

WRMP24

# Strategic Environmental Assessment Post Adoption Statement

April 2025



1	Introduction	1
1.1	The SEA process	1
1.2	Purpose of the SEA statement	2
2	How environmental considerations have been integrated into WRMP24	3
3	How the environmental report influenced the WRMP	5
3.1	Policy decisions: portfolio/scenario selection and/or timing of implementation	5
3.2	Individual option level assessment	6
3.3	Economics of Balancing Supply and Demand (EBSD) modelling	7
3.4	Plan appraisal	7
3.5	Mitigation measures and enhancement opportunities	7
4	Consultation	8
4.1	Consultation on the SEA	8
4.2	Consultation on the draft WRMP24	8
5	Rationale for selection of options for the final WRMP	13
5.1	Options Level Alternatives	13
5.2	Programme Level Alternatives	13
6	Monitoring of the WRMP	14
7	Availability of documents	18
8	Appendix A - Post Adoption Procedures and their Delivery	19



# 1 Introduction

As a water company, we have a statutory obligation to produce a Water Resources Management Plan (WRMP) every five years. The WRMP sets out how a sustainable and secure supply of clean drinking water will be provided to our customers over a minimum 25 year planning period, whilst showing how its long-term vision for the environment will be achieved. Wider socio-economic benefits, such as tourism, are also considered and balanced against the plan being affordable to create a best value plan (BVP).

The plan we have adopted, WRMP24, builds upon and replaces the previous iteration (known as WRMP19). WRMP24 sets out our approach to water resource management for the public water we are responsible for across the period 2025 to 2050. The first five years of WRMP24 (to 2030) provides the basis of our funded investments in public water supplies over that period, as well as allowing us to progress the initial design and planning of water resource infrastructure that is needed in the longer-term.

Our draft WRMP24 was published for public consultation in December 2022. Alongside this we also published a suite of supporting documents, including the findings of six environmental assessments, the main document amongst these being the Environmental Report describing the Strategic Environmental Assessment (SEA) of the draft WRMP24. Following the completion of the public consultation on the draft WRMP24 in March 2023, we prepared a Statement of Response (SoR) which presented all the consultation comments, our response and cross-referred to the revised draft WRMP24 reports where changes had been made.

This revised draft WRMP24 and the SoR were published in August 2023 and submitted to Defra for the Secretary of State's (SoS) approval. The submission included a SEA Environmental Report, updated to reflect the changes made between draft WRMP24 and revised draft WRMP24, alongside a wider suite of environmental documents reporting the findings of the other assessments required as part of developing such a plan, see Section 1b for further details.

As part of the approval process by the SoS, a letter was received from the Department for Environment, Food and Rural Affairs (DEFRA) on the 10th January 2024, requesting further information in support of our SoR. An addendum of the SoR was published in March 2024 which included the additional information that was requested.

The final WRMP was published on 6th September 2024 following approval by the SoS on the 21st August 2024. This SEA Post Adoption Statement (PAS) relates to the completion of this round of plan-making as a result of the adoption of our final WRMP24.

## 1.1 The SEA process

A SEA is required for our WRMP24 under the 2004 SEA Regulations<sup>1</sup> which apply in England and require an assessment of the effects of certain plans and programmes on the environment. Regulation 5 of the SEA Regulations requires that SEA shall be carried out for plans and programmes that are prepared for water management, which set the framework for development consents, and are likely to have significant environmental effects. This SEA PAS was produced in accordance with the provisions of Regulation 16.

Initiated in 2021, the SEA process for WRMP24 developed in parallel with the WRMP24 planning process. The objective of SEA, as set out in the SEA Regulations, is to ensure environmental protection and incorporate environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development. The SEA Regulations mandate an environmental assessment of these plans and programmes, emphasizing the importance of consideration of factors including biodiversity, human health, population, cultural heritage, and water resources.

Our approach to taking the environment into account in developing WRMP24 involved a fully integrated suite of assessments to meet legislative requirements and the wider expectations set out in the

<sup>1</sup> The Environmental Assessment of Plans and Programmes Regulations 2004, SI 1633, 2004, available here: <https://www.legislation.gov.uk/uksi/2004/1633/contents>

Environment Agency's Water Resource Planning Guideline (WRPG)<sup>2</sup>. The SEA process led our approach, informing the plan-making process through the identification and assessment of effects a plan or programme may have on the environment, including cumulative effects (how our plan's predicted effects interact with the effects of other plans, programmes and major projects).

