently not in our preferred delivery options. It was considered as part of options

SoR Ref	Consultee	Consultee Response	ESW Response
			appraisals. We will continue to review the available research and evaluate this in future resource plans.
235	Southend Council	Southend Water re-use scheme-it would be helpful to have further discussions about this proposal and what the scheme involves. Some questions I have are: * What is the supply-demand issue in Southend and why is this the best option? * What is the trigger for pursuing this option? * What are the locational, size and operational requirements of such a plant? * What would be the need for new pipelines and where would they go? * How high carbon would the proposal be? Also, Anglian Water have a poor record of wastewater breaches in Southend and issues with the current wastewater processing centre. Ideally, we would like to address this and would want to be sure your proposals don't make the current situation worse.	We confirm that there is not a specific water supply issue in Southend. However, we have undertaken stress testing of our Essex water resource zone preferred plan which includes our demand management programmes to reduce leakage and demand as well as a new supply scheme called Linford WTW and Borehole. The stress testing has identified that if water consumption (per capita consumption or PCC) does not reduce in line with our central (most likely) forecast, then we may need to develop another supply scheme. We have therefore developed an adaptive programme known as High PCC which includes a scheme called Southend Water Reuse. This would treat some of the final effluent from Anglian Water's Southend Water Recycling Centre to a high standard so that it could then be discharged, via a new pipeline, into our existing Hanningfield winter storage reservoir. We confirm that the scheme would need to be permitted by the Environment Agency and that it would not progress if it were to cause a deterioration in the quality of Anglian Water's final effluent. We currently consider the likelihood of needing this scheme to be low. However, we are progressing the detailed engineering design stage of a Water Reuse scheme in Suffolk and it is likely that the same design would be used if needed at Southend. **Section 9.3** of our WRMP24 main report confirms the carbon emissions associated with this scheme. We have updated **Section 8.8** of our WRMP24 main report to include a more detailed monitoring plan for the High PCC adaptive programme. This confirms the trigger and change dates for moving to the adaptive programme. We will arrange a meeting with Southend Council in the autumn to further discuss this option.
236	Southend Council	Behavioural change- quite a significant amount of savings are predicated on behavioural change, including through the use of water meters. However, there is some evidence in the document that younger people have some resistance to this. Using a parallel example of recycling, rates have remained static for a number of reasons, including partly because of apathy by some. It will therefore be important to keep monitoring this topic.	Comment noted. We will continue to learn throughout the delivery of smart metering and other behaviour change interventions with the focus on delivering the proposed ambitions. As smart meters are a relatively new introduction the longevity of smart meter behavioural change savings has yet to be confirmed. An additional saving on consumption can be attributed to the installation of a smart meter compared to a dumb meter. This is because customers can view their consumption data in real-time and therefore make behavioural changes from an informed choice to reduce their consumption and water bill. There is only information available of this saving from other water companies who have installed smart meters already. Thames Water and Anglian Water have attributed an average saving of 3% specifically to the extra insights into consumption that is received by customers from

SoR Ref	Consultee	Consultee Response	ESW Response
			smart meters compared to dumb meters. Using these results, we have chosen an additional 3% saving for smart meters compared to dumb meters.
237	Southend Council	Leak reduction- targets are 40% other than the government target of 50%. I understand the reasons given but given the extent of the water shortage should this not be revisited?	At this moment in time, we don't think 50% is feasible or affordable. The WRMP is submitted every 5 years so we will continue to review our future leakage strategy as we progress towards 2050 and learn more about leakage and the interventions we can apply.
238	Southend Council	Climate Change and Biodiversity Net Gain (BNG)-I realise it's probably a national requirement, but I am slightly confused by the period for extreme drought events changing from one in every 200 years to one in every 500 when the situation seems to be getting worse but that may be me not understanding it properly. I also wondered if the Plan could be a bit stronger on how mechanisms like BNG may help reduce transpiration, etc by increasing shade, etc as well as making more attractive and robust environments.	We would like to clarify that when we refer to 1 in 200 and 1 in 500 year drought resilience, we are referring to the levels of service that we plan to provide with regard to imposing extreme restrictions on water use during drought like rota cuts (e.g., mains water will be on for six hours and then off for six hours). We currently provide a level of service that we will only need to impose rota cuts once every 200 years on average. However, we plan to improve this and offer a 1 in 500 year level of service from 2031/32 in Essex and from 233/34 in Suffolk.
239	Southend Council	Nuclear Power-The government overturned the refusal recommendation for Sizewell C, despite the Planning Inspectorate accepting that water supply was a major constraint. Proposals for a Bradwell B are currently on hold but could be revived-how do you think these would affect water supply in the wider Essex area?	Although proposals for Bradwell B are currently on hold we have still included their estimated increased potable water consumption in our demand forecast to ensure we have included this option should Bradwell B go ahead. On average this increases potable water demand by a maximum of 2.4Ml/d in 2032 during construction and with an average 0.5Ml/d for operational use from 2038.