Through early consultation with statutory consultees, for example the Environment Agency and Natural England, our SEA Framework was established. Core to the SEA Framework is a set of objectives that we used to identify and describe the effects of the developing WRMP, and those related to alternative options, alongside evaluating if any of the predicted effects were likely to be significant. In addition, each of the following assessment processes integrate their findings into the relevant aspect of the SEA framework: Habitats Regulations Assessment (HRA), Water Framework Directive (WFD) assessment, Invasive Non-Native Species (INNS) risk assessment, Natural Capital Assessment via Ecosystem Services (NCA-ESS) and Biodiversity Net Gain (BNG) assessment.

The SEA process is conducted at a strategic level and enables consultation on the likely significant environmental effects of a plan with government, regulators, other licensed water suppliers and water companies, customers, the public and a wide range of stakeholders.

In accordance with the SEA Guidance<sup>3</sup>, the SEA has been updated for every revision of the WRMP<sup>24</sup>, this includes the draft, revised draft and final publications.

## 1.2 Purpose of the SEA statement

This document, the SEA PAS, is the final step in the legislative procedures set out under the SEA Regulations. In line with the provision of Regulation 16, the PAS is expected to present information across the following:

- The reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and
  - The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.
- How environmental considerations have been integrated into the WRMP;
  - How the Environmental Report has been taken into account;
  - How opinions expressed in response to the draft plan have been taken into account;

<sup>2</sup> Environment Agency, Natural Resources Wales, Office for Water Services (2023). Water resources planning guideline. Available at: [Water resources planning guideline - GOV.UK \(www.gov.uk\)](https://www.gov.uk).

<sup>3</sup> UKWIR (2021) Environmental Assessment Guidance For Water Resources Management Plans And Drought Plans (ref. 21/WR/02/15)

## 2 How environmental considerations have been integrated into WRMP24

The WRMP24 process establishes the water resource needs for public supply over the next 25 years for the region, accounting for significant challenges such as licence capping, drought resilience, climate change, and environmental destination. Through this process, a best value plan is built for our region. To us, best value is looking beyond cost, providing a benefit to customers and society, as well as the environment whilst listening and acting on the views of our customers and stakeholders. Consequently, this best value plan framework has been used as the basis for our decision making as we are confident it drives the right outcomes for society, the environment and our customers. The SEA process is a fundamental input to the best value planning process, specifically the objective to deliver long term environmental improvement.

To begin with, all supply-side options identified underwent high-level environmental screening assessments. This process highlighted environmental risks and constraints at an early stage in the options development process and supported the rejection of options on the basis of the inability to avoid potentially significant environmental effects, or to lack of suitable mitigation measures to be incorporated into option development. This exercise produced a constrained list of supply-side options that were progressed to Level 1 options-level assessments, this included the following environmental assessments: HRA, WFD, INNS, BNG and NCA. The outputs from these assessments were used as input information as we applied the SEA Framework, as described in Section 1b.

The WRMP24 is not only made up of supply-side options, there are other components that required environmental assessment to ensure the WRMP24 was being assessed as a plan as a whole. This included policy decisions, such as level of demand management, licence capping, timing of 1 in 500 year drought resilience, level of environmental destination and level of environmental ambition. Each of these policy decisions were assessed against the SEA Framework.

The outputs from the SEA were utilised to create environmental metrics that formed part of our BVP metrics; further information on our BVP metrics can be found in the WRMP24 Decision-making report which is available on our website, see the link in section [Z](#). Four metrics were

derived from the SEA, generated by assigning a score of 1 (minor), 4 (moderate) and 8 (major) to the effects identified to each SEA Objective from each option:

- Positive construction
- Negative construction
- Positive operation
- Negative operation

Alongside the SEA metrics were additional metrics related to additional environmental considerations. The first were two metrics derived from the NCA-ESS assessments:

- Monetised Recreation and Amenity ecosystem services
- Other monetised ecosystem services (combining carbon sequestration, food production, air pollution, and natural hazard management)

From the BNG assessment, two metrics were obtained:

- Unmitigated loss of habitat units, a value generated where the strategic design of supply-side options indicated a loss of terrestrial habitat units compared to the baseline; resulting in a combined value of the total terrestrial habitat units for all selected options in a portfolio.
- Estimated Net Gain in terrestrial habitat units over baseline after delivery, an estimation - based on 10% of the baseline terrestrial habitat units - of the additional habitat units that would be required to deliver 10% net gain for all selected options in a portfolio.

In addition to the inclusion of the above metrics in shaping the WRMP24 and its reasonable alternatives, environmental findings from the SEA process were regularly discussed in plan-making meetings and issues raised by Natural England, Historic England and the Environment Agency were used to inform supply-side options available for selection under the BVP.

Further detailed environmental assessment work was conducted in relation to some of the supply-side options where the SEA and other processes identified it was needed, this was termed Level 2 Option Assessment. In

terms of the Level 2 Options Assessment, this was mainly associated with biodiversity and water related issues and was driven by the HRA and WFD assessments. Where potential risks were identified in the HRA Test of Likely Significance (TOLS) process or the WFD Screening Exercise, the next stage HRA-Appropriate Assessment (AA) and WFD Level 2 - Detailed Impact Screening were undertaken. The conclusions from these assessments were integrated into the development and consideration of supply-side options that fed into our plan making and SEA, within the latter the findings also contributed to the related metrics discussed above.

# 3 How the environmental report influenced the WRMP

Environmental considerations have influenced the development of the WRMP24, including the BVP, alternative plans and their respective components. The SEA and other environmental assessments interacted with the WRMP24 plan making process from high level policy decisions, through metrics in modelling, to specific analysis of strategic designs of potential supply-side options. This influence can even be traced upward to interaction and coordination between the WRMP24 process and the regional planning level, with a flow of information between each in relation to option consideration and plan development mechanisms.

This section will summarise the key points where the SEA process, whose findings are presented in the Environmental Report, influenced the development of the WRMP24. Further information can be found on the influence of the Environmental Report on the WRMP24 in Chapter 5 of the WRMP24 Environmental Report (accessible via the link in section [Z](#)).

## 3.1 Policy decisions: portfolio/scenario selection and/or timing of implementation

As part of the WRMP24 process, a number of key policy decisions were made. The first of these was the environmental destination scenario and timing of delivery for said scenario. To deliver long-term sustainability and environmental resilience, we had to identify an environmental destination scenario and Environmental Ambition strategy (the timing of delivery for the Destination) within our BVP and alternative plans. The combined outcome of these decisions result in reductions to our existing public water supply abstractions, leading to a reduction in deployable output (DO) in the WRMP24 supply forecast. This impacts the supply demand balance and thus affects which supply-side options are selected, as well as their DO and timing. It should be noted that the same level of demand management is used in all environmental destination scenarios. The SEA process assessed the respective environmental destination scenarios and timing which produced a high-level comparison between the SEA objectives that influenced the WRMP24 decision-making.

Licence capping was another policy decision that was assessed against the SEA framework. Through consultation with the Environment Agency and internal stakeholders, we had 8 different scenarios for timing of licence capping for our region. Four of these licence capping scenarios were

progressed, with the other four scenarios not allowing the plan to meet its statutory requirements to deliver a supply demand balance. As all four of the licence capping scenarios taken forward would deliver licence capping by 2036, the environmental implications (positive and negative) from that point in the 2025-2050 timeframe of WRMP24 would be the same between the scenarios. Therefore, one application of the SEA Framework was completed. However, the implications of the timing of the different scenarios were considered in comparison between the four plans, thus influencing the WRMP24 at a plan-level.

An additional policy decision was the timing of the implementation of enhancing our public water supply system to be resilient to a 1 in 500 year drought. The decision of the timing for drought resilience varied by a year between the four plans. Therefore, it was concluded that the one year difference across the 25 year plan period is considered to have negligible impacts on the SEA findings. Thus one application of the SEA Framework was completed for delivery in 2040. Similarly to the licence capping, the SEA findings were incorporated and considered during the comparison between the four plans.

The final policy decision that the SEA process influenced was the selection of the demand management portfolios. This considered 4 different portfolios (compared to the baseline), with differing ambitions ([Table 1](#)). Outputs from our modelling determined that 'Baseline' and 'Extended Low' would cause residual deficits which are unacceptable in the WRMP24 planning process (that is, not provide enough water saving). The three acceptable portfolios were assessed via the SEA Framework and generated findings and metrics into the comparison of plan options and best value metrics.

**Table 1 Demand management portfolios considered in WRMP24**

Portfolio	Government Interventions	Leakage	Metering	Water efficiency	NHH Demand Management Options (DMOs)
Baseline	Not included	AMP7	AMP7	AMP7	None
Extended Low	Included	24%	3AMP roll out	Low	Medium
Extended Plus	Included	24%	2AMP roll out	High	Medium
Aspirational	Included	30%	2AMP roll out	High	Medium
50% Leakage	Included	50%	2AMP roll out	High	Medium

Notes: AMP = Asset Management Plan, NHH = Non Household

## 3.2 Individual option level assessment

The supply-side options were developed following the 8-stage framework set out in the UKWIR Guidance on decision making processes. The second stage of this process is to develop a list of unconstrained options that takes account of government policy and aspirations<sup>4</sup>. This stage was split out into 6 steps, to move from an unconstrained list of options to a constrained list of options<sup>5</sup>. Unconstrained options were considered for all water resource zones (WRZs), even those without a deficit, including Hartlepool. Environmental screening was used in this process to develop the constrained list of options; following the consolidation of this each supply-side option was subject to an assessment against the SEA framework.

The supply-side option process considered the following supply-side option types:

- Aquifer storage and recovery
- Backwash recovery
- Conjunctive use
- Desalination
- Groundwater treatment
- Reservoirs

<sup>4</sup> UKWIR (2016) Decision Making Process Guidance

<sup>5</sup> Anglian Water (2023) WRMP24 Supply side options technical supporting document

- Tankering
- Trading
- Transfers
- Water reuse
- Water treatment works

In addition to the supply-side options, demand management options were subject to an assessment against the SEA framework. The demand management option types included:

- Smart metering
- Other consumption reduction (for example, community education and rewards)
- Tariffs/fees
- Water reuse
- Water efficiency measures
- Loss reduction

The outputs from the high-level environmental screening on the unconstrained list and the application of the SEA framework for the constrained list of supply-side options and feasible demand management options influenced the progression of these in the plan process.

### 3.3 Economics of Balancing Supply and Demand (EBSD) modelling

As mentioned in Section 2, the findings of the SEA assessments, informed by the other environmental assessments, were translated into metrics, alongside specific metrics from the Biodiversity Net Gain and monetised ecosystem services findings within the Natural Capital assessments. These environmental metrics were used during the calibration of runs in the EBSD's multi criteria optimisation for the modelling used to inform the plan-making process. This allowed the benefits associated with options to support their selection or provide evidence for exclusion of options with specific / higher environmental risk.

### 3.4 Plan appraisal

Alternative plans were developed and assessed against the SEA Framework. Further details on the development and appraisal of alternative plans can be found in section [5](#).

### 3.5 Mitigation measures and enhancement opportunities

The SEA process informed the consideration of mitigation measures to reduce adverse effects that were identified in the application of the SEA framework. The outcomes presented in the Environmental Report are the residual effects, which means that it is assumed that the identified mitigation has been applied and the reported effects are those that remain.

Enhancement opportunities were also identified in the SEA process, some examples included:

- Potential to enhance cycleways, bridleways and public right of way networks as part of the works, for example during re-instatement.
- Operational benefits could be enhanced by incorporating education and information resources within the design, for example using information boards.

Further information on mitigation measures and enhancement opportunities can be found in Chapter 9 of the WRMP24 Environmental Report (accessible via the link in section [7](#)).

# 4 Consultation

## 4.1 Consultation on the SEA

The SEA process comprised the following consultation stages:

**SEA Scoping Report**, this was issued for a formal five-week consultation, between March and April 2021, to the three statutory bodies: Environment Agency, Natural England, and Historic England. A total of 105 comments were received, encompassing agreement with aspects of the proposed approach, sources to assist in its application, methodological questions and clarifications, and suggested modifications and enhancements to the proposed approach and assessment framework.

**Draft WRMP24 SEA Environmental Report and supporting environmental assessment reports**, these were published alongside the draft WRMP24 on Anglian Water's website on December 2022 for a 14-week period, for both statutory and public consultation. This consultation was the period in WRMP24 plan making referred to in the SEA Regulations under Regulation 13 (Consultation procedures) and 14 (Transboundary consultation). It should be noted that the SEA process found no likely significant effects on the environment to other nations in the European Economic Area (EEA), as such there was no requirement to enter into the transboundary consultation set out under SEA Regulation 14. How we took account of the opinions expressed through this consultation within the finalisation of WRMP24 is summarised in Section 4 ii), below.

**Statement of Response (SoR), revised draft WRMP24 SEA Environmental Report and supporting environmental assessment reports** were published on Anglian Water's website on the 29th August 2023. The SoR presented all the consultation comments, our response to the comment and referral to reports if a change was made. The revised draft WRMP24 SEA Environmental Report was updated accordingly.

**Secretary of State letter of approval for WRMP24**, received on the 21st August 2024. This provided instruction to publish the final WRMP24.

**The final WRMP24 SEA Environmental Report, supporting environmental assessment reports and SEA Post Adoption Statement**, was published with the final WRMP24 on Anglian Water's website on 6th September.

## 4.2 Consultation on the draft WRMP24

As mentioned previously, we published the draft WRMP24 in December 2022 and received responses during the consultation period. On August 29th, the SoR was published setting out the consultation comments, our response and referral to reports if a change was made.

[Table 2](#) presents a summary of the consultation responses that relate to the SEA, our response and any subsequent changes to the SEA.

Table 2 Summary of draft WRMP24 consultation responses to the SEA

Consultee	Summary of Comments related to the SEA	Relates to	Summary of AWS response	Changes made to SEA Environmental report (/other related assessments)
Environment Agency	Within the EA response, 5 improvements were listed. Improvement 3 was associated with the SEA: <b>make changes to the SEA to comply with legislative requirements</b> . The evidence report elaborated on improvement 3.			
	Clear justification is required on how the preferred options are derived.	Environmental decision-making	Further information was included in the SEA Environmental Report on how the preferred options were derived and how the SEA and alternative plans have influenced the plan.	These changes were considered and reported in sections 5, 6 and 7 of the SEA Environmental Report.
	Clarification on how the SEA and assessment of alternative plans influenced the plan.	Environmental decision-making	We updated the SEA Environmental Report to reflect the full assessment of the three alternative plans (A, C and D), as well as the preferred plan (Plan B).	These changes were considered and reported in sections 5, 6 and 7 of the SEA Environmental Report.
	Specific proposals for mitigation of environmental impacts need to be set out.	Mitigation	Within our updated suite of environmental reports, mitigation measures for options have been presented. As we are currently at plan-level, the detail of the mitigation is not what would be expected for a project; as options begin to be progressed, mitigation measures will be developed further and to the appropriate amount of detail.	These changes were considered and reported in section 9 of the SEA Environmental Report and the HRA and WFD Sub-reports.
	Further detail to be provided for the monitoring proposals.	SEA monitoring	We have clarified the responsibilities for completing the proposed monitoring. Additional details on monitoring and environmental data related to water bodies and protected sites are presented in the option specific HRA Appropriate Assessment and Level 2 WFD assessment chapters of the respective sub-reports.	These changes were considered and reported in section 10 of the SEA Environmental Report.
	Further detail to be provided in the appendices; PPP and Scoping Consultation.	SEA appendices	The PPP was updated to include further detail on other water company's WRMPs, Drought Plans and SROs. The scoping report was also updated to include signposting for where the comment has influenced change.	These changes were considered and reported in Appendix B (Scoping Report Consultation Log) and Appendix C (Plans and Policies Review).

Consultee	Summary of Comments related to the SEA	Relates to	Summary of AWS response	Changes made to SEA Environmental report (/other related assessments)
Natural England	The plan needs to be environmental assessed as a whole; this includes assessment of the policy decisions, demand management options and WINEP options.	SEA	Within the WRMP24 Environmental Report, a more holistic approach has been used which has seen the plan being assessed as a whole. This includes assessing demand management, licence capping, drought resilience and environmental destination.	These changes were considered and reported in sections 5, 6 and 7 of the SEA Environmental Report.
	The HRA must be complete for the final WRMP24.	SEA/HRA	The final WRMP24 HRA conclusion was finalised through a plan-level HRA. Assuming all proposed mitigation measures are implemented, it is considered that we can ascertain beyond reasonable scientific doubt that the proposed WRMP24 Best Value Plan will not adversely affect the integrity of any Habitat Site alone or in combination with other plans or projects.	These changes were considered and reported in the HRA Sub-report.
	Naming for SSSI zones of influence need to be included in the SEA.	SEA	The SSSIs within our region have been identified, and numbers summarised. Where effects have been identified on specific SSSIs, these have been named in the assessment chapters of the Environmental Report.	These changes were considered and reported in the SEA Environmental Report Appendix D: Baseline.
	Mitigation in SEA will need to be fully delivered with any project.	SEA mitigation	We understand the importance of mitigation to avoid impacts on SSSIs and as options are progressed at a project-level, further work will be completed on mitigation for the specific option, in liaison with Natural England.	N/A
Historic England	Inadequate reference to the historic environment.	SEA objectives	Within our WRMP24 Environmental Report, we have a focused section on the historic environment SEA objective. There is a narrative for each of the four plans in terms of the Historic Environment. In addition to this, further reference has been made to the importance of the historic environment within the Main report and Environmental Report non-technical summary.	These changes were considered and reported in sections 6 and 7 of the SEA Environmental Report and the WRMP24 Environmental Report Non-Technical Summary.

Consultee	Summary of Comments related to the SEA	Relates to	Summary of AWS response	Changes made to SEA Environmental report (/other related assessments)
	A heritage impact assessment should be completed for the supply-side options.	Further historic assessment	We welcome Historic England's advice of conducting a heritage impact assessment, however, as we are at a strategic plan-level the information required to develop this assessment is not available. At this stage we have assessed the potential impact of our plan (and alternative plans) through the use of the historic environment SEA objective/sub-questions. We will be engaging with Historic England in the coming months to discuss the options that will be developed within the next AMP to understand the next steps in terms of assessing the potential impact on the historic environment and how best to engage with Historic England throughout the development process.	N/A
	Consideration of non-designated heritage assets.	Further historic assessment	As we are currently at the strategic plan scale, non-designated archaeology has not been accounted for due to the infancy of projects in the plan. Once we are at project level, non-designated archaeology will be accounted for.	N/A
	20m for distance based approach to impacts on heritage assets is not suitable.	SEA historic environment objective	We welcome Historic England's feedback on the distance used; the distance has been updated to 500m.	These changes were considered and reported in section 4 of the SEA Environmental Report.
<b>Broadland Agricultural Aater Abstractors group</b>	The licence capping scenarios, specifically, Scenario 4 have not been assessed against the SEA framework.	SEA of policy decisions	In response to the consultation feedback that Scenario 4 needs to be assessed, this has been updated in the WRMP24 Environmental Report; Plan A has been fully assessed which is modelled using Scenario 4.	These changes were considered and reported in section 7 of the SEA Environmental Report.
<b>Suffolk Wildlife Trust</b>	Options, such as desalination, that are concluding significant adverse effects on European Sites should be ruled out of the plan making process.	SEA and HRA	We understand the concerns raised by Suffolk Wildlife Trust, following the draft WRMP24 submission and consultation response, including this one, we have revisited the Habitats Regulations Assessment to ensure it has an appropriate strategic plan-level focus.	These changes were considered and reported in the HRA Sub-report.

Consultee	Summary of Comments related to the SEA	Relates to	Summary of AWS response	Changes made to SEA Environmental report (/other related assessments)
	Increased ambition to achieve a 20% net gain in biodiversity for all new supply-side options.	SEA and BNG	At a plan level we will be delivering the statutory 10% BNG and once at a project level, the appropriate BNG will be completed as recommended by the relevant Local Authority. More can be read about our BNG roadmap and opportunities with our WRMP in the WRMP24 BNG and NCA Sub-report.	These changes were considered and reported in the BNG Sub-report.
RSPB	Concerns over the environmental impacts of the desalination options.	SEA	As we are currently at a strategic plan-level, these options still require further development once at a project level. As the projects are delivered, we would welcome engagement with the RSPB to gather local knowledge.	These changes were considered and reported in the HRA Sub-report.

# 5 Rationale for selection of options for the final WRMP

## 5.1 Options Level Alternatives

As described in section 3, all supply-side and demand management options were assessed against the SEA framework. This process provided the rationale for the rejection of options, as well as the selection of options to be progressed in the planning process, including on environmental grounds. Therefore, through these steps, options level alternatives for both future demand management and new water supply options were explored. They were then rationalised to those available for selection at the plan scale, and had details about their environmental risks and opportunities available for review.

## 5.2 Programme Level Alternatives

The development of a WRMP is a complex process involving the generation and assimilation of many different types of information and data, and the application of modelling and decision making. We developed a best value framework, to ensure our plan-making process focussed on providing best value, as discussed across Sections 2 and 3 of this report. This was the basis for decision making within WRMP24.

The best value plan considers factors alongside costs, achieving the outcomes that provide benefits to customers, the wider environment and society as a whole. The process looked at technical aspects including water resource zone integrity assessments, problem characterisation and determining both modelling and decision making approaches, including how environment and society are factored into these approaches.

The EBSD model was used to form alternative plans; our model includes a function 'model to generate alternatives' (MGA). The EBSD model optimises over many iterations to find the least cost combination of options. When we use the MGA function the model output includes the near cost optimal solutions which are a set of alternative plans with costs close to the least cost iteration<sup>6</sup>.

We use this to understand how stable the options are within a plan and compare options across plans too. Following the development of the alternative plans, we appraise these using our best value planning

framework. We have best value metrics for all the 300 model runs but we do not complete detailed analysis for all of these. We narrow down the number of plans to take forward to detailed appraisal including the stress and sensitivity testing stage, ensuring we have a range of programmes that demonstrate differences in focus, but which still deliver our objectives.

This iterative process created four alternative plans. These alternative plans are, for the purposes of SEA, considered to be the reasonable alternatives. They were selected as these were the alternative plans that were developed and used for comparison as part of the WRMP24 process. The four plans considered in the alternative plan assessment were:

- Plan A: Initial least cost plan based on the initial most likely scenario.
- Plan B (Best Value Plan): Alternative plan based on preferred most likely scenario.
- Plan C: Least cost plan based on preferred most likely scenario.
- Plan D: Least cost plan based on best for environment (abstraction) scenario.

We used the SEA process on the alternative plans to identify and assess the effects each plan may have on the environment, including cumulative and in-combination effects of the programme as a whole.

In addition to the above, adaptive pathways were developed to consider how the Best Value Plan would respond during implementation of specific future changes. These pathways are not alternative plans in themselves, rather they were designed to test the BVP's response to change; despite not being formal alternatives the SEA and other environmental metric data was still generated and available to consider in understanding how the BVP responded to change on an environmental basis.

Further information can be found in Sections 7 and 8 of the WRMP24 Environmental Report (accessible via the link in section 7).

6 Anglian Water, WRMP24 Decision-making report (2024). Available at: <https://www.anglianwater.co.uk/corporate/strategies-and-plans/water-resources-management-plan/>

## 6 Monitoring of the WRMP

Regulation 17 of the 2004 SEA Regulations<sup>7</sup> requires the responsible authority (Anglian Water) to monitor the significant environmental effects (both positive and negative) of the implementation of the plan. The intention of this monitoring is to identify any unforeseen adverse effects at an early stage, thus being able to undertake appropriate remedial action. The UKWIR guidance<sup>8</sup> recommends that existing arrangements for monitoring should be used where possible to avoid duplication of effort.

Monitoring proposals have been outlined through the SEA process and therefore align with the SEA objectives. As such, the indicators and timescales for the monitoring will differ between the SEA objectives; this is summarised in [Table 3](#).

As options are developed at a project level, more detailed environmental information and monitoring will be required than that set out in the WRMP24's SEA Environmental Report. The monitoring outlined for the SEA supply-side options, in relation to their potential environmental impacts, will be required throughout option development and will need to be communicated to the relevant stakeholders. For further information on the monitoring of the WRMP24, see Chapter 10 in the WRMP24 Environmental Report (accessible via the link in section [Z](#)).

**Table 3 WRMP24's Environmental Monitoring**

SEA Objective	Indicators	Timescale	Commentary
To protect designated sites and their qualifying features.	Area (ha) and number of statutory and non-statutory ecological sites that will be harmed or lost to WRMP options SSSI monitoring	During and post construction	Anglian Water are responsible for collecting data on condition of specific protected sites.
To deliver BNG, protect biodiversity, priority species and vulnerable habitats such as chalk rivers.	Area of blue and green infrastructure created % of habitat creation or existing habitat enhancement	During and post construction	Anglian Water are responsible for collecting data on BNG Units lost and provided for each project.
To avoid spreading and, where required, manage invasive and non-native species (INNS).	% of INNS risks mitigated	A construction related INNS risk assessment should be conducted in the future	Anglian Water to undertake INNS risk assessments and implement risk management for all relevant projects.
To meet WFD objectives relating to biodiversity.	Ecological status of water bodies	Annually	Anglian Water to undertake WFD assessments for all relevant projects. Monitor status of water bodies (relevant to projects) using publicly available information.

<sup>7</sup> The Environmental Assessment of Plans and Programmes Regulations 2004, SI 1633, 2004, available here: <https://www.legislation.gov.uk/uksi/2004/1633/contents>

<sup>8</sup> UKWIR (2021) Environmental Assessment Guidance For Water Resources Management Plans And Drought Plans (ref. 21/WR/02/15)

SEA Objective	Indicators	Timescale	Commentary
To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing.	Number of complaints	During construction phases	Anglian Water to collect information on complaints during construction at project level.
To secure resilient water supplies for the health and wellbeing of the community	% of people with deficits for each WRMP	Annually	Anglian Water already collect information on water supply performance
To increase access and connect customers to the natural environment, provide education or information resources for the public.	Number of PRow closures or diversions Number, type, and area of community assets created Km of new footpath/cycleway created	During construction phases Post-construction	Anglian Water to collect data to monitor any difference between predicted and actual impacts.
Maintain and enhance tourism and recreation.	Number of tourism assets created	Post-construction	Anglian Water to collect visitor numbers to existing recreational sites (e.g. Water Parks).
To reduce or manage flood risk, taking climate change into account.	% projects with flood risk mitigated	During construction	Anglian Water already collect and report data on properties that experience flooding from public sewers, which could supplement this information to help identify if any flood risks have increased.
To enhance or maintain surface water quality, flows and quantity.	Water quality of surface and ground water Chemical status of water bodies The monitoring of river flows (to inform surface water abstraction approach)	Annually	Anglian Water to access publicly available information and / or commission studies where project-level risks are identified.  Anglian Water to work with Environment Agency to understand river flows and any impacts on available abstraction.
To enhance or maintain groundwater quality and resources.	Number of geological sites affected Groundwater quality testing. Groundwater levels	Annually	Anglian Water to access publicly available information and / or commission studies where project-level risks are identified.

SEA Objective	Indicators	Timescale	Commentary
To meet WFD objectives and support the achievement of environmental objectives set out in River Basin Management Plans.	Achievements against WFD objectives	Annually	Anglian Water to access publicly available information and review level of performance against WFD objectives in order to identify project level sensitivities.
To increase water efficiency and increase resilience of water supplies and natural systems to droughts.	Number of supply restrictions per annum	Annually	Anglian Water already collect and report data on supply restrictions.
To protect and enhance the functionality and quality of soils, including the protection of high grade agricultural land, and geodiversity.	Area of agricultural land (by grade) lost to WRMP options	During construction	Anglian Water to record area of land that is required for development by projects.
To reduce and minimise air emissions during construction and operation.	Local air quality monitoring	During construction	Anglian Water could consider recording information on vehicle movements and compliance with designated construction traffic routes. Project air quality assessments to identify sensitive receptors where monitoring may be required.
To minimise/reduce embodied and operational carbon emissions.	Reduction of greenhouse gas emissions per MI/d Energy use from new operations and change in energy use per MI/d % energy supplied by renewable sources Reduction of operational and capital carbon emissions Number of options that utilise existing infrastructure Volume of waste generated Waste disposal method by %	Annually	Anglian Water already collecting information as part of monitoring progress toward Net Zero Strategy.

SEA Objective	Indicators	Timescale	Commentary
To introduce climate adaptation measures where required and improve the climate resilience of assets and natural systems.	% of climate risks mitigated	Every five years	Anglian Water already collect information on different types of flooding (internal / external) and this could be used to identify areas where resilience of the assets is not being achieved.
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.	Number of historic assets damaged by a WRMP option Number of historic assets enhanced by options	During and post construction	Anglian Water to collect information at project level on cultural, historic and industrial heritage. Access information from Historic England on condition of protected features. Anglian Water to record actions that have avoided or enhanced historic assets.
To conserve, protect and enhance landscape and townscape character and visual amenity.	Number of WRMP options including additional landscaping	Post-construction	Anglian Water could record the amount of landscaping provided and the number of complaints received regarding visual amenity.
Minimise resource use and waste production.	% of A-Rated, recycled, reused material used in infrastructure options Number of options that utilise existing infrastructure Volume of waste generated Waste disposal method by %	Annually	Anglian Water to collect information on material and waste.
To avoid negative effects on built assets and infrastructure (including green infrastructure).	Number of complaints Number of road closures or diversions	During construction	Anglian Water to collect information during construction period.

## 7 Availability of documents

The adopted final WRMP24, SEA Environmental Report and supporting documents can be found on our website at:

<https://www.anglianwater.co.uk/corporate/strategies-and-plans/water-resources-management-plan/>

# 8 Appendix A - Post Adoption Procedures and their Delivery

Part 4 of the SEA Regulations Environmental Assessment of Plans and Programmes Regulations 2004 requires Anglian Water, 'as soon as is reasonably practicable' after the adoption of the WRMP24, to:

1. Make a copy of the final WRMP24 and SEA Environmental Report available on a public website at which the documents may be viewed and downloaded free of charge.
2. Provide a copy of the relevant adoption documents by email or post to any person who requests a copy, as soon as reasonably practicable after receipt of that person's request.
3. Notify the public and potentially affected parties of their availability.
4. Inform the statutory consultees and other parties who responded.
5. Issue a statement containing:
  - How environmental considerations have been integrated into the WRMP24;
  - How the environmental report has been taken into account;
  - How consultation responses have been taken into account;
  - The reasons for choosing the WRMP24 as adopted; and
  - Measures to monitor the significant environmental effects of the WRMP24.

Anglian Water evidence of delivery of the above:

- Requirements 1 and 2 have been fulfilled by the publication of the WRMP24 and SEA documents on the Anglian Water website.
- Requirement 3 has been delivered by the publication of the WRMP24 and SEA documents on the Anglian Water website and press statements in Autumn 2024.
- Requirement 4 has been delivered by communicating details about the adoption of WRMP24 to our contacts within the statutory consultees and to the wider parties who responded to the SEA consultation. This has included provision of the website link to WRMP24, its Environmental Report and this document.
- This document - AWS WRMP24 SEA Post Adoption Statement - fulfils Requirement 5.



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